Remedial Action Program Information Center

Nuclear Facility Decommissioning and Site Remedial Actions: A Selected Bibliography, Vol. 13

Part 2. Indexes

L. F. Goins J. R. Webb C. D. Cravens P. K. Mallory

P. T. Owen, Project Manager

Environmental Restoration Program
Program Integration and Administration Division
P.O. Box 2003
Oak Ridge, Tennessee 37831-7298

Date Issued-September 1992

Prepared for the
U.S. Department of Energy
Office of Environmental Restoration and Waste Management
under budget and reporting codes EW 20 10 40 1, EX 20 20 01 0, EX 20 40 01 0

MARTIN MARIETTA ENERGY SYSTEMS, INC. managing the

Oak Ridge K-25 Site
Oak Ridge Y-12 Plant
Oak Ridge National Laboratory
under contract D* AC05-84OR21400

Paducah Gaseous Diffusion Plant Portsmouth Gaseous Diffusion Plant under contract DE-AC05-76OR00001

for the U.S. DEPARTMENT OF ENERGY

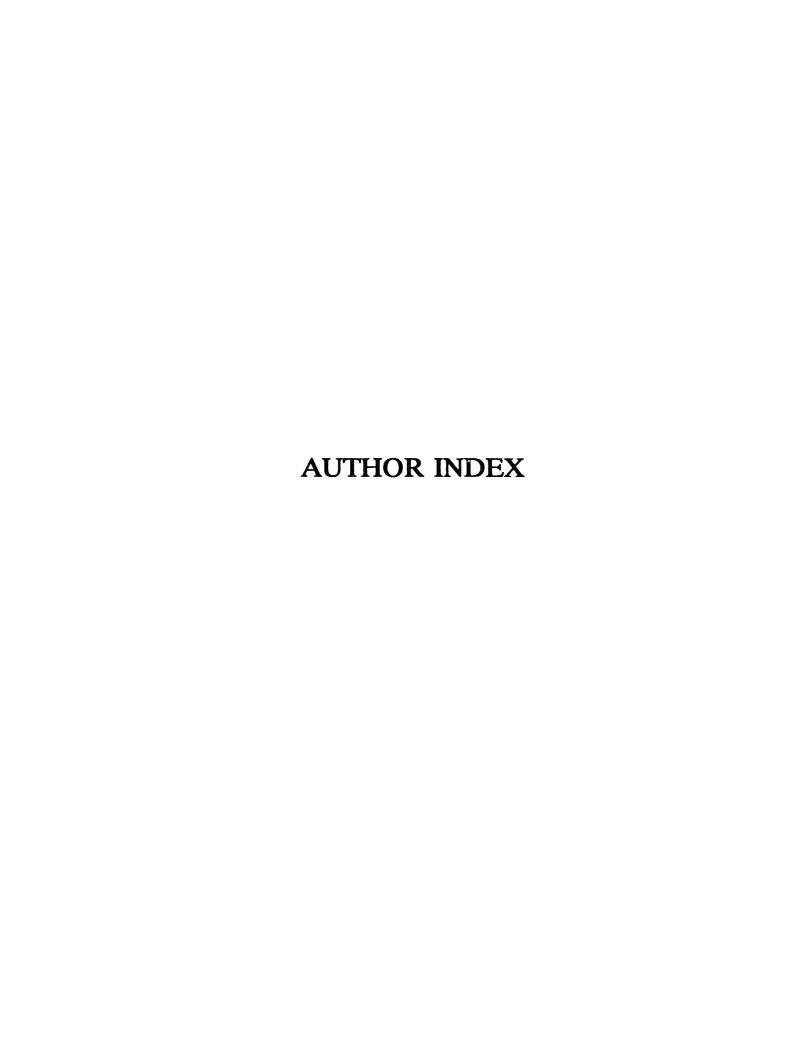


CONTENTS

Part 2. Indexes

Author	 	 										 				 	 421
Corporate Affiliation	 	 										 					 457
Title Word	 	 										 					 477
Publication Description	 	 														 	 629
Geographic Location	 	 															 725
Subject Category	 	 													 	 	 737
Key Word	 	 				 									 	 	 743

The Main Text for this report is found in Part 1, pages i-xiv and 1-420



Abt, S.R. 451

Adams, S.M. 680

Adams, S.R. 264, 1004

Adams, W.D. 776

Adenekan, A.E. 848

Adomov, E.O. 339

Ahlfaenger, W. 124

Akers, D.W. 1016, 1018

Akimoto, H. 137, 139, 140, 142, 153

Akiyama, M. 314

Alary, C. 72, 251

Alexander, D.H. 950

Alexiades, V. 966

Alfille, J.P. 159

Alimoto, H. 141

Allen, R.P. 96

Allibert, M. 229

Allison, L.J. 680

Almas, W.J. 419

Aloysius, D.L. 645

Ames, LL 984

Amidon, M.B. 549

Andersen, P. 546

Anderson, D.B. 743

Anderson, L.D. 968

Anderson, T. 897

Andersson, L. 257

Andre, S. 187

Andrew, T. 148

Andrews, L.L. 931

Andrews, P.J. 323

Anspaugh, L.R. 634

Ansted, J.P. 947

Antoine, P. 127, 129, 194

Anton, S. 148

Aoyama, I. 284

Arands, R. 849

Ardito, C.P. 532

Armstrong, G.A. 68

Arthur, R.J. 696

Asano, T. 201

Ashwood, J.S. 664

Ashwood, T.L. 561, 664, 673-675, 681, 684

Augustin, X. 191

Auler, L 247

Autrey, J.W. 17

Autry, V.R. 1005

Avis, R. 269

Ay, H.W. 341

Ayer, E.A. 850

Baba, K. 136

Babad, H. 5, 22, 25, 33, 34

Babcock, S.M. 979

Baca, R.G. 623, 768

Baca, T. 827

Bach, F.W. 160, 169, 175, 176, 178, 184

Baer, M.B. 756

Baeumer, R. 177, 300

Baker, E.G. 717, 727

Baker, G.G. 750

Baker, L.A. 891

Baker, S.K. 11

Ball, R.O. 832

Barbe, A. 85

Bardossy, A. 846

Barlow, S.V. 258

Barnes-Smith, E.P. 12

Barr, M.E. 440

Barraclough, I.M. 259, 265

Bascietto, J.J. 453

Bashor, M.M. 496

Bates, L.D. 787

Bates, S.O. 942, 946, 958, 972

Bauer, J.D. 473

Bauman, J.C. 556

Beard, K.V. 943

Becker, D.L. 55

Becker, K. 431

Beckman, T.R. 218

Beers, A.A. 579

Benavides, E. 149

Bench, J.M. 454, 455

Benedict, R.W. 973

Benge, M.M. 366, 378

Benioff, P.A. 810

Bennett, R.H. 401

Bennion, J.S. 15

Benny, H.L. 984

Benson, C.E. 1001

Benson, S.M. 815

Beppu, S. 202

Berger, J.D. 31

Bergman, T. 588

Bernard, P. 248

Beroud, Y. 248

Berry, H.A. 646

Berry, J.B. 756

Bertini, A. 117

Berven, B.A. 892

Beskid, N.J. 993, 996

Beukelmann, D. 288

Bhattacharyya, M.H. 810

Biang, C. 810

Bibler, J.P. 978

Biedermann, C.A. 619

Bieri, J.M. 219

Bierley, D. 406

Bierman, G.R. 527

Bilyard, G.R. 1031

Bindon, F.J. 324, 342

Bingham, F.E. 636

Bircher, K.G. 840

Bisci, R. 2.5

Bisping, LE. 697

Bjerler, J. 218

Black, S.C. 634

Blacker, S.M. 886, 887

Blair, M.S. 892

Bl. ... ke, J.A. 366

Blattmann, B.O. 871

Blaylock, B.G. 680

Bledsoe, H.W. 734

Blickwedehl, R.R. 730

Block, R.N. 851

Bloom, J.R. 44

Blowes, D.B. 839

Blunt, D.A. 905

Boerman, P.A. 548

Bogardi, I. 846

Bogen, K.T. 611

Bogle, M.A. 575

Bohn, S.J. 906, 907, 911, 912

Bohrman, D.E. 690

Boing, L.E. 39

Boissiere, P. 68

Boldt, A.L. 11

Bonilla, R. 356

Bonnenberg, R.W. 943

Bonner, W.F. 944

Boomer, K.D. 11

Boorman, T. 332

Borders, D.M. 561, 665

Boris, G.F. 150

Borroni, P.A. 131, 154

Borsheim, G.L. 28

Boston, H.L. 561, 680

Botts, J.L. 17, 19

Bourdelet, M. 292

Bowers, G.S. 803

Bowers, M.H. 777

Bowles, C.R. 275

Box, W.D. 217

Boyles, V.C. 65

Bradbury, D. 978

Bramlitt, E.T. 816

Brandt, C.A. 740

Brandt, C.C. 695

Brandt, P.N. 550

Braswell, B. 872

Breckel, J. 588

Breen, B. 158

Bregani, F. 131-133, 154, 199

Brenkert, A.L. 695

Brennecke, D.F. 405

Brennecke, P. 238

Brettschneider, D. 753

Brich, R.F. 901

Bridgeman, B. 401, 402

Brightman, F.G. 263

Britton, M.D. 11

Brodersen, K. 820

Broothacrts, J. 118

Brouns, T.M. 743

Brown, D.R. 602

Brown, D.W. 619

Brown, J.J. 993

Brown, M.C. 579

Brubaker, D.M. 1011

Bruening, D. 178

Brun, C. 125

Brunel, G. 126, 151

Bryan, S.A. 28

Bryce, R.W. 706, 896

Buck, J.W. 924

Buck, S. 325

Buckmaster, M.A. 712, 715

Buelt, J.L. 908, 945

Burger, LL 28

Burgess, D.M. 55

Burk, K.W. 704

Burks, B.L. 16, 68, 979

Burman, S.N. 552

Burnside, M.E. 762

Busekist, O.V. 98

Bush, C.A. 452

Buske, N. 901

Butherus, M.C. 798

Butler, D.A. 902, 919, 920

Butler, P.L. 68

Byrne, J.M. 649

Cadwell, L.L. 698

Cady, H.H. 28

Cahn, L.S. 396

Caillol, A. 172

Caldwell, J.A. 402, 450, 749

Caldwell, J.T. 219

Callow, R.A. 946

Cameron, R.J. 744

Cammann, J.W. 984

Campbell, L.J. 621

Campbell, S. 326

Cannon, T.R. 62

Canon, R.M. 939

Cappellucci, A.J. 856

Card, C.J. 901

Carfagno, D.G. 655

Carlile, D.W. 698

Carlson, T.J. 455

Carpenter, D.J. 748, 947

Carr, DJ. 539

Carrier, R.F. 368

Carter, G.J. 607

Cash, R.J. 22, 28

Cater, S.R. 840

Ceo, R.N. 19

Challinor, S.F 331

Chambers, D.B. 430

Chapman, C.C. 41, 651, 938

Chapman, P.J. 871

Chapuis, A.M. 233, 249

Charamathieu, A. 188

Charboneau, B.L. 936

Chatterjee, S. 736

Chaudhari, R. 821

Chen, S.Y. 893

Cheng, J.J. 381, 933

Cherkashov, Y.M. 339

Chew, J.R. 458

Chidambariah, V. 561

Chiu, S.Y. 810

Chopra, O.K. 32, 56-58

Chou, C.J. 699

Christensen, B.K. 948, 992

Church, B.W. 636

Cirrincione, D.A. 614

Claes, J. 118, 166

Clapp, R.B. 575, 665, 672

Clement, G. 334

Clinton, J.H. 812

Clulow, F.V. 426

Cluxton, P. 872

Coffman, R.T. 745

Cohen, F.J. 645

Colafato, R. 131, 154

Colby, S.A. 29

Collins, E.T. 739

Colquhoun, A.P. 325, 331

Colton, N.G. 44

Conrad, R.C. 643

Conti, M. 116

Cook, G.E. 766

Cook, J. 546

Cook, J.R. 551, 755

Cook, R.B. 695

Cool, D.A. 1006

Coppock, R. 801

Corathers, L.A. 968, 1007

Corey, J.C. 847

Cornelissen, H.A. 230

Cornu, F. 196

Costa, C.F. 634

Costain, D.B. 614

Coste, G. 334

Costes, J.R. 127, 129, 231, 267

Cote, R.F. 580

Cothron, T.K. 569

Cottrell, W.D. 370, 371

Counce-Brown, D 624, 656

Coyle, S.W. 533

Craig, J.R. 654

Craig, P.M. 738

Craig, R.B. 804

Crawlord, K.C. 15

Cregut, A. 298

Cressman, K.R. 500

Crippen, M.D. 29

Crone, J.T. 616

Crossley, H. 145

Crow, N.B. 613

Cruse, J.M. 6

Crutcher, J.W. 370, 416, 428, 429

Crutchfield, D.M. 69, 99, 100

Cudahy, J.J. 852

Cullen, J.J. 635

Culver, T.B. 853

Cunningham, J. 150

D'Eer, A. 889

Da Costa, D. 267

Daellenbach, K.K. 602

Daggett, J.S. 815

Dahl, D.R. 582

Daily, W. 875

Daniels, J.I. 611, 922

Daskalov, I. 227

Dausin, L.R. 521

Dave, N.K. 426

Davis, J.P. 259, 265

Davis, J.W. 811

Dawson, P. 161

de Nordwall, H.J. 162

de Seroux, N. 72

Dearstone, K.C. 575, 695

Decamps, F. 286

Decitre, J.L. 198

DeFigh-Price, C. 23, 26, 35

Deford, D.H. 605

Deichman, J.L. 33, 34, 38

Deipenau, H. 232

Deitrich, A.J. 737

Dekais, J.J. 128

Del Signore, J.C. 983

Demant, W. 308, 309

Demonie, M. 118

Demura, H. 152

DePaoli, S.M. 555

Depiero, F.W. 16

Desjarlais, L.M. 948

Detamore, J.A. 1034

deTassigny, C. 225, 231

Dettorre, J. 147

Devell, L. 115

Devgun, J.S. 726, 916, 923, 993, 996

Di Fino, M. 200

Diepenau, H. 242

Dieppois, M.P. 250

Dietrich, G. 177, 300

Dionne, D. 640, 641

Dippo, G.L. 804

Dirkes, R.L. 700, 901

Dobosy, R.J. 682

Dodds, H.L. 760

Donaldson, T.L. 548

Donehey, A.J. 747

Donclan, P. 258

Dorries, A.M. 643

Doty, C.B. 854

Douglas, L.M. 599

Dove, F.H. 855, 909

Downing, D.J. 561

Downs, W. 439

Draulans, J. 163

Dreier, R.B. 575

Dressen, A.L. 472

Drcws, P. 220

Droppo Jr., J.G. 924, 1030

Drotning, W. 992

Dubourg, M. 71

Dudley, R.F. 92, 93, 95, 97

Duerr, D. 59

Duffy, L.P. 501, 609, 754, 791, 1008

Dugan, T.A. 649

Duke, C.S. 650

Duncan, D.R. 1002

Duncan, J. 861

Dunn, M.J. 978

Dunster, D.G. 524

Durante, L.C. 524

Durbin, M.E. 49

Dutton, T.P. 258

Dyer, R.S. 981

Eappen, K.P. 427

Early, T.O. 575

Eaton, J.M. 686, 693, 694

Ebeling, L.L. 729

Eberhardt, L.E. 698, 705

Ebra, M.A. 549

Eckart, R. 932

Eckman, R.M. 682

Eddy, C.A. 890

Edwards, C. 579

Eger, K.J. 1

Egge, R.G. 24, 796

Ehreth, D.I. 811

Eickelpasch, N. 305

Einberger, C.M. 899

Elle, D.R. 634, 636

Eller, P.G. 440

Emerson Jr., R.J. 40

Engberg, R.A. 856

Engel, J.R. 760

Engelfried, R. 121

Engelhardt, G. 84, 309

Engelsman, L.E. 11

Engledow, D. 260

Erickson, J.K. 779

Erickson, J.L. 901

Erickson, M.D. 993, 996

Ernzen, J.J. 795

Esparza-Baca, C. 403

Essington, E.H. 634, 642

Essmann, J. 75, 78, 83

Etnier, E.L. 563

Ettemeyer, A. 277

Evans, J.C. 706

Evans, M.S. 27

Evans, R.B. 531, 729

Everette, S.E. 1034

Fahy, L.B. 387

Fajardo, M. 149

Falta, R.W. 848, 858

Farmer, B.M. 655

Farmer, G.T. 731

Farnsworth, R.K. 936, 945

Farr, L.L. 940

Farr, R. 269

Faulkner, M.A. 669

Faust, L.G. 797

Feimster, E.L. 658

Feizollahi, F. 983

Februe, L.J. 40

Ferguson, K. 447

Ferguson, R.D. 529, 769

Ferrada, J.J. 19

Field, J.G. 741

Field, S.N. 272

Filion, M.P. 437, 447

Finger, S.M. 753

Fingleton, D.J. 902, 905, 919, 920

Finkel, DJ. 851

Finzi, S. 311

Fiol, A. 188

Fiore, J.J. 463

Fischer, A. 183, 186, 305

Fisher, S.B. 456

Flaherty, R.T. 104

Fleischer, C.C. 161

Floeter, W. 449

Floyd, L.M. 371

Flyckt, D.L. 763

Focht, W. 502

Foley, R.D. 367, 368, 370, 371

Fontaine, T.A. 561, 679

Ford, * 62, 63

Foster J., D. 217

Fournie, J.L. 72

Frain, J.M. 781

Francis, C.W. 735

Francis, R.J. 101

Frank, C.W. 949, 950

Frank, M. 844

Franklin, A.L. 907, 911, 912

Franklin, B. 800

Fredrickson, J.K. 743

Freeman, H.D. 727, 741

Freeman, V.A. 644

Freund, H.U. 179

Fryer, M O. 959

Fuchs, K. 220

Fujii, Y. 207, 212, 221, 223

Fujiki, K. 88, 252

Fukuzawa, R. 203

Fultz, K.O. 503

Funakawa, N. 152

Galbraith, J.D. 11

Galbraith, R.M. 534

Gale, S.J. 745

Galpin, F.L. 1010

Gammage, R.B. 892

Garbay, H. 233, 249

Garfield, J.S. 11

Garland, S.B. 553

Garnich, M.R. 951

Garofalo, A. 132, 133, 199

Garrec, P. 159

Gasc, B. 164

Gasper, K.A. 36

Gass, W.R. 988

Gat, U. 760

Gauchon, J.P. 126, 127, 129

Gavrilov, S.D. 146

Geens, L. 166

Geiger, R.A. 492

Gellici, J.A. 659

Genes, B.R. 851

George, J.L. 903

Gerakavis, P.N. 859

Gerber, M.A. 727

Gerber, M.S. 701, 792

Gessner, R.F. 752

Gibby, R.D. 941

Gibon, G. 229

Gibson, I.H. 323

Giese, K.A. 11

Gilbert, R.O. 504, 634, 921

Gilbert, V. 147

Gilliam, T.M. 535, 756

Gimpel, R.F. 934, 937

Glantz, C.S. 711

Gloekler, W.D. 655

Glover, W.A. 402, 403

Glum, S.R. 650

Glynn, W.K. 859

Goeltz, R. 475

Goidell, L.C. 773

Golberg, C.E. 11

Golchert, N.W. 358, 359

Goldberg, P.Y. 666, 667

Gonnord, J. 159

Gonzales, B.L. 749

Gonzalez, D.A. 634

Goodenough, J.D. 37

Gorai, T. 143

Gorby, Y.A. 445

Gordon, J.W. 39

Gorman, M.J. 521

Gorski, T. 79

Gortz, R. 243

Goto, T. 268

Grabenstatter, K. 310

Graf, R. 243

Graham, J.F. 522

Grant, D.C. 737

Grant, T.F. 602

Gray, P. 889

Gray, R.H. 505

Green, DJ. 23

Greene, J.A. 668

Greenhalgh, W.O. 43

Gregory, A.R. 298

Grenier, G. 248

Grenier, J.L. 281

Griebenow, B.E. 974

Griest, W.H. 17, 19

Griffin, J.F. 655

Griffin, P.W. 598

Grimm, P.D. 457, 626

Groffman, A.R. 439

Gross, M. 753

Grubb, R.G. 217, 1001

Gruhike, J.M. 1009, 1010

Grumski, J.T. 467

Gruner, R. 122

Gu, B. 860

Gustafson, F.W. 702

Haas, E.W. 278

Haferkamp, H. 169, 175, 176, 178, 184

Hagood, M.C. 714, 744

Halbert, B.E. 430

Hale, T. 991

Halford, D.K. 429

Hall, C.A. 939

Hall, I.C. 611, 922

Hall, R. 1001

Hall, R.E. 388

Hall, S.F. 323

Hallen, R. 8

Hamasaki, M. 222

Hamel, W.R. 979

Hamp, S. 404

Hamrick, D. 45

Hanert, H.H. 863

Hansen, J.E. 952

Harada, K. 222

Harada, M. 210

Harbecke, W. 108, 282

Harker, A.H. 224

Harley, J.P. 755

Harmer, D. 644

Harmon, L.H. 949, 950

Harmon, T.C. 878

Harms, T. 1023

Haroun, L.A. 902, 905, 919

Harrington, E.S. 756, 939

Harris, W.K. 171

Harrison, W.C. 430

Hart, D.R. 425

Hartmann, H.M. 353

Hartnett, S.L. 876

Harvey, D.S. 234, 260

Hasegawa, T. 204, 213

Hassig, N.L. 921

Hastings, R.D. 219

Hauf, M. 269

Hausner, S. 113

Hawasato, K. 203

Hawkes, G.L. 953

Hawkins, E.F. 420

Hayes, C.A. 861

Hayward, W.M. 742

Hebrant, P. 270

Heckendorn, L.A. 40

Heffner, P.M. 6

Heki, H. 253

Hekman Jr., P.M. 544

Helk, F. 247

Hemming, C.R. 1014

Hemmings, R.L. 978

Henckel, G.C. 780

Hendrickson, P.L. 602

Henley, D.R. 39

Herbes, S.E. 548, 575

Heremans, R. 286

Hernborg, G. 257

Herrmanns, B. 111

Hertel, W.A. 654

Hertle, E. 113

Heywood, A.C. 994

Higley, B.A. 11

Higley, K.A. 492

Hikichi, T. 155

Hildebrand, R.D. 901

Hill, R.C.P. 25

Hills, D.L. 224

Hiraga, T. 203

Hodgson, K.M. 862

Hoffman, W.D. 545

Hofman, M. 159

Holcomb, W.F. 1009

Holcomb, W.H. 1010

Holder Jr., L. 62, 63

Hollenberg, K. 180, 182

Hood, FJ. 748

Hoopes, J. 402

Hopkins, G.G. 765

Hopper, J.P. 458

Horgan, J. 954

Horita, M. 156

Horton, J.R. 18

Horton, W.S. 219

Horvath, J.G. 732, 772, 774

Horwedel, B.M. 666

Hosaka, K. 134

Hoshi, T. 86, 208, 211, 316, 318, 319

Houseman, V. 828-831

Hrudey, S.E. 814

Huber, B. 76, 299

Huck, P.M. 443

Huckfeldt, C.R. 716

Huenefeld, B. 519

Huff, D.D. 665, 669

Hughes, M.C. 7, 581, 710

Hull, K.J. 11

Hunt, B. 389

Hunter, R.B. 634

Hupka, J. 843

Huston, M.A. 680

Huth, R. 288

Hutterman, L.L. 523, 524

Hwang, A. 640

Hwang, H.L. 475

Hwang, S. 434, 641

Hyde, R.A. 747

Imbard, G. 267

Imholz, R.M. 1011

Inagaki, H. 209

Ingram, E.M. 686, 690, 693, 694

Innis, P.S. 765

Irrgang, G.H. 519

Isherwood, W. 838

Ishigure, K. 268

Ishikawa, F. 254

a, T. 268

Itzkovitch, I.J. 294

Iwasaki, Y. 135

Iwata, Y. 255

Izatt, R. 778

Izumida, T. 253

Jackson, R.L. 899

Jacoboski, D.L. 16

Jacobs, G.K. 966

Jacobsen, R.L. 635

Jacobson, R.D. 977

Jaeger, M. 175

James, D. 269

Janberg, K.G. 181

Janke, D.S. 41, 651, 938

Janke, R.C. 934

Janke, R.J. 934

Jansen, J.F. 979

Jaquish, R.E. 901

Jaquish, W.R. 980

Javandel, L. 858

Jayawardene, N. 295

Jeanjacques, M. 164

Jennings, H.L. 548

Jennrich, E. 546

Jensen, C.I. 525

Jin, D.J. 894

John, R. 443

Johnson, A.R. 716

Johnson, B. 8

Johnson, G.D. 5, 46, 47

Johnson, G.L. 886, 887, 895, 1012

Johnson, L.J. 11

Johnson, N.R. 816, 817

Johnson, R.T. 356

Johnson, T.C. 271, 1013

Johnson, T.M. 861

Johnson, W.L. 702, 744, 779, 780

Jolley, R.L. 995

Jonas, R.L. 1031

Jones, D.H. 1003

Jones, E.O. 44

Jones, L. 381

Josephson, L. 901

Josso, F. 126

Jouan, A. 189

Jouve, A. 841

Jull, S.P. 272

Kaback, D.S. 847

Kaczor, A.M. 715

Kaestner, M. 863

Kah, S. 184

Kalinauskas, G.L. 978

Kam, J.T. 413

Kamiyama, Y. 203

Kanazawa, K. 252

Kannard, J.R. 376

Kanyukt, R. 90

Kaplan, E. 812

438

Kaputska, L.A. 459	Kinney, K. 147
Kasahara, I. 209	Kinoshita, T. 152
Kaslick, C.A. 859	Kirner, N.P. 460
Kasman, M.S. 950	Kissinger, P. 594
Kato, K. 156, 268	Kitchings, J.T. 680
Kato, S. 254, 273	Kleinrath, A.W. 731
Kauffman, D. 398	Klich, I. 872
Kavanaugh, D.C. 602	Klopfer, H. 121
Kawahara, W. 222	Knajfl, J. 120
Keely, J.F. 864	Knaup, A.G. 243
Keller, J.M. 17, 19	Knight, R.P. 11
Kelly, W.E. 846	Knott, R.R. 391
Kennedy, L. 988	Koch, C. 122, 231
Kennedy, W.E. 274, 1014	Koch, K. 175
Kervegant, Y. 126	Kochen, R.L. 728
Ketelle, R.H. 561	Kocher, D.C. 722
Khoe, G.H. 441	Kocher, P.L. 496
Kim, K. 837	Koegler, S.S. 941
Kimbrough, C.W. 739	Koerner, G.R. 865
Kimmel, B.L. 571, 680	Koerner, R.M. 865
Kinard, C. 655	Komatsu, F. 136
Kindle, C.E. 964	Komura, S. 253
Kindzierski, W.B. 814	Kondo, N. 203
King, A.D. 488, 568	Kong, E.J.C. 398

Konno, T. 208

Kool, J.B. 648

Kornitskij, A.S. 146

Kosson, D. 849

Kostelnik, K.M. 986

Koutsoyannopoulos, C. 889

Koval'chuk, O.V. 215, 335

Kowalski, T.E. 458

Kozaki, T. 143

Kozk, M.W. 868

Krakowski, A. 123

Krasznai, J.P. 119

Kratz, H. 123

Kremnev, V. 77

Kress, R.L. 979

Kroutch, B. 855

Kruglov, A.K. 335, 336

Krupka, M. 866

Kucerka, M. 174

Kuckertz, T.H. 219

Kuczykowski, D. 849

Kuhlmeier, P.D. 867, 882

Kumazawa, S. 273

Kunz, W.E. 219

Kuribayashi, N. 138

Kurka, G. 229

Kutsumizu, A. 205

LaBarge, R.R. 582

Labrecque, D. 875

LaGuardia, T.S. 346

Lahoda, E.J. 737

Lamar, D.A. 48

Landa, E.R. 445, 452

Landguth, D.C. 552

Langerman, M.A. 955

Langner, G.H. 903

Langum, R.B. 473

Lankford, D. 461

Lantz, S.E. 871

Laraia, M. 70, 285, 312

Larin, Y. 77

Larsen, I.L. 672

Last, G.V. 713

Latham, A.R. 531

Laws, G.L. 711

Layman, J.S. 11

Leautier, R. 165, 168, 190

Lee, J.H. 617

Lee, S.Y. 561, 652

Leggett, W.D. 26

Leicht, R. 113

Leicman, J. 174

Leitch, J. 901

Lemmon, A.W. 821

Lenhart, S.M. 966

LePoire, D. 893

Leslie, M. 571

Levillain, C. 250

Levine, R.S. 996

Levitan, W.M. 506

Lewis, C.M. 549

Lien, S.C.T. 996

Liikala, S.C. 956

Lim, T.P. 426

Lin, J.P.H. 398

Lindgren, E.R. 532, 868

Lindhult, E.C. 819

Lindquist, M.R. 55

Linsley, G.S. 1014, 1015

Lipton, D.S. 815

Little, C.A. 391, 892

Lloyd, R.D. 435

Loar, J.M. 575, 680

Lockhart, F.R. 517

Loehr, C.A. 935, 946

Loffman, R.S. 666

Lojek, D.A. 539

Longley, S.W. 731

Longmire, P.A. 439, 440

Looney, B.B. 847, 890

Lorcher, G 112

Lorin, C. 197

Losonsky, G. 872

Lourme, P. 191

Lovley, D.R. 445

Loyer, H. 171

Lu, A.H. 703

Lucas, H.F. 435

Lucero, A.J. 548

Ludlam, S. 323

Lucy, J. 957

Lugar, R.M. 620

Lukacs, G. 80, 277, 347

Lurie, R. 130

Luttrell, S.P. 743

Lynn, D. 461

Lysenko, V.V. 146

Lysne, P.J. 977

MacDonell, M.M. 528, 530, 769, 902, 905, 919, 920

MacKinnon, R.J. 955

MacMahon, D. 889

Maheras, S. 927

Maire, D. 72, 251

Manabe, L 255

Manassero, G. 200

Manion, W.J. 39

Mann, P.T. 406, 412

Manrod, W.E. 738

Marchetti, S. 45

Marino, M. 405

Markose, P.M. 427

Marsh, J.D. 652, 672

Marshall, G.E. 654

Marshall, T.C. 909

Marske, S.G. 52

Martin, CJ. 525

Martin, J.P. 192

Martin, P.F. 984

Martins, G.P. 617

Martz, D.E. 903

Marusich, R.S. 11

Marx, R. 84

Mason, R. 147

Matsumoto, O. 202

Matsushita, K. 144

Mattson, E.D. 532, 868

Mattus, A.J. 940

Maubert, H. 841

Maxwell, M.M. 748

Mayberry, J.L. 983

Mays, C.W. 435

McArthur, R.D. 634, 915

McArthur, W. 269

McBee, J.M. 401

McClain, L.K. 549

McConnel, B.C. 377

McConnell Jr., J.W. 1018

McCracken, S.H. 528, 769

McDaniel, E.W. 795

McGinnis, L.D. 808

McGlochin, S.C. 728

McGrail, B.P. 946, 958

McIssac, C.V. 1016

McKenney, D.E. 763

McKernan, M.L. 54, 279

McKillip, S.T. 732

McKinney, S.M. 716

McKone, T.E. 611, 922

McLaughlin, D. 869

McLaughlin, T.J. 48

McMahon, L.W. 739

McMullin, S.R. 774

McNatt, F.G. 42

McOwat, P. 287

McQuary, J. 990

Mech, S.J. 26

Medica, P.A. 634

Mehta, P. 893

Meinhold, C.B. 812

Mellinger, G. 8

Mendez Jr., W.M. 925

Menon, S. 257

Mercer, R.B. 899

Merrill, S.K. 935

Metivier, H. 187

Meyer, K.R. 917, 918

Meyers-Schone, L. 650

Meyers, H. 166

Michael, L.E. 583

Michaille, P. 250

Migliorati, B. 200

Mihalic, M.A. 599

Mihalovich, G.S. 750

Mikhan, V.I. 339

Miki, I. 211

Millano, E.F. 832

Miller, D.E. 561, 991

Miller, J.D. 843

Miller, J.Q. 991

Miller, R.A. 556

Miller, S.F. 808, 810, 876

Mills, J.G. 521

Millsap, W.J. 27

Mirka, M.A. 426

Miura, H. 140

Miya, K. 202

Moak, D.J. 745

Mobbs, S.F. 259, 265

Moberg, T.P. 862

Moeller, D.W. 216, 421, 751, 1017

Molesch, V.E. 619

Monaghan, J. 389

Monette, F. 381

Monma, T. 208

Montoya, G.A. 50

Montoya, G.M. 49, 51

Moore, E.B. 37

Moore, G.K. 561, 683

Moore, H.E. 736

Moorthy, A.R. 812

Moose, R.D. 819

Mora, A. 654

Mora, J.A. 540

Moraski, R.V. 797

Morcos, N. 1018

Moretti, G. 226

Moroney, J.D. 817

Moroney, K.S. 817, 818, 904

Morren, E. 644

Morris, M.L. 995

Morrison, S.J. 396, 438

Morrissey, C.M. 674, 681, 684

Moser, T. 123

Motte, F. 291, 292

Motz, L.H. 875

Mousseau, J.D. 526

Mueller, J.G. 871

Mueller, K. 185

Mukhopadhyay, B. 439

Murayama, K. 206

Murdoch, L.C. 872

Murphie, W.E. 13, 54, 348, 463

Murray, M.E. 360

Murray, P.E. 959

Musorin, A.I. 146

Myers, D. 855

Myers, J. 653

Myers, P.M. 275

Naboulsi, A. 889

Nagata, P.K. 960

Nakamura, H. 252, 256

Nakamura, K. 208, 210

Nakano, M. 88

Naqvi, S. 295

Nardi, L. 1021

Neider, R. 244

Neiheisel, J. 362

Neilsen, E.H. 30

Nelson, D.M. 642

Nelson, J.D. 451

Neukaeter, E. 247

Nichols, E. 838

Nickels, J.M. 584, 585, 603, 608, 719, 720

Nickelson, M.D. 891, 910

Niekerk, B. 1019

Nielson, K.K. 1035

Niermann, P. 79

Niles, K. 590

Nimmagadda, M.R. 353

Nishi, K. 210

Nix, D. 546

Nixon, P. 733

Noel, J.P. 159

Noel, M. 168

Nonno, L.M. 643

Norrell, G. 978

Noyes, C.D. 612

Nuhfer, K.R. 982

Numakanai, T. 273

Nyquist, J.E. 892, 966

O'Donnel, F.R. 1014

O'Donnell, E. 879

O'Farrell, T.P. 634

Oberdorfer, J.A. 766

Oberjohn, J.S. 649

Oberpichler, R. 288

Oezkaynak, H. 902, 920

Ogg, R.T. 616

Ohl, P.C. 9, 45

Ohura, M. 253

Oldfather, J.M. 815

Oliver, B.M. 916

Olsen, C.R. 680, 695

Onozawa, T. 222

Onuma, T. 137, 139-142, 153, 156

Operschall, H. 292

Optiz, B.E. 9

Orlandini, K.A. 642

Orloff, S.P. 766

Osborne-Lee, A.E. 666, 667

Oshino, M. 87, 255

Osipenco, A. 167

Otis, M.D. 623

Otway, H. 464

Ozkaynak, H. 919

Pachl, L. 302

Pack, S.M. 536

Pacz-Restrepo, A. 351

Palumbo, A.V. 548

Pant, R.C. 283

Panter, M.S. 552

Parazin, R.J. 11

Parker, F.L. 465

Parker, M.W. 619, 783

Parr, P.D. 575

Parsons, A.M. 532, 641

Partridge, L.J. 926

Pasarew, L.I. 950

Passant, F. 237, 327

Paton, A.A. 161

Patterson, B. 872

Patton, B.D. 1001

Patton, S.E. 634

Paul, R. 83

Pavlou, S. 927

Peach, J.D. 466

Pearson, M.D. 903

Pech, R. 85

Pedersen, J.W. 507

Pellecchia, V. 226

Pendergrass, W.R. 682

Pennock, K.A. 906, 907, 911, 912

Penrose, W.R. 642

Peretz, F.J. 20

Perry, H.A. 415

Peterson, J.M. 352, 528, 530, 769, 905

Petrasch, P. 80, 83, 112

Pettis, S.A. 728

Peyrard, G. 72, 251

Pflugrad, K. 232, 299

Phelan, J.M. 532, 640

Phelps, T.J. 548

Phifer, B.E. 467

Phillips, E.J.P. 445

Phillips, L. 644

Phillips, S.J. 48, 984

Piccinno, T. 1021

Picel, M.H. 352, 353, 905

Picini, P. 200

Piepel, G.F. 961

Piepho, M.G. 11

Pillai, K.C. 427

Pilot, G. 165, 168, 171, 187, 190, 193, 235

Pinacci, P. 131, 154

Piper, R.B. 747

Piscitella, R.R. 768

Plante, G.A. 543

Plettenberg, K. 219

Pocock, D.C. 288

Pohl, P.L. 717

Pollard, C.S. 1035

Poluehktova, G.B. 215, 335

Polzer, E.H. 642

Pope, J.M. 773

Porter, D.L. 644

Postma, A. 22

Pott, P. 186

Pourprix, M. 187, 193, 235

Pouzac, J.P. 195

Powell, G. 844

Powell, M.R. 666, 667

Powell, T.D. 957

Power, M. 588

Pratt, D.R. 585

Prazniak, J.K. 790

Price, J.B. 731

Price, K.R. 698

Price, M.S. 261, 276

Pricsmeyer, U. 184

Provencher, R.B. 750

Prucss, K. 848, 858

Pructt, J.G. 493

Puckett, J.M. 464

Pugh, L.P. 217

Pulsipher, B.A. 921

Pyatunin, B.A. 336

Quaider, W. 650

Quapp, WJ. 983

Quinn, R.D. 495

Racioppi, L.M. 806

Ragan, F.A. 1005

Raghavayya, M. 427

Ramachandran, N. 356

Ramirez, A. 875

Ramos, S.J. 888

Ramsdell, J.V. 704

Rasmussen, J. 588

Raudenbush, M.H. 1034

Raum, D. 303

Ray, J.W. 14

Raymond, A. 231

Raynal, A. 195

Redfearn, A. 488, 568, 913

Reed, W.R. 21

Reeme, T.L. 876

Reep, LE. 36

Reilly, R.W. 602

Reiser, J.C. 461

Reith, C. 392, 749

Reuter, R.H. 877

Reynolds, D.A. 5

Reynolds, M.D. 891

Rezendes, V.S. 468, 508, 962

Rice Jr., D. 838

Richardson, A.C.B. 469

Richardson, D.L. 415

Richardson, R.L. 963

Rickard Jr., W.H. 705, 740

Ricken, D. 121

Ridky, R.W. 879

Rieger, J.T. 896

Riemath, W.F. 717, 727

Riley, R.G. 494

Ring, N.C. 377

Rittscher, D. 181, 238

Roberts, P.V. 878

Robinson, P.J. 1022, 1029

Robinson, S. 927

Robinson, S.M. 555

Rodensky, R. 509

Rodriguez, R.E. 685

Rogers, V.C. 470, 1022, 1035

Rohay, V.J. 713, 714, 744

Roles, R.G. 271

Romney, E.M. 634

Rood, A.S. 623

Rose, B. 288

Rose, K.A. 695

Rose, N. 175

Roser, T. 81

Rosinski, S.T. 32, 58

Roth, P. 269

Roudil, S. 189

Rouviere, R. 187

Rowe, J.C. 16

Rowland, T.J. 752

Rowlands, R.D. 798

Roy, M.W. 747

Rubenstein, J. 94

Ruberg, G.E. 1011

Rubert, A.L. 747

Rubischung, P. 183

Rudinger, V. 310

Schafetz, S. 893

Schassburger, R.J. 518 Rupe, S.C. 471 Scheele, R.D. 28 Russell, B.F. 525 Schenley, R.L. 17, 19 Russell, C.E. 635 Scheuer, N. 1023 Russell, J.L. 436 Schlotzhauer, D.S. 784 Russell, L.E. 765 Schmid, F. 303 Russell, M. 475 Schmidt, J.W. 591, 716 Saget, R.P. 1003 Schmidt, R. 121 Saiki, T. 88 Saito, M. 213 Sakai, S. 209 Sakharov, P.V. 336 Salluzzo, A. 1021 Sanchis, H. 192 Sanders, D.R. 413 Sanderson, W. 590 Sandness, G.A. 718 Sandquist, G.M. 15 Santiago, J.L. 450 Sappok, M. 245, 246, 277 Sastry, A.M. 1003 Sato, F. 210 Sato, K. 201 Saurin, P. 125

Schmitten, W. 289 Schneider, G. 84 Schreiber, J.J. 60 Schuchardt, M.C. 304 Schulte, E. 841 Schulz, R.K. 860, 879 Schumann, S. 179, 180, 182 Schuster, E. 278 Schwarzwaelder, R. 349 Scott, W.W. 279 Scars, M.B. 19 Seidler, M. 242, 246 Sciler, F.A. 909 Selby, J.M. 797 Selleck, C.B. 16 Semprini, L. 878

Serie, P.J. 472	Shum, E.Y. 1032
Serne, R.J. 984	Shuman, R. 546
Severka, J. 120	Sibley, K.L. 732
Shack, W.J. 32, 57, 58	Silverman, D.J. 1024
Shade, J.W. 936, 961, 964	Simova, G. 227
Shangraw, R. 491	Simpson, B.C. 28
Shankle, D.L. 602	Sims, J. 826
Sharp, J.M. 880	Sims, W.R. 890
Shearer, T.L. 965	Sinclair, G. 441
Sheil, A.E. 329	Singh, S.P.N. 995
Shen, E.J. 980	Sipe, M.A. 17
Sherwood, D.R. 706	Sirois, L.L. 447
Shibamoto, M. 114	Sisson, J.B. 768
Shimamoto, M.S. 27	Sjoblom, G.L. 473
Shimoyashiki, S. 155	Skeen, R.S. 743
Shinn, J.H. 634	Skiles, J.L. 913
Shinohara, Y. 207, 212, 221, 223	Skoski, L. 805
Shinya, I. 209	Skriba, M.C. 988

Shipler, D.B. 723-725

Skupinski, E. 299

Shiraishi, Y. 208

Slaathaug, E.J. 11

Shirev, B.S. 337

Slater, C.G. 988

Shirley, R.S. 533 Slaughter, D.M. 15

Shmayda, W.T. 119 Smith, C.S. 510

Shopov, N. 227 Smith, D.C. 27

Spalding, B.P. 673, 735 Smith, D.L. 742 Spangler, R. 438, 855 Smith, E.H. 10, 765 Spikula, R. 1023 Smith, G.C. 619 Sprouse, B.S. 592 Smith, G.M. 401 Sriyotha, P. 90 Smith, J.G. 680 St. Clair, L. 733 Smith, L.D. 219 Stagg, W.R. 275 Smith, L.M. 844 Stang, W. 183, 186, 305 Smith, M.J. 258 Stanley, W.F. 366 Smith, N.L. 960 Steiner, H. 168, 169, 176, 184 Smith, R. 588 Stejskal, G.F. 547 Smith, S.A. 602 Stepnewski, D.D. 5 Smyth, J.D. 495 Steringer, A. 123 Snodgrass, W.J. 425 Sternberg, D. 82 **Snyder, T.S.** 150, 988 Steude, J. 985 Sobocinski, R.W. 653 Stevens, M.M. 667 Sohnius, B. 289 Stevens, R.D 840 Solbau, R. 815 Stewart, A.J. 680 Sollenberger, D.M. 1032 Stewart, R.K. 765 Solomon, A.D. 966 Stimes, P.C. 104 Solomon, D.K. 672 Stone, J.E. 573, 775 Sontag, S. 881 Storton, J.M. 275 Southworth, G.R. 575, 680 Stottlemyre, J.A. 908 Soutome, Y. 253

Spain, E.H. 27

Stout, D.S. 357

Stover, R.L. 4

Strachan, D. 8

Strandberg, G.W. 548

Street, G.H. 42

Strenge, D.L. 924

Struttmann, T. 897

Sturdivant, T.E. 882

Subbaraman, G. 916

Suchowitz, M. 123

Sugihara, M. 202

Sukegawa, T. 114

Sun, L.C. 812

Surovchak, S. 772

Suter, G.W. 561

Suwa, T. 138

Swanson, L.C. 745

Swindle, D.W. 474, 568, 570

Tachibana, M. 211

Takahashi, M. 208

Takano, G. 202

Takeuchi, J. 155

Tanaka, A. 137, 139-141, 156

Tanaka, M. 114, 256

Tanaka, T. 152

Tanis, G. 229

Tarasov, V.M. 333

Tardiff, M.F. 561, 665, 667

Tarroni, G. 168, 200

Tauw, C.M. 842

Taylor, J.M. 105, 106

Taylor, P.A. 677

Teply, J.D. 407

Teunckens, L. 290

Thayer, E.C. 806

Thicme, R.E. 1034

Thiers, G.R. 413

Thoma, A. 236

Thomas, F. 189

Thomas, R. 825

Thome, J.P. 170

Thompson, C.B. 634

Thompson, J.L. 638

Thompson, K.M. 593

Thompson, L.E. 941, 946, 964, 967

Thomson, B.M. 440, 836

Thorne, P.D. 422

Thunborg, S. 992

Tiernan, M.W. 901

Till, J.E. 392, 900, 917, 918

Tiner, P.F. 678, 685

Tingey, J.M. 28

Tischler, J. 519

Tischuk, M.D. 819

Tixier, J.S. 936, 968

Toellner, U. 178

Tokioka, S. 209

Tokuine, T. 315

Tokunaga, T.K. 815

Tolbert, W.W. 511

Tomicich, M.J. 816

Tomii, K. 316, 319

Toney, K.C. 613

Tonn, B. 475

Toombs, G.L. 901

Tootle, M.D. 870

Towarnicky, J. 821

Travis, **B**. 845

Travis, C.C. 914, 928

Treat, R.L. 741

Trent, B. 845

Triplett, M.B. 1023

Troxler, W.L. 852

Tsuruoka, R. 155

Tsutagwa, M. 253

Tsypin, S.G. 146

Tucker, B. 985

Tulay, M.P. 557

Tunaboylu, K. 214

Turi, G. 491

Turner, R.R. 575

Tuttle, R.J. 916

Tzemos, S. 594

Uozumi, H. 222

Urlings, L.G. 842

Ursella, P. 226

Ushida, S. 206

Usui, H. 207, 212, 221, 223

Usui, N. 317

Uziel, M.S. 360, 367, 552, 678, 685

Vainshtein, V.V. 336, 339

Valcich, P.J. 744

Valett, G.L. 528, 529

Van Der Galien, R.J. 842

van Excl, H. 288

Van Hoesen, S.D. 556

Van Luik, A.E. 950

Van Ryn, F.R. 574

Vance, J. 269

Vance, J.N. 1022, 1029

Vance, L.W. 1003

Varchol, B.D. 533

Vidal, H. 231

Vincent, O.L. 538, 539

Vinther, A. 820

Virgona, J.E. 415

Vogel, R.A. 938

Vogt, H.S. 173

Vollmer, A. 403

Vollradt, J. 83, 350

von Winterfeldt, D. 464

Voogd, J. 795

Vree, H.B. 842

Wace, P.F. 224

Wadman III, W.W. 931

Wagner, E. 214

Wahlen, R.K. 7, 67, 581

Waite, D. 927

Wakefield, J.R. 145, 262, 328

Wakeley, L.D. 795

Waldie, B. 168, 171

Waldo, T.L. 11

Walker, A.B. 555

Walker, S. 747

Wallace, W.A. 486

Wallis, L.R. 1

Wallo III, A. 487, 933, 1031

Walsh, E.J. 729

Walton, B.T. 680

Walton, J.C. 623

Walzer, A.E. 569

Wang, D. 446

Wang, J. 444

Warbritton, K.R. 784

Ward, R.D. 237

Warren, J. 475

Watanabe, T. 204

Watson, J.S. 570

Watson, L.R. 943

Watts, J.A. 561

Weakley, S.A. 602

Weaver, R.S. 563

Webster, S.L. 996

Wegener, H. 185

Wegner, S.J. 621

Wehner, E. 289

Weidner, J.R. 843, 946, 972

Weiss, T.G. 730

Welch, S.H. 573

Weldner, J.R. 617

Wemple, R.P. 977

Wentworth, N.W. 895

Wesely, M.L. 749

Westphal, B.R. 973

Wheat, B. 733

White, D.C. 548

White, M.K. 908

White, R.K. 488, 568, 913

White, T.L. 217

Whitfield, R.P. 489, 513, 514

Whitlow, G.A. 988

Wickliff, D.S. 561, 672, 674, 681, 684

Wilder, J. 745

Wilkinson, S.G. 377

Williams, B.A. 459

Williams, J.K. 678, 685

Williams, J.L. 525

Williams, L.C. 556, 759

Williams, M. 731

Williams, M.J. 352, 353

Williams, T.A. 602

Williams, W.A. 357

Williamson, D.J. 525

Wilson, C.R. 899

Wilson, M.J. 416, 428, 429

Wingender, H.J. 113

Winship, R.A. 7, 581, 710

Wintczak, T.M. 779

Wisenbaker, W.E. 490, 491

Witherspoon, P.A. 858

Wobber, F.J. 494

Wodrich, D.D. 34, 38

Woldt, W. 846

Wolfe, D.W. 887, 1012

Wolff, T. 640, 641

Wood, D.E. 515

Wood, R. 932

Woollam, P.B. 109, 110

Worcester, C.W. 11

Workman, D.J. 743

Wozniewicz, J.V. 525

Wu, Y.S. 648

Xue, J. 902, 919, 920

Yager, R.E. 738

Yamadera, T. 141

Yamamoto, H. 87, 144, 254, 273

Yamanaka, T. 268

Yamkate, P. 90

Yanagihara, S. 88, 114

Yasumune, T. 138

Yasunaka, H. 135, 143, 319

Yeager, G. 640, 641

Yeazel, J.A. 752

Yee, A.W. 815

Yee, W.C. 556

Yegulalp, T.M. 837

Yelin, V. 77

Yokota, I. 210

Yokota, M. 210, 213, 316, 319

Yomo, N. 142

Young, A.I. 950

Young, C.D. 357

Young, S.C. 683

Youngblood, E.L. 756

Yount, J.A. 980

Yu, C. 381, 893, 933

Yurchenko, Y.F. 336, 339

Zachara, J.M. 494

Zawislanski, P. 815

Zeigler, C.C. 900

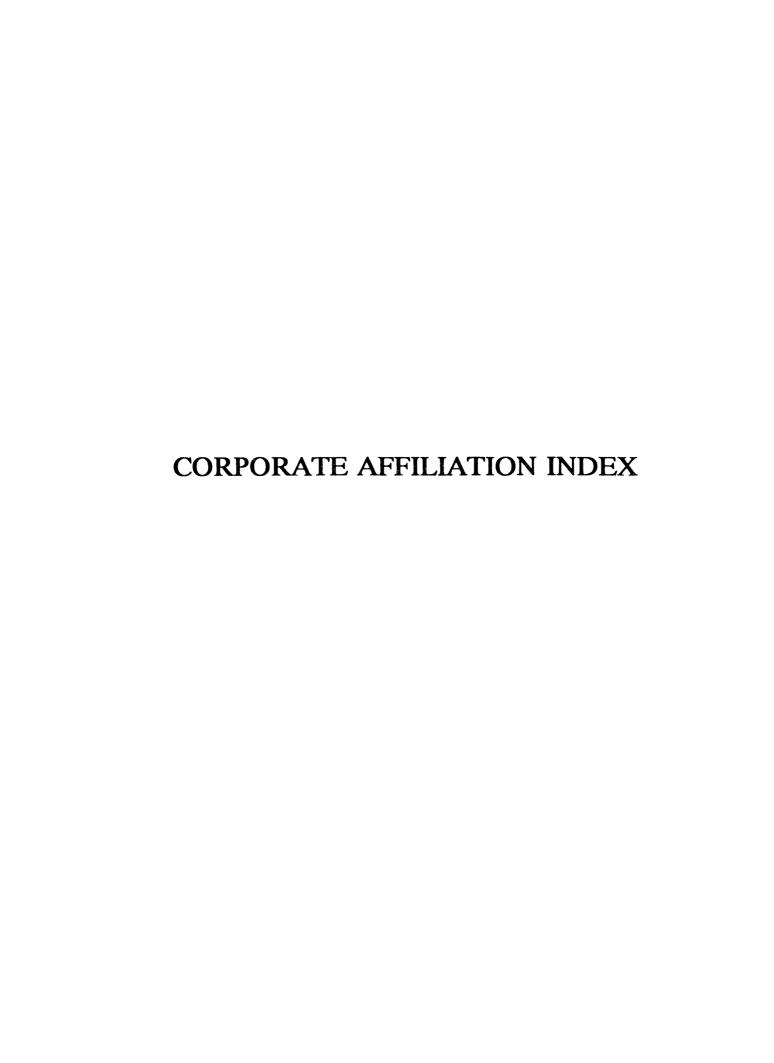
Zelmer, R.L. 799

Zhao, S. 296

Ziagos, J. 838

Ziemer, P.L. 354

Zimmermann, U. 247



- ABB Environmental, Inc., Portland, ME 891
- Advanced Sciences, Inc., Oak Ridge, TN 654,
- Advanced Sciences, Inc., Ross, OH 650
- Advisory Committee on Nuclear Facility Safety, Washington, DC 499
- AEA Safety and Reliability, Culcheth, United Kingdom 323
- AEA Technology, Risley, United Kingdom 262, 328
- AEA Technology, Windscale, United Kingdom 145, 330, 332
- AEA Technology, Winfrith, United Kingdom 323
- AEG-Elotherm GmbH, Remscheid, Federal Republic of Germany 186
- AES Corporation, Silver Spring, MD 736
- Agency for Toxic Substances and Disease Registry, Atlanta, GA 496
- Allied-Signal Aerospace Company, Kansas City Division, Kansas City, MO 625
- American Society of Mechanical Engineers, New York, NY 340
- Argonne National Laboratory, Argonne, IL 39, 53, 56-58, 353, 355, 358, 381, 530, 726, 769, 876, 902, 916, 919, 920, 923, 973, 993, 996
- Argonne National Laboratory, Energy Systems Division, Argonne, IL 808
- Argonne National Laboratory, Environment and Waste Management Programs, Argonne, IL 359

- Argonne National Laboratory, Environment, Safety, and Health Department, Argonne, IL 642
- Argonne National Laboratory, Environmental Assessment and Information Sciences Division, Argonne, IL 352, 528, 810, 893, 905, 933
- Argonne National Laboratory, Environmental Research Division, Argonne, IL 642
- Atomic Energy Control Board, Advisory Committee on Nuclear Safety, Ottawa, Ontario, Canada 293
- Atomic Energy Control Board, Ottawa, Ontario, Canada 74, 425
- Atomic Energy of Canada Limited, CANDU Operations, Sheridan Park, Ontario, Canada 173
- Atomic Energy of Canada Limited, Low-Level Radioactive Waste Management Office, Ottawa, Ontario, Canada 799, 800
- Atomic Energy of Canada Limited, Ottawa, Ontario, Canada 281
- Atomic Energy Society of Japan, Tokyo, Japan 85, 314
- Australian Nuclear Science and Technology Organization, Menai, New South Wales, Australia 441
- Automated Sciences Group, Inc., Oak Ridge, TN 854
- Automated Sciences Group, Inc., Oliver Springs, TN 882
- Automated Sciences Group, Inc., Silver Spring, MD 461
- Babcock and Wilcox Company, Apollo, PA 338

- Babcock and Wilcox Company, Nuclear Power Division, Lynchburg, VA 275
- Babcock-Hitachi, Takara, Japan 222
- Battelle Human Affairs Research Center, Seattle, WA 602
- Battelle Memorial Institute, Decontamination and Decommissioning Operations, Columbus, OH 14
- Battelle-Institut e.V., Frankfurt am Main, Federal Republic of Germany 179, 180, 182
- Beak Consultants Limited, Montreal, Quebec, Canada 425
- Bechtel National, Inc., Oak Ridge, TN 147, 266, 351, 352, 355, 356, 361, 363-366, 369, 372, 373, 377-379, 562, 610, 676
- Beijing Institute of Nuclear Engineering, Beijing, China 296, 444
- Belgoprocess NV, Dessel, Belgium 73, 118, 167
- Belgoprocess NV, Nuclear Services Department, Dessel, Belgium 290
- Bettis Atomic Power Laboratory, Pittsburgh, PA 657
- Bhabha Atomic Research Centre, Bombay, India 283
- Bhabha Atomic Research Centre, Health Physics Division, Bombay, India 427
- Bovay Northwest, Inc., Richland, WA 48
- Bradtec US, Inc., Atlanta, GA 978
- British Nuclear Energy Society, London, United Kingdom 131
- British Nuclear Fuels plc, Sellafield, United Kingdom 325, 329, 331, 343

- British Steel plc, Technical Swinden Laboratories, Rotherham, United Kingdom 234, 260
- Brookhaven National Laboratory, Upton, NY 57, 644, 812
- Brown and Caldwell, Pleasant Hill, CA 613
- Bundesamt fuer Strahlenschutz, Salzgitter, Federal Republic of Germany 238, 886, 1003
- Bundesministerium fuer Forschung und Technologie, Bonn, Federal Republic of Germany 123, 175, 178
- Bundesministerium fuer Forschung und Technologie, Projekttraeger Universitaetsforschung zum Nuklearen Brennstoffkreislauf/Stillegung von Nuklearanlagen, Bonn, Federal Republic of Germany 180, 304
- Bundesministerium fuer Umwelt-, Naturschutz und Reaktorsicherheit, Bonn, Federal Republic of Germany 239, 243, 414, 432, 433
- Camp, Dresser and McKee, Inc., Boston, MA 859, 926
- Canada Centre for Mineral and Energy Technology, Department of Energy, Mines, and Resources, Elliot Lake Laboratory, Elliot Lake, Ontario, Canada 426
- Canada Centre for Mineral and Energy Technology, Department of Energy, Mines, and Resources, Ottawa, Ontario, Canada 447
- Canada Centre for Mineral and Energy Technology, Ottawa, Ontario, Canada 430
- Canadian Council of Ministers of the Environment, Winnipeg, Manitoba, Canada 823, 824

- Canadian Institute for Radiation Safety, Elliot Lake, Ontario, Canada 442
- Canadian Nuclear Society, Toronto, Ontario, Canada 437
- CDM Federal Programs Corporation, Oak Ridge, TN 571
- Central Electricity Generating Board, Berkeley Nuclear Laboratories, Berkeley, United Kingdom 110
- Central Electricity Generating Board, Generation Development and Construction Division, Barnwood, United Kingdom 237
- Centre d'Etude de l'Energie Nucleaire, Mol, Belgium 291, 292
- Centre National d'Etudes Spatiales, Paris, France 978
- Centro Informazioni Studi Esperienze, Milan, Italy 131
- Centro Informazioni Studi Esperienze, Segrate, Italy 154
- Charles T. Main, Inc., Charlotte, NC 733
- Chem-Nuclear Geotech, Inc., Grand Junction, CO 396, 405, 407, 415, 438, 454, 455, 798, 894, 903
- Chugoku Electric Power Company, Inc., Hiroshima, Japan 136
- CH2M Hill Southeast, Inc., Oak Ridge, TN 676, 691
- CH2M Hill, Hazardous Waste Engineering Division, Bellevue, WA 486
- Clemson University, Clemson, SC 465
- COLENCO Power Consulting Limited, Baden, Switzerland 214

- Colorado State University, Department of Civil Engineering, Fort Collins, CO 451
- Columbia University, Henry Krumb School of Mines, New York, NY 837
- Commissariat a l'Energie Atomique, Bagnol-sur-Ceze, France 197
- Commissariat a l'Energie Atomique, Centre d'Etudes de Bruyeres-le-Chatel, Bruyeres-le-Chatel, France 187, 248
- Commissariat a l'Energie Atomique, Centre d'Etudes Nucleaires de Cadaracae, Saint-Paul-lez-Durance, France 126, 129, 151, 165, 168, 190, 194, 231, 248, 841
- Commissariat a l'Energie Atomique, Centre d'Etudes Nucleaires de Fontenay-aux-Roses, Fontenay-aux-Roses, France 187, 193, 233, 249, 334
- Commissariat a l'Energie Atomique, Centre d'Etudes Nucleaires de Grenoble, Grenoble, France 225, 229, 231
- Commissariat a l'Energie Atomique, Centre d'Etudes Nucleaires de Saclay, Gif-sur-Yvette, France 159, 165, 168, 171, 190, 235, 250
- Commissariat a l'Energie Atomique, Centre de Marcoule, Bagnols-sur-Ceze, France 129, 231, 298
- Commissariat a l'Energie Atomique, Etablissement de la Vallee du Rhone, Bagnols-sur-Ceze, France 187, 189, 196, 198, 267
- Commissariat a l'Energie Atomique, Institut de Protection et de Surete Nucleaire, Bagnols-sur-Ceze, France 130
- Commissariat a l'Energie Atomique, Paris, France 172

- Commission of the European Communities, Brussels, Belgium 76, 162
- Commission of the European Communities, Directorate General for Science, Research and Development, Brussels, Belgium 232, 299
- Commission of the European Communities, Luxembourg Luxembourg 126, 127, 176, 193, 199, 219, 242, 259, 261, 325
- Compagnie Generale des Matieres Nucleaires, Etablissement de La Hague, Cherbourg, France 192
- Compagnie Generale des Matieres Nucleaires, Etablissement de Marcoule, Bagnols-sur-Ceze, France 188
- Compagnie Generale des Matieres Nucleaires, Velizy-Villacoublay, France 85
- Cornell University, Ithaca, NY 853
- Cutting Technologies International, Milford, OH 218
- Dames and Moore, Denver, CO 904
- Dames and Moore, Orchard Park, NY 730
- Dames and Moore, West Valley Nuclear Services Company, Inc., West Valley, NY 645
- Dames and Moore, Willow Grove, PA 819
- Department of Primary Industries and Energy, Safety Review Committee, Canberra, Australia 822
- Department of the Environment, London, United Kingdom 1014
- Desert Research Institute, Las Vegas, NV 634, 635, 915

- Deutsches Institut fuer Normung e.V., Normenausschuss Kerntechnik, Berlin, Federal Republic of Germany 240, 241, 431
- Dortmund University, Dortmund, Federal Republic of Germany 121
- Drexel University, Geosynthetic Research Institute, Philadelphia, PA 865
- Du Pont de Nemours (E.L) and Company, Aiken, SC 551, 755
- Dunn Geoscience Corporation, Parsippany, NJ 861
- Duratek Corporation, Greenbelt, MD 753
- Ebasco Environmental, Inc., Arlington, VA 925
- Ebasco Environmental, Inc., Bellevue, WA 460, 927
- Ebasco Services, Inc., Lyndhurst, Ali 805
- Ebasco Services, Inc., New York, NY 744
- Ebasco Services, Inc., Richland, WA 741
- Ecole Nationale Superieure d'Electrochimie et d'Electrometallurgie, Grenoble, France 229
- Ecological Planning and Toxicology, Inc., Corvallis, OR 459
- EG&G Energy Measurements, Inc., Remote Sensing Laboratory, Las Vegas, NV 646, 658, 662
- EG&G Energy Measurements, Inc., Santa Barbara, CA 634
- EG&G Idaho, Inc., Idaho Falls, ID 376, 522, 526, 550, 551, 573, 617, 620, 623, 738, 747, 755, 759, 843, 917, 936, 942, 943, 946, 953, 959, 960, 972, 974, 983, 986, 990, 1005, 1016, 1018

- EG&G Mound Applied Technologies, Miamisburg, OH 655, 731
- EG&G Rocky Flats, Inc., Golden, CO 614, 616, 728
- Eldorado Nuclear Limited, Ottawa, Ontario, Canada 437
- Eldorado Nuclear Limited, Port Hope, Ontario, Canada 294
- Electric Power Research Institute, Palo Alto, CA 1022, 1029
- Electricite de France, Paris, France 195
- Empresa Nacional de Residuos Radiactivos, S.A., Madrid, Spain 450
- Ente Nazionale per l'Energia Elettrica, Centro Termica e Nucleare, Milan, Italy 131, 133, 199
- Ente Nazionale per l'Energia Elettrica, Garigliano, Italy 133
- Ente Nazionale pe l'Energia Elettrica, Rome, Italy 117, 132
- Environment Canada, Environmental Protection Service, Ottawa, Ontario, Canada 443
- Environment Canada, Ottawa, Ontario, Canada 447, 857
- Environment Canada, Wastewater Technology Centre, Burlington, Ontario, Canada 840
- Environmental Issues Management, Inc., Seattle, WA 472
- Environmental Resources Management, Inc., Deerfield, IL 832
- Equipos Nucleares, Madrid, Spain 149

- ERC Environmental and Energy Services Company, Knoxville, TN 688, 782
- ERC Environmental and Energy Services
 Company, Oak Ridge, TN 676
- European Nuclear Energy Agency, Bologna, Italy 168, 200
- European Nuclear Energy Agency, Centro Ricerche Energia, Casaccia, Italy 116, 1021
- European Nuclear Energy Agency, Centro Ricerche Energia, Frascati, Italy 200
- European Nuclear Energy Agency, Rome, Italy 200, 312, 313
- European Nuclear Society, Petit-Lancy, Switzerland 131
- Fayetteville Community College, Fayetteville, NC 893
- Federal Institute for Materials Research and Testing, Berlin, Federal Republic of Germany 244
- Federal Ministry of Fuels and Energy, Praha, Czech and Slovak Federal Republic 174, 297
- Fiat Research Center, Turin, Italy 200
- Field Automation, Paris, France 170
- Flaherty and Crumrine, Inc., Pasadena, CA 104
- Focus Environmental, Inc., Knoxville, TN 852
- Geholit und Wiemer GmbH, Graben-Neudorf, Federal Republic of Germany 121
- General Electric Company, Neutron Devices
 Department, Largo, FL 783

- General Electric Company, Nuclear Energy Division, San Jose, CA 1
- General Electric Company, Pinellas Plant, Largo, FL 520, 619
- Geo Trans, Inc., Sterling, VA 546
- Geosafe Corporation, Kirkland, WA 952
- Geraghty and Miller, Inc., Environmental Services Division, Dublin, OH 542
- Geraghty and Miller, Inc., Oak Ridge, TN 576
- Gesellschaft fuer Nuklearservice, Essen, Federal Republic of Germany 181, 238
- Golder Associates, Inc., Idaho Falls, ID 521, 524
- Golder Associates, Inc., Redmond, WA 899
- Golder Associates, Inc., Richland, WA 525
- H&R Technical Associates, Inc., Germantown,MD 527
- H&R Technical Associates, Inc., Oak Ridge, TN 575
- Halliburton NUS Environmental Corporation, Gaithersburg, MD 506
- Hanford Education Action League/Search Technical Services, Davenport, WA 901
- Hannover University, Institute fuer Werkstoffkunde, Hannover, Federal Republic of Germany 160, 168, 169, 175, 176, 178, 184
- Harvard University, Cambridge, MA 902, 919, 920
- Harvard University, School of Public Health, Boston, MA 216, 421, 751, 1017

- Heriot-Watt University, Department of Chemical and Process Engineering, Edinburgh, United Kingdom 171
- Heriot-Watt University, Edinburgh, United Kingdom 168
- Hitachi Engineering Company Limited, Ibaraki, Japan 155
- Hitachi Limited, Ibaraki, Japan 141, 253
- Hitachi Limited, Saiwai, Japan 222
- Hitachi Plant Engineering and Construction Company Limited, Matsudo, Japan 141
- Hitachi Plant Engineering and Construction Company Limited, Tokyo, Japan 137, 139, 140, 142
- Hochtemperatur-Kernkrastwerk GmbH, Hamm, Federal Republic of Germany 177, 300
- HydroGeoLogic, Inc., Herndon, VA 648
- ICF Kaiser Engineers, Inc., Los Alamos, NM 12
- ICF, Inc., Fairfax, VA 509
- Idaho Department of Water Resources, Boise, ID 621, 955
- Idaho National Engineering Laboratory, Idaho Falls, ID 623, 768, 935, 955, 1016, 1018
- IFM Linkenheim, Linkenheim, Federal Republic of Germany 84
- Imperial College Reactor Centre, Silwood Park, Ascot, United Kingdom 889
- INFR Consut BV, Deventer, Netherlands 842
- Institution of Chemical Engineers, London, United Kingdom 131

- INTERA, Inc., Albuquerque, NM 532
- Internal Revenue Service, Washington, DC 102
- International Atomic Energy Agency, Division of Nuclear Fuel Cycle and Waste Management, Vienna, Austria 1014, 1015
- International Atomic Energy Agency, Vienna, Austria 70, 89, 285, 345
- International Technology Corporation, Albuquerque, NM 653, 855, 909
- International Technology Corporation, Cincinnati, OH 534
- International Technology Corporation, Itasca, IL 644
- International Technology Corporation, Knoxville, TN 644
- International Technology Corporation, Oak Ridge, TN 1019
- International Technology Corporation, Richland, WA 855
- International Technology Corporation, Ross, OH 536, 654
- Italcementi SpA, Bergamo, Italy 226
- Jacobs Engineering Group, Inc., Albuquerque, NM 389, 401-403, 450
- Jacobs Engineering Group, Inc., St. Charles, MO 392, 529, 629, 630, 769, 784
- Japan Atomic Energy Research Institute, Department of Chemistry, Tokai, Ibaraki, Japan 141
- Japan Atomic Energy Research Institute, Department of Health Physics, Tokai, Ibaraki, Japan 87, 144, 254, 255, 273

- Japan Atomic Energy Research Institute, Department of Japan Power Demonstration Reactor, Tokai, Ibaraki, Japan 86, 88, 114, 143, 208, 210, 211, 213, 252, 256, 316, 318-320
- Japan Atomic Energy Research Institute, Tokai Research Establishment, Tokai, Ibaraki, Japan 135, 207, 212, 221, 223, 321, 322
- Japan Atomic Energy Research Institute, Tokyo, Japan 138
- Japan Atomic Industrial Forum, Inc., Tokyo, Japan 85
- Japan Society of Mechanical Engineers, Tokyo, Japan 340
- Joint Venture DECOM, Moscow, Russian Federation 77
- Kaiser Engineers Hanford, Richland, WA 6
- Kajima Construction Company Limited, Institute of Construction Technology, Tokyo, Japan 210
- Kajima Construction Company Limited, Tokyo, Japan 208
- Kansai Electric Power Company, Inc., Osaka, Japan 315
- Kernforschungszentrum Karlsruhe GmbH, Erection and Decommissioning of Nuclear Facilities Division, Karlsruhe, Federal Republic of Germany 308
- Kernforschungszentrum Karlsruhe GmbH, Karlsruhe, Federal Republic of Germany 84, 123, 179, 180, 301, 304, 306, 307, 309
- Kernforschungszentrum Karlsruhe GmbH, Projektbereich Anlagen, Karlsruhe, Federal Republic of Germany 310

- Kernforschungszentrum Karlsruhe GmbH, Projektbereich Heissdampfreaktor -Sicherheitsprogramm/Handhabungstechnik, Karlsruhe, Federal Republic of Germany 185
- Kernkraftwerk Emsland, Lingen, Federal Republic of Germany 124
- Kernkraftwerk Lingen GmbH, Lingen, Federal Republic of Germany 108, 282
- Kernkraftwerke Gundremmingen Betriebsgesellschaft GmbH, Gundremmingen, Federal Republic of Germany 183, 186, 277, 305
- Keuring van Electrotechnische Materialen NV, Arnhem, Netherlands 230
- Kobe Steel Limited, Kobe, Japan 136
- Kraftanlagen AG, Heidelberg, Federal Republic of Germany 123, 148
- Kumagai Gumi Company Limited, Tokyo, Japan 209
- Kunz und Company, Muenchen, Federal Republic of Germany 113
- Landmark Reclamation, Inc., Denver, CO 419
- Laurentian University, Department of Biology, Sudbury, Ontario, Canada 426
- Lawrence Berkeley Laboratory, Berkeley, CA 848
- Lawrence Berkeley Laboratory, Earth Sciences Division, Berkeley, CA 815, 858
- Lawrence Livermore National Laboratory, Environmental Sciences Division, Livermore, CA 634

- Lawrence Livermore National Laboratory, Livermore, CA 611-613, 766, 838, 839, 875, 922, 994
- Lee Wan & Associates, Inc., Oak Ridge, TN 559, 560
- Life Systems, Inc., Cleveland, OH 877
- Lockwood Greene Engineering, Inc., Oak Ridge, TN 556, 777
- Los Alamos National Laboratory, Earth and Environmental Science Division, Los Alamos, NM 642
- Los Alamos National Laboratory, Environmental Restoration Technical Support Office, Los Alamos, NM 731
- Los Alamos National Laboratory, Los Alamos, NM 28, 49-51, 440, 464, 634, 638, 643, 770, 771, 845, 931
- Los Alamos Technical Associates, Inc., Los Alamos, NM 881
- MAC Technical Services, Richland, WA 1003
- Martin Marietta Energy Systems, Inc., Environmental Compliance, Oak Ridge, TN 569
- Martin Marietta Energy Systems, Inc., Environmental Restoration Division, Oak Ridge, TN 569, 570
- Martin Marietta Energy Systems, Inc., Hazardous Waste Remedial Action Program, Oak Ridge, TN 461, 462, 574, 891, 910
- Martin Marietta Energy Systems, Inc., Oak Ridge, TN 64, 497, 556, 573, 624, 656, 691, 738, 739, 787, 804, 891, 939
- Martin Marietta Energy Systems, Inc., Piketon, OH 656

- Martin Marietta Energy Systems, Inc., Portsmouth, OH 1000
- Massachusetts Institute of Technology, Department of Civil Engineering, Cambridge, MA 869
- Meditsinska Akademiya, Nauchen Institute po Rentgenologiya i Radiobiologiya, Sofia, Bulgaria 227
- Metcalf and Eddy, Inc., Columbus, OH 821, 897
- MG Ecology and Environment, Inc., Albuquerque, NM 540
- Ministry of Atomic Power and Industry, Moscow, Russian Federation 146
- Missouri Department of Health, Jefferson City, MO 813
- Missouri Department of Natural Resources, Division of Geology and Land Survey, Rolla, MO 627
- Mitsubishi Heavy Industries Limited, Takasago Research and Development Center, Takasago, Japan 202
- MK-Environmental Services, San Francisco, CA 413
- MK-Ferguson Company, St. Charles, MO 528, 529, 628-630, 633
- Monaghan & Associates, Inc., Denver, CO 389
- Morrison-Knudsen Corporation, Boise, ID 748, 816, 867, 882
- Morrison-Knudsen Corporation, Environmental Services Division, Boise, ID 947

- National Academy of Sciences, Washington, DC 801
- National Oceanic and Atmospheric Administration, Atmospheric Turbulence and Diffusion Division, Oak Ridge, TN 682
- National Power, Leatherhead, United Kingdom 298
- National Radiological Protection Board, Chilton, United Kingdom 259, 265
- National Technical Information Service, Springfield, VA 833, 834, 873
- Naval Ocean Systems Center, San Diego, CA 27
- Naval Postgraduate School, Monterey, CA 510
- Newman & Holtzinger PC, Washington, DC 1024
- Noell GmbH, Wuerzburg, Federal Republic of Germany 236
- Novatome Industries, Lyon, France 72, 251
- Nuclear Electric plc, Barnwood, United Kingdom 327
- Nuclear Electric plc, Berkeley Nuclear Laboratories, Berkeley, United Kingdom 109
- Nuclear Energy Agency, Paris, France 103
- Nuclear Power Engineering Center, Tokyo, Japan 202, 222, 268
- Nuclear Regulatory Commission, Office of the General Counsel, Washington, DC 1020
- Nuklear-Chemie und -Metallurgie GmbH, Alzenau, Federal Republic of Germany 113

- Nuklear-Chemie und -Metallurgie GmbH, Hanau, Federal Republic of Germany 289
- Nuklear-Ingenieur Service GmbH, Hanau, Federal Republic of Germany 80, 83, 112, 242, 246, 247, 277, 347, 349
- Nusec GmbH, Buxtchude, Federal Republic of Germany 183
- Oak Ridge Associated Universities, Energy/Environmental Systems Division, Oak Ridge, TN 31
- Oak Ridge K-25 Site, Oak Ridge, TN 756
- Oak Ridge National Laboratory, Chemical Technology Division, Oak Ridge, TN 19, 548
- Oak Ridge National Laboratory, Energy Division, Oak Ridge, TN 475
- Oak Ridge National Laboratory, Environmental Restoration Division, Oak Ridge, TN 62, 63
- Oak Ridge National Laboratory, Environmental Sciences Division, Oak Ridge, TN 548, 665, 669
- Oak Ridge National Laboratory, Health and Safety Research Division, Oak Ridge, TN 360, 367, 368, 370, 371, 416, 428, 429, 488, 563, 678, 685, 913, 928
- Oak Ridge National Laboratory, Human Resources Division, Oak Ridge, TN 563
- Oak Ridge National Laboratory, Oak Ridge, TN 3, 4, 16-18, 20, 21, 68, 153, 156, 217, 391, 467, 474, 493, 535, 552-558, 561, 562, 564, 565, 568, 571, 575, 610, 652, 664, 666-668, 670-677, 679-681, 683, 684, 695, 722, 735, 756, 759, 760, 788, 795, 892, 914, 940, 966, 979, 991, 995, 1001, 1014

- Oak Ridge National Laboratory, Office of Risk Analysis, Oak Ridge, TN 692
- Oak Ridge Y-12 Plant, Oak Ridge, TN 572, 575-577, 687-690, 693, 761, 775, 782, 790
- Obayashi Corporation, Tokyo, Japan 205
- Office of Atomic Energy for Peace, Bangkok, Thailand 90, 345
- Office of Government Praesidium, Praha, Czech and Slovak Federal Republic 174
- Ontario Hydro, Phytotoxicology Section, Toronto, Ontario, Canada 874
- Ontario Hydro, Research Division, Toronto, Ontario, Canada 119
- Ontario Hydro, Toronto, Ontario, Canada 295
- Oregon Department of Energy, Nuclear Safety and Energy Facilities Division, Salem, OR 590
- Oregon Department of Energy, Office of the Director, Salem, OR 590
- Oregon State Department of Human Resources, Portland, OR 901
- Ove Arup and Partners, London, United Kingdom 258
- Pacific Northwest Laboratory, Environmental Management Operations, Richland, WA 586, 587, 718
- Pacific Northwest Laboratory, Richland, WA 8, 27, 28, 37, 44, 66, 96, 274, 422, 434, 492, 495, 504, 505, 582, 594, 602, 634, 651, 696-698, 700, 704-706, 711, 713, 717, 723-725, 727, 740, 741, 743, 797, 896, 901, 906-908, 911, 912, 921, 924, 936, 938, 941, 944-946, 950, 951, 957, 958, 961, 963, 964, 967, 968, 984, 1007, 1014, 1023, 1030, 1031

- Pacific Testing Laboratory, Scattle, WA 956
- Paducah Gaseous Diffusion Plant, Paducah, KY 624
- Paul Scherrer Institute, Villigen, Switzerland 214
- Peak Technical Services, Inc., Pittsburgh, PA 750
- PEER Consultants PC, Oak Ridge, TN 676
- Portsmouth Gaseous Diffusion Plant, Piketon, OH 541-543
- Power Reactor and Nuclear Fuel Development Corporation, Tokyo, Japan 201
- Preussische Elektrizitaets-AG, Hannover, Federal Republic of Germany 75, 78, 83
- Project Performance Corporation, Sterling, VA 491
- Prozessteuerung in der Schweisstechnik, Aachen, Federal Republic of Germany 220
- Radiological Assessments Corporation, Neeses, SC 392, 900, 917, 918
- Ranger Uranium Mines Limited, Jabiru, Northern Territory, Australia 441
- Reaktorwartungsdienst und Apparatebau GmbH, Juelich, Federal Republic of Germany 111
- Remediation Technologies, Inc., Concord, MA 851
- Research and Development Institute of Mounting Technology, Moscow, USSR 336, 339
- Research and Development Institute of Power Engineering, Moscow, USSR 336, 339

- Research Association for Nuclear Facility Decommissioning, Naka, Japan 284
- Research Triangle Institute, Research Triangle Park, NC 475
- Reynolds Electrical & Engineering Company, Inc., Las Vegas, NV 531, 634, 637, 729
- Risoe National Laboratory, Roskilde, Denmark 820
- Robert M. Parsons Company, Fairfield, OH 40
- Rockland Community College, Suffern, NY 893
- Rockwell International Corporation, Rocketdyne Division, Canoga Park, CA 916
- Rogers and Associates Engineering Corporation, Salt Lake City, UT 470, 546, 1022, 1035
- Rolls-Royce Limited, Derby, United Kingdom 323
- Roy F. Weston, Inc., Albuquerque, NM 402, 403, 406
- Roy F. Weston, Inc., Cincinnati, OH 731
- Roy F. Weston, Inc., Germantown, MD 54, 279, 357
- Roy F. Weston, Inc., Louisville, KY 844
- Roy F. Weston, Inc., Oak Ridge, TN 375
- Royal Society of Chemistry, London, United Kingdom 131
- Rutgers University, Piscataway, NJ 849
- San Jose State University, San Jose, CA 766

- Sandia National Laboratorics, Albuquerque, NM 16, 33, 532, 640, 641, 731, 948, 977, 992
- Sandia National Laboratories, Livermore, CA 516
- Sandia National Laboratories, Waste Management Technology Department, Albuquerque, NM 868
- Saskatchewan Mining Development Corporation, Saskatoon, Saskatchewan, Canada 448
- SAT-UNSAT, Inc., Albuquerque, NM 532, 868
- Sato Kogyo Company Limited, Tokyo, Japan 152
- Savannah River Laboratory, Aiken, SC 847
- Science and Technology Agency, Atomic Energy Bureau, Tokyo, Japan 135
- Science Applications International Corporation, Columbus, OH 1000
- Science Applications International Corporation, Dublin, OH 502, 541
- Science Applications International Corporation, Falls Church, VA 828-831
- Science Applications International Corporation, Oak Ridge, TN 497, 511, 567, 572, 575, 655, 686, 690, 694
- Scientific Ecology Group, Inc., Oak Ridge, TN 737, 987
- Scottish Nuclear Limited, Glasgow, United Kingdom 326
- Senes Consultants, Willowdale, Ontario, Canada 430

- Shimizu Construction Company Limited, Tokyo, Japan 204, 213
- Siemens AG, Erlangen, Federal Republic of Germany 292
- Siemens AG, Unternehmensbereich Kraftswerkunion, Offenbach am Main, Federal Republic of Germany 278, 341
- Siempelkamp Giesserei GmbH und Company, Krefeld, Federal Republic of Germany 232, 242, 245, 246, 277
- Sierra Nuclear Corporation, Los Gatos, CA 269
- SNIA, Rome, Italy 226
- Societe Belge pour l'Industrie Nucleaire, Brussels, Belgium 163
- Societe des Travaux en Milieu Ionisant, Gif-sur-Yvette, France 188
- Societe Francaise d'Energie Nucleaire, Paris, France 98, 118, 128, 163, 166, 188, 191, 192, 249, 286, 311
- Societe Franco-Americaine de Constructions Atomiques, Paris-la-Defense, France 71, 125, 292
- Societe Generale pour les Techniques Nouvelles, Saint-Quentin-en-Yvelines, France 248
- Societe Technique pour l'Energie Atomique, Centre d'Etudes Nucleaires de Saclay, Gif-sur-Yvette, France 164, 191
- South Carolina Department of Health and Environmental Control, Columbia, SC 1005
- South Carolina Water Resources Commission, Geology-Hydrology Division, Columbia, SC 659

- South of Scotland Electricity Board, Glasgow, United Kingdom 287
- Stanford University, Department of Civil Engineering, Stanford, CA 878
- Stangenberg, Schnellenbach und Partner Gemeinschaft Beratender Ingenieure GmbH, Bochum, Federal Republic of Germany 288
- Stearns and Conrad Engineering Company, Vancouver, British Columbia, Canada 814
- Stensand AB, Varobacka, Sweden 218
- Stone & Webster Engineering Corporation, Richland, WA 985
- Studsvik Nuclear AB, Nykoeping, Sweden 115, 257
- Sybron Chemicals, Inc., Birmingham, NJ 866
- Taylor Woodrow Construction Limited, Southall, United Kingdom 161, 272, 288
- Technische University, Institute fuer Mikrobiologie, Braunschweig, Federal Republic of Germany 863
- Technischer Ueberwachungs-Verein Bayern eV, Muenchen, Federal Republic of Germany 288, 303
- Texas Low-Level Radioactive Waste Disposal Authority, Austin, TX 1035
- Theta Technologies, Inc., Cincinnati, OH 40, 458
- TLG Engineering, Inc., Bridgewater, CT 346
- TMA/Eberline, Albuquerque, NM 816-818
- Toda Construction Company Limited, Tokyo, Japan 203

- Toshiba Corporation, Kawasaki, Japan 134, 253, 268
- Toshiba Engineering and Construction Company Limited, Tokyo, Japan 206
- Transducer Research, Inc., Naperville, IL 642
- U.S. Air Force Institute of Technology, School of Systems and Logistics, Wright-Patterson Air Force Base, OH 803
- U.S. Air Force Institute of Technology, Wright-Patterson Air Force Base, OH 471
- U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS 795
- U.S. Congress, Office of Technology Assessment, Washington, DC 507
- U.S. Defense Nuclear Agency, Kirtland Air Force Base, NM 816
- U.S. Department of Defense, Deputy Assistant Secretary of Defense (Environment), Washington, DC 827
- U.S. Department of Energy, Albuquerque Field Office, Albuquerque, NM 382-386, 393, 408-411, 540
- U.S. Department of Energy, Assistant Secretary for Environment, Safety, and Health, Washington, DC 476-478, 1025, 1033
- U.S. Department of Energy, Assistant Secretary for Nuclear Energy, Washington, DC 228
- U.S. Department of Energy, Cincinnati Area Office, Cincinnati, OH 538, 539, 654
- U.S. Department of Energy, Dayton Area Office, Dayton, OH 731

- U.S. Department of Energy, Environmental Restoration Division, Germantown, MD 490
- U.S. Department of Energy, Grand Junction Projects Office, Grand Junction, CO 415, 798, 903
- U.S. Department of Energy, Joint Integration Office, Albuquerque, NM 1034
- U.S. Department of Energy, Nevada Field Office, Las Vegas, NV 634, 636
- U.S. Department of Energy, Oak Ridge Field Office, Oak Ridge, TN 374, 380, 566, 567, 578, 757, 758, 776, 789, 898
- U.S. Department of Energy, Office of Energy Research, Washington, DC 494
- U.S. Department of Energy, Office of Environment, Safety, and Health, Washington, DC 354, 1026
- U.S. Department of Energy, Office of Environmental Audit, Washington, DC 400, 618, 631, 647
- U.S. Department of Energy, Office of Environmental Guidance and Compliance, Washington, DC 479, 487, 1027
- U.S. Department of Energy, Office of Environmental Restoration and Waste Management, Washington, DC 457, 473, 480, 489, 498, 501, 513-515, 609, 626, 754, 791, 969-971, 1008
- U.S. Department of Energy, Office of Environmental Restoration, Washington, DC 13, 54, 348, 463, 491
- U.S. Department of Energy, Office of Health and Environmental Research, Washington, DC 975

- U.S. Department of Energy, Office of Inspector General, Washington, DC 537
- U.S. Department of Energy, Office of Technology Development, Germantown, MD 996
- U.S. Department of Energy, Richland Field Office, Richland, WA 37, 588, 593, 595-597, 600, 601, 604, 606, 707-709, 721, 746, 764, 765, 778, 793, 794, 901, 1003
- U.S. Department of Energy, Rocky Flats Field Office, Golden, CO 517, 518
- U.S. Department of Energy, Savannah River Field Office, Aiken, SC 544, 549, 772, 773
- U.S. Department of Energy, Shippingport Station Decommissioning Project Office, Shippingport, PA 60
- U.S. Department of Energy, Uranium Mill Tailings Remedial Action Project Office, Albuquerque, NM 387, 394, 395, 397, 399, 403, 404, 406, 412
- U.S. Department of Energy, Washington, DC 357, 453, 492, 509, 556, 644, 660, 661, 694, 750, 944, 949, 950, 976, 977, 1028
- U.S. Department of Energy, Weldon Spring Site Remedial Action Project Office, St. Charles, MO 528, 749, 769, 785
- U.S. Department of Energy, West Valley Project Office, West Valley, NY 752
- U.S. Department of the Interior, Washington,DC 856
- U.S. Ecology, Inc., Louisville, KY 264, 1004
- U.S. Environmental Protection Agency, Atlanta, GA 844

- U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory, Las Vegas, NV 634, 639
- U.S. Environmental Protection Agency, Environmental Research Laboratory, Gulf Breeze, FL 871
- U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, DC 417, 481-484, 512, 615, 632, 802, 807, 809, 883-885, 929, 997
- U.S. Environmental Protection Agency, Office of Radiation Programs, Washington, DC 423, 436, 469, 981, 1009, 1010
- U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, DC 485
- U.S. Environmental Protection Agency, Quality Assurance Management Staff, Research Triangle Park, NC 887, 1012
- U.S. Environmental Protection Agency, Quality Assurance Management Staff, Washington, DC 886, 895
- U.S. Environmental Protection Agency, Region X, Olympia, WA 588
- U.S. Environmental Protection Agency, Richland, WA 765
- U.S. Environmental Protection Agency, Risk Reduction Engineering Laboratory, Cincinnati, OH 872, 965
- U.S. Environmental Protection Agency, Seattle, WA 901
- U.S. Environmental Protection Agency, Washington, DC 362, 930, 950, 998
- U.S. General Accounting Office, Resources, Community, and Economic Development

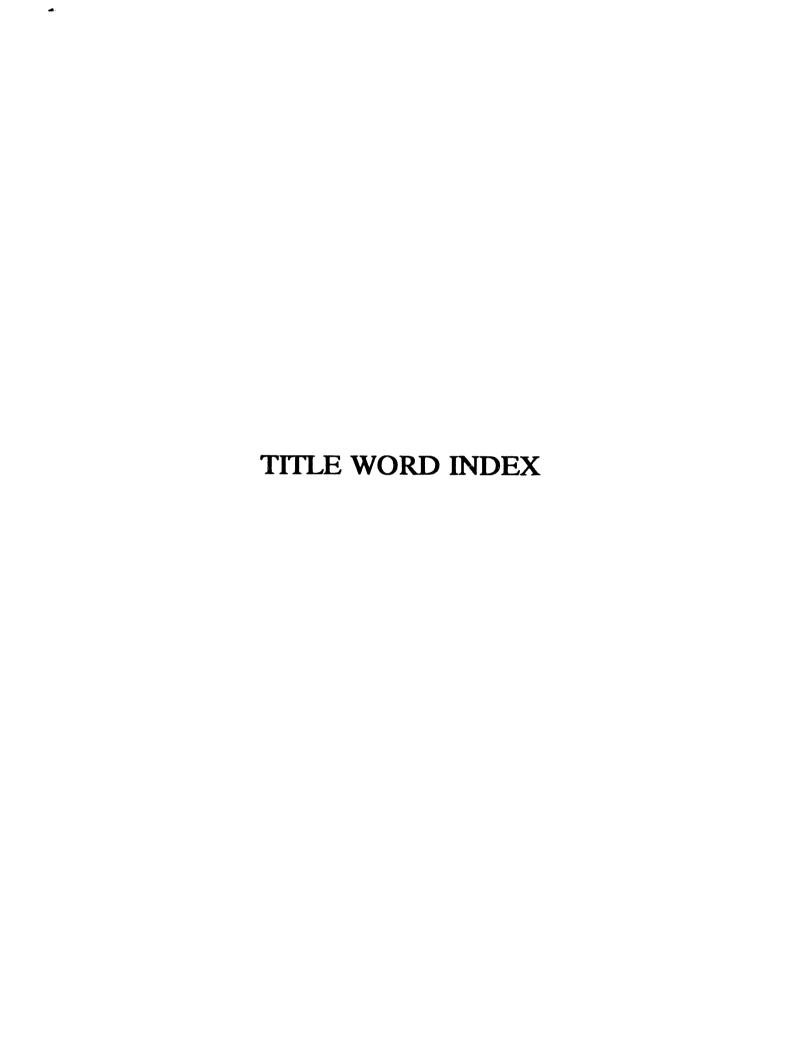
- Division, Washington, DC 61, 466, 468, 503, 767, 962
- U.S. General Accounting Office, Washington, DC 2, 508
- U.S. Geological Survey, Idaho Falls, ID 621, 955
- U.S. Geological Survey, Reston, VA 452
- U.S. Geological Survey, Towson, MD 955
- U.S. Geological Survey, Water Resources Division, Reston, VA 445
- U.S. Nuclear Regulatory Commission, Division of Advanced Reactors and Special Projects, Washington, DC 100
- U.S. Nuclear Regulatory Commission, Division of Low-Level Waste Management and Decommissioning, Washington, DC 1013
- U.S. Nuclear Regulatory Commission, Office of Administration, Washington, DC 94
- U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Warnington, DC 69, 92, 93, 95, 97, 99
- U.S. Nuclear Regulatory Commission, Office of Nuclear Regulatory Research, Washington, DC 280, 1006
- U.S. Nuclear Regulatory Commission, Office of Procurement, Assistance and Program Management, Washington, DC 456
- U.S. Nuclear Regulatory Commission, Uranium Recovery Field Office, Denver, CO 388
- U.S. Nuclear Regulatory Commission, Washington, DC 105, 106, 271, 420, 860, 879, 1032

- United Kingdom Atomic Energy Authority, Decommissioning and Radwaste Division, Harwell, United Kingdom 224
- United Kingdom Atomic Energy Authority, Engineering Division, Risley, United Kingdom 224
- United Kingdom Atomic Energy Authority, Harwell Laboratory, Harwell, United Kingdom 101
- United Kingdom Atomic Energy Authority, Industrial Technology Division, Harwell, United Kingdom 148
- United Kingdom Atomic Energy Authority, Materials Technology Division, Winfrith, United Kingdom 261
- United Kingdom Atomic Energy Authority, Windscale Nuclear Power Development, Laboratories, Seascale, Cumbria, United Kingdom 263
- United Kingdom Nirex Limited, Harwell, United Kingdom 258
- University of Alberta, Department of Civil Engineering, Edmonton, Alberta, Canada 443
- University of Arizona, Tucson, AZ 875
- University of California, Davis, CA 612
- University of California, Los Angeles, CA 634
- University of Cincinnati, Cincinnati, OH 932
- University of Florida, Gainesville, FL 870
- University of Houston, Houston, TX 850
- University of Nebraska, Department of Civil Engineering, Lincoln, NE 846

- University of New Mexico, Albuquerque, NM 398, 439, 440, 836
- University of Tennessee, Institute for Applied Microbiology, Knoxville, TN 548
- University of Texas, Austin, Texas 880
- University of Tokyo, Tokyo, Japan 202, 268
- University of Utah, Radiobiology Division, Salt Lake City, UT 435
- University of Utah, Salt Lake City, UT 15
- Uranerzbergbau GmbH und Company KG, Bonn, Federal Republic of Germany 449
- Vance & Associates, Ruidoso, NM 1022, 1029
- Vanderbilt University, Nashville, TN 465
- Vereinigte Elektrizitaetswerke Westfalen AG, Dortmund, Federal Republic of Germany 79, 82, 83, 177, 300, 350
- Versar, Inc., Grand Junction, CO 811
- Versar, Inc., Springfield, VA 811
- Versuchsatomkraftwerk GmbH, Kahl am Main, Federal Republic of Germany 302
- Virginia Polytechnic Institute and State University, Management Systems Laboratories, Blacksburg, VA 1011
- Washington Public Power Supply System, Richland, WA 901
- Washington State Department of Ecology, Olympia, WA 579, 588
- Washington State Department of Social and Health Services, Olympia, WA 901

- WasteChem Limited, Bramhall, United Kingdom 826
- Wastren, Inc., Idaho Falls, ID 936
- West Valley Nuclear Services Company, Inc., West Valley, NY 730, 750, 752
- Westinghouse Electric Corporation, Nuclear Services Integratio: Division, Madison, PA 989
- Westinghouse Electric Corporation, Oak Ridge, TN 150
- Westinghouse Electric Corporation, Pittsburgh, PA 150
- Westinghouse Electric Corporation, Science and Technology Center, Pittsburgh, PA 737
- Westinghouse Electric Corporation, Waste Technology Services Division, Pittsburgh, PA 987
- Westinghouse Environmental Management Company of Ohio, Cincinnati, OH 16, 458, 533, 539, 753, 934, 937, 982

- Westinghouse European Service Center, Nivelles, Belgium 270
- Westinghouse Hanford Company, Richland, WA 5-7, 9-11, 22-30, 33-36, 38, 43-48, 52, 55, 65, 67, 579-581, 583-585, 588, 591, 592, 598, 599, 603, 605, 607, 608, 699, 701-703, 709, 710, 712-716, 719, 720, 741, 742, 744, 745, 762, 763, 765, 779-781, 792, 795, 796, 862, 899, 980, 984, 1002, 1003
- Westinghouse Idaho Nuclear Company, Inc., Idaho Falls, ID 521, 523-525, 622
- Westinghouse Materials Company of Ohio, Cincinnati, OH 41, 649, 938
- Westinghouse Research and Development Center, Pittsburgh, PA 988
- Westinghouse Savannah River Company, Aiken, SC 42, 545-547, 549, 732, 734, 772-774, 825, 890, 900, 978
- Winfrith Technology Centre, Winfrith, Dorchester, United Kingdom 276
- 2DM Associates Inc., Houston, TX 59



Abandoned

Abandoned Sites: January 1988-February 1992 - Citations from the NTIS Data Base 834

Abandonment

Well Plugging and Abandonment Program, Y-12 Plant, Oak Ridge, Tennessee 572

Documentation Report for the 1989 Monitor Well Plugging and Abandonment Program, Oak Ridge Y-12 Plant 782

Abatement

Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River 680

Aberdeen

Geophysics: Building E5032 Decommissioning, Aberdeen Proving Ground - Interim Progress Report 808

Abrasion

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178 Abrasive

Closed Electropolishing System for Decontamination of Underwater Surfaces/Development of Vibratory Decontamination with Abrasive Media 149

Study on Technology of Reactor Dismantling by Abrasive Water Jet Cutting System 210

Test Results for Dry Abrasive Cleaning of Scrap Metal for Beneficial Reuse - Phase 1 - Department of Energy Decontamination Program 989

Abrasives

New Decontamination Techniques: Chemical Gels, Electropolishing and Abrasives 126 Decontamination Using Chemical Gels, Electrolytical Swabs, and Abrasives 151

Absorption

The Selective Absorption of Radionuclides from a Contaminated Holding Pond at Brookhaven National Laboratory 644

Accelerated

Managing a Site Cleanup Under an Accelerated Schedule - The Lowman Story 406

Accelerated Cleanup of Past Practice Waste Sites on the Hanford Site, Richland, Washington 702

Accelerated Cleanup of Carbon Tetrachloride in a Radiologically Contaminated Site at the Hanford Site 744

Accelerated Cleanup of Mixed Waste Units on the Hanford Site, Richland, Washington 779

Accelerated Cleanup of the 316-5 Process Trenches at the Hanford Site 780

Accelerated Cleanup of the 618-9 Burial Ground 781

Accelerator

Dismantling of Activated Equipment in the Proton Channel of the PSI-Accelerator Facility 214

Accident

RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Accumulated Waste Characterization Work Plan 1000

Accumulation

Patterns of Sediment Accumulation in Watts Bar Reservoir Based on Cesium-137 695
Acid

Decontamination Techniques for Radioactive Metal Waste Using a Neutral Electrolyte and a Sulfuric Acid Solution 141

Chemical Modeling of the Neutralization Process for Acid Uranium Mill Tailings 441 Acid Mine Drainage Research in Canada 447

Act

Introduction of a Bill to Reauthorize the Uranium Mill Tailings Radiation Control Act of 1978 390

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424

The National Environmental Policy Act and DOE's Programmatic Environmental Impact Statement 490

Surplus Facilities and Resource Conservation and Recovery Act Closure Program Plan - Fiscal Year 1992 581

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Decommissioning of a Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility: A Case Study of the Interim Stabilization of the 216-A-29 Ditch at the Hanford Site 742

Actinides

Removal of Actinides from Rocky Flats Soil 728

Activated

Electrochemical Technique for the Segmenting of Activated Steel Components 186

Dismantling of Activated Equipment in the Proton Channel of the PSI-Accelerator Facility 214 Melting of Activated/Contaminated Metallic Components Arising from the Decommissioning of Nuclear Facilities 246

Activation

Effect of Long-Living Products of Concrete Structure Activation on Decommissioning of NPPs with LWR Reactors 146

Adaptation

Adaptation to Teleoperation of an Existing Air-Tight Modular Workshop for Remotely Controlled Operations 164

Additives

In Situ Vitrification and the Effects of Soil Additives - A Mixture Experiment Case Study 961 Additivity

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

Adjoint

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

Administrative

Community Relations During Enforcement Activities and Development of the Administrative Record 485

Development of an Administrative Record System and Information Repository System on the Hanford Site, Benton County, Richland, Washington 592

AECL

Aged Stainless Steel Corrosion Tests with LOMI and AECL Decontamination Processes 125
Aerial

An Aerial Radiological Survey of the West Valley Demonstration Project and Surrounding Area, West Valley, New York - Date of Survey: August-September 1984 646

Aerial Radiological Survey of the Central Savannah River Site, Aiken, South Carolina - Survey Date: February 1987 658

Aerial

Aerial Radiological Survey of the Savannah River Site TNX Facility and Surrounding Area, Aiken, South Carolina - Date of Survey: August 1986 662

Aerosok

The Cutting Process, Its Harmful Effects, the Biological Behavior of Aerosols and Possible Protective Actions 187

Agency

International Atomic Energy Agency Seminar for Asia and the Pacific on Ageing, Decommissioning, and/or Major Refurbishment of Research Reactors 345

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Aggressive

Decontamination for Decommissioning: Enhancement of Aggressive Chemical Decontamination by Using Electropolishing or Ultrasound 131

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Agreement

Federal Facility Agreement Plans and Schedules for Liquid Low-Level Radioactive Waste Tank Systems at Oak Ridge National Laboratory, Oak Ridge, Tennessee 3

A Tale of Negotiations: CERCLA Interagency Agreement at the Mound Plant 540

Federal Facility Agreement Contingency, Upgrade, and Replacement Plans for the ORNL Active Low-Level Radioactive Waste Tank System 555

EPA, State, and DOE Sign Federal Facility Agreement for Oak Ridge Cleanup 566

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending March 31, 1991 707

Lessons Learned in Negotiating a Federal Facility Agreement 778

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending June 30, 1991 793

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending September 30, 1991 794

Agriculture

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Aiken

Aerial Radiological Survey of the Central Savannah River Site, Aiken, South Carolina - Survey Date: February 1987 658

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 1 660

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 2 661

Aerial Radiological Survey of the Savannah River Site TNX Facility and Surrounding Area, Aiken, South Carolina - Date of Survey: August 1986 662

Aiг

Adaptation to Teleoperation of an Existing Air-Tight Modular Workshop for Remotely Controlled Operations 164

National Emission Standards for Hazardous Air Pollutants - Uranium Mill Tailings Disposal Sites 423

Air Quality Monitoring at Toxic Waste Sites: A Hanford Perspective 711

Air Stripping of Volatile Organic Chlorocarbons: System Development, Performance, and Lessons Learned 732

Contract Management Guide for Air Force Environmental Restoration 803

Alamos

RCRA Facility Investigation for the Townsite of Los Alamos, New Mexico 643

ALARA

Determining the "R" in ALARA: A Parametric Study to Establish Cleanup Criteria 356 When RCRA Meets ALARA 460

Albany

Post-Remedial Action Report for Phase II Work Conducted During 1990-1991 at the Albany Research Center, Albany, Oregon 369

Superfund Record of Decision (EPA Region 10): Teledyne Wah Chang, Albany, OR (First Remedial Action), December 1989 802

Albuquerque

Environmental Monitoring Report, Sandia National Laboratories, Albuquerque, New Mexico, 1990 641

Allendale

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

Alpha

Measurement of Alpha Radiators in Nuclear Wastes by Active and Passive Methods: Devices for Measuring Nuclear Wastes from Dismantling Operations 248

Mineralogical Residence of Alpha-Emitting Contamination and Implications for Mobilization from Uranium Mill Tailings 396

A Multiyear Quality Control Study of Alpha-Track Radon Monitors 903

Alternating

Potential for Using a Six-Phase Alternating Current Power Supply for In Situ Vitrification 963 BRC Disposal Alternatives for NORM Wastes in Texas 1035

Aluminium

Radiological Impact of Very Slightly Radioactive Copper and Aluminium Recovered from Dismantled Nuclear Facilities 233

Americium

Mobility of Plutonium and Americium Through a Shallow Aquifer in a Semiarid Region 642 Analysis

Uranium Enrichment: Analysis of Decontamination and Decommissioning Scenarios - Briefing Report to the Chairman, Subcommittee on Energy and Power, Committee on Energy and Commerce, House of Representatives 2

Sampling and Analysis of the Inactive Waste Tanks TH-2, WC-1, and WC-15 17

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

Extended Tank Use Analysis 23

Shippingport Neutron Shield Tank Sampling and Analysis Program 32

Analysis

Decommissioning of Nuclear Facilities - An Analysis of the Variability of Decommissioning Cost Estimates 103

The Experience - 4th Case - The Rinsing of the Waste Processing Plant, the Dismantling of Some Components and of the Laboratories of Analysis, Safety Aspects 167

Engineering Evaluation/Cost Analysis for the Proposed Decontamination of Properties in the Vicinity of the Hazelwood Interim Storage Site, Hazelwood, Missouri - Environmental Assessment 352

Engineering Evaluation/Cost Analysis for Decontamination at the St. Louis Downtown Site, St. Louis, Missouri 353

Engineering Evaluation/Cost Analysis for the Proposed Removal of Contaminated Materials at the Elza Gate Site, Oak Ridge, Tennessee 355

Engineering Evaluation/Cost Analysis for the Proposed Management of 15 Nonprocess Buildings (15 Series) at the Weldon Spring Site Chemical Plant, Weldon Spring, Missouri 530

Field Sampling and Analysis Plan for the Remedial Investigation of Waste Area Grouping 2 at Oak Ridge National Laboratory, Oak Ridge, Tennessee 561

Analysis and Decision Document in Support of Acquisition of Steam Supply for the Hanford 200 Area 602

Hydrostratigraphic Analysis of the Pilot Remediation Test Area 612

Preliminary Analysis of Wind Data from the Oak Ridge Site Survey 682

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

A New Method for the Analysis of Small Peaks in Gamma Ray Spectra, and a Detector System for Monitoring Gamma Activity in Land Areas 889

Evaluation of a Rapid Headspace Analysis Method for Analysis of Volatile Constituents in Soils and Sediments 890

Release Criteria and Pathway Analysis for Radiological Remediation 916

Standardized Radiological Hazard Analysis for a Broad-Based Operational Safety Program 931 RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

A Thermodynamic Analysis of Melt Immiscibility and its Implications During Vitrification 947 Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Anion

Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

Apollo

Apollo Pennsylvania Nuclear Fuel Facility D&D Project 338

Aqueous

Aqueous Dissolution of Laboratory and Field Samples from the In-Situ Vitrification Process 958 equifer

Mobility of Plutonium and Americium Through a Shallow Aquifer in a Semiarid Region 642 The Effectiveness of the Pump and Treat Method for Aquifer Restoration 854

Arabella

Results of the Radiological Survey at the Former McKinney Tool and Manufacturing Company, 1688 Arabella Road, Cleveland, Ohio (MTC001 and MTC002) 367

organical re-

ARARs

Applicable or Relevant and Appropriate Requirements (ARARs) for Remedial Action at the Oak Ridge Reservation - A Compendium of Major Environmental Laws 563

Compendium of CERCLA ARARs, Fact Sheets and Directives 807

Arc

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171

Status and Trends of Underwater Plasma Arc Cutting 175

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178 Underwater Plasma Arc Cutting - Final Report 190

Technical Verification Test for Reactor Pressure Vessel Cutting by Using G&G Method ("Arc-Gouging & Gas Cutting" Method) 222

Architecture

Architecture and Environmental Restoration: Remediating Uranium Mill Tailings from Buildings
407

Argonne

An Evaluation of Alternative Reactor Vessel Cutting Technologies for the Decommissioning of the Experimental Boiling Water Reactor at Argonne National Laboratory 39

Arid

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Aromatic

Threshold Limited Kinetics of Aromatic Hydrocarbons in Shallow Soil Systems 867

Arsenal

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

Ash

Remedial Investigation Report for Chestnut Ridge OU 2 (Filled Coal Ash Pond/McCoy Branch) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 691

Asia

International Atomic Energy Agency Seminar for Asia and the Pacific on Ageing, Decommissioning, and/or Major Refurbishment of Research Reactors 345

ASME

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521

Assessing

Assessing the Maintenance, Quality Assurance and Control, and Decommissioning of DOE Research Reactors 15

High Organic Containing Tanks - Assessing the Hazard Potential 25

Methodology for Assessing Suitable Systems for Management of Reactor Decommissioning Wastes 259

Demonstration of a Methodology for Assessing Suitable Systems for Management of Reactor Decommissioning Wastes 265

Assessing

Assessing Exposures and Risks in Heterogeneously Contaminated Areas: A Simulation Approach 919

Assessment

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling of and Disposition of Component Parts - University of Kansas Research Reactor 92

Long Island Lighting Company - Shoreham Nuclear Power Station - Environmental Assessment and Finding of No Significant Impact 93

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling and Disposition of Component Parts - University of Utah AGN-201M Research Reactor 95

Dairyland Power Cooperative: La Crosse Boiling Water Reactor (LACBWR) - Issuance of Environmental Assessment and Finding of No Significant Impact 97

Removal of Nuclear Reactors by Lowering - Results of Individual and Long-Term Safety Assessment 113

Assessment of the Applicability of a Protective Polymeric Coating for Decontamination of Certain Surfaces 227

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

Anticipated Assessment of the Amount of Radioactive Wastes Arising from Pool LMBFR Dismantling 251

Deterioration Assessment of Nuclear Power Station Buildings and Long-Term Stability and the Leak Tightness of Reactor Containments 288

Engineering Evaluation/Cost Analysis for the Proposed Decontamination of Properties in the Vicinity of the Hazelwood Interim Storage Site, Hazelwood, Missouri - Environmental Assessment 352

Environmental Assessment of Remedial Action at the Gunnison Uranium Mill Tailings Site Near Gunnison, Colorado 394

Environmental Assessment of the Provision of a Water Supply System - Gunnison, Colorado - Final 395

Environmental Assessment of Remedial Action at the Lowman Uranium Mill Tailings Site Near Lowman, Idaho 397

Final Environmental Assessment of Remedial Action at the Falls City Uranium Mill Tailings Site, Falls City, Texas - Finding of No Significant Impact 399

Safety Assessment of Uranium Mill Tailings 430

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Risk Assessment of Designs for RCRA and CERCLA Sites 465

Balancing CERCLA Risk and DOE Radiological Performance Assessment Methodologies and Practices 546

Implementation of the Natural Resource Damage Assessment Rule - Workshop Summary - Interim Notification Policy: Environmental Restoration Program 565

Assessment

An Assessment of Baseline Ecological Risks at the Fernald Environmental Management Project, Fernald, Ohio 650

RCRA Facilities Assessment (RFA) - Oak Ridge National Laboratory 670

RCRA Facilities Assessment (RFA) for Oak Ridge National Laboratory: Addendum of August 25, 1987 671

Ecological Assessment Plan for Waste Area Grouping 5 675

Dose Assessment for a Cs-137 Contamination Incident 722

Health Assessment for West Lake Landfill, Bridgeton, St. Louis County, Missouri, Region 7 813 Automation of Geophysical Surveys Used in Assessment of Hazardous Waste 892

Addressing Data Heterogeneity: Lessons Learned from a Multimedia Risk Assessment 902

Remedial Action Assessment System (RAAS) - A Computer-Based Methodology for Conducting Feasibility Studies 908

Baseline Risk Assessment Methodology for Mixed Waste 909

Remedial Action Assessment System: Decision Support for Environmental Cleanup 912

A Framework for Evaluating Innovative Statistical and Risk Assessment Tools to Solve Environmental Restoration Problems 921

Role of Risk Assessment in Remediation of Contaminated Sites 923

Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation 925

The Application of Quantitative Risk Assessment to Assist in Evaluating Remedial Action Alternatives 926

Finding a Compromise Between Chemical and Radiological Risk Assessment Methods for Mixed Waste Sites 927

Risk Assessment Guidance for Superfund - Volume 1: Human Health Evaluation Manual - Part B, Development of Risk-Based Preliminary Remediation Goals - Interim Report 929 Superfund Exposure Assessment Manual 930

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Methodology for Conducting a Performance Assessment of an Engineered Disposal Facility 934 Environmental Assessment for Retech, Inc.'s Plasma Centrifugal Furnace Evaluation 976 Preliminary Systems Design Study Assessment Report 983

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Assessments

Remedial Investigation/Feasibility Study Risk Assessments at a Superfund Mixed Waste Site 536 Performance Assessments of Closure Cap Alternatives at the Savannah River Plant 551

Implications of Recent ICRP Recommendations for Risk Assessments for Radioactive Waste Disposal and Cleanup 726

Radiological Dose Assessments in the Northern Marshall Islands (1989-1991) 812

Strategy for Integrated CERCLA/NEPA Risk Assessments 905

Natural Resources Damage Assessments at Department of Energy Facilities - Using the CERCLA Process to Minimize Natural Resources Injuries 999

Assistance

Financial Assistance Award - Babcock & Wilcox 94

Assistance

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Savannah River Field Office - Financial Assistance Award - Intent to Award a Noncompetitive Grant 544

Assurance

Assessing the Maintenance, Quality Assurance and Control, and Decommissioning of DOE Research Reactors 15

Quality Assurance Program Plan for the Radiological Survey Activities Program - Uranium Mill Tailings Remedial Action Project 391

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laboratory in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

Quality Assurance Program Plan for the Environmental Restoration Program 541

Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste Removal at the CTF K-1654B Underground Collection Tank 552

Environmental Restoration Remedial Action Quality Assurance Requirements Document 580 Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Quality Assurance Project Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 584

Management Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 585

Operational Environmental Monitoring Program Quality Assurance Project Plan 591

Standard Review Plan for the Review of Environmental Restoration Remedial Action Quality
Assurance Program Plans 597

Facility Effluent Monitoring Plan Determinations for the 300 Area Facilities - Environmental Assurance 608

Facility Effluent Monitoring Plan Determinations for the 400 Area Facilities - Environmental Assurance 719

Facility Effluent Monitoring Plan Determinations for the 600 Area Facilities - Environmental Assurance 720

Pacific Northwest Laboratory Annual Report for 1990 to the Assistant Secretary for Environment, Safety, and Health, Part 5: Environment, Safety, Health, and Quality Assurance 797

Quality Assurance Applications for Remediation of Plutonium Contaminated Soil 818

A Quality Assurance Program for Environmental Data Operations Involving Waste Management Processes 886

Harmonization of QA Procedures for Environmental Data Operations: Development of a National Consensus Standard for Quality Assurance for Environmental Programs 887

Results from the 1988 Quality Assurance Task Force Hanford Intercomparison Program 901 Quality Assurance Elements in Environmental Restoration Procedures at Mixed-Waste Sites 904 Application of Quality Assurance/Quality Control to Waste Management Processes at the Hanford Site 1003

Assurance

Development of a National Consensus Standard for Quality Assurance for Environmental Programs 1012

Atmospheric

Temporal Variations in Atmospheric Dispersion at Hanford 704

Environmental Monitoring Data for Evaluating Atmospheric Modeling Results 1030

Atoll

An Improved Method for Remediation of Transuranic-Contaminated Coral Soil at Johnston Atoll 817

AT1

Dismantling of the Pilot Facility AT1 196

Audits

Performance Objectives and Criteria for Conducting DOE Environmental Audits 476

Auger

Environmental Soil Sampling Under Storage Tanks Utilizing Angled Auger Borings 654

Automation of Geophysical Surveys Used in Assessment of Hazardous Waste 892

Award

Financial Assistance Award - Babcock & Wilcox 94

Savannah River Field Office - Financial Assistance Award - Intent to Award a Noncompetitive Grant 544

Awards

Department of Energy: Task Assignment - Subcontract Awards 456

Babcock

Financial Assistance Award - Babcock & Wilcox 94

Backfill

Radon Emissions During Mill Tailings Backfill Operations in a Uranium Mine 398

Bacteria

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

Baker

Remedial Action for the Baker and Williams Warehouses Site, New York, New York 378

Post-Remedial Action Report for Building 521-527, Baker and Williams Warehouses Site - New York, New York 379

Bancroft

Radioactive and Toxic Wastes from the Bancroft Uranium Mines: Where Are We Going Who Is in Charge 442

Barium

Factors Affecting the Leaching of Radium-226 from Barium-Radium Sulphate Sludges 443

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

Barrier

Laboratory-Scale Tests of a Chemical Barrier for Use at Uranium Mill Tailings Disposal Sites 438

Barriers

The Use of Geochemical Barriers for Reducing Contaminants Emanating from Uranium Mill Tailings 439

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951

Land Reclamation at the Basalt Waste Isolation Project 740

Baseline

200-UP-2 Operable Unit Technical Baseline Report 605

An Assessment of Baseline Ecological Risks at the Fernald Environmental Management Project, Fernald, Ohio 650

Baseline Risk Assessment Methodology for Mixed Waste 909

Technical Baseline Description for In Situ Vitrification Laboratory Test Equipment 943

Basins

Decommissioning of the 105-F and 105-H Fuel Storage Basins in the 100 Area at the Hanford Site 598

Bear

Remedial Investigation Work Plan for Bear Creek (Y02-S600) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 575

Draft Postclosure Permit Application for Bear Creek Hydrogeologic Regime at the Oak Ridge Y-12 Burial Grounds Hazardous Waste Disposal Unit 576

Beaverlodge

Decommissioning and Reclamation of the Beaverlodge Mine/Mill Operations 437

Beavers

Ra-226 and Other Radionuclides in Water, Vegetation, and Tissues of Beavers (Castor Canadensis) from a Watershed Containing Uranium Tailings near Elliot Lake, Canada 426

Dismantling and Shutdown of a Nuclear Fuel Cycle Facility: The Belgian Context 286

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

Bench

Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871 Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Renton

Development of an Administrative Record System and Information Repository System on the Hanford Site, Benton County, Richland, Washington 592

Beta

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

Betatron

Results of the Radiological Survey at the New Betatron Building, Granite City Steel Facility, Granite City, Illinois (GSG002) 360

Rettis

1990 Effluent and Environmental Monitoring Report for the Bettis Atomic Power Laboratory 657

Beverly

Health and Safety Plan for the Ventron Site - Beverly, Massachusetts 373

Bibliography

Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation 512

Biological

The Cutting Process, Its Harmful Effects, the Biological Behavior of Aerosols and Possible Protective Actions 187

Dismantling of Biological Shield by Cutting Machine 213

Removal of Concrete Layers from Biological Shields by Microwaves 224

Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River 680

Biological Activity and Potential Remediation Involving Geotextile Landfill Leachate Filters 865 Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871

Bioremediation

Bioremediation of Hanford Groundwater 743

Three-Dimensional Computer Simulations of Bioremediation and Vapor Extraction 845

Bioremediation, a Useful Tool for Remedial Actions 866

Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871

Biotechnology

Application of Biotechnology in Soil Remediation 842

Biotechnology Workgroup for Department of Defense Soil and Ground-water Decontamination Applications - Final Report for Period Ending March 1989 877

Biphenyl

Request for Interim Approval to Operate 218-E-12B Trench 94 as a Chemical Waste Landfill for Disposal of Polychlorinated Biphenyl Wastes in Submarine Reactor Compartments 604

Blasting

Development of a Shot-Blasting Robot for Removal of the Wall Concrete Surface 209

BNFL's Decommissioning and Decommissioning Development Programmes at Sellafield 329 Bohunice

Getting on with Dismantling at Czechoslovakia's Bohunice 174

Information of Present Status of NPP A-1 Bohunice 297

Boiler

TA-2 Water Boiler Reactor Decommissioning Project - Final Project Report 49

Post-Remedial Action Report for the Water Boiler Reactor Site 51

Boiling

An Evaluation of Alternative Reactor Vessel Cutting Technologies for the Decommissioning of the Experimental Boiling Water Reactor at Argonne National Laboratory 39

Experimental Boiling Water Reactor (EBWR) Progress Report - Compiled for the Technical Advisory Group Meeting, April 22-26, 1991 53

An Overview of the U.S. Department of Energy Experimental Boiling Water Reactor Decontamination and Decommissioning Project 54

Dairyland Power Cooperative: La Crosse Boiling Water Reactor (LACBWR) - Issuance of Environmental Assessment and Finding of No Significant Impact 97

Boiling

Dairyland Power Cooperative - La Crosse Boiling Water Reactor: Order Authorizing Decommissioning of Facility 100

Borehole

Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borehole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683 1991 Yearly Calibration of Pacific Northwest Laboratory's Gross Gamma-Ray Borehole Geophysical Logging System 696

Recent Field Trials of Directional Boring Equipment for Emplacing a Borehole Grid Around and Beneath a Simulated Waste Site 977

Boreholes

Logs of Wells and Boreholes Drilled During Hydrogeologic Studies at Lawrence Livermore National Laboratory Site 300, June 30, 1988 - December 31, 1990 613

Boring

Recent Field Trials of Directional Boring Equipment for Emplacing a Borehole Grid Around and Beneath a Simulated Waste Site 977

Borings

Environmental Soil Sampling Under Storage Tanks Utilizing Angled Auger Borings 654

Boxes

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163 Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Boxes for the Transport and Disposal of Low Level and Decommissioning Intermediate Level Radioactive Wastes 258

BRC

US EPA's Proposed Standard for BRC Criteria 1010

Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety Impacts Are Below Regulatory Concern (BRC) 1017

Summary of EPRI BRC Research Program 1022

EPRI Discussion Paper on BRC and De Minimis Concepts 1029

BRC Disposal Alternatives for NORM Wastes in Texas 1035

Breeder

Influence of Design Features on Decommissioning of a Large Fast Breeder Reactor 72

Decontamination Before Dismantling a Fast Breeder Reactor Primary Cooling System 129

Conditioning for Disposal of Radioactive Graphite Bricks from Reactor Decommissioning 231

Bridgeton

Health Assessment for West Lake Landfill, Bridgeton, St. Louis County, Missouri, Region 7 813 Brittle

Explosive Dismantling of Reactor Pressure Vessels Using the Brittle Fracturing Method 182

Brookhaven

The Selective Absorption of Radionuclides from a Contaminated Holding Pond at Brookhaven National Laboratory 644

BR₃

The Decommissioning of the BR3 Reactor 291

The Decommissioning of the BR3 Pressurized Water Reactor Plant 292

Budget

Life Cycle Planning to Forecast Budget Requirements and Maintain Effective Cost Controls 524

Building

Results of the Radiological Survey at the New Betatron Building, Granite City Steel Facility, Granite City, Illinois (GSG002) 360

Post-Remedial Action Report for Building 521-527, Baker and Williams Warehouses Site - New York, New York 379

Release Investigation Report for Underground Storage Tank 2336-U at the Chestnut Ridge Repeater Station, Building 0962, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 690

Initial Site Characterization for Underground Storage Tank 2081-U, Building 9212, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 693

Release Investigation Report for Underground Storage Tank 2305-U at Building 9998, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 694

Geophysics: Building E5032 Decommissioning, Aberdeen Proving Ground - Interim Progress Report 808

Buildings

Comparative Synthesis on the Estimate for the Decommissioning Costs of Buildings 6A/B and the Real Costs 73

Deterioration Assessment of Nuclear Power Station Buildings and Long-Term Stability and the Leak Tightness of Reactor Containments 288

Architecture and Environmental Restoration: Remediating Uranium Mill Tailings from Buildings 407

Engineering Evaluation/Cost Analysis for the Proposed Management of 15 Nonprocess Buildings (15 Series) at the Weldon Spring Site Chemical Plant, Weldon Spring, Missouri 530

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

Bundle

Dismantling and Decontamination of the Tube Bundle of a Feedwater Preheater of the Garigliano BWR 199

Burial

Report on Waste Burial Charges - Escalation of Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities 280

Draft Postclosure Permit Application for Bear Creek Hydrogeologic Regime at the Oak Ridge Y-12 Burial Grounds Hazardous Waste Disposal Unit 576

Engineering Evaluation of the 618-9 Purial Ground Expedited Response Action - Draft A 721 In Situ Grouting of Low-Level Burial Trenches with a Cement-Based Grout 735 Accelerated Cleanup of the 618-9 Burial Ground 781

Buried

Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

A Comparison of Shallow Electromagnetic and Magnetometer Surface Geophysical Techniques to Effectively Delineate Buried Wastes 897

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

In Situ Vitrification Application to Buried Waste: Final Report of Intermediate Field Tests at Idaho National Engineering Laboratory 946

In Situ Vitrification of Buried Waste: Containment Issues and Suppression Systems 957

In Situ Vitrification Processing of Buried Waste Sites 964

Buried

The Buried Waste Integrated Demonstration 986

Comprehensive Implementation Plan for the DOE Defense Buried TRU-Contaminated Waste Program 1034

Burying

Ontario Hydro Proposes Canning and Burying CANDU Reactors 295

BWR

Estimation of Collective External Dose During Dismantling of JPDR (BWR, 90 MWt) 114

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Dismantling and Decontamination of the Tube Bundle of a Feedwater Preheater of the Garigliano BWR 199

Byproducts

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

Cadarache

Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Calcium

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Calculating

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Calibration

1991 Yearly Calibration of Pacific Northwest Laboratory's Gross Gamma-Ray Borehole Geophysical Logging System 696

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

Canada

Ra-226 and Other Radionuclides in Water, Vegetation, and Tissues of Beavers (Castor Canadensis) from a Watershed Containing Uranium Tailings near Elliot Lake, Canada 426 Acid Mine Drainage Research in Canada 447

Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705 In-Situ Storage: An Approach to Interim Remedial Action - Recent Case Studies in Canada 799 CANDU

Ontario Hydro Proposes Canning and Burying CANDU Reactors 295

Can

Performance Assessments of Closure Cap Alternatives at the Savannah River Plant 551 Alternate Cap Designs Under RCRA Regulations 738

CAPCA

A Successful Environmental Remediation Program Closure and Post-Closure Activities (CAPCA), Y-12 Plant, Oak Ridge, Tennessee 777

Capital

Capital Cost Development for Decontamination, Demolition and Refurbishment of Radiological Research Facilities 12

Carbon

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Initial Site Characterization Approach and Preliminary Results: 200 West Area Carbon Tetrachloride Expedited Response Action, Hanford Site, Washington 714

Accelerated Cleanup of Carbon Tetrachloride in a Radiologically Contaminated Site at the Hanford Site 744

Carbonate

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Carolina

Aerial Radiological Survey of the Central Savannah River Site, Aiken, South Carolina - Survey Date: February 1987 658

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 1 660

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 2 661

Aerial Radiological Survey of the Savannah River Site TNX Facility and Surrounding Area, Aiken, South Carolina - Date of Survey: August 1986 662

Carrier

Use of Remote Device Coupled with a Carrier for the Dismantling of Hot Cells in France 197

Mechanical-Property Degradation of Cast Stainless Steel Components from the Shippingport Reactor 56

Development of a Large Container Cast of Low-Level Radioactive Steel 232

CEA

CEA's RD 500 Has the Power for Decommissioning 334

Cell

The Second Irradiated Fuel Dismantling Cell at Hunterston "B" 326

Technology Development for a Disposal Cell at the Weldon Spring Site Remedial Action Project 749

Cells

The Experience - 1st Case - The Decommissioning of Hot Cells: Elan 2B Workroom at La Hague 191

Use of Remote Device Coupled with a Carrier for the Dismantling of Hot Cells in France 197
Cement

In Situ Grouting of Low-Level Burial Trenches with a Cement-Based Grout 735

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984

Cemented

Characterization of Waste Products Prepared from Radioactive Contaminated Clayey Soil Cemented According to the GEODUR Process 820

Centrifugal

Environmental Assessment for Retech, Inc.'s Plasma Centrifugal Furnace Evaluation 976

CERCLA

Long-Term Public Health Impacts of Decommissioning the Hanford Surplus Production Reactors: Implications for CERCLA Remedial Actions at Hanford 37

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Risk Assessment of Designs for RCRA and CERCLA Sites 465

Comparison of RCRA SWMU Corrective Action and CERCLA Remedial Action 471

Guide to Obtaining No Migration Variances for CERCLA Remedial Actions 483

NEPA/CERCLA Integration at Rocky Flats 518

Successful Integration of the CERCLA and NEPA Compliance Processes in the Weldon Spring Site Remedial Action Project: A Case Study 527

Taking Interim Actions: Integrating CERCLA and NEPA to Move Ahead with Site Cleanup 528 CERCLA Integration with Site Operations: The Fernald Experience 533

A Tale of Negotiations: CERCLA Interagency Agreement at the Mound Plant 540

CERCLA Document Flow: Compressing the Schedule, Saving Costs, and Expediting Review at the Savannah River Site 545

Balancing CERCLA Risk and DOE Radiological Performance Assessment Methodologies and Practices 546

Removal Action Under CERCLA Section 104 for PCB-Contaminated Soil at DOE Mound Plant 731

Issuance of the CERCLA ROD for an Operable Unit Remedial Action at the Weldon Spring Site - Lessons Learned 769

Compendium of CERCLA ARARs, Fact Sheets and Directives 807

Strategy for Integrated CERCLA/NEPA Risk Assessments 905

Natural Resources Damage Assessments at Department of Energy Facilities - Using the CERCLA Process to Minimize Natural Resources Injuries 999

Certification

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 2 770

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 1 771

Cesium

Patterns of Sediment Accumulation in Watts Bar Reservoir Based on Cesium-137 695 CFR

Implementation of 29 CFR 1910.120 at a Multiple-Contractor Operated Facility 538

Chang

Superfund Record of Decision (EPA Region 10): Teledyne Wah Chang, Albany, OR (First Remedial Action), December 1989 802

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

Chaos

Chaos and Remedial Investigations 534

Characterization

Site Characterization for Remedial Design at National Priority List and FUSRAP Sites 362
Radiological Characterization Survey of the Former Diamond Magnesium Company Site, 720
Fairport-Nursery Road, Painesville, Ohio (DMP001, DMP002) 368

Characterization Technologies for Environmental Remediation 493

Characterization

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Characterization Studies on: (A) Contaminated Batch of Rocky Flats Soil (B) Uncontaminated Batch of INEL Soil 617

Weldon Spring Quarry Construction Staging Area and Water Treatment Plant Site Remedial Action Characterization Report for the Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri 633

Characterization of Vitrified and Non-Vitrified Fernald K-65 Soil 651

Characterization of Uranium Contaminated Soils from DOE Fernald Environmental Management Project Site: Results of Phase 1 Characterization 652

Initial Site Characterization for Underground Storage Tank 2081-U, Building 9212, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 693

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

Initial Site Characterization Approach and Preliminary Results: 200 West Area Carbon Tetrachloride Expedited Response Action, Hanford Site, Washington 714

Characterization of Waste Products Prepared from Radioactive Contaminated Clayey Soil Cemented According to the GEODUR Process 820

Particle Characterization of Contaminated Soil 843

Innovative Investigation Methodologies and Techniques for Site Characterization 910 Accumulated Waste Characterization Work Plan 1000

Charge

Radioactive and Toxic Wastes from the Bancroft Uranium Mines: Where Are We Going Who Is in Charge 442

Chemical

New Decontamination Techniques: Chemical Gels, Electropolishing and Abrasives 126

Decontamination for Decommissioning: Enhancement of Aggressive Chemical Decontamination by Using Electropolishing or Ultrasound 131

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Chemical Decontamination Method for Stainless Steel 142

Chemical Decontamination for Beneficial Metal Re-Use from Nuclear Applications 150

Decontamination Using Chemical Gels, Electrolytical Swabs, and Abrasives 151

Chemical Decontamination Method for Radioactive Metal Waste 153

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

DECHEM: A Remedial Planning Tool for Chemical Contaminants in Soil 392

Laboratory-Scale Tests of a Chemical Barrier for Use at Uranium Mill Tailings Disposal Sites 438

Chemical Modeling of the Neutralization Process for Acid Uranium Mill Tailings 441

Chemical Contaminants on DOE Lands and Selection of Contaminant Mixtures for Subsurface Science Research 494

Cleaning up Radioactive and Chemical Waste Siter Is the Benefit Worth the Cost and Risk 505 Remediation Strategies for Perched Water Bodies Underlying the Idaho Chemical Processing Plant at the Idaho National Engineering Laboratory 525

Chemical

Engineering Evaluation/Cost Analysis for the Proposed Management of 15 Nonprocess Buildings (15 Series) at the Weldon Spring Site Chemical Plant, Weldon Spring, Missouri 530

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Request for Interim Approval to Operate 218-E-12B Trench 94 as a Chemical Waste Landfill for Disposal of Polychlorinated Biphenyl Wastes in Submarine Reactor Compartments 604

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

Evaluation of a Contaminant Pathway and Mobility at a U.S. DOE Site Using Groundwater Chemical Data 653

Safe Storage of Deactivated Radiological Chemical Processing Plants in the 200 West Area of the Hanford Site 796

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

The Use of Chemical and Radionuclide Risk Estimates in Site Performance Evaluation of Mixed Waste Sites 917

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

Finding a Compromise Between Chemical and Radiological Risk Assessment Methods for Mixed Waste Sites 927

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Chemistry

Ferrocyanide-Containing Waste Tanks: Ferrocyanide Chemistry and Reactivity 28

Utilization of Uranium Industry Technology and Relevant Chemistry to Leach Uranium from Mixed-Waste Solids 940

Chimneys

The Decommissioning of the Windscale Pile Chimneys 324

Decommissioning of the Windscale Pile Chimneys 342

Chinon

Survey of the EDF First Dismantling Operations: The Case of Chinon A2 195

Chlorinated

Application of Vapor Vacuum Extraction to Waste Sites with Chlorinated Solvent Problems - A
Case Study 768

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

Chlorocarbons

Air Stripping of Volatile Organic Chlorocarbons: System Development, Performance, and Lessons Learned 732

Circuits

Decontamination of the Main Circuits of the G2 Gas-Graphite Reactor 130

Clayey

Characterization of Waste Products Prepared from Radioactive Contaminated Clayey Soil Cemented According to the GEODUR Process 820

Cleaning

Cleaning up Radioactive and Chemical Waste Sites: Is the Benefit Worth the Cost and Risk 505 Environmental Remediation '91: Cleaning Up the Environment for the 21st Century 515

Test Results for Dry Abrasive Cleaning of Scrap Metal for Beneficial Reuse - Phase 1 - Department of Energy Decontamination Program 989

Cleanup

Visual System for Waste Tank Cleanup 27

Summary of the Hanford Site Decontamination, Decommissioning, and Cleanup, FY 1974-FY 1990 67

Limitations of Cleanup Technologies 346

Determining the "R" in ALARA: A Parametric Study to Establish Cleanup Criteria 356

DOE Begins Final Phase of Elza Gate Cleanup 374

DOE Selects Subcontractor for Gunnison, Colorado, Tailings Cleanup 382

DOE, State, Local Officials to Break Ground for Gunnison, Colorado, Tailings Cleanup 383

DOE Selects Contractor for Falls City, Texas, Tailings Cleanup 385

Public Meeting to Be Held on Falls City, Texas, Tailings Cleanup 386

Working with States on a Joint DOE/State Funded Cleanup Project 387

Completed Remedial Cleanup at the Durango, Colorado Uranium Mill Tailings Remedial Action Site: A Case Study 404

Managing a Site Cleanup Under an Accelerated Schedule - The Lowman Story 406

DOE, State, Local Officials Break Ground for Rifle, Colorado, Tailings Cleanup 408

Ceremony Marks Lowman Mill Site Cleanup Progress 409

DOE Sets Falls City, Texas, Tailings Cleanup Groundbreaking 410

DOE to Hold Public Meeting on Mexican Hat Tailings Cleanup 411

Managing the Environmental Cleanup of DOE's Nuclear Weapons Complex 468

What are the Basic Requirements that Cleanup Standards Should Satisfy? 469

What Should Cleanup Standards Do? 470

DOE Guidelines and Modeling in Determination of Soil Cleanup Guidelines 487

The US DOE Prepares for its Multi-Billion Dollar Cleanup 501

Complex Cleanup: The Environmental Legacy of Nuclear Weapons Production 507

Taking Interim Actions: Integrating CERCLA and NEPA to Move Ahead with Site Cleanup 528

EPA, State, and DOE Sign Federal Facility Agreement for Oak Ridge Cleanup 566

Efforts to Earn Public Support and Confidence in Hanford Site Cleanup Work 579

Future Use and Cleanup Strategy Alternatives: The Hanford Approach 588

Public Comments and Responses to the 1989 Hanford Cleanup Five-Year Plan 595

Accelerated Cleanup of Past Practice Waste Sites on the Hanford Site, Richland, Washington 702

Implications of Recent ICRP Recommendations for Risk Assessments for Radioactive Waste Disposal and Cleanup 726

Land Surface Cleanup of Plutonium at the Nevada Test Site 729

An Effective Methodology for Establishing Cleanup Standards for Mercury Contaminated Soils 736

Soil Washing: A Promising Technology for the Cleanup of Hanford 741

Accelerated Cleanup of Carbon Tetrachloride in a Radiologically Contaminated Site at the Hanford Site 744

Cleanup

Improving Conduct of Operations in Nuclear Waste Cleanup Operations 752

DOE to Hold Public Meeting on Proposed Interim Cleanup Action at Drum Storage Yards 757

GAO Report on Rocky Flats Plant Solar Evaporation Pond Cleanup 767

Accelerated Cleanup of Mixed Waste Units on the Hanford Site, Richland, Washington 779

Accelerated Cleanup of the 316-5 Process Trenches at the Hanford Site 780

Accelerated Cleanup of the 618-9 Burial Ground 781

Sorters for Soil Cleanup 816

Remedial Action Assessment System: Decision Support for Environmental Cleanup 912

A Risk-Based Cleanup Criterion for PCE in Soil 922

Health-Based Cleanup Goals at Hazardous Waste Sites: Implications for Risk Management 928 Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Cleanup Technology - DOE's Management of Environmental Cleanup Technology 962 Cleveland

Results of the Radiological Survey at the Former McKinney Tool and Manufacturing Company, 1688 Arabella Road, Cleveland, Ohio (MTC001 and MTC002) 367

Clinch

Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River 680

Closure

Overview of the Closure Approach for the Hanford Site Single-Shell Tank Farm 10

Systems Engineering Study for the Closure of Single-Shell Tanks 11

Advances in Uranium Mill Tailings Closure: USA and Spanish Practice 450

Closure of Hazardous and Mixed Radioactive Waste Management Units at US DOE Facilities 509

Post-Closure Plan for the X-616 Surface Impoundments 543

Costs and Schedule for a 58 Acre RCRA Interim Status Mixed Waste Closure at the Savannah River Plant 550

Performance Assessments of Closure Cap Alternatives at the Savannah River Plant 551

Closure Plan for Solid Waste Storage Area 6: Volume 1, Closure Plan 562

RCRA Closure of Eight Land-Based Units at the Y-12 Plant 573

Revised RCRA Closure Plan for the Interim Drum Yard (S-030) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 577

Surplus Facilities and Resource Conservation and Recovery Act Closure Program Plan - Fiscal Year 1992 581

2101-M Pond Closure Plan - Revision 1 606

Test Program for Closure Activities at a Mixed Waste Disposal Site at the Savannah River Plant 755

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 2 770

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 1 771

M-Basin Closure - Savannah River Site 774

Chestnut Ridge Sediment Disposal Basin (D-025): Summary of Closure under Rules Governing Hazardous Waste Management in Tennessee 775

A Successful Environmental Remediation Program Closure and Post-Closure Activities (CAPCA), Y-12 Plant, Oak Ridge, Tennessee 777

Grout for Closure of Waste-Disposal Vaults at the US DOE Hanford Site 795

Storage, Disposal, Remediation, and Closure 832

Closures

RCRA Closures at Rocky Flats Plant: A Programmatic Perspective and Case Study 616 Coal

Remedial Investigation Report for Chestnut Ridge OU 2 (Filled Coal Ash Pond/McCoy Branch) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 691

Coating

Optimized Coating Removal by Cold Shock Treatment 121

Immobilization of Contamination by the Coating of Polymers on Large-Size Waste Products 225
Assessment of the Applicability of a Protective Polymeric Coating for Decontamination of Certain Surfaces 227

Code

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

Colonie

Colonie Interim Storage Site Annual Environmental Report for Calendar Year 1990 365 Colorado

DOE Selects Subcontractor for Gunnison, Colorado, Tailings Cleanup 382

DOE, State, Local Officials to Break Ground for Gunnison, Colorado, Tailings Cleanup 383

DOE and State to Hold Phase II Groundbreaking Ceremony in Rifle, Colorado 384

How Public Issues Shape Environmental Restoration Plans: Experiences with Colorado UMTRA Projects 389

Environmental Assessment of Remedial Action at the Gunnison Uranium Mill Tailings Site Near Gunnison, Colorado 394

Environmental Assessment of the Provision of a Water Supply System - Gunnison, Colorado - Final 395

Completed Remedial Cleanup at the Durango, Colorado Uranium Mill Tailings Remedial Action Site: A Case Study 404

The Grand Junction, Colorado, UMTRA Program: Engineering Design and Management of More than 4,000 Remedial Action Designs 405

DOE, State, Local Officials Break Ground for Rifle, Colorado, Tailings Cleanup 408 Commerce

Uranium Enrichment: Analysis of Decontamination and Decommissioning Scenarios - Briefing Report to the Chairman, Subcommittee on Energy and Power, Committee on Energy and Commerce, House of Representatives 2

Comparative

Comparative Synthesis on the Estimate for the Decommissioning Costs of Buildings 6A/B and the Real Costs 73

Comparative Overview of Federal Facility Compliance Agreements and Consent Orders 461 Removal of Trichloroethylene Contamination from the Subsurface: A Comparative Evaluation of Different Remediation Strategies by Means of Numerical Simulation 848

Compartments

Request for Interim Approval to Operate 218-E-12B Trench 94 as a Chemical Waste Landfill for Disposal of Polychlorinated Biphenyl Wastes in Submarine Reactor Compartments 604 Compendium

Applicable or Relevant and Appropriate Requirements (ARARs) for Remedial Action at the Oak Ridge Reservation - A Compendium of Major Environmental Laws 563

Compendium of CERCLA ARARs, Fact Sheets and Directives 807

Complexants

Destruction of Complexants Used in Groundwater Decontamination 862

Compliance

Comparative Overview of Federal Facility Compliance Agreements and Consent Orders 461 NEPA Compliance Strategies for Environmental Restoration Activities 511

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521

Successful Integration of the CERCLA and NEPA Compliance Processes in the Weldon Spring Site Remedial Action Project: A Case Study 527

Regulatory Compliance Issues Related to the White Oak Creek Embayment Time-Critical Removal Action 571

An Approach to Regulatory Compliance with Radioactive Mixed Waste Regulations 750

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Component

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling of and Disposition of Component Parts - University of Kansas Research Reactor 92

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling and Disposition of Component Parts - University of Utah AGN-201M Research Reactor 95

The University of Utah (The Utah AGN-201M Research Reactor) - Order Authorizing Dismantling of Facility and Disposition of Component Parts 99

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163 Components

Mechanical-Property Degradation of Cast Stainless Steel Components from the Shippingport Reactor 56

Residue-Free and Residue-Poor Jet Methods to Decontaminate Nuclear Plant Components 123
The Experience - 4th Case - The Rinsing of the Waste Processing Plant, the Dismantling of Some
Components and of the Laboratories of Analysis, Safety Aspects 167

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178
Development of a System to Demonstrate the Safe Underwater Dismantling of Metallic
Components 184

Electrochemical Technique for the Segmenting of Activated Steel Components 186

Development of Measuring and Control Systems for Underwater Cutting of Radioactive Components 220

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Scrap Metal from Nuclear Power Stations 241

Melting of Activated/Contaminated Metallic Components Arising from the Decommissioning of Nuclear Facilities 246

Cost Components of Remedial Investigation/Feasibility Studies 500

Compound

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Compounds

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Computation

A Risk Computation Model for Environmental Restoration Activities 924

Computer

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Three-Dimensional Computer Simulations of Bioremediation and Vapor Extraction 845

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Remedial Action Assessment System (RAAS) - A Computer-Based Methodology for Conducting Feasibility Studies 908

Concentrations

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

Application of Monte Carlo Simulation to Estimate Probabilities for the Best and Health Conservative Estimates of Receptor Well Concentrations 839

Concrete

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Method of Removing Hazardous Material Deposited on Concrete Surface 136

Effect of Long-Living Products of Concrete Structure Activation on Decommissioning of NPPs with LWR Reactors 146

Clean-Cut Removal System for Concrete Decontamination 152

Analyses and Testing of Model Prestressed Concrete Reactor Vessels with Built-in Planes of Weakness 161

Explosive Fracturing of Concrete Structures and Pipings - Generalization of Results and Applicability to Real Facilities 179

Explosive Cutting Methods to Dismantle Concrete Structures 180

Explosive Fracturing of Concrete Structures and Pipings - Experiments in the HDR 185

Development of a Shot-Blasting Robot for Removal of the Wall Concrete Surface 209

Removal of Contaminated Concrete Surfaces by Microwave Heating: Phase 1 Results 217

Removal of Concrete Layers from Biological Shields by Microwaves 224

In Situ Treatment of Concrete Surfaces by Organic Impregnation and Polymerization 226 Separation of Contaminated Concrete 230

Immobilisation of Active Concrete Debris Using Soluble Sodium Silicates 272

Conduction

Simulation of Heat Conduction and Electric Fields During In Situ Vitrification of Soil 959

Cone Penetrometer/Hydropunch [trademark]: An Efficient Approach for Delineating Subsurface Lithology and Ground Water Quality 882

Congress

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424 Defense Environmental Restoration Program Annual Report to Congress for Fiscal Year 1991

Nuclear Regulatory Legislation, 101st Congress 1020

Connecticut

Health and Safety Plan for the Seymour Site - Seymour, Connecticut 372

Consensus

Harmonization of QA Procedures for Environmental Data Operations: Development of a National Consensus Standard for Quality Assurance for Environmental Programs 887

Development of a National Consensus Standard for Quality Assurance for Environmental Programs 1012

Consent

Comparative Overview of Federal Facility Compliance Agreements and Consent Orders 461
Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending March 31, 1991 707

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending June 30, 1991 793

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending September 30, 1991 794

Conservation

Surplus Facilities and Resource Conservation and Recovery Act Closure Program Plan - Fiscal Year 1992 581

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Decommissioning of a Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility: A Case Study of the Interim Stabilization of the 216-A-29 Ditch at the Hanford Site 742

Constituents

Separation by Vapour Phase Transport of Stainless Steel Constituents 229

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

Evaluation of a Rapid Headspace Analysis Method for Analysis of Volatile Constituents in Soils and Sediments 890

Construction

Design and Construction of the Interim Waste Management Facility - SWSA 6 556

Weldon Spring Quarry Construction Staging Area and Water Treatment Plant Site Remedial Action Characterization Report for the Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri 633

Design and Construction of an Interceptor System for Radioactively Contaminated Solvent 730 Container

Development of a Large Container Cast of Low-Level Radioactive Steel 232

The Development and Testing of a Container for the Transport of Decommissioning Wastes 262 Response to Comments on Remedial Investigation Report for the Plating Shop Container Areas (S-334 and S-351) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 692

Containers

The Experience - 6th Case - Rinsing and Decontamination of Liquid Waste Storage Containers of Intermediate and High-Level Radioactivity 118

Containment

Consequences of Suppression of Negative Pressure in the KW-Lingen Containment 108
Performance Monitoring Report for the Niagara Falls Storage Site Waste Containment Structure,
Lewiston, New York, for Calendar Year 1990 366

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951 In Situ Vitrification of Buried Waste: Containment Issues and Suppression Systems 957

Containments

Deterioration Assessment of Nuclear Power Station Buildings and Long-Term Stability and the Leak Tightness of Reactor Containments 288

Contaminant

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

Chemical Contaminants on DOE Lands and Selection of Contaminant Mixtures for Subsurface Science Research 494

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Evaluation of a Contaminant Pathway and Mobility at a U.S. DOE Site Using Groundwater Chemical Data 653

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Contaminant Sorption/Desorption Rates: Implications for Groundwater Restoration 878 Contaminants

DECHEM: A Remedial Planning Tool for Chemical Contaminants in Soil 392

The Use of Geochemical Barriers for Reducing Contaminants Emanating from Uranium Mill Tailings 439

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Approach and Strategy for Setting Remedial Action Goals for Multiple Sites with Multiple Contaminants 488

Chemical Contaminants on DOE Lands and Selection of Contaminant Mixtures for Subsurface Science Research 494

The Transport of Contaminants During Storms in the White Oak Creek and Melton Branch Watersheds 672

Identification of Contaminants of Concern in Hanford Ground Waters 706

Contaminated

Annual Summary Report on Surveillance and Maintenance Activities of the Surplus Contaminated Facilities Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 62

Resource Book: Decommissioning of Contaminated Facilities at Hanford - Volume 3 66

Procedure for Decontamination of Surfaces Contaminated with Radioactive Substances 120

Decontamination Device for Radiation-Contaminated Metal 134

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Decontamination Method for Radiation-Contaminated Metal Waste 138

Decontamination Device for Radioactive Contaminated Equipment 155

Contaminated

Method for Electrolytic Decontamination of Radioactive Contaminated Metals 156

Method of Dismantling Radioactivity-Contaminated Fluid Pump 206

Removal of Contaminated Concrete Surfaces by Microwave Heating: Phase 1 Results 217

Separation of Contaminated Concrete 230

Melting of Contaminated Steel Scrap from Decommissioning 234

Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

Melting of Activated/Contaminated Metallic Components Arising from the Decommissioning of Nuclear Facilities 246

Experimental Plant for Treating Contaminated Sodium 250

Melting of Low-Level Contaminated Steels 257

Key Parameters for the Safe and Economical Recycling of Contaminated Stainless Steel 270

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

Engineering Evaluation/Cost Analysis for the Proposed Removal of Contaminated Materials at the Elza Gate Site, Oak Ridge, Tennessee 355

Modeling of Elza Gate Contaminated Material for Use as Fill Material at the United Nuclear Corporation Waste Disposal Site, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 375

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Characterization Studies on: (A) Contaminated Batch of Rocky Flats Soil (B) Uncontaminated Batch of INEL Soil 617

The Selective Absorption of Radionuclides from a Contaminated Holding Pond at Brookhaven National Laboratory 644

Methods for Drilling and Well Installation in Radiologically Contaminated Soils 645

Characterization of Uranium Contaminated Soils from DOE Fernald Environmental Management Project Site: Results of Phase 1 Characterization 652

Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed 679

Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Design and Construction of an Interceptor System for Radioactively Contaminated Solvent 730 Removal Action Under CERCLA Section 104 for PCB-Contaminated Soil at DOE Mound Plant 731

An Effective Methodology for Establishing Cleanup Standards for Mercury Contaminated Soils 736

Treatment of Y-12 Plant Mixed Waste Contaminated Soils Utilizing the Westinghouse Soil Washing Process 737

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

Accelerated Cleanup of Carbon Tetrachloride in a Radiologically Contaminated Site at the Hanford Site 744

Contaminated

Soil Vapor Extraction Test in a Radiologically Contaminated Site, Hanford Site 745

Contaminated Scrap Metal Management at the ORGDP - A Problem Solved 759

Implications of the Upper Bound and Average Exposure Scenario on Risk Management Decisions for Contaminated Site Remediation 814

An Improved Method for Remediation of Transuranic-Contaminated Coral Soil at Johnston Atoll 817

Quality Assurance Applications for Remediation of Plutonium Contaminated Soil 818

Characterization of Waste Products Prepared from Radioactive Contaminated Clayey Soil Cemented According to the GEODUR Process 820

National Contaminated Sites Remediation Program: Annual Report 1990-91 823

The National Contaminated Sites Remediation Program 824

Particle Characterization of Contaminated Soil 843

In-Situ Remediation System for Contaminated Groundwater 847

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

Electrokinetic Remediation of Contaminated Soils 868

Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871

Assessing Exposures and Risks in Heterogeneously Contaminated Areas: A Simulation Approach 919

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

Role of Risk Assessment in Remediation of Contaminated Sites 923

Remediation of Contaminated Underground Tanks by In Situ Vitrification 944

Treatment of Heavy Metal Contaminated Soils by In Situ Vitrification 952

Engineering-Scale Tests of In Situ Vitrification to PCB and Radioactive Contaminated Soils 956
Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical
Extraction System for Radiation Contaminated Soils >81

Selection of Innovative Technologies for the Remediation of Soils Contaminated with Radioactive and Mixed Wastes 985

Demonstration Processing of Contaminated Scrap Metal for Beneficial Reuse - Phase 1 - Final Report 987

Comprehensive Implementation Plan for the DOE Defense Buried TRU-Contaminated Waste Program 1034

Contamination

Development of Measuring Systems for Contamination Measurements on Regularly and Irregularly Shaped Surfaces 111

Immobilization of Contamination by the Coating of Polymers on Large-Size Waste Products 225
Mineralogical Residence of Alpha-Emitting Contamination and Implications for Mobilization from
Uranium Mill Tailings 396

Strontium-90 in Canada Goose Eggshelis: Nonfatal Monitoring for Contamination in Wildlife 705 Hanford Site Surface Soil Radioactive Contamination Control Plan for Fiscal Year 1992 710

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Dose Assessment for a Cs-137 Contamination Incident 722

Contamination

RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Evaluation and Design of Geophysical Monitoring Network for Ground-Water Contamination - Final Report 846

Removal of Trichloroethylene Contamination from the Subsurface: A Comparative Evaluation of Different Remediation Strategies by Means of Numerical Simulation 848

Remediation and Mitigation Associated with Contamination of Water by Irrigation Drainage 856 Surface Contamination Criteria for Free Release 1004

NRC Residual Contamination Criteria 1013

Context

Dismantling and Shutdown of a Nuclear Fuel Cycle Facility: The Belgian Context 286
Creating a Context for Public Confidence in the Environmental Restoration Programs 472
Contingency

Federal Facility Agreement Contingency, Upgrade, and Replacement Plans for the ORNL Active Low-Level Radioactive Waste Tank System 555

Contracting

Contracting for Engineering and Design Services in the Environmental Restoration Field 510 Contracts

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Control

Assessing the Maintenance, Quality Assurance and Control, and Decommissioning of DOE Research Reactors 15

Operating Watch List Tanks: A Study in Control 45

Development of Measuring and Control Systems for Underwater Cutting of Radioactive Components 220

Introduction of a Bill to Reauthorize the Uranium Mill Tailings Radiation Control Act of 1978 390

Environmental Restoration Project Configuration Control 523

Environmental Restoration Program Management Control Plan 554

Hanford Site Surface Soil Radioactive Contamination Control Plan for Fiscal Year 1992 710

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Control of Soil Column Discharges at the Hanford Site 763

Dynamic Optimal Control of Groundwater Remediation with Management Periods: Linearized and Quasi-Newton Approaches 853

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

A Multiyear Quality Control Study of Alpha-Track Radon Monitors 903

Application of Quality Assurance/Quality Control to Waste Management Processes at the Hanford Site 1003

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006

Control

International Principles for Exemption from Regulatory Control and Their Application to Waste Management 1015

Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety Impacts Are Below Regulatory Concern (BRC) 1017

U.S. Department of Energy Radiological Control Manual 1033

Convection

Influence of Natural Convection on Melt Shape During In Situ Vitrification 953

Conviber

Results of the Radiological Survey at Conviber, Inc., 644 Garfield Street, Springdale, Pennsylvania (CVP001) 370

Coolant

Decontamination During Dismantling of the Rapsodie Primary Coolant Circuit 127

Cooled

Development of Sampling and Assay Methods for Windscale Advanced Gas Cooled Reactor Radwaste 263

A Utility View of Decommissioning a Gas-Cooled Reactor 287

Progress Report on the Windscale Advanced Gas-Cooled Reactor Decommissioning Project, UK 332

Cooling

Decontamination Before Dismantling a Fast Breeder Reactor Primary Cooling System 129 Cooperative

Dairyland Power Cooperative: La Crosse Boiling Water Reactor (LACBWR) - Issuance of Environmental Assessment and Finding of No Significant Impact 97

Dairyland Power Cooperative - La Crosse Boiling Water Reactor: Order Authorizing Decommissioning of Facility 100

Cooperative Expert System Reasoning for Waste Remediations 907

Copper

Radiological Impact of Very Slightly Radioactive Copper and Aluminium Recovered from Dismantled Nuclear Facilities 233

Coral

An Improved Method for Remediation of Transuranic-Contaminated Coral Soil at Johnston Atoll 817

Core

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202 Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

Corrective

Comparison of RCRA SWMU Corrective Action and CERCLA Remedial Action 471 Costs of RCRA Corrective Action 475

Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation 512

Comprehensive Strategy for Corrective Actions at the Savannah River Site General Separations Area 549

SWSA 6 Interim Corrective Measures Environmental Monitoring: FY 1990 Results - Environmental Restoration Program 673

Site Investigation Report and Corrective Action Plan for Tank 2310-U at the Pine Ridge West Repeater Station, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 686

Corrosion

Aged Stainless Steel Corrosion Tests with LOMI and AECL Decontamination Processes 125
Cost

Capital Cost Development for Decontamination, Demolition and Refurbishment of Radiological Research Facilities 12

Cost Estimation of the Decommissioning of Nuclear Fuel Cycle Plants 85

Residual Radioactivity Cost Impact Evaluation 96

Dismantling Cost and Strategy 98

Decommissioning of Nuclear Facilities - An Analysis of the Variability of Decommissioning Cost Estimates 103

Engineering Evaluation/Cost Analysis for the Proposed Decontamination of Properties in the Vicinity of the Hazelwood Interim Storage Site, Hazelwood, Missouri - Environmental Assessment 352

Engineering Evaluation/Cost Analysis for Decontamination at the St. Louis Downtown Site, St. Louis, Missouri 353

Engineering Evaluation/Cost Analysis for the Proposed Removal of Contaminated Materials at the Elza Gate Site, Oak Ridge, Tennessee 355

Radon Problems and the Cost of Restoring the East German Uranium Projects 431

Lessons Learned and New Initiatives in Cost and Schedule Estimating 491

Cost Components of Remedial Investigation/Feasibility Studies 500

Cleaning up Radioactive and Chemical Waste Sites: Is the Benefit Worth the Cost and Risk 505 Life Cycle Planning to Forecast Budget Requirements and Maintain Effective Cost Controls 524 Engineering Evaluation/Cost Analysis for the Proposed Management of 15 Nonprocess Buildings (15 Series) at the Weldon Spring Site Chemical Plant, Weldon Spring, Missouri 530

Evaluation of the Hanford RI/FS Cost Projections - Appendixes, Volume 2 of 2 586

Evaluation of the Hanford RI/FS Cost Projections - Appendixes, Volume 1 of 2 587

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Costs

Comparative Synthesis on the Estimate for the Decommissioning Costs of Buildings 6A/B and the Real Costs 73

Comparing the Costs of Decommissioning Nuclear Power Plants in the USA and in Germany 83 Report on Waste Burial Charges - Escalation of Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities 280

Costs of RCRA Corrective Action 475

CERCLA Document Flow: Compressing the Scheuule, Saving Costs, and Expediting Review at the Savannah River Site 545

Costs and Schedule for a 58 Acre RCRA Interim Status Mixed Waste Closure at the Savannah River Plant 550

New Technique Lowers Costs of Environmental Sampling 898

Covers

Report of the Advisory Committee on Nuclear Waste: Final Staff Technical Position on the Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites 421

Creek

Regulatory Compliance Issues Related to the White Oak Creek Embayment Time-Critical Removal Action 571

Remedial Investigation Work Plan for Bear Creek (Y02-S600) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 575

Creek

Draft Postclosure Permit Application for Bear Creek Hydrogeologic Regime at the Oak Ridge Y-12 Burial Grounds Hazardous Waste Disposal Unit 576

The Transport of Contaminants During Storms in the White Oak Creek and Melton Branch Watersheds 672

Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed 679

Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River 680

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Creosote

Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871

Criteria

Establishment of Criteria for the Unconditional Release of the Shippingport Reactor 1

Criteria for Release of Decommissioned Nuclear Facilities for Unrestricted Use 14

Current Status of Residual Radioactivity Criteria in Japan 87

Determining the "R" in ALARA: A Parametric Study to Establish Cleanup Criteria 356

Performance Objectives and Criteria for Conducting DOE Environmental Audits 476

St. Michael's Workshop on Residual Radioactivity and Recycling Criteria - Summary and Panel Discussion 835

Development of Effective Remediation Criteria 851

Release Criteria and Pathway Analysis for Radiological Remediation 916

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Surface Contamination Criteria for Free Release 1004

EPA's Proposed Environmental Standards for Low-Level Radioactive Waste Disposal and Criteria for Below Regulatory Concern 1009

US EPA's Proposed Standard for BRC Criteria 1010

NRC Residual Contamination Criteria 1013

Cs

Dose Assessment for a Cs-137 Contamination Incident 722

Cutting

An Evaluation of Alternative Reactor Vessel Cutting Technologies for the Decommissioning of the Experimental Boiling Water Reactor at Argonne National Laboratory 39

Underwater Cutting Techniques Developments 160

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170 Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171 Status and Trends of Underwater Plasma Arc Cutting 175

Cutting

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178 Explosive Cutting Methods to Dismantle Concrete Structures 180

The Cutting Process, Its Harmful Effects, the Biological Behavior of Aerosols and Possible Protective Actions 187

Underwater Plasma Arc Cutting - Final Report 190

Investigation of Laser Cutting Applications in Decommissioning 200

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202

Research and Development of Laser Cutting Technology and Robots Used for Dismantling Nuclear Power Facilities 205

Study on Technology of Reactor Dismantling by Abrasive Water Jet Cutting System 210

Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

Dismantling of Biological Shield by Cutting Machine 213

Diamond Wire Cutting of Heat Exchangers 218

Development of Measuring and Control Systems for Underwater Cutting of Radioactive Components 220

Technical Verification Test for Reactor Pressure Vessel Cutting by Using G&G Method ("Arc-Gouging & Gas Cutting" Method) 222

Czechoslovakia

Getting on with Dismantling at Czechoslovakia's Bohunice 174

Dams

Radiological Protection Principles to be Applied to the Preservation and Use of Tailing Dams Resulting from Mining Activities 432

Darlington

Decontamination Tests on Stainless Steel Tubing Removed from the Darlington Tritium Removal Facility 119

Database

Soil Remediation - January 1985-January 1992 - Citations from the NTIS Database 873

Deactivated

Safe Storage of Deactivated Radiological Chemical Processing Plants in the 200 West Area of the Hanford Site 796

Debris

Immobilisation of Active Concrete Debris Using Soluble Sodium Silicates 272

Superfund LDR Guide No. 6A (2nd edition) - Obtaining a Soil and Debris Treatability Variance for Remedial Actions 482

DECHEM

DECHEM: A Remedial Planning Tool for Chemical Contaminants in Soil 392

Decommission

Decision-Making Process to Shut Down, Refurbish/Modify, or Decommission Research Reactors 4

Decommissioned

Criteria for Release of Decommissioned Nuclear Facilities for Unrestricted Use 14

Measurement Techniques Applicable to Residual Radioactivity on a Decommissioned Reactor Site 109

The Decommissioned Lingen Nuclear Power Station (KWL) 282

Decommissioned

General Approaches to Selection of Final State of Decommissioned NPP Power Units 337 Overview of Decommissioned Nuclear Power Plants 347

Decontaminate

Residue-Free and Residue-Poor Jet Methods to Decontaminate Nuclear Plant Components 123 Development of Techniques to Decontaminate the WAGR Heat Exchangers 145

Decontaminating

Method of Decontaminating Metal Waste 139

Defense

Results of the Radiological Survey at the Jessop Steel Company Site, 500 Green Street, Washington, Pennsylvania (JSP001) - Environmental Restoration and Waste Management Non-Defense Programs 371

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Legend and Legacy: Fifty Years of Defense Production at the Hanford Site 792

Defense Environmental Restoration Program Annual Report to Congress for Fiscal Year 1991 827

Department of Defense Installation Restoration Program: Remedial Action on Waste-Disposal Sites - Report for January 1984-October 1989 833

Biotechnology Workgroup for Department of Defense Soil and Ground-water Decontamination Applications - Final Report for Period Ending March 1989 877

Comprehensive Implementation Plan for the DOE Defense Buried TRU-Contaminated Waste Program 1034

Degradation

Mechanical-Property Degradation of Cast Stainless Steel Components from the Shippingport Reactor 56

Degrading

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

Demolition

Capital Cost Development for Decontamination, Demolition and Refurbishment of Radiological Research Facilities 12

Slow Demolition of Thick Wall Using Hydrostatic Tube - Example of Dismantling RC Structures in Radioactive Facilities 208

Life Extension of Nuclear Power Plants: A Temporary Alternative to Demolition 341

A Case Study: Underpinning of Structures as an Alternative to Demohilers/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

Demonstrate

Development of a System to Demonstrate the Safe Underwater Dismanting of Metallic Components 184

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Demonstration

Underground Storage Tank-Integrated Demonstration Technical Task Plan Master Schedule 6 Systems Engineering for Decommissioning the Japan Power Demonstration Reactor 88

Development of Telerobotic Systems for Reactor Decommissioning: (III) - Demonstration System 212

Demonstration of a Methodology for Assessing Suitable Systems for Management of Reactor Decommissioning Wastes 265

Final Report: Scrap Metal Program Phase I - Decontamination Demonstration Project 266 Advances in the Decommissioning of the JPDR (Japan Power Demonstration Reactor) 316

An Aerial Radiological Survey of the West Valley Demonstration Project and Surrounding Area, West Valley, New York - Date of Survey: August-September 1984 646

Environmental Audit: West Valley Demonstration Project 647

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Report of the Advisory Committee on Nuclear Waste: West Valley Demonstration Project 751 West Valley Demonstration Project Progress Report Compiled for the Technical Advisory Group Meeting - April 22-26, 1991 786

Proposed Plan for Vitrification Demonstration of Low-Level Radioactive Wastes at the Fernald Environmental Management Project 937

Robotics Subsurface Mapping Demonstration Technology Test Plan 974

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980 Integrated Demonstration for the Removal of Uranium Substances from Soils 982

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984 The Buried Waste Integrated Demonstration 986

Demonstration Processing of Contaminated Scrap Metal for Beneficial Reuse - Phase 1 - Final Report 987

Summary of the Environmental Restoration Program Retrieval Demonstration Project at the Idaho National Engineering Laboratory - Revision 1 990

Guidance Manual for Conducting Technology Demonstration Activities 995

Demonstrations

Synopses of Federal Demonstrations of Innovative Site Remediation Technologies 997 Design

Facility Design to Apply Cover Material over Radioactive Residue in Storage Silos 40 Design Features Adopted to Facilitate Decommissioning 71

Influence of Design Features on Decommissioning of a Large Fast Breeder Reactor 72 Site Characterization for Remedial Design at National Priority List and FUSRAP Sites 362

The Grand Junction, Colorado, UMTRA Program: Engineering Design and Management of More

than 4,000 Remedial Action Designs 405

Implementation Planning for Remedial Design and Remedial Action at the Department of Energy's Monticello Mill Tailings Site 415

Report of the Advisory Committee on Nuclear Waste: Final Staff Technical Position on the Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites 421

Request for Public Review and Comment on a Preliminary Design Report: A Priority System for Environmental Restoration 457

Program Management Strategies for Following EPA Guidance for Remedial Design/Remedial Action at DOE Sites 458

Contracting for Engineering and Design Services in the Environmental Restoration Field 510

Design

Design and Construction of the Interim Waste Management Facility - SWSA 6 556

Design and Construction of an Interceptor System for Radioactively Contaminated Solvent 730

Evaluation and Design of Geophysical Monitoring Network for Ground-Water Contamination - Final Report 846

Efficiency-Based Groundwater Monitoring Design Using the Monitoring Efficiency Model (MEMO) 899

Use of Models as a Rationale for the Design of Environmental Monitoring Programs 900 Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical

Extraction System for Radiation Contaminated Soils 981

Preliminary Systems Design Study Assessment Report 983

Designing

Case Studies on Designing Meetings for Effective Institutional Interactions 1011

Designs

The Grand Junction, Colorado, UMTRA Program: Engineering Design and Management of More than 4,000 Remedial Action Designs 405

Risk Assessment of Designs for RCRA and CERCLA Sites 465

EPA Oversight of Remedial Designs and Remedial Actions Performed by PRPs - Fact Sheet 484 Evaluation of Proposed Designs for Streamflow Monitoring Structures at Waste Disposal Sites 665

Alternate Cap Designs Under RCRA Regulations 738

Desorption

Contaminant Sorption/Desorption Rates: Implications for Groundwater Restoration 878

Detection

Detection of Radioactivity in Steel Scrap 260

Quarry Detection Monitoring Wells Completion Report WP-166 629

Detector

A New Method for the Analysis of Small Peaks in Gamma Ray Spectra, and a Detector System for Monitoring Gamma Activity in Land Areas 889

Deterioration

Deterioration Assessment of Nuclear Power Station Buildings and Long-Term Stability and the Leak Tightness of Reactor Containments 288

Dexterous

Combined Long Reach and Dexterous Manipulation for Waste Storage Tank Applications 68

Diamond

Diamond Wire Cutting of Heat Exchangers 218

Radiological Characterization Survey of the Former Diamond Magnesium Company Site, 720 Fairport-Nursery Road, Painesville, Ohio (DMP001, DMP002) 368

Diffusion

Paducah Gaseous Diffusion Plant Environmental Report for 1990 624

Portsmouth Gaseous Diffusion Plant Environmental Report for 1990 656

Dioxin

Dioxin Destruction on a Small Scale - A Success Story 821

Directive

Suggested ROD Language for Various Ground-Water Remediation Options - Directive 883

Directives

Compendium of CERCLA ARARs, Fact Sheets and Directives 807

Disassembling

Dismantling and Disassembling at the Waste Processing Unit at La Hague 192

Discharges

Development of a Polishing System for FEMP Wastewater Discharges 753

Control of Soil Column Discharges at the Hanford Site 763

Dismantle

Explosive Cutting Methods to Dismantle Concrete Structures 180

Dismantled

Radiological Impact of Very Slightly Radioactive Copper and Aluminium Recovered from Dismantled Nuclear Facilities 233

Heavy Water Plants Being Dismantled 344

Molten Salt Reactor Option for Beneficial Use of Fissile Material from Dismantled Weapons
760

Dismantlement

Report of the Advisory Committee on Nuclear Waste: Pathfinder Atomic Power Plant Dismantlement 216

Dismantling

Order of 31 July 1990 Cancelling the Third Condition in the Annex to the Order of 29 April 1982 Granting the Final Operating License for the Vandellos I Nuclear Power Plant, and Fixing the Conditions to be Complied with by the Operator for the Phase Prior to its Dismantling and Closing Down, to Maintain the Plant in Safe Conditions and Remove the Fuel from the Site 89

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling of and Disposition of Component Parts - University of Kansas Research Reactor 92

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling and Disposition of Component Parts - University of Utah AGN-201M Research Reactor 95

Dismantling Cost and Strategy 98

The University of Utah (The Utah AGN-201M Research Reactor) - Order Authorizing Dismantling of Facility and Disposition of Component Parts 99

The Potential Radiological Consequences of Deferring the Final Dismantling of a Magnox Nuclear Power Station 110

Estimation of Collective External Dose During Dismantling of JPDR (BWR, 90 MWt) 114

Decontamination During Dismantling of the Rapsodie Primary Coolant Circuit 127

Decontamination Before Dismantling: Is It of Interest? 128

Decontamination Before Dismantling a Fast Breeder Reactor Primary Cooling System 129

Dismantling Nuclear Power Plants 158

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163
Definition of a Dismantling Project 166

The Experience - 4th Case - The Rinsing of the Waste Processing Plant, the Dismantling of Some Components and of the Laboratories of Analysis, Safety Aspects 167

Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Gentilly-1 Reactor Dismantling Proposal 173

Getting on with Dismantling at Czechoslovakia's Bohunice 174

Dismantling

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178 Explosive Dismantling of Reactor Pressure Vessels Using the Brittle Fracturing Method 182

Development of a System to Demonstrate the Safe Underwater Dismantling of Metallic Components 184

Dismantling of the Rooms 82 to 100 at Marcoule 188

Dismantling and Decontamination of Piver Prototype Vitrification Plant 189

Dismantling and Disassembling at the Waste Processing Unit at La Hague 192

Prefiltration of Gaseous Effluents in Plant Dismantling 193

Dismantling of RAPSODIE Reactor 194

Survey of the EDF First Dismantling Operations: The Case of Chinon A2 195

Dismantling of the Pilot Facility AT1 196

Use of Remote Device Coupled with a Carrier for the Dismantling of Hot Cells in France 197 Dismantling of the G2 Reactor 198

Dismantling and Decontamination of the Tube Bundle of a Feedwater Preheater of the Garigliano BWR 199

Method of Dismantling and Withdrawing Equipment Containing Radioactive Oil Waste 201

Method for Dismantling Shields 203

Example of Dismantling Nuclear Reactors 204

Research and Development of Laser Cutting Technology and Robots Used for Dismantling Nuclear Power Facilities 205

Method of Dismantling Radioactivity-Contaminated Fluid Pump 206

Development of Telerobotic Manipulators for Reactor Dismantling Work 207

Slow Demolition of Thick Wall Using Hydrostatic Tube - Example of Dismantling RC Structures in Radioactive Facilities 208

Study on Technology of Reactor Dismantling by Abrasive Water Jet Cutting System 210

Dismantling of Biological Shield by Cutting Machine 213

Dismantling of Activated Equipment in the Proton Channel of the PSI-Accelerator Facility 214

Methods of Decontamination and NPP Equipment Dismantling 215

Prefiltering Devices for Gaseous Effluents from Dismantling Operations 235

Further Studies on Melting of Radioactive Metallic Wastes from the Dismantling of Nuclear Installations 242

Recycling of Metallic Materials from the Dismantling of Nuclear Plants 245

Device for Decisive Measurements of Waste from Dismantling of KKN 247

Measurement of Alpha Radiators in Nuclear Wastes by Active and Passive Methods: Devices for Measuring Nuclear Wastes from Dismantling Operations 248

Anticipated Assessment of the Amount of Radioactive Wastes Arising from Pool LMBFR Dismantling 251

Dismantling and Shutdown of a Nuclear Fuel Cycle Facility: The Belgian Context 286

Six Years of Experience with Decommissioning and Dismantling VAK 302

The Second Irradiated Fuel Dismantling Cell at Hunterston "B" 326

Dispersion

Temporal Variations in Atmospheric Dispersion at Hanford 704

Dissipation

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

Documentation

Waste Tank 241-A-105 Supporting Documentation - Miscellaneous Reports, Letters, Memoranda, and Data 30

Documentation Report for the 1989 Monitor Well Plugging and Abandonment Program, Oak Ridge Y-12 Plant 782

Dose

Estimation of Collective External Dose During Dismantling of JPDR (BWR, 90 MWt) 114 Radium-226 Dose to a Boy from Playing on Mill Tailings 435

Dose Assessment for a Cs-137 Contamination Incident 722

FY 1993 Task Plans for the Hanford Environmental Dose Reconstruction Project 723

Overview of the Hanford Environmental Dose Reconstruction Project 724

Project Management Plan for the Hanford Environmental Dose Reconstruction Project 725

Radiological Dose Assessments in the Northern Marshall Islands (1989-1991) 812

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Drainage

Acid Mine Drainage Research in Canada 447

Remediation and Mitigation Associated with Contamination of Water by Irrigation Drainage 856

Drilled

Logs of Wells and Boreholes Drilled During Hydrogeologic Studies at Lawrence Livermore National Laboratory Site 300, June 30, 1988 - December 31, 1990 613

Drilling

Methods for Drilling and Well Installation in Radiologically Contaminated Soils 645

Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Drum

Revised RCRA Closure Plan for the Interim Drum Yard (S-030) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 577

DOE to Hold Public Meeting on Proposed Interim Cleanup Action at Drum Storage Yards 757 In-Drum Solidification of Low-Level Mixed Waste 1019

Drums

Handling 78,000 Drums of Mixed-Waste Sludge 756

DOE Begins Transfer of Drums at K-25 758

Drying

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202

Duenweg

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

Durango

Completed Remedial Cleanup at the Durango, Colorado Uranium Mill Tailings Remedial Action Site: A Case Study 404

EBWR

Experimental Boiling Water Reactor (EBWR) Progress Report - Compiled for the Technical Advisory Group Meeting, April 22-26, 1991 53

Ecological

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Natural Resource Trusteeship and Ecological Evaluation for Environmental Restoration at Department of Energy Facilities 479

An Assessment of Baseline Ecological Risks at the Fernald Environmental Management Project, Fernald, Ohio 650

Ecological Assessment Plan for Waste Area Grouping 5 675

Ecology

Putting Ecology in Environmental Restoration: The Strategic Planning Process 459 Economic

Economic Aspects of the Decommissioning of a Nuclear Power Plant 79

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Discussion of the Economic Impacts of Regulations Governing the Stabilization and Decommissioning of Uranium Milling Facilities 419

Economical

Key Parameters for the Safe and Economical Recycling of Contaminated Stainless Steel 270 Ecophysiological

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

EDF

Survey of the EDF First Dismantling Operations: The Case of Chinon A2 195 Effluent

Quality Assurance Project Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 584

Management Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 585

Facility Effluent Monitoring Plan Determinations for the 200 Area Facilities 603

Facility Effluent Monitoring Plan for the 2724-W Protective Equipment Decontamination Facility 607

Facility Effluent Monitoring Plan Determinations for the 300 Area Facilities - Environmental Assurance 608

1990 Effluent and Environmental Monitoring Report for the Bettis Atomic Power Laboratory 657

Facility Effluent Monitoring Plan Determinations for the 400 Area Facilities - Environmental Assurance 719

Effluent

Facility Effluent Monitoring Plan Determinations for the 600 Area Facilities - Environmental Assurance 720

Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance 1025

Effluents

Prefiltration of Gaseous Effluents in Plant Dismantling 193

Prefiltering Devices for Gaseous Effluents from Dismantling Operations 235

Efforts

Efforts to Earn Public Support and Confidence in Hanford Site Cleanup Work 579

Eggshells

Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705 EIRAM

First Results of the Melting of Radioactive Waste in the EIRAM Plant 236 Electric

Nuclear Electric Reconsiders its Back-End Arrangements 91

General Electric Company and Westinghouse Electric Corporation - Filing of a Petition for Rulemaking 106

Simulation of Heat Conduction and Electric Fields During In Situ Vitrification of Soil 959

Electrical

Electrical Resistance Tomography to Monitor Vadose Water Movement 875

Electrochemical

Electrochemical Decontamination in Easily Processed Electrolytes 148

Electrochemical Technique for the Segmenting of Activated Steel Components 186

Electrodecontamination

Optimization of Electrodecontamination Processes for Decommissioning 154

Electrokinetic

Electrokinetic Remediation of Contaminated Soils 868

Electrolyte

Decontamination Techniques for Radioactive Metal Waste Using a Neutral Electrolyte and a Sulfuric Acid Solution 141

Electrolytes

Electrochemical Decontamination in Easily Processed Electrolytes 148

Electrolytic

Method for Electrolytic Decontamination of Radioactive Contaminated Metals 156

Electrolytical

Decontamination Using Chemical Gels, Electrolytical Swabs, and Abrasives 151

Electromagnetic

Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borehole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683

A Comparison of Shallow Electromagnetic and Magnetometer Surface Geophysical Techniques to Effectively Delineate Buried Wastes 897

Electropolishing

New Decontamination Techniques: Chemical Gels, Electropolishing and Abrasives 126

Decontamination for Decommissioning: Enhancement of Aggressive Chemical Decontamination by Using Electropolishing or Ultrasound 131

Closed Electropolishing System for Decontamination of Underwater Surfaces/Development of Vibratory Decontamination with Abrasive Media 149

Flza

Engineering Evaluation/Cost Analysis for the Proposed Removal of Contaminated Materials at the Elza Gate Site, Oak Ridge, Tennessee 355

DOE Begins Final Phase of Elza Gate Cleanup 374

Modeling of Elza Gate Contaminated Material for Use as Fill Material at the United Nuclear Corporation Waste Disposal Site, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 375

DOE Completes Elza Gate Restoration 380

Embayment

Regulatory Compliance Issues Related to the White Oak Creek Embayment Time-Critical Removal Action 571

Embrittlement

Embrittlement of the Shippingport Reactor Shield Tank 57

Radiation Embrittlement of the Neutron Shield Tank from the Shippingport Reactor 58

Emission

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

National Emission Standards for Hazardous Air Pollutants - Uranium Mill Tailings Disposal Sites 423

Emissions

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171

Radon Emissions During Mill Tailings Backfill Operations in a Uranium Mine 398

Encansulant

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984 Enforcement

Community Relations During Enforcement Activities and Development of the Administrative Record 485

Engineered

Methodology for Conducting a Performance Assessment of an Engineered Disposal Facility 934

Enrichment

Uranium Enrichment: Analysis of Decontamination and Decommissioning Scenarios - Briefing Report to the Chairman, Subcommittee on Energy and Power, Committee on Energy and Commerce, House of Representatives 2

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424

Environment

Can Ore Milling Technology Be Harmonized With the Environment? 449

The Prioritization f Environment, Safety, and Health Activities 464

Environmental Remediation '91: Cleaning Up the Environment for the 21st Century 515

Environment

Pacific Northwest Laboratory Annual Report for 1990 to the Assistant Secretary for Environment, Safety, and Health, Part 5: Environment, Safety, Health, and Quality Assurance 797

EPA

Superfund Record of Decision (EPA Region 8): Monticello Mill Tailings Site, San Juan County, UT (First Remedial Action), August 1990 417

Program Management Strategies for Following EPA Guidance for Remedial Design/Remedial Action at DOE Sites 458

EPA Oversight of Remedial Designs and Remedial Actions Performed by PRPs - Fact Sheet 484 EPA, State, and DOE Sign Federal Facility Agreement for Oak Ridge Cleanup 566

Superfund Record of Decision (EPA Region 8): Rocky Flats Plant (DOE), Northern Jefferson County, CO - First Remedial Action, January 1990 - Final report 615

Superfund Record of Decision (EPA Region 7): Weldon Spring Quarry/Plant/Pits (USDOE), Weldon Spring, MO (Second Remedial Action) - September 1990 632

Superfund Record of Decision (EPA Region 10): Teledyne Wah Chang, Albany, OR (First Remedial Action), December 1989 802

Superfund Record of Decision (EPA Region 2): Montclair/West Orange Radium Site, Essex County, NJ (Second Remedial Action), June 1990 - Final Report 809

Joint DOE/EPA Initiatives to Facilitate International Environmental Technology Transfer 950 EPA's Proposed Environmental Standards for Low-Level Radioactive Waste Disposal and Criteria for Below Regulatory Concern 1009

US EPA's Proposed Standard for BRC Criteria 1010

EPRI

Summary of EPRI BRC Research Program 1022

EPRI Discussion Paper on BRC and De Minimis Concepts 1029

Equipment

Decontamination Device for Radioactive Contaminated Equipment 155

Method of Dismantling and Withdrawing Equipment Containing Radioactive Oil Waste 201 Dismantling of Activated Equipment in the Proton Channel of the PSI-Accelerator Facility 214 Methods of Decontamination and NPP Equipment Dismantling 215

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Facility Effluent Monitoring Plan for the 2724-W Protective Equipment Decontamination Facility 607

Technical Baseline Description for In Situ Vitrification Laboratory Test Equipment 943

Recent Field Trials of Directional Boring Equipment for Emplacing a Borehole Grid Around and Beneath a Simulated Waste Site 977

Equipments

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

Erosion

Report of the Advisory Committee on Nuclear Waste: Final Staff Technical Position on the Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites 421

Essex

Superfund Record of Decision (EPA Region 2): Montclair/West Orange Radium Site, Essex County, NJ (Second Remedial Action), June 1990 - Final Report 809

Estimates

Decommissioning of Nuclear Facilities - An Analysis of the Variability of Decommissioning Cost Estimates 103

Estimates of Low-Level Waste Volumes and Classifications at 2-Unit 100 MWe Reference Plants for Decommissioning Scenarios 269

Application of Monte Carlo Simulation to Estimate Probabilities for the Best and Health Conservative Estimates of Receptor Well Concentrations 839

The Use of Chemical and Radionuclide Risk Estimates in Site Performance Evaluation of Mixed Waste Sites 917

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

Methodology for Generating Waste Volume Estimates 991

Estimating

Lessons Learned and New Initiatives in Cost and Schedule Estimating 491

Comparison of Statistical Methods for Estimating Plutonium Inventories in Soil 915

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

Estimation

Cost Estimation of the Decommissioning of Nuclear Fuel Cycle Plants 85

Estimation of Collective External Dose During Dismantling of JPDR (BWR, 90 MWt) 114

Еигоре

Decommissioning Waste Arising in the European Community and Western Europe 237 WasteChem Cleans Up in Europe 826

European

Decommissioning Waste Arising in the European Community and Western Europe 237
RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Evaluations

Performance Evaluations of Pump-and-Treat Remediations 864

Process Evaluations for Uranium Recovery from Scrap Material 973

Evaporation

GAO Report on Rocky Flats Plant Solar Evaporation Pond Cleanup 767

Evaporator

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

Exchanger

In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170

Exchangers

Development of Techniques to Decontaminate the WAGR Heat Exchangers 145 Diamond Wire Cutting of Heat Exchangers 218

Exemption

Sacramento Municipal Utility District; Ranch Seco Nuclear Generating Station: Exemption 69
Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive
Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern
Germany 244

Development of International Exemption Principles for Recycle and Reuse 274

Application of Exemption Principles to Low-Level Waste Disposal and Recycle of Wastes from Nuclear Facilities 1014

Exemption

International Principles for Exemption from Regulatory Control and Their Application to Waste Management 1015

Exemptions

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006
Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission
Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety
Impacts Are Below Regulatory Concern (BRC) 1017

Expedited

Initial Site Characterization Approach and Preliminary Results: 200 West Area Carbon Tetrachloride Expedited Response Action, Hanford Site, Washington 714

Engineering Evaluation of the 618-9 Burial Ground Expedited Response Action - Draft A 721 Expedited Response Action Proposal for 316-5 Process Trenches 746

Expert

Experience Accumulated in Expert Consultancy about Decommissioning Nuclear Power Plants 303

Expert Reasoning within an Object-Oriented Framework 906

Cooperative Expert System Reasoning for Waste Remediations 907

Explosive

Explosive Fracturing of Concrete Structures and Pipings - Generalization of Results and Applicability to Real Facilities 179

Explosive Cutting Methods to Dismantle Concrete Structures 180

Explosive Dismantling of Reactor Pressure Vessels Using the Brittle Fracturing Method 182

Explosive Fracturing of Concrete Structures and Pipings - Experiments in the HDR 185

Exposure

Radiation Exposure of the Personnel During Decommissioning 112

Implications of the Upper Bound and Average Exposure Scenario on Risk Management Decisions for Contaminated Site Remediation 814

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Superfund Exposure Assessment Manual 930

Exposures

Assessing Exposures and Risks in Heterogeneously Contaminated Areas: A Simulation Approach 919

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

Extraction

Health and Safety Plan for Operations Performed for the Environmental Restoration Program - Task: Vapor Vacuum Extraction 620

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Soil Vapor Extraction Test in a Radiologically Contaminated Site, Hanford Site 745

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

Application of Vapor Vacuum Extraction to Waste Sites with Chlorinated Solvent Problems - A
Case Study 768

Three-Dimensional Computer Simulations of Bioremediation and Vapor Extraction 845 Vapor Extraction Technology for the Remediation of a Large Gasoline Spill 859

Extraction

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Fabrication

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163 Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

Testing of New Techniques in Decommissioning of a Fuel (U,Th) Fabrication Plant, Special Consideration to Free Release Measurement of Low Uranium Activities 289

Decommissioning of a Mixed Oxide Fuel Fabrication Facility 325

Fairport

Radiological Characterization Survey of the Former Diamond Magnesium Company Site, 720 Fairport-Nursery Road, Painesville, Ohio (DMP001, DMP002) 368

Federal

Federal Facility Agreement Plans and Schedules for Liquid Low-Level Radioactive Waste Tank Systems at Oak Ridge National Laboratory, Oak Ridge, Tennessee 3

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Comparative Overview of Federal Facility Compliance Agreements and Consent Orders 461
Bibliography of Federal Reports and Publications Describing Alternative and Innovative
Treatment Technologies for Corrective Action and Site Remediation 512

Federal Facility Agreement Contingency, Upgrade, and Replacement Plans for the ORNL Active Low-Level Radioactive Waste Tank System 555

EPA, State, and DOE Sign Federal Facility Agreement for Oak Ridge Cleanup 566

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending March 31, 1901 707

Lessons Learned in Negotiating a Federal Facility Agreement 778

Oak Ridge Restoration Typical of Federal Sites 787

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending June 30, 1991 793

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending September 30, 1991 794

Synopses of Federal Demonstrations of Innovative Site Remediation Technologies 997

Status of Existing Federal Environmental Risk-Based Standards Applicable to Department of Energy Operations ·1031

Feedwater

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Dismantling and Decontamination of the Tube Bundle of a Feedwater Preheater of the Garigliano BWR 199

FEMP

Development of a Polishing System for FEMP Wastewater Discharges 753

Fernald

Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Characteristics of Fernald's K-65 Residue Before, During and After Vitrification 41

CERCLA Integration with Site Operations: The Fernald Experience 533

An Assessment of Baseline Ecological Risks at the Fernald Environmental Management Project, Fernald, Ohio 650

Characterization of Vitrified and Non-Vitrified Fernald K-65 Soil 651

Characterization of Uranium Contaminated Soils from DOE Fernald Environmental Management Project Site: Results of Phase 1 Characterization 652

Floodplain Notification for Proposed Removal Action at the Feed Materials Production Center, Fernald, OH 754

Proposed Plan for Vitrification Demonstration of Low-Level Radioactive Wastes at the Fernald Environmental Management Project 937

Results of Vitrifying Fernald K-65 Residue 938

Ferrocyanide

Progress in Evaluating the Hazards of Ferrocyanide Waste Storage Tanks 22
Ferrocyanide-Containing Waste Tanks: Ferrocyanide Chemistry and Reactivity 28
Graphical Presentation of Ferrocyanide Tank Compositions 29

FFA

Meeting Record for FFA Working Meeting of November 15, 1991 547

Filtering

Spreading and Filtering of Radioactive By-Products from Underwater Segmenting 169
Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel
Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems
to Separate Cutting Byproducts 176

Filters

Biological Activity and Potential Remediation Involving Geotextile Landfill Leachate Filters 865
Filtration

Removal of Heavy wictals and Radionuclides by Seeded Magnetic Filtration 978

Financial

Financial Assistance Award - Babcock & Wilcox 94

Savannah River Field Office - Financial Assistance Award - Intent to Award a Noncompetitive Grant 544

Fissile

Molten Salt Reactor Option for Beneficial Use of Fissile Material from Dismantled Weapons 760

Fission

Studies of Fission Product Movement in Tuffaceous Media 638

Fixation

Lessons Learned in Fixation and Storage of Radioactive Mixed Waste 939

Flammable

Evaluation of Tanks that Release Flammable Gases 5

Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 46

Flammable

Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 47

Floodplain

Floodplain Involvement Notification for Environmental Restoration Activities at the Department of Energy Kansas City Plant Located in Kansas City, MO 626

Floodplain Notification for Proposed Removal Action at the Feed Materials Production Center, Fernald, OH 754

Ficodplains

Floodplains Wetland Involvement for the Proposed Remedial Investigation of the 300-FF-5 Operable Unit of the Hanford Site, Richland, WA 609

Flowmeter

Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borehole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683

Fluid

Method of Dismantling Radioactivity-Contaminated Fluid Pump 206

Food

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

Forecast

Life Cycle Planning to Forecast Budget Requirements and Maintain Effective Cost Controls 524
Forestry

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Fractures

Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borehole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683 Fracturing

Explosive Fracturing of Concrete Structures and Pipings - Generalization of Results and Applicability to Real Facilities 179

Explosive Dismantling of Reactor Pressure Vessels Using the Brittle Fracturing Method 182
Explosive Fracturing of Concrete Structures and Pipings - Experiments in the HDR 185
Feasibility of Hydraulic Fracturing to Improve Remedial Actions - Project Summary 872
France

Use of Remote Device Coupled with a Carrier for the Dismantling of Hot Cells in France 197 Fuel

Cost Estimation of the Decommissioning of Nuclear Fuel Cycle Plants 85

Order of 31 July 1990 Cancelling the Third Condition in the Annex to the Order of 29 April 1982 Granting the Final Operating License for the Vandellos I Nuclear Power Plant, and Fixing the Conditions to be Complied with by the Operator for the Phase Prior to its Dismantling and Closing Down, to Maintain the Plant in Safe Conditions and Remove the Fuel from the Site 89

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163 Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

Fuel

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

Dismantling and Shutdown of a Nuclear Fuel Cycle Facility: The Belgian Context 286

Testing of New Techniques in Decommissioning of a Fuel (U,Th) Fabrication Plant, Special Consideration to Free Release Measurement of Low Uranium Activities 289

Decommissioning of a Mixed Oxide Fuel Fabrication Facility 325

The Second Irradiated Fuel Dismantling Cell at Hunterston "B" 326

Apollo Pennsylvania Nuclear Fuel Facility D&D Project 338

Integrated Data Base for 1991: U.S. Spent Fuel and Radioactive Waste Inventories, Projections, and Characteristics 498

Decommissioning of the 105-F and 105-H Fuel Storage Basins in the 100 Area at the Hanford Site 598

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Functional

Functional Requirements for the Support Facilities to Plug and Abandon Wells at SWSA 6, Oak Ridge National Laboratory, Oak Ridge, Tennessee 557

In Situ Technology Evaluation and Functional and Operational Guidelines for Treatability Studies at the Radioactive Waste Management Complex at the Idaho National Engineering Laboratory 747

Funding

Decommissioning Funding for Prematurely Shutdown Power Reactors 105

Furnace

Environmental Assessment for Retech, Inc.'s Plasma Centrifugal Furnace Evaluation 976 FUSRAP

Discovering Where the Problem is Hiding: Techniques from The Formerly Utilized Sites Remedial Action Program (FUSRAP) 357

Site Characterization for Remedial Design at National Priority List and FUSRAP Sites 362

Gamma

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

1991 Yearly Calibration of Pacific Northwest Laboratory's Gross Gamma-Ray Borehole Geophysical Logging System 696

A New Method for the Analysis of Small Peaks in Gamma Ray Spectra, and a Detector System for Monitoring Gamma Activity in Land Areas 889

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

GAO

GAO Report on Rocky Flats Plant Solar Evaporation Pond Cleanup 767 Garigliano

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Dismantling and Decontamination of the Tube Bundle of a Feedwater Preheater of the Garigliano BWR 199

Garigliano

Garigliano NPP - Decommissioning Schedule 313

Gas

Decontamination of the Main Circuits of the G2 Gas-Graphite Reactor 130

Technical Verification Test for Reactor Pressure Vessel Cutting by Using G&G Method ("Arc-Gouging & Gas Cutting" Method) 222

Development of Sampling and Assay Methods for Windscale Advanced Gas Cooled Reactor Radwaste 263

A Utility View of Decommissioning a Gas-Cooled Reactor 287

Progress Report on the Windscale Advanced Gas-Cooled Reactor Decommissioning Project, UK 332

Gaseous

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171

Prefiltration of Gaseous Effluents in Plant Dismantling 193

Prefiltering Devices for Gaseous Effluents from Dismantling Operations 235

Paducah Gaseous Diffusion Plant Environmental Report for 1990 624

Portsmouth Gaseous Diffusion Plant Environmental Report for 1990 656

Gasea

Evaluation of Tanks that Release Flammable Gases 5

Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 46

Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 47

Gasoline

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

Vapor Extraction Technology for the Remediation of a Large Gasoline Spill 859

Gek

New Decontamination Techniques: Chemical Gels, Electropolishing and Abrasives 126

Decontamination Using Chemical Gels, Electrolytical Swabs, and Abrasives 151

Gentilly

Gentilly-1 Reactor Dismantling Proposal 173

Geochemical

The Use of Geochemical Barriers for Reducing Contiminants Emanating from Uranium Mill Tailings 439

Geochemical Hosts of Solubilized Radionuclides in Uranium Mill Tailings 452

GEODUR

Characterization of Waste Products Prepared from Radioactive Contaminated Clayey Soil Cemented According to the GEODUR Process 820

Geological

Report on Geological Surveys in the 300-FF-1 Operable Unit 718

Geophysical

1991 Yearly Calibration of Pacific Northwest Laboratory's Gross Gamma-Ray Borehole Geophysical Logging System 696

Evaluation and Design of Geophysical Monitoring Network for Ground-Water Contamination - Final Report 846

Automation of Geophysical Surveys Used in Assessment of Hazardous Waste 892

Geophysical

A Comparison of Shallow Electromagnetic and Magnetometer Surface Geophysical Techniques to Effectively Delineate Buried Wastes 897

Geophysics

Geophysics: Building E5032 Decommissioning, Aberdeen Proving Ground - Interim Progress Report 808

Geotechnical

Geotextile

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984

Biological Activity and Potential Remediation Involving Geotextile Landfill Leachate Filters 865 Geothermal

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424

German

Radon Problems and the Cost of Restoring the East German Uranium Projects 431 Germany

Making the Polluter Pay in Germany 81

Comparing the Costs of Decommissioning Nuclear Power Plants in the USA and in Germany 83 Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

Decommissioning of Nuclear Facilities and Power Reactors in Germany - Status, 1991 301 Global

U.S. National Issues on Environmental Hydrology and Hydrogeology - Local and Emerging Global Perspectives 880

Glove

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163 Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Goals

Approach and Strategy for Setting Remedial Action Goals for Multiple Sites with Multiple Contaminants 488

Health-Based Cleanup Goals at Hazardous Waste Sites: Implications for Risk Management 928 Risk Assessment Guidance for Superfund - Volume 1: Human Health Evaluation Manual - Part B, Development of Risk-Based Preliminary Remediation Goals - Interim Report 929

Goose

Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705 Gouging

Technical Verification Test for Reactor Pressure Vessel Cutting by Using G&G Method ("Arc-Gouging & Gas Cutting" Method) 222

Grace

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

Grand

Environmental Audit - Rifle, Gunnison and Grand Junction UMTRA Project Sites 400

The Grand Junction, Colorado, UMTRA Program: Engineering Design and Management of More than 4,000 Remedial Action Designs 405

Environmental Audit of the Grand Junction Projects Office 618

Granite

Results of the Radiological Survey at the New Betatron Building, Granite City Steel Facility, Granite City, Illinois (GSG002) 360

Grant

Savannah River Field Office - Financial Assistance Award - Intent to Award a Noncompetitive Grant 544

Graphical

Graphical Presentation of Ferrocyanide Tank Compositions 29

A Graphical Interface for Robotic Remediation of Underground Storage Tanks 948 Graphite

Decontamination of the Main Circuits of the G2 Gas-Graphite Reactor 130

Conditioning for Disposal of Radioactive Graphite Bricks from Reactor Decommissioning 231

Recent Field Trials of Directional Boring Equipment for Emplacing a Borehole Grid Around and Beneath a Simulated Waste Site 977

Groundwater

Management of the Pipp Program for UMTRA Project Groundwater Restoration 402

Information for Consideration in Reviewing Groundwater Protection Plans for Uranium Mill Tailings Sites 422

A Co-Metabolic Approach to Groundwater Remediation 548

Shallow Groundwater Investigations at Weldon Spring, Missouri - Final Report for Fiscal Years 1988-1990 627

Evaluation of a Contaminant Pathway and Mobility at a U.S. DOE Site Using Groundwater Chemical Data 653

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 1 660

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 2 661

Final Report on the Waste Area Grouping Perimeter Groundwater Quality Monitoring Well Installation Program at Oak Ridge National Laboratory, Oak Ridge, Tennessee 668

Guide to Groundwater Well Locations and Information at Oak Ridge National Laboratory 669 Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borehole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683 Statistical Approach on RCRA Groundwater Monitoring Projects at the Hanford Site 699

Quarterly Report of RCRA Groundwater Monitoring Data for Period April 1, 1991 Through

June 30, 1991 708

Quarterly Report of RCRA Groundwater Monitoring Data for Period July 1, 1991 Through

September 30, 1991 709

Bioremediation of Hanford Groundwater 743

Groundwater Clean-Up: The Savannah River Site Experience 772

Rayox: A Second Generation Enhanced Oxidation Process for Groundwater Remediation 840 Groundwater Recovery and Treatment as a Superfund Remedial Action 844

In-Situ Remediation System for Contaminated Groundwater 847

Groundwater

Dynamic Optimal Control of Groundwater Remediation with Management Periods: Linearized and Quasi-Newton Approaches 853

Selection of a Preferred Remedial Well Configuration Using Groundwater Modeling Techniques
855

Groundwater and Soil Remediation R, D and D 857

Destruction of Complexants Used in Groundwater Decontamination 862

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

A Real-Time Approach to Groundwater Monitoring, Prediction, and Remediation 869

Plume Management for Groundwater Remediation 870

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Contaminant Sorption/Desorption Rates: Implications for Groundwater Restoration 878

Groundwater Remediation via Four Case Studies 881

Efficiency-Based Groundwater Monitoring Design Using the Monitoring Efficiency Model (MEMO) 899

Grouping

Remedial Investigation Plan for Waste Area Grouping 1 at Oak Ridge National Laboratory, Oak Ridge, Tennessee: Responses to Regulator Comments 558

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Grouping 13 560

Field Sampling and Analysis Plan for the Remedial Investigation of Waste Area Grouping 2 at Oak Ridge National Laboratory, Oak Ridge, Tennessee 561

Final Report on the Waste Area Grouping Perimeter Groundwater Quality Monitoring Well Installation Program at Oak Ridge National Laboratory, Oak Ridge, Tennessee 668

Ecological Assessment Plan for Waste Area Grouping 5 675

RCRA Facility Investigation Report for Waste Area Grouping 6 at Oak Ridge National Laboratory, Oak Ridge, Tennessee 676

Groupings

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Groupings 11 and 13 - Appendix C: Data Quality Objectives 559

Grout

Decommissioning of a Grout- and Waste-Filled Storage Tank in the 200 East Area of the Hanford Site 52

In Situ Grouting of Low-Level Burial Trenches with a Cement-Based Grout 735 Grout for Closure of Waste-Disposal Vaults at the US DOE Hanford Site 795

Grouting

In Situ Grouting of Low-Level Burial Trenches with a Cement-Based Grout 735 Guidelines

Derivation of Uranium Residual Radioactive Material Guidelines for the Shpack Site 381 DOE Guidelines and Modeling in Determination of Soil Cleanup Guidelines 487

In Situ Technology Evaluation and Functional and Operational Guidelines for Treatability Studies at the Radioactive Waste Management Complex at the Idaho National Engineering Laboratory 747

Soil Clean-up Guidelines for Decommissioning of Industrial Lands: Background and Rationale for Development 874

532

Gundremmingen

Maria Rita .

Status of Decommissioning Work at the Gundremmingen Unit A Power Station 305
 Gunnison

DOE Selects Subcontractor for Gunnison, Colorado, Tailings Cleanup 382

DOE, State, Local Officials to Break Ground for Gunnison, Colorado, Tailings Cleanup 383
Environmental Assessment of Remedial Action at the Gunnison Uranium Mill Tailings Site Near
Gunnison, Colorado 394

Environmental Assessment of the Provision of a Water Supply System - Gunnison, Colorado - Final 395

Environmental Audit - Rifle, Gunnison and Grand Junction UMTRA Project Sites 400 G2

Decontamination of the Main Circuits of the G2 Gas-Graphite Reactor 130 Dismantling of the G2 Reactor 198

Hagerman

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

Hague

The Experience - 1st Case - The Decommissioning of Hot Cells: Elan 2B Workroom at La Hague 191

Dismantling and Disassembling at the Waste Processing Unit at La Hague 192

Hanford

Hanford Surplus Facilities Plan - Fiscal Year 1990 7

Overview of the Closure Approach for the Hanford Site Single-Shell Tank Farm 10

Annual Surveillance and Maintenance Report for the Retired Hanford Site Facilities 24 Hanford High-Activity Waste Tank Safety Issues 33

Hanford Waste Tank Safety Issues: A Program Overview 34

Long-Term Public Health Impacts of Decommissioning the Hanford Surplus Production Reactors: Implications for CERCLA Remedial Actions at Hanford 37

Hanford Site Radioactive Waste Storage Tank Safety Issues: The Path to Resolution 38

Disposal Concepts for Waste in Underground Single-Shell Storage Tanks at the Hanford Site
43

Hanford Single-Shell Tank Waste-Preliminary Pretreatment Testing of Simulated Waste 44

Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 46

Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 47

Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ Treatment of Waste and Residuals for Hanford Single-Shell Tanks 48

Decommissioning of a Grout- and Waste-Filled Storage Tank in the 200 East Area of the Hanford Site 52

DOE Hanford Site Tank Farm Interim Stabilization During 1990 65

Resource Book: Decommissioning of Contaminated Facilities at Hanford - Volume 3 66

Summary of the Hanford Site Decontamination, Decommissioning, and Cleanup, FY 1974-FY 1990 67

Efforts to Earn Public Support and Confidence in Hanford Site Cleanup Work 579

Evaluation of the Hanford RI/FS Cost Projections - Appendixes, Volume 2 of 2 586

Evaluation of the Hanford RI/FS Cost Projections - Appendixes, Volume 1 of 2 587

Hanford

Future Use and Cleanup Strategy Alternatives: The Hanford Approach 588

Development of an Administrative Record System and Information Repository System on the Hanford Site, Benton County, Richland, Washington 592

Hanford Site Past Practice Investigation Strategy 593

HEIS: An Integrated Information System for Environmental Restoration and Monitoring at Hanford 594

Public Comments and Responses to the 1989 Hanford Cleanup Five-Year Plan 595

Decommissioning of the 105-F and 105-H Fuel Storage Basins in the 100 Area at the Hanford Site 598

Management of Petroleum Underground Storage Tanks at the Hanford Site 599

Remedial Investigation Phase 2 Supplemental Work Plan for the Hanford Site 1100 EM-1 Operable Unit 600

Phase 1 and 2 Feasibility Study Report for the Hanford Site 1100-EM-1 Operable Unit 601
Analysis and Decision Document in Support of Acquisition of Steam Supply for the Hanford 200
Area 602

Floodplains Wetland Involvement for the Proposed Remedial Investigation of the 300-FF-5 Operable Unit of the Hanford Site, Richland, WA 609

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

Statistical Approach on RCRA Groundwater Monitoring Projects at the Hanford Site 699

Recovery and Evaluation of Historical Environmental Monitoring Data at Hanford 700 Historical Genesis of the Hanford Site Wastes 701

Accelerated Cleanup of Past Practice Waste Sites on the Hanford Site, Richland, Washington 702

Temporal Variations in Atmospheric Dispersion at Hanford 704

Identification of Contaminants of Concern in Hanford Ground Waters 706

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending March 31, 1991 707

Hanford Site Surface Soil Radioactive Contamination Control Plan for Fiscal Year 1992 710

Air Quality Monitoring at Toxic Waste Sites: A Hanford Perspective 711

Remedial Investigation for the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 712 Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Initial Site Characterization Approach and Preliminary Results: 200 West Area Carbon Tetrachloride Expedited Response Action, Hanford Site, Washington 714

Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Westinghouse Hanford Company Environmental Surveillance Annual Report - 200/600 Areas - Calendar Year 1990 716

Conducting a Soil Washing Treatability Investigation at the Hanford Site 717

FY 1993 Task Plans for the Hanford Environmental Dose Reconstruction Project 723

Overview of the Hanford Environmental Dose Reconstruction Project 724

Project Management Plan for the Hanford Environmental Dose Reconstruction Project 725

Soil Washing Results for Mixed Waste Pond Soils at Hanford 727

Soil Washing: A Promising Technology for the Cleanup of Hanford 741

Hanford

Decommissioning of a Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility: A Case Study of the Interim Stabilization of the 216-A-29 Ditch at the Hanford Site 742

Bioremediation of Hanford Groundwater 743

Accelerated Cleanup of Carbon Tetrachloride in a Radiologically Contaminated Site at the Hanford Site 744

Soil Vapor Extraction Test in a Radiologically Contaminated Site, Hanford Site 745

Application of United States Department of Transportation Regulations to Hazardous Material and Waste Shipments on the Hanford Site 762

Control of Soil Column Discharges at the Hanford Size 763

Hanford Site Waste Management Units Reports 764

Accelerated Cleanup of Mixed Waste Units on the Hanford Site, Richland, Washington 779

Accelerated Cleanup of the 316-5 Process Trenches at the Hanford Site 780

The New Mission for the Hanford Site 791

Legend and Legacy: Fifty Years of Defense Production at the Hanford Site 792

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending June 30, 1991 793

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending September 30, 1991 794

Grout for Closure of Waste-Disposal Vaults at the US DOE Hanford Site 795

Safe Storage of Deactivated Radiological Chemical Processing Plants in the 200 West Area of the Hanford Site 796

Results from the 1988 Quality Assurance Task Force Hanford Intercomparison Program 901
Application of Quality Assurance/Quality Control to Waste Management Processes at the
Hanford Site 1003

Hazard

High Organic Containing Tanks - Assessing the Hazard Potential 25

Standardized Radiological Hazard Analysis for a Broad-Based Operational Safety Program 931 Hazardous

Method of Removing Hazardous Material Deposited on Concrete Surface 136

UMTRA Project Management of Residual Radioactive Material Commingled with Hazardous Waste at Vicinity Properties 403

National Emission Standards for Hazardous Air Pollutants - Uranium Mill Tailings Disposal Sites 423

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Meeting Health-Based Standards at Hazardous and Mixed Waste Sites: Are We Deluding Ourselves? 486

Closure of Hazardous and Mixed Radioactive Waste Management Units at US DOE Facilities 509

Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste Removal at the CTF K-1654B Underground Collection Tank 552

Draft Postclosure Permit Application for Bear Creek Hydrogeologic Regime at the Oak Ridge Y-12 Burial Grounds Hazardous Waste Disposal Unit 576

Application of United States Department of Transportation Regulations to Hazardous Material and Waste Shipments on the Hanford Site 762

Hazardous

Chestnut Ridge Sediment Disposal Basin (D-025): Summary of Closure under Rules Governing Hazardous Waste Management in Tennessee 775

In Situ Remediation of Hazardous Wastes 850

Automation of Geophysical Surveys Used in Assessment of Hazardous Waste 892

National QA Standard for Environmental Programs for Hazardous Waste Management Activities 895

Determining the Number of Samples Required for Decisions Concerning Remedial Actions at Hazardous Waste Sites 913

Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation 925

Health-Based Cleanup Goals at Hazardous Waste Sites: Implications for Risk Management 928 Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984

Hazards

Progress in Evaluating the Hazards of Ferrocyanide Waste Storage Tanks 22
International Similarities and Differences in Regulating Nonradiation Hazards 801

Hazelwood

Engineering Evaluation/Cost Analysis for the Proposed Decontamination of Properties in the Vicinity of the Hazelwood Interim Storage Site, Hazelwood, Missouri - Environmental Assessment 352

HDR

Explosive Fracturing of Concrete Structures and Pipings - Experiments in the HDR 185 Headspace

Evaluation of a Rapid Headspace Analysis Method for Analysis of Volatile Constituents in Soils and Sediments 890

Health

Long-Term Public Health Impacts of Decommissioning the Hanford Surplus Production Reactors: Implications for CERCLA Remedial Actions at Hanford 37

Health and Safety Plan for the Seymour Site - Seymour, Connecticut 372

Health and Safety Plan for the Ventron Site - Beverly, Massachusetts 373

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

Health Risks from Uranium Mill Tailings 436

The Prioritization of Environment, Safety, and Health Activities 464

Meeting Health-Based Standards at Hazardous and Mixed Waste Sites: Are We Deluding Ourselves? 486

An Overview of Public Health Service Health-Related Activities as They Relate to the Department of Energy's Environmental Restoration Program 496

Pinellas Plant Site Specific Plan: Environmental Health and Safety Programs 520

Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste Removal at the CTF K-1654B Underground Collection Tank 552

Pinellas Plant Site Environmental Report for Calendar Year 1990 - Environmental Health and Safety Programs: Revision A 619

Health and Safety Plan for Operations Performed for the Environmental Restoration Program - Task: Vapor Vacuum Extraction 620

Health

Pacific Northwest Laboratory Annual Report for 1990 to the Assistant Secretary for Environment, Safety, and Health, Part 5: Environment, Safety, Health, and Quality Assurance 797

Health Assessment for West Lake Landfill, Bridgeton, St. Louis County, Missouri, Region 7 813

Application of Monte Carlo Simulation to Estimate Probabilities for the Best and Health

Conservative Estimates of Receptor Well Concentrations 839

Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation 925

Health-Based Cleanup Goals at Hazardous Waste Sites: Implications for Risk Management 928
Risk Assessment Guidance for Superfund - Volume 1: Human Health Evaluation Manual - Part
B, Development of Risk-Based Preliminary Remediation Goals - Interim Report 929

Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety Impacts Are Below Regulatory Concern (BRC) 1017

Heat

Development of Techniques to Decontaminate the WAGR Heat Exchangers 145 In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170 Diamond Wire Cutting of Heat Exchangers 218

Simulation of Heat Conduction and Electric Fields During In Situ Vitrification of Soil 959 Heating

Removal of Contaminated Concrete Surfaces by Microwave Heating: Phase 1 Results 217 Heights

Management of Radioactive Waste at Lucas Heights Research Laboratories 822

HEIS: An Integrated Information System For Sovironmental Restoration and Monitoring at Hanford 594

Heterogeneity

Addressing Data Heterogeneity: Lessons Learned from a Multimedia Risk Assessment 902 Heterogeneously

Assessing Exposures and Risks in Heterogeneously Contaminated Areas: A Simulation Approach 919

Historic

Public Involvement in Remedial Work Programs at Historic Low-Level Radioactive Waste Sites: Recent Canadian Experience 800

Historical

Recovery and Evaluation of Historical Environmental Monitoring Data at Hanford 700 Historical Genesis of the Hanford Site Wastes 701

Hosts

Geochemical Hosts of Solubilized Radionuclides in Uranium Mill Tailings 452

Hot

The Experience - 1st Case - The Decommissioning of Hot Cells: Elan 2B Workroom at La Hague 191

Use of Remote Device Coupled with a Carrier for the Dismantling of Hot Cells in France 197 House

Uranium Enrichment: Analysis of Decontamination and Decommissioning Scenarios - Briefing Report to the Chairman, Subcommittee on Energy and Power, Committee on Energy and Commerce, House of Representatives 2

Humid

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

Hunterston

The Second Irradiated Fuel Dismantling Cell at Hunterston "B" 326

Hydrated

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Hydraulic

Feasibility of Hydraulic Fracturing to Improve Remedial Actions - Project Summary 872 Hydrocarton

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

Hydrocarbons

Threshold Limited Kinetics of Aromatic Hydrocarbons in Shallow Soil Systems 867

Hydrofracture

Preliminary Decommissioning Study Reports - Old Hydrofracture Facility 21

Hydrogen

Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Hydrogeologic

Draft Postclosure Permit Application for Bear Creek Hydrogeologic Regime at the Oak Ridge Y-12 Burial Grounds Hazardous Waste Disposal Unit 576

Logs of Wells and Boreholes Drilled During Hydrogeologic Studies at Lawrence Livermore National Laboratory Site 300, June 30, 1988 - December 31, 1990 613

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

Hydrogeologv

U.S. National Issues on Environmental Hydrology and Hydrogeology - Local and Emerging Global Perspectives 880

Hydrology

U.S. National Issues on Environmental Hydrology and Hydrogeology - Local and Emerging Global Perspectives 880

Hydropunch

Cone Penetrometer/Hydropunch [trademark]: An Efficient Approach for Delineating Subsurface Lithology and Ground Water Quality 882

Hydrostatic

Slow Demolition of Thick Wall Using Hydrostatic Tube - Example of Dismantling RC Structures in Radioactive Facilities 208

Hydrostratigraphic

Hydrostratigraphic Analysis of the Pilot Remediation Test Area 612

TARA

IAEA Activities on Decommissioning of Research Reactors and Other Small Nuclear Facilities 285

ICPP

ICPP Environmental Monitoring Report, CY 1989 622

ICRP

Implications of Recent ICRP Recommendations for Risk Assessments for Radioactive Waste Disposal and Cleanup 726

Idaho

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

Environmental Assessment of Remedial Action at the Lowman Uranium Mill Tailings Site Near Lowman, Idaho 397

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521

EG and G Idaho Environmental Protection Implementation Plan (1991) 522

Remediation Strategies for Perched Water Bodies Underlying the Idaho Chemical Processing Plant at the Idaho National Engineering Laboratory 525

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

In Situ Technology Evaluation and Functional and Operational Guidelines for Treatability Studies at the Radioactive Waste Management Complex at the Idaho National Engineering Laboratory 747

In Situ Vitrification Program at the Idaho National Engineering Laboratory 935

In Situ Vitrification Application to Buried Waste: Final Report of Intermediate Field Tests at Idaho National Engineering Laboratory 946

Product Evaluation of In Situ Vitrification Field Tests at the Idaho National Engineering Laboratory 972

Summary of the Environmental Restoration Program Retrieval Demonstration Project at the Idaho National Engineering Laboratory - Revision 1 990

IEA

Strategy of NPP Decommissioning in the IEA NPPD Member States 77

Illinois

Results of the Radiological Survey at the New Betatron Building, Granite City Steel Facility, Granite City, Illinois (GSG002) 360

Immiscibility

A Thermodynamic Analysis of Melt Immiscibility and its Implications During Vitrification 947 Immobilisation

Immobilisation of Active Concrete Debris Using Soluble Sodium Silicates 272

Immobilization

Immobilization of Contamination by the Coating of Polymers on Large-Size Waste Products 225 Immobilizing

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Impact

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling of and Disposition of Component Parts - University of Kansas Research Reactor 92

Long Island Lighting Company - Shoreham Nuclear Power Station - Environmental Assessment and Finding of No Significant Impact 93

Impact

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling and Disposition of Component Parts - University of Utah AGN-201M Research Reactor 95

Residual Radioactivity Cost Impact Evaluation 96

Dairyland Power Cooperative: La Crosse Boiling Water Reactor (LACBWR) - Issuance of Environmental Assessment and Finding of No Significant Impact 97

Radiological Impact of Very Slightly Radioactive Copper and Aluminium Recovered from Dismantled Nuclear Facilities 233

Intent to Prepare a Remedial Investigation/Feasibility Study-Environmental Impact Statement: Response Actions at a Site in Wayne, New Jersey 354

Final Environmental Assessment of Remedial Action at the Falls City Uranium Mill Tailings Site, Falls City, Texas - Finding of No Significant Impact 399

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

Programmatic Environmental Impact Statement for the Office of Environmental Restoration and Waste Management 473

The National Environmental Policy Act and DOE's Programmatic Environmental Impact Statement 490

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 1 660

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 2 661

Impacts

Long-Term Public Health Impacts of Decommissioning the Hanford Surplus Production Reactors: Implications for CERCLA Remedial Actions at Hanford 37

Discussion of the Economic Impacts of Regulations Governing the Stabilization and Decommissioning of Uranium Milling Facilities 419

Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety Impacts Are Below Regulatory Concern (BRC) 1017

Impoundment

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 2 770 Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 1 771

Impoundments

Post-Closure Plan for the X-616 Surface Impoundments 543

Impregnation

In Situ Treatment of Concrete Surfaces by Organic Impregnation and Polymerization 226 Incentives

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424

Comparison of In Situ Vitrification and Rotary Kiln Incineration for Soils Treatment 965 Independent

Results of the Independent Verification of Radiological Remedial Action at 87 East 500 South Street, Monticello, Utah 416

Independent

Results of the Independent Verification of Radiological Remedial Action at 397 East 3rd South Street, Monticello, Utah 428

Industrial

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

Large Shielded Industrial Packages for the Transport of Intermediate Level Waste 276

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Soil Clean-up Guidelines for Decommissioning of Industrial Lands: Background and Rationale for Development 874

Industry

Towards an International Decommissioning Industry 107

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclear Industry 267

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

1990 Thermal Remediation Industry Contractor Survey 852

Utilization of Uranium Industry Technology and Relevant Chemistry to Leach Uranium from Mixed-Waste Solids 940

Progress in the Development of Below Regulatory Concern Standards: An Industry Perspective 1024

INEL

Characterization Studies on: (A) Contaminated Batch of Rocky Flats Soil (B) Uncontaminated Batch of INEL Soil 617

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

Infiltration

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

Information

Information of Present Status of NPP A-1 Bohunice 297

Information for Consideration in Reviewing Groundwater Protection Plans for Uranium Mill Tailings Sites 422

Development of an Administrative Record System and Information Repository System on the Hanford Site, Benton County, Richland, Washington 592

HEIS: An Integrated Information System for Environmental Restoration and Monitoring at Hanford 594

Guide to Groundwater Well Locations and Information at Oak Ridge National Laboratory 669 Initiatives

Lessons Learned and New Initiatives in Cost and Schedule Estimating 491

Joint DOE/EPA Initiatives to Facilitate International Environmental Technology Transfer 950 Remediation Technology Needs and Applied R&D Initiatives 996

Injection

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Injuries

Natural Resources Damage Assessments at Department of Energy Facilities - Using the CERCLA Process to Minimize Natural Resources Injuries 999

Innovative

Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ Treatment of Waste and Residuals for Handord Single-Shell Tanks 48

Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation 512

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Innovative Investigation Methodologies and Techniques for Site Characterization 910

A Framework for Evaluating Innovative Statistical and Risk Assessment Tools to Solve Environmental Restoration Problems 921

Selection of Innovative Technologies for the Remediation of Soils Contaminated with Radioactive and Mixed Wastes 985

Synopses of Federal Demonstrations of Innovative Site Remediation Technologies 997
Superfund Innovative Technology Evaluation (SITE) Program - Spring Update 1991 998

Inspection

Monitor Well Inspection and Maintenance Plan for the Department of Energy, Y-12 Plant, Oak
Ridge, Tennessee 687

Institute

Experience in Decontamination and Reuse of the Large-Scale Radiochemical Laboratory and the Research Reactor at the Japan Atomic Energy Research Institute 144

Institutional

The Use of Institutional Controls at Department of Energy Oak Ridge Field Office Environmental Restoration Sites 568

Case Studies on Designing Meetings for Effective Institutional Interactions 1011

Instrumentation

Development of Tank Instrumentation - The Search for Appropriate Monitoring 26 Integration

NEPA/CERCLA Integration at Rocky Flats 518

Successful Integration of the CERCLA and NEPA Compliance Processes in the Weldon Spring Site Remedial Action Project: A Case Study 527

CERCLA Integration with Site Operations: The Fernald Experience 533

Integration of Removal Actions into the Operations at a DOE Facility 539

Technology Integration Branch FY 1991 Program Plan, Office of Technology Development 969 Long-Range Plan for Technology Integration Programs, Office of Technology Development 970 Technology Integration Division - FY 1992 Technology Integration Programs Plan, Office of Technology Development 971

Interagency

A Tale of Negotiations: CERCLA Interagency Agreement at the Mound Plant 540 terceptor

Design and Construction of an Interceptor System for Radioactively Contaminated Solvent 730

Intercomparison

Results from the 1988 Quality Assurance Task Force Hanford Intercomparison Program 901 Interface

TSD Capacity Model Interface with Waste Reduction Planning in the Environmental Restoration Program 467

A Graphical Interface for Robotic Remediation of Underground Storage Tanks 948

Intermediate

The Experience - 6th Case - Rinsing and Decontamination of Liquid Waste Storage Containers of Intermediate and High-Level Radioactivity 118

Boxes for the Transport and Disposal of Low Level and Decommissioning Intermediate Level Radioactive Wastes 258

Large Shielded Industrial Packages for the Transport of Intermediate Level Waste 276

In Situ Vitrification Application to Buried Waste: Final Report of Intermediate Field Tests at Idaho National Engineering Laboratory 946

Internals

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202 Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

Inventories

Integrated Data Base for 1991: U.S. Spent Fuel and Radioactive Waste Inventories, Projections, and Characteristics 498

Comparison of Statistical Methods for Estimating Plutonium Inventories in Soil 915

Inventory

Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Site Inventory of Residual Radioactivity in Japan 254

Investment

Investment Management for Nuclear Decommissioning Trusts 104

Iodine

Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

Iron

Research on the Harmless Reuse of Non-Iron Metals 243

Irradiation

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Irrigation

Remediation and Mitigation Associated with Contamination of Water by Irrigation Drainage 856

Land Reclamation at the Basalt Waste Isolation Project 740

Italy

Decommissioning Nuclear Reactors in Italy: the Unrestricted Release Issue 312 JAERI

Present Status of Decommissioning Materials Reuse Research at JAERI 252

A Research Program on the Recycling of Decommissioning Materials at JAERI 256

Japan

Policy and Regulation for Decommissioning Reactors in Japan 86

Current Status of Residual Radioactivity Criteria in Japan 87

Systems Engineering for Decommissioning the Japan Power Demonstration Reactor 88

Japan

Experience in Decontamination and Reuse of the Large-Scale Radiochemical Laboratory and the Research Reactor at the Japan Atomic Energy Research Institute 144

Site Inventory of Residual Radioactivity in Japan 254

Experience of Research Reactor Decommissioning in Japan 284

Research and Development on Decommissioning of Nuclear Facilities in Japan 314

Advances in the Decommissioning of the JPDR (Japan Power Demonstration Reactor) 316
Japan Pushes Nuclear Decommissioning Work 317

Jefferson

Superfund Record of Decision (EPA Region 8): Rocky Flats Plant (DOE), Northern Jefferson County, CO - First Remedial Action, January 1990 - Final report 615

Jersey

Intent to Prepare a Remedial Investigation/Feasibility Study-Environmental Impact Statement: Response Actions at a Site in Wayne, New Jersey 354

Jessop

Results of the Radiological Survey at the Jessop Steel Company Site, 500 Green Street, Washington, Pennsylvania (JSP001) - Environmental Restoration and Waste Management Non-Defense Programs 371

Jet

Residue-Free and Residue-Poor Jet Methods to Decontaminate Nuclear Plant Components 123 Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178 Study on Technology of Reactor Dismantling by Abrasive Water Jet Cutting System 210

Johnston

An Improved Method for Remediation of Transuranic-Contaminated Coral Soil at Johnston Atoll 817

JPDR

Estimation of Collective External Dose During Dismantling of JPDR (BWR, 90 MWt) 114 Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

Advances in the Decommissioning of the JPDR (Japan Power Demonstration Reactor) 316 The JPDR Decommissioning Program 318

Status and Safety of the Decommissioning of the JPDR 319

Progress of JPDR Decommissioning Program - Seventh Progress Report (April-September 1990) 320

Quarterly Report of JPDR Decommissioning Program, 4th Quarter, FY 1990 321

Quarterly Report of JPDR Decommissioning Program, 3rd Quarter, FY 1990 322

Karlsruhe

Decommissioning of the Karlsruhe Reprocessing Plant (WAK) - Preliminary Planning Results 84

Karlsruhe Nuclear Research Center 306

Karlsruhe Reprocessing Plant (WAK) 307

The Decommissioning of the Nuclear Power Plant MZFR at the Kernforschungszentrum Karlsruhe 308

Decommissioning of the MZFR Nuclear Power Plant at the Karlsruhe Nuclear Research Center 309

Keppler

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Kernforschungszentrum

The Decommissioning of the Nuclear Power Plant MZFR at the Kernforschungszentrum Karlsruhe 308

Kerr

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Kesterson

Overview of Kesterson Reservoir Selenium Remediation Project 815

Kiln

Comparison of In Situ Vitrification and Rotary Kiln Incineration for Soils Treatment 965

Kinetics

Threshold Limited Kinetics of Aromatic Hydrocarbons in Shallow Soil Systems 867

Knudsen

Westinghouse, Morris-Knudsen Get Fort St. Vrain Decommissioning Work 157

Kress

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Labeling

Effective Sample Labeling 896

LACBWR

Dairyland Power Cooperative: La Crosse Boiling Water Reactor (LACBWR) - Issuance of Environmental Assessment and Finding of No Significant Impact 97

Lacnor

Remeasurement of Thorium-230 in the Pore Water of Lacnor Tailings 425

Lagoons

Process Development for Remediation of Phenolic Waste Lagoons 849

Landfill

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Request for Interim Approval to Operate 218-E-12B Trench 94 as a Chemical Waste Landfill for Disposal of Polychlorinated Biphenyl Wastes in Submarine Reactor Compartments 604

Summary of the Landfill Remediation Problems and Technology Needs of the Oak Ridge Reservation Environmental Restoration Programs 788

Health Assessment for West Lake Landfill, Bridgeton, St. Louis County, Missouri, Region 7 813
Biological Activity and Potential Remediation Involving Geotextile Landfill Leachate Filters 865
Lands

Chemical Contaminants on DOE Lands and Selection of Contaminant Mixtures for Subsurface Science Research 494

Soil Clean-up Guidelines for Decommissioning of Industrial Lands: Background and Rationale for Development 874

Landscape

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Laser

Polyjointed Robot with Integrated Laser Beam 159

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

Investigation of Laser Cutting Applications in Decommissioning 200

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202

Research and Development of Laser Cutting Technology and Robots Used for Dismantling Nuclear Power Facilities 205

Lawrence

Logs of Wells and Borehoies Drilled During Hydrogeologic Studies at Lawrence Livermore National Laboratory Site 300, June 30, 1988 - December 31, 1990 613

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

Laws

Applicable or Relevant and Appropriate Requirements (ARARs) for Remedial Action at the Oak Ridge Reservation - A Compendium of Major Environmental Laws 563

Layer

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Layers

Removal of Concrete Layers from Biological Shields by Microwaves 224

LDR

Superfund LDR Guide No. 6A (2nd edition) - Obtaining a Soil and Debris Treatability Variance for Remedial Actions 482

DOE LDR Strategy Report for RMW 1027

Leach

Utilization of Uranium Industry Technology and Relevant Chemistry to Leach Uranium from Mixed-Waste Solids 940

Leachate

Biological Activity and Potential Remediation Involving Geotextile Landfill Leachate Filters 865
Leaching

Factors Affecting the Leaching of Radium-226 from Barium-Radium Sulphate Sludges 443

Leak

Deterioration Assessment of Nuclear Power Station Buildings and Long-Term Stability and the Leak Tightness of Reactor Containments 288

Surface Radiological Investigations of Trench 6 and Low-Level Waste Line Leak Site 7.4b at the Oak Ridge National Laboratory, Oak Ridge, Tennessee 678

Lecture

United States Department of Energy Decontamination & Decommissioning Planning and Operations Experience - A Short Course Lecture 13

Legal

Legal Requirements for Post-Operation Period Licensing of Nuclear Plants 82

Legislation

Nuclear Regulatory Legislation, 101st Congress 1020

Letters

Waste Tank 241-A-105 Supporting Documentation - Miscellaneous Reports, Letters, Memoranda, and Data 30

Lewiston

Performance Monitoring Report for the Niagara Falls Storage Site Waste Containment Structure, Lewiston, New York, for Calendar Year 1990 366

Liaison

Trip Report Covering Liaison Committee and Technical Advisory Group Meeting of April 17-26, 1991 348

License

Order of 31 July 1990 Cancelling the Third Condition in the Annex to the Order of 29 April 1982 Granting the Final Operating License for the Vandellos I Nuclear Power Plant, and Fixing the Conditions to be Complied with by the Operator for the Phase Prior to its Dismantling and Closing Down, to Maintain the Plant in Safe Conditions and Remove the Fuel from the Site 89

Receipt of Request and Intent to Issue License Amendment Regarding Reclamation Plans for Inactive Uranium Mill 388

Licensed

Ground-Water Flow and Transport Modeling of the NRC-Licensed Waste Disposal Facility, West Valley, New York 648

Licensing

Legal Requirements for Post-Operation Period Licensing of Nuclear Plants 82 Meeting Licensing Restrictions from a Regulator's Perspective 1005

Lighting

Long Island Lighting Company - Shoreham Nuclear Power Station - Environmental Assessment and Finding of No Significant Impact 93

Lime

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Limits

Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

Linearized

Dynamic Optimal Control of Groundwater Remediation with Management Periods: Linearized and Quasi-Newton Approaches 853

Lingen

Consequences of Suppression of Negative Pressure in the KW-Lingen Containment 108 The Decommissioned Lingen Nuclear Power Station (KWL) 282

Liquid

Federal Facility Agreement Plans and Schedules for Liquid Low-Level Radioactive Waste Tank Systems at Oak Ridge National Laboratory, Oak Ridge, Tennessee 3

Preliminary Decommissioning Study Reports - Low-Level Liquid Waste Tanks 18

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

The Experience - 6th Case - Rinsing and Decontamination of Liquid Waste Storage Containers of Intermediate and High-Level Radioactivity 118

Lithology

547

Cone Penetrometer/Hydropunch [trademark]: An Efficient Approach for Delineating Subsurface Lithology and Ground Water Quality 882

Livermore

Sandia National Laboratories, Livermore Environmental Protection Implementation Plan for the Period November 9, 1991 - November 9, 1992 516

Logs of Wells and Boreholes Drilled During Hydrogeologic Studies at Lawrence Livermore National Laboratory Site 300, June 30, 1988 - December 31, 1990 613

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

LLW

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

LMBFR

Anticipated Assessment of the Amount of Radioactive Wastes Arising from Pool LMBFR Dismantling 251

Local

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202

DOE, State, Local Officials to Break Ground for Gunnison, Colorado, Tailings Cleanup 383

DOE, State, Local Officials Break Ground for Rifle, Colorado, Tailings Cleanup 408

U.S. National Issues on Environmental Hydrology and Hydrogeology - Local and Emerging Global Perspectives 880

Logging

1991 Yearly Calibration of Pacific Northwest Laboratory's Gross Gamma-Ray Borehole Geophysical Logging System 696

Logs

Logs of Wells and Boreholes Drilled During Hydrogeologic Studies at Lawrence Livermore National Laboratory Site 300, June 30, 1988 - December 31, 1990 613

LOMI

Aged Stainless Steel Corrosion Tests with LOMI and AECL Decontamination Processes 125 Louis

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

Engineering Evaluation/Cost Analysis for Decontamination at the St. Louis Downtown Site, St. Louis, Missouri 353

Health Assessment for West Lake Landfill, Bridgeton, St. Louis County, Missouri, Region 7 813 owering

Removal of Nuclear Reactors by Lowering - Results of Individual and Long-Term Safety
Assessment 113

Lowman

Environmental Assessment of Remedial Action at the Lowman Uranium Mill Tailings Site Near Lowman, Idaho 397

Managing a Site Cleanup Under an Accelerated Schedule - The Lowman Story 406 Ceremony Marks Lowman Mill Site Cleanup Progress 409

Lucas

Management of Radioactive Waste at Lucas Heights Research Laboratories 822

LWK

Effect of Long-Living Products of Concrete Structure Activation on Decommissioning of NPPs with LWR Reactors 146

548

Magnesium

Radiological Characterization Survey of the Former Diamond Magnesium Company Site, 720 Fairport-Nursery Road, Painesville, Ohio (DMP001, DMP002) 368

Magnetic

Utilization of the Magnetic Induced Polarization Technique in Environmental Remediation Problems 894

Removal of Heavy Metals and Radionuclides by Seeded Magnetic Filtration 978

Magnetometer

A Comparison of Shallow Electromagnetic and Magnetometer Surface Geophysical Techniques to Effectively Delineate Buried Wastes 897

Magnox

The Potential Radiological Consequences of Deferring the Final Dismantling of a Magnox Nuclear Power Station 110

Maintenance

Assessing the Maintenance, Quality Assurance and Control, and Decommissioning of DOE Research Reactors 15

Annual Surveillance and Maintenance Report for the Retired Hanford Site Facilities 24

Annua! Summary Report on Surveillance and Maintenance Activities of the Surplus Contaminated Facilities Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 62

Annual Summary Report of the Decontamination and Decommissioning Surveillance and Maintenance Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 63

Decontamination and Decommissioning Surveillance and Maintenance Report for FY 1991 64 Monitor Well Inspection and Maintenance Plan for the Department of Energy, Y-12 Plant, Oak Ridge, Tennessee 687

Managing

Managing a Site Cleanup Under an Accelerated Schedule - The Lowman Story 406 Managing the Environmental Cleanup of DOE's Nuclear Weapons Complex 468

Manipulation

Combined Long Reach and Dexterous Manipulation for Waste Storage Tank Applications 68 Long-Reach Manipulation for Waste Storage Tank Remediation 979

Manipulators

Development of Telerobotic Manipulators for Reactor Dismantling Work 207

Manual

Radiological Survey Manual for Decommissioning 31

Risk Assessment Guidance for Superfund - Volume 1: Human Health Evaluation Manual - Part B, Development of Risk-Based Preliminary Remediation Goals - Interim Report 929

Superfund Exposure Assessment Manual 930

Guidance Manual for Conducting Technology Demonstration Activities 995

Environmental Audit Manual 1026

U.S. Department of Energy Radiological Control Manual 1033

Manufacturing

Results of the Radiological Survey at the Former McKinney Tool and Manufacturing Company, 1688 Arabella Road, Cleveland, Ohio (MTC001 and MTC002) 367

Mapping

Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Robotics Subsurface Mapping Demonstration Technology Test Plan 974

Marcoule

Dismantling of the Rooms 82 to 100 at Marcoule 188

Marshall

Radiological Dose Assessments in the Northern Marshall Islands (1989-1991) 812

Maryland

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

Massachusetts

Health and Safety Plan for the Ventron Site - Beverly, Massachusetts 373

Maywood

Maywood Interim Storage Site Annual Environmental Report for Calendar Year 1990 361

McCov

Remedial Investigation Report for Chestnut Ridge OU 2 (Filled Coal Ash Pond/McCoy Branch) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 691

McGee

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

McKinney

Results of the Radiological Survey at the Former McKinney Tool and Manufacturing Company, 1688 Arabella Road, Cleveland, Ohio (MTC001 and MTC002) 367

Measurement

Measurement Techniques Applicable to Residual Radioactivity on a Decommissioned Reactor Site 109

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Scrap Metal from Nuclear Power Stations 241

Measurement of Alpha Radiators in Nuclear Wastes by Active and Passive Methods: Devices for Measuring Nuclear Wastes from Dismantling Operations 248

Low-Level Radioactivity Measurement Methods for Reusing or Recycling 255

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclear Industry 267

Testing of New Techniques in Decommissioning of a Fuel (U,Th) Fabrication Plant, Special Consideration to Free Release Measurement of Low Uranium Activities 289

Measurements

Development of Measuring Systems for Contamination Measurements on Regularly and Irregularly Shaped Surfaces 111

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Measurements

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

Device for Decisive Measurements of Waste from Dismantling of KKN 247

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Measuring

Development of Measuring Systems for Contamination Measurements on Regularly and Irregularly Shaped Surfaces 111

Development of Measuring and Control Systems for Underwater Cutting of Radioactive Components 220

Measurement of Alpha Radiators in Nuclear Wastes by Active and Passive Methods: Devices for Measuring Nuclear Wastes from Dismantling Operations 248

Mechanism

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Melt

A Thermodynamic Analysis of Melt Immiscibility and its Implications During Vitrification 947 Influence of Natural Convection on Melt Shape During In Situ Vitrification 953

Melting

Comparison of Decontamination and Melting with Direct Disposal 181

Melting of Contaminated Steel Scrap from Decommissioning 234

First Results of the Melting of Radioactive Waste in the EIRAM Plant 236

Further Studies on Melting of Radioactive Metallic Wastes from the Dismantling of Nuclear Installations 242

Melting of Activated/Contaminated Metallic Components Arising from the Decommissioning of Nuclear Facilities 246

Melting of Low-Level Contaminated Steels 257

Melting of Radioactive Metal Scrap from Nuclear Installations 277

Behaviour of Difficult to Measure Radionuclides in the Melting of Steel 278

A Preliminary Study of the Controls on Melting During In Situ Vitrification 966

Melton

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

The Transport of Contaminants During Storms in the White Oak Creek and Melton Branch Watersheds 672

MEMO

Efficiency-Based Groundwater Monitoring Design Using the Monitoring Efficiency Model (MEMO) 899

Memoranda

Waste Tank 241-A-105 Supporting Documentation - Miscellaneous Reports, Letters, Memoranda, and Data 30

Mercury

Interim Action Proposed Plan: Mercury Tank Remediation at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 574

DOE to Hold Public Meeting on Proposal to Reduce Mercury Releases from Y-12 Plant 578

An Effective Methodology for Establishing Cleanup Standards for Mercury Contaminated Soils
736

Metabolic

A Co-Metabolic Approach to Groundwater Remediation 548

Metal

Decontamination Device for Radiation-Contaminated Metal 134

Decontamination Method for Radioactive Metal Waste 137

Decontamination Method for Radiation-Contaminated Metal Waste 138

Method of Decontaminating Metal Waste 139

Decontamination Method for Radioactive Metal Waste 140

Decontamination Techniques for Radioactive Metal Waste Using a Neutral Electrolyte and a Sulfuric Acid Solution 141

Chemical Decontamination for Beneficial Metal Re-Use from Nuclear Applications 150

Chemical Decontamination Method for Radioactive Metal Waste 153

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Scrap Metal from Nuclear Power Stations 241

Final Report: Scrap Metal Program Phase I - Decontamination Demonstration Project 266

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclei

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclear Industry 267

DOE Scrap Metal Recovery Project - Phase I Report (Volume 1) 275

Melting of Radioactive Metal Scrap from Nuclear Installations 277

Contaminated Scrap Metal Management at the ORGDP - A Problem Solved 759

Treatment of Heavy Metal Contaminated Soils by In Situ Vitrification 952

Demonstration Processing of Contaminated Scrap Metal for Beneficial Reuse - Phase 1 - Final Report 987

Experimental Results for the Nickel Purification, Phase 1, of the Oak Ridge Scrap Metal Decontamination Program 988

Test Results for Dry Abrasive Cleaning of Scrap Metal for Beneficial Reuse - Phase 1 - Department of Energy Decontamination Program 989

Metallic

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178
Development of a System to Demonstrate the Safe Underwater Dismantling of Metallic
Components 184

Further Studies on Melting of Radioactive Metallic Wastes from the Dismantling of Nuclear Installations 242

Recycling of Metallic Materials from the Dismantling of Nuclear Plants 245

Metallic

Melting of Activated/Contaminated Metallic Components Arising from the Decommissioning of Nuclear Facilities 246

Metals

Method for Electrolytic Decontamination of Radioactive Contaminated Metals 156

Research on the Harmless Reuse of Non-Iron Metals 243

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

In Situ Vitrification of Soils Containing Various Metals 945

Removal of Heavy Metals and Radionuclides by Seeded Magnetic Filtration 978

Mexican

DOE to Hold Public Meeting on Mexican Hat Tailings Cleanup 411

Mexico

Environmental Monitoring Report, Sandia National Laboratories, Albuquerque, New Mexico, 1990 641

RCRA Facility Investigation for the Townsite of Los Alamos, New Mexico 643

Microbial

Microbial Reduction of Uranium 445

Microwave

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Removal of Contaminated Concrete Surfaces by Microwave Heating: Phase 1 Results 217

Microwaves

Removal of Concrete Layers from Biological Shields by Microwaves 224

Middleses

Middlesex Sampling Plant Annual Environmental Report for Calendar Year 1990 363

Migration

Guide to Obtaining No Migration Variances for CERCLA Remedial Actions 483

Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

Milling

Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

Discussion of the Economic Impacts of Regulations Governing the Stabilization and Decommissioning of Uranium Milling Facilities 419

Progress in the Research on Uranium Mill Tailings Treatment and Waste Reduction for Uranium Ore Milling Processes 444

Can Ore Milling Technology Be Harmonized With the Environment? 449

Mine

Radon Emissions During Mill Tailings Backfill Operations in a Uranium Mine 398

Distribution of Radioactivity in Surface Streams Around Uranium Mine-Mill Complex 427

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

Decommissioning and Reclamation of the Beaverlodge Mine/Mill Operations 437

Environmental Renovation of a Uranium Mine and Practice After its Decommissioning 446 Acid Mine Drainage Research in Canada 447

Mineralogical

Mineralogical Residence of Alpha-Emitting Contamination and Implications for Mobilization from Uranium Mill Tailings 396

Minerals

Environmental Issues and Waste Management in Energy and Minerals Production 837

Mines

Radioactive and Toxic Wastes from the Bancroft Uranium Mines: Where Are We Going Who Is in Charge 442

Minimis

EPRI Discussion Paper on BRC and De Minimis Concepts 1029

Minimization

Environmental Restoration Program Waste Minimization and Pollution Prevention Awareness Program Plan 497

Mining

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Radiological Protection Principles to be Applied to the Preservation and Use of Tailing Dams Resulting from Mining Activities 432

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Mixed

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

Decommissioning of a Mixed Oxide Fuel Fabrication Facility 325

Meeting Health-Based Standards at Hazardous and Mixed Waste Sites: Are We Deluding Ourselves? 486

Closure of Hazardous and Mixed Radioactive Waste Management Units at US DOE Facilities 509

Remedial Investigation/Feasibility Study Risk Assessments at a Superfund Mixed Waste Site 536 Costs and Schedule for a 58 Acre RCRA Interim Status Mixed Waste Closure at the Savannah River Plant 550

Mixed

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Soil Washing Results for Mixed Waste Pond Soils at Hanford 727

Treatment of Y-12 Plant Mixed Waste Contaminated Soils Utilizing the Westinghouse Soil Washing Process 737

An Approach to Regulatory Compliance with Radioactive Mixed Waste Regulations 750

Test Program for Closure Activities at a Mixed Waste Disposal Site at the Savannah River Plant 755

Handling 78,000 Drums of Mixed-Waste Sludge 756

Accelerated Cleanup of Mixed Waste Units on the Hanford Site, Richland, Washington 779 Surface Water Management at a Mixed Waste Remediation Site 784

Case Study of a Mixed Waste Site - RI/FS 811

Quality Assurance Elements in Environmental Restoration Procedures at Mixed-Waste Sites 904
Baseline Risk Assessment Methodology for Mixed Waste 909

The Use of Chemical and Radionuclide Risk Estimates in Site Performance Evaluation of Mixed Waste Sites 917

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

Finding a Compromise Between Chemical and Radiological Risk Assessment Methods for Mixed Waste Sites 927

Lessons Learned in Fixation and Storage of Radioactive Mixed Waste 939

Utilization of Uranium Industry Technology and Relevant Chemistry to Leach Uranium from Mixed-Waste Solids 940

Selection of Innovative Technologies for the Remediation of Soils Contaminated with Radioactive and Mixed Wastes 985

R&D Activities at DOE Applicable to Mixed Waste 993

In-Drum Solidification of Low-Level Mixed Waste 1019

Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Development of Guidance for Variances from the RCRA Land Disposal Restrictions for US DOE Mixed-Waste Streams 1023

Mixture

In Situ Vitrification and the Effects of Soil Additives - A Mixture Experiment Case Study 961 Mixtures

Chemical Contaminants on DOE Lands and Selection of Contaminant Mixtures for Subsurface Science Research 494

Mobility

Mobility of Plutonium and Americium Through a Shallow Aquifer in a Semiarid Region 642 Evaluation of a Contaminant Pathway and Mobility at a U.S. DOE Site Using Groundwater Chemical Data 653

Mobilization

Mineralogical Residence of Alpha-Emitting Contamination and Implications for Mobilization from Uranium Mill Tailings 396

Model

Analyses and Testing of Model Prestressed Concrete Reactor Vessels with Built-in Planes of Weakness 161

Model

TSD Capacity Model Interface with Waste Reduction Planning in the Environmental Restoration Program 467

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Efficiency-Based Groundwater Monitoring Design Using the Monitoring Efficiency Model (MEMO) 899

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

A Risk Computation Model for Environmental Restoration Activities 924

Model Based, Sensor Directed Remediation of Underground Storage Tanks 992

Modeling

Modeling of Elza Gate Contaminated Material for Use as Fill Material at the United Nuclear Corporation Waste Disposal Site, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 375

Chemical Modeling of the Neutralization Process for Acid Uranium Mill Tailings 441

DOE Guidelines and Modeling in Determination of Soil Cleanup Guidelines 487

Ground-Water Flow and Transport Modeling of the NRC-Licensed Waste Disposal Facility, West Valley, New York 648

Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed
679

Selection of a Preferred Remedial Well Configuration Using Groundwater Modeling Techniques
855

Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation 925

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951 Scaling Considerations for Modeling the In Situ Vitrification Process 955

Environmental Monitoring Data for Evaluating Atmospheric Modeling Results 1030

Models

Use of Models as a Rationale for the Design of Environmental Monitoring Programs 900 Modular

Adaptation to Teleoperation of an Existing Air-Tight Modular Workshop for Remotely Controlled Operations 164

Molten

Preliminary Decommissioning Study Reports - Molten Salt Reactor Experiment 20
Molten Salt Reactor Option for Beneficial Use of Fissile Material from Dismantled Weapons
760

Monitor

Monitor Well Inspection and Maintenance Plan for the Department of Energy, Y-12 Plant, Oak Ridge, Tennessee 687

Documentation Report for the 1989 Monitor Well Plugging and Abandonment Program, Oak Ridge Y-12 Plant 782

Electrical Resistance Tomography to Monitor Vadose Water Movement 875

Monitoring

Development of Tank Instrumentation - The Search for Appropriate Monitoring 26

Performance Monitoring Report for the Niagara Falls Storage Site Waste Containment Structure,

Lewiston, New York, for Calendar Year 1990 366

556

Monitoring

Environmental Monitoring at U.S. Department of Energy Facilities 492

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Quality Assurance Project Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 584

Management Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 585

Operational Environmental Monitoring Program Quality Assurance Project Plan 591

HEIS: An Integrated Information System for Environmental Restoration and Monitoring at Hanford 594

Facility Effluent Monitoring Plan Determinations for the 200 Area Facilities 603

Facility Effluent Monitoring Plan for the 2724-W Protective Equipment Decontamination Facility 607

Facility Effluent Monitoring Plan Determinations for the 300 Area Facilities - Environmental Assurance 608

ICPP Environmental Monitoring Report, CY 1989 622

Quarry Detection Monitoring Wells Completion Report WP-166 629

Radiation-Related Monitoring and Environmental Research at the Nevada Test Site 634

Siting and Constructing Very Deep Monitoring Wells on the U.S. Department of Energy's Nevada Test Site 635

Environmental Monitoring Plan, Nevada Test Site and Support Facilities 637

Offsite Environmental Monitoring Report: Radiation Monitoring Around United States Nuclear Test Areas 639

Environmental Monitoring Report, Tonopah Test Range, Tonopah, Nevada, 1990 640

Environmental Monitoring Report, Sandia National Laboratories, Albuquerque, New Mexico, 1990 641

Environmental Monitoring at Mound: 1990 Report 655

1990 Effluent and Environmental Monitoring Report for the Bettis Atomic Power Laboratory 657

Active Sites Environmental Monitoring Program: Action levels 664

Evaluation of Proposed Designs for Streamflow Monitoring Structures at Waste Disposal Sites 665

Final Report on the Waste Area Grouping Perimeter Groundwater Quality Monitoring Well Installation Program at Oak Ridge National Laboratory, Oak Ridge, Tennessee 668

SWSA 6 Interim Corrective Measures Environmental Monitoring: FY 1990 Results - Environmental Restoration Program 673

Active Sites Environmental Monitoring Program: Program Plan - ORNL 674

Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed 679

Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River 680

Active Sites Environmental Monitoring Program: Mid-FY 1991 Report 681

Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borehole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683

Active Sites Environmental Monitoring Program: FY 1990 Annual Report 684

Calendar Years 1989 and 1990 Monitoring Well Installation Program Y-12 Plant, Oak Ridge, Tennessee 688

Monitoring

Statistical Approach on RCRA Groundwater Monitoring Projects at the Hanford Site 699
Recovery and Evaluation of Historical Environmental Monitoring Data at Hanford 700
Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705
Quarterly Report of RCRA Groundwater Monitoring Data for Period April 1, 1991 Through
June 30, 1991 708

Quarterly Report of RCRA Groundwater Monitoring Data for Period July 1, 1991 Through September 30, 1991 709

Air Quality Monitoring at Toxic Waste Sites: A Hanford Perspective 711

Facility Effluent Monitoring Plan Determinations for the 400 Area Facilities - Environmental Assurance 719

Facility Effluent Monitoring Plan Determinations for the 600 Area Facilities - Environmental Assurance 720

Evaluation and Design of Geophysical Monitoring Network for Ground-Water Contamination - Final Report 846

A Real-Time Approach to Groundwater Monitoring, Prediction, and Remediation 869

A New Method for the Analysis of Small Peaks in Gamma Ray Spectra, and a Detector System for Monitoring Gamma Activity in Land Areas 889

Improved Techniques for Monitoring Well Screen Placement and Well Location 891

Efficiency-Based Groundwater Monitoring Design Using the Monitoring Efficiency Model (MEMO) 899

Use of Models as a Rationale for the Design of Environmental Monitoring Programs 900 Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance 1025

Environmental Monitoring Data for Evaluating Atmospheric Modeling Results 1030

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Monitors

A Multiyear Quality Control Study of Alpha-Track Radon Monitors 903

Montclair

Superfund Record of Decision (EPA Region 2): Montclair/West Orange Radium Site, Essex County, NJ (Second Remedial Action), June 1990 - Final Report 809

Monte

Application of Monte Carlo Simulation to Estimate Probabilities for the Best and Health Conservative Estimates of Receptor Well Concentrations 839

Monticello

Implementation Planning for Remedial Design and Remedial Action at the Department of Energy's Monticello Mill Tailings Site 415

Results of the Independent Verification of Radiological Remedial Action at 87 East 500 South Street, Monticello, Utah 416

Superfund Record of Decision (EPA Region 8): Monticello Mill Tailings Site, San Juan County, UT (First Remedial Action), August 1990 417

Results of the Independent Verification of Radiological Remedial Action at 397 East 3rd South Street, Monticello, Utah 428

Determination of the Probability for Radioactive Materials on Properties in Monticello, Utah 429

Mound

A Tale of Negotiations: CERCLA Interagency Agreement at the Mound Plant 540

Environmental Monitoring at Mound: 1990 Report 655

Removal Action Under CERCLA Section 104 for PCB-Contaminated Soil at DOE Mound Plant 731

MOX

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163

Addressing Data Heterogeneity: Lessons Learned from a Multimedia Risk Assessment 902 MZFR

The Decommissioning of the Nuclear Power Plant MZFR at the Kernforschungszentrum Karlsruhe 308

Decommissioning of the MZFR Nuclear Power Plant at the Karlsruhe Nuclear Research Center 309

Natural

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Natural Resource Trusteeship and Ecological Evaluation for Environmental Restoration at Department of Energy Facilities 479

Implementation of the Natural Resource Damage Assessment Rule - Workshop Summary - Interim Notification Policy: Environmental Restoration Program 565

Influence of Natural Convection on Melt Shape During In Situ Vitrification 953

Natural Resources Damage Assessments at Department of Energy Facilities - Using the CERCLA Process to Minimize Natural Resources Injuries 999

Naturally

Naturally Occurring Radioactive Materials 806

Nearshore

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Negotiating

Lessons Learned in Negotiating a Federal Facility Agreement 778

Negotiations

A Tale of Negotiations: CERCLA Interagency Agreement at the Mound Plant 540

Neideraichbach

Progress Report for the Neideraichbach Nuclear Power Plant (KKN) 310

NEPA

NEPA Compliance Strategies for Environmental Restoration Activities 511

NEPA/CERCLA Integration at Rocky Flats 518

Successful Integration of the CERCLA and NEPA Compliance Processes in the Weldon Spring Site Remedial Action Project: A Case Study 527

Taking Interim Actions: Integrating CERCLA and NEPA to Move Ahead with Site Cleanup 528 Strategy for Integrated CERCLA/NEPA Risk Assessments 905

Network

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

Evaluation and Design of Geophysical Monitoring Network for Ground-Water Contamination - Final Report 846

Neutral

Decontamination Techniques for Radioactive Metal Waste Using a Neutral Electrolyte and a Sulfuric Acid Solution 141

Neutralization

Chemical Modeling of the Neutralization Process for Acid Uranium Mill Tailings 441

Neutron

Shippingport Neutron Shield Tank Sampling and Analysis Program 32

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Radiation Embrittlement of the Neutron Shield Tank from the Shippingport Reactor 58

Nevada

Radiation-Related Monitoring and Environmental Research at the Nevada Test Site 634
Siting and Constructing Very Deep Monitoring Wells on the U.S. Department of Energy's
Nevada Test Site 635

Environmental Surveillance and Research at the Nevada Test Site 636

Environmental Monitoring Plan, Nevada Test Site and Support Facilities 637

Environmental Monitoring Report, Tonopah Test Range, Tonopah, Nevada, 1990 640

Land Surface Cleanup of Plutonium at the Nevada Test Site 729

Newton

Dynamic Optimal Control of Groundwater Remediation with Management Periods: Linearized and Quasi-Newton Approaches 853

Niagara

Performance Monitoring Report for the Niagara Falls Storage Site Waste Containment Structure, Lewiston, New York, for Calendar Year 1990 366

Nickel

Experimental Results for the Nickel Purification, Phase 1, of the Oak Ridge Scrap Metal Decontamination Program 988

Noncompetitive

Savannah River Field Office - Financial Assistance Award - Intent to Award a Noncompetitive Grant 544

Nondestructive

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

Nonradiation

International Similarities and Differences in Regulating Nonradiation Hazards 801

NORM

BRC Disposal Alternatives for NORM Wastes in Texas 1035

Notification

Implementation of the Natural Resource Damage Assessment Rule - Workshop Summary - Interim Notification Policy: Environmental Restoration Program 565

Floodplain Involvement Notification for Environmental Restoration Activities at the Department of Energy Kansas City Plant Located in Kansas City, MO 626

Floodplain Notification for Proposed Removal Action at the Feed Materials Production Center, Fernald, OH 754

NPL

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

NPL

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

NPPD

Strategy of NPP Decommissioning in the IEA NPPD Member States 77

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521 NRC

NRC Mill Tailings Regulation 420

Ground-Water Flow and Transport Modeling of the NRC-Licensed Waste Disposal Facility, West Valley, New York 648

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006 NRC Residual Contamination Criteria 1013

NTIS

Abandoned Sites: January 1988-February 1992 - Citations from the NTIS Data Base 834 Soil Remediation - January 1985-January 1992 - Citations from the NTIS Database 873

Radiological Characterization Survey of the Former Diamond Magnesium Company Site, 720 Fairport-Nursery Road, Painesville, Ohio (DMP001, DMP002) 368

Objectives

The Community's R&D Activities in the Field of Decommissioning - Objectives, Scope, and Implementation 76

Performance Objectives and Criteria for Conducting DOE Environmental Audits 476

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Groupings 11 and 13 - Appendix C: Data Quality Objectives 559

Observational

Observational Approach in Environmental Restoration 495

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

Officials

DOE, State, Local Officials to Break Ground for Gunnison, Colorado, Tailings Cleanup 383
DOE, State, Local Officials Break Ground for Rifle, Colorado, Tailings Cleanup 408

Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Results of the Radiological Survey at the Former McKinney Tool and Manufacturing Company, 1688 Arabella Road, Cleveland, Ohio (MTC001 and MTC002) 367

Radiological Characterization Survey of the Former Diamond Magnesium Company Site, 720 Fairport-Nursery Road, Painesville, Ohio (DMP001, DMP002) 368

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laboratory in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

Ohio

An Assessment of Baseline Ecological Risks at the Fernald Environmental Management Project, Fernald, Ohio 650

Oil

Method of Dismantling and Withdrawing Equipment Containing Radioactive Oil Waste 201
Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds,
Y-12 Plant, Oak Ridge, Tennessee 739

Ontario

Ontario Hydro Proposes Canning and Burying CANDU Reactors 295

Operable

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laborate.y in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

Remedial Investigation Phase 2 Supplemental Work Plan for the Hanford Site 1100-EM-1 Operable Unit 600

Phase 1 and 2 Feasibility Study Report for the Hanford Site 1100-EM-1 Operable Unit 601 200-UP-2 Operable Unit Technical Baseline Report 605

Floodplains Wetland Involvement for the Proposed Remedial Investigation of the 300-FF-5 Operable Unit of the Hanford Site, Richland, WA 609

Remedial Investigation for the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 712 Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Report on Geological Surveys in the 300-FF-1 Operable Unit 718

Issuance of the CERCLA ROD for an Operable Unit Remedial Action at the Weldon Spring Site - Lessons Learned 769

Operator

Order of 31 July 1990 Cancelling the Third Condition in the Annex to the Order of 29 April 1982 Granting the Final Operating License for the Vandellos I Nuclear Power Flant, and Fixing the Conditions to be Complied with by the Operator for the Phase Prior to its Dismantling and Closing Down, to Maintain the Plant in Safe Conditions and Remove the Fuel from the Site 89

Optimization

Optimization of Electrodecontamination Processes for Decommissioning 154

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

Options

Suggested ROD Language for Various Ground-Water Remediation Options - Directive 883 Orange

Superfund Record of Decision (EPA Region 2): Montclair/West Orange Radium Site, Essex County, NJ (Second Remedial Action), June 1990 - Final Report 809

Оте

Progress in the Research on Uranium Mill Tailings Treatment and Waste Reduction for Uranium Ore Milling Processes 444

Can Ore Milling Technology Be Harmonized With the Environment? 449

Oregon

Post-Remedial Action Report for Phase II Work Conducted During 1990-1991 at the Albany Research Center, Albany, Oregon 369

Organic

High Organic Containing Tanks - Assessing the Hazard Potential 25

In Situ Treatment of Concrete Surfaces by Organic Impregnation and Polymerization 226

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Air Stripping of Volatile Organic Chlorocarbons: System Development, Performance, and Lessons Learned 732

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Organics

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

ORGDP

Contaminated Scrap Metal Management at the ORGDP - A Problem Solved 759 ORNL

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

Federal Facility Agreement Contingency, Upgrade, and Replacement Plans for the ORNL Active Low-Level Radioactive Waste Tank System 555

Active Sites Environmental Monitoring Program: Program Plan - ORNL 674

Oronogo

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

OU

Remedial Investigation Report for Chestnut Ridge OU 2 (Filled Coal Ash Pond/McCoy Branch) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 691

Oversight

EPA Oversight of Remedial Designs and Remedial Actions Performed by PRPs - Fact Sheet 484 Strategic Planning of an Integrated Program for State Oversight Agreements 569

Overview

Overview of the Closure Approach for the Hanford Site Single-Shell Tank Farm 10

Hanford Waste Tank Safety Issues: A Program Overview 34

Waste Tank Safety Programs Overview Plan 36

An Overview of the U.S. Department of Energy Experimental Boiling Water Reactor Decontamination and Decommissioning Project 54

Overview of Decommissioned Nuclear Power Plants 347

Comparative Overview of Federal Facility Compliance Agreements and Consent Orders 461

An Overview of Public Health Service Health-Related Activities as They Relate to the Department of Energy's Environmental Restoration Program 496

Overview of the Hanford Environmental Dose Reconstruction Project 724

Overview

An Overview of Major Progress in the Environmental Restoration Program at the Savannah River Site 773

Overview of Kesterson Reservoir Selenium Remediation Project 815

Subsurface Science Program - Program Overview 975

Oxidation

Rayox: A Second Generation Enhanced Oxidation Process for Groundwater Remediation 840 Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Oxide

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

Decommissioning of a Mixed Oxide Fuel Fabrication Facility 325

Pacific

International Atomic Energy Agency Seminar for Asia and the Pacific on Ageing, Decommissioning, and/or Major Refurbishment of Research Reactors 345

1991 Yearly Calibration of Pacific Northwest Laboratory's Gross Gamma-Ray Borehole Geophysical Logging System 696

Pacific Northwest Laboratory Annual Report for 1990 to the Assistant Secretary for Environment, Safety, and Health, Part 5: Environment, Safety, Health, and Quality Assurance 797

Packages

Large Packages for Reactor Decommissioning Waste 261

Large Shielded Industrial Packages for the Transport of Intermediate Level Waste 276

Paducah

Paducah Gaseous Diffusion Plant Environmental Report for 1990 624

Painesville

Radiological Characterization Survey of the Former Diamond Magnesium Company Site, 720 Fairport-Nursery Road, Painesville, Ohio (DMP001, DMP002) 368

Particle

Particle Characterization of Contaminated Soil 843

Pasture

Tunney's Pasture Decommissioning Project 281

Pathfinder

Report of the Advisory Committee on Nuclear Waste: Pathfinder Atomic Power Plant Dismantlement 216

Pathway

Evaluation of a Contaminant Pathway and Mobility at a U.S. DOE Site Using Groundwater Chemical Data 653

Release Criteria and Pathway Analysis for Radiological Remediation 916

PCB

Removal Action Under CERCLA Section 104 for PCB-Contaminated Soil at DOE Mound Plant 731

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

Engineering-Scale Tests of In Situ Vitrification to PCB and Radioactive Contaminated Soils 956 PCE

A Risk-Based Cleanup Criterion for PCE in Soil 922

Peaks

A New Method for the Analysis of Small Peaks in Gamma Ray Spectra, and a Detector System for Monitoring Gamma Activity in Land Areas 889

Peat

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Peeling

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Penetrometer

Cone Penetrometer/Hydropunch [trademark]: An Efficient Approach for Delineating Subsurface Lithology and Ground Water Quality 882

Pennsylvania 1 4 1

Apollo Pennsylvania Nuclear Fuel Facility D&D Project 338

Results of the Radiological Survey at Conviber, Inc., 644 Garfield Street, Springdale, Pennsylvania (CVP001) 370

Results of the Radiological Survey at the Jessop Steel Company Site, 500 Green Street, Washington, Pennsylvania (JSP001) - Environmental Restoration and Waste Management Non-Defense Programs 371

Pentachlorophenol

Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871

Perimeter

Final Report on the Waste Area Grouping Perimeter Groundwater Quality Monitoring Well Installation Program at Oak Ridge National Laboratory, Oak Ridge, Tennessee 668

Permanent

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

Peroxide

Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Personnel

Radiation Exposure of the Personnel During Decommissioning 112

Petition

General Electric Company and Westinghouse Electric Corporation - Filing of a Petition for Rulemaking 106

Petroleum

Management of Petroleum Underground Storage Tanks at the Hanford Site 599

Phenolic

Process Development for Remediation of Phenolic Waste Lagoons 849

Physiological

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

Picatinny

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

Pile

The Decommissioning of the Windscale Pile Chimneys 324

Decommissioning of the Windscale Pile Chimneys 342

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

Pilot

Dismantling of the Pilot Facility AT1 196

Hydrostratigraphic Analysis of the Pilot Remediation Test Area 612

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Pine

Site Investigation Report and Corrective Action Plan for Tank 2310-U at the Pine Ridge West Repeater Station, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 686

Pinellas

Pinellas Plant Site Specific Plan: Environmental Health and Safety Programs 520

Pinellas Plant Site Environmental Report for Calendar Year 1990 - Environmental Health and Safety Programs: Revision A 619

Environmental Restoration Activities at the U.S. Department of Energy's Pinellas Plant 783 Pipes

In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170 Pipings

Explosive Fracturing of Concrete Structures and Pipings - Generalization of Results and Applicability to Real Facilities 179

Explosive Fracturing of Concrete Structures and Pipings - Experiments in the HDR 185 Pipp

Management of the Pipp Program for UMTRA Project Groundwater Restoration 402
Piver

Dismantling and Decontamination of Piver Prototype Vitrification Plant 189

Underground Storage Tank-Integrated Demonstration Technical Task Plan Master Schedule 6 Hanford Surplus Facilities Plan - Fiscal Year 1990 7

Waste Tank Safety, Operations, and Remediation Strategic Plan 9

Waste Tank Properties and Contents Program Plan - Waste Tank Safety Program 35

Waste Tank Safety Programs Overview Plan 36

Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 46

Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 47

Conceptual Decommissioning Plan for Thai Research Reactor-1/Modification 1 90

Health and Safety Plan for the Seymour Site - Seymour, Connecticut 372

Health and Safety Plan for the Ventron Site - Beverly, Massachusetts 373

Quality Assurance Program Plan for the Radiological Survey Activities Program - Uranium Mill Tailings Remedial Action Project 391

Uranium Mill Tailings Remedial Action (UMTRA) Project 1992 Site-Specific Plan Available 393
Department of Energy Environmental Restoration and Waste Management Five-Year Plan
Environmental Restoration Program 489

Environmental Restoration Program Waste Minimization and Pollution Prevention Awareness Program Plan 497

Plan

Sandia National Laboratories, Livermore Environmental Protection Implementation Plan for the Period November 9, 1991 - November 9, 1992 516

Pinellas Plant Site Specific Plan: Environmental Health and Safety Programs 520

EG and G Idaho Environmental Protection Implementation Plan (1991) 522

Pad A Treatability Study Long-Range Project Plan 526

Environmental Protection Implementation Plan, November 9, 1991 - November 9, 1992 531

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laboratory in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

Quality Assurance Program Plan for the Environmental Restoration Program 541

Well 6B Remediation - X-608B Well Field Interim Measures Plan 542

Post-Closure Plan for the X-616 Surface Impoundments 543

Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste Removal at the CTF K-1654B Underground Collection Tank 552

Environmental Restoration Program Management Control Plan 554

Remedial Investigation Plan for Waste Area Grouping 1 at Oak Ridge National Laboratory, Oak Ridge, Tennessee: Responses to Regulator Comments 558

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Groupings 11 and 13 - Appendix C: Data Quality Objectives 559

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Grouping 13 560

Field Sampling and Analysis Plan for the Remedial Investigation of Waste Area Grouping 2 at Oak Ridge National Laboratory, Oak Ridge, Tennessee 561

Closure Plan for Solid Waste Storage Area 6: Volume 1, Closure Plan 562

Oak Ridge Reservation Site Management Plan for the Environmental Restoration Program 564
Environmental Restoration and Waste Management Site-Specific Plan for the Oak Ridge
Reservation 567

Interim Action Proposed Plan: Mercury Tank Remediation at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 574

Remedial Investigation Work Plan for Bear Creek (Y02-S600) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 575

Revised RCRA Closure Plan for the Interim Drum Yard (S-030) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 577

Surplus Facilities and Resource Conservation and Recovery Act Closure Program Plan - Fiscal Year 1992 581

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Environmental Restoration Remedial Action Program Records Management Plan 583

Quality Assurance Project Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 584

Management Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 585

Operational Environmental Monitoring Program Quality Assurance Project Plan 591

Public Comments and Responses to the 1989 Hanford Cleanup Five-Year Plan 595

Environmental Restoration and Waste Management Site-Specific Plan for Richland Operations
Office 596

Plan

Standard Review Plan for the Review of Environmental Restoration Remedial Action Quality Assurance Program Plans 597

Remedial Investigation Phase 2 Supplemental Work Plan for the Hanford Site 1100-EM-1 Operable Unit 600

Facility Effluent Monitoring Plan Determinations for the 200 Area Facilities 603

2101-M Pond Closure Plan - Revision 1 606

Facility Effluent Monitoring Plan for the 2724-W Protective Equipment Decontamination Facility 607

Facility Effluent Monitoring Plan Determinations for the 300 Area Facilities - Environmental Assurance 608

Waste Management Plan for the Oak Ridge National Laboratory Remedial Investigation/Fensibility Study 610

Health and Safety Plan for Operations Performed for the Environmental Restoration Program - Task: Vapor Vacuum Extraction 620

Environmental Monitoring Plan, Nevada Test Site and Support Facilities 637

Active Sites Environmental Monitoring Program: Program Plan - ORNL 674

Ecological Assessment Plan for Waste Area Grouping 5 675

Site Investigation Report and Corrective Action Plan for Tank 2310-U at the Pine Ridge West Repeater Station, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 686

Monitor Well Inspection and Maintenance Plan for the Department of Energy, Y-12 Plant, Oak Ridge, Tennessee 687

Response to Comments and Recommendations on RCRA Facility Investigation Plan for Group 4 at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 689

Hanford Site Surface Soil Radioactive Contamination Control Plan for Fiscal Year 1992 710
Facility Effluent Monitoring Plan Determinations for the 400 Area Facilities - Environmental
Assurance 719

Facility Effluent Monitoring Plan Determinations for the 600 Area Facilities - Environmental Assurance 720

Project Management Plan for the Hanford Environmental Dose Reconstruction Project 725

Oak Ridge Environmental Restoration and Waste Management Plan Available for Public Comment 789

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

Proposed Plan for Vitrification Demonstration of Low-Level Radioactive Wastes at the Fernald Environmental Management Project 937

In Situ Vitrification Laboratory-Scale Test Work Plan 960

Technology Integration Branch FY 1991 Program Plan, Office of Technology Development 969 Long-Range Plan for Technology Integration Programs, Office of Technology Development 970 Technology Integration Division - FY 1992 Technology Integration Programs Plan, Office of Technology Development 971

Robotics Subsurface Mapping Demonstration Technology Test Plan 974

Accumulated Waste Characterization Work Plan 1000

Solid Waste Program Plan 1002

Comprehensive Implementation Plan for the DOE Defense Buried TRU-Contaminated Waste Program 1034

Planes

Analyses and Testing of Model Prestressed Concrete Reactor Vessels with Built-in Planes of Weakness 161

Planning

United States Department of Energy Decontamination & Decommissioning Planning and Operations Experience - A Short Course Lecture 13

End-of-Life Planning for the Decommissioning of Research Reactors and Other Small Nuclear Facilities 70

Planning Structure for Normal Decommissioning Procedures 78

Tools to be Used in Planning the Decommissioning of Nuclear Power Plants 80

Decommissioning of the Karlsruhe Reprocessing Plant (WAK) - Preliminary Planning Results 84

Planning and Implementation of Decommissioning for Research Reactors 101

DECHEM: A Remedial Planning Tool for Chemical Contaminants in Soil 392

Implementation Planning for Remedial Design and Remedial Action at the Department of Energy's Monticello Mill Tailings Site 415

Facilitation Techniques for Environmental Restoration Planning and Implementation 454

Putting Ecology in Environmental Restoration: The Strategic Planning Process 459

TSD Capacity Model Interface with Waste Reduction Planning in the Environmental Restoration Program 467

Life Cycle Planning to Forecast Budget Requirements and Maintain Effective Cost Controls 524 Strategic Planning of an Integrated Program for State Oversight Agreements 569

Plans

Federal Facility Agreement Plans and Schedules for Liquid Low-Level Radioactive Waste Tank Systems at Oak Ridge National Laboratory, Oak Ridge, Tennessee 3

Receipt of Request and Intent to Issue License Amendment Regarding Reclamation Plans for Inactive Uranium Mill 388

How Public Issues Shape Environmental Restoration Plans: Experiences with Colorado UMTRA Projects 389

Information for Consideration in Reviewing Groundwater Protection Plans for Uranium Mill Tailings Sites 422

Reclamation Plans at Uranium Mill Tailings Sites 451

Federal Facility Agreement Contingency, Upgrade, and Replacement Plans for the ORNL Active Low-Level Radioactive Waste Tank System 555

Standard Review Plan for the Review of Environmental Restoration Remedial Action Quality
Assurance Program Plans 597

FY 1993 Task Plans for the Hanford Environmental Dose Reconstruction Project 723

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

Plasma

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171 Status and Trends of Underwater Plasma Arc Cutting 175

Plasma

Underwater Plasma Arc Cutting - Final Report 190

Environmental Assessment for Retech, Inc.'s Plasma Centrifugal Furnace Evaluation 976

Plating

Response to Comments on Remedial Investigation Report for the Plating Shop Container Areas (S-334 and S-351) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 692

Plot

Surveillance of Site A and Plot M - Report for 1990 358

Surveillance of Site A and Plot M - Report for 1991 359

Plug

Functional Requirements for the Support Facilities to Plug and Abandon Wells at SWSA 6, Oak Ridge National Laboratory, Oak Ridge, Tennessee 557

Plugging

Well Plugging and Abandonment Program, Y-12 Plant, Oak Ridge, Tennessee 572

Documentation Report for the 1989 Monitor Well Plugging and Abandonment Program, Oak Ridge Y-12 Plant 782

Plume

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Plume Management for Groundwater Remediation 870

Plumes

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Plutonium

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

Mobility of Plutonium and Americium Through a Shallow Aquifer in a Semiarid Region 642 Land Surface Cleanup of Plutonium at the Nevada Test Site 729

Quality Assurance Applications for Remediation of Plutonium Contaminated Soil 818

Comparison of Statistical Methods for Estimating Plutonium Inventories in Soil 915

Polarization

Utilization of the Magnetic Induced Polarization Technique in Environmental Remediation Problems 894

Policy

Policy on the Decommissioning of Nuclear Facilities 74

Policy and Regulation for Decommissioning Reactors in Japan 86

Department of Energy Policy for Acceptance of Facilities for Environmental Restoration 463

The National Environmental Policy Act and DOE's Programmatic Environmental Impact Statement 490

Implementation of the Natural Resource Damage Assessment Rule - Workshop Summary - Interim Notification Policy: Environmental Restoration Program 565

Effective Outreach is Good Public Policy 590

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006 Polishing

Development of a Polishing System for FEMP Wastewater Discharges 753

Poliutants

National Emission Standards for Hazardous Air Pollutants - Uranium Mill Tailings Disposal Sites 423

Pollution

Environmental Restoration Program Waste Minimization and Pollution Prevention Awareness Program Plan 497

Polychlorinated

Request for Interim Approval to Operate 218-E-12B Trench 94 as a Chemical Waste Landfill for Disposal of Polychlorinated Biphenyl Wastes in Submarine Reactor Compartments 604

Polyjointed

Polyiointed Robot with Integrated Laser Beam 159

Polymeric

Assessment of the Applicability of a Protective Polymeric Coating for Decontamination of Certain Surfaces 227

Polymerization

In Situ Treatment of Concrete Surfaces by Organic Impregnation and Polymerization 226

Immobilization of Contamination by the Coating of Polymers on Large-Size Waste Products 225

Pond

2101-M Pond Closure Plan - Revision 1 606

The Selective Absorption of Radionuclides from a Contaminated Holding Pond at Brookhaven National Laboratory 644

Remedial Investigation Report for Chestnut Ridge OU 2 (Filled Coal Ash Pond/McCoy Branch) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 691

Soil Washing Results for Mixed Waste Pond Soils at Hanford 727

GAO Report on Rocky Flats Plant Solar Evaporation Pond Cleanup 767

Ponds

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

Pool

Anticipated Assessment of the Amount of Radioactive Wastes Arising from Pool LMBFR Dismantling 251

Pore

Remeasurement of Thorium-230 in the Pore Water of Lacnor Tailings 425

Portsmouth

Portsmouth Gaseous Diffusion Plant Environmental Report for 1990 656

Postclosure

Draft Postclosure Permit Application for Bear Creek Hydrogeologic Regime at the Oak Ridge Y-12 Burial Grounds Hazardous Waste Disposal Unit 576

Precipitation

Co-Precipitation Plant Decommissioning: Progress Report to TAG Meeting 22 April 1991 for November 1990 to March 1991 343

Prediction

A Real-Time Approach to Groundwater Monitoring, Prediction, and Remediation 869

Prefiltering

Prefiltering Devices for Gaseous Effluents from Dismantling Operations 235

Prefiltration

Prefiltration of Gaseous Effluents in Plant Dismantling 193

Preheater

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Preheater

Dismantling and Decontamination of the Tube Bundle of a Feedwater Preheater of the Garigliano BWR 199

Prematurely

Decommissioning Funding for Prematurely Shutdown Power Reactors 105

Presentation

Graphical Presentation of Ferrocyanide Tank Compositions 29

Presentations

Superfund Community Relations Program - A Guide to Effective Presentations with Visual Aids 481

Preservation

Radiological Protection Principles to be Applied to the Preservation and Use of Tailing Dams Resulting from Mining Activities 432

Pressure

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Transportation of Shippingport Reactor Pressure Vessel 59

Consequences of Suppression of Negative Pressure in the KW-Lingen Containment 108

Explosive Dismantling of Reactor Pressure Vessels Using the Brittle Fracturing Method 182

Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

Technical Verification Test for Reactor Pressure Vessel Cutting by Using G&G Method ("Arc-Gouging & Gas Cutting" Method) 222

Pressurized

The Decommissioning of the BR3 Pressurized Water Reactor Plant 292

Pretreatment

Hanford Single-Shell Tank Waste-Preliminary Pretreatment Testing of Simulated Waste 44

Primary

Decontamination During Dismantling of the Rapsodie Primary Coolant Circuit 127

Decontamination Before Dismantling a Fast Breeder Reactor Primary Cooling System 129

Decommissioning B204 Primary Separation Plant - Progress Report: October 1990 - April 1991 330

Priorities

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Prioritization

The Prioritization of Environment, Safety, and Health Activities 464

Priority

Site Characterization for Remedial Design at National Priority List and FUSRAP Sites 362
Request for Public Review and Comment on a Preliminary Design Report: A Priority System for Environmental Restoration 457

Privatization

Privatization Provisions of H.R. 2100 589

Probability

Determination of the Probability for Radioactive Materials on Properties in Monticello, Utah 429

Programs

Waste Tank Safety Programs Overview Plan 36

Results of the Radiological Survey at the Jessop Steel Company Site, 500 Green Street, Washington, Pennsylvania (JSP001) - Environmental Restoration and Waste Management Non-Defense Programs 371

Creating a Context for Public Confidence in the Environmental Restoration Programs 472
Resolution of Conflicts Among the Regulatory Programs Governing Remedial Action 502
Pinellas Plant Site Specific Plan: Environmental Health and Safety Programs 520

Pinellas Plant Site Environmental Report for Calendar Year 1990 - Environmental Health and Safety Programs: Revision A 619

Summary of the Landfill Remediation Problems and Technology Needs of the Oak Ridge Reservation Environmental Restoration Programs 788

Public Involvement in Remedial Work Programs at Historic Low-Level Radioactive Waste Sites: Recent Canadian Experience 800

Harmonization of QA Procedures for Environmental Data Operations: Development of a National Consensus Standard for Quality Assurance for Environmental Programs 887

National QA Standard for Environmental Programs for Hazardous Waste Management Activities 895

Use of Models as a Rationale for the Design of Environmental Monitoring Programs 900 Long-Range Plan for Technology Integration Programs, Office of Technology Development 970 Technology Integration Division - FY 1992 Technology Integration Programs Plan, Office of Technology Development 971

Development of a National Consensus Standard for Quality Assurance for Environmental Programs 1012

Protection

Radiation Protection on Decommissioning of Nuclear Facilities: Problems, Needs and Perspectives 116

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Report of the Advisory Committee on Nuclear Waste: Final Staff Technical Position on the Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites 421

Information for Consideration in Reviewing Groundwater Protection Plans for Uranium Mill Tailings Sites 422

Radiological Protection Principles to be Applied to the Preservation and Use of Tailing Dams Resulting from Mining Activities 432

Protection

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Sandia National Laboratories, Livermore Environmental Protection Implementation Plan for the Period November 9, 1991 - November 9, 1992 516

EG and G Idaho Environmental Protection Implementation Plan (1991) 522

Environmental Protection Implementation Plan, November 9, 1991 - November 9, 1992 531

Waste Management A. Wities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 1 660

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 2 661

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Protective

The Cutting Process, Its Harmful Effects, the Biological Behavior of Aerosols and Possible Protective Actions 187

Assessment of the Applicability of a Protective Polymeric Coating for Decontamination of Certain Surfaces 227

Facility Effluent Monitoring Plan for the 2724-W Protective Equipment Decontamination Facility 607

Proton

Dismantling of Activated Equipment in the Proton Channel of the PSI-Accelerator Facility 214

Prototype

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Dismantling and Decontamination of Piver Prototype Vitrification Plant 189

Development of Telerobotic Systems for Reactor Decommissioning: (II) - Prototype Heavy-Duty System 221

Development of Telerobotic Systems for Reactor Decommissioning: (I) - Prototype Light-Duty System 223

Proving

Geophysics: Building E5032 Decommissioning, Aberdeen Proving Ground - Interim Progress Report 808

PR Ps

EPA Oversight of Remedial Designs and Remedial Actions Performed by PRPs - Fact Sheet 484 PSI

Dismantling of Activated Equipment in the Proton Channel of the PSI-Accelerator Facility 214

Public

Long-Term Public Health Impacts of Decommissioning the Hanford Surplus Production Reactors: Implications for CERCLA Remedial Actions at Hanford 37

Public Meeting to Be Held on Falls City, Texas, Tailings Cleanup 386

How Public Issues Shape Environmental Restoration Plans: Experiences with Colorado UMTRA Projects 389

DOE to Hold Public Meeting on Mexican Hat Tailings Cleanup 411

Request for Public Review and Comment on a Preliminary Design Report: A Priority System for Environmental Restoration 457

Public

Creating a Context for Public Confidence in the Environmental Restoration Programs 472

Environmental Guidance for Public Participation in Environmental Restoration Activities 478

An Overview of Public Health Service Health-Related Activities as They Relate to the Department of Energy's Environmental Restoration Program 496

DOE to Hold Public Meeting on Proposal to Reduce Mercury Releases from Y-12 Plant 578 Efforts to Earn Public Support and Confidence in Hanford Site Cleanup Work 579 Effective Outreach is Good Public Policy 590

Public Comments and Responses to the 1989 Hanford Cleanup Five-Year Plan 595

DOE to Hold Public Meeting on Proposed Interim Cleanup Action at Drum Storage Yards 757
Oak Ridge Environmental Restoration and Waste Management Plan Available for Public
Comment 789

Public Involvement in Remedial Work Programs at Historic Low-Level Radioactive Waste Sites: Recent Canadian Experience 800

Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety Impacts Are Below Regulatory Concern (BRC) 1017

Publications

Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation 512

Pump

Method of Dismantling Radioactivity-Contaminated Fluid Pump 206

"Smart" Pump and Treat 838

The Effectiveness of the Pump and Treat Method for Aquifer Restoration 854

Performance Evaluations of Pump-and-Treat Remediations 864

Guide to Pump-and-Treat Ground-Water Remediation Technology - Fact Sheet 884

Pumping

24 Hour Pumping Test of Production Well 905-120P 734

Purple

Decommissioning Project - The "Purple Shed" 290

Pursuant A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Pushes

Japan Pushes Nuclear Decommissioning Work 317

QA

Harmonization of QA Procedures for Environmental Data Operations: Development of a National Consensus Standard for Quality Assurance for Environmental Programs 887

National QA Standard for Environmental Programs for Hazardous Waste Management Activities

National QA Standard for Environmental Programs for Hazardous Waste Management Activities 895

OAMS

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521

Quality

Assessing the Maintenance, Quality Assurance and Control, and Decommissioning of DOE Research Reactors 15

Quality Assurance Program Plan for the Radiological Survey Activities Program - Uranium Mill Tailings Remedial Action Project 391

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laboratory in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

Quality Assurance Program Plan for the Environmental Restoration Program 541

Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste Removal at the CTF K-1654B Underground Collection Tank 552

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Groupings 11 and 13 - Appendix C: Data Quality Objectives 559

Environmental Restoration Remedial Action Quality Assurance Requirements Document 580 Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Quality Assurance Project Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 584

Operational Environmental Monitoring Program Quality Assurance Project Plan 591

Standard Review Plan for the Review of Environmental Restoration Remedial Action Quality
Assurance Program Plans 597

Final Report on the Waste Area Grouping Perimeter Groundwater Quality Monitoring Well Installation Program at Oak Ridge National Laboratory, Oak Ridge, Tennessee 668

Air Quality Monitoring at Toxic Waste Sites: A Hanford Perspective 711

Pacific Northwest Laboratory Annual Report for 1990 to the Assistant Secretary for Environment, Safety, and Health, Part 5: Environment, Safety, Health, and Quality Assurance 797

Ouality Assurance Applications for Remediation of Plutonium Contaminated Soil 818

Cone Penetrometer/Hydropunch [trademark]: An Efficient Approach for Delineating Subsurface Lithology and Ground Water Quality 882

A Quality Assurance Program for Environmental Data Operations Involving Waste Management Processes 886

Harmonization of QA Procedures for Environmental Data Operations: Development of a National Consensus Standard for Quality Assurance for Environmental Programs 887

Results from the 1988 Quality Assurance Task Force Hanford Intercomparison Program 901 A Multiyear Quality Control Study of Alpha-Track Radon Monitors 903

Quality Assurance Elements in Environmental Restoration Procedures at Mixed-Waste Sites 904
Application of Quality Assurance/Quality Control to Waste Management Processes at the
Hanford Site 1003

Development of a National Consensus Standard for Quality Assurance for Environmental Programs 1012

Quantitative

The Application of Quantitative Risk Assessment to Assist in Evaluating Remedial Action Alternatives 926

Quarry

Application of Classic Engineering Techniques (Value Engineering and Observation Method) at the Weldon Spring Quarry 529

Quarry

Quarry Detection Monitoring Wells Completion Report WP-166 629

Quarry Residuals RI/FS Scoping Document 630

Superfund Record of Decision (EPA Region 7): Weldon Spring Quarry/Plant/Pits (USDOE), Weldon Spring, MO (Second Remedial Action) - September 1990 632

Weldon Spring Quarry Construction Staging Area and Water Treatment Plant Site Remedial Action Characterization Report for the Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri 633

RAAS

Remedial Action Assessment System (RAAS) - A Computer-Based Methodology for Conducting Feasibility Studies 908

Radiation

Radiation Embrittlement of the Neutron Shield Tank from the Shippingport Reactor 58

Radiation Exposure of the Personnel During Decommissioning 112

Radiation Protection on Decommissioning of Nuclear Facilities: Problems, Needs and Perspectives 116

Decontamination Device for Radiation-Contaminated Metal 134

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Decontamination Method for Radiation-Contaminated Metal Waste 138

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

Introduction of a Bill to Reauthorize the Uranium Mill Tailings Radiation Control Act of 1978 390

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Radiation-Related Monitoring and Environmental Research at the Nevada Test Site 634

Offsite Environmental Monitoring Report: Radiation Monitoring Around United States Nuclear Test Areas 639

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Radiators

Measurement of Alpha Radiators in Nuclear Wastes by Active and Passive Methods: Devices for Measuring Nuclear Wastes from Dismantling Operations 248

Radioactively

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Design and Construction of an Interceptor System for Radioactively Contaminated Solvent 730

Radioactivity

Current Status of Residual Radioactivity Criteria in Japan 87

Residual Radioactivity Cost Impact Evaluation 96

Measurement Techniques Applicable to Residual Radioactivity on a Decommissioned Reactor Site 109

The Experience - 6th Case - Rinsing and Decontamination of Liquid Waste Storage Containers of Intermediate and High-Level Radioactivity 118

Method of Dismantling Radioactivity-Contaminated Fluid Pump 206

Site Inventory of Residual Radioactivity in Japan 254

Low-Level Radioactivity Measurement Methods for Reusing or Recycling 255

Detection of Radioactivity in Steel Scrap 260

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

Distribution of Radioactivity in Surface Streams Around Uranium Mine-Mill Complex 427

St. Michael's Workshop on Residual Radioactivity and Recycling Criteria - Summary and Panel Discussion 835

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

Radiochemical

Experience in Decontamination and Reuse of the Large-Scale Radiochemical Laboratory and the Research Reactor at the Japan Atomic Energy Research Institute 144

Radionuclide

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

The Use of Chemical and Radionuclide Risk Estimates in Site Performance Evaluation of Mixed Waste Sites 917

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

Radionuclides

Behaviour of Difficult to Measure Radionuclides in the Melting of Steel 278

Ra-226 and Other Radionuclides in Water, Vegetation, and Tissues of Beavers (Castor Canadensis) from a Watershed Containing Uranium Tailings near Elliot Lake, Canada 426 Geochemical Hosts of Solubilized Radionuclides in Uranium Mill Tailings 452

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

The Selective Absorption of Radionuclides from a Contaminated Holding Pond at Brookhaven National Laboratory 644

Removal of Heavy Metals and Radionuclides by Seeded Magnetic Filtration 978

Radium

Radium-226 Dose to a Boy from Playing on Mill Tailings 435

Factors Affecting the Leaching of Radium-226 from Barium-Radium Sulphate Sludges 443 Radium and Radon Regulations 805

Superfund Record of Decision (EPA Region 2): Montclair/West Orange Radium Site, Essex County, NJ (Second Remedial Action), June 1990 - Final Report 809

Radon

Radon Emissions During Mill Tailings Backfill Operations in a Uranium Mine 398 Radon Problems and the Cost of Restoring the East German Uranium Projects 431

Radon

Radium and Radon Regulations 805

A Multiyear Quality Control Study of Alpha-Track Radon Monitors 903

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Radwaste

Development of Sampling and Assay Methods for Windscale Advanced Gas Cooled Reactor Radwaste 263

Rapsodie

Decontamination During Dismantling of the Rapsodie Primary Coolant Circuit 127 Dismantling of RAPSODIE Reactor 194

Rates

Contaminant Sorption/Desorption Rates: Implications for Groundwater Restoration 878 Rationale

Soil Clean-up Guidelines for Decommissioning of Industrial Lands: Background and Rationale for Development 874

Use of Models as a Rationale for the Design of Environmental Monitoring Programs 900

Rayox: A Second Generation Enhanced Oxidation Process for Groundwater Remediation 840 RCRA

When RCRA Meets ALARA 460

Risk Assessment of Designs for RCRA and CERCLA Sites 465

Comparison of RCRA SWMU Corrective Action and CERCLA Remedial Action 471

Costs of RCRA Corrective Action 475

Costs and Schedule for a 58 Acre RCRA Interim Status Mixed Waste Closure at the Savannah River Plant 550

RCRA Closure of Eight Land-Based Units at the Y-12 Plant 573

Revised RCRA Closure Plan for the Interim Drum Yard (S-030) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 577

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

RCRA Closures at Rocky Flats Plant: A Programmatic Perspective and Case Study 616

RCRA Facility Investigation for the Townsite of Los Alamos, New Mexico 643

RCRA Facilities Assessment (RFA) - Oak Ridge National Laboratory 670

RCRA Facilities Assessment (RFA) for Oak Ridge National Laboratory: Addendum of August 25, 1987 671

RCRA Facility Investigation Report for Waste Area Grouping 6 at Oak Ridge National Laboratory, Oak Ridge, Tennessee 676

Response to Comments and Recommendations on RCRA Facility Investigation Plan for Group 4 at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 689

Statistical Approach on RCRA Groundwater Monitoring Projects at the Hanford Site 699

Quarterly Report of RCRA Groundwater Monitoring Data for Period April 1, 1991 Through June 30, 1991 708

Quarterly Report of RCRA Groundwater Monitoring Data for Period July 1, 1991 Through September 30, 1991 709

Alternate Cap Designs Under RCRA Regulations 738

Development of Guidance for Variances from the RCRA Land Disposal Restrictions for US DOE Mixed-Waste Streams 1023

RD

CEA's RD 500 Has the Power for Decommissioning 334

Reactivity

Ferrocyanide-Containing Waste Tanks: Ferrocyanide Chemistry and Reactivity 28

Reactors

Decision-Making Process to Shut Down, Refurbish/Modify, or Decommission Research Reactors

Assessing the Maintenance, Quality Assurance and Control, and Decommissioning of DOE Research Reactors 15

Long-Term Public Health Impacts of Decommissioning the Hanford Surplus Production Reactors: Implications for CERCLA Remedial Actions at Hanford 37

End-of-I ife Planning for the Decommissioning of Research Reactors and Other Small Nuclear Facilities 70

Policy and Regulation for Decommissioning Reactors in Japan 86

Planning and Implementation of Decommissioning for Research Reactors 101

Decommissioning Funding for Prematurely Shutdown Power Reactors 105

Removal of Nuclear Reactors by Lowering - Results of Individual and Long-Term Safety Assessment 113

Effect of Long-Living Products of Concrete Structure Activation on Decommissioning of NPPs with LWR Reactors 146

Example of Dismantling Nuclear Reactors 204

IAEA Activities on Decommissioning of Research Reactors and Other Small Nuclear Facilities 285

Ontario Hydro Proposes Canning and Burying CANDU Reactors 295

Decommissioning of Nuclear Facilities and Power Reactors in Germany - Status, 1991 301

Decommissioning Nuclear Reactors in Italy: the Unrestricted Release Issue 312

Trial Decommissioning of Nuclear Reactors 336

International Atomic Energy Agency Seminar for Asia and the Pacific on Ageing, Decommissioning, and/or Major Refurbishment of Research Reactors 345

Receipt

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

Receipt of Request and Intent to Issue License Amendment Regarding Reclamation Plans for Inactive Uranium Mill 388

Recentor

Application of Monte Carlo Simulation to Estimate Probabilities for the Best and Health Conservative Estimates of Receptor Well Concentrations 839

Reclamation

Receipt of Request and Intent to Issue License Amendment Regarding Reclamation Plans for Inactive Uranium Mill 388

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Reclamation

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424

Decommissioning and Reclamation of the Beaverlodge Mine/Mill Operations 437

Reclamation Plans at Uranium Mill Tailings Sites 451

Land Reclamation at the Basalt Waste Isolation Project 740

Recommendation

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Reconfiguration

Nuclear Weapons Complex - Major Safety, Environmental, and Reconfiguration Issues Facing DOE 466

Recovered

Radiological Impact of Very Slightly Radioactive Copper and Aluminium Recovered from Dismantled Nuclear Facilities 233

Recycle

Development of International Exemption Principles for Recycle and Reuse 274

Application of Exemption Principles to Low-Level Waste Disposal and Recycle of Wastes from Nuclear Facilities 1014

Recycled

Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

Recycling

Recycling of Metallic Materials from the Dismantling of Nuclear Plants 245

Low-Level Radioactivity Measurement Methods for Reusing or Recycling 255

A Research Program on the Recycling of Decommissioning Materials at JAERI 256

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclear Industry 267

Key Parameters for the Safe and Economical Recycling of Contaminated Stainless Steel 270

St. Michael's Workshop on Residual Radioactivity and Recycling Criteria - Summary and Panel Discussion 835

Recycling and Resource Recovery at Oak Ridge National Laboratory 1001

Reduce

DOE to Hold Public Meeting on Proposal to Reduce Mercury Releases from Y-12 Plant 578 Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

Reduction

Progress in the Research on Uranium Mill Tailings Treatment and Waste Reduction for Uranium Ore Milling Processes 444

Microbial Reduction of Uranium 445

U.S. Department of Energy Office of Environmental Restoration and Waste Management Waste Reduction Workshop 462

TSD Capacity Model Interface with Waste Reduction Planning in the Environmental Restoration Program 467

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Reed

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Refurbish

Decision-Making Process to Shut Down, Refurbish/Modify, or Decommission Research Reactors

Refurbishment

Capital Cost Development for Decontamination, Demolition and Refurbishment of Radiological Research Facilities 12

International Atomic Energy Agency Seminar for Asia and the Pacific on Ageing, Decommissioning, and/or Major Refurbishment of Research Reactors 345

Regulating

International Similarities and Differences in Regulating Nonradiation Hazards 801

Regulation

Policy and Regulation for Decommissioning Reactors in Japan 86

NRC Mill Tailings Regulation 420

Regulations

Discussion of the Economic Impacts of Regulations Governing the Stabilization and Decommissioning of Uranium Milling Facilities 419

Alternate Cap Designs Under RCRA Regulations 738

An Approach to Regulatory Compliance with Radioactive Mixed Waste Regulations 750

Application of United States Department of Transportation Regulations to Hazardous Material and Waste Shipments on the Hanford Site 762

Lessons Learned from the Implementation of Environmental Regulations at Oak Ridge 776
Lessons Learned Implementing Environmental Regulations at Non-Department of Energy Sites
804

Radium and Radon Regulations 805

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

New Technologies to Meet Regulations 949

582

Regulator

Remedial Investigation Plan for Waste Area Grouping 1 at Oak Ridge National Laboratory, Oak Ridge, Tennessee: Responses to Regulator Comments 558

Meeting Licensing Restrictions from a Regulator's Perspective 1005

Regulatory

Resolution of Conflicts Among the Regulatory Programs Governing Remedial Action 502
Regulatory Compliance Issues Related to the White Oak Creek Embayment Time-Critical
Removal Action 571

An Approach to Regulatory Compliance with Radioactive Mixed Waste Regulations 750 Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006 Resolution of Regulatory Issues Facing the DOE In Situ Vitrification Program 1007

EPA's Proposed Environmental Standards for Low-Level Radioactive Waste Disposal and Criteria for Below Regulatory Concern 1009

International Principles for Exemption from Regulatory Control and Their Application to Waste Management 1015

Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety Impacts Are Below Regulatory Concern (BRC) 1017

Nuclear Regulatory Legislation, 101st Congress 1020

Progress in the Development of Below Regulatory Concern Standards: An Industry Perspective 1024

Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance 1025

Rehabilitation

RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Release

Establishment of Criteria for the Unconditional Release of the Shippingport Reactor 1 Evaluation of Tanks that Release Flammable Gases 5

Criteria for Release of Decommissioned Nuclear Facilities for Unrestricted Use 14

Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 46

Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 47

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Scrap Metal from Nuclear Power Stations 241

Testing of New Techniques in Decommissioning of a Fuel (U,Th) Fabrication Plant, Special Consideration to Free Release Measurement of Low Uranium Activities 289

Decommissioning Nuclear Reactors in Italy: the Unrestricted Release Issue 312

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Release

Release Investigation Report for Underground Storage Tank 2336-U at the Chestnut Ridge Repeater Station, Building 0962, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 690

Release Investigation Report for Underground Storage Tank 2305-U at Building 9998, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 694

Release Criteria and Pathway Analysis for Radiological Remediation 916

Surface Contamination Criteria for Free Release 1004

Releases

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

DOE to Hold Public Meeting on Proposal to Reduce Mercury Releases from Y-12 Plant 578 Remediating

Architecture and Environmental Restoration: Remediating Uranium Mill Tailings from Buildings 407

Remediation

Waste Tank Safety, Operations, and Remediation Strategic Plan 9

Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 46

Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 47

Live Stream Remediation at Sheffield Brook 377

Remediation Technology Development from the UMTRA Program 413

Characterization Technologies for Environmental Remediation 493

Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation 512

Environmental Remediation '91: Cleaning Up the Environment for the 21st Century 515

The Long Climb to Remediation 519

Remediation Strategies for Perched Water Bodies Underlying the Idaho Chemical Processing Plant at the Idaho National Engineering Laboratory 525

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Well 6B Remediation - X-608B Well Field Interim Measures Plan 542

A Co-Metabolic Approach to Groundwater Remediation 548

Interim Action Proposed Plan: Mercury Tank Remediation at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 574

Hydrostratigraphic Analysis of the Pilot Remediation Test Area 612

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

A Successful Environmental Remediation Program Closure and Post-Closure Activities (CAPCA), Y-12 Plant, Oak Ridge, Tennessee 777

Surface Water Management at a Mixed Waste Remediation Site 784

Summary of the Landfill Remediation Problems and Technology Needs of the Oak Ridge Reservation Environmental Restoration Programs 788

Remediation

Implications of the Upper Bound and Average Exposure Scenario on Risk Management Decisions for Contaminated Site Remediation 814

Overview of Kesterson Reservoir Selenium Remediation Project 815

An Improved Method for Remediation of Transuranic-Contaminated Coral Soil at Johnston Atoll 817

Quality Assurance Applications for Remediation of Plutonium Contaminated Soil 818 Major Remediation 819

National Contaminated Sites Remediation Program: Annual Report 1990-91 823

The National Contaminated Sites Remediation Program 824

Storage, Disposal, Remediation, and Closure 832

Rayox: A Second Generation Enhanced Oxidation Process for Groundwater Remediation 840 RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Application of Biotechnology in Soil Remediation 842

In-Situ Remediation System for Contaminated Groundwater 847

Removal of Trichloroethylene Contamination from the Subsurface: A Comparative Evaluation of Different Remediation Strategies by Means of Numerical Simulation 848

Process Development for Remediation of Phenolic Waste Lagoons 849

In Situ Remediation of Hazardous Wastes 850

Development of Effective Remediation Criteria 851

1990 Thermal Remediation Industry Contractor Survey 852

Dynamic Optimal Control of Groundwater Remediation with Management Periods: Linearized and Quasi-Newton Approaches 853

Remediation and Mitigation Associated with Contamination of Water by Irrigation Drainage 856 Groundwater and Soil Remediation R, D and D 857

Numerical Simulation of Two-Dimensional Steam-Remediation Experiments 858

Vapor Extraction Technology for the Remediation of a Large Gasoline Spill 859

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

Biological Activity and Potential Remediation Involving Geotextile Landfill Leachate Filters 865 Electrokinetic Remediation of Contaminated Soils 868

A Real-Time Approach to Groundwater Monitoring, Prediction, and Remediation 869

Plume Management for Groundwater Remediation 870

Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871

Soil Remediation - January 1985-January 1992 - Citations from the NTIS Database 873

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Groundwater Remediation via Four Case Studies 881

Suggested ROD Language for Various Ground-Water Remediation Options - Directive 883

Guide to Pump-and-Treat Ground-Water Remediation Technology - Fact Sheet 884

Considerations in Ground-Water Remediation at Superfund Sites 885

Utilization of the Magnetic Induced Polarization Technique in Environmental Remediation Problems 894

Remediation

Object Reasoning for Waste Remediation 911

Release Criteria and Pathway Analysis for Radiological Remediation 916

Role of Risk Assessment in Remediation of Contaminated Sites 923

Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation 925

Risk Assessment Guidance for Superfund - Volume 1: Human Health Evaluation Manual - Part B, Development of Risk-Based Preliminary Remediation Goals - Interim Report 929

Remediation of Contaminated Underground Tanks by In Situ Vitrification 944

A Graphical Interface for Robotic Remediation of Underground Storage Tanks 948

Long-Reach Manipulation for Waste Storage Tank Remediation 979

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980 Selection of Innovative Technologies for the Remediation of Soils Contaminated with Radioactive and Mixed Wastes 985

Model Based, Sensor Directed Remediation of Underground Storage Tanks 992

Remediation Technology Needs and Applied R&D Initiatives 996

Synopses of Federal Demonstrations of Innovative Site Remediation Technologies 997

Remediations

Performance Evaluations of Pump-and-Treat Remediations 864

Cooperative Expert System Reasoning for Waste Remediations 907

Remedy

Changes in "Selected Remedy" After Record of Decision 798

Remote

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Use of Remote Device Coupled with a Carrier for the Dismantling of Hot Cells in France 197 Renovation

Renovation of Nuclear Power Plants 339

Environmental Renovation of a Uranium Mine and Practice After its Decommissioning 446 Repeater

Site Investigation Report and Corrective Action Plan for Tank 2310-U at the Pine Ridge West Repeater Station, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 686

Release Investigation Report for Underground Storage Tank 2336-U at the Chestnut Ridge Repeater Station, Building 0962, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 690

Repository

Development of an Administrative Record System and Information Repository System on the Hanford Site, Benton County, Richland, Washington 592

Reprocessing

Decommissioning of the Karlsruhe Reprocessing Plant (WAK) - Preliminary Planning Results 84

Karlsruhe Reprocessing Plant (WAK) 307

Decommissioning of B204 Reprocessing Plant 331

Reservation

Applicable or Relevant and Appropriate Requirements (ARARs) for Remedial Action at the Oak Ridge Reservation - A Compendium of Major Environmental Laws 563

Oak Ridge Reservation Site Management Plan for the Environmental Restoration Program 564
Environmental Restoration and Waste Management Site-Specific Plan for the Oak Ridge
Reservation 567

Reservation

Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borehole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683 Surface Radiological Investigations at White Wing Scrapyard, Oak Ridge Reservation, Oak Ridge, Tennessee 685

Summary of the Landfill Remediation Problems and Technology Needs of the Oak Ridge Reservation Environmental Restoration Programs 788

Reservoir

Patterns of Sediment Accumulation in Watts Bar Reservoir Based on Cesium-137 695 Overview of Kesterson Reservoir Selenium Remediation Project 815

Residential

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Residual

Current Status of Residual Radioactivity Criteria in Japan 87

Residual Radioactivity Cost Impact Evaluation 96

Measurement Techniques Applicable to Residual Radioactivity on a Decommissioned Reactor Site 109

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Scrap Metal from Nuclear Power Stations 241

Site Inventory of Residual Radioactivity in Japan 254

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

Derivation of Uranium Residual Radioactive Material Guidelines for the Shpack Site 381

UMTRA Project Management of Residual Radioactive Material Commingled with Hazardous Waste at Vicinity Properties 403

St. Michael's Workshop on Residual Radioactivity and Recycling Criteria - Summary and Panel Discussion 835

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

NRC Residual Contamination Criteria 1013

Residuals

Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ Treatment of Waste and Residuals for Hanford Single-Shell Tanks 48

Quarry Residuals RI/FS Scoping Document 630

Residue

Facility Design to Apply Cover Material over Radioactive Residue in Storage Silos 40 Characteristics of Fernald's K-65 Residue Before, During and After Vitrification 41 Residue-Free and Residue-Poor Jet Methods to Decontaminate Nuclear Plant Components 123 Results of Vitrifying Fernald K-65 Residue 938

Resistance

Electrical Resistance Tomography to Monitor Vadose Water Movement 875

Resource

Resource Book: Decommissioning of Contaminated Facilities at Hanford - Volume 3 66

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Natural Resource Trusteeship and Ecological Evaluation for Environmental Restoration at Department of Energy Facilities 479

Implementation of the Natural Resource Damage Assessment Rule - Workshop Summary - Interim Notification Policy: Environmental Restoration Program 565

Surplus Facilities and Resource Conservation and Recovery Act Closure Program Plan - Fiscal Year 1992 581

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Decommissioning of a Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility: A Case Study of the Interim Stabilization of the 216-A-29 Ditch at the Hanford Site 742

Recycling and Resource Recovery at Oak Ridge National Laboratory 1001

Resources

Natural Resources Damage Assessments at Department of Energy Facilities - Using the CERCLA Process to Minimize Natural Resources Injuries 999

Response

Intent to Prepare a Remedial Investigation/Feasibility Study-Environmental Impact Statement:

Response Actions at a Site in Wayne, New Jersey 354

Response to Comments and Recommendations on RCRA Facility Investigation Plan for Group 4 at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 689

Response to Comments on Remedial Investigation Report for the Plating Shop Container Areas (S-334 and S-351) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 692

Initial Site Characterization Approach and Preliminary Results: 200 West Area Carbon Tetrachloride Expedited Response Action, Hanford Site, Washington 714

Engineering Evaluation of the 618-9 Burial Ground Expedited Response Action - Draft A 721 Expedited Response Action Proposal for 316-5 Process Trenches 746

Responses

Remedial Investigation Plan for Waste Area Grouping 1 at Oak Ridge National Laboratory, Oak Ridge, Tennessee: Responses to Regulator Comments 558

Public Comments and Responses to the 1989 Hanford Cleanup Five-Year Plan 595

RESRAD

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

RESSAC

RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Restoration

Results of the Radiological Survey at the Jessop Steel Company Site, 500 Green Street, Washington, Pennsylvania (JSP001) - Environmental Restoration and Waste Management Non-Defense Programs 371

Restoration

DOE Completes Elza Gate Restoration 380

How Public Issues Shape Environmental Restoration Plans: Experiences with Colorado UMTRA Projects 389

Management of the Pipp Program for UMTRA Project Groundwater Restoration 402

Architecture and Environmental Restoration: Remediating Uranium Mill Tailings from Buildings 407

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Facilitation Techniques for Environmental Restoration Planning and Implementation 454

Unified Theory of Sciences for Implementation of Environmental Restoration at Department of Energy Sites 455

Request for Public Review and Comment on a Preliminary Design Report: A Priority System for Environmental Restoration 457

Putting Ecology in Environmental Restoration: The Strategic Planning Process 459

U.S. Department of Energy Office of Environmental Restoration and Waste Management Waste Reduction Workshop 462

Department of Energy Policy for Acceptance of Facilities for Environmental Restoration 463
TSD Capacity Model Interface with Waste Reduction Planning in the Environmental Restoration
Program 467

Creating a Context for Public Confidence in the Environmental Restoration Programs 472
Programmatic Environmental Impact Statement for the Office of Environmental Restoration and
Waste Management 473

Environmental Guidance for Public Participation in Environmental Restoration Activities 478

Natural Resource Trusteeship and Ecological Evaluation for Environmental Restoration at

Department of Energy Facilities 479

Environmental Restoration and Waste Management (EM) Program: An Introduction 480

Department of Energy Environmental Restoration and Waste Management Five-Year Plan Environmental Restoration Program 489

Observational Approach in Environmental Restoration 495

An Overview of Public Health Service Health-Related Activities as They Relate to the Department of Energy's Environmental Restoration Program 496

Environmental Restoration Program Waste Minimization and Pollution Prevention Awareness Program Plan 497

Environmental Restoration and Statistics: Issues and Needs 504

Tiger Team Findings Related to DOE Environmental Restoration Activities 506

Contracting for Engineering and Design Services in the Environmental Restoration Field 510

NEPA Compliance Strategies for Environmental Restoration Activities 511

DOE and Restoration at Weapons Plant Sites 513

The Department of Energy's Environmental Restoration Program 514

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521

Environmental Restoration Project Configuration Control 523

Quality Assurance Program Plan for the Environmental Restoration Program 541

Environmental Restoration: Oak Ridge National Laboratory Perspective 553

Environmental Restoration Program Management Control Plan 554

Oak Ridge Reservation Site Management Plan for the Environmental Restoration Program 564

Restoration

Implementation of the Natural Resource Damage Assessment Rule - Workshop Summary - Interim Notification Policy: Environmental Restoration Program 565

Environmental Restoration and Waste Management Site-Specific Plan for the Oak Ridge Reservation 567

The Use of Institutional Controls at Department of Energy Oak Ridge Field Office Environmental Restoration Sites 568

Achieving Technical Consistency and Meeting Technology Development Needs in the Oak Ridge Environmental Restoration Program 570

Environmental Restoration Remedial Action Quality Assurance Requirements Document 580 Environmental Restoration Remedial Action Program Records Management Plan 583

HEIS: An Integrated Information System for Environmental Restoration and Monitoring at Hanford 594

Environmental Restoration and Waste Management Site-Specific Plan for Richland Operations
Office 596

Standard Review Plan for the Review of Environmental Restoration Remedial Action Quality
Assurance Program Plans 597

Health and Safety Plan for Operations Performed for the Environmental Restoration Program - Task: Vapor Vacuum Extraction 620

Floodplain Involvement Notification for Environmental Restoration Activities at the Department of Energy Kansas City Plant Located in Kansas City, MO 626

Site Descriptions of Environmental Restoration Units at the Oak Ridge K-25 Site, Oak Ridge, Tennessee 663

SWSA 6 Interim Corrective Measures Environmental Monitoring: FY 1990 Results - Environmental Restoration Program 673

An Overview of Major Progress in the Environmental Restoration Program at the Savannah River Site 773

Environmental Restoration Activities at the U.S. Department of Energy's Pinellas Plant 783 Oak Ridge Restoration Typical of Federal Sites 787

Summary of the Landfill Remediation Problems and Technology Needs of the Oak Ridge Reservation Environmental Restoration Programs 788

Oak Ridge Environmental Restoration and Waste Management Plan Available for Public Comment 789

Contract Management Guide for Air Force Environmental Restoration 803

Defense Environmental Restoration Program Annual Report to Congress for Fiscal Year 1991 827

Department of Defense Installation Restoration Program: Remedial Action on Waste-Disposal Sites - Report for January 1984-October 1989 833

The Effectiveness of the Pump and Treat Method for Aquifer Restoration 854

Contaminant Sorption/Desorption Rates: Implications for Groundwater Restoration 878

Quality Assurance Elements in Environmental Restoration Procedures at Mixed-Waste Sites 904

A Framework for Evaluating Innovative Statistical and Risk Assessment Tools to Solve Environmental Restoration Problems 921

A Risk Computation Model for Environmental Restoration Activities 924

Summary of the Environmental Restoration Program Retrieval Demonstration Project at the Idaho National Engineering Laboratory - Revision 1 990

Restoring

Radon Problems and the Cost of Restoring the East German Uranium Projects 431

Restrictions

Meeting Licensing Restrictions from a Regulator's Perspective 1005

Development of Guidance for Variances from the RCRA Land Disposal Restrictions for US DOE Mixed-Waste Streams 1023

Resultant

Decontamination and Decommissioning Methods and Management of the Resultant Waste Products 279

Retech

Environmental Assessment for Retech, Inc.'s Plasma Centrifugal Furnace Evaluation 976

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

Retrieval

Summary of the Environmental Restoration Program Retrieval Demonstration Project at the Idaho National Engineering Laboratory - Revision 1 990

Reuse

Experience in Decontamination and Reuse of the Large-Scale Radiochemical Laboratory and the Research Reactor at the Japan Atomic Energy Research Institute 144

Research on the Harmless Reuse of Non-Iron Metals 243

Present Status of Decommissioning Materials Reuse Research at JAERI 252

Development of International Exemption Principles for Recycle and Reuse 274

Demonstration Processing of Contaminated Scrap Metal for Beneficial Reuse - Phase 1 - Final Report 987

Test Results for Dry Abrasive Cleaning of Scrap Metal for Beneficial Reuse - Phase 1 - Department of Energy Decontamination Program 989

Reusing

Low-Level Radioactivity Measurement Methods for Reusing or Recycling 255

Review

Request for Public Review and Comment on a Preliminary Design Report: A Priority System for Environmental Restoration 457

CERCLA Document Flow: Compressing the Schedule, Saving Costs, and Expediting Review at the Savannah River Site 545

Standard Review Plan for the Review of Environmental Restoration Remedial Action Quality
Assurance Program Plans 597

Reviewing

Information for Consideration in Reviewing Groundwater Protection Plans for Uranium Mill Tailings Sites 422

RFA

RCRA Facilities Assessment (RFA) - Oak Ridge National Laboratory 670

RCRA Facilities Assessment (RFA) for Oak Ridge National Laboratory: Addendum of August 25, 1987 671

RI

Evaluation of the Hanford RI/FS Cost Projections - Appendixes, Volume 2 of 2 586

Evaluation of the Hanford RI/FS Cost Projections - Appendixes, Volume 1 of 2 587

Quarry Residuals RI/FS Scoping Document 630

Case Study of a Mixed Waste Site - RI/FS 811

Richland

Development of an Administrative Record System and Information Repository System on the Hanford Site, Benton County, Richland, Washington 592

Environmental Restoration and Waste Management Site-Specific Plan for Richland Operations
Office 596

Floodplains Wetland Involvement for the Proposed Remedial Investigation of the 300-FF-5 Operable Unit of the Hanford Site, Richland, WA 609

Accelerated Cleanup of Past Practice Waste Sites on the Hanford Site, Richland, Washington 702

Remedial Investigation for the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 712 Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Accelerated Cleanup of Mixed Waste Units on the Hanford Site, Richland, Washington 779 Rifle

DOE and State to Hold Phase II Groundbreaking Ceremony in Rifle, Colorado 384
Environmental Audit - Rifle, Gunnison and Grand Junction UMTRA Project Sites 400
DOE, State, Local Officials Break Ground for Rifle, Colorado, Tailings Cleanup 408

Rinsing

The Experience - 6th Case - Rinsing and Decontamina

The Experience - 6th Case - Rinsing and Decontamination of Liquid Waste Storage Containers of Intermediate and High-Level Radioactivity 118

The Experience - 4th Case - The Rinsing of the Waste Processing Plant, the Dismantling of Some Components and of the Laboratories of Analysis, Safety Aspects 167

Risk

The Path to Gaining a Defensible Understanding of "Watch List" Tank Risk and Interim Stabilization Needs 8

Risk Assessment of Designs for RCRA and CERCLA Sites 465

Cleaning up Radioactive and Chemical Waste Sites: Is the Benefit Worth the Cost and Risk 505 Remedial Investigation/Feasibility Study Risk Assessments at a Superfund Mixed Waste Site 536 Balancing CERCLA Risk and DOE Radiological Performance Assessment Methodologies and Practices 546

Implications of Recent ICRP Recommendations for Risk Assessments for Radioactive Waste Disposal and Cleanup 726

Implications of the Upper Bound and Average Exposure Scenario on Risk Management Decisions for Contaminated Site Remediation 814

Addressing Data Heterogeneity: Lessons Learned from a Multimedia Risk Assessment 902

Strategy for Integrated CERCLA/NEPA Risk Assessments 905

Baseline Risk Assessment Methodology for Mixed Waste 909

The Use of Chemical and Radionuclide Risk Estimates in Site Performance Evaluation of Mixed Waste Sites 917

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

A Framework for Evaluating Innovative Statistical and Risk Assessment Tools to Solve Environmental Restoration Problems 921

A Risk-Based Cleanup Criterion for PCE in Soil 922

Role of Risk Assessment in Remediation of Contaminated Sites 923

A Risk Computation Model for Environmental Restoration Activities 924

The Application of Quantitative Risk Assessment to Assist in Evaluating Remedial Action Alternatives 926

Risk

Finding a Compromise Between Chemical and Radiological Risk Assessment Methods for Mixed Waste Sites 927

Health-Based Cleanup Goals at Hazardous Waste Sites: Implications for Risk Management 928 Risk Assessment Guidance for Superfund - Volume 1: Human Health Evaluation Manual - Part B. Development of Risk-Based Preliminary Remediation Goals - Interim Report 929

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Status of Existing Federal Environmental Risk-Based Standards Applicable to Department of Energy Operations 1031

Risks

Health Risks from Uranium Mill Tailings 436

An Assessment of Baseline Ecological Risks at the Fernald Environmental Management Project, Fernald, Ohio 650

Assessing Exposures and Risks in Heterogeneously Contaminated Areas: A Simulation Approach 919

Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation 925

RMW

DOE LDR Strategy Report for RMW 1027

Robot

Polyjointed Robot with Integrated Laser Beam 159

Development of a Shot-Blasting Robot for Removal of the Wall Concrete Surface 209

A Graphical Interface for Robotic Remediation of Underground Storage Tanks 948 Robotics

Robotics Subsurface Mapping Demonstration Technology Test Plan 974

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980
The Department of Energy's Robotics Technology Development Program for ER and WM 994
Robots

Research and Development of Laser Cutting Technology and Robots Used for Dismantling Nuclear Power Facilities 205

Rocky

Rocky Flats Community Relations: Coming Out of the Dark 517

NEPA/CERCLA Integration at Rocky Flats 518

Rocky Flats Plant Site Environmental Report - January-December 1990 614

Superfund Record of Decision (EPA Region 8): Rocky Flats Plant (DOE), Northern Jefferson County, CO - First Remedial Action, January 1990 - Final report 615

RCRA Closures at Rocky Flats Plant: A Programmatic Perspective and Case Study 616

Characterization Studies on: (A) Contaminated Batch of Rocky Flats Soil (B) Uncontaminated Batch of INEL Soil 617

Removal of Actinides from Rocky Flats Soil 728

GAO Report on Rocky Flats Plant Solar Evenoration Pond Cleanup 767

ROD

Issuance of the CERCLA ROD for an Operable Unit Remedial Action at the Weldon Spring Site - Lessons Learned 769

Suggested ROD Language for Various Ground-Water Remediation Options - Directive 883

Rulemaking

General Electric Company and Westinghouse Electric Corporation - Filing of a Petition for Rulemaking 106

Sacramento

Sacramento Municipal Utility District; Ranch Seco Nuclear Generating Station: Exemption 69
Safety

Waste Tank Safety, Operations, and Remediation Strategic Plan 9

Hanford High-Activity Waste Tank Safety Issues 33

Hanford Waste Tank Safety Issues: A Program Overview 34

Waste Tank Properties and Contents Program Plan - Waste Tank Safety Program 35

Waste Tank Safety Programs Overview Plan 36

Hanford Site Radioactive Waste Storage Tank Safety Issues: The Path to Resolution 38

Removal of Nuclear Reactors by Lowering - Results of Individual and Long-Term Safety
Assessment 113

Safety Related Aspects of Decommissioning Projects 115

The Experience - 4th Case - The Rinsing of the Waste Processing Plant, the Dismantling of Some Components and of the Laboratories of Analysis, Safety Aspects 167

Status and Safety of the Decommissioning of the JPDR 319

SIR Reactor Safety and Decommissioning 323

Health and Safety Plan for the Seymour Site - Seymour, Connecticut 372

Health and Safety Plan for the Ventron Site - Beverly, Massachusetts 373

Safety Assessment of Uranium Mill Tailings 430

The Prioritization of Environment, Safety, and Health Activities 464

Nuclear Weapons Complex - Major Safety, Environmental, and Reconfiguration Issues Facing DOE 466

Pinellas Plant Site Specific Plan: Environmental Health and Safety Programs 520

Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste Removal at the CTF K-1654B Underground Collection Tank 552

Pinellas Plant Site Environmental Report for Calendar Year 1990 - Environmental Health and Safety Programs: Revision A 619

Health and Safety Plan for Operations Performed for the Environmental Restoration Program - Task: Vapor Vacuum Extraction 620

Pacific Northwest Laboratory Annual Report for 1990 to the Assistant Secretary for Environment, Safety, and Health, Part 5: Environment, Safety, Health, and Quality Assurance 797

Standardized Radiological Hazard Analysis for a Broad-Based Operational Safety Program 931
Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission
Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety
Impacts Are Below Regulatory Concern (BRC) 1017

Salt

Preliminary Decommissioning Study Reports - Molten Salt Reactor Experiment 20 Molten Salt Reactor Option for Beneficial Use of Fissile Material from Dismantled Weapons 760

Sampling

Sampling and Analysis of the Inactive Waste Tanks TH-2, WC-1, and WC-15 17

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

Shippingport Neutron Shield Tank Sampling and Analysis Program 32

Sampling

Development of Sampling and Assay Methods for Windscale Advanced Gas Cooled Reactor Radwaste 263

Middlesex Sampling Plant Annual Environmental Report for Calendar Year 1990 363

Field Sampling and Analysis Plan for the Remedial Investigation of Waste Area Grouping 2 at Oak Ridge National Laboratory, Oak Ridge, Tennessee 561

Environmental Soil Sampling Under Storage Tanks Utilizing Angled Auger Borings 654 Environmental Surveillance Master Sampling Schedule 697

Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

New Technique Lowers Costs of Environmental Sampling 898

Sandia

Sandia National Laboratories, Livermore Environmental Protection Implementation Plan for the Period November 9, 1991 - November 9, 1992 516

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Environmental Monitoring Report, Sandia National Laboratories, Albuquerque, New Mexico, 1990 641

Savannah

Savannah River Field Office - Financial Assistance Award - Intent to Award a Noncompetitive

CERCLA Document Flow: Compressing the Schedule, Saving Costs, and Expediting Review at the Savannah River Site 545

Comprehensive Strategy for Corrective Actions at the Savannah River Site General Separations Area 549

Costs and Schedule for a 58 Acre RCRA Interim Status Mixed Waste Closure at the Savannah River Plant 550

Performance Assessments of Closure Cap Alternatives at the Savannah River Plant 551

Aerial Radiological Survey of the Central Savannah River Site, Aiken, South Carolina - Survey Date: February 1987 658

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 1 660

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 2 661

Aerial Radiological Survey of the Savannah River Site TNX Facility and Surrounding Area, Aiken, South Carolina - Date of Survey: August 1986 662

Test Program for Closure Activities at a Mixed Waste Disposal Site at the Savannah River Plant 755

Groundwater Clean-Up: The Savannah River Site Experience 772

An Overview of Major Progress in the Environmental Restoration Program at the Savannah River Site 773

M-Basin Closure - Savannah River Site 774

Saw

In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170 Scaling

Scaling Considerations for Modelling the In Situ Vitrification Process 955

Scenario

Implications of the Upper Bound and Average Exposure Scenario on Risk Management Decisions for Contaminated Site Remediation 814

Scenarios

Uranium Enrichment: Analysis of Decontamination and Decommissioning Scenarios - Briefing Report to the Chairman, Subcommittee on Energy and Power, Committee on Energy and Commerce, House of Representatives 2

Estimates of Low-Level Waste Volumes and Classifications at 2-Unit 100 MWe Reference Plants for Decommissioning Scenarios 269

Scientific

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

Scrap

Melting of Contaminated Steel Scrap from Decommissioning 234

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Scrap Metal from Nuclear Power Stations 241

Detection of Radioactivity in Steel Scrap 260

Final Report: Scrap Metal Program Phase I - Decontamination Demonstration Project 266

DOE Scrap Metal Recovery Project - Phase I Report (Volume 1) 275

Melting of Radioactive Metal Scrap from Nuclear Installations 277

Contaminated Scrap Metal Management at the ORGDP - A Problem Solved 759

Process Evaluations for Uranium Recovery from Scrap Material 973

Demonstration Processing of Contaminated Scrap Metal for Beneficial Reuse - Phase 1 - Final Report 987

Experimental Results for the Nickel Purification, Phase 1, of the Oak Ridge Scrap Metal Decontamination Program 988

Test Results for Dry Abrasive Cleaning of Scrap Metal for Beneficial Reuse - Phase 1 - Department of Energy Decontamination Program 989

Scrapyard

Surface Radiological Investigations at White Wing Scrapyard, Oak Ridge Reservation, Oak Ridge, Tennessee 685

Screen

Improved Techniques for Monitoring Well Screen Placement and Well Location 891
Screening

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

Seco

Sacramento Municipal Utility District; Ranch Seco Nuclear Generating Station: Exemption 69

Secondary

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171

Security

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424

Sediment

Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed 679

Patterns of Sediment Accumulation in Watts Bar Reservoir Based on Cesium-137 695

Chestnut Ridge Sediment Disposal Basin (D-025): Summary of Closure under Rules Governing Hazardous Waste Management in Tennessee 775

Sediments

Evaluation of a Rapid Headspace Analysis Method for Analysis of Volatile Constituents in Soils and Sediments 890

Segmenting

Spreading and Filtering of Radioactive By-Products from Underwater Segmenting 169

Large-Scale Application of Segmenting and Decontamination Techniques 183

Electrochemical Technique for the Segmenting of Activated Steel Components 186

Selenium

Overview of Kesterson Reservoir Selenium Remediation Project 815

Sellafield

BNFL's Decommissioning and Decommissioning Development Programmes at Sellafield 329

Mobility of Plutonium and Americium Through a Shallow Aquifer in a Semiarid Region 642 Sensitivity

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

Sensor

Model Based, Sensor Directed Remediation of Underground Storage Tanks 992

Separation

Separation by Vapour Phase Transport of Stainless Steel Constituents 229

Separation of Contaminated Concrete 230

Decommissioning B204 Primary Separation Plant - Progress Report: October 1990 - April 1991 330

Sewage

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Seymour

Health and Safety Plan for the Seymour Site - Seymour, Connecticut 372

Shallow

Shallow Groundwater Investigations at Weldon Spring, Missouri - Final Report for Fiscal Years 1988-1990 627

Shallow

Mobility of Plutonium and Americium Through a Shallow Aquifer in a Semiarid Region 642 Threshold Limited Kinetics of Aromatic Hydrocarbons in Shallow Soil Systems 867

A Comparison of Shallow Electromagnetic and Magnetometer Surface Geophysical Techniques to Effectively Delineate Buried Wastes 897

Shed

Decommissioning Project - The "Purple Shed" 290

Sheffield

Live Stream Remediation at Sheffield Brook 377

Shell

Overview of the Closure Approach for the Hanford Site Single-Shell Tank Farm 10 Systems Engineering Study for the Closure of Single-Shell Tanks 11

Disposal Concepts for Waste in Underground Single-Shell Storage Tanks at the Hanford Site 43

Hanford Single-Shell Tank Waste-Preliminary Pretreatment Testing of Simulated Waste 44
Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ
Treatment of Waste and Residuals for Hanford Single-Shell Tanks 48

Shield

Shippingport Neutron Shield Tank Sampling and Analysis Program 32

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Embrittlement of the Shippingport Reactor Shield Tank 57

Radiation Embrittlement of the Neutron Shield Tank from the Shippingport Reactor 58 Dismantling of Biological Shield by Cutting Machine 213

Shielded

Large Shielded Industrial Packages for the Transport of Intermediate Level Waste 276 Shields

Method for Dismantling Shields 203

Removal of Concrete Layers from Biological Shields by Microwaves 224

Shipments

Application of United States Department of Transportation Regulations to Hazardous Material and Waste Shipments on the Hanford Site 762

Shippingport

Establishment of Criteria for the Unconditional Release of the Shippingport Reactor 1

Shippingport Neutron Shield Tank Sampling and Analysis Program 32

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Mechanical-Property Degradation of Cast Stainless Steel Components from the Shippingport Reactor 56

Embrittlement of the Shippingport Reactor Shield Tank 57

Radiation Embrittlement of the Neutron Shield Tank from the Shippingport Reactor 58

Transportation of Shippingport Reactor Pressure Vessel 59

Completion of the Shippingport Reactor Decommissioning 60

Nuclear Research and Development: Shippingport Decommissioning - How Applicable are the Lessons Learned 61

Shock

Optimized Coating Removal by Cold Shock Treatment 121

Shop

Response to Comments on Remedial Investigation Report for the Plating Shop Container Areas (S-334 and S-351) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 692

Shoreham

Long Island Lighting Company - Shoreham Nuclear Power Station - Environmental Assessment and Finding of No Significant Impact 93

Shot

Development of a Shot-Blasting Robot for Removal of the Wall Concrete Surface 209 Shpack

Derivation of Uranium Residual Radioactive Material Guidelines for the Shpack Site 381 Shutdown

Decommissioning Funding for Prematurely Shutdown Power Reactors 105

Dismantling and Shutdown of a Nuclear Fuel Cycle Facility: The Belgian Context 286

The Shutdown of Nuclear Plants and Its Perspectives 311

Significant

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling of and Disposition of Component Parts - University of Kansas Research Reactor 92

Long Island Lighting Company - Shoreham Nuclear Power Station - Environmental Assessment and Finding of No Significant Impact 93

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling and Disposition of Component Parts - University of Utah AGN-201M Research Reactor 95

Dairyland Power Cooperative: La Crosse Boiling Water Reactor (LACBWR) - Issuance of Environmental Assessment and Finding of No Significant Impact 97

Final Environmental Assessment of Remedial Action at the Falls City Uranium Mill Tailings Site, Falls City, Texas - Finding of No Significant Impact 399

Silicates

Immobilisation of Active Concrete Debris Using Soluble Sodium Silicates 272 Silos

Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Facility Design to Apply Cover Material over Radioactive Residue in Storage Silos 40 Simulated

Hanford Single-Shell Tank Waste-Preliminary Pretreatment Testing of Simulated Waste 44
Recent Field Trials of Directional Boring Equipment for Emplacing a Borehole Grid Around and
Beneath a Simulated Waste Site 977

Simulation

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Application of Monte Carlo Simulation to Estimate Probabilities for the Best and Health Conservative Estimates of Receptor Well Concentrations 839

Removal of Trichloroethylene Contamination from the Subsurface: A Comparative Evaluation of Different Remediation Strategies by Means of Numerical Simulation 848

Numerical Simulation of Two-Dimensional Steam-Remediation Experiments 858

Assessing Exposures and Risks in Heterogeneously Contaminated Areas: A Simulation Approach 919

Simulation of Heat Conduction and Electric Fields During In Situ Vitrification of Soil 959

Simulations

Three-Dimensional Computer Simulations of Bioremediation and Vapor Extraction 845

SIR Reactor Safety and Decommissioning 323

Siting

Siting and Constructing Very Deep Monitoring Wells on the U.S. Department of Energy's Nevada Test Site 635

SLDS

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

Handling 78,000 Drums of Mixed-Waste Sludge 756

Sludges

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

Factors Affecting the Leaching of Radium-226 from Barium-Radium Sulphate Sludges 443 Slurry

Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871

Smart

"Smart" Pump and Treat 838

Soda

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

Sodium

Experimental Plant for Treating Contaminated Sodium 250

Immobilisation of Active Concrete Debris Using Soluble Sodium Silicates 272

Soil

DECHEM: A Remedial Planning Tool for Chemical Contaminants in Soil 392

Superfund LDR Guide No. 6A (2nd edition) - Obtaining a Soil and Debris Treatability Variance for Remedial Actions 482

DOE Guidelines and Modeling in Determination of Soil Cleanup Guidelines 487

Characterization Studies on: (A) Contaminated Batch of Rocky Flats Soil (B) Uncontaminated Batch of INEL Soil 617

Characterization of Vitrified and Non-Vitrified Fernald K-65 Soil 651

Environmental Soil Sampling Under Storage Tanks Utilizing Angled Auger Borings 654

Hanford Site Surface Soil Radioactive Contamination Control Plan for Fiscal Year 1992 710

Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Conducting a Soil Washing Treatability Investigation at the Hanford Site 717

Soil Washing Results for Mixed Waste Pond Soils at Hanford 727

Removal of Actinides from Rocky Flats Soil 728

Removal Action Under CERCLA Section 104 for PCB-Contaminated Soil at DOE Mound Plant 731

Treatment of Y-12 Plant Mixed Waste Contaminated Soils Utilizing the Westinghouse Soil Washing Process 737

Soil Washing: A Promising Technology for the Cleanup of Hanford 741

Soil Vapor Extraction Test in a Radiologically Contaminated Site, Hanford Site 745

Soil

Control of Soil Column Discharges at the Hanford Site 763

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

Sorters for Soil Cleanup 816

An Improved Method for Remediation of Transuranic-Contaminated Coral Soil at Johnston Atoll 817

Quality Assurance Applications for Remediation of Plutonium Contaminated Soil 818

Characterization of Waste Products Prepared from Radioactive Contaminated Clayey Soil Cemented According to the GEODUR Process 820

Application of Biotechnology in Soil Remediation 842

Particle Characterization of Contaminated Soil 843

Groundwater and Soil Remediation R, D and D 857

Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

Threshold Limited Kinetics of Aromatic Hydrocarbons in Shallow Soil Systems 867

Soil Remediation - January 1985-January 1992 - Citations from the NTIS Database 873

Soil Clean-up Guidelines for Decommissioning of Industrial Lands: Background and Rationale for Development 874

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Biotechnology Workgroup for Department of Defense Soil and Ground-water Decontamination Applications - Final Report for Period Ending March 1989 877

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Comparison of Statistical Methods for Estimating Plutonium Inventories in Soil 915

A Risk-Based Cleanup Criterion for PCE in Soil 922

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

Simulation of Heat Conduction and Electric Fields During In Situ Vitrification of Soil 959
In Situ Vitrification and the Effects of Soil Additives - A Mixture Experiment Case Study 961
Soils

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

Methods for Drilling and Well Installation in Radiologically Contaminated Soils 645

Characterization of Uranium Contaminated Soils from DOE Fernald Environmental Management Project Site: Results of Phase 1 Characterization 652

Soil Washing Results for Mixed Waste Pond Soils at Hanford 727

An Effective Methodology for Establishing Cleanup Standards for Mercury Contaminated Soils 736

Treatment of Y-12 Plant Mixed Waste Contaminated Soils Utilizing the Westinghouse Soil Washing Process 737

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Electrokinetic Remediation of Contaminated Soils 868

Soils

Evaluation of a Rapid Headspace Analysis Method for Analysis of Volatile Constituents in Soils and Sediments 890

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

In Situ Vitrification of Soils Containing Various Metals 945

Treatment of Heavy Metal Contaminated Soils by In Situ Vitrification 952

Engineering-Scale Tests of In Situ Vitrification to PCB and Radioactive Contaminated Soils 956 Comparison of In Situ Vitrification and Rotary Kiln Incineration for Soils Treatment 965

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Integrated Demonstration for the Removal of Uranium Substances from Soils 982

Selection of Innovative Technologies for the Remediation of Soils Contaminated with Radioactive and Mixed Wastes 985

Solar

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424 GAO Report on Rocky Flats Plant Solar Evaporation Pond Cleanup 767

Solid

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171

Closure Plan for Solid Waste Storage Area 6: Volume 1, Closure Plan 562

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Solid Waste Program Plan 1002

Solidification

In-Drum Solidification of Low-Level Mixed Waste 1019

Solids

Utilization of Uranium Industry Technology and Relevant Chemistry to Leach Uranium from Mixed-Waste Solids 940

Solubilized

Geochemical Hosts of Solubilized Radionuclides in Uranium Mill Tailings 452

Soluble

Immobilisation of Active Concrete Debris Using Soluble Sodium Silicates 272

Solution

Decontamination Techniques for Radioactive Metal Waste Using a Neutral Electrolyte and a Sulfuric Acid Solution 141

Solvent

Design and Construction of an Interceptor System for Radioactively Contaminated Solvent 730 Application of Vapor Vacuum Extraction to Waste Sites with Chlorinated Solvent Problems - A Case Study 768

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Sorption

Contaminant Sorption/Desorption Rates: Implications for Groundwater Restoration 878 Sorters

Sorters for Soil Cleanup 816

Sorting

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclear Industry 267

Spanish

Advances in Uranium Mill Tailings Closure: USA and Spanish Practice 450

Sphagnum

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Spill

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

Vapor Extraction Technology for the Remediation of a Large Gasoline Spill 859

Spreading

Spreading and Filtering of Radioactive By-Products from Underwater Segmenting 169
Springdale

Results of the Radiological Survey at Conviber, Inc., 644 Garfield Street, Springdale, Pennsylvania (CVP001) 370

SRS

SRS Waste Removal and D&D Program for Underground Waste Tanks 42 SSK

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414 Stability

Deterioration Assessment of Nuclear Power Station Buildings and Long-Term Stability and the Leak Tightness of Reactor Containments 288

Stabilization

The Path to Gaining a Defensible Understanding of "Watch List" Tank Risk and Interim Stabilization Needs 8

DOE Hanford Site Tank Farm Interim Stabilization During 1990 65

Discussion of the Economic Impacts of Regulations Governing the Stabilization and Decommissioning of Uranium Milling Facilities 419

Report of the Advisory Committee on Nuclear Waste: Final Staff Technical Position on the Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites 421

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laboratory in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

Decommissioning of a Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility: A Case Study of the Interim Stabilization of the 216-A-29 Ditch at the Hanford Site 742

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984 Staging

Weldon Spring Quarry Construction Staging Area and Water Treatment Plant Site Remedial Action Characterization Report for the Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri 633

Stainless

Mechanical-Property Degradation of Cast Stainless Steel Components from the Shippingport Reactor 56

Decontamination Tests on Stainless Steel Tubing Removed from the Darlington Tritium Removal Facility 119

Aged Stainless Steel Corrosion Tests with LOMI and AECL Decontamination Processes 125 Chemical Decontamination Method for Stainless Steel 142

Separation by Vapour Phase Transport of Stainless Steel Constituents 229

Key Parameters for the Safe and Economical Recycling of Contaminated Stainless Steel 270 Standard

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

Standard Review Plan for the Review of Environmental Restoration Remedial Action Quality
Assurance Program Plans 597

Harmonization of QA Procedures for Environmental Data Operations: Development of a National Consensus Standard for Quality Assurance for Environmental Programs 887

National QA Standard for Environmental Programs for Hazardous Waste Management Activities 895

US EPA's Proposed Standard for BRC Criteria 1010

Development of a National Consensus Standard for Quality Assurance for Environmental Programs 1012

Standards

National Emission Standards for Hazardous Air Pollutants - Uranium Mill Tailings Disposal Sites 423

What are the Basic Requirements that Cleanup Standards Should Satisfy? 469

What Should Cleanup Standards Do? 470

Meeting Health-Based Standards at Hazardous and Mixed Waste Sites: Are We Deluding Ourselves? 486

An Effective Methodology for Establishing Cleanup Standards for Mercury Contaminated Soils 736

EPA's Proposed Environmental Standards for Low-Level Radioactive Waste Disposal and Criteria for Below Regulatory Concern 1009

Progress in the Development of Below Regulatory Concern Standards: An Industry Perspective 1024

Status of Existing Federal Environmental Risk-Based Standards Applicable to Department of Energy Operations 1031

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Standardized

Standardized Radiological Hazard Analysis for a Broad-Based Operational Safety Program 931

Stations

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Scrap Metal from Nuclear Power Stations 241

Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

Statistical

Statistical Approach on RCRA Groundwater Monitoring Projects at the Hanford Site 699 Comparison of Statistical Methods for Estimating Plutonium Inventories in Soil 915

A Framework for Evaluating Innovative Statistical and Risk Assessment Tools to Solve Environmental Restoration Problems 921

Statistics

Environmental Restoration and Statistics: Issues and Needs 504

Status

Current Status of Residual Radioactivity Criteria in Japan 87

Status and Trends of Underwater Plasma Arc Cutting 175

Present Status of Decommissioning Materials Reuse Research at JAERI 252

Information of Present Status of NPP A-1 Bohunice 297

Status of Work on Decommissioning the THTR 300 300

Decommissioning of Nuclear Facilities and Power Reactors in Germany - Status, 1991 301

Collection of Papers Presented for the Status Report 1989 of the Central Bureau for Management and Coordination of Projects Concerning the Decommissioning of Nuclear Facilities 304

Status of Decommissioning Work at the Gundremmingen Unit A Power Station 305

Status and Safety of the Decommissioning of the JPDR 319

Status of Disposal Sites for the Department of Energy's Formerly Utilized Sites Remedial Action Program 376

Costs and Schedule for a 58 Acre RCRA Interim Status Mixed Waste Closure at the Savannah River Plant 550

In Situ Vitrification: Technology Status and a Survey of New Applications 967

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006

Status of Existing Federal Environmental Risk-Based Standards Applicable to Department of Energy Operations 1031

Steam

Analysis and Decision Document in Support of Acquisition of Steam Supply for the Hanford 200 Area 602

Numerical Simulation of Two-Dimensional Steam-Remediation Experiments 858

Steel

Mechanical-Property Degradation of Cast Stainless Steel Components from the Shippingport Reactor 56

Decontamination Tests on Stainless Steel Tubing Removed from the Darlington Tritium Removal Facility 119

Aged Stainless Steel Corrosion Tests with LOMI and AECL Decontamination Processes 125 Chemical Decontamination Method for Stainless Steel 142

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

Steel

Electrochemical Technique for the Segmenting of Activated Steel Components 186

Separation by Vapour Phase Transport of Stainless Steel Constituents 229

Development of a Large Container Cast of Low-Level Radioactive Steel 232

Melting of Contaminated Steel Scrap from Decommissioning 234

Detection of Radioactivity in Steel Scrap 260

Key Parameters for the Safe and Economical Recycling of Contaminated Stainless Steel 270

Behaviour of Difficult to Measure Radionuclides in the Melting of Steel 278

Results of the Radiological Survey at the New Betatron Building, Granite City Steel Facility, Granite City, Illinois (GSG002) 360

Results of the Radiological Survey at the Jessop Steel Company Site, 500 Green Street, Washington, Pennsylvania (JSP001) - Environmental Restoration and Waste Management Non-Defense Programs 371

Steeks

Melting of Low-Level Contaminated Steels 257

Stochastic

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

Storage

Underground Storage Tank-Integrated Demonstration Technical Task Plan Master Schedule 6 Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

Progress in Evaluating the Hazards of Ferrocvanide Waste Storage Tanks 22

Hanford Site Radioactive Waste Storage Tank Safety Issues: The Path to Resolution 38

Facility Design to Apply Cover Material over Radioactive Residue in Storage Silos 40

Disposal Concepts for Waste in Underground Single-Shell Storage Tanks at the Hanford Site 43

Decommissioning of a Grout- and Waste-Filled Storage Tank in the 200 East Area of the Hanford Site 52

Combined Long Reach and Dexterous Manipulation for Waste Storage Tank Applications 68

The Experience - 6th Case - Rinsing and Decontamination of Liquid Waste Storage Containers of Intermediate and High-Level Radioactivity 118

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

Engineering Evaluation/Cost Analysis for the Proposed Decontamination of Properties in the Vicinity of the Hazelwood Interim Storage Site, Hazelwood, Missouri - Environmental Assessment 352

Maywood Interim Storage Site Annual Environmental Report for Calendar Year 1990 361

Wayne Interim Storage Site Annual Environmental Report for Calendar Year 1990 364

Colonie Interim Storage Site Annual Environmental Report for Calendar Year 1990 365

Performance Monitoring Report for the Niagara Falls Storage Site Waste Containment Structure, Lewiston, New York, for Calendar Year 1990 366

Closure Plan for Solid Waste Storage Area 6: Volume 1, Closure Plan 562

Decommissioning of the 105-F and 105-H Fuel Storage Basins in the 100 Area at the Hanford Site 598

Storage

Management of Petroleum Underground Storage Tanks at the Hanford Site 599

Environmental Soil Sampling Under Storage Tanks Utilizing Angled Auger Borings 654

Release Investigation Report for Underground Storage Tank 2336-U at the Chestnut Ridge Repeater Station, Building 0962, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 690

Initial Site Characterization for Underground Storage Tank 2081-U, Building 9212, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 693

Release Investigation Report for Underground Storage Tank 2305-U at Building 9998, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 694

Decommissioning of a Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility: A Case Study of the Interim Stabilization of the 216-A-29 Ditch at the Hanford Site 742

DOE to Hold Public Meeting on Proposed Interim Cleanup Action at Drum Storage Yards 757 Safe Storage of Deactivated Radiological Chemical Processing Plants in the 200 West Area of the Hanford Site 796

In-Situ Storage: An Approach to Interim Remedial Action - Recent Case Studies in Canada 799 Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

Storage, Disposal, Remediation, and Closure 832

Lessons Learned in Fixation and Storage of Radioactive Mixed Waste 939

A Graphical Interface for Robotic Remediation of Underground Storage Tanks 948

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Long-Reach Manipulation for Waste Storage Tank Remediation 979

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980 Model Based, Sensor Directed Remediation of Underground Storage Tanks 992

Storms

The Transport of Contaminants During Storms in the White Oak Creek and Melton Branch Watersheds 672

Strategic

Waste Tank Safety, Operations, and Remediation Strategic Plan 9

Putting Ecology in Environmental Restoration: The Strategic Planning Process 459

Strategic Planning of an Integrated Program for State Oversight Agreements 569

Strategies

Program Management Strategies for Following EPA Guidance for Remedial Design/Remedial Action at DOE Sites 458

NEPA Compliance Strategies for Environmental Restoration Activities 511

Remediation Strategies for Perched Water Bodies Underlying the Idaho Chemical Processing Plant at the Idaho National Engineering Laboratory 525

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Removal of Trichloroethylene Contamination from the Subsurface: A Comparative Evaluation of Different Remediation Strategies by Means of Numerical Simulation 848

Stream

Live Stream Remediation at Sheffield Brook 377

Streamflow

Evaluation of Proposed Designs for Streamflow Monitoring Structures at Waste Disposal Sites 665

Streams

Distribution of Radioactivity in Surface Streams Around Uranium Mine-Mill Complex 427
Development of Guidance for Variances from the RCRA Land Disposal Restrictions for US
DOE Mixed-Waste Streams 1023

Stress

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951 Stripping

Air Stripping of Volatile Organic Chlorocarbons: System Development, Performance, and Lessons Learned 732

Strontium

Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705
Structure

Planning Structure for Normal Decommissioning Procedures 78

Effect of Long-Living Products of Concrete Structure Activation on Decommissioning of NPPs with LWR Reactors 146

Performance Monitoring Report for the Niagara Falls Storage Site Waste Containment Structure, Lewiston, New York, for Calendar Year 1990 366

Structured

Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Structures

Explosive Fracturing of Concrete Structures and Pipings - Generalization of Results and Applicability to Real Facilities 179

Explosive Cutting Methods to Dismantle Concrete Structures 180

Explosive Fracturing of Concrete Structures and Pipings - Experiments in the HDR 185

Slow Demolition of Thick Wall Using Hydrostatic Tube - Example of Dismantling RC Structures in Radioactive Facilities 208

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

Evaluation of Proposed Designs for Streamflow Monitoring Structures at Waste Disposal Sites 665

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984

Subcontract

Department of Energy: Task Assignment - Subcontract Awards 456

Subcontractor

DOE Selects Subcontractor for Gunnison, Colorado, Tailings Cleanup 382

Submarine

Request for Interim Approval to Operate 218-E-12B Trench 94 as a Chemical Waste Landfill for Disposal of Polychlorinated Biphenyl Wastes in Submarine Reactor Compartments 604

Successful

Successful Integration of the CERCLA and NEPA Compliance Processes in the Weldon Spring Site Remedial Action Project: A Case Study 527

A Successful Environmental Remediation Program Closure and Post-Closure Activities (CAPCA), Y-12 Plant, Oak Ridge, Tennessee 777

Sulfuric

Decontamination Techniques for Radioactive Metal Waste Using a Neutral Electrolyte and a Sulfuric Acid Solution 141

Sulphate

Factors Affecting the Leaching of Radium-226 from Barium-Radium Sulphate Sludges 443 Summary

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Annual Summary Report on Surveillance and Maintenance Activities of the Surplus Contaminated Facilities Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 62

Annual Summary Report of the Decontamination and Decommissioning Surveillance and Maintenance Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 63

Summary of the Hanford Site Decontamination, Decommissioning, and Cleanup, FY 1974-FY 1990 67

Implementation of the Natural Resource Damage Assessment Rule - Workshop Summary - Interim Notification Policy: Environmental Restoration Program 565

Chestnut Ridge Sediment Disposal Basin (D-025): Summary of Closure under Rules Governing Hazardous Waste Management in Tennessee 775

Summary of the Landfill Remediation Problems and Technology Needs of the Oak Ridge Reservation Environmental Restoration Programs 788

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

Mining Sites on the National Friorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

St. Michael's Workshop on Residual Radioactivity and Recycling Criteria - Summary and Panel Discussion 835

Feasibility of Hydraulic Fracturing to Improve Remedial Actions - Project Summary 872

Summary of the Environmental Restoration Program Retrieval Demonstration Project at the Idaho National Engineering Laboratory - Revision 1 990

Summary of EPRI BRC Research Program 1022

Superfund

Superfund Record of Decision (EPA Region 8): Monticello Mill Tailings Site, San Juan County, UT (First Remedial Action), August 1990 417

Superfund Community Relations Program - A Guide to Effective Presentations with Visual Aids 481

Superfund LDR Guide No. 6A (2nd edition) - Obtaining a Soil and Debris Treatability Variance for Remedial Actions 482

Remedial Investigation/Feasibility Study Risk Assessments at a Superfund Mixed Waste Site 536 Remedial Investigation of a Superfund Site 611

Superfund Record of Decision (EPA Region 8): Rocky Flats Plant (DOE), Northern Jefferson County, CO - First Remedial Action, January 1990 - Final report 615

Superfund Record of Decision (EPA Region 7): Weldon Spring Quarry/Plant/Pits (USDOE), Weldon Spring, MO (Second Remedial Action) - September 1990 632

Superfund

Superfund Record of Decision (EPA Region 10): Teledyne Wah Chang, Albany, OR (First Remedial Action), December 1989 802

Superfund Record of Decision (EPA Region 2): Montclair/West Orange Radium Site, Essex County, NJ (Second Remedial Action), June 1990 - Final Report 809

Groundwater Recovery and Treatment as a Superfund Remedial Action 844

Considerations in Ground-Water Remediation at Superfund Sites 885

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

Risk Assessment Guidance for Superfund - Volume 1: Human Health Evaluation Manual - Part B, Development of Risk-Based Preliminary Remediation Goals - Interim Report 929 Superfund Exposure Assessment Manual 930

Superfund Innovative Technology Evaluation (SITE) Program - Spring Update 1991 998 Supply

Environmental Assessment of the Provision of a Water Supply System - Gunnison, Colorado - Final 395

Analysis and Decision Document in Support of Acquisition of Steam Supply for the Hanford 200 Area 602

Potential for Using a Six-Phase Alternating Current Power Supply for In Situ Vitrification 963 Suppression

Consequences of Suppression of Negative Pressure in the KW-Lingen Containment 108
In Situ Vitrification of Buried Waste: Containment Issues and Suppression Systems 957

Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Method of Removing Hazardous Material Deposited on Concrete Surface 136

Development of a Shot-Blasting Robot for Removal of the Wall Concrete Surface 209

Distribution of Radioactivity in Surface Streams Around Uranium Mine-Mill Complex 427

Post-Closure Plan for the X-616 Surface Impoundments 543

Surface Radiological Investigations of Trench 6 and Low-Level Waste Line Leak Site 7.4b at the Oak Ridge National Laboratory, Oak Ridge, Tennessee 678

Surface Radiological Investigations at White Wing Scrapyard, Oak Ridge Reservation, Oak Ridge, Tennessee 685

Hanford Site Surface Soil Radioactive Contamination Control Plan for Fiscal Year 1992 710 Land Surface Cleanup of Plutonium at the Nevada Test Site 729

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 2 770

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 1 771

Surface Water Management at a Mixed Waste Remediation Site 784

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

A Comparison of Shallow Electromagnetic and Magnetometer Surface Geophysical Techniques to Effectively Delineate Buried Wastes 897

Surface Contamination Criteria for Free Release 1004

Surfaces

Development of Measuring Systems for Contamination Measurements on Regularly and Irregularly Shaped Surfaces 111

Surfaces

Procedure for Decontamination of Surfaces Contaminated with Radioactive Substances 120 Closed Electropolishing System for Decontamination of Underwater Surfaces/Development of Vibratory Decontamination with Abrasive Media 149

Removal of Contaminated Concrete Surfaces by Microwave Heating: Phase 1 Results 217

In Situ Treatment of Concrete Surfaces by Organic Impregnation and Polymerization 226

Assessment of the Applicability of a Protective Polymeric Coating for Decontamination of Certain Surfaces 227

RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Surveillance

Annual Surveillance and Maintenance Report for the Retired Hanford Site Facilities 24

Annual Summary Report on Surveillance and Maintenance Activities of the Surplus Contaminated Facilities Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 62

Annual Summary Report of the Decontamination and Decommissioning Surveillance and Maintenance Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 63

Decontamination and Decommissioning Surveillance and Maintenance Report for FY 1991 64

Surveillance of Site A and Plot M - Report for 1990 358

Surveillance of Site A and Plot M - Report for 1991 359

Environmental Surveillance and Research at the Nevada Test Site 636

Environmental Surveillance Data Report for the Fourth Quarter of 1990 666

Environmental Surveillance Data Report for the Third Quarter of 1990 667

Environmental Surveillance Master Sampling Schedule 697

Westinghouse Hanford Company Environmental Surveillance Annual Report - 200/600 Areas - Calendar Year 1990 716

Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance 1025

Surveys

Report on Geological Surveys in the 300-FF-1 Operable Unit 718

Automation of Geophysical Surveys Used in Assessment of Hazardous Waste 892

Swabs

Decontamination Using Chemical Gels, Electrolytical Swabs, and Abrasives 151

SWMU

Comparison of RCRA SWMU Corrective Action and CERCLA Remedial Action 471 SWSA

Design and Construction of the Interim Waste Management Facility - SWSA 6 556

Functional Requirements for the Support Facilities to Plug and Abandon Wells at SWSA 6, Oak Ridge National Laboratory, Oak Ridge, Tennessee 557

SWSA 6 Interim Corrective Measures Environmental Monitoring: FY 1990 Results - Environmental Restoration Program 673

Treatability Study for WAG 6 (SWSA 6) Trench Water 677

Systems

Federal Facility Agreement Plans and Schedules for Liquid Low-Level Radioactive Waste Tank Systems at Oak Ridge National Laboratory, Oak Ridge, Tennessee 3

Systems Engineering Study for the Closure of Single-Shell Tanks 11

Systems Engineering for Decommissioning the Japan Power Demonstration Reactor 88

Systems

Development of Measuring Systems for Contamination Measurements on Regularly and Irregularly Shaped Surfaces 111

A Process for the Complete Decontamination of Entire Systems 124

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

Development of Telerobotic Systems for Reactor Decommissioning: (III) - Demonstration System 212

Development of Measuring and Control Systems for Underwater Cutting of Radioactive Components 220

Development of Telerobotic Systems for Reactor Decommissioning: (II) - Prototype Heavy-Duty System 221

Development of Telerobotic Systems for Reactor Decommissioning: (I) - Prototype Light-Duty System 223

Methodology for Assessing Suitable Systems for Management of Reactor Decommissioning Wastes 259

Demonstration of a Methodology for Assessing Suitable Systems for Management of Reactor Decommissioning Wastes 265

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Threshold Limited Kinetics of Aromatic Hydrocarbons in Shallow Soil Systems 867

In Situ Vitrification of Buried Waste: Containment Issues and Suppression Systems 957

Preliminary Systems Design Study Assessment Report 983

TA

TA-2 Water Boiler Reactor Decommissioning Project - Final Project Report 49

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 2 770

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 1 771

TAG

Co-Precipitation Plant Decommissioning: Progress Report to TAG Meeting 22 April 1991 for November 1990 to March 1991 343

Tank

Federal Facility Agreement Plans and Schedules for Liquid Low-Level Radioactive Waste Tank Systems at Oak Ridge National Laboratory, Oak Ridge, Tennessee 3

Underground Storage Tank-Integrated Demonstration Technical Task Plan Master Schedule 6
The Path to Gaining a Defensible Understanding of "Watch List" Tank Risk and Interim
Stabilization Needs 8

Waste Tank Safety, Operations, and Remediation Strategic Plan 9

Overview of the Closure Approach for the Hanford Site Single-Shell Tank Farm 10

Extended Tank Use Analysis 23

Development of Tank Instrumentation - The Search for Appropriate Monitoring 26

Visual System for Waste Tank Cleanup 27

Graphical Presentation of Ferrocyanide Tank Compositions 29

Waste Tank 241-A-105 Supporting Documentation - Miscellaneous Reports, Letters, Memoranda, and Data 30

Shippingport Neutron Shield Tank Sampling and Analysis Program 32

Hanford High-Activity Waste Tank Safety Issues 33

Hanford Waste Tank Safety Issues: A Program Overview 34

Tank

Waste Tank Properties and Contents Program Plan - Waste Tank Safety Program 35 Waste Tank Safety Programs Overview Plan 36

Hanford Site Radioactive Waste Storage Tank Safety Issues: The Path to Resolution 38

Hanford Single-Shell Tank Waste-Preliminary Pretreatment Testing of Simulated Waste 44

Decommissioning of a Grout- and Waste-Filled Storage Tank in the 200 East 'Area of the Hanford Site 52

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Embrittlement of the Shippingport Reactor Shield Tank 57

Radiation Embrittlement of the Neutron Shield Tank from the Shippingport Reactor 58

DOE Hanford Site Tank Farm Interim Stabilization During 1990 65

Combined Long Reach and Dexterous Manipulation for Waste Storage Tank Applications 68
Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste
Removal at the CTF K-1654B Underground Collection Tank 552

Federal Facility Agreement Contingency, Upgrade, and Replacement Plans for the ORNL Active Low-Level Radioactive Waste Tank System 555

Interim Action Proposed Plan: Mercury Tank Remediation at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 574

Site Investigation Report and Corrective Action Plan for Tank 2310-U at the Pine Ridge West Repeater Station, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 686

Release Investigation Report for Underground Storage Tank 2336-U at the Chestnut Ridge Repeater Station, Building 0962, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 690

Initial Site Characterization for Underground Storage Tank 2081-U, Building 9212, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 693

Release Investigation Report for Underground Storage Tank 2305-U at Building 9998, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 694

Long-Reach Manipulation for Waste Storage Tank Remediation 979

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980 Tanks

Evaluation of Tanks that Release Flammable Gases 5

Systems Engineering Study for the Closure of Single-Shell Tanks 11

Sampling and Analysis of the Inactive Waste Tanks TH-2, WC-1, and WC-15 17

Preliminary Decommissioning Study Reports - Low-Level Liquid Waste Tanks 18

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

Progress in Evaluating the Hazards of Ferrocyanide Waste Storage Tanks 22

High Organic Containing Tanks - Assessing the Hazard Potential 25

Ferrocyanide-Containing Waste Tanks: Ferrocyanide Chemistry and Reactivity 28

SRS Waste Removal and D&D Program for Underground Waste Tanks 42

Disposal Concepts for Waste in Underground Single-Shell Storage Tanks at the Hanford Site 43

Operating Watch List Tanks: A Study in Control 45

Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 46

Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 47

Tanks

Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ Treatment of Waste and Residuals for Hanford Single-Shell Tanks 48

Management of Petroleum Underground Storage Tanks at the Hanford Site 599

Environmental Soil Sampling Under Storage Tanks Utilizing Angled Auger Borings 654

In Situ Vitrification of Radioactive Underground Tanks 941

Remediation of Contaminated Underground Tanks by In Situ Vitrification 944

A Graphical Interface for Robotic Remediation of Underground Storage Tanks 948

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Model Based, Sensor Directed Remediation of Underground Storage Tanks 992

Tar

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

Technetium

Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

Technologies

An Evaluation of Alternative Reactor Vessel Cutting Technologies for the Decommissioning of the Experimental Boiling Water Reactor at Argonne National Laboratory 39

Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ Treatment of Waste and Residuals for Hanford Single-Shell Tanks 48

Limitations of Cleanup Technologies 346

Characterization Technologies for Environmental Remediation 493

Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation 512

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

New Technologies to Meet Regulations 949

Selection of Innovative Technologies for the Remediation of Soils Contaminated with Radioactive and Mixed Wastes 985

Synopses of Federal Demonstrations of Innovative Site Remediation Technologies 997 Technology

Decontamination Technology for Decommissioning of Nuclear Facilities 143

Research and Development of Laser Cutting Technology and Robots Used for Dismantling Nuclear Power Facilities 205

Study on Technology of Reactor Dismantling by Abrasive Water Jet Cutting System 210

Decommissioning, a Ready-to-Start Technology for the Next Century 350

Remediation Technology Development from the UMTRA Program 413

Can Ore Milling Technology Be Harmonized With the Environment? 449

Achieving Technical Consistency and Meeting Technology Development Needs in the Oak Ridge Environmental Restoration Program 570

Soil Washing: A Promising Technology for the Cleanup of Hanford 741

In Situ Technology Evaluation and Functional and Operational Guidelines for Treatability Studies at the Radioactive Waste Management Complex at the Idaho National Engineering Laboratory 747

Technology Development for a Disposal Cell at the Weldon Spring Site Remedial Action Project 749

Technology

Summary of the Landfill Remediation Problems and Technology Needs of the Oak Ridge Reservation Environmental Restoration Programs 788

Vapor Extraction Technology for the Remediation of a Large Gasoline Spill 859

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Guide to Pump-and-Treat Ground-Water Remediation Technology - Fact Sheet 884

Utilization of Uranium Industry Technology and Relevant Chemistry to Leach Uranium from Mixed-Waste Solids 940

Joint DOE/EPA Initiatives to Facilitate International Environmental Technology Transfer 950 Cleanup Technology - DOE's Management of Environmental Cleanup Technology 962

In Situ Vitrification: Technology Status and a Survey of New Applications 967

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Technology Integration Branch FY 1991 Program Plan, Office of Technology Development 969 Long-Range Plan for Technology Integration Programs, Office of Technology Development 970 Technology Integration Division - FY 1992 Technology Integration Programs Plan, Office of Technology Development 971

Robotics Subsurface Mapping Demonstration Technology Test Plan 974

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980 The Department of Energy's Robotics Technology Development Program for ER and WM 994 Guidance Manual for Conducting Technology Demonstration Activities 995

Remediation Technology Needs and Applied R&D Initiatives 996

Superfund Innovative Technology Evaluation (SITE) Program - Spring Update 1991 998 Teledyne

Superfund Record of Decision (EPA Region 10): Teledyne Wah Chang, Albany, OR (First Remedial Action), December 1989 802

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

TELEMAN

The TELEMAN Programme 162

Teleoperation

Adaptation to Teleoperation of an Existing Air-Tight Modular Workshop for Remotely Controlled Operations 164

Telerobotic

Development of Telerobotic Manipulators for Reactor Dismantling Work 207

Development of Telerobotic Systems for Reactor Decommissioning: (III) - Demonstration System 212

Development of Telerobotic Systems for Reactor Decommissioning: (II) - Prototype Heavy-Duty System 221

Development of Telerobotic Systems for Reactor Decommissioning: (I) - Prototype Light-Duty System 223

Temperature

Decommissioning Concept for the High Temperature Reactor THTR-300 177

Temporal

Temporal Variations in Atmospheric Dispersion at Hanford 704

Temporary

Life Extension of Nuclear Power Plants: A Temporary Alternative to Demolition 341

Tetrachloride

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Initial Site Characterization Approach and Preliminary Results: 200 West Area Carbon Tetrachloride Expedited Response Action, Hanford Site, Washington 714

Accelerated Cleanup of Carbon Tetrachloride in a Radiologically Contaminated Site at the Hanford Site 744

Texas

DOE Selects Contractor for Falls City, Texas, Tailings Cleanup 385

Public Meeting to Be Held on Falls City, Texas, Tailings Cleanup 386

Final Environmental Assessment of Remedial Action at the Falls City Uranium Mill Tailings Site, Falls City, Texas - Finding of No Significant Impact 399

DOE Sets Falls City, Texas, Tailings Cleanup Groundbreaking 410

BRC Disposal Alternatives for NORM Wastes in Texas 1035

TH

Sampling and Analysis of the Inactive Waste Tanks TH-2, WC-1, and WC-15 17

Testing of New Techniques in Decommissioning of a Fuel (U,Th) Fabrication Plant, Special Consideration to Free Release Measurement of Low Uranium Activities 289

Thermal

1990 Thermal Remediation Industry Contractor Survey 852

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951
Thermodynamic

A Thermodynamic Analysis of Melt Immiscibility and its Implications During Vitrification 947

Thorium

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribution for the Reclamation of Mill Tailings Generated Pursuant to Federal Defense Contracts at Active Uranium and Thorium Processing Sites 418

Remeasurement of Thorium-230 in the Pore Water of Lacnor Tailings 425

THTR

Decommissioning Concept for the High Temperature Reactor THTR-300 177 Status of Work on Decommissioning the THTR 300 300

Tideflats

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

Tiger

Tiger Team Findings Related to DOE Environmental Restoration Activities 506

Tissues

Ra-226 and Other Radionuclides in Water, Vegetation, and Tissues of Beavers (Castor Canadensis) from a Watershed Containing Uranium Tailings near Elliot Lake, Canada 426

TNX

Aerial Radiological Survey of the Savannah River Site TNX Facility and Surrounding Area, Aiken, South Carolina - Date of Survey: August 1986 662

Tomography

Electrical Resistance Tomography to Monitor Vadose Water Movement 875

Tonopah

Environmental Monitoring Report, Tonopah Test Range, Tonopah, Nevada, 1990 640

Toxic

Radioactive and Toxic Wastes from the Bancroft Uranium Mines: Where Are We Going Who Is in Charge 442

Air Quality Monitoring at Toxic Waste Sites: A Hanford Perspective 711

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Transmutation

Trying Transmutation 954

Transport

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Separation by Vapour Phase Transport of Stainless Steel Constituents 229

Boxes for the Transport and Disposal of Low Level and Decommissioning Intermediate Level Radioactive Wastes 258

The Development and Testing of a Container for the Transport of Decommissioning Wastes 262 Large Shielded Industrial Packages for the Transport of Intermediate Level Waste 276

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Ground-Water Flow and Transport Modeling of the NRC-Licensed Waste Disposal Facility, West Valley, New York 648

The Transport of Contaminants During Storms in the White Oak Creek and Melton Branch Watersheds 672

Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed 679

Transportation

Transportation of Shippingport Reactor Pressure Vessel 59

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

Application of United States Department of Transportation Regulations to Hazardous Material and Waste Shipments on the Hanford Site 762

Transuranic

An Improved Method for Remediation of Transuranic-Contaminated Coral Soil at Johnston Atoll 817

Treatability

Superfund LDR Guide No. 6A (2nd edition) - Obtaining a Soil and Debris Treatability Variance for Remedial Actions 482

Pad A Treatability Study Long-Range Project Plan 526

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laboratory in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

Treatability Study for WAG 6 (SWSA 6) Trench Water 677

Treatability

Conducting a Soil Washing Treatability Investigation at the Hanford Site 717

In Situ Technology Evaluation and Functional and Operational Guidelines for Treatability Studies at the Radioactive Waste Management Complex at the Idaho National Engineering Laboratory 747

Trench

Request for Interim Approval to Operate 218-E-12B Trench 94 as a Chemical Waste Landfill for Disposal of Polychlorinated Biphenyl Wastes in Submarine Reactor Compartments 604 Treatability Study for WAG 6 (SWSA 6) Trench Water 677

Surface Radiological Investigations of Trench 6 and Low-Level Waste Line Leak Site 7.4b at the Oak Ridge National Laboratory, Oak Ridge, Tennessee 678

Trenches

In Situ Grouting of Low-Level Burial Trenches with a Cement-Based Grout 735

Expedited Response Action Proposal for 316-5 Process Trenches 746

Accelerated Cleanup of the 316-5 Process Trenches at the Hanford Site 780

Trends

Status and Trends of Underwater Plasma Arc Cutting 175

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

Trichloroethylene

Removal of Trichloroethylene Contamination from the Subsurface: A Comparative Evaluation of Different Remediation Strategies by Means of Numerical Simulation 848

Tritium

Decontamination Tests on Stainless Steel Tubing Removed from the Darlington Tritium Removal Facility 119

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

TRU

Comprehensive Implementation Plan for the DOE Defense Buried TRU-Contaminated Waste Program 1034

Trustee

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Trusteeship

Natural Resource Trusteeship and Ecological Evaluation for Environmental Restoration at Department of Energy Facilities 479

Trusts

Investment Management for Nuclear Decommissioning Trusts 104

TSD

TSD Capacity Model Interface with Waste Reduction Planning in the Environmental Restoration Program 467

TSL

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 1 771 Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 2 770

Tube

Dismantling and Decontamination of the Tube Bundle of a Feedwater Preheater of the Garigliano BWR 199

Tube

Slow Demolition of Thick Wall Using Hydrostatic Tube - Example of Dismantling RC Structures in Radioactive Facilities 208

Tubes

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170

Decontamination Tests on Stainless Steel Tubing Removed from the Darlington Tritium Removal Facility 119

Tuffaceous

Studies of Fission Product Movement in Tuffaceous Media 638

Tunney

Tunney's Pasture Decommissioning Project 281

Ultrasound

Decontamination for Decommissioning: Enhancement of Aggressive Chemical Decontamination by Using Electropolishing or Ultrasound 131

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

UMTRA

How Public Issues Shape Environmental Restoration Plans: Experiences with Colorado UMTRA Projects 389

Uranium Mill Tailings Remedial Action (UMTRA) Project 1992 Site-Specific Plan Available 393 Environmental Audit - Rifle, Gunnison and Grand Junction UMTRA Project Sites 400

Results of the Engineering Special Studies for the UMTRA Project - FY90 401

Management of the Pipp Program for UMTRA Project Groundwater Restoration 402

UMTRA Project Management of Residual Radioactive Material Commingled with Hazardous Waste at Vicinity Properties 403

The Grand Junction, Colorado, UMTRA Program: Engineering Design and Management of More than 4,000 Remedial Action Designs 405

Remediation Technology Development from the UMTRA Program 413

Underground

Underground Storage Tank-Integrated Demonstration Technical Task Plan Master Schedule 6 SRS Waste Removal and D&D Program for Underground Waste Tanks 42

Disposal Concepts for Waste in Underground Single-Shell Storage Tanks at the Hanford Site 43

Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste Removal at the CTF K-1654B Underground Collection Tank 552

Management of Petroleum Underground Storage Tanks at the Hanford Site 599

Release Investigation Report for Underground Storage Tank 2336-U at the Chestnut Ridge Repeater Station, Building 0962, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 690

Initial Site Characterization for Underground Storage Tank 2081-U, Building 9212, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 693

Release Investigation Report for Underground Storage Tank 2305-U at Building 9998, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 694

In Situ Vitrification of Radioactive Underground Tanks 941

Remediation of Contaminated Underground Tanks by In Situ Vitrification 944

A Graphical Interface for Robotic Remediation of Underground Storage Tanks 948

Underground

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980 Model Based, Sensor Directed Remediation of Underground Storage Tanks 992

Underlying

General Principles Underlying the Decommissioning of Nuclear Facilities 293

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

Remediation Strategies for Perched Water Bodies Underlying the Idaho Chemical Processing Plant at the Idaho National Engineering Laboratory 525

Underpinning

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

Underwater

Closed Electropolishing System for Decontamination of Underwater Surfaces/Development of Vibratory Decontamination with Abrasive Media 149

Underwater Cutting Techniques Developments 160

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Spreading and Filtering of Radioactive By-Products from Underwater Segmenting 169

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171

Status and Trends of Underwater Plasma Arc Cutting 175

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178
Development of a System to Demonstrate the Safe Underwater Dismantling of Metallic
Components 184

Underwater Plasma Arc Cutting - Final Report 190

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202

Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

Development of Measuring and Control Systems for Underwater Cutting of Radioactive Components 220

Unified

Unified Theory of Sciences for Implementation of Environmental Restoration at Department of Energy Sites 455

Unrestricted

Criteria for Release of Decommissioned Nuclear Facilities for Unrestricted Use 14

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclear Industry 267

Decommissioning Nuclear Reactors in Italy: the Unrestricted Release Issue 312

Upgrade

Federal Facility Agreement Contingency, Upgrade, and Replacement Plans for the ORNL Active Low-Level Radioactive Waste Tank System 555

Upgradient

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

USDOE

Superfund Record of Decision (EPA Region 7): Weldon Spring Quarry/Plant/Pits (USDOE), Weldon Spring, MO (Second Remedial Action) - September 1990 632

Utah

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling and Disposition of Component Parts - University of Utah AGN-201M Research Reactor 95

The University of Utah (The Utah AGN-201M Research Reactor) - Order Authorizing Dismantling of Facility and Disposition of Component Parts 99

Results of the Independent Verification of Radiological Remedial Action at 87 East 500 South Street, Monticello, Utah 416

Results of the Independent Verification of Radiological Remedial Action at 397 East 3rd South Street, Monticello, Utah 428

Determination of the Probability for Radioactive Materials on Properties in Monticello, Utah 429

Utility

Sacramento Municipal Utility District; Ranch Seco Nuclear Generating Station: Exemption 69
A Utility View of Decommissioning a Gas-Cooled Reactor 287

Vacuum

Health and Safety Plan for Operations Performed for the Environmental Restoration Program - Task: Vapor Vacuum Extraction 620

Application of Vapor Vacuum Extraction to Waste Sites with Chlorinated Solvent Problems - A
Case Study 768

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Vadose

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Electrical Resistance Tomography to Monitor Vadose Water Movement 875

VAK

Six Years of Experience with Decommissioning and Dismantling VAK 302

Validation

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

A Project Manager's Primer on Data Validation 888

Validity

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

Valves

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Vandellos

Order of 31 July 1990 Cancelling the Third Condition in the Annex to the Order of 29 April 1982 Granting the Final Operating License for the Vandellos I Nuclear Power Plant, and Fixing the Conditions to be Complied with by the Operator for the Phase Prior to its Dismantling and Closing Down, to Maintain the Plant in Safe Conditions and Remove the Fuel from the Site 89

Vapor

Health and Safety Plan for Operations Performed for the Environmental Restoration Program
- Task: Vapor Vacuum Extraction 620

Soil Vapor Extraction Test in a Radiologically Contaminated Site, Hanford Site 745

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

Application of Vapor Vacuum Extraction to Waste Sites with Chlorinated Solvent Problems - A
Case Study 768

Three-Dimensional Computer Simulations of Bioremediation and Vapor Extraction 845 Vapor Extraction Technology for the Remediation of a Large Gasoline Spill 859

Vapour

Separation by Vapour Phase Transport of Stainless Steel Constituents 229

Variance

Superfund LDR Guide No. 6A (2nd edition) - Obtaining a Soil and Debris Treatability Variance for Remedial Actions 482

Variances

Guide to Obtaining No Migration Variances for CERCLA Remedial Actions 483

Development of Guidance for Variances from the RCRA Land Disposal Restrictions for US DOE Mixed-Waste Streams 1023

Vaults

Grout for Closure of Waste-Disposal Vaults at the US DOE Hanford Site 795

Vegetation

Ra-226 and Other Radionuclides in Water, Vegetation, and Tissues of Beavers (Castor Canadensis) from a Watershed Containing Uranium Tailings near Elliot Lake, Canada 426

Ventron

Health and Safety Plan for the Ventron Site - Beverly, Massachusetts 373

Vessel

An Evaluation of Alternative Reactor Vessel Cutting Technologies for the Decommissioning of the Experimental Boiling Water Reactor at Argonne National Laboratory 39

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Transportation of Shippingport Reactor Pressure Vessel 59

Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

Technical Verification Test for Reactor Pressure Vessel Cutting by Using G&G Method ("Arc-Gouging & Gas Cutting" Method) 222

Vessels

Analyses and Testing of Model Prestressed Concrete Reactor Vessels with Built-in Planes of Weakness 161

Explosive Dismantling of Reactor Pressure Vessels Using the Brittle Fracturing Method 182 Vibratory

Closed Electropolishing System for Decontamination of Underwater Surfaces/Development of Vibratory Decontamination with Abrasive Media 149

Visual

Visual System for Waste Tank Cleanup 27

Superfund Community Relations Program - A Guide to Effective Presentations with Visual Aids 481

Vitrification

Characteristics of Fernald's K-65 Residue Before, During and After Vitrification 41

Dismantling and Decontamination of Piver Prototype Vitrification Plant 189

In Situ Vitrification Program at the Idaho National Engineering Laboratory 935

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

Proposed Plan for Vitrification Demonstration of Low-Level Radioactive Wastes at the Fernald Environmental Management Project 937

In Situ Vitrification of Radioactive Underground Tanks 941

A Product Evaluation Strategy for the Evaluation of In Situ Vitrification Waste Forms 942

Technical Baseline Description for In Situ Vitrification Laboratory Test Equipment 943

Remediation of Contaminated Underground Tanks by In Situ Vitrification 944

In Situ Vitrification of Soils Containing Various Metals 945

In Situ Vitrification Application to Buried Waste: Final Report of Intermediate Field Tests at Idaho National Engineering Laboratory 946

A Thermodynamic Analysis of Melt Immiscibility and its Implications During Vitrification 947 Treatment of Heavy Metal Contaminated Soils by In Situ Vitrification 952

Influence of Natural Convection on Melt Shape During In Situ Vitrification 953

Scaling Considerations for Modelling the In Situ Vitrification Process 955

Engineering-Scale Tests of In Situ Vitrification to PCB and Radioactive Contaminated Soils 956

In Situ Vitrification of Buried Waste: Containment Issues and Suppression Systems 957

Aqueous Dissolution of Laboratory and Field Samples from the In-Situ Vitrification Process 958 Simulation of Heat Conduction and Electric Fields During In Situ Vitrification of Soil 959

In Situ Vitrification Laboratory-Scale Test Work Plan 960

In Situ Vitrification and the Effects of Soil Additives - A Mixture Experiment Case Study 961 Potential for Using a Six-Phase Alternating Current Power Supply for In Situ Vitrification 963 In Situ Vitrification Processing of Buried Waste Sites 964

Comparison of In Situ Vitrification and Rotary Kiln Incineration for Soils Treatment 965

A Preliminary Study of the Controls on Melting During In Situ Vitrification 966

In Situ Vitrification: Technology Status and a Survey of New Applications 967

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Product Evaluation of In Situ Vitrification Field Tests at the Idaho National Engineering Laboratory 972

Resolution of Regulatory Issues Facing the DOE In Situ Vitrification Program 1007

Vitrified

Characterization of Vitrified and Non-Vitrified Fernald K-65 Soil 651

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951 Vitrifying

Results of Vitrifying Fernald K-65 Residue 938

VOC

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Volatile

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

Air Stripping of Volatile Organic Chlorocarbons: System Development, Performance, and Lessons Learned 732

Volatile

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Evaluation of a Rapid Headspace Analysis Method for Analysis of Volatile Constituents in Soils and Sediments 890

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

Volumes

Disposal Capacity and Projected Waste Volumes Within the Low-Level Radioactive Waste Compacts 264

Estimates of Low-Level Waste Volumes and Classifications at 2-Unit 100 MWe Reference Plants for Decommissioning Scenarios 269

Vrain

Westinghouse, Morris-Knudsen Get Fort St. Vrain Decommissioning Work 157

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

WAG

Treatability Study for WAG 6 (SWSA 6) Trench Water 677

WAGR

Development of Techniques to Decontaminate the WAGR Heat Exchangers 145

Wah

Superfund Record of Decision (EPA Region 10): Teledyne Wah Chang, Albany, OR (First Remedial Action), December 1989 802

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

WAK

Decommissioning of the Karlsruhe Reprocessing Plant (WAK) - Preliminary Planning Results

Karlsruhe Reprocessing Plant (WAK) 307

Wall

Slow Demolition of Thick Wall Using Hydrostatic Tube - Example of Dismantling RC Structures in Radioactive Facilities 208

Development of a Shot-Blasting Robot for Removal of the Wall Concrete Surface 209

Warehouses

Remedial Action for the Baker and Williams Warehouses Site, New York, New York 378

Post-Remedial Action Report for Building 521-527, Baker and Williams Warehouses Site - New York, New York 379

Washing

Conducting a Soil Washing Treatability Investigation at the Hanford Site 717

Soil Washing Results for Mixed Waste Pond Soils at Hanford 727

Treatment of Y-12 Plant Mixed Waste Contaminated Soils Utilizing the Westinghouse Soil Washing Process 737

Soil Washing: A Promising Technology for the Cleanup of Hanford 741

WasteChem

WasteChem Cleans Up in Europe 826

Wastcwater

Development of a Polishing System for FEMP Wastewater Discharges 753

Water

An Evaluation of Alternative Reactor Vessel Cutting Technologies for the Decommissioning of the Experimental Boiling Water Reactor at Argonne National Laboratory 39

TA-2 Water Boiler Reactor Decommissioning Project - Final Project Report 49

Post-Remedial Action Report for the Water Boiler Reactor Site 51

Experimental Boiling Water Reactor (EBWK) Progress Report - Compiled for the Technical Advisory Group Meeting, April 22-26, 1991 53

An Overview of the U.S. Department of Energy Experimental Boiling Water Reactor Decontamination and Decommissioning Project 54

Dairyland Power Cooperative: La Crosse Boiling Water Reactor (LACBWR) - Issuance of Environmental Assessment and Finding of No Significant Impact 97

Dairyland Power Cooperative - La Crosse Boiling Water Reactor: Order Authorizing Decommissioning of Facility 100

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178 Study on Technology of Reactor Dismantling by Abrasive Water Jet Cutting System 210

The Decommissioning of the BR3 Pressurized Water Reactor Plant 292

Heavy Water Plants Being Dismantled 344

Environmental Assessment of the Provision of a Water Supply System - Gunnison, Colorado - Final 395

Remeasurement of Thorium-230 in the Pore Water of Lacnor Tailings 425

Ra-226 and Other Radionuclides in Water, Vegetation, and Tissues of Beavers (Castor Canadensis) from a Watershed Containing Uranium Tailings near Elliot Lake, Canada 426 Remediation Strategies for Perched Water Bodies Underlying the Idaho Chemical Processing

Plant at the Idaho National Engineering Laboratory 525

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

Weldon Spring Quarry Construction Staging Area and Water Treatment Plant Site Remedial Action Characterization Report for the Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri 633

Ground-Water Flow and Transport Modeling of the NRC-Licensed Waste Disposal Facility, West Valley, New York 648

Treatability Study for WAG 6 (SWSA 6) Trench Water 677

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Surface Water Management at a Mixed Waste Remediation Site 784

Evaluation and Design of Geophysical Monitoring Network for Ground-Water Contamination - Final Report 846

Remediation and Mitigation Associated with Contamination of Water by Irrigation Drainage 856 Electrical Resistance Tomography to Monitor Vadose Water Movement 875

Biotechnology Workgroup for Department of Defense Soil and Ground-water Decontamination Applications - Final Report for Period Ending March 1989 877

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

Cone Penetrometer/Hydropunch [trademark]: An Efficient Approach for Delineating Subsurface Lithology and Ground Water Quality 882

Water

Suggested ROD Language for Various Ground-Water Remediation Options - Directive 883 Guide to Pump-and-Treat Ground-Water Remediation Technology - Fact Sheet 884 Considerations in Ground-Water Remediation at Superfund Sites 885

Waterborne

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Waters

Identification of Contaminants of Concern in Hanford Ground Waters 706

Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Watershed

Ra-226 and Other Radionuclides in Water, Vegetation, and Tissues of Beavers (Castor Canadensis) from a Watershed Containing Uranium Tailings near Elliot Lake, Canada 426 Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed 679

Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River 680

Watersheds

The Transport of Contaminants During Storms in the White Oak Creek and Melton Branch Watersheds 672

Watts

Patterns of Sediment Accumulation in Watts Bar Reservoir Based on Cesium-137 695

Intent to Prepare a Remedial Investigation/Feasibility Study-Environmental Impact Statement: Response Actions at a Site in Wayne, New Jersey 354

Wayne Interim Storage Site Annual Environmental Report for Calendar Year 1990 364

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

Weakness

Analyses and Testing of Model Prestressed Concrete Reactor Vessels with Built-in Planes of Weakness 161

Weapons

Nuclear Weapons Complex - Major Safety, Environmental, and Reconfiguration Issues Facing DOE 466

Managing the Environmental Cleanup of DOE's Nuclear Weapons Complex 468

Environmental Problems in the Nuclear Weapons Complex 503

Complex Cleanup: The Environmental Legacy of Nuclear Weapons Production 507

DOE and Restoration at Weapons Plant Sites 513

Molten Salt Reactor Option for Beneficial Use of Fissile Material from Dismantled Weapons 760

Weldon

Successful Integration of the CERCLA and NEPA Compliance Processes in the Weldon Spring Site Remedial Action Project: A Case Study 527

Application of Classic Engineering Techniques (Value Engineering and Observation Method) at the Weldon Spring Quarry 529

Engineering Evaluation/Cost Analysis for the Proposed Management of 15 Nonprocess Buildings (15 Series) at the Weldon Spring Site Chemical Plant, Weldon Spring, Missouri 530

Weldon

Shallow Groundwater Investigations at Weldon Spring, Missouri - Final Report for Fiscal Years 1988-1990 627

Annual Site Environmental Report for Calendar Year 1990 - Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri: Revision 1 628

Environmental Audit, Weldon Spring Site Remedial Action Project 631

Superfund Record of Decision (EPA Region 7): Weldon Spring Quarry/Plant/Pits (USDOE), Weldon Spring, MO (Second Remedial Action) - September 1990 632

Weldon Spring Quarry Construction Staging Area and Water Treatment Plant Site Remedial Action Characterization Report for the Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri 633

Integrated Waste Management at the Weldon Spring, Missouri Site Remedial Action Project 748
Technology Development for a Disposal Cell at the Weldon Spring Site Remedial Action Project
749

Issuance of the CERCLA ROD for an Operable Unit Remedial Action at the Weldon Spring Site - Lessons Learned 769

Wells

Functional Requirements for the Support Facilities to Plug and Abandon Wells at SWSA 6, Oak Ridge National Laboratory, Oak Ridge, Tennessee 557

Logs of Wells and Boreholes Drilled During Hydrogeologic Studies at Lawrence Livermore National Laboratory Site 300, June 30, 1988 - December 31, 1990 613

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

Quarry Detection Monitoring Wells Completion Report WP-166 629

Siting and Constructing Very Deep Monitoring Wells on the U.S. Department of Energy's Nevada Test Site 635

Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borchole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683 Westinghouse

General Electric Company and Westinghouse Electric Corporation - Filing of a Petition for Rulemaking 106

Westinghouse, Morris-Knudsen Get Fort St. Vrain Decommissioning Work 157

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laboratory in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

Westinghouse Hanford Company Environmental Surveillance Annual Report - 200/600 Areas - Calendar Year 1990 716

Treatment of Y-12 Plant Mixed Waste Contaminated Soils Utilizing the Westinghouse Soil Washing Process 737

Wet

Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Wetland

Floodplains Wetland Involvement for the Proposed Remedial Investigation of the 300-FF-5 Operable Unit of the Hanford Site, Richland, WA 609

White

Regulatory Compliance Issues Related to the White Oak Creek Embayment Time-Critical Removal Action 571

The Transport of Contaminants During Storms in the White Oak Creek and Melton Branch Watersheds 672

Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed
679

Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River 680

Surface Radiological Investigations at White Wing Scrapyard, Oak Ridge Reservation, Oak Ridge, Tennessee 685

Wilcox

Financial Assistance Award - Babcock & Wilcox 94

Wildlife

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705 Williams

Remedial Action for the Baker and Williams Warehouses Site, New York, New York 378

Post-Remedial Action Report for Building 521-527, Baker and Williams Warehouses Site - New York, New York 379

Wind

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Prover Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Compress, Second Session, April 4, 1990 424 Preliminary Analysis of Wind Data from the Oak Ridge Site Survey 682

Windscale

Development of Sampling and Assay Methods for Windscale Advanced Gas Cooled Reactor Radwaste 263

The Decommissioning of the Windscale Pile Chimneys 324

Progress Report on the Windscale Advanced Gas-Cooled Reactor Decommissioning Project, UK 332

Decommissioning of the Windscale Pile Chimneys 342

Wing

Surface Radiological Investigations at White Wing Scrapyard, Oak Ridge Reservation, Oak Ridge, Tennessee 685

Wire

Diamond Wire Cutting of Heat Exchangers 218

WM

The Department of Energy's Robotics Technology Development Program for ER and WM 994 Workgroup

Biotechnology Workgroup for Department of Defense Soil and Ground-water Decontamination Applications - Final Report for Period Ending March 1989 877

Workroom

The Experience - 1st Case - The Decommissioning of Hot Cells: Elan 2B Workroom at La Hague 191

WP

Quarry Detection Monitoring Wells Completion Report WP-166 629

WSSRAP

WSSRAP Update 785

Yard

Revised RCRA Closure Plan for the Interim Drum Yard (S-030) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 577

Yards

DOE to Hold Public Meeting on Proposed Interim Cleanup Action at Drum Storage Yards 757 ZERLINA

Decommissioning of Research Reactor ZERLINA 283



AD-A-237956/8/XAB

Biotechnology Workgroup for Department of Defense Soil and Ground-water Decontamination Applications - Final Report for Period Ending March 1989 877

AD-A-243385/2/XAB

Comparison of RCRA SWMU Corrective Action and CERCLA Remedial Action 471

Advanced Oxidation Frocesses for the Treatment of Contaminated Water and Air, Proceedings of a Symposium, Toronto, Canada, June 4-5, 1990

Rayox: A Second Generation Enhanced Oxidation Process for Groundwater Remediation 840

AFIT/CI/CIA-91-091

Comparison of RCRA SWMU Corrective Action and CERCLA Remedial Action 471

AFIT/GCM/DEM/91S-3

Contract Management Guide for Air Force Environmental Restoration 803

Ageing, Decommissioning, and/or Major Refurbishment of Research Reactors, Proceedings of an IAEA Seminar for Asia and the Pacific, Bangkok, Thailand, May 18-22, 1992

Conceptual Decommissioning Plan for Thai Research Reactor-1/Modification 1 90

Decision-Making Process to Shut Down, Refurbish/Modify, or Decommission Research Reactors 4

Decommissioning of Research Reactor ZERLINA 283

End-of-Life Planning for the Decommissioning of Research Reactors and Other Small Nuclear Facilities 70

Experience of Research Reactor Decommissioning in Japan 284

IAEA Activities on Decommissioning of Research Reactors and Other Small Nuclear Facilities 285

Planning and Implementation of Decommissioning for Research Reactors 101

Policy and Regulation for Decommissioning Reactors in Japan 86

Safety Related Aspects of Decommissioning Projects 115

ANL-91/13

Radiation Embrittlement of the Neutron Shield Tank from the Shippingport Reactor 58

ANL-91/2

Surveillance of Site A and Plot M - Report for 1990 358

ANI -92/13

Surveillance of Site A and Plot M - Report for 1991 359

ANL/CP-71887

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

ANL/CP-71902

Addressing Data Heterogeneity: Lessons Learned from a Multimedia Risk Assessment 902

ANL/CP-72892

Role of Risk Assessment in Remediation of Contaminated Sites 923

ANIJCP-73026

R&D Activities at DOE Applicable to Mixed Waste 993

ANL/CP-74093

Implications of Recent ICRP Recommendations for Risk Assessments for Radioactive Waste Disposal and Cleanup 726

ANL/CP-74953

Mechanical-Property Degradation of Cast Stainless Steel Corponents from the Shippingport Reactor 56

ANL/EAIS/TM-40

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

ANL/ESD/TM-20

Geophysics: Building E5032 Decommissioning, Aberdeen Proving Ground - Interim Progress Report 808

ANL/RP-74354

Derivation of Uranium Residual Radioactive Material Guidelines for the Shpack Site 381

Applied Mathematical Modelling 15(10):542-549

Scaling Considerations for Modelling the In Situ Vitrification Process 955

Artificial Intelligence, Proceedings of an International Symposium, Cancun, Mexico, November 13-15, 1991

Remedial Action Assessment System: Decision Support for Environmental Cleanup 912

Ascent 8(4):16-19

Handling Low-Level Waste 825

Atomnaya Tekhnika za Rubezhom 1:21-23

CEA's RD 500 Has the Power for Decommissioning 334

Atomnaya Tekhnika za Rubezhom 2:7-12

Effect of Long-Living Products of Concrete Structure Activation on Decommissioning of NPPs with LWR Reactors 146

Atomnaya Tekhnika za Rubezhom 8:3-8

NPP Decommissioning 335

Atomnaya Tekhnika za Rubezhom 8:9-13

Methods of Decontamination and NPP Equipment Dismantling 215

ATW, Atomwirtschaft, Atomtechnik 36(12):542-545

Radon Problems and the Cost of Restoring the East German Uranium Projects 431

ATW, Atomwirtschaft, Atomtechnik 36(12):548-551

Tools to be Used in Planning the Decommissioning of Nuclear Power Plants 80

ATW, Atomwirtschaft, Atomtechnik 36(12):551-555

Experience Accumulated in Expert Consultancy about Decommissioning Nuclear Power Plants 303

ATW, Atomwirtschaft, Atomtechnik 36(12):565-567

The Decommissioned Lingen Nuclear Power Station (KWL) 282

ATW, Atomwirtschaft, Atomtechnik 36(12):571-573

Six Years of Experience with Decommissioning and Dismantling VAK 302

ATW, Atomwirtschaft, Atomtechnik 36(12):577-579

Status of Work on Decommissioning the THTR 300 300

ATW, Atomwirtschaft, Atomtechnik 36(5): 232-236

Comparing the Costs of Decommissioning Nuclear Power Plants in the USA and in Germany 83

Automation and Robotics, Proceedings of a Workshop, Livermore, CA, February 6, 1991, 243 pp. The Department of Energy's Robotics Technology Development Program for ER and WM 994

BMFT 02-WT-456

Ecophysiological Screening for Chlorinated-Hydrocarbon Degrading Bacteria from Contaminated Groundwater - Physiological and Technological Test for Remediation of Groundwater - Final report 863

BMFT 02-5-7277-7

Further Studies on Melting of Radioactive Metallic Wastes from the Dismantling of Nuclear Installations 242

BMU-1990-264

Research on the Harmless Reuse of Non-Iron Metals 243

BNL-45868 (Rev. 12/91)

Radiological Dose Assessments in the Northern Marshall Islands (1989-1991) 812

Book

Decommissioning of Nuclear Facilities - An Analysis of the Variability of Decommissioning Cost Estimates 103

Management of Radioactive Waste at Lucas Heights Research Laboratories 822

Bulletin of Radiation Protection 12(1-2):57-65

Distribution of Radioactivity in Surface Streams Around Uranium Mine-Mill Complex 427

Bundesanzeiger 43(151):5461-5462

Announcement of a Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for Decontrol of Metal Scrap from the Decommissioning of Uranium Mining Plant and Equipment 239

Bundesanzeiger 43(156):5684

Announcement of the Recommendation by the Strahlenschutzkommission (SSK): Radiation Protection Principles to be Applied in Measurements for the Decontrol and Reclamation for Industrial Use of Areas Contaminated by Uranium Mining Activities as of July 24, 1991 414

Bundesanzeiger 43(227):7858-7859

Radiological Protection Principles to be Applied to Land Areas Radioactively Contaminated by Uranium Mining Activities, and Intended to be Used for Forestry or Agriculture, or as a Landscape Facility (Park) or as a Residential Area 433

Bundesanzeiger 43(227):7859

Radiological Protection Principles to be Applied to the Preservation and Use of Tailing Dams Resulting from Mining Activities 432

Canadian Energy News 5(36):288

Heavy Water Plants Being Dismantled 344

Canadian Institute of Mining and Metallurgy Bulletin 82(928):60-66

Factors Affecting the Leaching of Radium-226 from Barium-Radium Sulphate Sludges 443

CCME-EPC/C514

The National Contaminated Sites Remediation Program 824

CERCLA-005/1091

Compendium of CERCLA ARARs, Fact Sheets and Directives 807

CETHA-IR-CR-91018

Remedial Investigation Concept Plan for Picatinny Arsenal - Volume 1: Environmental Setting, Applicable Regulations, Summaries of Site Sampling Plans, Sampling Priorities, and Supporting Appendixes 810

Chemistry and Migration Behavior of Actinides and Fission Products in the Geosphere, Proceedings of the Third Annual International Conference, Jerez de la Frontera, Spain, October 21-25, 1991

Studies of Fission Product Movement in Tuffaceous Media 638

Chinese Journal of Nuclear Science and Engineering 10(4):384-393

Progress in the Research on Uranium Mill Tailings Treatment and Waste Reduction for Uranium Ore Milling Processes 444

Civil Engineering 61(4):68-71

The Long Climb to Remediation 519

Closure and Decommissioning - Session 6, Proceedings of the Tenth Annual Department of Energy Low-Level Waste Management Conference, Denver, Colorado, August 30-September 1, 1988, 99 pp. Alternate Cap Designs Under RCRA Regulations 738

Costs and Schedule for a 58 Acre RCRA Interim Status Mixed Waste Closure at the Savannah River Plant 550

Performance Assessments of Closure Cap Alternatives at the Savannah River Plant 551

RCRA Closure of Eight Land-Based Units at the Y-12 Plant 573

Test Program for Closure Activities at a Mixed Waste Disposal Site at the Savannah River Plant 755

CONF-840613

Decommissioning and Reclamation of the Beaverlodge Mine/Mill Operations 437

Gentilly-1 Reactor Dismantling Proposal 173

Proceedings of the Canadian Nuclear Society Fifth Annual Conference 294

CONF-8506403

Safety Assessment of Uranium Mill Tailings 430

CONF-8509121

Contaminated Scrap Metal Management at the ORGDP - A Problem Solved 759

CONF-8803283

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163

Decontamination Before Dismantling: Is It of Interest? 128

Definition of a Dismantling Project 166

Dismantling and Disassembling at the Waste Processing Unit at La Hague 192

Dismantling and Shutdown of a Nuclear Fuel Cycle Facility: The Belgian Context 286

Dismantling Cost and Strategy 98

Dismantling of the Rooms 82 to 100 at Marcoule 188

Low-Level Radioactive Wastes 249

Measurement of Alpha Radiators in Nuclear Wastes by Active and Passive Methods: Devices for Measuring Nuclear Wastes from Dismantling Operations 248

Survey of the EDF First Dismantling Operations: The Case of Chinon A2 195

The Cutting Process, Its Harmful Effects, the Biological Behavior of Aerosols and Possible Protective Actions 187

The Experience - 1st Case - The Decommissioning of Hot Cells: Elan 2B Workroom at La Hague 191

CONF-8803283 (continued)

The Experience - 4th Case - The Rinsing of the Waste Processing Plant, the Dismantling of Some Components and of the Laboratories of Analysis, Safety Aspects 167

The Experience - 6th Case - Rinsing and Decontamination of Liquid Waste Storage Containers of Intermediate and High-Level Radioactivity 118

The Shutdown of Nuclear Plants and Its Perspectives 311

CONF-880404

Application of Exemption Principles to Low-Level Waste Disposal and Recycle of Wastes from Nuclear Facilities 1014

CONF-8805340

The Development and Testing of a Container for the Transport of Decommissioning Wastes 262

CONF-880839

Alternate Cap Designs Under RCRA Regulations 738

Costs and Schedule for a 58 Acre RCRA Interim Status Mixed Waste Closure at the Savannah River Plant 550

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

Performance Assessments of Closure Cap Alternatives at the Savannah River Plant 551

RCRA Closure of Eight Land-Based Units at the Y-12 Plant 573

Status of Disposal Sites for the Department of Energy's Formerly Utilized Sites Remedial Action Program 376

Test Program for Closure Activities at a Mixed Waste Disposal Site at the Savannah River Plant 755

The Use of Chemical and Radionuclide Risk Estimates in Site Performance Evaluation of Mixed Waste Sites 917

CONF-890907

NRC Mill Tailings Regulation 420

CONF-8909236

A Research Program on the Recycling of Decommissioning Materials at JAERI 256

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Criteria for Release of Decommissioned Nuclear Facilities for Unrestricted Use 14

Current Status of Residual Radioactivity Criteria in Japan 87

Decommissioning Waste Characteristics 271

Decontamination Technology for Decommissioning of Nuclear Facilities 143

CONF-8909236 (continued)

Department of Energy Environmental Restoration and Waste Management Five-Year Plan - Environmental Restoration Program 489

Development of International Exemption Principles for Recycle and Reuse 274

Disposal Capacity and Projected Waste Volumes Within the Low-Level Radioactive Waste Compacts 264

DOE Guidelines and Modeling in Determination of Soil Cleanup Guidelines 487

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

EPA's Proposed Environmental Standards for Low-Level Radioactive Waste Disposal and Criteria for Below Regulatory Concern 1009

EPRI Discussion Paper on BRC and De Minimis Concepts 1029

Establishment of Criteria for the Unconditional Release of the Shippingport Reactor 1

Experience in Decontamination and Reuse of the Large-Scale Radiochemical Laboratory and the Research Reactor at the Japan Atomic Energy Research Institute 144

International Similarities and Differences in Regulating Nonradiation Hazards 801

Limitations of Cleanup Technologies 346

Low-Level Radioactivity Measurement Methods for Reusing or Recycling 255

NRC Residual Contamination Criteria 1013

Residual Radioactivity Cost Impact Evaluation 96

Site Inventory of Residual Radioactivity in Japan 254

St. Michael's Workshop on Residual Radioactivity and Recycling Criteria - Summary and Panel Discussion 835

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006

Surface Contamination Criteria for Free Release 1004

What are the Basic Requirements that Cleanup Standards Should Satisfy? 469

What Should Cleanup Standards Do? 470

CONF-8910222 (Vol. 3)

Embrittlement of the Shippingport Reactor Shield Tank 57

CONF-891026 (Vol. 2)

Aged Stainless Steel Corrosion Tests with LOMI and AECL Decontamination Processes 125

Decontamination for Decommissioning: Enhancement of Aggressive Chemical Decontamination by Using Electropolishing or Ultrasound 131

CONF-891053

Air Quality Monitoring at Toxic Waste Sites: A Hanford Perspective 711

Automation of Geophysical Surveys Used in Assessment of Hazardous Waste 892

Comparison of Statistical Methods for Estimating Plutonium Inventories in Soil 915

Control of Soil Column Discharges at the Hanford Site 763

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Effective Sample Labeling 896

Environmental Monitoring at U.S. Department of Energy Facilities 492

Environmental Monitoring Data for Evaluating Atmospheric Modeling Results 1030

Environmental Surveillance and Research at the Nevada Test Site 636

Identification of Contaminants of Concern in Hanford Ground Waters 706

Land Reclamation at the Basalt Waste Isolation Project 740

Radiation-Related Monitoring and Environmental Research at the Nevada Test Site 634

Results from the 1988 Quality Assurance Task Force Hanford Intercomparison Program 901

Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705

Temporal Variations in Atmospheric Dispersion at Hanford 704

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

CONF-891077

A New Method for the Analysis of Small Peaks in Gamma Ray Spectra, and a Detector System for Monitoring Gamma Activity in Land Areas 889

A Process for the Complete Decontamination of Entire Systems 124

A Utility View of Decommissioning a Gas-Cooled Reactor 287

Adaptation to Teleoperation of an Existing Air-Tight Modular Workshop for Remotely Controlled Operations 164

Advances in the Decommissioning of the JPDR (Japan Power Demonstration Reactor) 316

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Analyses and Testing of Model Prestressed Concrete Reactor Vessels with Built-in Planes of Weakness 161

CONF-891077 (continued)

Anticipated Assessment of the Amount of Radioactive Wastes Arising from Pool LMBFR Dismantling 251

Behaviour of Difficult to Measure Radionuclides in the Melting of Steel 278

Closed Electropolishing System for Decontamination of Underwater Surfaces/Development of Vibratory Decontamination with Abrasive Media 149

Comparison of Decontamination and Melting with Direct Disposal 181

Completion of the Shippingport Reactor Decommissioning 60

Conditioning for Disposal of Radioactive Graphite Bricks from Reactor Decommissioning 231

Consequences of Suppression of Negative Pressure in the KW-Lingen Containment 108

Decommissioning of Nuclear Installations in Member States: Achievements and Projects 298

Decommissioning of Nuclear Installations 299

Decommissioning Waste Arising in the European Community and Western Europe 237

Decontamination Before Dismantling a Fast Breeder Reactor Primary Cooling System 129

Decontamination Using Chemical Gels, Electrolytical Swabs, and Abrasives 151

Demonstration of a Methodology for Assessing Suitable Systems for Management of Peactor Decommissioning Wastes 265

Design Features Adopted to Facilitate Decommissioning 71

Deterioration Assessment of Nuclear Power Station Buildings and Long-Term Stability and the Leak Tightness of Reactor Containments 288

Development of a Large Container Cast of Low-Level Radioactive Steel 232

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurements 165

Development of Measuring and Control Systems for Underwater Cutting of Radioactive Components 220

Development of Measuring Systems for Contamination Measurements on Regularly and Irregularly Shaped Surfaces 111

Development of Sampling and Assay Methods for Windscale Advanced Gas Cooled Reactor Radwaste 263

Development of Techniques to Decontaminate the WAGR Heat Exchangers 145

Device for Decisive Measurements of Waste from Dismantling of KKN 247

Electrochemical Decontamination in Easily Processed Electrolytes 148

Electrochemical Technique for the Segmenting of Activated Steel Components 186

First Results of the Melting of Radioactive Waste in the EIRAM Plant 236

Immobilisation of Active Concrete Debris Using Soluble Sodium Silicates 272

Immobilization of Contamination by the Coating of Polymers on Large-Size Waste Products 225

CONF-891077 'continued)

In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170

In Situ Treatment of Concrete Surfaces by Organic Impregnation and Polymerization 226

Influence of Design Features on Decommissioning of a Large Fast Breeder Reactor 72

Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Investigation of Laser Cutting Applications in Decommissioning 200

Key Parameters for the Safe and Economical Recycling of Contaminated Stainless Steel 270

Large Shielded Industrial Packages for the Transport of Intermediate Level Waste 276

Large-Scale Application of Segmenting and Decontamination Techniques 183

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclear Industry 267

Measurement Techniques Applicable to Residual Radioactivity on a Decommissioned Reactor Site 109

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

Melting of Contaminated Steel Scrap from Decommissioning 234

Melting of Low-Level Contaminated Steels 257

Melting of Radioactive Metal Scrap from Nuclear Installations 277

Operators' View of Key Issues Confronting Nuclear Power Plant Decommissioning 75

Polyjointed Robot with Integrated Laser Beam 159

Prefiltering Devices for Gaseous Effluents from Dismantling Operations 235

Radiological Impact of Very Slightly Radioactive Copper and Aluminium Recovered from Dismantled Nuclear Facilities 233

Removal of Concrete Layers from Biological Shields by Microwaves 224

Separation by Vapour Phase Transport of Stainless Steel Constituents 229

Separation of Contaminated Concrete 230

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171

Some Remarks About Decontamination 117

Spreading and Filtering of Radioactive By-Products from Underwater Segmenting 169

Strategy of NPP Decommissioning in the IEA NPPD Member States 77

Testing of New Techniques in Decommissioning of a Fuel (U,Th) Fabrication Plant, Special Consideration to Free Release Measurement of Low Uranium Activities 289

The Community's R&D Activities in the Field of Decommissioning - Objectives, Scope, and Implementation 76

CONF-891077 (continued)

The Potential Radiological Consequences of Deferring the Final Dismantling of a Magnox Nuclear Power Station 110

The TELEMAN Programme 162

Underwater Cutting Techniques Developments 160

CONF-8911319

Collection of Papers Presented for the Status Report 1989 of the Central Bureau for Management and Coordination of Projects Concerning the Decommissioning of Nuclear Facilities 304

Development of a System to Demonstrate the Safe Underwater Dismantling of Metallic Components 184

Explosive Cutting Methods to Dismantle Concrete Structures 180

Explosive Dismantling of Reactor Pressure Vessels Using the Brittle Fracturing Method 182

Explosive Fracturing of Concrete Structures and Pipings - Experiments in the HDR 185

Explosive Fracturing of Concrete Structures and Pipings - Generalization of Results and Applicability to Real Facilities 179

Melting of Activated/Contaminated Metallic Components Arising from the Decommissioning of Nuclear Facilities 246

Optimized Coating Removal by Cold Shock Treatment 121

Removal of Nuclear Reactors by Lowering - Results of Individual and Long-Term Safety Assessment 113

Residue-Free and Residue-Poor Jet Methods to Decontaminate Nuclear Plant Components 123

Status and Trends of Underwater Plasma Arc Cutting 175

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178

CONF-891197

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

CONF-900225

Bioremediation, a Useful Tool for Remedial Actions 866

Development of Guidance for Variances from the RCRA Land Disposal Restrictions for US DOE Mixed-Waste Streams 1023

Remedial Action Decision Process 914

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

CONF-9005178 (Vol. 1)

A Quality Assurance Program for Environmental Data Operations Involving Waste Management Processes 886

Application of Quality Assurance/Quality Control to Waste Management Processes at the Hanford Site 1003

CONF-900629

The Use of Geochemical Barriers for Reducing Contaminants Emanating from Uranium Mill Tailings 439

U.S. National Issues on Environmental Hydrology and Hydrogeology - Local and Emerging Global Perspectives 880

CONF-9006337

Radiation Protection on Decommissioning of Nuclear Facilities: Problems, Needs and Perspectives 116

CONF-9006374

Rayox: A Second Generation Enhanced Oxidation Process for Groundwater Remediation 840

CONF-900679

Use of Models as a Rationale for the Design of Environmental Monitoring Programs 900

CONF-9007232

Groundwater Recovery and Treatment as a Superfund Remedial Action 844

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Major Remediation 819

Reclamation Plans at Uranium Mill Tailings Sites 451

CONF-900802

Remedial Investigation of a Superfund Site 611

CONF-9008109

Acid Mine Drainage Research in Canada 447

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

Environmental and Waste Management Issues, Causes, Characteristics, and Cures 1008

Environmental Issues and Waste Management in Energy and Minerals Production 837

Health Risks from Uranium Mill Tailings 436

Management of the Pipp Program for UMTRA Project Groundwater Restoration 402

Radium and Radon Regulations 805

Meeting Licensing Restrictions from a Regulator's Perspective 1005

CONF-900917

Assessing the Maintenance, Quality Assurance and Control, and Decommissioning of DOE Research Reactors 15

CONF-9010166

A Comparison of Shallow Electromagnetic and Magnetometer Surface Geophysical Techniques to Effectively Delineate Buried Wastes 897

A Risk-Based Cleanup Criterion for PCE in Soil 922

A Tale of Negotiations: CERCLA Interagency Agreement at the Mound Plant 540

Application of Vapor Vacuum Extraction to Waste Sites with Chlorinated Solvent Problems - A Case Study 768

Closure of Hazardous and Mixed Radioactive Waste Management Units at US DOE facilities 509

Conducting a Soil Washing Treatability Investigation at the Hanford Site 717

Cone Penetrometer/Hydropunch [trademark]: An Efficient Approach for Delineating Subsurface Lithology and Ground Water Quality 882

Design and Construction of the Interim Waste Management Facility - SWSA 6 556

Dioxin Destruction on a Small Scale - A Success Story 821

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Finding a Compromise Between Chemical and Radiological Risk Assessment Methods for Mixed Waste Sites 927

Improved Techniques for Monitoring Well Screen Placement and Well Location 891

In-Drum Solidification of Low-Level Mixed Waste 1019

Lessons Learned in Fixation and Storage of Radioactive Mixed Waste 939

NEPA Compliance Strategies for Environmental Restoration Activities 511

Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation 925

Recent Field Trials of Directional Boring Equipment for Emplacing a Borehole Grid Around and Beneath a Simulated Waste Site 977

Remediation of Contaminated Underground Tanks by In Situ Vitrification 944

Resolution of Conflicts Among the Regulatory Programs Governing Remedial Action 502

The Selective Absorption of Radionuclides from a Contaminated Holding Pond at Brookhaven National Laboratory 644

When RCRA Meets ALARA 460

Chemical Modeling of the Neutralization Process for Acid Uranium Mill Tailings 441

CONF-910208

Molten Salt Reactor Option for Beneficial Use of Fissile Material from Dismantled Weapons 760

CONF-910270

Comprehensive Strategy for Corrective Actions at the Savannah River Site General Separations Area 549

Decontamination and Decommissioning Methods and Management of the Resultant Waste Products 279

Hanford High-Activity Waste Tank Safety Issues 33

Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ Treatment of Waste and Residuals for Hanford Single-Shell Tanks 48

CONF-910274

The Department of Energy's Robotics Technology Development Program for ER and WM 994

CONF-910277

Environmental Restoration: Oak Ridge National Laboratory Perspective 553

CONF-910413

BNFL's Decommissioning and Decommissioning Development Programmes at Sellafield 329
Cost Estimation of the Decommissioning of Nuclear Fuel Cycle Plants 85

CONF-910430

A Product Evaluation Strategy for the Evaluation of In Situ Vitrification Waste Forms 942
Characterization of Vitrified and Non-Vitrified Fernald K-65 Soil 651

Chemical Decontamination for Beneficial Metal Re-Use from Nuclear Applications 150
In Situ Vitrification Processing of Buried Waste Sites 964

Product Evaluation of In Situ Vitrification Field Tests at the Idaho National Engineering Laboratory 972

CONF-9104345

Optimization of Electrodecontamination Processes for Decommissioning 154

CONF-910451

Model Based, Sensor Directed Remediation of Underground Storage Tanks 992

CONF-910477

Treatment of Heavy Metal Contaminated Soils by In Situ Vitrification 952

CONF-910507

Dismantling of Activated Equipment in the Proton Channel of the PSI-Accelerator Facility 214

DOE Hanford Site Tank Farm Interim Stabilization During 1990 65

In Situ Vitrification Program at the Idaho National Engineering Laboratory 935

Joint DOE/EPA Initiatives to Facilitate International Environmental Technology Transfer 950

Lessons Learned and New Initiatives in Cost and Schedule Estimating 491

Lessons Learned from the Implementation of Environmental Regulations at Oak Ridge 776

Lessons Learned Implementing Environmental Regulations at Non-Department of Energy Sites 804

Lessons Learned in Negotiating a Federal Facility Agreement 778

New Technologies to Meet Regulations 949

Overview of the Hanford Environmental Dose Reconstruction Project 724

Quality Assurance Elements in Environmental Restoration Procedures at Mixed-Waste Sites 904

Recovery and Evaluation of Historical Environmental Monitoring Data at Hanford 700

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

The Department of Energy's Environmental Restoration Program 514

The National Environmental Policy Act and DOE's Programmatic Environmental Impact Statement 490

The New Mission for the Hanford Site 791

CONF-9106239

Role of Risk Assessment in Remediation of Contaminated Sites 923

CONF-910659

Addressing Data Heterogeneity: Lessons Learned from a Multimedia Risk Assessment 902

Implications of the Upper Bound and Average Exposure Scenario on Risk Management Decisions for Contaminated Site Remediation 814

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

CONF-910697

Case Study of a Mixed Waste Site - RI/FS 811

Vapor Extraction Technology for the Remediation of a Large Gasoline Spill 859

CONF-9107139

Development of Effective Remediation Criteria 851

In Situ Remediation of Hazardous Wastes 850

Integrated Waste Management at the Weldon Spring, Missouri Site Remedial Action Project 748

CONF-9107139 (continued)

Observational Approach in Environmental Restoration 495

Plume Management for Groundwater Remediation 870

Results of the Engineering Special Studies for the UMTRA Project - FY90 401

CONF-910739

Influence of Natural Convection on Melt Shape During In Situ Vitrification 953
Simulation of Heat Conduction and Electric Fields During In Situ Vitrification of Soil 959

CONF-910774

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

CONF-9108100

Statistical Approach on RCRA Groundwater Monitoring Projects at the Hanford Site 699

CONF-9108124

TSD Capacity Model Interface with Waste Reduction Planning in the Environmental Restoration Program 467

U.S. Department of Energy Office of Environmental Restoration and Waste Management Waste Reduction Workshop 462

CONF-910817

Research and Development on Decommissioning of Nuclear Facilities in Japan 314

CONF-910849

Utilization of Uranium Industry Technology and Relevant Chemistry to Leach Uranium from Mixed-Waste Solids 940

CONF-910874

Aqueous Dissolution of Laboratory and Field Samples from the In-Situ Vitrification Process 958

CONF-9109234

Patterns of Sediment Accumulation in Watts Bar Reservoir Based on Cesium-137 695

CONF-910945

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951

CONF-910981

"Smart" Pump and Treat 838

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

A Co-Metabolic Approach to Groundwater Remediation 548

A Framework for Evaluating Innovative Statistical and Risk Assessment Tools to Solve Environmental Restoration Problems 921

A Project Manager's Primer on Data Validation 888

A Risk Computation Model for Environmental Restoration Activities 924

A Successful Environmental Remediation Program Closure and Post-Closure Activities (CAPCA), Y-12 Plant, Oak Ridge, Tennessee 777

A Thermodynamic Analysis of Melt Immiscibility and its Implications During Vitrification 947

Accelerated Cleanup of Carbon Tetrachloride in a Radiologically Contaminated Site at the Hanford Site 744

Accelerated Cleanup of Past Practice Waste Sites on the Hanford Site, Richland, Washington 702

Accelerated Cleanup of the 316-5 Process Trenches at the Hanford Site 780

Accelerated Cleanup of the 618-9 Burial Ground 781

Achieving Technical Consistency and Meeting Technology Development Needs in the Oak Ridge Environmental Restoration Program 570

Air Stripping of Volatile Organic Chlorocarbons: System Development, Performance, and Lessons Learned 732

An Approach to Regulatory Compliance with Radioactive Mixed Waste Regulations 750

An Assessment of Baseline Ecological Risks at the Fernald Environmental Management Project, Fernald, Ohio 650

An Effective Methodology for Establishing Cleanup Standards for Mercury Contaminated Soils 736

An Evaluation of Alternative Reactor Vessel Cutting Technologies for the Decommissioning of the Experimental Boiling Water Reactor at Argonne National Laboratory 39

An Overview of Major Progress in the Environmental Restoration Program at the Savannah River Site 773

An Overview of Public Health Service Health-Related Activities as They Relate to the Department of Energy's Environmental Restoration Program 496

Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Application of Classic Engineering Techniques (Value Engineering and Observation Method) at the Weldon Spring Quarry 529

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Approach and Strategy for Setting Remedial Action Goals for Multiple Sites with Multiple Contaminants 488

Architecture and Environmental Restoration: Remediating Uranium Mill Tailings from Buildings

Assessing Exposures and Risks in Heterogeneously Contaminated Areas: A Simulation Approach 919

Balancing CERCLA Risk and DOE Radiological Performance Assessment Methodologies and Practices 546

Baseline Risk Assessment Methodology for Mixed Waste 909

Bioremediation of Hanford Groundwater 743

Case Studies on Designing Meetings for Effective Institutional Interactions 1011

CERCLA Document Flow: Compressing the Schedule, Saving Costs, and Expediting Review at the Savannah River Site 545

CERCLA Integration with Site Operations: The Fernald Experience 533

Changes in "Selected Remedy" After Record of Decision 798

Chaos and Remedial Investigations 534

Comparative Overview of Federal Facility Compliance Agreements and Consent Orders 461

Completed Remedial Cleanup at the Durango, Colorado Uranium Mill Tailings Remedial Action Site: A Case Study 404

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521

Contaminant Sorption/Desorption Rates: Implications for Groundwater Restoration 878

Creating a Context for Public Confidence in the Environmental Restoration Programs 472

Decommissioning a Nuclear Reactor 50

Decommissioning of a Grout- and Waste-Filled Storage Tank in the 200 East Area of the Hanford Site 52

Decommissioning of a Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility: A Case Study of the Interim Stabilization of the 216-A-29 Ditch at the Hanford Site 742

Decommissioning of the 105-F and 105-H Fuel Storage Basins in the 100 Area at the Hanford Site 598

Department of Energy Policy for Acceptance of Facilities for Environmental Restoration 463

Design and Construction of an Interceptor System for Radioactively Contaminated Solvent 730

Destruction of Complexants Used in Groundwater Decontamination 862

Determination of the Probability for Radioactive Materials on Properties in Monticello, Utah 429

Determining the "R" in ALARA: A Parametric Study to Establish Cleanup Criteria 356

Determining the Number of Samples Required for Decisions Concerning Remedial Actions at Hazardous Waste Sites 913

Development of a Polishing System for FEMP Wastewater Discharges 753

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

Development of an Administrative Record System and Information Repository System on the Hanford Site, Benton County, Richland, Washington 592

Development of Tank Instrumentation - The Search for Appropriate Monitoring 26

Discovering Where the Problem is Hiding: Techniques from The Formerly Utilized Sites Remedial Action Program (FUSRAP) 357

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Effective Outreach is Good Public Policy 590

Efficiency-Based Groundwater Monitoring Design Using the Monitoring Efficiency Model (MEMO) 899

Efforts to Earn Public Support and Confidence in Hanford Site Cleanup Work 579

Electrical Resistance Tomography to Monitor Vadose Water Movement 875

Electrokinetic Remediation of Contaminated Soils 868

Engineering-Scale Tests of In Situ Vitrification to PCB and Radioactive Contaminated Soils 956

Environmental Remediation '91: Cleaning Up the Environment for the 21st Century 515

Environmental Restoration Project Configuration Control 523

Environmental Restoration Remedial Action Quality Assurance Requirements Document 580

Environmental Soil Sampling Under Storage Tanks Utilizing Angled Auger Borings 654

Evaluation of a Contaminant Pathway and Mobility at a U.S. DOE Site Using Groundwater Chemical Data 653

Evaluation of a Rapid Headspace Analysis Method for Analysis of Volatile Constituents in Soils and Sediments 890

Evaluation of Proposed Designs for Streamflow Monitoring Structures at Waste Disposal Sites 665

Evaluation of Tanks that Release Flammable Gases 5

Extended Tank Use Analysis 23

Facilitation Techniques for Environmental Restoration Planning and Implementation 454

Facility Design to Apply Cover Material over Radioactive Residue in Storage Silos 40

Ferrocyanide-Containing Waste Tanks: Ferrocyanide Chemistry and Reactivity 28

Future Use and Cleanup Strategy Alternatives: The Hanford Approach 588

Graphical Presentation of Ferrocyanide Tank Compositions 29

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Groundwater Clean-Up: The Savannah River Site Experience 772

Groundwater Remediation via Four Case Studies 881

Hanford Site Past Practice Investigation Strategy 593

Hanford Waste Tank Safety Issues: A Program Overview 34

Health-Based Cleanup Goals at Hazardous Waste Sites: Implications for Risk Management 928

High Organic Containing Tanks - Assessing the Hazard Potential 25

Historical Genesis of the Hanford Site Wastes 701

How Public Issues Shape Environmental Restoration Plans: Experiences with Colorado UMTRA Projects 389

Implementation of 29 CFR 1910.120 at a Multiple-Contractor Operated Facility 538

Implementation Planning for Remedial Design and Remedial Action at the Department of Energy's Monticello Mill Tailings Site 415

Improving Conduct of Operations in Nuclear Waste Cleanup Operations 752

In Situ Grouting of Low-Level Burial Trenches with a Cement-Based Grout 735

In-Situ Storage: An Approach to Interim Remedial Action - Recent Case Studies in Canada 799

Initial Site Characterization Approach and Preliminary Results: 200 West Area Carbon Tetrachloride Expedited Response Action, Hanford Site, Washington 714

Innovative Investigation Methodologies and Techniques for Site Characterization 910

Integrated Demonstration for the Removal of Uranium Substances from Soils 982

Integration of Removal Actions into the Operations at a DOE Facility 539

Issuance of the CERCLA ROD for an Operable Unit Remedial Action at the Weldon Spring Site - Lessons Learned 769

Laboratory-Scale Tests of a Chemical Barrier for Use at Uranium Mill Tailings Disposal Sites 438

Land Surface Cleanup of Plutonium at the Nevada Test Site 729

Life Cycle Planning to Forecast Budget Requirements and Maintain Effective Cost Controls 524

Long-Term Public Health Impacts of Decommissioning the Hanford Surplus Production Reactors: Implications for CERCLA Remedial Actions at Hanford 37

M-Basin Closure - Savannah River Site 774

Management of Petroleum Underground Storage Tanks at the Hanford Site 599

Managing a Site Cleanup Under an Accelerated Schedule - The Lowman Story 406

Meeting Health-Based Standards at Hazardous and Mixed Waste Sites: Are We Deluding Ourselves? 486

Methodology for Conducting a Performance Assessment of an Engineered Disposal Facility 934

Methods for Drilling and Well Installation in Radiologically Contaminated Soils 645

Natural Resources Damage Assessments at Department of Energy Facilities - Using the CERCLA Process to Minimize Natural Resources Injuries 999

NEPA/CERCLA Integration at Rocky Flats 518

Operating Watch List Tanks: A Study in Control 45

Overview of the Closure Approach for the Hanford Site Single-Shell Tank Farm 10

Potential for Using a Six-Phase Alternating Current Power Supply for In Situ Vitrification 963

Program Management Strategies for Following EPA Guidance for Remedial Design/Remedial Action at DOE Sites 458

Programmatic Environmental Impact Statement for the Office of Environmental Restoration and Waste Management 473

Proposed Plan for Vitrification Demonstration of Low-Level Radioactive Wastes at the Fernald Environmental Management Project 937

Public Involvement in Remedial Work Programs at Historic Low-Level Radioactive Waste Sites: Recent Canadian Experience 800

Putting Ecology in Environmental Restoration: The Strategic Planning Process 459

RCRA Closures at Rocky Flats Plant: A Programmatic Perspective and Case Study 616

Release Criteria and Pathway Analysis for Radiological Remediation 916

Remedial Action Assessment System (RAAS) - A Computer-Based Methodology for Conducting Feasibility Studies 908

Remedial Action for the Baker and Williams Warehouses Site, New York, New York 378

Remedial Investigation for the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 712

Remedial Investigation/Feasibility Study Risk Assessments at a Superfund Mixed Waste Site 536

Remediation Strategies for Perched Water Bodies Underlying the Idaho Chemical Processing Plant at the Idaho National Engineering Laboratory 525

Remediation Technology Development from the UMTRA Program 413

Remediation Technology Needs and Applied R&D Initiatives 996

Removal Action Under CERCLA Section 104 for PCB-Contaminated Soil at DOE Mound Plant 731

Removal of Heavy Metals and Radionuclides by Seeded Magnetic Filtration 978

RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Results of Vitrifying Fernald K-65 Residue 938

Rocky Flats Community Relations: Coming Out of the Dark 517

Safe Storage of Deactivated Radiological Chemical Processing Plants in the 200 West Area of the Hanford Site 796

Selection of a Preferred Remedial Well Configuration Using Groundwater Modeling Techniques 855

Selection of Innovative Technologies for the Remediation of Soils Contaminated with Radioactive and Mixed Wastes 985

Site Characterization for Remedial Design at National Priority List and FUSRAP Sites 362

Siting and Constructing Very Deep Monitoring Wells on the U.S. Department of Energy's Nevada Test Site 635

Soil Vapor Extraction Test in a Radiologically Contaminated Site, Hanford Site 745

Soil Washing Results for Mixed Waste Pond Soils at Hanford 727

Soil Washing: A Promising Technology for the Cleanup of Hanford 741

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Sorters for Soil Cleanup 816

SRS Waste Removal and D&D Program for Underground Waste Tanks 42

Status of Existing Federal Environmental Risk-Based Standards Applicable to Department of Energy Operations 1031

Strategic Planning of an Integrated Program for State Oversight Agreements 569

Strategy for Integrated CERCLA/NEPA Risk Assessments 905

Successful Integration of the CERCLA and NEPA Compliance Processes in the Weldon Spring Site Remedial Action Project: A Case Study 527

Surface Water Management at a Mixed Waste Remediation Site 784

Taking Interim Actions: Integrating CERCLA and NEPA to Move Ahead with Site Cleanup 528

Technology Development for a Disposal Cell at the Weldon Spring Site Remedial Action Project 749

The Buried Waste Integrated Demonstration 986

The Effectiveness of the Pump and Treat Method for Aquifer Restoration 854

The Grand Junction, Colorado, UMTRA Program: Engineering Design and Management of More than 4,000 Remedial Action Designs 405

The Path to Gaining a Defensible Understanding of "Watch List" Tank Risk and Interim Stabilization Needs 8

Three-Dimensional Computer Simulations of Bioremediation and Vapor Extraction 845

Threshold Limited Kinetics of Aromatic Hydrocarbons in Shallow Soil Systems 867

Tiger Team Findings Related to DOE Environmental Restoration Activities 506

Treatment of Y-12 Plant Mixed Waste Contaminated Soils Utilizing the Westinghouse Soil Washing Process 737

UMTRA Project Management of Residual Radioactive Material Commingled with Hazardous Waste at Vicinity Properties 403

Unified Theory of Sciences for Implementation of Environmental Restoration at Department of Energy Sites 455

Uranium Mill Tailings Remedial Action Project Vicinity Property Program 412

Utilization of the Magnetic Induced Polarization Technique in Environmental Remediation Problems 894

Visual System for Waste Tank Cleanup 27

Working with States on a Joint DOE/State Funded Cleanup Project 387

CONF-9110152

Studies of Fission Product Movement in Tuffaceous Media 638

CONF-9110168

Hanford Single-Shell Tank Waste-Preliminary Pretreatment Testing of Simulated Waste 44

Regulatory Compliance Issues Related to the White Oak Creek Embayment Time-Critical Removal Action 571

CONF-9110207

Handling 78,000 Drums of Mixed-Waste Sludge 756

R&D Activities at DOE Applicable to Mixed Waste 993

CONF-9110266

Environmental Restoration and Statistics: Issues and Needs 504

CONF-9110269

Expert Reasoning within an Object-Oriented Framework 906

CONF-911040

In Situ Vitrification of Radioactive Underground Tanks 941

CONF-911079

Mechanical-Property Degradation of Cast Stainless Steel Components from the Shippingport Reactor 56

CONF-911107

Combined Long Reach and Dexterous Manipulation for Waste Storage Tank Applications 68

Dose Assessment for a Cs-137 Contamination Incident 722

HEIS: An Integrated Information System for Environmental Restoration and Monitoring at Hanford 594

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980

CONF-911110

Naturally Occurring Radioactive Materials 806

Characterization Technologies for Environmental Remediation 493

Recycling and Resource Recovery at Oak Ridge National Laboratory 1001

CONF-9111176

Remedial Action Assessment System: Decision Support for Environmental Cleanup 912

CONF-911135 (Vol. 2)

An Overview of the U.S. Department of Energy Experimental Boiling Water Reactor Decontamination and Decommissioning Project 54

Clean-Cut Removal System for Concrete Decontamination 152

Decommissioning of B204 Reprocessing Plant 331

Decommissioning of the Karlsruhe Reprocessing Plant (WAK) - Preliminary Planning Results 84

Decommissioning of the MZFR Nuclear Power Plant at the Karlsruhe Nuclear Research Center 309

Decontamination Techniques for Radioactive Metal Waste Using a Neutral Electrolyte and a Sulfuric Acid Solution 141

Development of a Shot-Blasting Robot for Removal of the Wali Concrete Surface 209

Development of Assay System for Very Low Level Decommissioning Waste 268

Diamond Wire Cutting of Heat Exchangers 218

Dismantling of Biological Shield by Cutting Machine 213

Evaluation of Processing and Disposal System for Decommissioning Waste 253

Joint International Conference on Nuclear Engineering - Volume 2: Decommissioning 340

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202

Present Status of Decommissioning Materials Reuse Research at JAERI 252

Renovation of Nuclear Power Plants 339

Slow Demolition of Thick Wall Using Hydrostatic Tube - Example of Dismantling RC Structures in Radioactive Facilities 208

Status and Safety of the Decommissioning of the JPDR 319

Study on Technology of Reactor Dismantling by Abrasive Water Jet Cutting System 210

Systems Engineering for Decommissioning the Japan Power Demonstration Reactor 88

Technical Verification Test for Reactor Pressure Vessel Cutting by Using G&G Method ("Arc-Gouging & Gas Cutting" Method) 222

The Decommissioning of the BR3 Pressurized Water Reactor Plant 292

Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

CONF-911135 (Vol. 2) (continued)

United States Department of Energy Decontamination & Decommissioning Planning and Operations Experience - A Short Course Lecture 13

Use of Remote Device Coupled with a Carrier for the Dismantling of Hot Cells in France 197

CONF-911185

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

CONF-911213

Long-Reach Manipulation for Waste Storage Tank Remediation 979

CONF-911250

Risk Assessment of Designs for RCRA and CERCLA Sites 465

CONF-911289

Cooperative Expert System Reasoning for Waste Remediations 907

CONF-920220

In Situ Vitrification: Technology Status and a Survey of New Applications 967

CONF-920251

RCRA Facility Investigation for the Townsite of Los Alamos, New Mexico 643

CONF-920305

Process Evaluations for Uranium Recovery from Scrap Material 973

CONF-920307

Application of United States Department of Transportation Regulations to Hazardous Material and Waste Shipments on the Hanford Site 762

Disposal Concepts for Waste in Underground Single-Shell Storage Tanks at the Hanford Site 43

Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

Hanford Site Radioactive Waste Storage Tank Safety Issues: The Path to Resolution 38

Implications of Recent ICRP Recommendations for Risk Assessments for Radioactive Waste Disposal and Cleanup 726

Progress in Evaluating the Hazards of Ferrocyanide Waste Storage Tanks 22

Removal of Contaminated Concrete Surfaces by Microwave Heating: Phase 1 Results 217

Resolution of Regulatory Issues Facing the DOE In Situ Vitrification Program 1007

CONF-920307 (continued)

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Strategy for Management of Investigation-Derived Waste 765

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

CONF-920501

Radiological Dose Assessments in the Northern Marshall Islands (1989-1991) 812

Standardized Radiological Hazard Analysis for a Broad-Based Operational Safety Program 931

CONF-920559

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984

Grout for Closure of Waste-Disposal Vaults at the US DOE Hanford Site 795

CONF-920577

Conceptual Decommissioning Plan for Thai Research Reactor-1/Modification 1 90

Decision-Making Process to Shut Down, Refurbish/Modify, or Decommission Research Reactors 4

Decommissioning of Research Reactor ZERLINA 283

End-of-Life Planning for the Decommissioning of Research Reactors and Other Small Nuclear Facilities 70

Experience of Research Reactor Decommissioning in Japan 284

IAEA Activities on Decommissioning of Research Reactors and Other Small Nuclear Facilities 285

International Atomic Energy Agency Seminar for Asia and the Pacific on Ageing, Decommissioning, and/or Major Refurbishment of Research Reactors 345

Planning and Implementation of Decommissioning for Research Reactors 101

Policy and Regulation for Decommissioning Reactors in Japan 86

Safety Related Aspects of Decommissioning Projects 115

Congressional Record 137(168):H10268

Introduction of a Bill to Reauthorize the Uranium Mill Tailings Radiation Control Act of 1978 390

Congressional Record 137(170):H10283

Privatization Provisions of H.R. 2100 589

Cost Engineering 33(7):25-29

Cost Components of Remedial Investigation/Feasibility Studies 500

Decommissioning of Fuel Cycle Nuclear Facilities, Proceedings of a Meeting, Paris, France, March 15, 1988. Societe Francaise d'Energie Nucleaire, Paris, France, 301 pp.

Component and Large Glove Boxes Dismantling at the MOX Nuclear Fuel Fabrication Plant 163

Decontamination Before Dismantling: Is It of Interest? 128

Definition of a Dismantling Project 166

Dismantling and Disassembling at the Waste Processing Unit at La Hague 192

Dismantling and Shutdown of a Nuclear Fuel Cycle Facility: The Belgian Context 286

Dismantling Cost and Strategy 98

Dismantling of the Rooms 82 to 100 at Marcoule 188

Low-Level Radioactive Wastes 249

Measurement of Alpha Radiators in Nuclear Wastes by Active and Passive Methods: Devices for Measuring Nuclear Wastes from Dismantling Operations 248

Survey of the EDF First Dismantling Operations: The Case of Chinon A2 195

The Cutting Process, Its Harmful Effects, the Biological Behavior of Aerosols and Possible Protective Actions 187

The Experience - 1st Case - The Decommissioning of Hot Cells: Elan 2B Workroom at La Fague 191

The Experience - 4th Case - The Rinsing of the Waste Processing Plant, the Dismantling of Some Components and of the Laboratories of Analysis, Safety Aspects 167

The Experience - 6th Case - Rinsing and Decontamination of Liquid Waste Storage Containers of Intermediate and High-Level Radioactivity 118

The Shutdown of Nuclear Plants and Its Perspectives 311

Decommissioning of Nuclear Installations, Proceedings of the 1989 International Conference, Brussels, Belgium, October 24-27, 1989, K. Pflugrad, R. Bisci, B. Huber, and E. Skupinski (eds.). Elsevier Applied Science, Barking, United Kingdom, 858 pp.

A New Method for the Analysis of Small Peaks in Gamma Ray Spectra, and a Detector System for Monitoring Gamma Activity in Land Areas 889

A Process for the Complete Decontamination of Entire Systems 124

A Utility View of Decommissioning a Gas-Cooled Reactor 287

Adaptation to Teleoperation of an Existing Air-Tight Modular Workshop for Remotely Controlled Operations 164

Advances in the Decommissioning of the JPDR (Japan Power Demonstration Reactor) 316

Aggressive Chemical and Ultrasound Decontamination Tests on Small Valves and Tubes from a Feedwater Preheater of Garigliano-BWR 133

Analyses and Testing of Model Prestressed Concrete Reactor Vessels with Built-in Planes of Weakness 161

Decommissioning of Nuclear Installations, Proceedings of the 1989 International Conference, Brussels, Belgium, October 24-27, 1989, K. Pflugrad, R. Bisci, B. Huber, and E. Skupinski (eds.). Elsevier Applied Science, Barking, United Kingdom, 858 pp. (continued)

Anticipated Assessment of the Amount of Radioactive Wastes Arising from Pool LMBFR Dismantling 251

Behaviour of Difficult to Measure Radionuclides in the Melting of Steel 278

Closed Electropolishing System for Decontamination of Underwater Surfaces/Development of Vibratory Decontamination with Abrasive Media 149

Comparison of Decontamination and Melting with Direct Disposal 181

Completion of the Shippingport Reactor Decommissioning 60

Conditioning for Disposal of Radioactive Graphite Bricks from Reactor Decommissioning 231

Consequences of Suppression of Negative Pressure in the KW-Lingen Containment 108

De ommissioning of Nuclear Installations in Member States: Achievements and Projects 298

Decommissioning Waste Arising in the European Community and Western Europe 237

Decontamination Before Dismantling a Fast Breeder Reactor Primary Cooling System 129

Decontamination Using Chemical Gels, Electrolytical Swabs, and Abrasives 151

Demonstration of a Methodology for Assessing Suitable Systems for Management of Reactor Lecommissioning Wastes 265

Design Features Adopted to Facilitate Decommissioning 71

Deterioration Assessment of Nuclear Power Station Buildings and Long-Term Stability and the Leak Tightness of Reactor Containments 288

Development of a Large Container Cast of Low-Level Radioactive Steel 232

Development of a Prototype System for Remote Underwater Plasma Arc Cutting and Secondary Emission Measurement 165

Development of Measuring and Control Systems for Underwater Cutting of Radioactive Components 220

Development of Measuring Systems for Contamination Measurements on Regularly and Irregularly Shaped Surfaces 111

Development of Sampling and Assay Methods for Windscale Advanced Gas Cooled Reactor Radwaste 263

Development of Techniques to Decontaminate the WAGR Heat Exchangers 145

Device for Decisive Measurements of Waste from Dismantling of KKN 247

Electrochemical Decontamination in Easily Processed Electrolytes 148

Electrochemical Technique for the Segmenting of Activated Steel Components 186

First Results of the Melting of Radioactive Waste in the EIRAM Plant 236

Immobilisation of Active Concrete Debris Using Soluble Sodium Silicates 272

Immobilization of Contamination by the Coating of Polymers on Large-Size Waste Products 225

Decommissioning of Nuclear Installations, Proceedings of the 1989 International Conference, Brussels, Belgium, October 24-27, 1989, K. Pflugrad, R. Bisci, B. Huber, and E. Skupinski (eds.). Elsevier Applied Science, Barking, United Kingdom, 858 pp. (continued)

In Situ Arc-Saw Cutting of Heat Exchanger Tubes and of Pipes from the Inside 170

In Situ Treatment of Concrete Surfaces by Organic Impregnation and Polymerization 226

Influence of Design Features on Decommissioning of a Large Fast Breeder Reactor 72

Inventory of Glove Boxes Dismantling Operations in the Fuel Fabrication Complex of Cadarache from 1986 to 1988 172

Investigation of Laser Cutting Applications in Decommissioning 200

Key Parameters for the Safe and Economical Recycling of Contaminated Stainless Steel 270

Large Shielded Industrial Packages for the Transport of Intermediate Level Waste 276

Large-Scale Application of Segmenting and Decontamination Techniques 183

Measurement and Sorting Techniques for Unrestricted Recycling of Metal from the Nuclear Industry 267

Measurement Techniques Applicable to Residual Radioactivity on a Decommissioned Reactor Site 109

Measurements of Secondary Emissions from Plasma Arc and Laser Cutting in Standard Experiments 168

Melting of Contaminated Steel Scrap from Decommissioning 234

Melting of Low-Level Contaminated Steels 257

Melting of Radioactive Metal Scrap from Nuclear Installations 277

Operators' View of Key Issues Confronting Nuclear Power Plant Decommissioning 75

Polyjointed Robot with Integrated Laser Beam 159

Prefiltering Devices for Gaseous Effluents from Dismantling Operations 235

Radiological Impact of Very Slightly Radioactive Copper and Aluminium Recovered from Dismantled Nuclear Facilities 233

Removal of Concrete Layers from Biological Shields by Microwaves 224

Separation by Vapour Phase Transport of Stainless Steel Constituents 229

Separation of Contaminated Concrete 230

Solid and Gaseous Secondary Emissions from Underwater Plasma Arc Cutting 171

Some Remarks About Decontamination 117

Spreading and Filtering of Radioactive By-Products from Underwater Segmenting 169

Strategy of NPP Decommissioning in the IEA NPPD Member States 77

Testing of New Techniques in Decommissioning of a Fuel (U,Th) Fabrication Plant, Special Consideration to Free Release Measurement of Low Uranium Activities 289

The Community's R&D Activities in the Field of Decommissioning - Objectives, Scope, and Implementation 76

Decommissioning of Nuclear Installations, Proceedings of the 1989 International Conference, Brussels, Belgium, October 24-27, 1989, K. Pflugrad, R. Bisci, B. Huber, and E. Skupinski (eds.). Elsevier Applied Science, Barking, United Kingdom, 858 pp. (continued)

The Potential Radiological Consequences of Deferring the Final Dismantling of a Magnox Nuclear Power Station 110

The TELEMAN Programme 162

Underwater Cutting Techniques Developments 160

Decontamination and Decommissioning of Nuclear Facilities - Final Report of Three Research Coordination Meetings Held Between 1984 and 1987. International Atomic Energy Agency, Vienna, Austria

Decontamination of the Main Circuits of the G2 Gas-Graphite Reactor 130

DIN-25457 (Pt. 1, Draft)

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Principles for Beta and Gamma Radiation Measurements 240

DIN-25457 (Pt. 4, Draft)

Activity Measurement Methods for the Release of Radioactive Residual Materials and Decommissioning Components of Nuclear Facilities - Scrap Metal from Nuclear Power Stations 241

Disposal Technology and Facility Development - Session 3, Proceedings of the Tenth Annual Department of Energy Low-Level Waste Management Conference, Denver, Colorado, August 30-September 1, 1988, 105 pp.

Status of Disposal Sites for the Department of Energy's Formerly Utilized Sites Remedial Action Program 376

DOE News (910716):1-2

DOE to Hold Public Meeting on Proposal to Reduce Mercury Releases from Y-12 Plant 578

DOE News (910813):1-2

Public Meeting to Be Held on Falls City, Texas, Tailings Cleanup 386

DOE News (910903):1-2

DOE to Hold Public Meeting on Proposed Interim Cleanup Action at Drum Storage Yards 757

DOE News (910912):1-3

Uranium Mill Tailings Remedial Action (UMTRA) Project 1992 Site-Specific Plan Available 393

DOE News (910917):1

Oak Ridge Environmental Restoration and Waste Management Plan Available for Public Comment 789

DOE News (910919):1-4

Ceremony Marks Lowman Mill Site Cleanup Progress 409

DOE News (911001):1-2

DOE Begins Final Phase of Elza Gate Cleanup 374

DOE News (911008):1

DOE to Hold Public Meeting on Mexican Hat Tailings Cleanup 411

DOE News (911122):1-2

EPA, State, and DOE Sign Federal Facility Agreement for Oak Ridge Cleanup 566

DOE News (920116):1-3

DOE Selects Contractor for Falls City, Texas, Tailings Cleanup 385

DOE News (920207):1-3

DOE Sets Falls City, Texas, Tailings Cleanup Groundbreaking 410

DOE News (920306):1

DOE Completes Elza Gate Restoration 380

DOE News (920401):1

DOE Begins Transfer of Drums at K-25 758

DOE News (920604):1-4

DOE Selects Subcontractor for Gunnison, Colorado, Tailings Cleanup 382

DOE News (920612):1-3

DOE and State to Hold Phase II Groundbreaking Ceremony in Rifle, Colorado 384

DOE News (920625):1-3

DOE, State, Local Officials Break Ground for Rifle, Colorado, Tailings Cleanup 408

DOE News (920701):1-2

New Technique Lowers Costs of Environmental Sampling 898

DOE News (920716):1-3

DOE, State, Local Officials to Break Ground for Gunnison, Colorado, Tailings Cleanup 383

DOE Order 5480.6

U.S. Department of Energy Radiological Control Manual 1033

DOE Order 5820.2A

Radioactive Waste Management 1028

DOE/DE-AC05-86OR21669

Final Report: Scrap Metal Program Phase I - Decontamination Demonstration Project 266

DOE/DP-00539-063

Offsite Environmental Monitoring Report: Radiation Monitoring Around United States Nuclear Test Areas 639

DOE/EA-0353

Environmental Assessment of Remedial Action at the Lowman Uranium Mill Tailings Site Near Lowman, Idaho 397

DOE/EA-0376

Environmental Assessment of Remedial Action at the Gunnison Uranium Mill Tailings Site Near Gunnison, Colorado 394

DOE/EA-0441

Environmental Assessment: Transportation, Receipt, and Storage of Fort St. Vrain Spent Fuel at the Irradiated Fuel Storage Facility at the Idaho Chemical Processing Plant, Idaho National Engineering Laboratory 228

DOE/EA-0468

Final Environmental Assessment of Remedial Action at the Falls City Uranium Mill Tailings Site, Falls City, Texas - Finding of No Significant Impact 399

DOE/EA-0489

Engineering Evaluation/Cost Analysis for the Proposed Decontamination of Properties in the Vicinity of the Hazelwood Interim Storage Site, Hazelwood, Missouri - Environmental Assessment 352

DOE/EA-0491

Environmental Assessment for Retech, Inc.'s Plasma Centrifugal Furnace Evaluation 976

DOE/EA-0529

Environmental Assessment of the Provision of a Water Supply System - Gunnison, Colorado - Final 395

DOE/EA-0549

Engineering Evaluation/Cost Analysis for the Proposed Management of 15 Nonprocess Buildings (15 Series) at the Weldon Spring Site Chemical Plant, Weldon Spring, Missouri 530

DOE/EH-0125

Environmental Audit Manual 1026

DOE/EH-0173T

Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance 1025

DOE/EH-0192

Natural Resource Trusteeship and Ecological Evaluation for Environmental Restoration at Department of Energy Facilities 479

DOE/EH-0195

Environmental Audit, Weldon Spring Site Remedial Action Project 631

DOE/EH-0207P

Environmental Audit of the Grand Junction Projects Office 618

DOE/EH-0209

Environmental Audit - Rifle, Gunnison and Grand Junction UMTRA Project Sites 400

DOE/EH-0221

Environmental Guidance for Public Participation in Environmental Restoration Activities 478

DOE/EH-0229

Performance Objectives and Criteria for Conducting DOE Environmental Audits 476

DOF/EH-0232

DOE Environmental Audit Program Guidance 477

DOE/EH-0236

Environmental Audit: West Valley Demonstration Project 647

DOE/EH-0256T

U.S. Department of Energy Radiological Control Manual 1033

DOE/EH-91009496

DOE LDR Strategy Report for RMW 1027

DOE/EIS-0120D (Vol. 1)

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 1 660

DOE/EIS-0120D (Vol. 2)

Waste Management Activities for Groundwater Protection - Savannah River Plant, Aiken, South Carolina: Draft Environmental Impact Statement, Volume 2 661

DOE/EM-0011P

Long-Range Plan for Technology Integration Programs, Office of Technology Development 970

DOE/EM-0012P

Technology Integration Branch FY 1991 Program Plan, Office of Technology Development 969

DOE/EM-0013P

Environmental Restoration and Waste Management (EM) Program: An Introduction 480

DOE/EM-0062P

Technology Integration Division - FY 1992 Technology Integration Programs Plan, Office of Technology Development 971

DOE/ER-0501T

Subsurface Science Program - Program Overview 975

DOE/ER-0547T

Chemical Contaminants on DOE Lands and Selection of Contaminant Mixtures for Subsurface Science Research 494

DOE/EW-40017-T1

Apollo Pennsylvania Nuclear Fuel Facility D&D Project 338

DOE/HWP-116

U.S. Department of Energy Office of Environmental Restoration and Waste Management Waste Reduction Workshop 462

DOE/ID-22098

Radionuclides, Chemical Constituents, and Organic Compounds in Water from Designated Wells and Springs from the Southern Boundary of the Idaho National Engineering Laboratory to the Hagerman Area, Idaho, 1989 621

DOE/JIO-025

Comprehensive Implementation Plan for the DOE Defense Buried TRU-Contaminated Waste Program 1034

DOE/NV-10630-28 (Vol. 2)

Environmental Monitoring Plan, Nevada Test Site and Support Facilities 637

DOE/NV-351

Environmental Protection Implementation Plan, November 9, 1991 - November 9, 1992 531

DOE/OR-1001

Oak Ridge Reservation Site Management Plan for the Environmental Restoration Program 564

DOE/OR-941/D1 (App. C)

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Groupings 11 and 13 - Appendix C: Data Quality Objectives 559

DOE/OR-943/D1 (Rev. 0)

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Grouping 13 560

DOE/OR-968

Environmental Restoration and Waste Management Site-Specific Plan for the Oak Ridge Reservation 567

DOE/OR/21548-193

Annual Site Environmental Report for Calendar Year 1990 - Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri: Revision 1 628

DOE/OR/21548-194

Quarry Residuals RI/FS Scoping Document 630

DOE/OR/21548-200

Weldon Spring Quarry Construction Staging Area and Water Treatment Plant Site Remedial Action Characterization Report for the Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri 633

DOE/OR/21548-224

Quarry Detection Monitoring Wells Completion Report WP-166 629

DOE/OR/21755-T3

Shallow Groundwater Investigations at Weldon Spring, Missouri - Final Report for Fiscal Years 1988-1990 627

DOE/OR/21949-284

Colonie Interim Storage Site Annual Environmental Report for Calendar Year 1990 365

DOF/OR/21949-285

Middlesex Sampling Plant Annual Environmental Report for Calendar Year 1990 363

DOE/OR/21949-286

Wayne Interim Storage Site Annual Environmental Report for Calendar Year 1990 364

DOE/OR/21949-287

Maywood Interim Storage Site Annual Environmental Report for Calendar Year 1990 361

DOE/OR/21949-301

Post-Remedial Action Report for Building 521-527, Baker and Williams Warehouses Site - New York, New York 379

DOE/OR/21949-302

Post-Remedial Action Report for Phase II Work Conducted During 1990- 1991 at the Albany Research Center, Albany, Oregon 369

DOE/OR/21949-303

Performance Monitoring Report for the Niagara Falls Storage Site Waste Containment Structure, Lewiston, New York, for Calendar Year 1990 366

DOE/OR/21949-347

Health and Safety Plan for the Ventron Site - Beverly, Massachusetts 373

DOE/OR/21949-349

Health and Safety Plan for the Seymour Site - Seymour, Connecticut 372

DOE/OR/23701-02.2

Engineering Evaluation/Cost Analysis for Decontamination at the St. Louis Downtown Site, St. Louis, Missouri 353

DOE/OR/23701-37.3

Engineering Evaluation/Cost Analysis for the Proposed Removal of Contaminated Materials at the Elza Gate Site, Oak Ridge, Tennessee 355

DOE/RL-88-30 (Vol. 1, Rev. 2)

Hanford Site Waste Management Units Reports 764

DOE/RL-88-41 (Rev. 1)

2101-M Pond Closure Plan - Revision 1 606

DOE/RL-90-12

Request for Interim Approval to Operate 218-E-12B Trench 94 as a Chemical Waste Landfill for Disposal of Polychlorinated Biphenyl Wastes in Submarine Reactor Compartments 604

DOE/RL-90-32 (Rev. 1)

Phase 1 and 2 Feasibility Study Report for the Hanford Site 1100-EM-1 Operable Unit 601

DOE/RL-90-37 (Rev. 1)

Remedial Investigation Phase 2 Supplemental Work Plan for the Hanford Site 1100-EM-1 Operable Unit 600

DOE/RL-91-11

Expedited Response Action Proposal for 316-5 Process Trenches 746

DOE/RL-91-14

Public Comments and Responses to the 1989 Hanford Cleanup Five-Year Plan 595

DOE/RL-91-23

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending March 31, 1991 707

DOE/RL-91-25

Environmental Restoration and Waste Management Site-Specific Plan for Richland Operations Office 596

DOE/RL-91-30

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending June 30, 1991 793

DOE/RL-91-36

Standard Review Plan for the Review of Environmental Restoration Remedial Action Quality Assurance Program Plans 597

DOE/RL-91-38 (Draft A)

Engineering Evaluation of the 618-9 Burial Ground Expedited Response Action - Draft A 721

DOE/RL-91-41

Hanford Federal Facility Agreement and Consent Order Quarterly Progress Report for the Period Ending September 30, 1991 794

DOE/RL-91-47

Quarterly Report of RCRA Groundwater Monitoring Data for Period April 1, 1991 Through June 30, 1991 708

DOE/RL-91-57

Quarterly Report of RCRA Groundwater Monitoring Data for Period July 1, 1991 Through September 30, 1991 709

DOE/RW-0006 (Rev. 7)

Integrated Data Base for 1991: U.S. Spent Fuel and Radioactive Waste Inventories, Projections, and Characteristics 498

DOE/SR-15160-4

Hydrogeologic Investigation and Establishment of a Permanent Multi-Observational Well Network in Aiken, Allendale, and Barnwell Counties South Carolina - Phase 4 659

DSH319X/JH

Detection of Radioactivity in Steel Scrap 260

Earth Science, Proceedings of the American Association for the Advancement of Science Annual Meeting, Washington, DC, February 15-19, 1991

Molten Salt Reactor Option for Beneficial Use of Fissile Material from Dismantled Weapons 760

EC/WTC-CE03685

Rayox: A Second Generation Enhanced Oxidation Process for Groundwater Remediation 840

EGG-M-90460

Influence of Natural Convection on Melt Shape During In Situ Vitrification 953

EGG-WM-9732

Health and Safety Plan for Operations Performed for the Environmental Restoration Program - Task: Vapor Vacuum Extraction 620

EGG-WΓD-9194

In Situ Vitrification Laboratory-Scale Test Work Plan 960

EGG-WTD-9291 (Rev. 1)

Summary of the Environmental Restoration Program Retrieval Demonstration Project at the Idaho National Engineering Laboratory - Revision 1 990

EGG-WTD-9594

Preliminary Systems Design Study Assessment Report 983

EGG-WTD-9672

Technical Baseline Description for In Situ Vitrification Laboratory Test Equipment 943

EGG-WTD-9736

Particle Characterization of Contaminated Soil 843

EGG-WTD-9749

Characterization Studies on: (A) Contaminated Batch of Rocky Flats Soil (B) Uncontaminated Batch of INEL Soil 617

EGG-WTD-9765

Robotics Subsurface Mapping Demonstration Technology Test Plan 974

EGG-WTD-9776

Pad A Treatability Study Long-Range Project Plan 526

EGG-WTD-9799

In Situ Technology Evaluation and Functional and Operational Guidelines for Treatability Studies at the Radioactive Waste Management Complex at the Idaho National Engineering Laboratory 747

EGG-WTD-9807

In Situ Vitrification Application to Buried Waste: Final Report of Intermediate Field Tests at Idaho National Engineering Laboratory 946

EGG-10617-1080

An Aerial Radiological Survey of the West Valley Demonstration Project and Surrounding Area, West Valley, New York - Date of Survey: August-September 1984 646

EGG-10617-1130

Aerial Radiological Survey of the Central Savannah River Site, Aiken, South Carolina - Survey Date: February 1987 658

EGG-10617-1131

Aerial Radiological Survey of the Savannah River Site TNX Facility and Surrounding Area, Aiken, South Carolina - Date of Survey: August 1986 662

EGG-2585(91)

EG and G Idaho Environmental Protection Implementation Plan (1991) 522

EGG-2635 (Vol. 1)

Characteristics of Low-Level Radioactive Waste - Volume 1: Decontamination Waste Program - Annual Report for Fiscal Year 1990 1016

EGG-2635 (Vol. 2)

Characteristics of Low-Level Radioactive Waste - Volume 2: Decontamination Waste Program - Annual Report for Fiscal Year 1991 1018

Elektricheskie Stantsii 8:22-24

General Approaches to Selection of Final State of Decommissioned NPP Power Units 337

EMO-1032

Report on Geological Surveys in the 300-FF-1 Operable Unit 718

EMO-1033 (Vol. 1)

Evaluation of the Hanford RI/FS Cost Projections - Appendixes, Volume 1 of 2 587

EMO-1033 (Vol. 2)

Evaluation of the Hanford RI/FS Cost Projections - Appendixes, Volume 2 of 2 586

Energeticheskoe Stroitel'stvo 9:57-61

Main Approaches to Solving the Problem of Nuclear Facility Decommissioning in the United Kingdom 333

Energia Nucleare 8(1):65-72

Decommissioning Nuclear Reactors in Italy: the Unrestricted Release Issue 312

Energia Nucleare 8(2):117-126

Decontamination for Decommissioning Purposes 132

Engineering News-Record 225(11):78-79

Japan Pushes Nuclear Decommissioning Work 317

Environmental Engineering, Proceedings of the 1991 Specialty Conference, Reno, NV, July 8-10, 1991. American Society of Civil Engineers, New York, NY

Development of Effective Remediation Criteria 851

In Situ Remediation of Hazardous Wastes 850

Integrated Waste Management at the Weldon Spring, Missouri Site Remedial Action Project 748

Observational Approach in Environmental Restoration 495

Plume Management for Groundwater Remediation 870

Results of the Engineering Special Studies for the UMTRA Project - FY90 401

Environmental Geology and Water Sciences 10(3):129-133

Radon Emissions During Mill Tailings Backfill Operations in a Uranium Mine 398

Environmental Hydrology and Hydrogeology, J.E. Moore, R.A. Kanivetsky, J. S. Rosenshein, C. Zenone, and S.C. Csallany (eds.), Proceedings of the First USA/USSR Joint Conference, Leningrad, USSR, June 18-21, 1990. Kendall/Hunt Publishing Company, Dubuque, IA, 463 pp.

The Use of Geochemical Barriers for Reducing Contaminants Emanating from Uranium Mill Tailings 439

U.S. National Issues on Environmental Hydrology and Hydrogeology - Local and Emerging Global Perspectives 880

Environmental Issues and Waste Management in Energy and Minerals Production, T.M. Yegulalp and K. Kim (eds.), Proceedings of the First International Conference, Secaucus, NJ, August 27-29, 1990. Battelle Press, Columbus, OH, 602 pp.

Acid Mine Drainage Research in Canada 447

An Assessment of Health and Environmental Impact of Contaminant Releases from a Mine Tailings Pile 434

Environmental and Waste Management Issues, Causes, Characteristics, and Cures 1008

Health Risks from Uranium Mill Tailings 436

Management of the Pipp Program for UMTRA Project Groundwater Restoration 402

Radium and Radon Regulations 805

Environmental Monitoring, Restoration and Assessment: What Have We Learned?, R.H. Gray (ed.), Proceedings of the 28th Hanford Life Sciences Symposium, Richland, WA, October 16-19, 1989, 340 pp.

Air Quality Monitoring at Toxic Waste Sites: A Hanford Perspective 711

Automation of Geophysical Surveys Used in Assessment of Hazardous Waste 892

Comparison of Statistical Methods for Estimating Plutonium Inventories in Soil 915

Control of Soil Column Discharges at the Hanford Site 763

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Effective Sample Labeling 896

Environmental Monitoring at U.S. Department of Energy Facilities 492

Environmental Monitoring Data for Evaluating Atmospheric Modeling Results 1030

Environmental Surveillance and Research at the Nevada Test Site 636

Identification of Contaminants of Concern in Hanford Ground Waters 706

Land Reclamation at the Basalt Waste Isolation Project 740

Radiation-Related Monitoring and Environmental Research at the Nevada Test Site 634

Results from the 1988 Quality Assurance Task Force Hanford Intercomparison Program 901

Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705

Temporal Variations in Atmospheric Dispersion at Hanford 704

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

Environmental Pollution 69(4):277-310

Ra-226 and Other Radionuclides in Water, Vegetation, and Tissues of Beavers (Castor Canadensis) from a Watershed Containing Uranium Tailings near Elliot Lake, Canada 426

Environmental Remediation '91: Cleaning Up the Environment for the 21st Century, D.E. Wood (ed.), Proceedings of a Conference, Pasco, WA, September 8-11, 1991, 970 pp.

"Smart" Pump and Treat 838

A Case Study: Underpinning of Structures as an Alternative to Demolition/Reconstruction for Removal of Underlying Contaminated Soils at the St. Louis Downtown Site (SLDS) 351

A Co-Metabolic Approach to Groundwater Remediation 548

A Framework for Evaluating Innovative Statistical and Risk Assessment Tools to Solve Environmental Restoration Problems 921

A Project Manager's Primer on Data Validation 888

A Risk Computation Model for Environmental Restoration Activities 924

A Successful Environmental Remediation Program Closure and Post-Closure Activities (CAPCA), Y-12 Plant, Oak Ridge, Tennessee 777

A Thermodynamic Analysis of Melt Immiscibility and its Implications During Vitrification 947

Accelerated Cleanup of Carbon Tetrachloride in a Radiologically Contaminated Site at the Hanford Site 744

Accelerated Cleanup of Past Practice Waste Sites on the Hanford Site, Richland, Washington 702

Accelerated Cleanup of the 316-5 Process Trenches at the Hanford Site 780

Accelerated Cleanup of the 618-9 Burial Ground 781

Achieving Technical Consistency and Meeting Technology Development Needs in the Oak Ridge Environmental Restoration Program 570

Air Stripping of Volatile Organic Chlorocarbons: System Development, Performance, and Lessons Learned 732

An Approach to Regulatory Compliance with Radioactive Mixed Waste Regulations 750

An Assessment of Baseline Ecological Risks at the Fernald Environmental Management Project, Fernald, Ohio 650

An Effective Methodology for Establishing Cleanup Standards for Mercury Contaminated Soils 736

An Evaluation of Alternative Reactor Vessel Cutting Technologies for the Decommissioning of the Experimental Boiling Water Reactor at Argonne National Laboratory 39

An Overview of Major Progress in the Environmental Restoration Program at the Savannah River Site 773

An Overview of Public Health Service Health-Related Activities as They Relate to the Department of Energy's Environmental Restoration Program 496

Application of a Structured Light Source to Waste Surface Mapping in Waste Storage Silos at Fernald, Ohio 16

Application of Classic Engineering Techniques (Value Engineering and Observation Method) at the Weldon Spring Quarry 529

Application of Sphagnum Peat, Calcium Carbonate, and Hydrated Lime for Immobilizing Radioactive and Hazardous Contaminants in the Subsurface 440

Approach and Strategy for Setting Remedial Action Goals for Multiple Sites with Multiple Contaminants 488

Architecture and Environmental Restoration: Remediating Uranium Mill Tailings from Buildings 407

Assessing Exposures and Risks in Heterogeneously Contaminated Areas: A Simulation Approach 919

Balancing CERCLA Risk and DOE Radiological Performance Assessment Methodologies and Practices 546

Baseline Risk Assessment Methodology for Mixed Waste 909

Bioremediation of Hanford Groundwater 743

Case Studies on Designing Meetings for Effective Institutional Interactions 1011

CERCLA Document Flow: Compressing the Schedule, Saving Costs, and Expediting Review at the Savannah River Site 545

CERCLA Integration with Site Operations: The Fernald Experience 533

Changes in "Selected Remedy" After Record of Decision 798

Chaos and Remedial Investigations 534

Comparative Overview of Federal Facility Compliance Agreements and Consent Orders 461

Completed Remedial Cleanup at the Durango, Colorado Uranium Mill Tailings Remedial Action Site: A Case Study 404

Compliance with ASME NQA-1 and QAMS-005/80 Quality Requirements Under the Environmental Restoration Program at the Idaho National Engineering Laboratory 521

Contaminant Sorption/Desorption Rates: Implications for Groundwater Restoration 878

Creating a Context for Public Confidence in the Environmental Restoration Programs 472

Decommissioning a Nuclear Reactor 50

Decommissioning of a Grout- and Waste-Filled Storage Tank in the 200 East Area of the Hanford Site 52

Decommissioning of a Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility: A Case Study of the Interim Stabilization of the 216-A-29 Ditch at the Hanford Site 742

Decommissioning of the 105-F and 105-H Fuel Storage Basins in the 100 Area at the Hanford Site 598

Department of Energy Policy for Acceptance of Facilities for Environmental Restoration 463

Design and Construction of an Interceptor System for Radioactively Contaminated Solvent 730

Destruction of Complexants Used in Groundwater Decontamination 862

Determination of the Probability for Radioactive Materials on Properties in Monticello, Utah 429

Determining the "R" in ALARA: A Parametric Study to Establish Cleanup Criteria 356

Determining the Number of Samples Required for Decisions Concerning Remedial Actions at Hazardous Waste Sites 913

Development of a Polishing System for FEMP Wastewater Discharges 753

Development of an Adjoint Sensitivity Method for Site Characterization, Uncertainty Analysis, and Code Calibration/Validation 703

Development of an Administrative Record System and Information Repository System on the Hanford Site, Benton County, Richland, Washington 592

Development of Tank Instrumentation - The Search for Appropriate Monitoring 26

Discovering Where the Problem is Hiding: Techniques from The Formerly Utilized Sites Remedial Action Program (FUSRAP) 357

Effect of Radon Dose on Cleanup Criteria and Using RESRAD for Chemical Risk Assessment 933

Effective Outreach is Good Public Policy 590

Efficiency-Based Groundwater Monitoring Design Using the Monitoring Efficiency Model (MEMO) 899

Efforts to Earn Public Support and Confidence in Hanford Site Cleanup Work 579

Electrical Resistance Tomography to Monitor Vadose Water Movement 875

Electrokinetic Remediation of Contaminated Soils 868

Engineering-Scale Tests of In Situ Vitrification to PCB and Radioactive Contaminated Soils 956

Environmental Restoration Project Configuration Control 523

Environmental Restoration Remedial Action Quality Assurance Requirements Document 580

Environmental Soil Sampling Under Storage Tanks Utilizing Angled Auger Borings 654

Evaluation of a Contaminant Pathway and Mobility at a U.S. DOE Site Using Groundwater Chemical Data 653

Evaluation of a Rapid Headspace Analysis Method for Analysis of Volatile Constituents in Soils and Sediments 890

Evaluation of Proposed Designs for Streamflow Monitoring Structures at Waste Disposal Sites 665

Evaluation of Tanks that Release Flammable Gases 5

Extended Tank Use Analysis 23

Facilitation Techniques for Environmental Restoration Planning and Implementation 454

Facility Design to Apply Cover Material over Radioactive Residue in Storage Silos 40

Ferrocyanide-Containing Waste Tanks: Ferrocyanide Chemistry and Reactivity 28

Future Use and Cleanup Strategy Alternatives: The Hanford Approach 588

Graphical Presentation of Ferrocyanide Tank Compositions 29

Ground Water Extraction, Treatment, and Upgradient Injection Systems Provide a Mechanism to Control Tritium Plumes at DOE Facilities 733

Groundwater Clean-Up: The Savannah River Site Experience 772

Groundwater Remediation via Four Case Studies 881

Hanford Site Past Practice Investigation Strategy 593

Hanford Waste Tank Safety Issues: A Program Overview 34

Health-Based Cleanup Goals at Hazardous Waste Sites: Implications for Risk Management 928

High Organic Containing Tanks - Assessing the Hazard Potential 25

Historical Genesis of the Hanford Site Wastes 701

How Public Issues Shape Environmental Restoration Plans: Experiences with Colorado UMTRA Projects 389

Implementation of 29 CFR 1910.120 at a Multiple-Contractor Operated Facility 538

Implementation Planning for Remedial Design and Remedial Action at the Department of Energy's Monticello Mill Tailings Site 415

Improving Conduct of Operations in Nuclear Waste Cleanup Operations 752

In Situ Grouting of Low-Level Burial Trenches with a Cement-Based Grout 735

In-Situ Storage: An Approach to Interim Remedial Action - Recent Case Studies in Canada 799

Initial Site Characterization Approach and Preliminary Results: 200 West Area Carbon Tetrachloride Expedited Response Action, Hanford Site, Washington 714

Innovative Investigation Methodologies and Techniques for Site Characterization 910

Integrated Demonstration for the Removal of Uranium Substances from Soils 982

Integration of Removal Actions into the Operations at a DOE Facility 539

Issuance of the CERCLA ROD for an Operable Unit Remedial Action at the Weldon Spring Site - Lessons Learned 769

Laboratory-Scale Tests of a Chemical Barrier for Use at Uranium Mill Tailings Disposal Sites 438

Land Surface Cleanup of Plutonium at the Nevada Test Site 729

Life Cycle Planning to Forecast Budget Requirements and Maintain Effective Cost Controls 524

Long-Term Public Health Impacts of Decommissioning the Hanford Surplus Production Reactors: Implications for CERCLA Remedial Actions at Hanford 37

M-Basin Closure - Savannah River Site 774

Management of Petroleum Underground Storage Tanks at the Hanford Site 599

Managing a Site Cleanup Under an Accelerated Schedule - The Lowman Story 406

Meeting Health-Based Standards at Hazardous and Mixed Waste Sites: Are We Deluding Ourselves? 486

Methodology for Conducting a Performance Assessment of an Engineered Disposal Facility 934

Methods for Drilling and Well Installation in Radiologically Contaminated Soils 645

Natural Resources Damage Assessments at Department of Energy Facilities - Using the CERCLA Process to Minimize Natural Resources Injuries 999

NEPA/CERCLA Integration at Rocky Flats 518

Operating Watch List Tanks: A Study in Control 45

Overview of the Closure Approach for the Hanford Site Single-Shell Tank Farm 10

Potential for Using a Six-Phase Alternating Current Power Supply for In Situ Vitrification 963

Program Management Strategies for Following EPA Guidance for Remedial Design/Remedial Action at DOE Sites 458

Programmatic Environmental Impact Statement for the Office of Environmental Restoration and Waste Management 473

Proposed Plan for Vitrification Demonstration of Low-Level Radioactive Wastes at the Fernald Environmental Management Project 937

Public Involvement in Remedial Work Programs at Historic Low-Level Radioactive Waste Sites: Recent Canadian Experience 800

Putting Ecology in Environmental Restoration: The Strategic Planning Process 459

RCRA Closures at Rocky Flats Plant: A Programmatic Perspective and Case Study 616

Release Criteria and Pathway Analysis for Radiological Remediation 916

Remedial Action Assessment System (RAAS) - A Computer-Based Methodology for Conducting Feasibility Studies 908

Remedial Action for the Baker and Williams Warehouses Site, New York, New York 378

Remedial Investigation for the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 712

Remedial Investigation/Feasibility Study Risk Assessments at a Superfund Mixed Waste Site 536

Remediation Strategies for Perched Water Bodies Underlying the Idaho Chemical Processing Plant at the Idaho National Engineering Laboratory 525

Remediation Technology Development from the UMTRA Program 413

Remediation Technology Needs and Applied R&D Initiatives 996

Removal Action Under CERCLA Section 104 for PCB-Contaminated Soil at DOE Mound Plant 731

Removal of Heavy Metals and Radionuclides by Seeded Magnetic Filtration 978

RESSAC: Rehabilitation of Soils and Surfaces after an Accident - A European Research Program for Remediation of Radioactive Contamination 841

Results of Vitrifying Fernald K-65 Residue 938

Rocky Flats Community Relations: Coming Out of the Dark 517

Safe Storage of Deactivated Radiological Chemical Processing Plants in the 200 West Area of the Hanford Site 796

Selection of a Preferred Remedial Well Configuration Using Groundwater Modeling Techniques 855

Selection of Innovative Technologies for the Remediation of Soils Contaminated with Radioactive and Mixed Wastes 985

Site Characterization for Remedial Design at National Priority List and FUSRAP Sites 362

Siting and Constructing Very Deep Monitoring Wells on the U.S. Department of Energy's Nevada Test Site 635

Soil Vapor Extraction Test in a Radiologically Contaminated Site, Hanford Site 745

Soil Washing Results for Mixed Waste Pond Soils at Hanford 727

Soil Washing: A Promising Technology for the Cleanup of Hanford 741

SOLID: A Computer Model for Calculating the Effective Dose Equivalent from External Exposure to Distributed Gamma Sources in Soil 893

Sorters for Soil Cleanup 816

SRS Waste Removal and D&D Program for Underground Waste Tanks 42

Status of Existing Federal Environmental Risk-Based Standards Applicable to Department of Energy Operations 1031

Strategic Planning of an Integrated Program for State Oversight Agreements 569

Strategy for Integrated CERCLA/NEPA Risk Assessments 905

Successful Integration of the CERCLA and NEPA Compliance Processes in the Weldon Spring Site Remedial Action Project: A Case Study 527

Surface Water Management at a Mixed Waste Remediation Site 784

Taking Interim Actions: Integrating CERCLA and NEPA to Move Ahead with Site Cleanup 528

Technology Development for a Disposal Cell at the Weldon Spring Site Remedial Action Project 749

The Buried Waste Integrated Demonstration 986

Environmental Remediation '91: Cleaning Up the Environment for the 21st Century, D.E. Wood (ed.), Proceedings of a Conference, Pasco, WA, September 8-11, 1991, 970 pp. (continued)

The Effectiveness of the Pump and Treat Method for Aquifer Restoration 854

The Grand Junction, Colorado, UMTRA Program: Engineering Design and Management of More than 4,000 Remedial Action Designs 405

The Path to Gaining a Defensible Understanding of "Watch List" Tank Risk and Interim Stabilization Needs 8

Three-Dimensional Computer Simulations of Bioremediation and Vapor Extraction 845

Threshold Limited Kinetics of Aromatic Hydrocarbons in Shallow Soil Systems 867

Tiger Team Findings Related to DOE Environmental Restoration Activities 506

Treatment of Y-12 Plant Mixed Waste Contaminated Soils Utilizing the Westinghouse Soil Washing Process 737

UMTRA Project Management of Residual Radioactive Material Commingled with Hazardous Waste at Vicinity Properties 403

Unified Theory of Sciences for Implementation of Environmental Restoration at Department of Energy Sites 455

Uranium Mill Tailings Remedial Action Project Vicinity Property Program 412

Utilization of the Magnetic Induced Polarization Technique in Environmental Remediation Problems 894

Visual System for Waste Tank Cleanup 27

Working with States on a Joint DOE/State Funded Cleanup Project 387

Environmental Science and Technology 24(2):228-233

Mobility of Plutonium and Americium Through a Shallow Aquiser in a Semiarid Region 642

Environmental Science and Technology 25(6):1055-1061

Bench-Scale Evaluation of Alternative Biological Treatment Processes for the Remediation of Pentachlorophenol- and Creosote-Contaminated Materials: Slurry-Phase Bioremediation 871

EPA/ROD/R02-90/126

Superfund Record of Decision (EPA Region 2): Montclair/West Orange Radium Site, Essex County, NJ (Second Remedial Action), June 1990 - Final Report 809

EPA/ROD/R07-90/043

Superfund Record of Decision (EPA Region 7): Weldon Spring Quarry/Plant/Pits (USDOE), Weldon Spring, MO (Second Remedial Action) - September 1990 632

EPA/ROD/R08-90/034

Superfund Record of Decision (EPA Region 8): Monticello Mill Tailings Site, San Juan County, UT (First Remedial Action), August 1990 417

EPA/ROD/R08-90/043

Superfund Record of Decision (EPA Region 8): Rocky Flats Plant (DOE), Northern Jefferson County, CO - First Remedial Action, January 1990 - Final report 615

EPA/ROD/R10-90/021

Superfund Record of Decision (EPA Region 10): Teledyne Wah Chang, Albany, OR (First Remedial Action), December 1989 802

EPA/520/1-90-013

A Research Program on the Recycling of Decommissioning Materials at JAERI 256

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Criteria for Release of Decommissioned Nuclear Facilities for Unrestricted Use 14

Current Status of Residual Radioactivity Criteria in Japan 87

Decommissioning Waste Characteristics 271

Decontamination Technology for Decommissioning of Nuclear Facilities 143

Department of Energy Environmental Restoration and Waste Management Five-Year Plan - Environmental Restoration Program 489

Development of International Exemption Principles for Recycle and Reuse 274

Disposal Capacity and Projected Waste Volumes Within the Low-Level Radioactive Waste Compacts 264

DOE Guidelines and Modeling in Determination of Soil Cleanup Guidelines 487

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

EPA's Proposed Environmental Standards for Low-Level Radioactive Waste Disposal and Criteria for Below Regulatory Concern 1009

EPRI Discussion Paper on BRC and De Minimis Concepts 1029

Establishment of Criteria for the Unconditional Release of the Shippingport Reactor 1

Experience in Decontamination and Reuse of the Large-Scale Radiochemical Laboratory and the Research Reactor at the Japan Atomic Energy Research Institute 144

International Similarities and Differences in Regulating Nonradiation Hazards 801

Limitations of Cleanup Technologies 346

Low-Level Radioactivity Measurement Methods for Reusing or Recycling 255

NRC Residual Contamination Criteria 1013

Residual Radioactivity Cost Impact Evaluation 96

Site Inventory of Residual Radioactivity in Japan 254

St. Michael's Workshop on Residual Radioactivity and Recycling Criteria - Summary and Panel Discussion 835

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006

EPA/520/1-90-013 (continued)

Surface Contamination Criteria for Free Release 1004

What are the Basic Requirements that Cleanup Standards Should Satisfy? 469

What Should Cleanup Standards Do? 470

EPA/530/SW-91/065B

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 2 (Commencement Bay Nearshore/Tideflats to Kerr McGee, Kress Creek, Reed-Keppler Park, Residential Areas, Sewage Treatment Plant) 831

EPA/530/SW-91/065C

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 3 (Kerr-McGee Chemical Corporation/Soda Springs Plant to Ormet Corporation) 830

EPA/530/SW-91/065D

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 4 (Oronogo-Duenweg Mining Belt to Tar Creek) 829

EPA/530/SW-91/065E

Mining Sites on the National Priorities List: NPL Site Summary Reports - Volume 5 (Teledyne Wah Chang to Wayne Interim Storage Facility/W.R. Grace) 828

EPA/540/G-89/001

Superfund Community Relations Program - A Guide to Effective Presentations with Visual Aids 481

EPA/540/1-88/001

Superfund Exposure Assessment Manual 930

EPA/540/4-89/005

Performance Evaluations of Pump-and-Treat Remediations 864

EPA/540/8-91/005

Superfund Innovative Technology Evaluation (SITE) Program - Spring Update 1991 998

EPA/540/8-91/007

Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation 512

EPA/540/8-91/009

Synopses of Federal Demonstrations of Innovative Site Remediation Technologies 997

EPA/600/A-92/011

Development of a National Consensus Standard for Quality Assurance for Environmental Programs 1012

EPA/600/A-92/053

Biological Activity and Potential Remediation Involving Geotextile Landfill Leachate Filters 865

EPA/600/D-91/140

National QA Standard for Environmental Programs for Hazardous Waste Management Activities 895

EPA/600/D-91/221

Harmonization of QA Procedures for Environmental Data Operations: Development of a National Consensus Standard for Quality Assurance for Environmental Programs 887

EPA/600/J-91/255

Comparison of In Situ Vitrification and Rotary Kiln Incineration for Soils Treatment 965

EPA/600/S2-91/012

Feasibility of Hydraulic Fracturing to Improve Remedial Actions - Project Summary 872

EPA/600/4-91/030

Offsite Environmental Monitoring Report: Radiation Monitoring Around United States Nuclear Test Areas 639

ER-B-91-18

Contract Administration Involving the Remedial Investigation and Feasibility Study at the Feed Materials Production Center 537

Erzmetall 44(4):183-187

Can Ore Milling Technology Be Harmonized With the Environment? 449

ES/ER-15/D1

Feasibility Study for the United Nuclear Corporation Disposal Site at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 761

ES/ER-17/D1

Federal Facility Agreement Plans and Schedules for Liquid Low-Level Radioactive Waste Tank Systems at Oak Ridge National Laboratory, Oak Ridge, Tennessee 3

ES/ER-23/D1

Remedial Investigation Report for Chestnut Ridge OU 2 (Filled Coal Ash Pond/McCoy Branch) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 691

ES/ER-6/D2

Remedial Investigation Plan for Waste Area Grouping 1 at Oak Ridge National Laboratory, Oak Ridge, Tennessee: Responses to Regulator Comments 558

ES/ER/TM-1

Applicable or Relevant and Appropriate Requirements (ARARs) for Remedial Action at the Oak Ridge Reservation - A Compendium of Major Environmental Laws 563

ES/ER/TM-18

Methodology for Generating Waste Volume Estimates 991

ES/ER/TM-19

Environmental Restoration Program Management Control Plan 554

ES/ER/TM-2

Remedial Action Measures 474

ES/ER/TM-21

Environmental Restoration Program Waste Minimization and Pollution Prevention Awareness Program Plan 497

ES/ER/TM-24

Implementation of the Natural Resource Damage Assessment Rule - Workshop Summary - Interim Notification Policy: Environmental Restoration Program 565

ES/ER/TM-25

Decontamination and Decommissioning Surveillance and Maintenance Report for FY 1991 64

ES/ER/TM-28

The Use of Institutional Controls at Department of Energy Oak Ridge Field Office Environmental Restoration Sites 568

ES/ER/TM-7

Summary of the Landfill Remediation Problems and Technology Needs of the Oak Ridge Reservation Environmental Restoration Programs 788

ES/ESH-18/V3

Paducah Gaseous Diffusion Plant Environmental Report for 1990 624

ES/ESH-18/V4

Portsmouth Gaseous Diffusion Plant Environmental Report for 1990 656

ETDE-IT-91-26

Radiation Protection on Decommissioning of Nuclear Facilities: Problems, Needs and Perspectives 116

EUR-12701

Methodology for Assessing Suitable Systems for Management of Reactor Decommissioning Wastes 259

EUR-12890

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

EUR-13057

Decommissioning of a Mixed Oxide Fuel Fabrication Facility 325

EUR-13133

Further Studies on Melting of Radioactive Metallic Wastes from the Dismantling of Nuclear Installations 242

EUR-13191

Underwater Plasma Arc Cutting - Final Report 190

EUR-13253

Prefiltration of Gaseous Effluents in Plant Dismantling 193

EUR-13255

Dismantling and Decontamination of the Tube Bundle of a Feedwater Preheater of the Garigliano BWR 199

EUR-13345

Large Packages for Reactor Decommissioning Waste 261

EUR-13356

Investigation of the Dissipation of Cutting Byproducts During Underwater Dismantling of Steel Parts from Nuclear Installations in View of Selection and Optimization of Filtering Systems to Separate Cutting Byproducts 176

EUR-13489

Decontamination During Dismantling of the Rapsodie Primary Coolant Circuit 127

EUR-13495

Dismantling and Decontamination of Piver Prototype Vitrification Plant 189

EUR-13497

New Decontamination Techniques: Chemical Gels, Electropolishing and Abrasives 126

Expert Systems, Proceedings of the World Congress Conference, Orlando, FL, December 16-19, 1991 Cooperative Expert System Reasoning for Waste Remediations 907

Federal Register 56(115):27505

Floodplain Notification for Proposed Removal Action at the Feed Materials Production Center, Fernald, OH 754

Federal Register 56(148):36850

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling and Disposition of Component Parts - University of Utah AGN-201M Research Reactor 95

Federal Register 56(152):37574

Dairyland Power Cooperative: La Crosse Boiling Water Reactor (LACBWR) - Issuance of Environmental Assessment and Finding of No Significant Impact 97

Federal Register 56(153):37733

The University of Utah (The Utah AGN-201M Research Reactor) - Order Authorizing Dismantling of Facility and Disposition of Component Parts 99

Federal Register 56(159):40927

Dairyland Power Cooperative - La Crosse Boiling Water Reactor: Order Authorizing Decommissioning of Facility 100

Federal Register 56(160):41102-5

Nuclear Decommissioning Fund Qualification Requirements 102

Federal Register 56(162):41493

Decommissioning Funding for Prematurely Shutdown Power Reactors 105

Federal Register 56(170):43590

Savannah River Field Office - Financial Assistance Award - Intent to Award a Noncompetitive Grant 544

Federal Register 56(173):44078-80

Request for Public Review and Comment on a Preliminary Design Report: A Priority System for Environmental Restoration 457

Federal Register 56(181):47253

Environmental Assessment and Finding of No Significant Impact Regarding Proposed Order Authorizing Dismantling of and Disposition of Component Parts - University of Kansas Research Reactor 92

Federal Register 56(186):48445-8

General Electric Company and Westinghouse Electric Corporation - Filing of a Petition for Rulemaking 106

Federal Register 56(203):52539-41

Floodplain Involvement Notification for Environmental Restoration Activities at the Department of Energy Kansas City Plant Located in Kansas City, MO 626

Federal Register 56(204):54563-6

Intent to Prepare a Remedial Investigation/Feasibility Study-Environmental Impact Statement: Response Actions at a Site in Wayne, New Jersey 354

Federal Register 56(206):55124-5

Department of Energy: Task Assignment - Subcontract Awards 456

Federal Register 56(207):55432-5

National Emission Standards for Hazardous Air Pollutants - Uranium Mill Tailings Disposal Sites 423

Federal Register 56(217):57360

Receipt of Request and Intent to Issue License Amendment Regarding Reclamation Plans for Inactive Uranium Mill 388

Federal Register 56(223):58407-8

Sacramento Municipal Utility District; Ranch Seco Nuclear Generating Station: Exemption 69

Federal Register 56(226):58931-2

Long Island Lighting Company - Shoreham Nuclear Power Station - Environmental Assessment and Finding of No Significant Impact 93

Federal Register 56(76):16081

Floodplains Wetland Involvement for the Proposed Remedial Investigation of the 300-FF-5 Operable Unit of the Hanford Site, Richland, WA 609

Federal Register 58(176):46602

Financial Assistance Award - Babcock & Wilcox 94

FEMP-2245

Feed Materials Production Center Annual Environmental Report for Calendar Year 1990 649

Fisheries 16(3):2-3

Cleaning up Radioactive and Chemical Waste Sites: Is the Benefit Worth the Cost and Risk 505

FMPC-2229

CERCLA Integration with Site Operations: The Fernald Experience 533

FMPC/Sub-035

Characteristics of Fernald's K-65 Residue Before, During and After Vitrification 41

Focus '91: Nuclear Waste Packaging, Proceedings of a Conference, Las Vegas, NV, September 29-October 4, 1991

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951

Forum for Applied Research and Public Policy 6(1):16-18

DOE and Restoration at Weapons Plant Sites 513

Forum for Applied Research and Public Policy 6(1):19-22

Long Road to Recovery Begins at DOE Plants 508

Forum for Applied Research and Public Policy 6(1):27-31

Oak Ridge Restoration Typical of Federal Sites 787

GAO/RCED-90-208

Nuclear Research and Development: Shippingport Decommissioning - How Applicable are the Lessons Learned 61

GAO/RCED-92-18

GAO Report on Rocky Flats Plant Solar Evaporation Pond Cleanup 767

GAO/RCED-92-77BR

Uranium Enrichment: Analysis of Decontamination and Decommissioning Scenarios - Briefing Report to the Chairman, Subcommittee on Energy and Power, Committee on Energy and Commerce, House of Representatives 2

GAO/T-RCED-89-18

Environmental Problems in the Nuclear Weapons Complex 503

GAO/T-RCED-91-27

Managing the Environmental Cleanup of DOE's Nuclear Weapons Complex 468

GAO/T-RCED-92-29

Cleanup Technology - DOE's Management of Environmental Cleanup Technology 962

GAO/T-RCED-92-31

Nuclear Weapons Complex - Major Safety, Environmental, and Reconfiguration Issues Facing DOE 466

Garbage (March/April 1992):40-47

Dismantling Nuclear Power Plants 158

GEND-034

Gross Decontamination Experiment Report 147

GEPP-CP-1283

Environmental Restoration Activities at the U.S. Department of Energy's Pinellas Plant 783

GPU/T-4083

Gross Decontamination Experiment Report 147

Hazardous and Industrial Wastes, J.P. Moore, S.C. Cheng, and M.A. Susavidge (eds.), Proceedings of the 22nd Annual Mid-Atlantic Industrial Waste Conference, Philadelphia, PA, July 24-27, 1990. Technomic Publishing Company, Lancaster, PA, 800 pp.

Groundwater Recovery and Treatment as a Superfund Remedial Action 844

In-Situ Remediation of a Chlorinated Solvent Contaminant Plume Using Vacuum Extraction Technology 861

Major Remediation 819

Reclamation Plans at Uranium Mill Tailings Sites 451

Hazardous Materials Control, Hazardous Materials Control Research Institute, Silver Spring, MD, 98 pp.

The Application of Quantitative Risk Assessment to Assist in Evaluating Remedial Action Alternatives 926

HazMat '91 Central, Proceedings of the Fourth Annual Hazardous Materials Management Conference, Rosemont, IL, April 3-5, 1991. Tower Conference Management Company, Wheaton, IL Treatment of Heavy Metal Contaminated Soils by In Situ Vitrification 952

HazMat '91 International, Proceedings of the Ninth Annual International Hazardous Materials Management Conference, Atlantic City, NJ, June 12-14, 1991. Tower Conference Management Company, Wheaton, IL, 1135 pp.

Case Study of a Mixed Waste Site - RI/FS 811

Vapor Extraction Technology for the Remediation of a Large Gasoline Spill 859

HazMat '91 South, Proceedings of the Hazardous Materials Management Conference, Atlanta, GA, October 2-4, 1991

Handling 78,000 Drums of Mixed-Waste Sludge 756

R&D Activities at DOE Applicable to Mixed Waste 993

Health Physics 61(2):203-207

Radium-226 Dose to a Boy from Playing on Mill Tailings 435

Health Physics 62(1):87-90

A Multiyear Quality Control Study of Alpha-Track Radon Monitors 903

Health, Safety and Environment in Oil and Gas Exploration and Production, Proceedings of the First International Conference, The Hague, Netherlands, November 11-14, 1991. Society of Petroleum Engineers, Richardson, TX, 856 pp.

Naturally Occurring Radioactive Materials 806

Heat Transfer in Geophysical Media, Proceedings of the 28th Annual National Heat Transfer Conference, Minneapolis, MN, July 28-31, 1991. American Society of Mechanical Engineers, Heat Transfer Division, New York, NY

Influence of Natural Convection on Melt Shape During In Situ Vitrification 953

Simulation of Heat Conduction and Electric Fields During In Situ Vitrification of Soil 959

Hydraulic Engineering, M.A. Ports (ed.), Proceedings of the 1989 National Conference, New Orleans, LA, August 14-18, 1989. American Society of Civil Engineers, New York, NY

A Real-Time Approach to Groundwater Monitoring, Prediction, and Remediation 869

Hydrometallurgy 24(3):361-372

Geochemical Hosts of Solubilized Radionuclides in Uranium Mill Tailings 452

IAEA-SR-179

Decommissioning of Research Reactor ZERLINA 283

End-of-Life Planning for the Decommissioning of Research Reactors and Other Small Nuclear Facilities 70

IAEA Activities on Decommissioning of Research Reactors and Other Small Nuclear Facilities 285

IAEA-SR-179 (continued)

International Atomic Energy Agency Seminar for Asia and the Pacific on Ageing, Decommissioning, and/or Major Refurbishment of Research Reactors 345

IAEA-SR-179/12C

Conceptual Decommissioning Plan for Thai Research Reactor-1/Modification 1 90

IAEA-SR-179/19I

Policy and Regulation for Decommissioning Reactors in Japan 86

IAEA-SR-179/20I

Safety Related Aspects of Decommissioning Projects 115

IAEA-SR-179/21I

Planning and Implementation of Decommissioning for Research Reactors 101

IAEA-SR-179/22I

Decision-Making Process to Shut Down, Refurbish/Modify, or Decommission Research Reactors 4

IAEA-SR-179/9C

Experience of Research Reactor Decommissioning in Japan 284

IAEA-TECDOC-511

Decontamination of the Main Circuits of the G2 Gas-Graphite Reactor 130

In Situ Treatment of Soil and Water, Proceedings of an International Specialty Conference, Cincinnati, OH, February 4-6, 1992

In Situ Vitrification: Technology Status and a Survey of New Applications 967

INFO-0273

General Principles Underlying the Decommissioning of Nuclear Facilities 293

INFO-0353

Remeasurement of Thorium-230 in the Pore Water of Lacnor Tailings 425

INIS-mf-12832

Gentilly-1 Reactor Dismantling Proposal 173

Proceedings of the Canadian Nuclear Society Fifth Annual Conference 294

INIS-mf-12870

Safety Assessment of Uranium Mill Tailings 430

INIS-mf-12921

Policy on the Decommissioning of Nuclear Facilities 74

INIS-mf-12933

The Key Lake Project 448

INIS-mf-12985

Radioactive and Toxic Wastes from the Bancroft Uranium Mines: Where Are We Going Who Is in Charge 442

INIS-mf-14015

Further Studies on Melting of Radioactive Metallic Wastes from the Dismantling of Nuclear Installations 242

INIS-XN-338

Order of 31 July 1990 Cancelling the Third Condition in the Annex to the Order of 29 April 1982 Granting the Final Operating License for the Vandellos I Nuclear Power Plant, and Fixing the Conditions to be Complied with by the Operator for the Phase Prior to its Dismantling and Closing Down, to Maintain the Plant in Safe Conditions and Remove the Fuel from the Site 89

Innovative Approaches to Irradiation Damage and Fracture Analysis, Proceedings of the 1989 Pressure Vessels and Piping Conference, Honolulu, HI, July 23-27, 1989. American Society of Mechanical Engineers, New York, NY

Shippingport Neutron Shield Tank Sampling and Analysis Program 32

International Journal of Radioactive Materials Transport 2(1-3):161-168

Boxes for the Transport and Disposal of Low Level and Decommissioning Intermediate Level Radioactive Wastes 258

ISBN-0-7729-8109-4

Soil Clean-up Guidelines for Decommissioning of Industrial Lands: Background and Rationale for Development 874

Jahrestagung Kerntechnik '91 (Annual Meeting on Nuclear Technology '91), Proceedings of a German Nuclear Society Annual Meeting, Bonn, Federal Republic of Germany, May 14-16, 1991

Dismantling of Activated Equipment in the Proton Channel of the PSI-Accelerator Facility 214

Japanese Patent Application 1-134143

Decontamination Method for Radioactive Metal Waste 137

Japanese Patent Application 1-134622

Decontamination Device for Radiation-Contaminated Metal 134

Japanese Patent Application 1-136590

Peeling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Japanese Patent Application 1-139679

Method of Decontaminating Metal Waste 139

Japanese Patent Application 1-147046

Decontamination Method for Radiation-Contaminated Metal Waste 138

Japanese Patent Application 1987-37719

Method for Electrolytic Decontamination of Radioactive Contaminated Metals 156

Japanese Patent 2-309299/A

Method for Dismantling Shields 203

Japanese Patent 2-311797/A

Decontamination Method for Radioactive Metal Waste 137

Japanese Patent 3-12599/A

Decontamination Method for Radiation-Contaminated Metal Waste 138

Japanese Patent 3-179298/A

Decontamination Device for Radioactive Contaminated Equipment 155

Japanese Patent 3-181897/A

Method of Dismantling Radioactivity-Contaminated Fluid Pump 206

Japanese Patent 3-188398/A

Decontamination Method for Radioactive Metal Waste 140

Japanese Patent 3-211498/A

Method of Removing Hazardous Material Deposited on Concrete Surface 136

Japanese Patent 3-21896/A

Method of Dismantling and Withdrawing Equipment Containing Radioactive Oil Waste 201

Japanese Patent 3-2595/A

Pecling/Removing Device for Surface Layer of Radiation-Contaminated Concrete by Microwave Irradiation 135

Japanese Patent 3-2596/A

Decontamination Device for Radiation-Contaminated Metal 134

Japanese Patent 3-4198/A

Method of Decontaminating Metal Waste 139

Japanese Patent 3-61900/A

Chemical Decontamination Method for Stainless Steel 142

Journal of Construction Engineering and Management 117(3):551-564

Transportation of Shippingport Reactor Pressure Vessel 59

Journal of Contaminant Hydrology 8(1):1-21

Mineralogical Residence of Alpha-Emitting Contamination and Implications for Mobilization from Uranium Mill Tailings 396

Journal of Hazardous Materials 29(1):97-125

Process Development for Remediation of Phenolic Waste Lagoons 849

Journal of Nuclear Science and Technology 28(6):547-554

Development of Telerobotic Systems for Reactor Decommissioning: (I) - Prototype Light-Duty System 223

Journal of Nuclear Science and Technology 28(7):670-677

Development of Teleobotic Systems for Reactor Decommissioning (II) - Prototype Heavy-Duty System 221

Journal of Nuclear Science and Technology 28(8):767-776

Development of Telerobotic Systems for Reactor Decommissioning: (III) - Demonstration System 212

Journal of the Air and Waste Management Association 41(8):1178-1182

1990 Thermal Remediation Industry Contractor Survey 852

Journal of the Air and Waste Management Association 41(9):1259-1264

Comparison of In Situ Vitrification and Rotary Kiln Incineration for Soils Treatment 965

Journal of the American Ceramic Society 75(1):112-116

In Situ Vitrification and the Effects of Soil Additives - A Mixture Experiment Case Study 961

K/ER-47

Site Descriptions of Environmental Restoration Units at the Oak Ridge K-25 Site, Oak Ridge, Tennessee 663

Karyoku Genshiryoku Hatsuden 42(2):184-196

Decommissioning of Nuclear Power Plant 315

KCP-613-4578

Annual Site Environmental Report for Calendar Year 1990, United States Department of Energy, Kansas City Plant, Kansas City, Missouri 625

Kerntechnik 56(6):347-348

Decommissioning, a Ready-to-Start Technology for the Next Century 350

Kerntechnik 56(6):349-353

Legal Requirements for Post-Operation Period Licensing of Nuclear Plants 82

Kerntechnik 56(6):354-357

Overview of Decommissioned Nuclear Power Plants 347

Kerntechnik 56(6):358-361

Planning Structure for Normal Decommissioning Procedures 78

Kerntechnik 56(6):362-366

Decommissioning Concept for the High Temperature Reactor THTR-300 177

Kerntechnik 56(6):367-371

Status of Decommissioning Work at the Gundremmingen Unit A Power Station 305

Kerntechnik 56(6):372-375

Decontamination During Decommissioning 122

Kerntechnik 56(6):376-378

Recycling of Metallic Materials from the Dismantling of Nuclear Plants 245

Kerntechnik 56(6):379-382

Conditioning and Disposal of Decommissioning Wastes 238

Kerntechnik 56(6):383-384

Radiation Exposure of the Personnel During Decommissioning 112

Kerntechnik 56(6):385-387

Economic Aspects of the Decommissioning of a Nuclear Power Plant 79

Kerntechnik 56(6):388-391

Life Extension of Nuclear Power Plants: A Temporary Alternative to Demolition 341

Konkurito Kogaku 29(7):59-63

Example of Dismantling Nuclear Reactors 204

LA-UR-91-2600 (Vol. 1)

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 1 771

LA-UR-91-2600 (Vol. 2)

Closure Certification Report: TA-35 TSL-125 Surface Impoundment - Volume 2 770

LA-UR-91-2778

Studies of Fission Product Movement in Tuffaceous Media 638

LA-UR-91-3501

Standardized Radiological Hazard Analysis for a Broad-Based Operational Safety Program 931

LA-UR-91-4069

RCRA Facility Investigation for the Townsite of Los Alamos, New Mexico 643

I A-12012

Post-Remedial Action Report for the Water Boiler Reactor Site 51

LA-12049

TA-2 Water Boiler Reactor Decommissioning Project - Final Project Report 49

LA-12175-MS

The Prioritization of Environment, Safety, and Health Activities 464

LBL-29700

Numerical Simulation of Two-Dimensional Steam-Remediation Experiments 858

Overview of Kesterson Reservoir Selenium Remediation Project 815

LBL-30273

Removal of Trichloroethylene Contamination from the Subsurface: A Comparative Evaluation of Different Remediation Strategies by Means of Numerical Simulation 848

Low Level Radiation Achievements, Concerns and Future Aspects, Proceedings of the Third Italian-Yugoslav Symposium, Plitvice, Yugoslavia, June 11-13, 1990

Radiation Protection on Decommissioning of Nuclear Facilities: Problems, Needs and Perspectives 116

LWA/90-015 (App. C)

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Groupings 11 and 13 - Appendix C: Data Quality Objectives 559

LWA/90-017 (Rev. 0)

Remedial Investigation Work Plan - Oak Ridge National Laboratory - Waste Area Grouping 13 560

Managing for Quality, Proceedings of the Project Management Institute Annual Seminar/Symposium, Dallas, TX, September 27-October 2, 1991. Project Management Institute, Drexel Hill, PA

Capital Cost Development for Decontamination, Demolition and Refurbishment of Radiological Research Facilities 12

Memorandum from W. Murphic to J.J. Fiore, June 19, 1991

Trip Report Covering Liaison Committee and Technical Advisory Group Meeting of April 17-26, 1991 348

MIC-91-02127

Decontamination Tests on Stainless Steel Tubing Removed from the Darlington Tritium Removal Facility 119

MLM-3703

Environmental Monitoring at Mound: 1990 Report 655

Modelling and Control of Compliant and Rigid Motion Systems, Proceedings of the Annual Winter Meeting of the American Society of Mechanical Engineers, Atlanta, GA, December 1-6, 1991. American Society of Mechanical Engineers, New York, NY

Long-Reach Manipulation for Waste Storage Tank Remediation 979

National Uranium Mill Tailings Program, G.J. Phillips (ed.), Proceedings of the 25th Annual Canadian Nuclear Society Conference, Ottawa, Ontario, Canada, June 2-5, 1985, 375 pp. Safety Assessment of Uranium Mill Tailings 430

Nature 350(6317):413-416

Microbial Reduction of Uranium 445

NDPP-OSP-0052

Pinellas Plant Site Specific Plan: Environmental Health and Safety Programs 520

NDPP-OSP-0053 (Rev. A)

Pinellas Plant Site Environmental Report for Calendar Year 1990 - Environmental Health and Safety Programs: Revision A 619

Nippon Genshiryoku Gakkaishi 33(6):574-584

Estimation of Collective External Dose During Dismantling of JPDR (BWR, 90 MWt) 114

Nippon Robotto Gakkai-Shi 9(3):323-334

Development of Telerobotic Manipulators for Reactor Dismantling Work 207

NOAA-TM-ERL-ARL-193

Preliminary Analysis of Wind Data from the Oak Ridge Site Survey 682

Non-Destructive Assay of Radioactive Waste, C. Eid and P. Bernard (eds.), Proceedings of a Topical Meeting, Cadarache, France, November 20-22, 1989, 327 pp.

Integrated Five Station Nondestructive Assay System for the Support of Decontamination and Decommissioning of a Former Plutonium Mixed Oxide Fuel Fabrication Facility 219

NRL-R-3107(W)

Decommissioning and Decommissioning Wastes 328

Nuclear Energy 30(2):117-122

SIR Reactor Safety and Decommissioning 323

Nuclear Engineer 32(3):87-91

Decommissioning of the Windscale Pile Chimneys 324

Nuclear Engineer 32(4):108-110

The Second Irradiated Fuel Dismantling Cell at Hunterston "B" 326

Nuclear Engineering International 35(434):22-24

Ontario Hydro Proposes Canning and Burying CANDU Reactors 295

Nuclear Engineering International 35(434):28-33

Getting on with Dismantling at Czechoslovakia's Bohunice 174

Nuclear Engineering International 35(435):11

Nuclear Electric Reconsiders its Back-End Arrangements 91

Nuclear Engineering International 36(441):32-36

The US DOE Prepares for its Multi-Billion Dollar Cleanup 501

Nuclear Engineering International 36(441):37-38

WasteChem Cleans Up in Europe 826

Nuclear Engineering International 36(447):31-33

Towards an International Decommissioning Industry 107

Nuclear Engineering International 36(447):33-34

Making the Polluter Pay in Germany 81

Nuclear Engineering International 36(447):35-36

A New Decommissioning Strategy for the United Kingdom 327

Nuclear Engineering, Proceedings of the First JSME/ASME Joint International Conference, November 4-7, 1991, Tokyo, Japan, Vol. 2, 593 pp.

An Overview of the U.S. Department of Energy Experimental Boiling Water Reactor Decontamination and Decommissioning Project 54

Clean-Cut Removal System for Concrete Decontamination 152

Decommissioning of B204 Reprocessing Plant 331

Decommissioning of the Karlsruhe Reprocessing Plant (WAK) - Preliminary Planning Results 84

Decommissioning of the MZFR Nuclear Power Plant at the Karlsruhe Nuclear Research Center 309

Decontamination Techniques for Radioactive Metal Waste Using a Neutral Electrolyte and a Sulfuric Acid Solution 141

Development of a Shot-Blasting Robot for Removal of the Wall Concrete Surface 209

Development of Assay System for Very Low Level Decommissioning Waste 268

Diamond Wire Cutting of Heat Exchangers 218

Dismantling of Biological Shield by Cutting Machine 213

Evaluation of Processing and Disposal System for Decommissioning Waste 253

Local Drying Underwater Cutting of Reactor Core Internals by CO Laser 202

Present Status of Decommissioning Materials Reuse Research at JAERI 252

Renovation of Nuclear Power Plants 339

Slow Demolition of Thick Wall Using Hydrostatic Tube - Example of Dismantling RC Structures in Radioactive Facilities 208

Status and Safety of the Decommissioning of the JPDR 319

Study on Technology of Reactor Dismantling by Abrasive Water Jet Cutting System 210

Systems Engineering for Decommissioning the Japan Power Demonstration Reactor 88

Technical Verification Test for Reactor Pressure Vessel Cutting by Using G&G Method ("Arc-Gouging & Gas Cutting" Method) 222

The Decommissioning of the BR3 Pressurized Water Reactor Plant 292

Nuclear Engineering, Proceedings of the First JSME/ASME Joint International Conference, November 4-7, 1991, Tokyo, Japan, Vol. 2, 593 pp. (continued)

Underwater Cutting of JPDR Reactor Pressure Vessel and Core Internals 211

United States Department of Energy Decontamination & Decommissioning Planning and Operations Experience - A Short Course Lecture 13

Use of Remote Device Coupled with a Carrier for the Dismantling of Hot Cells in France 197

Nuclear Fuel Reprocessing and Waste Management, Proceedings of the Third International Conference, Sendai, Japan, April 14-18, 1991. Japan Atomic Industrial Forum, Tokyo, Japan, 1186 pp.

BNFL's Decommissioning and Decommissioning Development Programmes at Sellafield 329 Cost Estimation of the Decommissioning of Nuclear Fuel Cycle Plants 85

Nuclear News 34(9):79

Westinghouse, Morris-Knudsen Get Fort St. Vrain Decommissioning Work 157

Nuclear Power Engineering 12(4):45-48

The Brief Introduction to Decommissioning of Nuclear Reactor Projects 296

Nuclear Technology 96(2):178-184

In Situ Vitrification of Soils Containing Various Metals 945

NUREG-0980 (Vol. 2, No. 1)

Nuclear Regulatory Legislation, 101st Congress 1020

NUREG-1307 (Rev. 2)

Report on Waste Burial Charges - Escalation of Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities 280

NUREG-1423 (Vol. 1)

Advisory Committee on Nuclear Waste Comments on Proposed Nuclear Regulatory Commission Position on Regulatory Control Exemptions for Practices Whose Public Health and Safety Impacts Are Below Regulatory Concern (BRC) 1017

Report of the Advisory Committee on Nuclear Waste: Final Staff Technical Position on the Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites 421

Report of the Advisory Committee on Nuclear Waste: Pathfinder Atomic Power Plant Dismantlement 216

Report of the Advisory Committee on Nuclear Waste: West Valley Demonstration Project 751

NUREG/CP-0105 (Vol. 3)

Embrittlement of the Shippingport Reactor Shield Tank 57

NUREG/CR-4918 (Vol. 5)

Control of Water Infiltration into Near Surface LLW Disposal Units: Progress Report on Field Experiments at a Humid Region Site, Beltsville, Maryland 879

NUREG/CR-5464

Anion Retention in Soil: Possible Application to Reduce Migration of Buried Technetium and Iodine 860

NUREG/CR-5672 (Vol. 1)

Characteristics of Low-Level Radioactive Waste - Volume 1: Decontamination Waste Program - Annual Report for Fiscal Year 1990 1016

NUREG/CR-5672 (Vol. 2)

Characteristics of Low-Level Radioactive Waste - Volume 2: Decontamination Waste Program - Annual Report for Fiscal Year 1991 1018

NUREG/CR-5794

Ground-Water Flow and Transport Modeling of the NRC-Licensed Waste Disposal Facility, West Valley, New York 648

NUREG/CR-5849 (Draft)

Radiological Survey Manual for Decommissioning 31

NUREG/CR-5858

Information for Consideration in Reviewing Groundwater Protection Plans for Uranium Mill Tailings Sites 422

OECD/NEA Co-Operative Program on Decommissioning, 10th Meeting of the Technical Advisory Group, Karlsruhe, Federal Republic of Germany, April 22-26, 1991

Co-Precipitation Plant Decommissioning: Progress Report to TAG Meeting 22 April 1991 for November 1990 to March 1991 343

Comparative Synthesis on the Estimate for the Decommissioning Costs of Buildings 6A/B and the Real Costs 73

Decommissioning B204 Primary Separation Plant - Progress Report: October 1990 - April 1991 330

Decommissioning of Nuclear Facilities and Power Reactors in Germany - Status, 1991 301

Decommissioning Project - The "Purple Shed" 290

Dismantling of RAPSODIE Reactor 194

Dismantling of the G2 Reactor 198

Dismantling of the Pilot Facility AT1 196

Experimental Boiling Water Reactor (EBWR) Progress Report - Compiled for the Technical Advisory Group Meeting, April 22-26, 1991 53

Experimental Plant for Treating Contaminated Sodium 250

Garigliano NPP - Decommissioning Schedule 313

Information of Present Status of NPP A-1 Bohunice 297

Karlsruhe Nuclear Research Center 306

OECD/NEA Co-Operative Program on Decommissioning, 10th Meeting of the Technical Advisory Group, Karlsruhe, Federal Republic of Germany, April 22-26, 1991 (continued)

Karlsruhe Reprocessing Plant (WAK) 307

Progress of JPDR Decommissioning Program - Seventh Progress Report (April-September 1990) 320

Progress Report for the Neideraichbach Nuclear Power Plant (KKN) 310

Progress Report on the Windscale Advanced Gas-Cooled Reactor Decommissioning Project, UK 332

The Decommissioning of the BR3 Reactor 291

The Decommissioning of the Nuclear Power Plant MZFR at the Kernforschungszentrum Karlsruhe 308

The JPDR Decommissioning Program 318

Tunney's Pasture Decommissioning Project 281

West Valley Demonstration Project Progress Report Compiled for the Technical Advisory Group Meeting - April 22-26, 1991 786

ORAU-92/C57 (Draft)

Radiological Survey Manual for Decommissioning 31

ORNL-6697

Work Plan, Health and Safety Plan, and Quality Assurance Project Plan for Hazardous Waste Removal at the CTF K-1654B Underground Collection Tank 552

ORNL/ER-17

Treatability Study for WAG 6 (SWSA 6) Trench Water 677

ORNL/ER-19

Sampling and Analysis of the Inactive Waste Tanks TH-2, WC-1, and WC-15 17

ORNL/ER-30

A Preliminary Study of the Controls on Melting During In Situ Vitrification 966

ORNL/ER-36

SWSA 6 Interim Corrective Measures Environmental Monitoring: FY 1990 Results - Environmental Restoration Program 673

ORNL/ER-37

Surface Radiological Investigations of Trench 6 and Low-Level Waste Line Leak Site 7.4b at the Oak Ridge National Laboratory, Oak Ridge, Tennessee 678

ORNL/ER-46

Final Report on the Waste Area Grouping Perimeter Groundwater Quality Monitoring Well Installation Program at Oak Ridge National Laboratory, Oak Ridge, Tennessee 668

ORNIJER-52

Surface Radiological Investigations at White Wing Scrapyard, Oak Ridge Reservation, Oak Ridge, Tennessee 685

ORNL/ER-58

Field Sampling and Analysis Plan for the Remedial Investigation of Waste Area Grouping 2 at Oak Ridge National Laboratory, Oak Ridge, Tennessee 561

ORNL/ER-60

Annual Summary Report on Surveillance and Maintenance Activities of the Surplus Contaminated Facilities Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 62

ORNL/ER-61

Annual Summary Report of the Decontamination and Decommissioning Surveillance and Maintenance Program at Oak Ridge National Laboratory for Period Ending September 30, 1991 63

CANLIER-65

Monitoring and Modeling Contaminated Sediment Transport in the White Oak Creek Watershed 679

ORNL/ER-91

Identification of Groundwater-Producing Fractures by Using an Electromagnetic Borehole Flowmeter in Monitoring Wells on the Oak Ridge Reservation, Oak Ridge, Tennessee 683

ORNL/ER/Sub-87/99053/5&V4

RCRA Facility Investigation Report for Waste Area Grouping 6 at Oak Ridge National Laboratory, Oak Ridge, Tennessee 676

ORNL/M-1156

Environmental Surveillance Data Report for the Third Quarter of 1990 667

ORNL/M-1157

Environmental Surveillance Data Report for the Fourth Quarter of 1990 666

ORNL/M-1327

Active Sites Environmental Monitoring Program: FY 1990 Annual Report 684

ORNL/M-1442

Active Sites Environmental Monitoring Program: Mid-FY 1991 Report 681

ORNI /M-1569

Active Sites Environmental Monitoring Program: Action levels 664

ORNL/M-1710

Oak Ridge Reservation Site Management Plan for the Environmental Restoration Program 564

ORNL/M-1814

Functional Requirements for the Support Facilities to Plug and Abandon Wells at SWSA 6, Oak Ridge National Laboratory, Oak Ridge, Tennessee 557

ORNL/M-1871

Ecological Assessment Plan for Waste Area Prouping 5 675

ORNL/M-1920

Preliminary Decommissioning Study Reports - Low-Level Liquid Waste Tanks 18

ORNL/M-1922

Preliminary Decommissioning Study Reports - Molten Salt Reactor Experiment 20

ORNL/M-1924

Preliminary Decommissioning Study Reports - Old Hydrofracture Facility 21

ORNL/RAP-12/V1

RCRA Facilities Assessment (RFA) - Oak Ridge National Laboratory 670

ORNL/RAP-12/V3

RCRA Facilities Assessment (RFA) for Oak Ridge National Laboratory: Addendum of August 25, 1987 671

ORNL/RAP/LTR-89/8

The Transport of Contaminants During Storms in the White Oak Creek and Melton Branch Watersheds 672

ORNL/RAP/Sub-87/99053/10

Waste Management Plan for the Oak Ridge National Laboratory Remedial Investigation/Feasibility Study 610

ORNL/RAP/Sub-87/99053/9&V1/R1

Closure Plan for Solid Waste Storage Area 6: Volume 1, Closure Plan 562

ORNL/RASA-89/18

Results of the Radiological Survey at Conviber, Inc., 644 Garfield Street, Springdale, Pennsylvania (CVP001) 370

ORNL/RASA-89/20

Results of the Radiological Survey at the Jessop Steel Company Site, 500 Green Street, Washington, Pennsylvania (JSP001) - Environmental Restoration and Waste Management Non-Defense Programs 371

ORNL/RASA-91/1

Results of the Independent Veritication of Radiological Remedial Action at 397 East 3rd South Street, Monticello, Utah 428

ORNL/RASA-91/2

Results of the Independent Verification of Radiological Remedial Action at 87 East 500 South Street, Monticello, Utah 416

ORNL/RASA-91/7

Results of the Radiological Survey at the Former McKinney Tool and Manufacturing Company, 1688 Arabella Road, Cleveland, Ohio (MTC001 and MTC002) 367

ORNL/RASA-91/8

Results of the Radiological Survey at the New Betatron Building, Granite City Steel Facility, Granite City, Illinois (GSG002) 360

ORNL/TM-10370

Oak Ridge National Laboratory Biological Monitoring and Abatement Program for White Oak Creek Watershed and the Clinch River 680

ORNI_/TM-11652

Sampling and Analysis of Radioactive Liquid Wastes and Sludges in the Melton Valley and Evaporator Facility Storage Tanks at ORNL 19

ORNL/TM-11713

Guide to Groundwater Well Locations and Information at Oak Ridge National Laboratory 669

ORNL/TM-11795

Federal Facility Agreement Contingency, Upgrade, and Replacement Plans for the ORNL Active Low-Level Radioactive Waste Tank System 555

ORNL/TM-11803

Project Quality Assurance Plan for Research and Development Services Provided by Oak Ridge National Laboratory in Support of the Westinghouse Materials Company of Ohio Operable Unit 1 Stabilization Development and Treatability Studies Program 535

ORNL/TM-11817

Radiological Characterization Survey of the Former Diamond Magnesium Company Site, 720 Fairport-Nursery Road, Painesville, Ohio (DMP001, DMP002) 368

ORNL/TM-11848

Guidance Manual for Conducting Technology Demonstration Activities 995

ORNL/TM-11864

Costs of RCRA Corrective Action 475

ORNL/TM-11980

Characterization of Uranium Contaminated Soils from DOE Fernald Environmental Management Project Site: Results of Phase 1 Characterization 652

ORNL/TM-9684/R2

Quality Assurance Program Plan for the Radiological Survey Activities Program - Uranium Mill Tailings Remedial Action Project 391

ORNL/TR-91/17

Method for Electrolytic Decontamination of Radioactive Contaminated Metals 156

ORNL/TR-91/20

Chemical Decontamination Method for Radioactive Metal Waste 153

OSWER Directive 9283.1-03

Suggested ROD Language for Various Ground-Water Remediation Options - Directive 883

OSWER Directive 9285.5-1

Superfund Exposure Assessment Manual 930

OSWER Directive 9285.7-01B

Risk Assessment Guidance for Superfund - Volume 1: Human Health Evaluation Manual - Part B, Development of Risk-Based Preliminary Remediation Goals - Interim Report 929

OSWER Directive 9347.3-10FS

Guide to Obtaining No Migration Variances for CERCLA Remedial Actions 483

OSWER Directive 9355.4-03

Considerations in Ground-Water Remediation at Superfund Sites 885

OSWER Directive 9355.5-16FS

EPA Oversight of Remedial Designs and Remedial Actions Performed by PRPs - Fact Sheet 484

OSWER Directive 9380.1-06

Synopses of Federal Demonstrations of Innovative Site Remediation Technologies 997

OSWER Directive 9380.1-08

Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation 512

OSWER Directive 9836.0-1A

Community Relations During Enforcement Activities and Development of the Administrative Record 485

PB-89-167985

Superfund Community Relations Program - A Guide to Effective Presentations with Visual Aids 481

PB-91-162842/XAB

Evaluation and Design of Geophysical Monitoring Network for Ground-Water Contamination - Final Report 846

PB-91-180158/XAB

Complex Cleanup: The Environmental Legacy of Nuclear Weapons Production 507

PB-91-238584/XAB

Considerations in Ground-Water Remediation at Superfund Sites 885

PB-91-800821/XAB

Department of Defense Installation Restoration Program: Remedial Action on Waste-Disposal Sites - Report for January 1984-October 1989 833

PB-91-921325/XAB

Suggested ROD Language for Various Ground-Water Remediation Options - Directive 883

PB-91-921327/XAB

Superfund LDR Guide No. 6A (2nd edition) - Obtaining a Soil and Debris Treatability Variance for Remedial Actions 482

PB-91-921356/XAB

Guide to Pump-and-Treat Ground-Water Remediation Technology - Fact Sheet 884

PB-91-921357/XAB

EPA Oversight of Remedial Designs and Remedial Actions Performed by PRPs - Fact Sheet 484

PB-91-921431/XAB

Superfund Record of Decision (EPA Region 2): Montclair/West Orange Radium Site, Essex County, NJ (Second Remedial Action), June 1990 - Final Report 809

PB-91-921482/XAB

Superfund Record of Decision (EPA Region 8): Monticello Mill Tailings Site, San Juan County, UT (First Remedial Action), August 1990 417

PB-91-921487/XAB

Superfund Record of Decision (EPA Region 8): Rocky Flats Plant (DOE), Northern Jefferson County, CO - First Remedial Action, January 1990 - Final report 615

PB-92-119809/XAB

Final Report on DOE Nuclear Facilities 499

PB-92-802461/XAB

Abandoned Sites: January 1988-February 1992 - Citations from the NTIS Data Base 834

Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevention, Detection and Restoration, Proceedings of a Conference and Exposition, Houston, TX, November 20-22, 1991
Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

Physics of Non-Crystalline Solids, Proceedings of the Seventh International Conference, Cambridge, MA, August 4-9, 1991

Aqueous Dissolution of Laboratory and Field Samples from the In-Situ Vitrification Process 958

PNL-MA-588 (Vol. 3)

Resource Book: Decommissioning of Contaminated Facilities at Hanford - Volume 3 66

PNL-SA-14711

Application of Exemption Principles to Low-Level Waste Disposal and Recycle of Wastes from Nuclear Facilities 1014

PNL-SA-17828

Development of Guidance for Variances from the RCRA Land Disposal Restrictions for US DOE Mixed-Waste Streams 1023

PNL-SA-18817

Observational Approach in Environmental Restoration 495

PNL-SA-18836

Cooperative Expert System Reasoning for Waste Remediations 907

PNL-SA-18876

Air Quality Monitoring at Toxic Waste Sites: A Hanford Perspective 711

Automation of Geophysical Surveys Used in Assessment of Hazardous Waste 892

Comparison of Statistical Methods for Estimating Plutonium Inventories in Soil 915

Control of Soil Column Discharges at the Hanford Site 763

Development of a Hybrid Quality Assurance Plan for Resource Conservation and Recovery Act (RCRA) Ground-Water Monitoring Projects 582

Dose Assessment and Environmental Monitoring to Demonstrate Compliance with the U.S. Environmental Protection Agency's Environmental Radiation Standards for Nuclear Fuel Cycle Facilities 1032

Effective Sample Labeling 896

Environmental Monitoring at U.S. Department of Energy Facilities 492

Environmental Monitoring Data for Evaluating Atmospheric Modeling Results 1030

Environmental Surveillance and Research at the Nevada Test Site 636

Identification of Contaminants of Concern in Hanford Ground Waters 706

Land Reclamation at the Basalt Waste Isolation Project 740

Radiation-Related Monitoring and Environmental Research at the Nevada Test Site 634

Results from the 1988 Quality Assurance Task Force Hanford Intercomparison Program 901

Strontium-90 in Canada Goose Eggshells: Nonfatal Monitoring for Contamination in Wildlife 705

Temporal Variations in Atmospheric Dispersion at Hanford 704

PNL-SA-18876 (continued)

The Additivity of Radionuclide and Chemical Risk Estimates in Performance Evaluation of Mixed-Waste Sites 918

Trends in Radionuclide Concentrations for Wildlife and Food Products Near Hanford for the Period 1971-88 698

PNL-SA-19225

In Situ Vitrification of Radioactive Underground Tanks 941

PNL-SA-19347

Thermal Stress Modeling of In Situ Vitrified Barriers for Hazardous Waste Containment 951

PNL-SA-19490

Object Reasoning for Waste Remediation 911

PNL-SA-19511

Remedial Action Assessment System: Decision Support for Environmental Cleanup 912

PNL-SA-19564

Carbon Tetrachloride Contamination, 200 West Area, Hanford Site: Arid Site Integrated Demonstration for Remediation of Volatile Organic Compounds 713

PNL-SA-19779

Expert Reasoning within an Object-Oriented Framework 906

PNL-SA-19786

Aqueous Dissolution of Laboratory and Field Samples from the In-Situ Vitrification Process 958

PNL-SA-19974

In Situ Vitrification of Buried Waste: Containment Issues and Suppression Systems 957

PNL-SA-20036

Environmental Restoration and Statistics: Issues and Needs 504

PNL-SA-20048

Hanford Single-Shell Tank Waste-Preliminary Pretreatment Testing of Simulated Waste 44

PNL-SA-20059

Resolution of Regulatory Issues Facing the DOE In Situ Vitrification Program 1007

PNL-SA-20508

In Situ Vitrification: Technology Status and a Survey of New Applications 967

PNL-SA-20547

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

· Ar epings

PNL-7008 (Vol. 3)

Resource Book: Decommissioning of Contaminated Facilities at Hanford - Volume 3 66

PNL-7600 (Pt. 5)

Pacific Northwest Laboratory Annual Report for 1990 to the Assistant Secretary for Environment, Safety, and Health, Part 5: Environment, Safety, Health, and Quality Assurance 797

PNL-7611

Engineering-Scale Test 4: In Situ Vitrification of Toxic Metals and Volatile Organics Buried in INEL Soils 936

PNL-7760-HEDR

FY 1993 Task Plans for the Hanford Environmental Dose Reconstruction Project 723

PNI_7785

1991 Yearly Calibration of Pacific Northwest Laboratory's Gross Gamma-Ray Borehole Geophysical Logging System 696

PNL-7870-HEDR

Project Management Plan for the Hanford Environmental Dose Reconstruction Project 725

PNI -7964

Environmental Surveillance Master Sampling Schedule 697

PNL-7986

Information for Consideration in Reviewing Groundwater Protection Plans for Uranium Mill Tailings Sites 422

PNL-7991

Analysis and Decision Document in Support of Acquisition of Steam Supply for the Hanford 200 Area 602

POEF-Z-4223

Accumulated Waste Characterization Work Plan 1000

POEF/ER/Sub-88/4523

Well 6B Remediation - X-608B Well Field Interim Measures Plan 542

POEF/ER/Sub-88/4525

Post-Closure Plan for the X-616 Surface Impoundments 543

POEF/ER/Sub-89/4541

Quality Assurance Program Plan for the Environmental Restoration Program 541

Primary Systems Integrity, Plant Performance Testing and Analysis, Piping and Non-Destructive Examination, and Plant Aging, A.J. Weiss (ed.), Proceedings of the 17th Water Reactor Safety Information Meeting, Rockville, MD, October 23-25, 1989, Vol. 3, 529 pp.

Embrittlement of the Shippingport Reactor Shield Tank 57

Problemi na Nuklearnata Meditsina, Radiobiologiyata i Radiatsionnata Khigiena 11:113-118

Assessment of the Applicability of a Protective Polymeric Coating for Decontamination of Certain Surfaces 227

Procedure Number CS 268300 B1

Procedure for Decontamination of Surfaces Contaminated with Radioactive Substances 120

Proceedings of a Conference, Hanover, Federal Republic of Germany, November 15-16, 1989, 350 pp.

Collection of Papers Presented for the Status Report 1989 of the Central Bureau for Management and Coordination of Projects Concerning the Decommissioning of Nuclear Facilities 304

Proceedings of an IAEA Seminar for Asia and the Pacific, Bangkok, Thailand, May 18-22, 1992
International Atomic Energy Agency Seminar for Asia and the Pacific on Ageing,
Decommissioning, and/or Major Refurbishment of Research Reactors 345

Proceedings of an International Waste Management Conference, Seoul, Republic of Korea, October 21-26, 1991

In Situ Vitrification of Radioactive Underground Tanks 941

Proceedings of the American Chemical Society National Meeting, Washington, DC, August 26-31, 1990, 43 pp.

Remedial Investigation of a Superfund Site 611

Proceedings of the American Nuclear Society Winter Meeting, San Francisco, CA, November 10-15, 1991

Combined Long Reach and Dexterous Manipulation for Waste Storage Tank Applications 68

Dose Assessment for a Cs-137 Contamination Incident 722

HEIS: An Integrated Information System for Environmental Restoration and Monitoring at Hanford 594

Robotics Technology Demonstration Program for Underground Storage Tank Remediation 980

Proceedings of the Caribbean Haztech Conference, San Juan, Puerto Rico, November 13-15, 1991 Characterization Technologies for Environmental Remediation 493

Recycling and Resource Recovery at Oak Ridge National Laboratory 1001

Proceedings of the Eighth International Radiation Protection Association Conference, Montreal, Quebec, Canada, May 17-22, 1992

Radiological Dose Assessments in the Northern Marshall Islands (1989-1991) 812

Standardized Radiological Hazard Analysis for a Broad-Based Operational Safety Program 931

Proceedings of the Eleventh International Association for Impact Assessment Annual Meeting, Champaign, IL, June 7-11, 1991

Role of Risk Assessment in Remediation of Contaminated Sites 923

Proceedings of the ER '91 Conference, Pasco, WA, September 8-11, 1991, 970 pp.

Environmental Remediation '91: Cleaning Up the Environment for the 21st Century 515

Proceedings of the First International Conference, Secaucus, NJ, August 27-29, 1990. Battelle Press, Columbus, OH, 602 pp.

Environmental Issues and Waste Management in Energy and Minerals Production 837

Proceedings of the First JSME/ASME Joint International Conference, November 4-7, 1991, Tokyo, Japan, Vol. 2, 593 pp.

Joint International Conference on Nuclear Engineering - Volume 2: Decommissioning 340

Proceedings of the First Symposium, Ottawa, Ontario, Canada, 1991 Groundwater and Soil Remediation R, D and D 857

Proceedings of the Fourth Annual Hazardous Materials Management Conference/Central and Institute of Electrical and Electronic Engineers Robotics and Automation Conference, Sacramento, CA, April 9-12, 1991. IEEE Service Center, Piscataway, NJ, 2847 pp.

Model Based, Sensor Directed Remediation of Underground Storage Tanks 992

Proceedings of the Fourth Annual Tennessee Water Resources Symposium, Knoxville, TN, September 24-26, 1991

Patterns of Sediment Accumulation in Watts Bar Reservoir Based on Cesium-137 695

Proceedings of the Hazardous Materials Control Research Institute Meeting, New Orleans, LA, February 26-28, 1992

RCRA Facility Investigation for the Townsite of Los Alamos, New Mexico 643

Proceedings of the International Mixed Waste Symposium, Baltimore, MD, August 26-29, 1991
Utilization of Uranium Industry Technology and Relevant Chemistry to Leach Uranium from Mixed-Waste Solids 940

Proceedings of the National American Institute of Chemical Engineers Summer Meeting, Pittsburgh, PA, August 20-22, 1991

Object Reasoning for Waste Remediation 911

Proceedings of the Seventh Annual Department of Energy Low-Level Waste Management Program Participants Information Meeting, Las Vegas, NV, September 10, 1985

Contaminated Scrap Metal Management at the ORGDP - A Problem Solved 759

Proceedings of the Seventh DOE Waste Reduction Workshop, Kansas City, MO, August 6-8, 1991, 188 pp.

TSD Capacity Model Interface with Waste Reduction Planning in the Environmental Restoration Program 467

Proceedings of the Seventh DOE Waste Reduction Workshop, Kansas City, MO, August 6-8, 1991, 188 pp. (continued)

U.S. Department of Energy Office of Environmental Restoration and Waste Management Waste Reduction Workshop 462

Proceedings of the Seventh International Radiation Protection Association Conference, Sydney, Australia, April 10-17, 1988

Application of Exemption Principles to Low-Level Waste Disposal and Recycle of Wastes from Nuclear Facilities 1014

Proceedings of the Seventh Waste Testing and Quality Assurance Symposium, Washington, DC, July 9, 1991

National QA Standard for Environmental Programs for Hazardous Waste Management Activities 895

Proceedings of the Twelfth Annual U.S. Department of Energy Low-Level Waste Management Conference, Chicago, IL, August 28-29, 1990, 336 pp.

Meeting Licensing Restrictions from a Regulator's Perspective 1005

Proceedings of the 120th Annual Minerals, Metals and Materials Society Meeting and Exhibition, New Orleans, LA, February 17-21, 1991. The Metallurgical Society, Inc., Warrendale, PA, 146 pp. Chemical Modeling of the Neutralization Process for Acid Uranium Mill Tailings 441

Proceedings of the 121th Annual Minerals, Metals and Materials Society Meeting and Exhibition, San Diego, CA, March 1-5, 1992. The Metallurgical Society, Inc., Warrendale, PA Process Evaluations for Uranium Recovery from Scrap Material 973

Proceedings of the 19th Annual Energy Division Conference of the American Society for Quality Control, October 1991. Bechtel Environmental, Inc., San Francisco, CA, and MAC Technical Services, Germantown, MD

Harmonization of QA Procedures for Environmental Data Operations: Development of a National Consensus Standard for Quality Assurance for Environmental Programs 887

Proceedings of the 19th Water Reactor Safety Information Meeting, Bethesda, MD, October 28-31, 1991

Mechanical-Property Degradation of Cast Stainless Steel Components from the Shippingport Reactor 56

Proceedings of the 1989 International Conference, Brussels, Belgium, October 24-27, 1989, K. Pflugrad, R. Bisci, B. Huber, and E. Skupinski (eds.). Elsevier Applied Science, Barking, United Kingdom, 858 pp.

Decommissioning of Nuclear Installations 299

Proceedings of the 1990 ENVIROTECH Symposium, Vienna, Austria, September 20-25, 1990. International Society for Environmental Protection, Vienna, Austria

Advances in Uranium Mill Tailings Closure: USA and Spanish Practice 450

Application of Biotechnology in Soil Remediation 842

Proceedings of the 1990 ENVIROTECH Symposium, Vienna, Austria, September 20-25, 1990. International Society for Environmental Protection, Vienna, Austria (continued)

DECHEM: A Remedial Planning Tool for Chemical Contaminants in Soil 392

Proceedings of the 1991 Alberta Applied Statistics and Biometrics Workshop, Alberta, Canada, October 21-22, 1991

Environmental Restoration and Statistics: Issues and Needs 504

Proceedings of the 1991 American Nuclear Society Annual Meeting, Orlando, FL, June 2-6, 1991 DOE Hanford Site Tank Farm Interim Stabilization During 1990 65

In Situ Vitrification Program at the Idaho National Engineering Laboratory 935

Joint DOE/EPA Initiatives to Facilitate International Environmental Technology Transfer 950

Lessons Learned and New Initiatives in Cost and Schedule Estimating 491

Lessons Learned from the Implementation of Environmental Regulations at Oak Ridge 776

Lessons Learned Implementing Environmental Regulations at Non-Department of Energy Sites 804

Lessons Learned in Negotiating a Federal Facility Agreement 778

New Technologies to Meet Regulations 949

Overview of the Hanford Environmental Dose Reconstruction Project 724

Quality Assurance Elements in Environmental Restoration Procedures at Mixed-Waste Sites 904

Recovery and Evaluation of Historical Environmental Monitoring Data at Hanford 700

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

The Department of Fnergy's Environmental Restoration Program 514

The National Environmental Policy Act and DOE's Programmatic Environmental Impact Statement 490

The New Mission for the Hanford Site 791

Proceedings of the 1991 American Statistical Association Annual Meeting, Atlanta, GA, August 18-22, 1991

Statistical Approach on RCRA Groundwater Monitoring Projects at the Hanford Site 699

Proceedings of the 1991 DOE Model Conference, Oak Ridge, TN, October 14-17, 1991

Hanford Single-Shell Tank Waste-Preliminary Pretreatment Testing of Simulated Waste 44

Regulatory Compliance Issues Related to the White Oak Creek Embayment Time-Critical Removal Action 571

Proceedings of the 1991 Northcon Conference, Portland, OR, October 1-3, 1991 Expert Reasoning within an Object-Oriented Framework 906

Proceedings of the 1991 Society of Mining Engineers Annual Meeting, Denver, CO, February 25-28, 1991. Society of Mining Engineers of American Institute of Mining and Metallurgical Engineers, Littleton, CO

Discussion of the Economic Impacts of Regulations Governing the Stabilization and Decommissioning of Uranium Milling Facilities 419

Proceedings of the 24th Annual International Conference of the Canadian Nuclear Association and the Fifth Annual Conference of the Canadian Nuclear Society, I.J. Itzkovitch (ed.), Saskatoon, Saskatchewan, Canada, June 3-6, 1984, 132 pp.

Decommissioning and Reclamation of the Beaverlodge Mine/Mill Operations 437

Gentilly-1 Reactor Dismantling Proposal 173

Proceedings of the Canadian Nuclear Society Fifth Annual Conference 294

Proceedings of the 32nd Annual Institute of Nuclear Materials Management Meeting, New Orleans, LA, July 28-31, 1991

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

Proceedings of the 35th Annual Health Physics Society Meeting, Anaheim, CA, June 24-28, 1990 Use of Models as a Rationale for the Design of Environmental Monitoring Programs 900

Proceedings of the 53rd Annual American Power Conference, Chicago, IL, April 29-May 1, 1991. Illinois Institute of Technology, Chicago, IL, Vol. 53 (Pt. 2)

Estimates of Low-Level Waste Volumes and Classifications at 2-Unit 100 MWe Reference Plants for Decommissioning Scenarios 269

Proceedings of the 84th Annual Air and Waste Management Association Meeting and Exhibition, Vancouver, British Columbia, Canada, June 16-21, 1991

Addressing Data Heterogeneity: Lessons Learned from a Multimedia Risk Assessment 902

Implications of the Upper Bound and Average Exposure Scenario on Risk Management Decisions for Contaminated Site Remediation 814

Stochastic Model for Estimating Personal Exposures in Contaminated Buildings at Superfund Sites 920

Proceedings of the 93rd American Ceramic Society Annual Meeting and Exposition, Cincinnati, OH, April 28-May 2, 1991, 475 pp.

A Product Evaluation Strategy for the Evaluation of In Situ Vitrification Waste Forms 942

Characterization of Vitrified and Non-Vitrified Fernald K-65 Soil 651

Chemical Decontamination for Beneficial Metal Re-Use from Nuclear Applications 150

In Situ Vitrification Processing of Buried Waste Sites 964

Product Evaluation of In Situ Vitrification Field Tests at the Idaho National Engineering Laboratory 972

Public Utilities Fortnightly 126(11):32-33

Investment Management for Nuclear Decommissioning Trusts 104

Quality Control of Radioactive Waste Packaged for Removal: Requirements for Waste Acceptance and Quality Control, Proceedings of the Second International Seminar, Juelich, Federal Republic of Germany, May 28-June 1, 1990, Vol. 1, 741 pp.

A Quality Assurance Program for Environmental Data Operations Involving Waste Management Processes 886

Application of Quality Assurance/Quality Control to Waste Management Processes at the Hanford Site 1003

Report

Active Sites Environmental Monitoring Program: Program Plan - ORNL 674

An Improved Method for Remediation of Transuranic-Contaminated Coral Soil at Johnston Atoll 817

BRC Disposal Alternatives for NORM Wastes in Texas 1035

Defense Environmental Restoration Program Annual Report to Congress for Fiscal Year 1991 827

Demonstration Processing of Contaminated Scrap Metal for Beneficial Reuse - Phase 1 - Final Report 987

DOE Scrap Metal Recovery Project - Phase I Report (Volume 1) 275

Experimental Results for the Nickel Purification, Phase 1, of the Oak Ridge Scrap Metal Decontamination Program 988

Health Assessment for West Lake Landfill, Bridgeton, St. Louis County, Missouri, Region 7 813

International Principles for Exemption from Regulatory Control and Their Application to Waste Management 1015

Model for the Future: Innovative Combination of Technologies for Soil and Groundwater VOC (Volatile Organic Compound) Remediation 876

Progress in the Development of Below Regulatory Concern Standards: An Industry Perspective 1024

Quality Assurance Applications for Remediation of Plutonium Contaminated Soil 818

Quarterly Report of JPDR Decommissioning Program, 3rd Quarter, FY 1990 322

Quarterly Report of JPDR Decommissioning Program, 4th Quarter, FY 1990 321

Research and Development of Laser Cutting Technology and Robots Used for Dismantling Nuclear Power Facilities 205

Soil Remediation - January 1985-January 1992 - Citations from the NTIS Database 873

Summary of EPRI BRC Research Program 1022

Test Results for Dry Abrasive Cleaning of Scrap Metal for Beneficial Reuse - Phase 1 - Department of Energy Decontamination Program 989

US EPA's Proposed Standard for BRC Criteria 1019

Research Journal of the Water Pollution Control Federation 62(4):519-524

Radioactive Wastes 836

Research Journal of the Water Pollution Control Federation 62(4):524-537

Storage, Disposal, Remediation, and Closure 832

Residual Radioactivity and Recycling Criteria, A.B. Wolbarst, H. Terada, and A.C.B. Richardson (eds.), Proceedings of a Workshop, St. Michaels, MD, September 27-28, 1989, 311 pp.

A Research Program on the Recycling of Decommissioning Materials at JAERI 256

Bench Scale Studies and Pilot Scale Design of a Modified Volume Reduction-Chemical Extraction System for Radiation Contaminated Soils 981

Criteria for Release of Decommissioned Nuclear Facilities for Unrestricted Use 14

Current Status of Residual Radioactivity Criteria in Japan 87

Decommissioning Waste Characteristics 271

Decontamination Technology for Decommissioning of Nuclear Facilities 143

Department of Energy Environmental Restoration and Waste Management Five-Year Plan - Environmental Restoration Program 489

Development of International Exemption Principles for Recycle and Reuse 274

Disposal Capacity and Projected Waste Volumes Within the Low-Level Radioactive Waste Compacts 264

DOE Guidelines and Modeling in Determination of Soil Cleanup Guidelines 487

Effects of Residual Radioactivity in Recycled Materials on Scientific and Industrial Equipments 273

EPA's Proposed Environmental Standards for Low-Level Radioactive Waste Disposal and Criteria for Below Regulatory Concern 1009

EPRI Discussion Paper on BRC and De Minimis Concepts 1029

Establishment of Criteria for the Unconditional Release of the Shippingport Reactor 1

Experience in Decontamination and Reuse of the Large-Scale Radiochemical Laboratory and the Research Reactor at the Japan Atomic Energy Research Institute 144

International Similarities and Differences in Regulating Nonradiation Hazards 801

Limitations of Cleanup Technologies 346

Low-Level Radioactivity Measurement Methods for Reusing or Recycling 255

NRC Residual Contamination Criteria 1013

Residual Radioactivity Cost Impact Evaluation 96

Site Inventory of Residual Radioactivity in Japan 254

St. Michael's Workshop on Residual Radioactivity and Recycling Criteria - Summary and Panel Discussion 835

Status and Implementation of the NRC Policy on Exemptions from Regulatory Control 1006 Surface Contamination Criteria for Free Release 1004 Residual Radioactivity and Recycling Criteria, A.B. Wolbarst, H. Terada, and A.C.B. Richardson (eds.), Proceedings of a Workshop, St. Michaels, MD, September 27-28, 1989, 311 pp. (continued) What are the Basic Requirements that Cleanup Standards Should Satisfy? 469

What Should Cleanup Standards Do? 470

RFP-ENV-90

Rocky Flats Plant Site Environmental Report - January-December 1990 614

RFP-4479

Removal of Actinides from Rocky Flats Soil 728

RISO-M-2909

Characterization of Waste Products Prepared from Radioactive Contaminated Clayey Soil Cemented According to the GEODUR Process 820

Safety of Non-Commercial Nuclear Reactor Research and Irradiation Facilities, Proceedings of the American Nuclear Society Topical Meeting, Boise, ID, September 30-October 3, 1990, 830 pp.

Assessing the Maintenance, Quality Assurance and Control, and Decommissioning of DOE Research Reactors 15

SAND-91-0592

Environmental Monitoring Report, Sandia National Laboratories, Albuquerque, New Mexico, 1990 641

SAND-91-0593

Environmental Monitoring Report, Tonopah Test Range, Tonopah, Nevada, 1990 640

SAND-91-8018

Sandia National Laboratories, Livermore Environmental Protection Implementation Plan for the Period November 9, 1991 - November 9, 1992 516

SAND-92-0426C

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Scientific American 266(5):36,53

Trying Transmutation 954

Site Performance Assessment - Session 2, Proceedings of the Tenth Annual Department of Energy Low-Level Waste Management Conference, Denver, Colorado, August 30-September 1, 1988, 161 pp.

Organic Contaminant Release from a Mixed Waste Disposal Site: A Computer Simulation Study of Transport through the Vadose Zone and Site Remediation 623

The Use of Chemical and Radionuclide Risk Estimates in Site Performance Evaluation of Mixed Waste Sites 917

Soviet Atomic Energy 69(3):739-744

Trial Decommissioning of Nuclear Reactors 336

SSC-CCME-EPC/CS14

National Contaminated Sites Remediation Program: Annual Report 1990-91 823

Status Report 1989 of the Central Bureau for Management and Coordination of Projects Concerning the Decommissioning of Nuclear Facilities, Proceedings of a Conference, Hanover, Federal Republic of Germany, November 15-16, 1989, 350 pp.

Development of a System to Demonstrate the Safe Underwater Dismantling of Metallic Components 184

Explosive Cutting Methods to Dismantle Concrete Structures 180

Explosive Dismantling of Reactor Pressure Vessels Using the Brittle Fracturing Method 182

Explosive Fracturing of Concrete Structures and Pipings - Experiments in the HDR 185

Explosive Fracturing of Concrete Structures and Pipings - Generalization of Results and Applicability to Real Facilities 179

Melting of Activated/Contaminated Metallic Components Arising from the Decommissioning of Nuclear Facilities 246

Optimized Coating Removal by Cold Shock Treatment 121

Removal of Nuclear Reactors by Lowering - Results of Individual and Long-Term Safety Assessment 113

Residue-Free and Residue-Poor Jet Methods to Decontaminate Nuclear Plant Components 123
Status and Trends of Underwater Plasma Arc Cutting 175

Underwater Dismantling of Metallic Components Using Arc Water Jet Cutting and Abrasion 178

Structural Mechanics in Reactor Technology, H. Shibata (ed.), Transactions of the 11th International Conference, Tokyo, Japan, August 18-23, 1991. Atomic Energy Society of Japan, Tokyo, Japan, 6297 pp.

Research and Development on Decommissioning of Nuclear Facilities in Japan 314

Superfund '91: Hazardous Materials Control, Proceedings of the 12th National Conference and Exhibition, Washington, DC, December 3-5, 1991

Risk Assessment of Designs for RCRA and CERCLA Sites 465

The Use of Fly Ash, Silica Fume, Slag, and Natural Pozzolans in Concrete, Proceedings of the Fourth Annual International Conference, Istanbul, Turkey, May 3-8, 1992

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984

Grout for Closure of Waste-Disposal Vaults at the US DOE Hanford Site 795

Thesis

Contracting for Engineering and Design Services in the Environmental Restoration Field 510 Dynamic Optimal Control of Groundwater Remediation with Management Periods: Linearized and Quasi-Newton Approaches 853

TTB/B92-00135/HDM

Nuclear Power Plant Decommissioning - A Technical Problem 349

Transactions of the American Nuclear Society 63:155

The New Mission for the Hanford Site 791

Transactions of the American Nuclear Society 63:31-32

Overview of the Hanford Environmental Dose Reconstruction Project 724

Transactions of the American Nuclear Society 63:45-46

Recovery and Evaluation of Historical Environmental Monitoring Data at Hanford 700

Transactions of the American Nuclear Society 63:51-52

Quality Assurance Elements in Environmental Restoration Procedures at Mixed-Waste Sites 904

Transactions of the American Nuclear Society 63:54-56

RESRAD Analysis of the Validity of Generic Limits on Residual Uranium-238 Radioactivity in Soil 932

Transactions of the American Nuclear Society 63:64

Joint DOE/EPA Initiatives to Facilitate International Environmental Technology Transfer 950

Transactions of the American Nuclear Society 63:68-69

In Situ Vitrification Program at the Idaho National Engineering Laboratory 935

Transactions of the American Nuclear Society 63:71

The Department of Energy's Environmental Restoration Program 514

Transactions of the American Nuclear Society 63:71-72

The National Environmental Policy Act and DOE's Programmatic Environmental Impact Statement 490

Transactions of the American Nuclear Society 63:72

Lessons Learned and New Initiatives in Cost and Schedule Estimating 491

Transactions of the American Nuclear Society 63:72-73

Lessons Learned from the Implementation of Environmental Regulations at Oak Ridge 776

Transactions of the American Nuclear Society 63:73-74

Lessons Learned in Negotiating a Federal Facility Agreement 778

Transactions of the American Nuclear Society 63:74

Lessons Learned Implementing Environmental Regulations at Non-Department of Energy Sites 804

Transactions of the American Nuclear Society 63:75

New Technologies to Meet Regulations 949

Transportation for the Nuclear Industry, Proceedings of the First International Conference, Stratford-upon-Avon, United Kingdom, May 23-25, 1988

The Development and Testing of a Container for the Transport of Decommissioning Wastes 262

U.S. Patent A7,236,438

In-Situ Remediation System for Contaminated Groundwater 847

U.S. Senate Bill S-210, Introduced in the Senate of the United States, One Hundred Second Congress, First Session, January 15, 1991

A Bill to Establish the United States Enrichment Corporation to Operate the Federal Uranium Enrichment Program on a Profitable and Efficient Basis in Order to Maximize the Long Term Economic Value to the United States, to Provide Assistance to the Domestic Uranium Industry and to Provide a Federal Contribu 418

U.S. Senate Bill S-2415

Uranium Enrichment Act of 1990; Uranium Security and Tailings Reclamation Act of 1989; and The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990, Introduced in the Senate, One Hundred First Congress, Second Session, April 4, 1990 424

UCID-21536 (Add. 1)

Logs of Wells and Boreholes Drilled During Hydrogeologic Studies at Lawrence Livermore National Laboratory Site 300, June 30, 1988 - December 31, 1990 613

UCRL-CR-107493

Application of Monte Carlo Simulation to Estimate Probabilities for the Best and Health Conservative Estimates of Receptor Well Concentrations 839

UCRL-CR-108063

Hydrostratigraphic Analysis of the Pilot Remediation Test Area 612

UCRL-JC-108064

Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA 766

Uranium Mining and Metallurgy (China) 10(2):27-31

Environmental Renovation of a Uranium Mine and Practice After its Decommissioning 446

Uranium Seminar '89, Proceedings of a Conference, Santa Fe, NM, September 17-20, 1989. U.S. Council for Energy Awareness, Washington, DC

NRC Mill Tailings Regulation 420

Urban and Regional Conflict Resolution in Water Related Issues, Proceedings of the ASCE National Convention, Orlando, FL, October 21-22, 1991

Remediation and Mitigation Associated with Contamination of Water by Irrigation Drainage 856

Visualization '90, Proceedings of the 1990 IEEE International Conference, San Francisco, CA, October 23-26, 1990

A Graphical Interface for Robotic Remediation of Underground Storage Tanks 948

WAPD-RC/E(EE)-1562

1990 Effluent and Environmental Monitoring Report for the Bettis Atomic Power Laboratory 657

Waste Management '91: Working Towards a Cleaner Environment - High-Level Waste, Low-Level Waste, Mixed Waste and Environmental Restoration, R.G. Post (ed.), Proceedings of a Conference, Tucson, AZ, February 24-28, 1991

Comprehensive Strategy for Corrective Actions at the Savannah River Site General Separations Area 549

Decontamination and Decommissioning Methods and Management of the Resultant Waste Products 279

Hanford High-Activity Waste Tank Safety Issues 33

Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ Treatment of Waste and Residuals for Hanford Single-Shell Tanks 48

Waste Management '92, R.G. Post (ed.), Proceedings of a Conference, Tucson, AZ, March 1-5, 1992
Application of United States Department of Transportation Regulations to Hazardous Material and Waste Shipments on the Hanford Site 762

Disposal Concepts for Waste in Underground Single-Shell Storage Tanks at the Hanford Site 43

Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

Exemption Limits for Contaminated Materials to be Recycled and for Low Level Radioactive Waste from Nuclear Power Stations and Uranium Mining and Milling Areas in South-Eastern Germany 244

Hanford Site Radioactive Waste Storage Tank Safety Issues: The Path to Resolution 38

Implications of Recent ICRP Recommendations for Risk Assessments for Radioactive Waste Disposal and Cleanup 726

Progress in Evaluating the Hazards of Ferrocyanide Waste Storage Tanks 22

Removal of Contaminated Concrete Surfaces by Microwave Heating: Phase 1 Results 217

Resolution of Regulatory Issues Facing the DOE In Situ Vitrification Program 1007

Sandia National Laboratories Chemical Waste Landfill: Innovative Strategies Towards Characterization and Remediation 532

Waste Management '92, R.G. Post (ed.), Proceedings of a Conference, Tucson, AZ, March 1-5, 1992 (continued)

Strategy for Management of Investigation-Derived Waste 765

Vitrification of Underground Storage Tanks: Technology Development, Regulatory Issues, and Cost Analysis 968

Waste Management and Environmental Restoration, Proceedings of the 1990 DOE Model Conference, Oak Ridge, TN, October 29 November 2, 1990, 343 pp.

A Comparison of Shallow Electromagnetic and Magnetometer Surface Geophysical Techniques to Effectively Delineate Buried Wastes 897

A Risk-Based Cleanup Criterion for PCE in Soil 922

A Tale of Negotiations: CERCLA Interagency Agreement at the Mound Plant 540

Application of Vapor Vacuum Extraction to Waste Sites with Chlorinated Solvent Problems - A Case Study 768

Closure of Hazardous and Mixed Radioactive Waste Management Units at US DOE facilities 509

Conducting a Soil Washing Treatability Investigation at the Hanford Site 717

Cone Penetrometer/Hydropunch [trademark]: An Efficient Approach for Delineating Subsurface Lithology and Ground Water Quality 882

Design and Construction of the Interim Waste Management Facility - SWSA 6 556

Dioxin Destruction on a Small Scale - A Success Story 821

Ecological Assessment at Environmental Restoration Sites: DOE's Dual Role as CERCLA Lead Agency and a Natural Resource Trustee 453

Finding a Compromise Between Chemical and Radiological Risk Assessment Methods for Mixed Waste Sites 927

Improved Techniques for Monitoring Well Screen Placement and Well Location 891

In-Drum Solidification of Low-Level Mixed Waste 1019

Lessons Learned in Fixation and Storage of Radioactive Mixed Waste 939

NEPA Compliance Strategies for Environmental Restoration Activities 511

Recent Developments in Health Risks Modeling Techniques Applied to Hazardous Waste Site Assessment and Remediation 925

Recent Field Trials of Directional Boring Equipment for Emplacing a Borehole Grid Around and Beneath a Simulated Waste Site 977

Remediation of Contaminated Underground Tanks by In Situ Vitrification 944

Resolution of Conflicts Among the Regulatory Programs Governing Remedial Action 502

The Selective Absorption of Radionuclides from a Contaminated Holding Pond at Brookhaven National Laboratory 644

When RCRA Meets ALARA 460

Waste Management 11(3):125-133

Wet Oxidation by Hydrogen Peroxide for the Treatment of Mixed Radioactive and Toxic Organic Wastes and Waste Waters 1021

Water Chemistry in Nuclear Power Plants, Proceedings of the 1991 Japan Atomic Industrial Forum International Conference, Fukui, Japan, April 22-25, 1991. Japan Atomic Industrial Forum, Inc., Tokyo, Japan, 811 pp.

Optimization of Electrodecontamination Processes for Decommissioning 154

Water Chemistry of Nuclear Reactor Systems, Proceedings of the Fifth International Conference, Bournemouth, United Kingdom, October 23-27, 1989. British Nuclear Energy Society, London, United Kingdom, Vol. 2, 194 pp.

Aged Stainless Steel Corrosion Tests with LOMI and AECL Decontamination Processes 125

Decontamination for Decommissioning: Enhancement of Aggressive Chemical Decontamination by Using Electropolishing or Ultrasound 131

Water Environment Technology 2(10):17-18

Live Stream Remediation at Sheffield Brook 377

WATTec '90: Global Competitiveness - Managing Technology, Proceedings of the 17th Annual Technical Conference and Exhibition, Knoxville, TN, February 20-23, 1990, 78 pp.

Bioremediation, a Useful Tool for Remedial Actions 866

Development of Guidance for Variances from the RCRA Land Disposal Restrictions for US DOE Mixed-Waste Streams 1023

Remedial Action Decision Process 914

Sampling for Certification of Removal of PCB-Contaminated Soils at the Oil Retention Ponds, Y-12 Plant, Oak Ridge, Tennessee 739

WATTec '91, Proceedings of the 18th Annual Technical Conference and Exhibition, Knoxville, TN, February 22, 1991

Environmental Restoration: Oak Ridge National Laboratory Perspective 553

WHC-EP-0145-3

Westinghouse Hanford Company Environmental Surveillance Annual Report - 200/600 Areas - Calendar Year 1990 716

WHC-EP-0231-2

Hanford Surplus Facilities Plan - Fiscal Year 1990 7

WHC-EP-0231-4

Surplus Facilities and Resource Conservation and Recovery Act Closure Program Plan - Fiscal Year 1992 581

WHC-EP-0363 (Rev. 1)

Solid Waste Program Plan 1002

WHC-EP-0400

200-UP-2 Operable Unit Technical Baseline Report 605

WHC-EP-0403

Waste Tank Properties and Contents Program Plan - Waste Tank Safety Program 35

WHC-EP-0405 (Draft A)

Systems Engineering Study for the Closure of Single-Shell Tanks 11

WHC-EP-0416

Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 46

WHC-EP-0426 (Rev. 2)

Waste Tank Safety Programs Overview Plan 36

WHC-EP-0430

Environmental Restoration Remedial Action Program Records Management Plan 583

WHC-EP-0431

Underground Storage Tank-Integrated Demonstration Technical Task Plan Master Schedule 6

WHC-EP-0440 (Vol. 1)

Facility Effluent Monitoring Plan Determinations for the 200 Area Facilities 603

WHC-EP-0441

Facility Effluent Monitoring Plan Determinations for the 300 Area Facilities - Environmental Assurance 608

WHC-EP-0442

Facility Effluent Monitoring Plan Determinations for the 400 Area Facilities - Environmental Assurance 719

WHC-EP-0443

Facility Effluent Monitoring Plan Determinations for the 600 Area Facilities - Environmental Assurance 720

WHC-EP-0446

Quality Assurance Project Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 584

WHC-EP-0471

Facility Effluent Monitoring Plan for the 2724-W Protective Equipment Decontamination Facility 607

WHC-EP-0478

Summary of the Hanford Site Decontamination, Decommissioning, and Cleanup, FY 1974-FY 1990 67

WHC-EP-0489

Hanford Site Surface Soil Radioactive Contamination Control Plan for Fiscal Year 1992 710

WHC-EP-0491

Management Plan for Facility Effluent Monitoring Plan Activities - Environmental Assurance 585

WHC-EP-0501

Waste Tank Safety, Operations, and Remediation Strategic Plan 9

WHC-EP-0535

Annual Surveillance and Maintenance Report for the Retired Hanford Site Facilities 24

WHC-EP-0537

Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks 47

WHC-EP-0538

Operational Environmental Monitoring Program Quality Assurance Project Plan 591

WHC-MR-0250

Waste Tank 241-A-105 Supporting Documentation - Miscellaneous Reports, Letters, Memoranda, and Data 30

WHC-MR-0293 (Rev. 1)

Legend and Legacy: Fifty Years of Defense Production at the Hanford Site 792

WHC-SA-0999

Innovative Technologies and Unit Operations Available for Potential In Situ and Ex Situ Treatment of Waste and Residuals for Hanford Single-Shell Tanks 48

WHC-SA-1017

Hanford High-Activity Waste Tank Safety Issues 33

WHC-SA-1039

Development, Testing, and Demonstration of Geotechnical and Cement-Based Encapsulant Materials for the Stabilization of Radioactive and Hazardous Waste Disposal Structures 984

WHC-SA-1071

DOE Hanford Site Tank Farm Interim Stabilization During 1990 65

WHC-SA-1124

Statistical Approach on RCRA Groundwater Monitoring Projects at the Hanford Site 699

WHC-SA-1147

Summary of an Assessment of Potential Waterborne Accidents During Transport of the Shippingport Reactor Pressure Vessel and Neutron Shield Tank Assembly 55

WHC-SA-1328

Hanford Site Radioactive Waste Storage Tank Safety Issues: The Path to Resolution 38

WHC-SA-1344

Disposal Concepts for Waste in Underground Single-Shell Storage Tanks at the Hanford Site 43

WHC-SA-1350

Strategy for Management of Investigation-Derived Waste 765

WHC-SA-1369

Progress in Evaluating the Hazards of Ferrocyanide Waste Storage Tanks 22

WHC-SA-1426

Application of United States Department of Transportation Regulations to Hazardous Material and Waste Shipments on the Hanford Site 762

WHC-SA-1460

Drilling and Sampling Highly Radioactive Contaminated Soil at the 200-BP-1 Operable Unit, Hanford Site, Richland, Washington 715

WHC-SA-1465

Accelerated Cleanup of Mixed Waste Units on the Hanford Site, Richland, Washington 779

WINCO-1085

ICPP Environmental Monitoring Report, CY 1989 622

WSRC-MS-91-053

Comprehensive Strategy for Corrective Actions at the Savannah River Site General Separations Area 549

WSRC-MS-92-126

Meeting Record for FFA Working Meeting of November 15, 1991 547

WSRC-RP-89-1352

Use of Models as a Rationale for the Design of Environmental Monitoring Programs 900

WSRC-RP-90-1326

24 Hour Pumping Test of Production Well 905-120P 734

WSSRAP Update 3(2):1-8

WSSRAP Update 785

X-OE-231 (Vol. 11)

Preliminary Decommissioning Study Reports - Old Hydrofracture Facility 21

X-OE-231 (Vol. 3)

Preliminary Decommissioning Study Reports - Low-Level Liquid Waste Tanks 18

X-OE-231 (Vol. 5)

Preliminary Decommissioning Study Reports - Molten Salt Reactor Experiment 20

Y/ER-18

Interim Action Proposed Plan: Mercury Tank Remediation at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 574

Y/ER-19

Revised RCRA Closure Plan for the Interim Drum Yard (S-030) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 577

Y/ER-20/V2

Response to Comments and Recommendations on RCRA Facility Investigation Plan for Group 4 at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 689

Y/ER-21

Response to Comments on Remedial Investigation Report for the Plating Shop Container Areas (S-334 and S-351) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 692

Y/ER/Sub-90/VK168/3/D1

Feasibility Study for the United Nuclear Corporation Disposal Site at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 761

Y/ER/Sub-90/97777/2

Remedial Investigation Report for Chestnut Ridge OU 2 (Filled Coal Ash Pond/McCoy Branch) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 691

Y/ER/Sub-90/99927/2

Modeling of Elza Gate Contaminated Material for Use as Fill Material at the United Nuclear Corporation Waste Disposal Site, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 375

Y/ER/Sub-90/99928/2

Remedial Investigation Work Plan for Bear Creek (Y02-S600) at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 575

Y/ER/Sub-91/ALV96/3 (Draft)

Draft Postclosure Permit Application for Bear Creek Hydrogeologic Regime at the Oak Ridge Y-12 Burial Grounds Hazardous Waste Disposal Unit 576

Y/Sub-90/99005V/2

Documentation Report for the 1989 Monitor Well Plugging and Abandonment Program, Oak Ridge Y-12 Plant 782

Y/Sub-91/TJ997C/11

Initial Site Characterization for Underground Storage Tank 2081-U, Building 9212, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 693

Y/Sub-91/TJ997C/14

Release Investigation Report for Underground Storage Tank 2336-U at the Chestnut Ridge Repeater Station, Building 0962, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 690

Y/Sub-91/TJ997C/7

Site Investigation Report and Corrective Action Plan for Tank 2310-U at the Pine Ridge West Repeater Station, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 686

Y/Sub-91/TJ997C/8

Release Investigation Report for Underground Storage Tank 2305-U at Building 9998, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee 694

Y/Sub-91/YP507C/5

Monitor Well Inspection and Maintenance Plan for the Department of Energy, Y-12 Plant, Oak Ridge, Tennessee 687

Y/TS-390/2

Chestnut Ridge Sediment Disposal Basin (D-025): Summary of Closure under Rules Governing Hazardous Waste Management in Tennessee 775

Y/TS-760

Calendar Years 1989 and 1990 Monitoring Web Listallation Program Y-12 Plant, Oak Ridge, Tennessee 688

Y/TS-801

Well Plugging and Abandonment Program, Y-12 Plant, Oak Ridge, Tennessee 572

Y/WM-114

Waste Management and Environmental Activities at the Y-12 Plant 790

GEOGRAPHIC LOCATION INDEX

DOMESTIC SITES

- Arizona, Monument Valley, Monument Valley Site 411
- California, Kesterson Reservoir 815
- California, Livermore, Lawrence Livermore National Laboratory 611, 766, 838
- California, Livermore, Lawrence Livermore National Laboratory, Livermore Site 839
- California, Livermore, Lawrence Livermore National Laboratory, Pilot Remediation Test Area 612
- California, Livermore, Lawrence Livermore National Laboratory, Site 300 673
- California, Livermore, Sandia National Laboratories 516
- California, Sacramento, Rancho Seco Nuclear Generating Station 69
- Colorado, Denver, Denver Radium Site 798
- Colorado, Durango, Durango Site 404
- Colorado, Golden, Rocky Flats Plant 517, 518, 614, 615, 728
- Colorado, Golden, Rocky Flats Plant, Operable Unit 7 (Present Landfill and Inactive Hazardous Waste Storage Area)
- Colorado, Golden, Rocky Flats Plant, Solar Evaporation Ponds 767
- Colorado, Golden, Rocky Flats Plant, 903 Pad 617
- Colorado, Golden, Rocky Mountain Arsenal 519

- Colorado, Grand Junction, Grand Junction Projects Office 618, 903
- Colorado, Grand Junction, Grand Junction Site Vicinity Properties 405, 407
- Colorado, Gunnison, Gunnison Site 3002, 383, 394, 395, 440
- Colorado, Platteville, Fort St. Vrain Nuclear Generating Station 157
- Colorado, Platteville, Fort St. Wain Reactor 158, 228
- Colorado, Rifle, New Rifle Site 384, 408
- Colorado, Rifle, Old Rifle Site 384, 408
- Colorado, Slickrock, Slickrock Site 396
- Connecticut, Seymour, Seymour Wire Company Site 372
- Florida, Largo, Pinellas Plant 520, 619, 783
- Idaho, Idaho Falls, Idaho National Engineering Laboratory 521-523, 620, 621, 935, 986, 990
- Idaho, Idaho Falls, Idaho National Engineering Laboratory, Idaho Chemical Processing Plant 524, 525, 622
- Idaho, Idaho Falls, Idaho National Engineering Laboratory, Lost River Spreading Area A 617
- Idaho, Idaho Falls, Idaho National Engineering Laboratory, Pad A Site 526
- Idaho, Idaho Falls, Idaho National Engineering Laboratory, Radioactive Waste Management Complex 768

- Idaho, Idaho Falls, Idaho National Engineering Laboratory, Radioactive Waste Management Complex, Subsurface Disposal Area 623, 936, 974
- Idaho, Idaho Falis, Idaho National Engineering Laboratory, Test Reactor Area, Warm Pond Spaceading Area 843
- Idaho, Lowman, Lowman Site 397, 406, 409
- Illinois, Argonne, Argonne National Laboratory, Experimental Boiling Water Reactor 39, 53, 54
- Illinois, Cook County, Palos Park Forest Preserve, Site A/Plot M 358, 359
- Illinois, Granite City, Granite City Steel Facility, New Betatron Building 360
- Kansas, Lawrence, University of Kansas Research Reactor 92
- Kentucky, Paducah, Paducah Gaseous Diffusion Plant 2, 569, 570, 624
- Kentucky, Wet Point, Distler Brickyard Site 844
- Maryland, Aberdeen, Aberdeen Proving Ground 808
- Massachusetts, Beverly, Ventron Site 373
- Massachusetts, Norton, Shpack Landfill Site 381
- Missouri, Kansas City, Kansas City Plant 625, 626
- Missouri, St. Charles County, Weldon Spring Site 527, 528, 627-632, 748, 749, 769, 784, 785, 905, 919, 920
- Missouri, St. Charles County, Weldon Spring Site, Quarry 529, 633

- Missouri, St. Charles County, Weldon Spring Site, 15 Series Buildings 530
- Missouri, St. Louis County, Bridgeton, West Lake Landfill 813
- Missouri, St. Louis County, Hazelwood Interim Storage Site 353
- Missouri, St. Louis County, Hazelwood Interim Storage Site Vicinity Properties 352
- Missouri, St. Louis County, Latty Avenue Properties 353
- Missouri, St. Louis County, St. Louis Airport Storage Site 353
- Missouri, St. Louis, St. Louis Downtown Site 351-353
- Nevada, Lincoln County, Nellis Air Force Base 729
- Nevada, Mercury, Nevada Test Site 531, 634-639, 729, 915
- Nevada, Nellis Air Force Base, Tonapah Test Range 640
- New Jersey, Essex County, Montclair/West Orange Radium Site 809
- New Jersey, Glen Ridge, Glen Ridge Radium Site 981
- New Jersey, Maywood, Maywood Interim Storage Site 361, 362
- New Jersey, Middlesex, Middlesex Sampling Plant Site 363
- New Jersey, Montclair, Montclair Radium Site 981
- New Jersey, Picatinny, Picatinny Arsenal 810

- New Jersey, Wayne, Wayne Interim Storage Site 354, 362, 364, 377
- New Mexico, Albuquerque, Sandia National Laboratories 641, 845
- New Mexico, Albuquerque, Sandia National Laboratories, Chemical Waste Landfill 532
- New Mexico, Ambrosia Lake, Ambrosia Lake Site 398
- New Mexico, Los Alamos, Los Alamos National Laboratory 845
- New Mexico, Los Alamos, Los Alamos National Laboratory, Mortandad Canyon 642
- New Mexico, Los Alamos, Los Alamos National Laboratory, TA-35 TSL-125 Surface Impoundment 770, 771
- New Mexico, Los Alamos, Los Alamos National Laboratory, Water Boiler Reactor 49-51
- New Mexico, Los Alamos, Los Alamos Townsite 643
- New York, Brookhaven, Shoreham Nuclear Power Station 93
- New York, Colonie, Colonie Interim Storage Site 365
- New York, Lewiston, Niagara Falls Storage Site, Waste Containment Structure 366
- New York, New York, Baker and Williams Warehouses Site 378
- New York, New York, Baker and Williams Warehouses Site, 521-527 Building 379
- New York, Upton, Brookhaven National Laboratory, Holding Pond 644

- New York, West Valley, West Valley Demonstration Project Site 645-647, 750-752, 786
- New York, West Valley, West Valley Demonstration Project Site, NRC-Licensed Disposal Area 730
- New York, West Valley, Western New York Nuclear Service Center, Disposal Facility Area 648
- Ohio, Cleveland, Former McKinney Tool and Manufacturing Company Site 367
- Ohio, Fernald, Fernald Environmental Management Project Site 16, 40, 41, 533-539, 649-653, 753, 754, 937, 938, 982, 999
- Ohio, Fernald, Fernald Environmental Management Project Site, Engineered Disposal Facility 934
- Ohio, Fernald, Fernald Environmental Management Project Site, K-65 Storage Silos 654
- Ohio, Miamisburg, Mound Facility 540, 655, 731
- Ohio, Painesville, Former Diamond Magnesium Company Site 368
- Ohio, Painesville, Lonza Chemical Company Site 368
- Ohio, Painesville, Uniroyal Chemical Company Site 368
- Ohio, Piketon, Portsmouth Gaseous Diffusion Plant 2, 541, 570, 656, 1000
- Ohio, Piketon, Portsmouth Gaseous Diffusion Plant, Wellfield X-608, Well 6B 542
- Ohio, Piketon, Portsmouth Gaseous Diffusion Plant, X-616 Surface Impoundments 543

- Oregon, Albany, Albany Research Center 369
- Oregon, Millersburg, Teledyne Wah Chang Site 802
- Pennsylvania, Apollo, Apollo Nuclear Fuel Facility 94, 338
- Pennsylvania, Middletown, Three Mile Island Nuclear Power Station, Unit 2 147
- Pennsylvania, Pittsburgh, Bettis Atomic Power Laboratory 657
- Pennsylvania, Shippingport, Shippingport Atomic Power Station 1, 32, 55-61
- Pennsylvania, Springdale, Conviber, Inc., Site 370
- Pennsylvania, Washington County, Jessop Steel Company Site 371
- Rhode Island, Wood River Junction 846
- South Carolina, Aiken, Savanna^k River Laboratory 847
- South Carolina, Aiken, Savannah River Site 544-548, 658-661, 732, 733, 772, 773, 978
- South Carolina, Aiken, Savannah River Site, General Separations Area 549
- South Carolina, Aiken, Savannah River Site, M-Area 890
- South Carolina, Aiken, Savannah River Site, M-Area Settling Basin 774
- South Carolina, Aiken, Savannah River Site, Mixed Waste Pond Site 550, 755
- South Carolina, Aiken, Savannah River Site, P-Area, Well 905-120P 734
- South Carolina, Aiken, Savannah River Site, PNX Facility Area 662

- South Carolina, Aiken, Savannah River Site, Seepage Basins 551
- South Carolina, Aiken, Savannah River Site, Underground Storage Tank 16 42
- South Dakota, Sioux Falls, Pathfinder Atomic Power Plant 216
- Tennesse, Oak Ridge, Oak Ridge Y-12 Plant, Chestnut Ridge Sediment Disposal Basin 775
- Tennessee, Clinch River 695
- Tennessee, Oak Ridge, Elza Gate Site 355, 375
- Tennessee, Oak Ridge, Oak Ridge K-25 Site 2, 548, 663, 939
- Tennessee, Oak Ridge, Oak Ridge K-25 Site, Central Training Facility 552
- Tennessee, Oak Ridge, Oak Ridge K-25 Site, Drum Storage Yards 756-758
- Tennessee, Oak Ridge, Oak Ridge K-25 Site, Scrap Metal Storage Yard 759
- Tennessee, Oak Ridge, Oak Ridge National Laboratory 3, 4, 17, 62-64, 217, 553-555, 664-671, 940, 1001
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Graphite Reactor Storage Canal 722
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Interim Waste Management Facility 556
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Low-Level Liquid Waste Tanks 18
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Melton Valley Storage Tanks 19

- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Molten Salt Reactor Experiment Site 20, 760
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Old Hydrofracture Facility 21
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Solid Waste Storage Area 5 672, 674
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Solid Waste Storage Area 6 557, 673, 674, 735
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Waste Area Grouping 1 558
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Waste Area Grouping 11 559
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Waste Area Grouping 13 559, 560
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Waste Area Grouping 2 561
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Waste Area Grouping 5 675
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Waste Area Grouping 6 562, 676, 677
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Waste Area Grouping 7, Low-Level Waste Line Leak Site 7.4b 678
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, Waste Area Grouping 7, Trench 6 678
- Tennessee, Oak Ridge, Oak Ridge National Laboratory, White Oak Creek Watershed 679, 680
- Tennessee, Oak Ridge, Oak Ridge Reservation 563-570, 681-684, 695, 736, 776, 787-789, 991

- Tennessee, Oak Ridge, Oak Ridge Reservation, Elza Gate Site 356, 374, 380
- Tennessee, Oak Ridge, Oak Ridge Reservation, White Oak Creek Embayment 571
- Tennessee, Oak Ridge, Oak Ridge Reservation, White Wing Scrapyard 685
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant 572-574, 686-688, 737, 738, 790
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Abandoned Nitric Acid Pipeline 689
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Bear Creek 575
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Bear Creek Burial Ground A 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Bear Creek Burial Ground B and Walk In Pits 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Bear Creek Burial Ground C 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Bear Creek Burial Grounds 576
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Building 0962, Underground Storage Tank 2336-U 690
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Chesnut Ridge Operable Unit 2 691
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Chestnut Ridge Security Pits 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Chestnut Ridge Sediment Disposal Basin 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Hazardous Chemical Disposal Area 777

- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Interim Drum Yard 577
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, New Hope Pond 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Oil Landfarm 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Oil Retention Pond 1 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Oil Retention Pond 2 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Oil Retention Ponds 739
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Plating Shop Container Storage Areas Site 692
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, S-3 Ponds 777
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Storm Sewer System 578
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Underground Storage Tank 2081-U 693
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, Underground Storage Tank 2305-U 33
- Tennessee, Oak Ridge, Oak Ridge Y-12 Plant, United Nuclear Corporation Waste Disposal Site 375, 761
- Tennessee, Oak Ridge, Y-12 Plant, Underground Storage Tank 2305-U 694
- Tennessee, Watts Bar Reservoir 695
- Texas, Falls City, Falls City Site 385, 386, 399, 410
- Utah, Mexican Hat, Mexican Hat Site 411

- Utah, Monticello, Monticello Mill Site 415, 417, 438
- Utah, Monticello, Monticello Mill Site Vicinity Properties 416, 417, 428, 429
- Utah, Salt Lake City, University of Utah 95
- Virginia, Fort A.P. Hill 821
- Washington, Richland, Hanford Site 5-10, 22-28, 34-38, 43-45, 65-67, 579-597, 696-710, 723-725, 740, 741, 762-764, 778, 791-794, 901, 921, 941, 1002, 1003
- Washington, Richland, Hanford Site, Drum Removal Project Site 779
- Washington, Richland, Hanford Site, Hanford Production Reactors, 105-F Basin 598
- Washington, Richland, Hanford Site, Hanford Production Reactors, 105-H Basin 598
- Washington, Richland, Hanford Site, Mixed Waste Pond 727
- Washington, Richland, Hanford Site, Operable Unit 200-PO-5, 216-A-29 Ditch 742
- Washington, Richland, Hanford Site, Petroleum Underground Storage Tanks 599
- Washington, Richland, Hanford Site, Single-Shell Tanks 11, 29
- Washington, Richland, Hanford Site, Strontium Semiworks Facility, Tank 241-CX-72 52
- Washington, Richland, Hanford Site, Tank 241-54-101 46
- Washington, Richland, Hanford Site, Waste Disposal Vaults 795
- Washington, Richland, Hanford Site, Waste Tank 241-A-105 30

- Washington, Richland, Hanford Site, 1100 Area 600
- Washington, Richland, Hanford Site, 1100-EM-1 Operable Unit 601, 711
- Washington, Richland, Hanford Site, 200 Area 602
- Washington, Richland, Hanford Site, 200 Area Facilities 603
- Washington, Richland, Hanford Site, 200 East Area, 200-BP-1 Operable Unit 712
- Washington, Richland, Hanford Site, 200 East Area, 218-E-12B Burial Ground, Trench 94 604
- Washington, Richland, Hanford Site, 200 West Area 713, 714, 743
- Washington, Richland, Hanford Site, 200 West Area, S Plant 796
- Washington, Richland, Hanford Site, 200 West Area, U Plant 796
- Washington, Richland, Hanford Site, 200-BP-1 Operable Unit 715
- Washington, Richland, Hanford Site, 200-UP-2 Operable Unit 605
- Washington, Richland, Hanford Site, 200/600 Areas 716, 744
- Washington, Richland, Hanford Site, 2101-M Pond 606

- Washington, Richland, Hanford Site, 216-Z-1A
 Tile Field 745
- Washington, Richland, Hanford Site, 2724-W Decontamination Facility 607
- Washington, Richland, Hanford Site, 300 Area 608
- Washington, Richland, Hanford Site, 300 Area Process Trench 746
- Washington, Richland, Hanford Site, 300 Area, 315-6 Process Trenches 780
- Washington, Richland, Hanford Site, 300-FF-1 Operable Unit 717, 718
- Washington, Richland, Hanford Site, 300-FF-2 Area, 618-9 Burial Ground 781
- Washington, Richland, Hanford Site, 300-FF-5 Operable Unit 609
- Washington, Richland, Hanford Site, 400 Area 719
- Washington, Richland, Hanford Site, 600 Area 720
- Washington, Richland, Hanford Site, 600 Area, 618-9 Burial Ground 721
- Washington, Richland, Pacific Northwest Laboratories 96, 797
- Wisconsin, La Crosse, La Crosse Boiling Water Reactor 97

FOREIGN SITES

Asia 70, 285

Australia 441, 822

Belgium 71, 72, 117, 118, 159-171, 225, 226, 229-236, 286-289, 889

Belgium, Mol, Belgian Nuclear Research Center, Waste Treatment Plant, "Purple Shed" 290

Belgium, Mol, BR-3 Reactor 291, 292

Belgium, Mol, Eurochemic Reprocessing Plant, Buildings 6A/B 73

Bulgaria 227

Canada 74, 119, 293-295, 425, 430, 442, 443, 447, 823-825, 840

Canada, Ontario, Elliot Lake, Elliot Lake Tailings Area 426

Canada, Ontario, Port Hope 799, 800

Canada, Ontario, Scarborough 800

Canada, Ottawa, Tunney's Pasture 281

Canada, Quebec, Gentilly, Gentilly 1 Station 173

Canada, Saskatchewan, Beaverlodge Mine 437

Canada, Saskatchewan, Key Lake 448

China 296, 444, 446

Czech and Slovak Federal Republic 120

Czech and Slovak Federal Republic, Jaslovske Bohunice, Bohunice A-1 Reactor Site 174, 297

Europe 75-77, 237, 298, 299, 801

Federal Republic of Germany 78-83, 112, 113, 121-123, 175-185, 238-246, 300-304, 414, 431-433, 449

Federal Republic of Germany, Gundremmingen, Gundremmingen Unit A Nuclear Power Reactor 186, 305

Federal Republic of Germany, Karlsruhe, Karlsruhe Atomic Research Center 306

Federal Republic of Germany, Karlsruhe, Karlsruhe Fuel Reprocessing Plant 307 Federal Republic of Germany, Karlsruhe, Karlsruhe Nuclear Research Center, MZFR Nuclear Power Plant 308

Federal Republic of Germany, Karlsruhe, Karlsruhe Nuclear Research Center, MZFR Reactor 309

Federal Republic of Germany, Karlsruhe, Karlsruhe Reprocessing Plant 84

Federal Republic of Germany, Karlsruhe, Neideraichbach Nuclear Power Station 247, 310

Federal Republic of Germany, Lingen, Lingen Nuclear Power Station 108, 282

Federal Republic of Germany, Lingen, Lingen Reactor 124

France 85, 125-128, 187-193, 248-250, 311, 841

France, Cadarache, Fuel Fabrication Complex 172

France, Cadarache, Rapsodie Reactor 129, 194

France, Chinon, Chinon A-2 Reactor 195

France, Isere, Creys Malville, Super Phenix Reactor 251

France, La Hague, AT1 Fuel Reprocessing Plant 196

France, La Hague, AT1 Hot Cells 197

France, Marcoule, G-2 Reactor 130, 198

India, Bihar, Jaduguda Uranium Complex 427

India, Bombay, Bhabha Atomic Research Centre, ZERLINA Reactor 283 Italy 131, 132, 312

Italy, Sessa Aurunca, Garigliano Nuclear Power Plant 199, 200, 313

Italy, Sessa Aurunca, Garigliano Reactor 133

Japan 86-88, 134-142, 201-209, 252-255 284, 314-317

Japan, Tokai, Japan Atomic Energy Research Institute, Japan Power Demonstration Reactor 114, 143, 210-213, 256, 318-322

Japan, Tokai, Japan Atomic Energy Research Institute, Japan Research Reactor-3 144

Japan, Tokai, Japan Atomic Energy Research Institute, Research Laboratory Building 1 144

Netherlands 842

Republic of the Marshall Islands 812

Republic of the Marshall Islands, Johnston Atoll Site 816-818

Spain 450

Spain, Vandellos I Nuclear Power Plant 89

Sweden 115

Sweden, Studsvik 257

Switzerland, Villigen, Paul Scherrer Institute, Accelerator Facility 214

Thailand 90

United Kingdom 91, 258-262, 323-328, 826

United Kingdom, Cumbria, Seascale, Sellafield, British Nuclear Fuels Limited Site 329

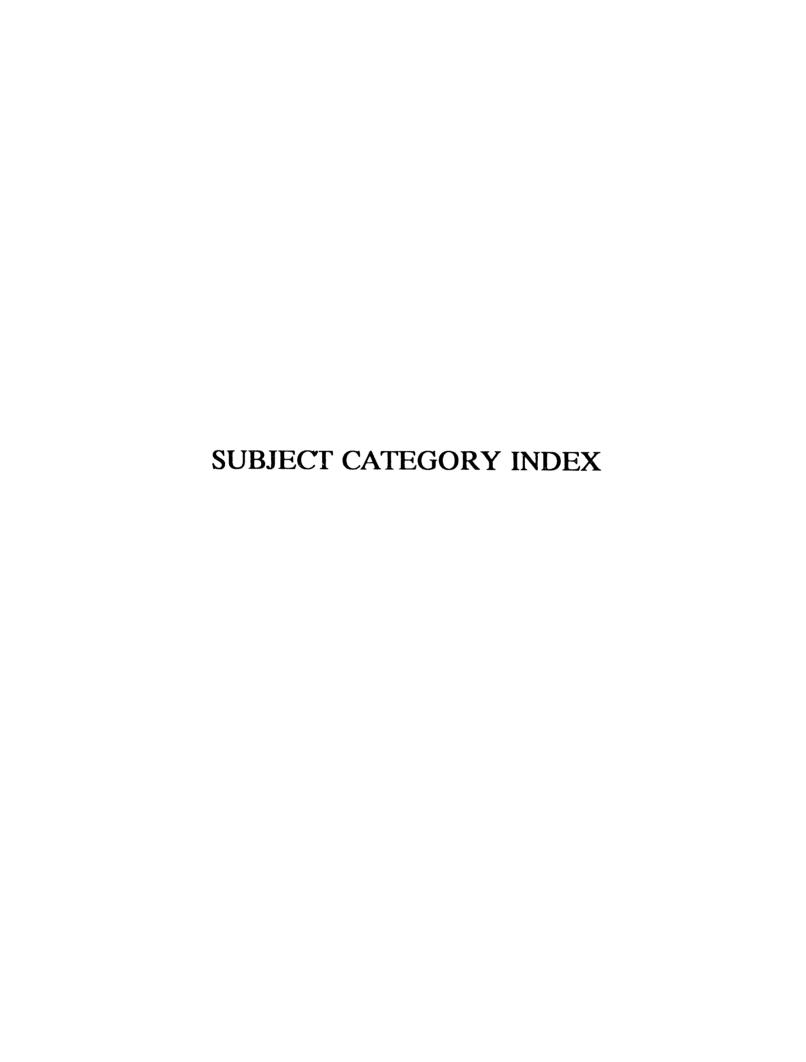
United Kingdom, Cumbria, Seascale, Sellafield, B204 Primary Separation Plant 330, 331

United Kingdom, Cumbria, Seascale, Sellafield, Windscale Nuclear Laboratories, Windscale Advanced Gas-Cooled Reactor 145, 263, 332, 333

United Kingdom, Gloucestershire, Berkeley Reactor 109

United Kingdom, Kent, Dungeness-A Reactor 110

USSR 146, 215, 334-337



DOE DECONTAMINATION AND DECOMMISSIONING PROGRAM

Dismantlement and Demolition 39 Design, Planning, and Regulations 1-15

Waste Disposal 40-48 Environmental Studies and Site Surveys

16-31

Remedial Action Experience 49-52

Safety, and **Biomedical Studies** Health,

32-38

General Studies 53-68

NUCLEAR FACILITIES DECOMMISSIONING

Dismantlement and Demolition 157-224 Design, Planning, and Regulations 69-107

Environmental Studies and Site Surveys Site Stabilization and Reclamation 225-227

108-111

Waste Disposal 228-280

112-116

Health, Safety, and Biomedical Studies

Decontamination Studies 117-156

Remedial Action Experience 281-284

General Studies 285-350

DOE FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

Design, Planning, and Regulations 351-357 Waste Disposal 374-376

Environmental Studies and Site Surveys

358-371

Remedial Action Experience 377-380

Health, Safety, and Biomedical Studies 372, General Studies 381

373

DOE URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT

Design, Planning, and Regulations 382-393 Waste Disposal 403

Environmental Studies and Site Surveys Remedial Action Experience 404-406

394-400

Site Stabilization and Reclamation 401, 402

General Studies 407-413

Subject Category Index 740

URANIUM MILL TAILINGS MANAGEMENT

Design, Planning, and Regulations 414-424 Site Stabilization and Reclamation 437-439

Waste Disposal 440-445 Environmental Studies and Site Surveys

425-429

Remedial Action Experience 446

Health, Safety, and Biomedical Studies General Studies 447-452

430-436

DOE ENVIRONMENTAL RESTORATION PROGRAM

Design, Planning, and Regulations Health, Safety, and Biomedical Studies 496

453-491

Waste Disposal 497, 498

Environmental Studies and Site Surveys

492-495

General Studies 499-515

DOE SITE-SPECIFIC REMEDIAL ACTIONS

Design, Planning, and Regulations 516-610 Site Stabilization and Reclamation

728-747

Environmental Studies and Site Surveys

611-721

Waste Disposal 748-765

Health, Safety, and Biomedical Studies 722-726

Remedial Action Experience 766-782

General Studies 783-797 Decontamination Studies 727

CONTAMINATED SITES RESTORATION

Design, Planning, and Regulations 798-807 Site Stabilization and Reclamation 815-819

Environmental Studies and Site Surveys Waste Disposal 820

808-811

Health, Safety, and Biomedical Studies

812-814

Remedial Action Experience 821

General Studies 822-837

REMEDIATION OF CONTAMINATED SOIL AND GROUNDWATER

General Studies 838-885

ENVIRONMENTAL DATA MEASUREMENTS, MANAGEMENT, AND EVALUATION

Planning, **Regulations** Design, and Health, Safety, and Biomedical Studies 901

886-888

Remedial Action Experience 902

Environmental Studies and Site Surveys

889-900

General Studies 903, 904

REMEDIAL ACTION ASSESSMENT AND DECISION-MAKING

Design, Planning, and Regulations 905-914 Health, Safety, and Biomedical Studies

919-933

Environmental Studies and Site Surveys

915-918 General Studies 934

TECHNOLOGY DEVELOPMENT AND EVALUATION

Design, Planning, and Regulations 935-973 Site Stabilization and Rec'amation

981-985

Environmental Studies and Site Surveys

974-977

Waste Disposal 986-989

Decontamination Studies 978 Remedial Action Experience 990

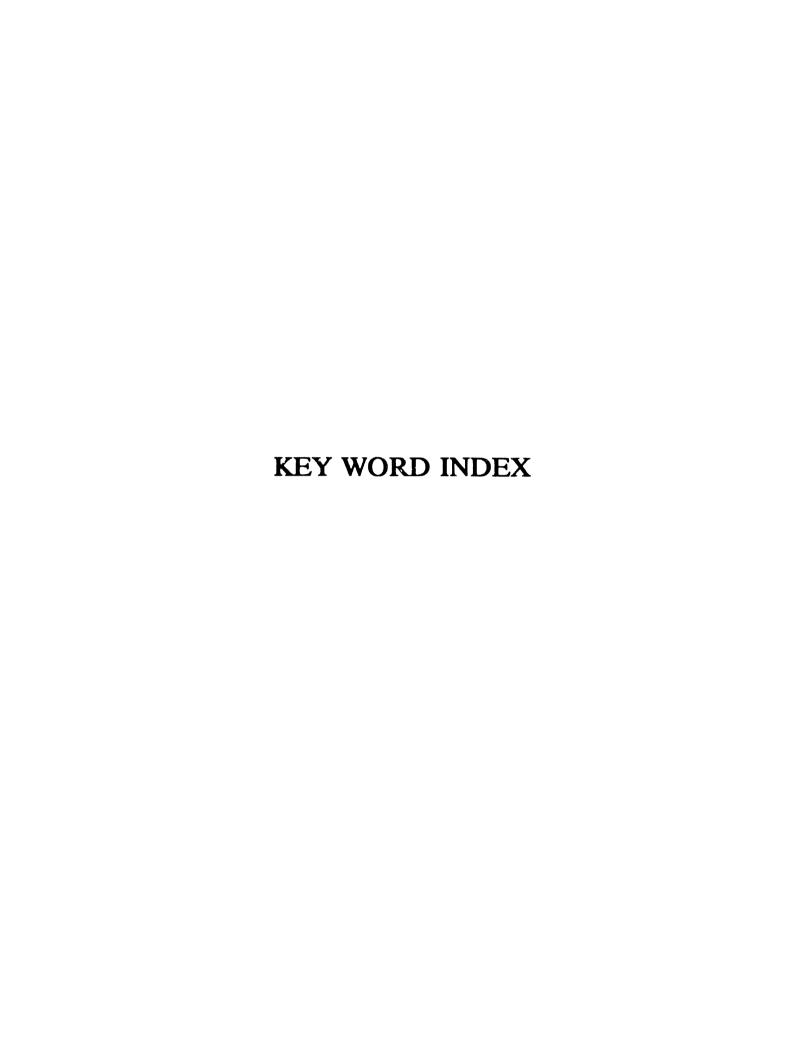
Dismantlement and Demolition 979, 980 General Studies 991-998

ENVIRONMENTAL AND WASTE MANAGEMENT ISSUES

Design, Planning, and Regulations 999-1029 Health, Safety, and Biomedical Studies

1031-1033

Environmental Studies and Site Surveys 1030 Waste Disposal 1034, 1035



745 Key Word Index

ABANDONED SITES 7, 24, 50, 52, 62, 63, 244, 351-353, 356, 357, 359, 360, 362, 368, 370, 372, 373, 378, 380, 385, 400, 416, 428, 429, 463, 473, 527, 530, 702, 781, 782, 796, 834, 902, 920

ABRASION 126, 266, 346, 989

ABRASIVES 149, 151, 152, 210, 310, 346, 989

ABSORPTION 268, 644

ACCELERATORS 214, 954

ACCIDENTS 55, 228, 297, 347, 841

ACCOUNTING 79, 466, 962

ACETYLACETONE 148

ACID MINE DRAINAGE 447

ACTINIDE COMPOUNDS 325, 329, 573, 605

ACTINIDE ISOTOPES 219, 355, 427, 530, 621, 642, 655, 759, 812

ACTINIDE NUCLEI 219, 355, 530, 621, 655, 663, 812

ACTINIDES 352, 402, 418, 424, 430, 435, 436, 439, 451, 573, 621, 652, 655, 689, 713, 728, 760, 811, 902, 944

ACTIVATION ANALYSIS 146

ACTIVITY LEVELS 71, 72, 109, 119, 124, 133, 145, 148, 160, 161, 186, 236, 247, 251, 267, 289, 427, 889

ADDITIVES 150, 820, 961

ADMINISTRATIVE PROCEDURES 66, 167, 391, 478, 485, 531, 535, 539, 552, 554, 567, 576, 583, 591, 596, 597, 607, 687, 690, 725, 765, 801, 883, 904, 995, 1007

ADSORPTION 439-441, 881

ADVECTION 864

AERIAL SURVEYING 646, 658, 662

AEROSOL WASTES 187, 795

AEROSOLS 108, 165, 169, 171, 187, 190, 193, 235, 431

AGR TYPE REACTORS 145, 235, 259, 263, 326, 333

AGREEMENTS 387, 403, 412, 415, 458, 461, 473, 517, 521, 544, 569, 570, 579, 580, 588, 604, 616, 778

AIR FILTERS 52, 169, 200, 235, 378, 796

AIR POLLUTION 398, 423, 657, 682, 811, 828-831, 873, 1030

AIR POLLUTION ABATEMENT 52, 379, 404, 796, 881, 999

AIR POLLUTION CONTROL 423, 807, 999

AIR POLLUTION MONITORING 187, 359, 641, 667, 711, 796, 976, 1030

AIR POLLUTION MONITORS 493, 637, 711

AIR QUALITY 628, 641, 711, 1030

AIR SAMPLERS 367, 796

ALARA 1, 49, 265, 267, 330, 356, 379, 404, 469, 470, 620, 750, 1006, 1013, 1033

ALKALI METAL COMPOUNDS 136, 148, 652, 961

ALKALI METAL ISOTOPES 22, 329, 561, 644, 675, 812

ALKALI METALS 72, 944

ALKALINE EARTH ISOTOPES 355, 426, 427, 435, 530, 561, 621, 672, 675, 812, 826

ALKALINE EARTH METAL COMPOUNDS 443, 961

ALKALINE EARTH METALS 430, 443, 606, 621, 805, 811, 944

ALKYLATED AROMATICS 562, 858

ALPHA DECAY RADIOISOTOPES 164, 219, 355, 426, 427, 435, 530, 621, 655, 663, 812, 826, 932

ALPHA DETECTION 111, 240, 278

ALPHA PARTICLES 111, 396, 667

ALPHA SOURCES 367, 396

ALPHA-BEARING WASTES 43, 66, 248, 474, 595, 610, 617, 664, 675, 681, 684, 936, 957, 958, 960, 983, 990, 1034

ALUMINIUM 169, 233, 266

ALUMINIUM ALLOYS 160

ALUMINIUM COMPOUNDS 860

AMERICAN INDIANS 595

AMERICIUM 642, 745, 817, 818

AMERICIUM-241 525

AMINO ACIDS 120, 652

AMMONIUM CARBONATES 652

ANALOG SYSTEMS 858

ANIMALS 561, 675, 698, 716, 999

ANIONS 860, 868

APPROPRIATE TECHNOLOGY 911, 950, 982, 985, 986, 996

AQUATIC ECOSYSTEMS 667, 815

AQUATIC ORGANISMS 561

AQUEOUS SOLUTIONS 136, 573, 862

AQUICLUDES 879

AQUIFERS 434, 438, 445, 520, 525, 532, 534, 612, 627, 635, 645, 653, 655, 659-661, 673, 708, 709, 714, 733, 734, 772, 780, 846, 848, 854, 858, 870, 873, 875, 878, 882, 928

ARC CUTTING 222, 317

ARC FURNACES 178

ARGON-41 719

ARID LANDS 634, 636, 714, 729

AROMATICS 355, 530, 562, 573, 600, 628, 688, 858, 866, 867, 871, 902

ARSENIC 439, 621, 632, 799, 936

ARTIFICIAL INTELLIGENCE 948, 974, 992

ASBESTOS 60, 63, 67, 528, 530, 573, 604, 711, 777

ASHES 691, 795

ATMOSPHERIC CIRCULATION 704

ATOMIC ENERGY ACT 418, 424, 1020

ATOMIC ENERGY LAWS 98, 424, 1020

AUDITS 391, 400, 476, 477, 535, 537, 547, 591, 618, 628, 631, 647, 931, 1026

BACKFILLING 351, 398, 405, 551, 598, 742

747 Key Word Index

BACKGROUND RADIATION 289, 360, 367, 368, 658, 662, 664, 705, 1015

BACTERIA 443, 845, 863

BARGES 55, 59

BARIUM 606, 621, 936

BARIUM COMPOUNDS 443

BARIUM SULFATES 443

BASALT 936

BASEMENT ROCK 525

BATTELLE PACIFIC NORTHWEST LABORATORIES 718, 724, 797, 896

BELGIAN ORGANIZATIONS 163, 167, 286

BELOYARSK-1 REACTOR 77

BELT CONVEYORS 817, 818

BENCH-SCALE EXPERIMENTS 278, 438, 526, 858, 866, 871, 960

BENTONITE 40, 404

BENZENE 693, 694, 770, 771, 867

BERKELEY REACTOR 109, 333

BERYLLIUM FLUORIDES 760

BETA DECAY RADIOISOTOPES 22, 72, 148, 278, 329, 427, 530, 547, 561, 638, 644, 655, 672, 675, 759, 812

BETA DETECTION 240, 241, 379

BETA PARTICLES 667, 678

BETA RADIOGRAPHY 111

BETA SOURCES 367

BETA-MINUS DECAY 561

BETA-MINUS DECAY RADIOISOTOPES 22, 227, 278, 329, 427, 530, 547, 621, 638, 655, 672, 675, 722, 759, 812, 826

BETA-PLUS DECAY RADIOISOTOPES 621, 812

BIBLIOGRAPHIES 512, 833, 834, 873

BIOADSORBENTS 440

BIOCHEMICAL OXYGEN DEMAND 842

BIOCHEMISTRY 548, 743

BIODEGRADATION 445, 548, 743, 841, 842, 845, 849, 863, 866, 867, 871, 881, 975

BIOLOGICAL EFFECTS 726, 865, 926

BIOLOGICAL MATERIALS 723, 812

BIOLOGICAL RADIATION EFFECTS 726

BIOLOGICAL RECOVERY 573

BIOLOGICAL SHIELDS 49, 50, 146, 161, 180, 205, 210, 213, 214, 224, 272, 295, 310, 318, 320-322, 327

BIOLOGICAL WASTES 812

BIOREACTORS 548, 743

BIPHENYL 374, 1021

BISMUTH ISOTOPES 630

BISMUTH-212 621

BITUMENS 378

BODY FLUIDS 723, 812

BOILERS 145

BOREHOLES 351, 358, 359, 480, 525, 557, 613, 627, 645, 654, 668, 683, 687, 688, 712, 714, 782, 872, 875, 890, 910, 991

BRADWELL REACTOR 333

BREEDER REACTORS 72, 129, 251, 954

BRICKS 844

BUDGETS 18, 20, 21, 47, 405, 406, 457, 458, 468, 491, 537, 581, 602, 725, 767

BUILDING MATERIALS 18, 121, 135, 136, 146, 161, 185, 204, 217, 224, 226, 230, 288, 289, 404, 405, 407, 795, 972, 984

BURIAL 327, 385, 404, 438, 604, 648, 685, 702, 730, 735, 742, 749, 777, 780, 781, 981

BWR TYPE REACTORS 39, 53, 54, 97, 100, 108, 124, 133, 146, 149, 186, 199, 200, 204, 206, 212, 253, 257, 271, 280, 282, 301, 302, 312, 314-316, 335

CADMIUM 604, 621, 936, 964

CALCITE 617

CALCIUM 820

CALCIUM CARBONATES 440

CALCIUM COMPOUNDS 961

CALCIUM OXIDES 961

CALCULATION METHODS 915, 932

CALIBRATION 696, 974

CANADIAN ORGANIZATIONS 344

CANDU TYPE REACTORS 294, 295

CAPILLARY WATER 839

CARBON 136

CARBON COMPOUNDS 652

CARBON DIOXIDE 136, 820

CARBON DIOXIDE COOLED REACTORS 89, 145, 195, 247, 263, 326, 333

CARBON DIOXIDE LASERS 159

CARBON ISOTOPES 278

CARBON OXIDES 136

CARBON STEELS 141, 153, 154, 232

CARBON TETRACHLORIDE 623, 702, 707, 713, 714, 743-745, 876

CARBON-13 995

CARBON-14 278

CARBON-14 DECAY RADIOISOTOPES 355, 427, 435, 530, 826

CARBONATE MINERALS 617

CARBONATES 136, 652

CARBOXYLIC ACIDS 120, 154, 652

CASKS 228, 242, 987

CASTING 256, 277, 987, 988

CATIONS 617

CAVITIES 613, 668, 683, 688, 735, 782

CEMENTS 43, 272, 635, 735, 761, 795, 820, 984

CERIUM IONS 134

CERTIFICATION 412, 777

CESIUM 153, 234, 685, 786, 944

CESIUM ISOTOPES 21, 22, 225, 227, 329, 561, 571, 638, 644, 675, 695, 722, 812, 820

CESIUM-134 719

CESIUM-137 22, 277, 329, 474, 525, 561, 644, 675, 698, 719, 812

CHALCOGENIDES 124, 136, 140, 325, 329, 605, 961

CHARGED PARTICLE DETECTION 241, 278

CHARGED PARTICLES 111, 134, 617

CHARPY TEST 56, 57

CHELATING AGENTS 120, 148, 652, 862

CHEMICAL ANALYSIS 19, 29, 146, 263, 427, 494, 559, 560, 562, 611, 621, 630, 711, 737, 745, 770, 771, 781, 890, 898, 910, 958

CHEMICAL COMPOSITION 11, 29, 30, 35, 165, 396, 494, 562, 673, 898, 952

CHEMICAL EFFLUENTS 361, 363-365, 622, 790

CHEMICAL EXPLOSIONS 30, 33, 35

CHEMICAL MACHINING 186, 378

CHEMICAL PLANTS 351, 528, 530, 627, 628, 796, 811, 902, 920

CHEMICAL PREPARATION 143, 346

CHEMICAL PROPERTIES 29, 860

CHEMICAL REACTION KINETICS 29, 441

CHEMICAL REACTIONS 5, 8, 22, 25, 28, 34, 38, 125, 134, 138, 140, 142, 171, 438, 573, 689, 821, 840, 866, 871, 940

CHEMICAL REACTORS 548, 743

CHEMICAL WASTES 6, 10, 29, 403, 440, 486, 488, 528, 532, 533, 593, 595, 604, 621, 630, 632, 650, 657, 676, 685, 702, 714, 727, 730, 731, 737, 742, 743, 748-750, 772, 774, 777, 781, 790, 854, 855, 867, 894, 908-910, 918, 919, 927, 928, 933, 952, 970, 975, 977, 978, 980, 986, 991, 1027

CHEMISTRY 131, 439, 806, 815

CHINON-2 REACTOR 195

CHLORINATED ALIPHATIC HYDROCARBONS 380, 532, 562, 604, 623, 713, 848, 922

CHLORINATED AROMATIC HYDROCARBONS 355, 493, 514, 528, 530, 577, 600, 666, 667, 688, 731, 737, 871, 919, 920, 956, 963

CHLORINE COMPOUNDS 124, 652

CHLOROFORM 623, 876

CHROMATES 868

CHROMIUM 621, 936, 944

CHROMIUM COMPOUNDS 543

CHROMIUM-NICKEL STEELS 168

CHRONIC EXPOSURE 839

CITRATES 652

CITRIC ACID 120, 652

CLAYS 404, 525, 617, 729, 730, 773, 774, 820, 860, 879, 890

CLEAN AIR ACT 423, 640, 641, 667, 783

CLEAN WATER ACT 469, 563, 640, 641, 660, 661, 667, 783, 784

CLEANING 24, 60, 77, 85, 98, 117, 118, 120, 121, 125, 126, 128, 129, 131, 134-138, 140, 142, 145, 149-151, 154, 155, 163, 164, 167, 186, 189, 193, 196, 198, 199, 215, 224, 227, 235, 240-242, 266, 290, 296, 312, 314, 325, 329, 343, 346, 352, 377, 414, 431, 501, 508, 513, 530, 542, 557, 575, 603, 605, 607, 652, 668, 710, 717, 737, 741, 745, 767, 779, 787, 805, 806, 826, 834, 852, 858, 859, 866, 868, 871, 884, 885, 917, 943, 946, 981, 993, 1008

CLIMATES 575, 682, 810, 880

CLINCH RIVER 559-561

COAGULANTS 201

COATINGS 72, 121, 137, 139, 227

COBALT 72, 234, 944

COBALT ALLOYS 251

COBALT ISOTOPES 131, 225, 247, 278, 561, 812

COBALT-59 251

COBALT-60 148, 229, 247, 277, 278, 561, 698, 812

COGENERATION 602

COLLOIDS 108, 120, 123, 126, 139, 151, 165, 168, 169, 171, 187, 193, 235, 431, 642, 975

COLUMBIA RIVER 66, 595, 698, 700, 705, 707, 724, 744, 780, 792, 901

COLUMBIA RIVER BASIN 67

COMBUSTION 22, 33, 35, 38, 795, 821, 965, 976

REAL STA

COMBUSTION PRODUCTS 656, 691

COMBUSTION PROPERTIES 47

COMMINUTION 135, 140, 185

COMMUNICATIONS 389, 473, 478, 517, 579, 588, 590, 776, 797

COMMUNITIES 389, 473, 517, 579, 588

COMPARATIVE EVALUATIONS 58, 83, 103, 471, 546, 617, 652, 843, 866, 897, 908, 934

COMPILED DATA 11, 17, 30, 575, 640, 641, 662, 667, 676, 688, 708, 709, 770, 771

COMPLIANCE 7, 13, 31, 62-64, 82, 135, 362, 400, 401, 415, 416, 428, 453, 458, 464, 471, 477, 479, 482, 484, 492, 495, 497, 506, 511, 515, 518, 521, 524, 526-528, 530, 531, 533, 538-540, 545, 555, 570, 580, 583, 584, 592, 599, 604, 608, 618, 619, 622, 625, 628, 631, 640, 641, 647, 649, 657, 660, 661, 667, 670, 707, 731, 750, 775, 776, 783, 789, 793, 797, 807, 927, 970, 976, 999, 1025-1027, 1032, 1033

COMPLIANCE AUDITS 931

COMPRESSION STRENGTH 795

COMPUTER ARCHITECTURE 992

COMPUTER CALCULATIONS 80, 85, 845, 916, 924, 933

COMPUTER CODES 47, 88, 289, 320, 355, 381, 475, 487, 551, 613, 648, 703, 734, 817, 845, 855, 858, 869, 893, 899, 908, 912, 932

COMPUTER GRAPHICS 16, 27, 948

COMPUTER-AIDED DESIGN 899

COMPUTERIZED SIMULATION 16, 27, 435, 682, 839, 845, 848, 855, 878, 899, 908, 912, 919

COMPUTERS 658, 892

751 Key Word Index

CONCENTRATION RATIO 470

CONCRETES 18, 50, 96, 121, 135, 136, 144, 146, 152, 161, 179, 185, 204, 205, 208, 209, 213, 214, 217, 224, 226, 230, 272, 274, 276, 288, 315, 317, 318, 320, 322, 346, 370, 378-380, 405, 757, 767, 796, 808, 972

CONDENSED AROMATICS 871

CONSTRAINTS 9, 914

CONSTRUCTION 53, 130, 161, 204, 214, 351, 382-384, 404-407, 410, 448, 529, 550, 551, 556, 633, 730, 749, 784, 799, 873

CONTAINERS 3, 6, 9, 11, 17, 18, 22, 36, 38, 43, 44, 50, 61, 118, 134, 161, 182, 184, 186, 214, 232, 245, 258, 261, 262, 276, 279, 288, 290, 305, 328, 480, 520, 538, 543, 610, 644, 670, 686, 690, 702, 709, 730, 738, 758, 765, 779, 781, 786, 941, 944, 945, 967, 968, 974, 980, 984, 987, 990, 992, 1000, 1019

CONTAINMENT 3, 108, 110, 113, 226, 288, 325-327, 329, 366, 474, 550, 562, 576, 667, 788, 951, 957, 971

CONTAINMENT BUILDINGS *52*, 91, 113, 144, 288, 315, 327

CONTAINMENT SYSTEMS 52, 378, 555, 562, 673, 935

CONTAMINATION REGULATIONS 1, 14, 87, 96, 216, 256, 273, 274, 469, 470, 487, 660, 661, 776, 801, 804, 835, 932, 933, 949, 1004, 1006, 1009, 1013, 1017, 1029

CONTRACT MANAGEMENT 456, 468, 602, 803

CONTRACTOR PERSONNEL 468, 589, 752, 804

CONTRACTORS 2, 385, 456, 468, 589, 637, 752

CONTRACTS 76, 94, 157, 382, 385, 403, 412, 456, 461, 468, 473, 510, 544, 589, 995, 1033

CONTROL SYSTEMS 326, 974, 979

CONVEYORS 817, 818

COOLANT CLEANUP SYSTEMS 119

COOLING SYSTEMS 124, 160, 185, 294, 543

COOPERATION 162, 387, 570, 996

COORDINATED RESEARCH PROGRAMS 162, 298, 570, 824

COPPER 233, 266

CORROSION 125, 689, 1005

CORROSION PRODUCTS 124, 138

CORROSION RESISTANT ALLOYS 168

COST 1, 2, 4, 7, 43, 49, 60, 69, 78, 79, 83, 84, 86, 93, 96, 101-104, 106, 253, 259, 339, 356, 405, 406, 431, 475, 489, 503, 508, 510, 523, 524, 526, 554, 555, 581, 602, 741, 767, 852, 962, 967, 968, 1000, 1034

COST BENEFIT ANALYSIS 1, 96, 117, 273, 356, 505, 530, 876, 914, 926, 1009, 1029

COST ESTIMATION 13, 20, 21, 49, 54, 69, 73, 83, 85, 98, 102, 103, 106, 128, 166, 280, 333, 353, 355, 456, 468, 491, 500, 530, 586, 587, 602

COUNTING TECHNIQUES 435, 812

COVERINGS 40, 359, 378, 385, 388, 401, 404, 409, 413, 421, 423, 438, 529, 542, 730, 735, 749, 773, 774, 777, 780, 799, 879

CROPS 698, 705

CRYSTAL STRUCTURE 124, 125

CUTTING 39, 152, 158-160, 165, 168-171, 183, 186, 190, 193, 196-198, 200, 202, 204, 205, 208, 210, 211, 213, 218, 220, 232, 235, 257, 290-292, 310, 314-316, 319, 336, 340, 348

CUTTING TOOLS 39, 159, 170, 178, 184, 187, 190, 193, 203, 205

CYCLONE SEPARATORS 193

CYCLOTRONS 62

DAMS 665, 784

DARLINGTON-1 REACTOR 119

DARLINGTON-2 REACTOR 119

DARLINGTON-3 REACTOR 119

DARLINGTON-4 REACTOR 119

DATA ACQUISITION 60, 88, 219, 316, 357, 367, 456, 475, 559, 560, 564, 662, 667, 704, 708, 718, 888, 974

DATA ANALYSIS 17, 150, 356, 459, 504, 523, 651, 658, 664, 667, 888, 901, 916, 921, 924, 933, 934, 972

DATA BASE MANAGEMENT 35, 88, 329, 357, 475, 498, 515, 523, 559, 560, 637, 679, 700, 725, 931, 950

DATA COMPILATION 88, 356, 357, 366, 456, 498, 703, 888

DATA COVARIANCES 486, 703, 888, 897, 919

DATA PROCESSING 36, 884

DAUGHTER PRODUCTS 414, 431, 662, 938

DAYS LIVING RADIOISOTOPES 427, 621, 723

DECISION MAKING 4, 7, 20, 265, 351, 362, 387, 406, 457, 459, 464, 486, 488, 490, 491, 523, 529, 533, 583, 592, 593, 608, 769, 798, 804, 846, 883, 888, 902, 904, 907, 908, 911, 912, 914, 921, 923, 927-929, 995

DECISION TREE ANALYSIS 351, 459, 486, 488, 928

DECOMPOSITION 862, 866, 871

DEMOLITION 12, 67, 71, 76, 77, 80, 85, 98, 110, 111, 113, 121, 123, 126, 129, 133, 145, 146, 158, 160, 165, 170, 173, 177, 178, 180, 182, 185, 186, 189, 193, 195, 199, 200, 204, 215, 224, 225, 230, 235, 237, 240, 241, 247, 248, 251, 263, 267, 272, 282, 287, 296, 299, 300, 302, 304, 309, 312, 316, 329, 334, 338, 342, 351, 785, 889

DEMONSTRATION PLANTS 937

DEMONSTRATION PROGRAMS 6, 336, 526, 547, 750, 937, 949, 950, 974, 980, 995

DEPLETED URANIUM 932

DEPOSITION 136, 139, 140, 142, 224-226

DEPTH 160, 171, 708, 893

DESERTS 635, 729

DESIGN 23, 68, 119, 254, 313, 404, 405, 407, 412, 415, 451, 465, 529, 535, 613, 660, 661, 717, 749, 784, 837, 847, 858, 961

DESORPTION 854, 878

DESTRUCTIVE TESTING 56, 57

DETERGENTS 150, 155

DEVELOPED COUNTRIES 227, 314, 326, 333, 344, 352, 414, 417, 430, 431, 442, 447, 451, 530, 550, 659, 683, 695, 802, 815, 821, 846, 871

753 Key Word Index

DIAGNOSTIC TECHNIQUES 627, 974

DIDO REACTOR 101

DIFFUSION 820, 878

DIOXIN 821

DISEASES 431, 926

DISPERSIONS 108, 120, 123, 126, 136, 139, 151, 165, 168, 169, 171, 187, 193, 227, 235, 427, 431, 439, 543, 562, 638, 738, 927, 941, 1007

DISSOLUTION 137, 140, 142, 226, 427, 443, 444, 531, 638, 958, 964, 966, 984

DOCUMENTATION 30, 254, 357, 405, 406, 412, 415, 477, 518, 527, 528, 545, 559, 560, 583, 584, 592, 700, 724, 776, 804, 904, 905

DOLOMITE 358, 359

DOSE EQUIVALENTS 96, 722, 893

DOSE LIMITS 1, 14, 87, 96, 216, 233, 242, 244, 248, 265, 274, 312, 598, 650, 657, 726, 835, 905, 932, 1004, 1006, 1009, 1010, 1013, 1014, 1017, 1024, 1029, 1031-1033

DOSE RATES 1, 14, 92, 95, 112, 129, 133, 242, 247, 319, 425, 814, 1006, 1013

DOSES 60, 80, 114, 135, 145, 173, 183, 199, 242, 259, 267, 334, 355, 381, 430, 435, 487, 505, 536, 590, 603, 655, 722, 724, 791, 812, 917, 932

DOSIMETRY 96, 114, 310, 381, 557, 641, 797, 893

DRAINAGE 404, 626, 627, 665, 718, 749, 770, 771, 784, 856

DRILLING 52, 142, 208, 609, 635, 645, 654, 659, 668, 688, 712, 715, 782, 891, 910

DRILLING EQUIPMENT 52, 208, 635, 645, 890, 910, 977

DRINKING WATER 395, 400, 469, 660, 661, 667, 754, 854, 999

DTPA 120

DUAL TEMPERATURE PROCESS 344

DUSTS 50, 217, 245, 277, 367, 396, 729, 742

ECOLOGICAL CONCENTRATION 355, 398, 459, 561, 615, 621, 644, 649, 694, 695, 722, 839, 922

ECONOMIC ANALYSIS 76, 117, 154, 350, 505, 530, 914, 926

ECONOMIC IMPACT 503, 846

ECONOMICS 76, 80, 117, 341, 505, 530, 565, 914, 926

ECOSYSTEMS 477, 575, 655, 815

EDTA 120, 576

EDUCATION 9, 477

EDUCATIONAL FACILITIES 357

EFFICIENCY 418, 897

ELECTRIC ARCS 170

ELECTRIC CONDUCTIVITY 808, 953, 961

ELECTRIC DISCHARGES 170

ELECTRIC FIELDS 955, 959

ELECTRIC FURNACES 178

ELECTRIC POTENTIAL 955

ELECTRICAL EQUIPMENT 604, 943

ELECTROCHEMICAL MACHINING 186

ELECTROCHEMISTRY 130, 131, 148, 947

ELECTRODES 156, 186, 935, 943, 946, 953, 963

ELECTROLYSIS 126, 131, 134, 138-141, 149, 153, 156

ELECTROLYTES 139, 148, 154, 156

ELECTROMAGNETIC RADIATION 72, 121, 135, 159, 168, 200, 224, 889

ELECTROMAGNETIC SURVEYS 894

ELECTROMETALLURGY 150

ELECTRON CAPTURE RADIOISOTOPES 72, 278, 621, 812

ELECTRONIC EQUIPMENT 367

ELECTROPOLISHING 126, 143, 148, 149, 151, 154

ELECTROSLAG CASTING 973

ELECTROSTATIC PRECIPITATORS 193

ELECTROSTATIC SEPARATION 973

EMBRITTLEMENT 32, 56-58

EMERGENCY PLANS 30, 35, 552, 620, 682, 841, 931

EMULSIFIERS 132, 150, 155

ENCAPSULATION 48, 446, 984

ENDOCRINE GLANDS 723, 724

ENERGY SOURCES 227, 686, 690, 859

ENERGY SYSTEMS 160, 175, 179, 185, 294

ENERGY TRANSFER 22, 445, 966

ENGINEERED SAFETY SYSTEMS 562, 788

ENGINEERING GEOLOGY 351, 749

ENRICHED URANIUM 57, 424, 973

ENRICHED URANIUM REACTORS 50, 51, 56, 60, 61, 77, 108, 113, 127, 132, 145, 177, 183, 186, 200, 204, 231, 247, 251, 259, 300, 304, 312, 314, 326, 333

ENTOMBMENT 42, 174, 194, 317, 327

ENVIRONMENTAL EFFECTS 400, 449, 506, 530, 539, 565, 575, 591, 595, 617, 619, 624, 640, 656, 657, 690, 700, 716, 724, 774, 776, 791, 804, 991, 999, 1025

ENVIRONMENTAL ENGINEERING 510

ENVIRONMENTAL EXPOSURE 435, 505, 603, 723, 920

ENVIRONMENTAL EXPOSURE PATHWAY 14, 355, 358, 359, 426, 470, 487, 515, 546, 561, 611, 643, 698, 700, 705, 723, 724, 761, 902, 916, 918, 920-922, 930, 932-934, 1032

ENVIRONMENTAL IMPACT STATEMENTS 99, 100, 406, 473, 490, 598, 660, 661

93, 95, 97, 106, 108, 110, 228, 259, 296, 352, 353, 394, 395, 397, 402, 430, 431, 433, 434, 436, 437, 447, 448, 453, 473, 478, 490, 503, 505, 520, 530, 531, 547, 553, 567, 595, 597, 614, 619, 625, 626, 630, 634, 636, 640, 655, 656, 660, 661, 663, 675, 680, 716, 839, 856, 886, 920, 924, 976, 999, 1020, 1030

ENVIRONMENTAL POLICY 399, 436, 478, 479, 492, 516, 565, 569, 583, 631, 797, 805, 970, 999, 1023, 1026

ENVIRONMENTAL PROTECTION 399, 422, 475, 479, 492, 515, 519, 522, 789, 803, 810, 856, 999

ENVIRONMENTAL QUALITY 400, 492, 506, 531, 567, 596, 597, 619, 657, 668, 699, 740, 774, 775, 882, 896, 901, 1030, 1032

ENVIRONMENTAL TRANSPORT 22, 110, 225, 352, 402, 427, 429, 434, 439, 444, 483, 525, 532, 536, 543, 547, 550, 551, 559-561, 571, 575, 603, 619, 624, 628, 634, 636, 638, 646, 649, 653, 655, 656, 664, 669, 670, 672, 675, 676, 680, 683, 685, 691, 695, 700, 701, 705, 723, 724, 764, 768, 775, 788, 809, 815, 836, 839, 841, 847, 848, 853, 865, 869, 875, 878, 891, 899, 902, 915, 916, 920, 922, 930, 932, 936, 975, 977, 999, 1005, 1025, 1030

EPIDEMIOLOGY 431, 723

EPITHERMAL REACTORS 72, 127

EROSION 126, 377, 404, 409, 413, 421, 550, 784

EROSION CONTROL 377, 404, 421, 784

EUROPIUM 234

EVALUATION 9, 11, 18, 23, 26, 38, 147, 200, 227, 288, 464, 530, 577, 582, 597, 720, 747, 846, 865, 887, 897, 902, 914, 965, 983

EVAPORATION 708, 767, 847

EVAPORATORS 19, 707, 793

EVEN-EVEN NUCLEI 219, 227, 278, 355, 381, 414, 417, 425, 432, 435, 530, 561, 621, 638, 649, 655, 672, 675, 788, 812, 826

EVEN-ODD NUCLEI 72, 278, 381, 638, 655, 663, 812

EXCAVATION 351, 382-384, 404, 407, 529, 610, 630, 632, 729-731, 739, 746, 774, 777, 779-781, 799, 802, 844, 873, 990

EXPANSION 795

EXPERIMENTAL DATA 118, 146, 147, 235, 651, 683, 961, 964, 972

EXPERIMENTAL REACTORS 20, 204, 207, 254, 304, 314, 316, 318, 320, 335, 670

EXPERT SYSTEMS 906, 907, 912

EXPLOSIONS 5, 8, 25, 28, 34, 45, 531, 620, 638, 793

EXPLOSIVE FRACTURING 179, 180, 182, 185

EXTRACTION 150, 620, 652, 713, 766, 768, 859, 861, 885, 940, 981

F CODES 47

FABRICATION 121, 304, 973

FALLOUT 559, 560, 634, 636, 841

FAST REACTORS 72, 127

FBR TYPE REACTORS 72, 127, 129, 251

FEDERAL RADIATION COUNCIL 402

FEED MATERIALS PLANTS 351, 418, 420, 424, 427, 449, 533, 536, 538, 649, 652, 654, 751, 938

FEED MATERIALS PRODUCTION CENTER 40, 533, 537, 649, 753, 754, 937, 938, 994

FEEDWATER HEATERS 133, 199

FELDSPARS 452, 617

FERRITIC STEELS 160, 171

FERROCYANIDES 8, 22, 25, 28, 29, 33, 34

FFTF REACTOR 719

FIR	FR	OP	ПCS	493
LILI	1:1			マノン

FILTERS 62, 200, 235, 277, 551, 745, 865, 1005

FILTRATION 169, 193, 290, 329, 753, 978

FINANCING 69, 73, 75-77, 79, 93, 102, 104, 106, 293, 491, 589

FINITE ELEMENT METHOD 951

FIRE HAZARDS 620

FISHES 561, 666, 698, 999

FISSION PRODUCTS 163, 167, 608, 1001

FLAMMABILITY 5, 8, 25, 28, 33, 34, 45, 47

FLOOD CONTROL 626, 665

FLOODS 228, 626, 665, 679

FLOORS 351, 378, 379, 770, 771

FLOW MODELS 413, 534, 648, 653, 679, 703, 838, 845, 855, 858, 869, 899

FLOW RATE 659, 665, 683, 734

FLOW REGULATORS 132, 133

FLOWSHEETS 11, 464, 564, 641, 687, 991, 995

FLUID FLOW 398, 659, 665, 713, 878, 975

FLUID INJECTION 858

FLUIDIZED BEDS 984

FLUIDS 108, 110, 155, 165, 171, 398, 417, 431, 477, 532, 575, 649, 655, 768, 805, 809, 903, 957, 977

FLUORESCENCE SPECTROSCOPY 843

FLUORINE 154

FLUORINE COMPOUNDS 199

FLY ASH 795

FOAMS 120, 123

FOOD 639, 655, 675, 723

FOOD CHAINS 434, 655, 723

FORECASTING 2, 29, 237, 375, 679, 899, 922

FORMIC ACID 154

FOSSIL FUELS 686, 690, 691, 859

FRACTURE MECHANICS 32

FRACTURE PROPERTIES 56

FRACTURING 179, 180, 182, 185, 304

FREONS 577, 989

FUEL ASSEMBLY DISMANTLING 4, 86, 98, 101, 115, 192, 195, 284, 326

FUEL CYCLE 187, 191, 286, 299, 307, 449, 1032

FUEL CYCLE CENTERS 94, 103, 192, 286

FUEL ELEMENTS 174, 192, 326

FUEL FABRICATION PLANTS 94, 96, 163, 172, 219, 286, 289, 303, 325, 330, 331, 338, 355, 513, 525, 608, 772, 774, 1032

FUEL OILS 845

FUEL PINS 326

FUEL POOLS 63, 598

FUEL REPROCESSING PLANTS 2, 66, 73, 85, 118, 128, 166, 167, 188, 196, 286, 301, 307, 329, 372, 373, 513, 525, 645, 648, 712, 742, 750-752, 796, 973, 1005

FUELS 163, 690, 766, 859

FUNCTIONAL MODELS 44, 189, 499, 858, 908

FUNDING 81, 94, 102, 105, 406, 457, 489, 589, 823

FURNACES 178, 184

G CODES 734, 855

GAMMA 370

GAMMA DETECTION 240, 241, 367, 370, 371, 379, 633, 662, 816

GAMMA LOGGING 360, 368, 685

GAMMA RADIATION 72, 247, 361, 363-365, 367, 368, 614, 628, 633, 658, 678, 889, 893, 938

GAMMA SOURCES 367, 662

GAMMA SPECTRA 367, 658, 662, 889

GAMMA SPECTROMETERS 429

GAMMA SPECTROSCOPY 289, 429, 667

GARIGLIANO REACTOR 132, 133, 199, 200, 312

GAS CHROMATOGRAPHY 910

GAS COOLED REACTORS 89, 110, 145, 157, 224, 231, 235, 247, 259, 287, 301, 326, 327, 332, 333, 335

GASEOUS DIFFUSION PLANTS 467, 497, 511, 531, 541-543, 567, 570, 663, 664, 738, 759, 788, 1000, 1032

GASEOUS WASTES 5, 8, 25, 28, 34, 36, 151, 603, 667

GASOLINE 693, 766, 867

GCR TYPE REACTORS 110, 145, 231, 235, 259, 287, 326, 333, 335

GELS 126, 130, 151

GENTILLY REACTOR 173

GEOCHEMISTRY 439, 494, 975

GEOGRAPHY 575, 701, 810

GEOLOGIC DEPOSITS 525, 645

GEOLOGIC FAULTS 894

GEOLOGIC FORMATIONS 259, 572, 748

GEOLOGIC FRACTURES 683

GEOLOGIC MODELS 648

GEOLOGIC STRUCTURES 683

GEOLOGIC SURVEYS 525

GEOLOGY 66, 352, 543, 575, 612, 613, 624, 656, 659, 663, 688, 713, 734, 810, 880, 884, 891, 975

GEOMORPHOLOGY 525, 660, 661, 748

GEOPHYSICAL SURVEYS 525, 609, 635, 683, 718, 808, 846, 892, 894, 897

GEOPHYSICS 808, 894

GEOTHERMAL ENERGY 424

GLASS 227, 936, 943, 944, 956, 958, 963

GLEEP REACTOR 101

GLOVEBOXES 62, 128, 163, 172, 329

GRAPHITE 50, 101, 231, 262

GRAPHITE MODERATED REACTORS 50, 77, 89, 101, 110, 127, 145, 177, 195, 224, 228, 231, 235, 259, 287, 300, 324, 326, 333, 335

GRAPHITE REACTORS 130

GROUND COVER 413, 451, 879

GROUND DISPOSAL 259, 404, 438, 576, 604, 684, 712, 721, 738, 763, 800, 935, 986, 994, 1005, 1023, 1027

GROUND WATER 110, 358, 359, 361, 363-365, 393, 394, 396, 400-402, 413, 415, 419, 422, 439, 440, 451, 465, 469, 470, 474, 486, 514, 525, 531, 532, 534, 540, 542, 543, 546, 548-550, 557, 561, 562, 564, 572, 575, 576, 582, 596, 600, 606, 609, 612, 614, 618, 619, 623-628, 630, 631, 635, 641, 642, 645, 647, 648, 653, 655-657, 659-661, 668-670, 672, 673, 675, 676, 679, 681, 683, 684, 687, 689-691, 693, 699, 703, 706-709, 713-716, 721, 723, 730, 732, 733, 736, 743, 744, 746-748, 754, 761, 766, 768, 772, 773, 775, 782, 793, 810, 819, 824, 838-840, 844, 846, 847, 854, 855, 857, 859, 861, 863, 864, 866, 869, 870, 873, 875, 876, 878-885, 890, 891, 896, 898, 899, 910, 926, 928, 932, 950, 955, 975, 977, 978, 991, 993, 999, 1001

GROUTING 21, 40, 42, 52, 603, 635, 735, 758, 770, 771, 782, 793, 795

GYPSUM 452

HALOGEN COMPOUNDS 154, 199, 540, 652, 920

HALOGENATED ALIPHATIC HYDROCARBONS 439, 532, 562, 577, 623, 711, 713, 922

HALOGENATED AROMATIC HYDROCARBONS 355, 530, 577, 600, 688, 871, 920 **HALOGENATION** 861

HANFORD PRODUCTION REACTORS 7, 37, 66, 67, 598, 698, 701, 705, 791, 792, 796

HAULAGE EQUIPMENT 59

HEAD END PROCESSES 187, 760

HEALTH HAZARDS 37, 49, 116, 144, 255, 326, 352, 353, 355, 372, 373, 392, 396, 398, 402, 434, 436, 442, 450, 488, 496, 503, 506, 536, 538, 575, 595, 620, 621, 643, 655, 722, 724, 839, 886, 914, 919, 920, 925, 926, 930, 931, 1008, 1033

HEARINGS 466, 478, 558, 595, 962

HEAT EXCHANGERS 131, 145, 170, 218

HEAT RESISTANT MATERIALS 168, 182

HEAT RESISTING ALLOYS 168, 182

HEAT TRANSFER 22, 953, 959, 966

HEAT TREATMENTS 57, 965

HEATING 235, 602

HEAVY ION DECAY RADIOISOTOPES 355, 381, 417, 425, 427, 435, 530, 655, 826

HEAVY WATER COOLED REACTORS 204

HEAVY WATER MODERATED REACTORS 173, 204, 247, 335

HELIUM COOLED REACTORS 177, 300

HETEROCYCLIC COMPOUNDS 821

HFIR REACTOR 57, 58

HIGH ALLOY STEELS 125, 142, 149, 154, 160, 169-171, 175

HIGH PRESSURE 266

HIGH-LEVEL RADIOACTIVE WASTES 5, 8, 10, 23, 25, 26, 28-30, 33-35, 38, 42-46, 52, 316, 499, 525, 577, 610, 647, 651, 654, 701, 750, 751, 791, 793, 794, 837, 938, 954

HISTORICAL ASPECTS 18, 67, 350, 357, 519, 575, 625, 698, 700, 701, 704, 723-725, 761, 781, 790, 792, 1005

HOMOGENEOUS REACTORS 50, 300

HOT CELLS 1' 2, 164, 196, 214, 329, 330

HOURS LIVING RADIOISOTOPES 621, 638, 759

HRE-2 REACTOR 670

HTGR TYPE REACTORS 177, 300

HTR REACTOR 284

HUMAN POPULATIONS 259, 389, 639, 657, 675, 700, 724, 725, 812, 920, 932

HUNTERSTON-A REACTOR 287

HUNTERSTON-D REACTOR 326

HWGCR TYPE REACTORS 247, 335

HYDRAULIC CONDUCTIVITY 404, 439, 612, 683, 686, 734, 735, 853, 910

HYDRAULIC FRACTURING 872

HYDRAULICS 784, 864, 869

HYDROCARBONS 514, 548, 562, 676, 677, 694, 743, 858, 859, 866, 867, 871

HYDROCHLORIC ACID 124, 652

HYDROFLUORIC ACID 154, 199

HYDROGEN 33, 47, 451, 542, 600, 689, 859

HYDROGEN COMPOUNDS 110, 127, 138, 142, 145, 178, 183, 199, 381, 402, 417, 425, 439, 477, 493, 501, 531, 532, 543, 547, 549, 550, 561, 562, 572, 575, 576, 606, 607, 612, 613, 615, 623, 629, 630, 637-639, 649, 652, 655, 659, 664, 672, 675, 677, 683, 690, 713, 715, 723, 747, 766, 768, 775, 782, 788, 802, 819, 840, 846, 847, 853, 861, 866, 880, 882-885, 891, 896, 926, 977, 993

HYDROGEN ISOTOPES 225, 547, 550, 561, 613, 621, 638, 639, 655, 672, 826

HYDROGEN PRODUCTION 30

HYDROLOGY 66, 352, 549, 576, 600, 609, 612, 613, 624, 627, 638, 653, 655, 656, 659, 663, 664, 672, 679, 683, 687, 696, 743, 775, 810, 839, 847, 880, 884, 891, 955, 975, 991

IDAHO CHEMICAL PROCESSING PLANT 622

IDAHO NATIONAL ENGINEERING LABORATORY 228, 499, 522, 526, 617, 620, 621, 623, 747, 768, 935, 960, 983, 990, 994

IFR REACTOR 973

IMAGE PROCESSING 16, 27

IMPACT TESTS 56-58

IMPLEMENTATION 3, 448, 464, 490, 526, 531, 564, 565, 567, 601, 779, 884, 887, 949, 1012

IMPREGNATION 138, 140, 142, 226

IN-SITU PROCESSING 10, 11, 226, 747, 791, 793, 861, 935, 941-943, 946, 951, 953, 957, 958, 964-968, 972, 1007

INCINERATORS 519, 821, 866, 873, 983

INDIAN ORGANIZATIONS 387, 579, 588, 1011

INDIAN RESERVATIONS 723

INDUCTION FURNACES 236, 266

INDUSTRIAL ACCIDENTS 620

INDUSTRIAL PLANTS 64, 344, 398, 414, 418, 424, 432, 497, 511, 530, 537, 541-543, 556, 567, 649, 652, 663, 664, 759, 788, 811

INDUSTRIAL RADIOGRAPHY 111

INDUSTRIAL WASTES 802, 828-831, 834, 846, 850, 880, 976

INERTIAL SEPARATORS 193

INFORMATION 17, 227, 335, 357, 527, 545, 567, 575, 594, 613, 683, 700, 709, 724, 888, 961, 964, 971, 972, 1003

INFORMATION DISSEMINATION 76, 107, 478, 512, 527, 545, 564, 592, 629, 723, 800, 923, 949, 950, 969-971, 1028

INFORMATION NEEDS 357, 695, 949

INFORMATION SYSTEMS 357, 912, 950, 1028

INHALATION 187, 431, 667, 920

INJECTION WELLS 483

INORGANIC ACIDS 124, 127, 133, 138, 142, 145, 154, 183, 199, 652, 689

INORGANIC COMPOUNDS 935

INORGANIC ION EXCHANGERS 984

INSPECTION 64, 391, 506, 535, 576, 687

INSTITUTIONAL FACTORS 117, 259, 265, 536, 568

INSULATING OILS 731, 770, 771

INTAKE 187, 431, 700, 724, 920

INTERAGENCY COOPERATION 70, 76, 285, 387, 389, 406, 458, 461, 473, 496, 517, 518, 521, 524, 546, 564, 566, 567, 569, 570, 579, 580, 588, 590, 616, 706, 750, 769, 778, 887, 901, 999

INTERMEDIATE MASS NUCLEI 22, 72, 131, 225, 227, 278, 329, 561, 571, 621, 638, 644, 672, 675, 695, 722, 723, 759, 788, 812

INTERMEDIATE-LEVEL RADIOACTIVE WASTES 258, 261-263, 276

INTERNAL CONVERSION RADIOISOTOPES 57, 72, 131, 225, 278, 381, 530, 561, 621, 663, 812

INTERNATIONAL COOPERATION 76, 98, 103, 107, 162, 249, 292, 298, 307, 311, 340, 347, 450, 950

INTERNATIONAL ORGANIZATIONS 70, 76, 107, 132, 194, 232, 237, 250, 283, 285, 293, 297, 298, 306, 307, 330, 332, 348, 726, 1015

INTERNATIONAL REGULATIONS 801

INTRUSION DETECTION SYSTEMS 568

INVENTIONS 156, 512

INVENTORIES 19, 53, 85, 172, 219, 498, 634, 636, 1000

INVESTIGATIONS 690, 765, 929

IODIDES 229

IODINE 860

IODINE ISOTOPES 723

IODINE-129 730

IODINE-131 608, 629, 723

ION EXCHANGE 150, 753, 763, 786, 860, 864, 881

ION EXCHANGE MATERIALS 753, 984, 1005

IONIZING RADIATIONS 57, 72, 889

IRON 232, 947

IRON ALLOYS 56, 57, 72, 125, 129, 142, 149, 154, 160, 168-171, 175, 182, 184, 186, 227, 239, 278

IRON BASE ALLOYS 56, 125, 142, 149, 154, 160, 168-171, 175, 182, 184, 186, 227, 232, 239, 251, 278

IRON COMPLEXES 22

IRON COMPOUNDS 860

IRON ISOTOPES 251, 278

IRON-54 251

IRON-55 278

IRRADIATION 57, 431, 840

IRRADIATION REACTORS 57, 204, 670

ISAR REACTOR 151

ISOMERIC TRANSITION ISOTOPES 57, 72, 131, 225, 278, 381, 561, 621, 638, 663, 759, 812

ISOTOPE APPLICATIONS 278, 695

ISOTOPE ENRICHED MATERIALS 424

ISOTOPE PRODUCTION REACTORS 57, 204, 499, 670

ISOTOPE SEPARATION 2, 344

ISOTOPE SEPARATION PLANTS 64, 344, 418, 424, 467, 497, 511, 541-543, 567, 663, 756, 759, 788, 939, 1000

ITALIAN ORGANIZATIONS 312

JOULE HEATING 956, 963, 983

JPDR REACTOR 86, 143, 204, 212, 223, 314, 316, 319, 321, 322, 335, 348

JRR-1 REACTOR 284

JRR-3 REACTOR 204, 284

KETONES 148, 721

KRYPTON ISOTOPES 638

KRYPTON-85 619, 638

LABORATORY BUILDINGS 144

LABORATORY EQUIPMENT 77, 128, 159, 163, 164, 172, 207, 329, 334, 980

LACBWR REACTOR 97

LAGRANGIAN FUNCTION 704

LAND POLLUTION 670, 693, 717, 729, 777, 811, 828-831, 852, 871, 873, 922, 952

LAND POLLUTION ABATEMENT 680, 763, 999, 1027

LAND POLLUTION CONTROL 397, 475, 530, 694, 728-730, 732, 742, 774, 777, 787, 841, 848, 857, 859, 865, 869, 999, 1027

LAND RECLAMATION 388, 392, 403, 413, 414, 418, 421, 431, 432, 437, 450, 451, 462, 467, 478, 500, 567, 595, 629, 633, 729, 740, 787, 810, 815, 833, 842, 866, 914, 991

LAND RESOURCES 402, 434, 436, 1008

LAND TRANSPORT 59, 204, 261

LAND USE 1, 14, 37, 87, 109, 352, 414, 433, 568, 806, 880

LANL 49, 51, 770, 771

LASER BEAM MACHINING 202

LASER RADIATION 200

LASERS 159, 200, 202, 205, 315

LAWRENCE LIVERMORE LABORATORY 611, 612, 766, 994

LAWS 64, 82, 187, 402, 418, 424, 434, 436, 447, 453, 460, 478, 482, 502, 509, 511, 520, 528, 530, 540, 568, 571, 575, 597, 611, 630, 663, 668, 695, 709, 793, 802, 805, 852, 871, 883, 885, 896, 914, 927, 960, 1008

LEACHATES 427, 439, 440, 543, 562, 673, 941, 1016, 1018

LEACHING 226, 422, 427, 443, 444, 638, 648, 678, 684, 692, 735, 738, 749, 820, 865, 936, 940, 942, 964, 966, 974, 984

LEAD 49, 50, 441, 550, 604, 621, 632, 651, 694, 774, 936, 944, 964

LEAD ISOTOPES 427, 621

LEAD-210 427, 452

LEAD-212 621

LEAK DETECTORS 3, 599, 664, 894

LEAKS 30, 33, 35, 68, 89, 108, 110, 201, 288, 555, 599, 670, 678, 689, 690, 693, 758, 793, 938

LEGISLATION 98, 249, 362, 390, 419, 451, 465, 475, 478, 479, 496, 518, 528, 533, 589, 592, 731, 856, 999, 1020

LEGISLATIVE TEXT 74, 89, 418, 424

LEUKEMIA 435

LEVELS 149, 160, 165, 168, 170, 171, 316

LIABILITIES 79, 329, 479

LICENSES 79

LICENSING 31, 70, 73, 74, 78, 79, 81, 82, 100, 105, 240, 241, 245, 281, 297, 303, 308, 310, 311, 313, 341, 422, 1005, 1015, 1020, 1022

LIFE-CYCLE COST 341, 602

LIFETIME 77, 226, 288, 526

LIGHT NUCLEI 225, 278, 547, 550, 561, 613, 621, 638, 639, 655, 672, 812, 826

LIMING 440, 543

LINERS 161, 644, 738, 770, 771

LINGEN REACTOR 108, 124, 282

LIQUID CONTAMINATION MONITORS 66

LIQUID FUELS 766

LIQUID METAL COOLED REACTORS 127, 251

LIQUID SCINTILLATION DETECTORS 289

LIQUID WASTES 18, 19, 29, 42, 48, 65, 118, 199, 201, 329, 427, 449, 462, 525, 576, 600, 603, 605, 610, 637, 642, 657, 718, 730, 739, 742, 744, 746, 750, 753, 763, 773, 774, 777, 780, 802, 855, 862, 938, 978, 1005

LITHIUM FLUORIDES 760

LITHOLOGY 613, 688

LMFBR TYPE REACTORS 251

LOW ALLOY STEELS 182, 184

LOW DOSE IRRADIATION 431

LOW-LEVEL RADIOACTIVE WASTES 3, 14, 17, 18, 43, 49, 87, 96, 158, 160, 193, 232, 234, 236, 241, 244, 247, 249, 256-258, 260, 262-264, 267-269, 273, 274, 277, 278, 280, 289, 299, 335, 355, 361, 363-365, 382, 385, 403, 408, 410, 427, 551, 555, 556, 562, 573, 610, 623, 647, 648, 664, 672, 673, 675, 677, 678, 681, 684, 708, 709, 737, 749-751, 759, 763, 767, 773, 793, 799, 800, 825, 835, 846, 917, 935, 937, 954, 960, 981, 987-989, 1001, 1006, 1009, 1010, 1013, 1014, 1016-1019, 1022, 1024, 1029, 1035

LWGR TYPE REACTORS 77

LYSIMETERS 879

LYSIS 126, 138-140, 149

MACHINING 140, 142, 159, 160, 168-171, 183, 186, 193, 200, 204, 230, 232, 235, 314, 316, 448

MAGNESIUM 774

MAGNESIUM ALLOYS 329

MAGNESIUM BASE ALLOYS 329

MAGNESIUM-28 DECAY RADIOISOTOPES 381

MAGNETIC FILTERS 978

MAGNETIC SURVEYS 808, 894

MAGNETISM 153, 981

MAGNOX 329

MAGNOX TYPE REACTORS 224, 259, 287, 333

MAINTENANCE 7, 9, 15, 24, 62-64, 71, 206, 241, 350, 543, 557, 687, 742, 796, 806, 810

MANGANESE 171

MANGANESE-54 719

MANHATTAN PROJECT 378, 380, 567

MANIPULATORS 68, 77, 159, 212, 221, 334, 979

MANPOWER 752

MANUALS 485, 807, 1023, 1026

MAPPING 16, 367, 658, 662, 808, 974

MAPS 7, 562, 575, 576, 666, 669, 782, 823, 892

MARINE DISPOSAL 259

MARITIME TRANSPORT 55, 59

MASS SPECTROMETERS 493, 898, 910

MASS SPECTROSCOPY 898

MASS TRANSFER 22, 110, 225, 352, 402, 427, 439, 532, 543, 547, 550, 561, 571, 575, 603, 624, 629, 638, 643, 649, 655, 656, 664, 672, 675, 676, 695, 700, 723, 724, 746, 764, 768, 775, 788, 809, 815, 836, 847, 853, 878, 891, 900, 902, 915, 922, 932, 935, 977, 1005

MATERIALS HANDLING 535, 538, 541, 620, 992, 1033

MATERIALS HANDLING EQUIPMENT 77, 159, 164, 165, 207, 333, 493, 817, 818, 980

MATERIALS RECOVERY 256, 273, 274, 439, 449, 768, 830, 835, 973, 987-989

MATERIALS TESTING 32, 56, 57, 204, 304

Key Word Index 764

MATERIALS TESTING REACTORS 499

MATHEMATICAL MODELS 46, 224, 265, 398, 430, 464, 483, 534, 700, 703, 723, 734, 768, 838, 845, 853, 858, 909, 912, 915, 916, 920-922, 924, 926, 927, 933, 934, 951, 991, 1030

M A X I M U M A C C E P T A B L E CONTAMINATION 1, 14, 87, 96, 144, 216, 254-256, 273, 274, 469, 470, 487, 650, 801, 835, 905, 916, 932, 933, 1004, 1006, 1009, 1013, 1017, 1029, 1031

MAXIMUM PERMISSIBLE ACTIVITY 240, 241, 414, 916, 932, 1004

MAXIMUM PERMISSIBLE DOSE 242, 249

MAXIMUM PERMISSIBLE LEVEL 622

MEASURING METHODS 974

MECHANICAL DECLADDING 187

MECHANICAL PROPERTIES 21, 32, 56, 125, 182, 226, 795, 820

MECHANICAL TESTS 56, 57

MECHANICAL VIBRATIONS 149

MELT FLUID FLOW MODEL 953

MELTING 129, 160, 181, 198, 218, 234, 236, 242, 252, 256, 257, 260, 275, 277, 278, 299, 935, 947, 957, 959, 966, 987, 988

MERCURY 542, 574, 577, 621, 666, 736, 737, 777, 936, 944, 964

METALS 32, 57, 72, 130, 134, 137-141, 148, 150, 156, 169, 171, 172, 175, 178, 181, 184, 218, 235, 236, 239, 240, 242, 246, 256, 266, 267, 273-275, 278, 299, 338, 352, 353, 402, 417, 418, 424, 430, 435, 436, 439, 441, 443, 451, 474, 531, 540, 542, 550, 577, 606, 615, 621, 629, 649, 651, 652, 655, 689, 696, 702,

711, 713, 717, 733, 737, 746, 747, 755, 759, 770, 771, 774, 777, 802, 805, 809, 811, 828, 868, 881, 902, 944, 964, 972, 987-989, 1005

METEOROLOGY 352, 614, 624, 656, 666, 667, 682, 704

METHANOGENIC BACTERIA 548

MICROBIAL PROCESSES 865

MICROORGANISMS 443, 531, 867, 975

MICROWAVE HEATING 217

MICROWAVE RADIATION 121, 135, 224

MILITARY FACILITIES 808, 810, 821, 833

MILK 629, 639, 666, 667, 698, 723

MILLING 230, 397, 448

MINERAL INDUSTRY 418, 1008

MINERAL OILS 542

MINERAL WASTES 392, 450

MINERALS 231, 617, 652, 728, 843, 958, 984

MINIMIZATION 346, 467, 531, 567, 596, 641, 647, 981, 994, 1001

MINING 392, 398, 447, 450, 1008

MINING EQUIPMENT 184, 654

MINUTES LIVING RADIOISOTOPES 72, 131, 225, 278, 381, 561, 621, 663, 812

MIXED OXIDE FUELS 163, 219, 325

MIXED WASTES 403, 488, 494, 712, 727, 730, 737, 742-744, 750, 773, 774, 777, 918, 940, 985, 1027

431-433

NATURAL URANIUM REACTORS 110, MIXTURES 136, 227, 439, 543, 562, 747, 173, 204, 231, 259, 287, 324, 333 895, 927, 941, 1007, 1021, 1023 NEON-24 DECAY RADIOISOTOPES 381, **MOISTURE 22, 729** 425, 427, 530 **MOLTEN SALT COOLED REACTORS** 20 NEOPLASMS 431, 435, 926 **MOLTEN SALT REACTORS** 20, 760 NEPTUNIUM-237 266 MOLYBDENUM 438, 439, 811 **NEUTRON ABSORBERS** 146 **MOLYBDENUM ALLOYS** 182 **NEUTRON ACTIVATION ANALYSIS 146, MONAZITES** 361, 364 263 MONITORS 26, 240, 241, 248, 366, 607, 637, **NEUTRON FLUENCE 58** 903 **NEUTRON REFLECTORS** 50 **MONOCARBOXYLIC ACIDS 154** NICKEL 266, 750, 774 **MONTE CARLO METHOD** 703, 839, 919 **NICKEL ADDITIONS** 182 MSRE REACTOR 20, 760 NICKEL ALLOYS 168, 175, 182 MULTILATERAL AGREEMENTS 778, 794 **NICKEL ISOTOPES** 72, 251, 278 NAI DETECTORS 367, 429, 662, 678 NICKEL-59 72 **NANOSEC LIVING RADIOISOTOPES 812 NICKEL-62** 251 NAPHTHALENE 677 NICKEL-63 72, 278 NATIONAL DEFENSE 7, 466, 660, 661, 792 NIEDERAICHBACH REACTOR 236, 247, NATIONAL ENERGY PLAN 447 NIOBIUM 72 NATIONAL ENVIRONMENTAL POLICY ACT 62, 63, 434, 447, 490, 511, 554, 837, **NIOBIUM ISOTOPES** 72 1008 NATIONAL GOVERNMENT 461, 810, 997, NITRATES 22, 30, 33, 375, 439, 577, 600, 689, 743, 761, 774 1020 NITRIC ACID 124, 129, 145, 148, 154, 199, NATIONAL PROGRAM PLANS 595, 950 652, 689 NATURAL RADIOACTIVITY 360, 414,

NITRILES 577

NITROGEN 121, 155

NITROGEN COMPOUNDS 22, 44, 439, 577, 600, 689, 902

NITROGEN OXIDES 47

NON-PROLIFERATION POLICY 1020

NONDESTRUCTIVE ANALYSIS 146

NONDESTRUCTIVE TESTING 304

NUCLEAR DATA COLLECTIONS 357

NUCLEAR FACILITIES 18, 21, 24, 61, 64, 66, 67, 74, 75, 77, 85, 96, 128, 136, 172, 187, 189, 215, 219, 237, 240, 241, 249, 267, 288, 293, 303, 304, 311, 325, 329, 335, 338, 344, 376, 398, 418, 420, 424, 427, 441, 463, 467, 491, 497, 499, 501, 503, 506, 508, 511, 514, 537, 539, 541-544, 551, 557, 561, 562, 576, 581, 603, 623, 624, 629, 630, 641, 649, 652, 656, 658, 663, 664, 670, 675, 713, 738, 755, 756, 759, 764, 767, 787, 788, 791, 804, 826, 904, 917, 931, 932, 939, 944, 945, 949, 950, 961, 969, 970, 994, 1000, 1003, 1005

NUCLEAR FACILITY DISMANTLING 94, 102, 122, 174, 238, 245, 305, 331, 339, 343

NUCLEAR FUEL CONVERSION 760

NUCLEAR POWER PLANTS 59, 61, 75, 77, 103, 119, 215, 237, 240, 264, 280, 288, 297, 303, 315, 337, 341, 347, 349, 350, 954, 1016, 1018

NUCLEAR REACTIONS 135

NUCLEAR WASTE POLICY ACTS 135, 791, 1008, 1020

NUCLEAR WEAPONS 418, 466, 499, 507, 513, 531, 760, 962, 970, 971

NUMERICAL DATA 17, 146, 227, 235, 335, 441, 575, 613, 651, 676, 683, 688, 699, 709, 832, 961, 964, 972

OCCUPATIONAL EXPOSURE 49, 71, 460, 538, 620, 716, 722, 797

OCCUPATIONAL SAFETY 64, 114, 116, 314, 326, 330, 372, 373, 448, 464, 496, 530, 538, 552, 568, 607, 620, 752, 813, 918, 1033

OCCUPATIONAL SAFETY AND HEALTH ACT 62, 63, 496, 538

ODD-EVEN NUCLEI 22, 225, 227, 329, 547, 550, 561, 571, 613, 621, 638, 639, 644, 655, 672, 675, 695, 722, 723, 759, 788, 812, 826

ODD-ODD NUCLEI 72, 131, 225, 278, 561, 621, 812

OFF-GAS SYSTEMS 935, 957, 967, 983

OIL WELLS 806

OILS 201, 542, 550

OPERATIONS RESEARCH 351, 995

OPTICAL SYSTEMS 16, 27

OPTIMIZATION 555

ORDNANCE 632, 810

ORE ENRICHMENT 2

ORE PROCESSING 420, 427, 449, 618, 828-831

ORES 431, 442, 444

ORGANIC ACIDS 120, 136, 652

ORGANIC BROMINE COMPOUNDS 770, 771

767 Key Word Index

ORGANIC CHLORINE COMPOUNDS 355, 530, 532, 540, 562, 577, 600, 623, 688, 713, 739, 768, 770, 771, 838, 839, 871, 920, 922

ORGANIC COMPOUNDS 17, 19, 25, 120, 123, 136, 201, 225-227, 355, 474, 493, 494, 514, 530, 532, 540, 542, 548, 550, 562, 577, 600, 623, 632, 652, 660, 661, 671, 676, 688, 711, 713, 732, 739, 743, 744, 747, 768, 772, 774, 781, 802, 811, 821, 840, 845, 854, 858, 861, 866, 867, 871, 873, 876, 881, 890, 902, 922, 950, 1021

ORGANIC FLUORINE COMPOUNDS 493, 770, 771

ORGANIC HALOGEN COMPOUNDS 355, 493, 514, 530, 532, 562, 577, 600, 623, 671, 688, 713, 739, 768, 871, 922

ORGANIC MATTER 655, 782, 936

ORGANIC NITROGEN COMPOUNDS 577, 902

ORGANIC OXYGEN COMPOUNDS 225, 821

ORGANIC PHOSPHORUS COMPOUNDS 240

ORGANIC POLYMERS 123, 225-227, 673

ORGANIC SOLVENTS 621, 702, 707, 721, 768

ORGANIZATIONAL MODELS 45, 557

ORGDP 567, 663, 758, 759, 788

OXIDATION 22, 38, 134, 140, 438, 821, 840, 940, 947, 1021

OXIDES 123, 124, 136, 140, 240, 325, 329, 355, 605, 961

OXYGEN COMPOUNDS 22, 44, 110, 123, 136, 140, 178, 199, 240, 325, 329, 381, 402, 417, 425, 439, 443, 451, 476, 477, 493, 501, 531, 532, 540, 542, 547, 549, 550, 561, 562, 567, 572, 575-577, 596, 600, 601, 605-607, 612, 613, 615, 623-625, 629, 630, 637-639, 649, 652, 655, 656, 659, 664, 668, 671, 672, 675, 677, 683, 689, 690, 697, 709, 713, 715, 723, 746, 747, 766, 768, 775, 782, 788, 802, 819, 840, 844, 846, 847, 853, 861, 866, 877, 880, 882-885, 891, 896, 900, 926, 961, 977, 993

P CODES 551, 839

PACIFIC OCEAN 345

PACKAGING 55, 80, 258, 261, 762, 896, 987

PADUCAH PLANT 467, 497, 624, 991

PAINTS 137, 139, 378, 601

PARAMETRIC ANALYSIS 83

PARTICLE KINEMATICS 948

PARTICLE SIZE 165, 171, 230, 235, 652

PEBBLE BED REACTORS 177, 300

PERFORMANCE 9, 59, 468, 546, 673, 684, 776, 865, 866, 887, 934, 965

PERFORMANCE TESTING 3, 199, 334, 535, 734, 977

PERMEABILITY 404, 413, 438, 550, 645, 694, 738, 848, 854, 879

PERMITS 406, 576, 604, 733, 784, 1007

PERSONNEL MONITORING 112, 557, 620

PESTICIDES 621, 625, 711, 810, 856

PETROCHEMICALS 225, 226

PETROLEUM 599, 686, 690, 859, 874

PETROLEUM PRODUCTS 225, 226, 737, 766, 777, 867

PH VALUE 619, 940

PHASE TRANSFORMATIONS 140, 160, 201, 242, 246, 278, 802, 815, 847, 957, 966, 1019

PHENOLIC RESINS 849

PHENOLS 562, 677

PHOSPHATES 774, 940

PHOTOGRAPHIC FILMS 273

PHYSICAL PROPERTIES 35, 396, 843, 860, 942, 961

PHYSICAL RADIATION EFFECTS 57

PIEZOMETRY 627, 910

PILOT PLANTS 189, 791

PINELLAS PLANT 520, 619, 783

PIPELINES 185, 689

PIPES 111, 119, 129, 143, 179, 185, 257, 316, 331, 332, 395, 528, 770, 771, 808

PLANNING 7, 9, 13, 20, 21, 36, 45-48, 54, 60, 66, 70, 75, 78-80, 88, 98, 104, 110, 112, 116, 166, 177, 189, 216, 237, 238, 265, 271, 279, 281, 287, 288, 295, 297, 300, 308, 309, 311, 313, 314, 325, 333, 335, 354, 384, 386, 389, 406, 415, 436, 454, 455, 457-459, 463, 465, 467, 468, 472-474, 486, 488-491, 495, 499, 512, 516, 517, 520, 522, 524, 526, 529, 531, 536, 539, 549, 552, 554, 558-560, 564, 567, 569, 574, 575, 579, 581-584, 588, 590-593, 595, 596, 598, 603, 607, 610, 616, 620, 630, 637, 660, 661, 675, 710, 719, 725, 746, 749, 765, 767, 769, 776, 779, 784, 786, 789, 791,

793, 794, 806, 810, 846, 880, 888, 907, 908, 928, 949, 952, 960, 969-971, 991, 1000, 1001, 1011, 1034

PLASMA ARC CUTTING 158, 169, 198, 212

PLASMA ARC WELDING 190

PLASMA FURNACES 976

PLASTICS 225

PLUGGING 557, 572, 782

PLUMES 435, 658, 702, 715, 745, 768, 808, 839, 847, 861, 869, 870, 875, 884, 899, 900, 928

PLUTO REACTOR 101

PLUTONIUM 12, 172, 188, 526, 540, 615, 619, 640, 642, 713, 729, 742, 745, 760, 796, 816-818, 915

PLUTONIUM COMPOUNDS 325, 329

PLUTONIUM ISOTOPES 219, 655, 676, 812

PLUTONIUM OXIDES 325, 329, 816

PLUTONIUM PRODUCTION REACTORS 324, 791, 796

PLUTONIUM REACTORS 127

PLUTONIUM-238 655

PLUTONIUM-239 266, 474, 608, 655, 812

PLUTONIUM-240 219, 355, 474

PNEUMATICS 819

POLISHING 126, 131, 149

POLITICAL ASPECTS 81, 117, 259, 265, 314, 389, 455, 472, 473, 517, 579, 588, 590, 801, 1011

Key Word Index

POLLUTION ABATEMENT 62, 63, 810

POLLUTION CONTROL 400, 439, 497, 507, 522, 530, 618, 632, 677, 721, 770, 771, 787, 837, 840, 847, 853, 873, 874, 877, 883-885, 926, 929, 997

POLLUTION CONTROL AGENCIES 660, 661

POLLUTION CONTROL EQUIPMENT 169, 193, 200, 235, 847

POLLUTION LAWS 3, 64, 376, 436, 471, 478, 482, 502, 504, 511, 531, 540, 558, 568, 571, 597, 611, 625, 663, 668, 692, 709, 778, 783, 802, 807, 852, 871, 883, 885, 895, 914, 920, 927, 929, 997

POLLUTION REGULATIONS 482, 505, 507, 608, 622, 660, 661, 719, 736, 801, 804, 828-831, 895, 949, 965, 1008, 1012

POLLUTION SOURCES 600, 670

POLONIUM ISOTOPES 427

POLONIUM-210 427

POLYAMIDES 123, 225

POLYCYCLIC AROMATIC HYDROCARBONS 632, 866

POLYMERS 43, 123, 225-227

PONDS 406, 410, 475, 527, 528, 633, 644, 660, 661, 691, 716, 739, 742, 767, 770, 771, 773-775, 777, 784, 799

POPULATIONS 259, 395, 432, 536, 590, 634, 636, 639, 675, 700, 701, 722, 723, 725, 812, 918, 920

PORE PRESSURE 882

PORTSMOUTH GASEOUS DIFFUSION PLANT 467, 511, 541, 543, 656, 1000

POTASSIUM BROMIDES 148

POTASSIUM ISOTOPES 621, 812

POTASSIUM-40 621, 812

POWER GENERATION 326

POWER REACTORS 56, 57, 60, 61, 77, 89, 97, 108, 113, 127, 132, 145, 157, 173, 177, 183, 186, 199, 200, 204, 207, 235, 246, 282, 287, 300, 302, 304, 312, 314, 316, 333, 335

PRESSURE DEPENDENCE 229

PRESSURE TUBE REACTORS 294

PRESSURE VESSELS 32, 54, 61, 180, 182, 186, 211, 222, 229, 292, 309, 321

PRESTRESSED CONCRETE 161

PRIMARY COOLANT CIRCUITS 124, 127, 129, 154, 160, 175, 179, 185, 294, 1016, 1018

PROBABILISTIC ESTIMATION 430, 435, 499, 504, 839

PROCESS CONTROL 391, 541

PROCESSING 3, 44, 126, 137-140, 176, 201, 226, 231, 233, 239, 242, 246, 278, 296, 329, 333, 335, 337, 439, 441, 444, 535, 551, 623, 630, 644, 651, 738, 747, 755, 768, 821, 861, 877, 884, 902, 917, 939, 941, 944, 957, 961, 964, 966-968, 972, 1005, 1007, 1008

PRODUCTION REACTORS 324, 513, 791

PROFESSIONAL PERSONNEL 303

PROGRAM MANAGEMENT 4, 6, 7, 12, 35, 67, 70, 101, 116, 285, 306, 307, 357, 376, 387, 389, 391, 405, 406, 412, 454, 455, 458, 459, 463, 472, 473, 477, 479, 480, 486, 488, 489, 514, 515, 517, 521, 523, 524, 526-529, 533, 539, 544, 545, 554, 564, 569, 570, 579-581, 584, 588, 590, 592, 597, 602, 637,

641, 748, 749, 752, 773, 777, 784, 797, 799, 888, 900, 910, 928, 949, 962, 975, 997, 999, 1011, 1026, 1027, 1034

PROPERTY MANAGEMENT 403, 637, 767

PROPERTY RIGHTS 403

PSYCHOLOGY 454

PUBLIC BUILDINGS 433

PUBLIC HEALTH 244, 358, 395, 399, 411, 435, 436, 464, 469, 470, 483, 484, 486, 488, 490, 496, 507, 514, 530, 550, 568, 607, 611, 614, 620, 630, 634, 636, 639, 649, 660, 661, 668, 688, 724, 757, 789, 813, 814, 839, 914, 917, 918, 929, 930, 1010, 1032, 1033

PUBLIC INFORMATION 357, 387, 393, 411, 412, 478, 481, 592, 724, 785, 789, 799, 800, 1003

PUBLIC OPINION 265, 389, 455, 472, 473, 481, 505, 510, 517, 579, 588, 590, 595, 769, 1011

PUBLIC POLICY 386, 387, 389, 412, 455, 466, 469, 472, 473, 475, 492, 496, 515, 517, 579, 588, 590, 592, 799-801, 824, 954, 999, 1011, 1033

PUBLIC RELATIONS 298, 314, 386, 389, 405, 412, 455, 472, 473, 478, 481, 517, 579, 588, 590, 592, 630, 769, 785, 799, 800, 804, 1011

PUBLIC UTILITIES 91, 105, 287

PUBLIC UTILITY REGULATORY POLICIES ACT 424

PUMPING 65, 734, 772, 819, 838, 844, 854, 855, 864, 884, 928

PUMPS 65, 206, 542, 768, 838, 870

PUREX PROCESS 307, 603, 605, 742

PWR TYPE REACTORS 56, 57, 60, 61, 71, 77, 113, 146, 149, 259, 271, 280, 291, 301, 304, 314, 315, 323

PYRENE 871

PYROCHEMICAL REPROCESSING 150

PYROMETALLURGY 973

QUALITY ASSURANCE 7, 15, 47, 391, 454, 476, 484, 515, 520, 521, 524, 535, 541, 552, 559, 560, 567, 570, 580, 582-585, 591, 597, 600, 614, 618, 619, 621, 622, 624, 625, 628, 631, 637, 640, 641, 647, 649, 656, 668, 688, 723, 738, 776, 797, 804, 818, 886, 887, 895, 896, 904, 1003, 1012

QUALITY CONTROL 7, 15, 521, 535, 559, 560, 575, 580, 591, 887, 895, 903, 1003, 1012

QUANTITATIVE CHEMICAL ANALYSIS 263, 427, 562, 621, 692, 973

QUANTITY RATIO 22, 72

QUARTZ 229, 452, 617

R CODES 355, 906, 912, 932

RADAR 781, 808

RADIATION DETECTION 143, 240, 241, 255, 260, 278, 360, 371, 416, 428, 812, 816, 817

RADIATION DETECTORS 111, 143, 247, 255, 260, 267, 273, 817, 818, 889

RADIATION DOSE DISTRIBUTIONS 621, 723

RADIATION DOSES 1, 14, 21, 55, 60, 80, 92, 95-97, 135, 143, 145, 173, 192, 199, 216, 242, 244, 248, 259, 267, 330, 334, 335, 355, 361, 363-365, 381, 435, 469, 470, 487, 505, 557, 590, 603, 614, 619, 624, 634, 636, 643, 649, 655-657, 700, 705, 716, 722, 724, 725,

- 797, 812, 813, 893, 909, 917, 929, 932, 1006, 1013, 1014, 1017, 1025, 1032, 1033, 1035
- **RADIATION HAZARDS** 30, 51, 398, 434, 442, 503, 639, 835, 1009, 1017, 1029, 1034
- **RADIATION MONITORING** 4, 20, 21, 24, 101, 108. 109, 111, 115, 119, 128, 188, 191, 228, 247, 248, 267, 289, 354, 358, 361, 363-365, 367, 371, 416, 428, 446, 449, 530, 534, 608, 615, 619, 639-641, 644, 655, 657, 667, 676, 681, 700, 716, 719, 722, 724, 809, 816-818, 846, 889, 1025, 1030
- **RADIATION MONITORS** 240, 241, 248, 607, 903
- RADIATION PROTECTION 4, 14, 21, 49, 50, 64, 71, 77, 86, 101, 108-110, 114-116, 118, 119, 128, 144, 146, 160, 162, 166, 167, 191, 192, 195, 203, 206, 216, 232, 239, 244, 249, 255, 259, 265, 289, 299, 303, 311, 314, 315, 356, 361, 363-365, 372, 373, 376, 420, 432, 433, 449, 460, 464, 474, 476, 496, 499, 531, 538, 550, 551, 581, 619, 639, 755, 797, 798, 805, 835, 931, 932, 949, 1004, 1005, 1009, 1017, 1029, 1033
- RADIATION PROTECTION LAWS 96, 187, 216, 402, 420, 434, 436, 447, 667, 835, 905, 1008, 1009, 1014, 1017, 1029, 1031
- **RADIATION SOURCES** 118, 658, 696, 758
- **RADIOACTIVATION** 144, 146, 161
- **RADIOACTIVE AEROSOLS** 108, 168, 169, 187, 193, 235, 608
- **RADIOACTIVE EFFLUENTS** 145, 148, 169, 329, 427, 449, 531, 584, 585, 591, 603, 607, 608, 614, 619, 621, 624, 628, 637, 641, 647, 649, 656, 657, 666, 667, 719, 720, 725, 790, 822, 900, 978, 1025, 1030

RADIOACTIVE MINERALS 843

- RADIOACTIVE WASTE PROCESSING 11, 41, 43, 48, 126, 132, 137-140, 167, 188, 201, 203, 229, 231, 242, 278, 286, 296, 315, 333, 335, 337, 376, 441, 444, 474, 480, 526, 535, 550, 551, 602, 603, 623, 644, 677, 738, 751, 755, 758, 761, 767, 791, 793, 794, 816, 820, 917, 935, 937, 940, 944, 945, 961, 978, 983, 985, 986, 1002, 1005, 1008
- RADIOACTIVE WASTE STORAGE 5, 8, 10, 11, 16-18, 23, 25-28, 30, 33-35, 40, 45, 47, 65, 91, 97, 118, 166, 248, 270, 286, 333, 355, 361, 363-365, 374, 474, 499, 603, 630, 673, 675, 676, 684, 758, 759, 765, 767, 794, 822, 894, 939, 983, 1000, 1002
- **RADIOACTIVITY LOGGING** 268, 429, 645, 688, 696
- **RADIOACTIVITY TRANSPORT** 346, 634, 636, 916
- **RADIOCHEMICAL ANALYSIS** 19, 359, 362, 562, 621
- RADIOECOLOGICALCONCENTRATION 355, 358, 404, 426, 499, 559-561, 614, 615, 621, 628, 634, 636, 644, 649, 652, 666, 680, 761, 809, 901
- RADIOLOGICAL PERSONNEL 116, 372, 373
- RADIOLOGICAL RESEARCH FACILITIES 12
- **RADIOLYSIS** 5, 8, 34
- RADIOMETRIC ANALYSIS 52, 255, 379
- **RADIOMETRIC SURVEYS** 31, 39, 50, 52, 63, 255, 360, 367-370, 379, 429, 646, 658, 662, 678, 685
- **RADIONUCLIDE KINETICS** 31, 362, 379, 404, 470, 646, 675, 812, 341, 893, 901, 1030, 1032

RADIONUCLIDE MIGRATION 22, 110, 352, 358, 359, 402, 427, 429, 434, 444, 470, 525, 534, 536, 547, 550, 551, 553, 559-561, 584, 603, 628, 634, 636, 638, 643, 647-649, 653, 655, 657, 660-662, 667, 670, 675, 685, 691, 695, 698, 700, 723, 724, 730, 733, 746, 755, 761, 764, 788, 809, 841, 860, 875, 878, 900, 902, 915, 932, 999, 1005, 1025, 1030, 1032, 1034

RADIUM 362, 368, 369, 374, 430, 443, 621, 696, 798-800, 805, 809, 811, 873, 938, 981, 1005

RADIUM COMPOUNDS 443

RADIUM ISOTOPES 355, 381, 417, 427, 435, 530, 826

RADIUM SULFATES 443

RADIUM-226 361, 363-365, 371, 375, 381, 404, 416, 426-429, 435, 452, 530, 633, 826

RADIUM-228 530

RADON 40, 41, 361, 363, 364, 366, 397, 398, 401, 404, 407, 409, 416, 417, 423, 428, 431, 452, 618, 628, 651, 805, 809, 903, 933, 938, 977

RADON ISOTOPES 621

RADON-222 361, 363, 364, 621

RAPSODIE REACTOR 127, 129

RARE GASES 398, 417, 431, 651, 805, 809, 903, 977

REACTION KINETICS 22, 441

REACTOR COMPONENTS 39, 58, 71, 111, 121, 124, 127, 143, 154, 155, 160, 173, 175, 178, 179, 184-186, 203, 215, 251, 294, 316, 326, 336, 604

REACTOR COOLING SYSTEMS 124, 127, 129, 154, 160, 175, 179, 185, 294

REACTOR CORES 251

REACTOR DEFUELING 283

REACTOR EXPERIMENTAL FACILITIES 53, 62, 63, 70, 283, 285, 306, 307, 332

REACTOR INTERNALS 39, 53, 212, 251, 320

REACTOR MAINTENANCE 15, 63, 71

REACTOR MATERIALS 248

REACTOR OPERATION 15, 226

REACTOR SAFETY 57, 175, 178, 323, 499, 760, 926

REACTOR SHUTDOWN 31, 39, 50, 77, 83, 108, 226, 283, 309

REACTOR SITES 51, 109, 312, 889

REACTOR VESSELS 39, 50, 53, 161, 194, 211, 229, 288, 309, 318, 320, 322, 332

RECOMMENDATIONS 15, 30, 35, 49, 116, 145, 239, 244, 337, 356, 357, 399, 414, 422, 432, 433, 458, 463, 466, 469, 470, 476, 477, 479, 487, 499, 515, 521, 524, 536, 537, 542, 565, 569, 580, 622, 678, 689, 722, 747, 752, 788, 801, 803, 843, 851, 883, 905, 930, 962, 1003, 1023, 1031

RECORDS MANAGEMENT 357, 391, 520, 535, 575, 583, 687, 723

RECOVERY 239, 768, 844, 877

RECYCLING 87, 117, 130, 141, 143, 181, 209, 214, 218, 232, 233, 239-246, 252, 255, 256, 260, 266, 267, 270, 273-275, 277, 278, 299, 305, 320-322, 372,

RECYCLING 373, 449, 462, 835, 973, 987-989, 1001, 1004, 1006, 1014

REDOX POTENTIAL 443

REDOX PROCESS 143, 603

REDUCTION 138, 142, 153, 438, 947

REFUSE-FUELED POWER PLANTS 424

REINFORCED CONCRETE 208, 224, 262, 276, 288

REINFORCED MATERIALS 224, 288

RELEASE LIMITS 1, 7, 14, 31, 87, 96, 143, 144, 216, 247, 254, 255, 266, 274, 279, 361, 363-365, 368, 370, 469, 470, 487, 578, 737, 801, 818, 835, 916, 1004, 1006, 1009, 1013, 1017, 1029

RELIABILITY 170, 334, 535

REMOTE CONTROL 148, 160, 162, 164, 170, 196, 197, 202, 211, 212, 220-222, 224, 310, 319, 348, 979, 980

REMOTE HANDLING 68, 84, 151, 158, 159, 162, 189, 191, 196, 197, 203, 205, 207, 211, 221, 223, 301, 309, 319, 329, 330, 994

REMOTE HANDLING EQUIPMENT 27, 68, 77, 159, 164, 165, 197, 207, 211, 221, 222, 326, 330, 333, 334, 493, 979, 980

REMOTE SENSING 367, 480, 493, 658, 662, 678, 892, 974

REMOTE VIEWING EQUIPMENT 16, 27, 220, 223, 493

REMOVAL 10, 39, 42, 52, 84, 96, 152, 209, 218, 308, 310, 321, 330, 331, 343, 407, 438, 459, 479, 528, 529, 533, 539, 542, 543, 623, 694, 721, 728, 729, 731, 732, 737, 739, 745, 746, 772, 774, 779-781, 799, 800, 844, 858, 881, 999

REPORTING REQUIREMENTS 399, 412, 415, 478, 479, 518, 527, 528, 545, 567, 585, 592, 690

REPROCESSING 52, 84, 91, 150, 605, 760

RESEARCH AND TEST REACTORS 4, 15, 20, 57, 63, 86, 90, 101, 127, 129, 204, 207, 284, 304, 314, 335, 345, 670

RESEARCH REACTORS 4, 49, 70, 86, 90, 92, 95, 99, 101, 115, 283-285, 312, 319, 321, 499, 670

RESERVOIR ENGINEERING 858

RESIDENTIAL BUILDINGS 352, 414, 416, 428, 432, 433, 809

RESIDUES 29, 431, 795

RESINS 226, 1035

RESISTIVITY LOGGING 875

RESOURCE RECOVERY ACTS 49, 460, 471, 475, 478, 502, 511, 531, 533, 550, 558, 564, 568, 575, 595, 596, 616, 640, 641, 643, 663, 668, 677, 692, 695, 699, 708, 709, 733, 738, 742, 773, 775-778, 793, 852, 896, 976, 999-1001

RESOURCE RECOVERY FACILITIES 1001

RETROFITTING 122, 241, 341

REVIEWS 2, 53, 70, 224, 349, 401, 405, 406, 415, 536, 565, 592, 832, 888

RHENIUM 811

RISK ASSESSMENT 7, 22, 30, 35, 37, 55, 116, 144, 259, 430, 434, 435, 444, 450, 459, 470, 478, 486, 488, 499, 504, 515, 529, 536, 546, 559-561, 564, 567, 568, 601, 611, 620, 650, 675, 691, 692, 703, 706, 721, 722, 726, 734, 736, 761, 773, 794, 797, 807, 813, 814,

839, 902, 904, 905, 909, 913, 914, 917-920, 922-925, 927, 928, 930, 933, 934, 942, 999, 1010, 1032

RIVERS 377, 525, 547, 561, 626, 680, 695, 697, 723, 746, 773, 780, 784, 844

ROBOTS 148, 159, 170, 207, 209, 212, 221, 223, 480, 493, 788, 974, 979, 980, 992, 994

ROUTING 55, 228

RUNOFF 366, 404, 406, 528, 551, 626, 627, 665, 679, 730, 753, 770, 771, 784, 839

RUTHENIUM ISOTOPES 227, 638

RUTHENIUM-106 227, 638

RWE-BAYERNWERK REACTOR 183, 186

S CODES 848, 858

SAFEGUARD REGULATIONS 762

SAFEGUARDS 9, 15, 304, 312, 760

SAFETY 5, 7, 8, 10, 23, 25, 26, 28, 30, 34-36, 45, 47, 50, 55, 57, 60, 62-64, 66, 77, 110, 175, 228, 246, 255, 260, 296, 303, 304, 323, 326, 372, 373, 402, 407, 434, 448, 464, 466, 496, 506, 516, 520, 522, 530, 538, 557, 568, 575, 607, 620, 630, 668, 681, 688, 782, 793, 797, 926, 960, 1033-1035

SAFETY ENGINEERING 228

SAFETY STANDARDS 36, 118, 128, 163, 166, 167, 187, 191, 216, 233, 239-242, 248, 249, 265, 286, 312, 341, 372, 373, 381, 414, 432-434, 436, 442, 506, 538, 670, 726, 767, 805, 806, 837, 905, 931, 932, 952, 1004, 1008, 1009, 1017, 1029, 1031

SALTS 22, 42, 65, 526

SAMPLERS 816-818

SAMPLING 9, 17, 19, 46, 52, 119, 263, 359, 361, 363-365, 367, 429, 504, 525, 543, 561, 562, 571, 575, 582, 591, 598, 600, 603, 624, 629, 633, 635, 645, 649, 654, 656, 662, 667, 669, 671, 675, 676, 687, 689, 690, 692, 693, 697, 708, 711, 712, 714, 715, 721, 781, 810, 816, 817, 843, 869, 890, 896, 898, 900, 901, 910, 913, 915, 991

SAND 405, 409, 598, 635, 644, 744, 858, 868, 890

SANDIA LABORATORIES 516, 532, 640, 994

SANITARY LANDFILLS 475, 480, 532, 616, 737, 739, 788, 866

SATURATION 744, 868, 875

SAVANNAH RIVER 547, 774

SCHEDULES 2, 6, 20, 21, 60, 177, 297, 313, 330, 386, 405, 406, 412, 415, 458, 464, 489, 491, 520, 523, 524, 526, 539, 550, 564, 584, 697, 723, 763, 793, 794, 962, 1034

SCRAP 175, 184, 234, 239, 241, 243-246, 256, 257, 260, 266, 267, 273-275, 278, 305, 320, 368, 372, 373, 685, 987-989

SCRAP METALS 175, 178, 181, 184, 239, 240, 243, 270, 278, 759, 973

SCRUBBING 134, 147, 155

SEALED SOURCES 758

SEALS 40, 206

SECURITY 62, 63, 66, 109, 687, 803

SECURITY PERSONNEL 552, 568, 734

SEDIMENTS 29, 171, 358, 361, 363-365, 367, 377, 410, 427, 445, 525, 529, 561, 571, 574, 575, 578, 612, 630, 631, 647, 655, 657, 666, 671, 679, 687, 695, 697, 700, 707, 716, 733,

742, 774, 775, 777, 779, 780, 784, 864, 871, 890, 901

SEISMIC EFFECTS 228

SELENIUM 439, 621, 815, 936

SEMIMETALS 417, 815

SENSITIVITY ANALYSIS 504, 723

SEPARATION EQUIPMENT 66, 193

SEPARATION PROCESSES 132, 150, 169, 176, 193, 226, 230, 329, 344, 418, 427, 443, 444, 526, 605, 638, 652, 692, 713, 738, 766, 768, 796, 816-818, 861, 885, 964, 966, 993

SETTLING PONDS 528, 644, 733, 772, 774, 775, 777, 784

SGHWR REACTOR 101

SHIELDING 50, 262, 604, 893

SHIELDING MATERIALS 58, 203, 261, 550

SHIELDS 57, 146, 161, 180, 196, 224, 251

SHIPPINGPORT REACTOR 1, 55-61, 335

SHUTDOWNS 77, 81, 108, 203, 226, 463, 533, 701

SILICATES 947

SILICON-32 DECAY RADIOISOTOPES 655

SILT 427, 525, 729, 774, 890

SILVER 621, 936

SIMILARITY CONSTRAINTS 955

SIMULATION 185, 253, 912, 944, 959, 977

SITE CHARACTERIZATION 1, 18, 50, 66, 352-356, 358, 360, 362, 367, 368, 370, 378, 392, 399, 402, 406, 407, 415, 429, 434, 447, 453, 458, 463, 479, 480, 486, 488, 493, 504, 515, 520, 523, 525, 529, 530, 533, 546, 550, 559, 560, 567, 570, 575, 596, 598, 606, 609, 616, 619, 624-626, 633, 635, 641, 645, 646, 650, 654-656, 660, 661, 663, 669, 670, 678, 680, 685, 691, 693, 702, 703, 706, 707, 711-715, 718, 720, 743, 749, 750, 761, 766, 776, 781, 788, 806, 808, 837, 838, 851, 882, 888, 890-892, 894, 898, 906, 910, 911, 913, 917, 918, 927, 930, 974, 977, 991, 999, 1008, 1034

SITE SELECTION 702, 832

SITE SURVEYS 31, 354, 360, 361, 363-365, 368, 391, 392, 417, 458, 471, 534, 559, 560, 626, 627, 646, 650, 670, 676, 682, 828-831, 833, 913, 1000

SKIN ABSORPTION 722, 920

SLAGS 245, 266, 278

SLUDGES 11, 19, 29, 42, 65, 141, 266, 520, 529, 543, 577, 630, 632, 677, 707, 737, 757, 758, 761, 773, 774, 777, 866, 938, 940, 941, 956, 963, 972, 1005, 1022, 1035

SMELTING 239-241, 266, 831

SNAKE RIVER PLAIN 768

SOCIO-ECONOMIC FACTORS 117, 259, 265, 389, 455, 472, 473, 517, 579, 588, 590, 1011

SODIUM 72, 250

SODIUM CARBONATES 136

SODIUM COMPOUNDS 136, 652

SODIUM COOLED REACTORS 127, 129, 194, 250, 251

SODIUM HYDROXIDES 774

SODIUM OXIDES 961

SODIUM SILICATES 272

SODIUM-22 719

SOIL CHEMISTRY 676, 815, 843, 867, 915

SOIL POLLUTION 849

SOILS 11, 14, 48, 338, 351, 352, 355, 356, 359, 361-368, 370, 371, 375, 380, 400, 401, 404, 408, 410, 416, 428, 429, 465, 469, 470, 474, 477, 482, 487, 494, 501, 514, 528, 540, 543, 548, 553, 600, 601, 606, 610, 614, 618, 619, 624, 626, 629-634, 636, 645, 647, 648, 652, 654, 656, 675, 676, 678, 679, 681, 684-686, 689-691, 693, 694, 697, 707, 710, 712-717, 721, 727-733, 735-737, 741-747, 761, 763, 766, 770, 771, 773, 774, 779, 780, 788, 793, 798-800, 808-811, 815-820, 824, 841-845, 347, 850-852, 857, 860, 861, 865-868, 871-879, 889, 890, 892, 893, 898, 910, 913, 916, 922, 932, 933, 935, 936, 940, 943, 944, 946, 947, 950-953, 956, 957, 959, 961, 963, 965, 966, 968, 975-977, 981-983, 985, 991, 993, 1007, 1022, 1025, 1034

SOLAR COLLECTORS 767

SOLAR POWER PLANTS 424

SOLENOIDS 837

SOLIDIFICATION 201, 272, 751, 802, 820, 947, 965, 1019

SOLS 108, 165, 168, 169, 171, 176, 187, 193, 431

SOLUTIONS 136, 227, 427, 439, 543, 562, 941

SOLVENT EXTRACTION 150, 307, 781, 861

SOLVENTS 158, 601, 621, 702, 711, 714, 730, 732, 768, 772, 774, 777, 781, 796, 861, 890

SORPTION 439-441, 452, 638, 854, 864, 878

SORTING 816-818

SOUND WAVES 131, 133, 199

SOURCE TERMS 700, 723, 724, 909, 942

SPATIAL DISTRIBUTION 613, 682

SPATIAL DOSE DISTRIBUTIONS 723

SPECIAL PRODUCTION REACTORS 791

SPECIFICATIONS 71, 72, 161, 258, 334, 356, 405, 415, 521, 535, 536, 538, 551, 580, 887, 890, 895, 1012

SPENT FUEL ELEMENTS 326, 598

SPENT FUEL STORAGE 228, 598

SPENT FUELS 118, 166, 167, 174, 188, 192, 228, 248, 249, 297, 307, 498, 954, 973

SPONTANEOUS FISSION 219, 355, 381, 414, 425, 432, 433, 530, 649, 655, 663, 812

SPRAYS 123, 129, 145, 151

STABILIZATION 410, 419, 438, 710, 735, 742, 777, 841

STACKS 329, 603, 667, 796

STAINLESS STEELS 18, 56, 125, 141-143, 149, 153, 154, 160, 168-171, 175, 229, 270

STANDARDS 7, 15, 31, 36, 77, 103, 187, 233, 239-242, 244, 381, 401, 402, 414, 422, 432-434, 436, 442, 460, 463, 482, 483, 515, 521, 524, 536, 569, 580, 726, 752, 775, 797, 806, 823, 851, 873, 887, 905, 930-932, 952, 1004, 1008, 1010, 1012, 1024, 1028, 1031, 1033

STATE GOVERNMENT 264, 306, 383, 386, 387, 389, 406, 417, 454, 461, 473, 517, 521, 544, 569, 579, 580, 588, 590, 599, 604, 616, 660, 661, 733, 750, 769, 778, 807, 809, 901, 1011

STATISTICAL DATA 504, 664, 699, 919

STATISTICAL MODELS 703, 723, 845, 909, 913, 916, 919, 921, 924, 933, 934

STATISTICS 695, 915, 919

STEAM GENERATION PLANTS 602

STEAM INJECTION 858

STEELS 18, 32, 56, 72, 119, 125, 129, 130, 142, 149, 154, 160, 168-171, 175, 182, 186, 198, 227, 232, 234, 239, 251, 257, 260, 262, 266, 273, 274, 277, 278, 331, 936

STELLITE 251

STOCHASTIC PROCESSES 703, 919

STORAGE 17, 36, 85, 97, 317, 333, 355, 378, 379, 441, 483, 543, 568, 577, 578, 630, 632, 675, 686, 690, 734, 756, 759, 796, 822, 825, 832, 837, 859, 897, 944, 945, 979, 980, 994

STORAGE FACILITIES 6, 9, 11, 22, 30, 33, 35, 62, 63, 65, 361, 363-365, 480, 577, 599, 611, 664, 675, 681, 684, 716, 720, 770, 771, 793, 822, 992, 1000, 1001

STRATIGRAPHY 612, 613, 627, 659, 734

STREAMS 377, 427, 547, 561, 627, 665, 671, 680, 685, 695, 697, 723, 733, 742, 746, 777, 844, 877

STRONTIUM 944

STRONTIUM ISOTOPES 21, 561, 621, 638, 672, 675, 676, 788, 812, 820

STRONTIUM-90 358, 359, 375, 474, 525, 561, 608, 621, 638, 672, 675, 705, 761, 788, 812

STRUCTURAL MODELS 161, 182, 232, 838, 980

SUBSURFACE ENVIRONMENTS 847, 975

SUBTERRENE PENETRATORS 947, 963

SULFATES 443, 628, 774, 947

SULFIDES 947

SULFUR 947

SULFUR COMPOUNDS 443

SULFURIC ACID 129, 138, 142, 153

SUPER PHENIX REACTOR 151, 251

SUPO REACTOR 49

SURFACE CLEANING 124, 126, 130, 133, 140, 147, 149, 153, 155, 224, 346

SURFACE COATING 136, 139, 140, 142, 224, 226

SURFACE CONTAMINATION 49, 121, 124, 130, 133, 136, 147, 155, 217, 241, 266, 346, 378, 379, 414, 431, 470, 487, 627, 729, 1004

SURFACE CONTAMINATION MONITORS 240, 1004

SURFACE FINISHING 124, 126, 131, 148, 149, 151, 224

SURFACE WATERS 352, 358, 359, 361, 363-365, 377, 406, 417, 427, 476, 547, 550, 557, 561, 562, 571, 575, 614, 618, 619, 626, 630, 631, 643, 644, 647, 649, 655, 665, 667, 671, 675, 679, 680, 691, 695, 697, 716, 723,

733, 739, 742, 746, 748, 770, 771, 774, 775, 777, 784, 815, 839, 844, 877, 901, 1001

SURFACES 130, 136, 149, 266, 370, 919

SURFACTANTS 132, 150, 155, 266, 621

SURPLUS NUCLEAR FACILITIES 18, 20, 21, 24, 581, 631

SURVEILLANCE 7, 57, 62-64, 350, 359, 535, 536, 569, 584, 591, 634, 636, 667, 716, 742, 796, 804, 998, 1025

T CODES 467

TANK TYPE REACTORS 57

TANKS 3, 5, 6, 8-11, 16-19, 22, 23, 25-30, 34-36, 38, 42, 43, 45-48, 52, 63, 65, 68, 475, 520, 525, 543, 555, 574, 599, 644, 654, 670, 686, 690, 693, 694, 701, 709, 757, 793, 794, 796, 808, 867, 938, 941, 944, 945, 948, 963, 968, 979, 980, 984, 992

TASK SCHEDULING 3, 36, 630, 793

TECHNETIUM 860, 944

TECHNETIUM ISOTOPES 759

TECHNETIUM-99 266, 365, 474, 608, 759, 988

TECHNOLOGY ASSESSMENT 39, 190, 346, 436, 493, 512, 515, 526, 602, 729, 732, 741, 745, 748, 749, 760, 808, 824, 854, 881, 910, 945, 962, 967, 969, 970, 973, 982, 985, 986, 994, 996, 997

TECHNOLOGY DEVELOPMENT 130, 190, 205, 285, 318, 320, 347, 350, 548, 570, 635, 735, 743, 768, 824, 857, 882, 898, 910, 962, 998

TECHNOLOGY TRANSFER 60, 76, 107, 285, 318, 320, 340, 347, 434, 493, 512, 515,

526, 570, 768, 857, 910, 949, 950, 971, 982, 985, 986, 996-998

TECHNOLOGY UTILIZATION 507, 852, 884, 906, 907, 950, 965, 971, 995, 996

TELEVISION 27

TELEVISION CAMERAS 220

TEMPERATURE DEPENDENCE 225, 229

TEMPERATURE EFFECTS 32

TEMPERATURE GRADIENTS 229

TEMPORAL DOSE DISTRIBUTIONS 723

TENNESSEE RIVER 695

TEST FACILITIES 164, 235, 634, 636, 740

TEST REACTORS 39, 57, 127, 129

TESTING 3, 38, 41, 56, 57, 130, 161, 190, 199, 213, 223, 252, 262, 268, 275, 307, 334, 362, 370, 438, 526, 535, 557, 634, 636, 677, 729, 734, 735, 745, 768, 819, 861, 866, 868, 872, 875, 946, 963, 972, 977, 981

THALLIUM-208 662

THERMAL DEGRADATION 852

THERMAL EFFECTS 955

THERMAL EXPANSION 795

THERMAL POWER PLANTS 61, 75, 77, 240, 288, 303, 335, 337, 424

THERMAL SHIELDS 291, 292

THERMAL STRESSES 135, 951

THERMOCHEMICAL PROCESSES 22, 38, 821

779 Key Word Index

THERMODYNAMICS 22, 947

THERMOLUMINESCENT DOSIMETRY 639

THORIUM 18, 289, 362, 368, 374, 377, 418, 422, 540, 629, 632, 902, 938

THORIUM ISOTOPES 355, 375, 425, 427, 530, 621, 649

THORIUM REACTORS 177, 300

THORIUM-230 425, 427, 452, 530, 633

THORIUM-232 355, 361, 363-365, 369, 371, 530, 649, 662

THORIUM-234 621

THREE MILE ISLAND-2 REACTOR 147

THTR-300 REACTOR 177, 300

THYROID 723, 724

TIME DEPENDENCE 72, 109, 110, 237, 287, 288, 335, 571, 966

TOLUENE 562, 677, 693, 694, 770, 771

TOOLS 159, 170, 175, 178, 184, 187, 188, 193, 197, 202, 208, 209, 211

TOPOGRAPHY 66, 575, 576, 775

TOPOLOGICAL MAPPING 16

TOXIC MATERIALS 36, 536, 631, 682, 843, 877, 927, 976

TOXIC SUBSTANCES CONTROL ACT 604, 625

TRACER TECHNIQUES 278, 695

TRAINING 9, 281, 477, 552, 687, 752

TRANSITION ELEMENT COMPLEXES 22, 29

TRANSITION ELEMENTS 57, 72, 171, 233, 417, 439, 543, 621, 811, 944

TRANSPLUTONIUM ELEMENTS 614

TRANSPORT 59, 60, 117, 204, 232, 258, 260-262, 264, 380, 382, 529, 590, 630, 762, 864, 1011

TRANSURANIUM COMPOUNDS 52, 325, 329, 480, 674, 791, 935, 938, 1005

TRANSURANIUM ELEMENTS 172, 540, 603, 614, 713, 759, 915, 938

TRITIUM 119, 144, 225, 358, 359, 466, 474, 525, 547, 550, 561, 595, 614, 619, 621, 638-640, 655, 672, 684, 719, 733, 779, 826

TRITIUM COMPOUNDS 540

TRITIUM OXIDES 119

TRR-1 REACTOR 90

TRUEX PROCESS 11, 993

TUBES 132, 133, 145, 170, 294

TURBINES 318, 320

TWO-DIMENSIONAL CALCULATIONS 858

UKNR REACTOR 92

ULTRASONIC WAVES 131, 133, 199

ULTRASONOGRAPHY 974

ULTRAVIOLET SPECTROMETERS 493

UNDERGROUND DISPOSAL 9, 22, 38, 43, 113, 258, 259, 317, 398, 606, 620, 640, 641,

663, 677, 681, 708, 709, 718, 808, 936, 941, 964, 974, 983, 984, 1034

UNDERGROUND EXPLOSIONS 531, 638

UNDERGROUND FACILITIES 239, 398, 414, 424, 427, 431-434, 442, 446-448, 499, 501, 664, 825, 837, 945, 1008

UNDERGROUND STORAGE 6, 42, 52, 66, 68, 135, 552, 555, 599, 686, 690, 693, 694, 825, 867, 897, 944, 948, 960, 968, 980, 992

UNDERWATER OPERATIONS 160, 165, 169, 171, 175, 176, 178, 184, 190, 202, 210-212, 220, 222, 304, 316, 317

UPTAKE 722, 815, 920

URANIUM ALLOYS 973

URANIUM COMPOUNDS 577, 605, 614

URANIUM ISOTOPES 289, 355, 375, 381, 414, 432, 433, 530, 663, 759, 932

URANIUM MINES 388, 390, 393, 398, 409, 411, 413, 414, 421, 423, 424, 427, 431, 432, 434, 437, 442, 446-449, 501, 828, 837, 1008, 1032

URANIUM ORES 363, 372, 373, 379, 380, 388, 390, 391, 400, 403, 413, 419-421, 423, 431, 442, 444, 445, 449, 618

URANIUM OXIDES 605

URANIUM TRIOXIDE 605

URANIUM-233 760

URANIUM-234 608

URANIUM-235 266, 608, 663, 760

URANIUM-238 266, 355, 367, 369-371, 414, 432, 433, 452, 530, 608, 633, 932

URANYL COMPOUNDS 577

URANYL NITRATES 577

URINE 812

VACUUM PUMPS *768*, *772*

VACUUM SYSTEMS 772, 861

VAK REACTOR 302

VALVES 132, 133, 257

VANADIUM 416, 417, 428

VANDELLOS REACTOR 89

VAPOR SEPARATORS 229

VAPORS 532, 620, 745, 768, 845

VENTILATION 47, 50, 108, 164, 235, 329, 398, 603, 796

VENTILATION SYSTEMS 30, 47, 50, 62, 63, 378, 407, 796

VITRIFICATION 10, 41-43, 189, 596, 647, 651, 750, 751, 786, 791, 793, 873, 935-938, 941-947, 951-953, 955-961, 963-968, 972, 976, 1007

VOLATILE MATTER 623, 655, 688, 692, 747, 770, 771, 839, 847, 936, 964

VOLUME 85, 137, 165, 232, 237, 264, 271, 356, 467, 981, 991

VOLUME REDUCTION 148, 218, 281, 305

VRAIN REACTOR 157

WAGR REACTOR 101, 145, 235, 262, 263, 328, 333, 335

WASHING 147, 717, 737, 741

Key Word Index

WASTE DISPOSAL ACTS 471, 595

- **WASTE FORMS** 38, 43, 48, 713, 764, 942, 965, 1034
- WASTE PROCESSING 42-44, 126, 132, 137-139, 176, 201, 233, 239, 242, 246, 278, 296, 329, 333, 335, 337, 376, 439, 441, 444, 462, 471, 475, 483, 512, 535, 550, 551, 623, 644, 651, 738, 742, 749, 755, 768, 780, 794, 821, 855, 873, 877, 912, 917, 936, 937, 939, 944, 945, 947, 952, 956, 963, 976, 978, 986, 997, 1008, 1016, 1018
- **WASTE PROCESSING PLANTS** 42, 250, 556, 741, 976
- WASTE PRODUCT UTILIZATION 239-241
- **WASTE RETRIEVAL** 6, 11, 474, 727, 794, 980, 990
- **WASTE STORAGE** 17, 29, 36, 42, 47, 68, 85, 295, 333, 355, 441, 471, 475, 498, 499, 529, 543, 557, 559, 560, 616, 630, 647, 654, 660, 661, 664, 675, 676, 756, 759, 765, 770, 771, 799, 822, 828, 832, 894, 954, 994, 1000, 1019
- **WASTE TRANSPORTATION** 117, 163, 165, 195, 228, 232, 248, 258, 762, 1034
- **WASTE WATER** 519, 548, 607, 619, 637, 641, 677, 719, 720, 730, 733, 742, 744, 753, 770, 771, 777, 780, 802, 840, 928, 991, 1001, 1021

WASTEWATER TREATMENT 849

- **WATER COOLED REACTORS** 56, 57, 60, 61, 71, 77, 78, 108, 113, 132, 146, 149, 173, 183, 186, 199, 200, 204, 206, 207, 246, 259, 282, 302, 312, 314, 316, 323, 335, 499
- **WATER MODERATED REACTORS** 56, 57, 60, 61, 71, 77, 108, 113, 132, 146, 149,

- 183, 186, 199, 200, 204, 206, 207, 238, 246, 259, 282, 294, 302, 312, 314, 316, 335, 499
- **WATER POLLUTION** 419, 425, 575, 621, 625, 644, 657, 667, 670, 673, 693, 708, 768, 775, 802, 811, 813, 828-831, 839, 840, 846, 849, 856, 863, 864, 871, 873, 880, 882, 885, 1001
- **WATER POLLUTION ABATEMENT** 438, 680, 702, 777
- **WATER POLLUTION CONTROL** 439, 507, 548, 660, 661, 730, 743, 774, 777, 807, 837, 838, 840, 847, 848, 853, 857, 877, 881, 883, 884, 926
- WATER POLLUTION MONITORS 534, 637, 667
- **WATER PUMPS** 147, 838
- **WATER QUALITY** 395, 476, 630, 668, 669, 687, 699, 775, 810, 839, 856, 882, 896
- **WATER RECLAMATION** 467, 478, 504, 571, 595, 866, 991, 1001
- **WATER REMOVAL** 283, 543, 598, 772, 773, 799, 854, 879
- WATER RESOURCES 402, 419, 870, 880
- **WATER TABLES** 627, 638, 659, 708, 709, 861
- **WATER TREATMENT** 519, 543, 548, 632, 733, 743, 753, 772, 773, 780, 784, 838, 840, 854, 864, 878, 928
- **WATER TREATMENT PLANTS** 395, 527, 633, 677, 730, 733, 753, 819
- **WATER WELLS** 358, 395, 542, 543, 621, 734, 839, 882
- **WATERSHEDS** 571, 627, 672

WAVEGUIDES 135

WEAPONS 418, 499, 503, 507, 508, 513, 640, 971

WELL CASINGS 687

WELL DRILLING 557, 629, 645, 659, 668, 688, 782

WELL LOGGING 620, 627, 629, 641, 647, 659, 676, 683, 688, 890

WELL PRESSURE 620

WELLS 359, 415, 525, 542, 543, 557, 564, 572, 620, 621, 635, 642, 645, 647, 664, 668, 669, 673, 676, 677, 681, 683, 684, 687, 688, 707, 712, 714, 730, 733, 734, 766, 782, 793, 806, 819, 844, 847, 890, 891, 899, 991

WEST VALLEY PROCESSING PLANT 647, 648, 751

WETLANDS 774, 815

WETTING AGENTS 132, 150, 155

WHOLE-BODY COUNTING 112, 435, 812

WILD ANIMALS 697, 698, 740

WIND 429, 667, 682

WIND POWER PLANTS 424

WINDSCALE PRODUCTION REACTORS
324

WIPP 595

WORKING CONDITIONS 116, 164, 538

WWER TYPE REACTORS 77

X-RAY DIFFRACTION 958

X-RAY EMISSION ANALYSIS 146

X-RAY FLUORESCENCE ANALYSIS 146, 263

XYLENES 647, 677, 694, 858

YEARS LIVING RADIOISOTOPES 22, 72, 131, 146, 219, 227, 278, 329, 355, 381, 414, 417, 425, 432, 433, 435, 530, 547, 550, 561, 571, 614, 638, 639, 644, 649, 655, 672, 675, 695, 722, 759, 812, 826, 932

YIELD STRENGTH 56

YUCCA MOUNTAIN 638

ZEOLITES 677, 984

ZERO POWER REACTORS 90, 284

ZINC 774, 820

ZINC-65 698

D-1 Distribution

ES/ER/TM-48

DISTRIBUTION

1.	J. W. Amburgey
2.	J. W. Autrey
3.	M. L. Baker
4.	L. D. Bates
5.	C. E. Benson
6.	B. A. Berven
7.	M. A. Bogle
8.	T. P. Brennan
9.	C. H. Brown, Jr.
10.	R. D. Bundy
11.	T. W. Burwinkle
12.	C. Clark, Jr.
13.	J. L. Clausen
14.	B. J. Clayton
15.	L. B. Cobb
16.	J. N. Cooley
17.	W. D. Cottrell
18.	C. D. Cravens
19.	A. G. Croff
20.	B. F. Crump
21.	K. R. Davis
22.	M. F. DeLozier
23.	G. S. Dintsch
24.	T. L. Donaldson
25.	J. W. Douthitt
26.	N. W. Durfee M. L. Espegren
27.	M. L. Espegren
28.	C. S. Fore
29.	C. W. Francis
30.	C. E. Frye
31.	S. B. Garland, II
32.	J. L. Gibson
33.	L. F. Goins
34.	J. A. Greene
35.	R. G. Grubb
36.	D. B. Gunter
37.	D. K. Halford
38.	H. E. Harper
39.	D. D. Huff
40.	M. A. Johnson

41. K. G. Kahl

42. C. M. Kendrick

43. J. M. Kennerly

R..K. Kibbe 44. 45. D. A. Knott 46. N. P. Knox 47. D. C. Kocher 48. E. H. Krieg, Jr. 49. A. J. Kuhaida, Jr. 50. W. R. Laing 51. D. C. Landguth 52. J. R. Lawson 53. K. H. Lin 54. A. P. Malinauskas 55. P. K. Mallory 56. E. W. McDaniel 57. L. E. McNeese 58. G. L. Murphy 59. M. E. Murray 60. M. F. Mustafa 61. C. E. Nix 62. K. E. Nolan 63. S. D. Nolan 64. F. R. O'Donnell 65. P. T. Owen 66. G. A. Person 67. H. L. Powell 68. A. Redfearn 69. C. T. Rightmire 70. S. M. Robinson 71. T. H. Row 72. B. Stanley 73. R. E. Swaja T. W. Talley 74. 75. P. F. Tiner 76. F. R. Van Ryn 77. L. D. Voorhees 78. J. R. Webb 79. W. N. Whinnery 80. D. L. Williams, Jr. 81. J. K. Williams 82. M. G. Yalcintas 83-84. Central Research Library **ER-Document Management Center** 85. 86-87. Laboratory Records Remedial Action Program Information 88-187.

Center

- 188. Louis A. Abila, EG&G Rocky Flats, Inc., P.O. Box 464, Building 664, Golden, CO 80402-0464
- 189. Michael Abrams, U.S. Department of Energy, Albuquerque Field Office, DOE/EM-451, GTN, Trevion II, Washington, DC 20585-0002
- 190. Martin Adams, Coleman Energy & Environmental Systems, 9302 Lee Highway, Suite 800, Fairfax, VA 22031
- 191. Anthony J. Adduci, U.S. Department of Energy, San Francisco Field Office, 1333 Broadway, Oakland, CA 94612
- 192. David G. Adler, U.S. Department of Energy, Oak Ridge Field Office, Former Sites Restoration Division, P.O. Box 2001 37831-8723
- 193. A. John Ahlquist, U.S. Department of Energy, Nevada/Albuquerque Laboratories Division, EM-452, Trevion II, Washington, DC 20585-0002
- 194. Marty Alewine, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 195. Donald Alexander, U.S. Department of Energy, EM-53 (GTN), Trevion II, Washington, DC 20585-0002
- 196. Charles R. Allen, Pacific Northwest Laboratory, Waste Technology Center, P.O. Box 999, MS P7-43, Richland, WA 99352
- 197. James W. Allen, Chem-Nuclear Geotech, Inc., Geophysical Programs, P.O. Box 14000, Grand Junction, CO 81502-5548
- 198. Randi B. Allen, U.S. Department of Energy, Feed Materials Production Center Site Office, P.O. Box 398705, Cincinnati, OH 45239
- 199. Stuart M. Altman, U.S. Department of Energy, Defense Programs, DP-644, Washington, DC 20585
- 200. Carl Altschwager, Kaiser Hanford Company, DOE/EM-451 (GTN), Trevion II, Washington, DC 20585-0002
- 201. Patricia Ambrose, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 202. Cynthia A. Anderson, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 203. Thomas D. Anderson, U.S. Department of Energy, Division of Demonstration, Testing and Evaluation, Environmental Restoration Branch, EM-551 (GTN), Germantown, MD 20874
- 204. Robert S. Andrews, National Academy of Sciences, Board on Radioactive Waste Management, 2101 Constitution Avenue, NW, Washington, DC 20418
- 205. Kathy J. Angleberger, U.S. Department of Energy, Office of Environmental Restoration, Northwestern Area Programs Division, On-Site Remediation Branch, EM-442, Trevion II (GTN), Washington, DC 20585-0002
- 206. Lynn R. Anspaugh, Lawrence Livermore National Laboratory, Environmental Sciences Division, P.O. Box 808, L-453, Livermore, CA 94551-9900
- 207. Gilbert Archuleta, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 208. I.C. Arjona, Westinghouse Idaho Nuclear Company, Restoration Project Management Administration, P.O. Box 4000, Idaho Falls, ID 83403
- 209. Michael B. Arndt, EG&G Rocky Flats, Inc., Environmental Management Division, T130B, P.O. Box 464, Golden, CO 80402
- Larry D. Arnold, Westinghouse Hanford Company, Restoration and Remediation, P.O. Box 1970, Mail Stop B2-35, Richland, WA 99352
- 211. Sharon Arp, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 212. Richard J. Arthur, Pacific Northwest Laboratory, P.O. Box 999, Richland, WA 99352
- 213. Ed Artiglia, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 214. William E. Austin, Westinghouse Savannah River Company, P.O. Box 616, CCC Building 4, Aiken, SC 29808-6865

- 215. Harry Babad, Westinghouse Hanford Company, Waste Tank Safety Programs, P.O. Box 1970, Mail Stop R2-08, Richland, WA 99352
- 216. Arrie Bachrach, Jacobs Engineering Group, Inc., Environmental Program, 251 South Lake Avenue, Pasadena, CA 91101
- 217. David M. Ball, Lamb Associates, Inc., New Mexico Operations, 6121 Indian School Road, NE, Suite 232, Albuquerque, NM 87110
- 218. Larry Ball, U.S. Department of Energy, Grand Junction Projects Office, DOE/EM-43, GTN, Trevion II, Washington, DC 20585-0002
- 219. W. Wade Ballard, IT Corporation, Analytical Services, 5301 Central Avenue, NE, Suite 700, Albuquerque, NM 87108
- 220. Steven N. Balone, BDM International, Inc., EM-442, Trevion II, Germantown, MD 20874
- 221. Michael J. Barainca, U.S. Department of Energy, Office of Technology Devleopment, EM-53, Trevion II (GTN), Washington, DC 20585-0002
- 222. Patty Baratti-Sallani, U.S. Department of Energy, WIPP Project Site Office, P.O. Box 3090, Carlsbad, NM 88220
- 223. Patricia H. Barbosa, U.S. Department of Energy, EM-431 (GTN), Trevion II, Washington, DC 20585-0002
- 224. Randall J. Bargelt, EG&G Idaho, Inc., Environmental Restoration Department, P.O. Box 1625, Idaho Falls, ID 83415-1545
- 225. Pamela B. Barnard, Westinghouse Savannah River Company, ESH&QA/EPO, Building 742-A, P.O. Box 616, Aiken, SC 29808
- 226. Donald J. Barnes, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 227. John Bascietto, U.S. Department of Energy, 1000 Independence Avenue, Washington, DC 20585
- 228. Terry Bates, Energetics Company, 7164 Gateway Drive, Columbia, MD 21046
- 229. Lewis Battist, U.S. Environmental Protection Agency, Office of Radiation Programs, Radiation Standards Division, 401 M Street, SW (ANR-461), Washington, DC 20460
- 230. John E. Baublitz, U.S. Department of Energy, Office of Environmental Restoration and Waste Management, Office of Environmental Restoration, EM-40 (GTN), Washington, DC 20585
- 231. Carl Bauer, U.S. Department of Energy, EM-441 (GTN), Trevion II, Washington, DC 20585-0002
- 232. James D. Bauer, U.S. Department of Energy, EM-43 (GTN), Trevion II, Washington, DC 20585-0002
- 233. Roy G. Bauer, Westinghouse Hanford Company, Environmental Remedial Engineering Division, P.O. Box 1970, Mail Stop H4-55, Richland, WA 99352
- 234. Frank W. Baxter, U.S. Department of Energy, EM-433 (GTN), Trevion II, Washington, DC 20585-0002
- 235. Thomas D. Beal, EG&G Mound Applied Technologies, Environmental Safety and Health Division, P.O. Box 3000, 1 Mound Road, Miamisburg, OH 45343-0987
- 236. Paul M. Beam, U.S. Department of Energy, EM-451 (GTN), Trevion II, Washington, DC 20585-0002
- 237. Thomas E. Bearden, U.S. Department of Energy, Rocky Flats Office, Environmental Restoration Division, P.O. Box 928, Mail Stop T371C, Golden, CO 80402
- 238. Mary Elizabeth Beasley, U.S. Department of Energy, Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831
- 239. Bechtel Corporation, Advanced Technology Library, P.O. Box 3965, San Francisco, CA 94119
- 240. William L. Beck, Oak Ridge Institute for Science & Education, E/ES Division, P.O. Box 117, Oak Ridge, TN 37831-0117
- 241. K. Beckstead, Westinghouse Idaho Nuclear Company, Restoration Project Management Administration, P.O. Box 4000, Idaho Falls, ID 83403
- 242. Willard R. Becraft, Northwest Instrument Systems, Inc., 3100 George Washington Way, Richland, WA 99352
- David W. Belak, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874

- 244. Marsha L. Bell, Westinghouse Hanford Company, Facility Operations Division, P.O. Box 1970, Mail Stop T6-16, Richland, WA 99352
- 245. Richard B. Belzer, Office of Management and Budget, Office of Information and Regulatory Affairs, New Executive Office Building 3019, Washington, DC 20503
- 246. Jean M. Bench, Chem-Nuclear Geotech, Inc., Engineering Section, P.O. Box 14000, Grand Junction, CO 81502-5527
- 247. Gary A. Benda, Chemical Waste Management, Inc., Remedial Services, 140 Stoneridge Drive, Columbia, SC 29210
- 248. James C. Benetti, U.S. Environmental Protection Agency, Region 5, Air & Radiation Branch, 77 West Jackson, 54T-18J, Chicago, IL 60604
- 249. Mark M. Benge, Bechtel National, Inc., FUSRAP Engineering, P.O. Box 350, Oak Ridge, TN 37830-0350
- 250. Ray Bennett, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 251. Sandra Beranich, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1000, Albuquerque, NM 87108
- 252. Chris L. Bergren, Westinghouse Savannah River Company, Environmental Restoration, Savannah River Site, Building 742-A, Aiken, SC 29802
- 253. Emile A. Bernard, Sandia National Laboratories, Organization 6600, 1331 Pennsylvania Avenue, NW, Suite 717N, Washington, DC 20004
- 254. David E. Bernhardt, Rogers & Associates Engineering Corporation, P.O. Box 330, Salt Lake City, UT 84110-0330
- 255. David Biancosino, U.S. Department of Energy, Division of Demonstration, Testing and Evaluation, EM-551, 12800 Middlebrook Road, Germantown, MD 20874
- 256. George R. Bierman, Office of Technical Services, H&R Technical As. ociates, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 257. Jill V. Bilyeu, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 258. Willis W. Bixby, U.S. Department of Energy, EM-6, 1000 Independence Avenue, SW, Washington, DC 20585
- 259. Don E. Black, Dames & Moore, DOE Programs Division, 1125 17th Street, Suite 1200, Denver, CO 80202
- 260. Warren D. Black, U.S. Department of Energy, EM-32 Trevion II, Washington, DC 20585-0002
- 261. Paul B. Blacker, EG&G Idaho, Inc., Buried Waste Integrated Demonstration, P.O. Box 1625, Mail Stop 3940, Idaho Falls, ID 83415
- 262. Larry G. Blalock, U.S. Department of Energy, EM-511, 12800 Middlebrook Road, Suite 400, Washington, DC 20585
- 263. Richard K. Blauvelt, BDM International, Inc., 1900 Founders Drive, Kettering, OH 45420
- 264. Ronald J. Bliss, Westinghouse Hanford Company, Facility Operations, P.O. Box 1970, Richland, WA 99337
- 265. Karin Blitte, NJG Associates, Inc., DOE/EM-40, 1000 Independence Avenue, SW, Washington, DC 20585
- 266. Paul Blom, U.S. Department of Energy, Office of Environmental Restoration, EM-421, 12800 Middlebrook Road, Germantown, MD 20874
- Joseph O. Boda, U.S. Department of Energy, Western Operations Branch, EM-322, Washington, DC 20585-0002
- 268. Gary W. Bodenstein, U.S. Department of Energy, Oak Ridge Field Office, Environmental Restoration Division, P.O. Box 2001, Oak Ridge, TN 37831-5481
- 269. Peter G. Bodily, Kaiser Engineers Hanford, Environmental Restoration Division, P.O. Box 888, Mail Stop E2-10, Richland, WA 99352
- 270. Robert L. Boettner, U.S. Department of Energy, EM-421 (GTN), Trevion II, Washington, DC 20585-0002

271. Lawrence E. Boing, Argonne National Laboratory, EWM/D&D Projects, Building 214, 9700 South Cass Avenue, Argonne, IL 60439

- 272. Sheri L. Bone, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 273. William F. Bonner, Pacific Northwest Laboratory, Waste Technology Center, Mail Stop P7-41, P.O. Box 999, Richland, WA 99352
- 274. David P. Boram, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 275. William C. Borden, Bechtel National, Inc., Environmental Health and Safety Department, P.O. Box 350, Oak Ridge, TN 37831-0350
- 276. Stanley S. Borys, Argonne National Laboratory, Engineering Research Division, 9700 South Cass Avenue, Building 208, Argonne, IL 60439
- 277. William W. Bowen, Westinghouse Hanford Company, Defense Waste Remediation Division, P.O. Box 1970, Mail Stop S6-65, Richland, WA 99352
- 278. Elizabeth M. Bowers, U.S. Department of Energy, Richland Field Office, Research and Development Division, MSIN A5-90, P.O. Box 550, Richland, WA 99352
- 279. Gerald Boyd, U.S. Department of Energy, EM-51 (GTN), Trevion II, Washington, DC 20585-0002
- 280. Ross E. Bradley, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- Michael C. Bradshaw, TMA/Eberline, Health Physics, P.O. Box 350, 151 Lafayette Drive, Oak Ridge, TN 37830
- 282. Jim L. Bratton, Applied Research Associates, Inc., 4300 San Mateo Boulevard, NE, Suite A220, Albuquerque, NM 87110
- 283. Loviece C. Brazley, U.S. Department of Energy, Office of Environmental Restoration, Southwest Area Programs Division, Off-Site Remediation Branch, EM-451 (GTN), Washington, DC 20545
- 284. Robert P. Breckenridge, EG&G Idaho, Inc., Center for Monitoring and Assessment, P.O. Box 1625, Idaho Falls, ID 83415
- 285. John S. Brehm, Westinghouse Hanford Company, Environmental Restoration Programs, P.O. Box 1970, Mail Stop A5-19, Richland, WA 99352
- 286. Baivara Bridgeman, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 287. Kenneth C. Brog, Battelle Columbus Laboratories, D&D Operations Department, 505 King Avenue, Columbus, OH 43201-2693
- 288. Meredith Brogden, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1000, Albuquerque, NM 87108
- 289. Mary Brook, NJG Associates, Inc., DOE/EM-424 (GTN), Washington, DC 20585-0002
- 290. Brookhaven National Laboratory, Nuclear Waste Management Library, Building 830, Upton, NY 11973
- 291. Charles A. Broom, Chem-Nuclear Geotech, Inc., Operations Division, Building 15, 1597 Cole Boulevard, Suite 375, Golden, CO 80401
- 292. David L. Brooman, Woodward-Clyde Consultants, Inc., Federal Services, Denver Office, 4582 South Ulster Street Parkway, Suite 1200, Denver, CO 80237
- 293. Thomas M. Brouns, Pacific Northwest Laboratory, Waste Treatment Technology Department, P.O. Box 999, Mail Stop P7- 41, Richland, WA 99352
- 294. James E. Brower, Brookhaven National Laboratory, Office of Environmental Restoration, Building 51M, Upton, NY 11973
- 295. Bud Brown, MRI, Inc., P.O. Box 105, 5310 Harvest Hill Road, Dallas, TX 75230
- 296. David E. Brown, Allied-Signal Aerospace Company, Inc., Environment, Safety & Health Division, 2000 East 95th Street, D/922, SC-8, Kansas City, MO 64141-6159
- 297. Jeffrey A. Brown, TMA/Eberline, 601 Scarboro Road, Oak Ridge, TN 37830
- 298. Mary Lou Brown, Science Applications International Corporation, 1708 Serafina Street, Las Vegas, NV 89102
- 299. Steven H. Brown, Dames & Moore, 1125 17th Street, Suite 1200, Denver, CO 80202

300. Thomas Brun, Westinghouse Hanford Company, P.O. Box 1970, MSIN T3-06, Richland, WA 99352

- 301. Leca Buchan, Bechtel National, Inc., Library, P.O Box 350, Oak Ridge, TN 37831-0350
- 302. Kevin Buchanan, U.S. Department of Energy, Savannah River Field Office, AMRO-PPED, P.O. Box A, Aiken, SC 29801
- 303. David A. Buecker, Ecology & Environment, Inc., 950 Energy Drive, Idaho Falls, ID 83401
- 304. James L. Buelt, Pacific Northwest Laboratory, Waste Treatment Technology Department, P.O. Box 999, Mail Stop P7-41, Richland, WA 99352
- 305. Dennis E. Bugielski, Argonne National Laboratory, SSD-PRO/201, 9700 South Cass Avenue, Argonne, IL 60439-4873
- 306. Charles M. Bull, Morrison-Knudsen Corporation, P.O. Box 2737, Grand Junction, CO 81501
- 307. N.A. Burch, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID 83403
- 308. Terri E. Burdette, U.S. Department of Energy, EM-432 (GTN), Trevion II, Washington, DC 20585-0002
- 309. Robert M. Burgoyne, NRT Corporation, 3550 General Atomics Court, San Diego, CA 92186-9784
- 310. H.T. Burn, Oak Ridge Institute for Science and Education (ORISE), Information Center/EES, P.O. Box 117, Oak Ridge, TN 37831-0117
- 311. Sheryl J. Burnett, GTS Duratek, 8955 Guilford Road, Suite 200, Columbia, MD 21046
- 312. Chuck Burt, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 313. Mike C. Butherus, Chem-Nuclear Geotech, Inc., P.O. Box 14000, Grand Junction, CO 81502-5504
- 314. Mark E. Byrnes, Science Applications International Corporation, FUSRAP Program Office, P.O. Box 2501, 301 Laboratory Road, Oak Ridge, TN 37831
- 315. William J. Cahill, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 316. Sebastian J. Calanni, Johnson Controls, Inc., Laboratory Support Division, P.O. Box 50, Los Alamos, NM 87544-0050
- 317. M.W. Caldwell, Westinghouse Hanford Company, Hanford Restoration Operations, P.O. Box 1970, Richland, WA 99352
- 318. Fran Calvaresi, Gibert/Commonwealth, Inc., Library and Information Services, P.O. Box 1498, Reading, PA 19603-1498
- 319. Jerry W. Cammann, Westinghouse Hanford Company, Technology Development, P.O. Box 1970, Mail Stop H4-14, Richland, WA 99352
- 320. Thomas W. Campbell, General Electric Company, Knolls Atomic Power Laboratory, River Road, P.O. Box 1072, Building Q-5, Room 160, Schenectady, NY 12301
- 321. Alfred P. Canepa, Science Applications International Corporation, 20030 Century Boulevard, Germantown, MD 20874
- 322. Frank P. Cardile, U.S. Nuclear Regulatory Commission, Office of Nuclear Regulatory Research, Mail Stop NLS-139, Washington, DC 20555
- 323. Timothy J. Carlson, Chem-Nuclear Geotech, Inc., P.O. Box 14000, Grand Junction, CO 81502-5504
- 324. Charles J. Carpenter, Waste Policy Institute, 1999 South Main Street, Suite 500, Blacksburg, VA 24060-6613
- 325. Craig Alan Carro, M.H. Chew & Associates, Inc., Richland Office, 1933 Jadwin Avenue, Suite 135, Richland, WA 99352
- 326. Elizabeth W. Carroll, Oak Ridge Institute for Science & Education, TMSD/AFSP, P.O. Box 117, Oak Ridge, TN 37831-0117
- 327. Phil D. Cate, MK-Ferguson Company, Weldon Spring Site Project Office, Government Facilities/Quality, 7295 Highway 94 South, St. Charles, MO 63304
- 328. Steve Challinor, British Nuclear Fuels, plc., Decommissioning Unit, B548, Sellafield, Seascale, Cumbria, United Kingdom CA20 1PG
- 329. Casto O. Changho, Black & Veatch Engineers-Architects, Power Division, P.O. Box 84()5, 84()() Ward Parkway, Kansas City, MO 64114

- 330. John A. Chapin, Bechtel National, Inc., Decommissioning Department, 151 Lafayette Avenue, Oak Ridge, TN 37830
- 331. Pat Chapman, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 332. Deanna Chavez, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 333. Charles L. Cheever, Argonne National Laboratory, EWM, Building 214, 9700 South Cass Avenue, Argonne, IL 60439
- 334. S.Y. Chen, Argonne National Laboratory, Environmental Assessment & Information Sciences Division, 9700 South Cass Avenue, Building 900, Argonne, IL 60439
- 335. Sam C. Cheng, U.S. Department of Energy, Dayton Area Office, P.O. Box 66, Miamisburg, OH 45343-0066
- 336. Albert R. Chernoff, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 337. Richard B. Chitwood, U.S. Department of Energy, Advanced Radiation Technology Program, NE-48 (GTN), Washington, DC 20585
- 338. J. Claes, Belgoprocess, Gravenstraat, 73, B-2480 Dessel, Belgium
- 339. Andy Clark, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 340. Dean O. Clark, U.S. Department of Energy, EM-432 (GTN), Trevion II, Washington, DC 20585-0002
- 341. Donald E. Clark, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop A4-90, Richland, WA 99352
- 342. W.J. Clark, Westinghouse Idaho Nuclear Company, Restoration Project Management Administration, P.O. Box 4000, Idaho Falls, ID 83403
- 343. Scott A. Colby, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop L5- 31, Richland, WA 99352
- 344. Sheldon R. Coleman, Kaiser Engineers Hanford, Performance Assessment Division, P.O. Box 888, Mail Stop E3-31, Richland, WA 99352
- 345. Frank Conahan, NFS Radiation Protection Systems, Field Services, 10 Vista Drive, Old Lyme, CT 06371-1541
- 346. Laura Connolly, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 347. Steven J. Connor, Halliburton NUS Environmental Corporation, Health Physics Department, 900 Trail Ridge Road, Aiken, SC 29803
- 348. Ron C. Conrad, Los Alamos National Laboratory, P.O. Box 1663, EM-8, Mail Stop K490, Los Alamos, NM 87545
- 349. M. Conti, ENEA, PAS/SMAIMP, CRE Casaccia, C.P. 24, I-00100 Rome, Italy
- 350. Rarilee Conway, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 351. J.E. Coody, Westinghouse Idaho Nuclear Company, Restoration Project Management Administration, P.O. Box 4000, Idaho Falls, ID 83403
- 352. Joe C. Cook, EG&G Idaho, Inc., Environmental Restoration Division, P.O. Box 1625, Idaho Falls, ID 83415- 3920
- 353. Carl Cooley, U.S. Department of Energy, EM-55 (GTN), Trevion II, Washington, DC 20585-0002
- 354. Raymond Cooperstein, U.S. Department of Energy, DP-273, Washington, DC 20585
- 355. Lisa A. Corathers, Pacific Northwest Laboratory, Technology Management & Planning Department, 901 D Street, SW, Suite 900, Washington, DC 20024-2115
- Robert Cornish, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque,
 NM 87108
- 357. Stephen P. Cowan, U.S. Department of Energy, Office of Environmental Restoration and Waste Management, EM-30 (GTN), Washington, DC 20585-0002
- 358. Richard N. Coy, Chem-Nuclear Geotech, Inc., Albuquerque Field Office, Albuquerque, NM 87108

- 359. Philip A. Craig, Lockheed Engineering & Sciences Company, Advanced Programs, 1221 Jadwin Avenue, Suite B, Richland, WA 99352
- 360. Jim Crain, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 361. Thomas M. Crandall, U.S. Department of Energy, Division of Demonstration, Testing and Evaluation, EM-551, 12800 Middlebrook Road, Germantown, MD 20874
- 362. Debra Cranwell, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 363. Frank J. Crescenzo, U.S. Department of Energy, Brookhaven Area Office, 53 Bell Avenue, Building 464, Upton, NY 11973
- 364. Frank P. Crimi, Lockheed Engineering & Sciences Company, Advanced Programs, 13146 Via Ranchero Drive, Saratoga, CA 95070
- 365. Fredrick T. Cross, Pacific Northwest Laboratory, Biology and Chemistry Department (K4-13), P.O. Box 999, Richland, WA 99352
- 366. Mayme R. Crowell, Oak Ridge Institute for Science & Education, Energy/Environment Systems Division, P.O. Box 117, Oak Ridge, TN 37831-0117
- 367. A.B. Culp, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID 83403
- 368. Myron W. Curtis, Westinghouse Idaho Nuclear Company, EIA, Mail Stop 3202, P.O. Box 4000, Idaho Falls, ID 83403
- 369. Julia D'Ambrosia, Envirotech Associates, Inc., 7221 Grinnell Drive, Rockville, MD 20855-2726
- 370. Robert Dacey, Science Applications International Corporation, Box 1303K, Tower 114, M/S 7, McLean, VA 22102
- 371. William B. Daily, U.S. Department of Energy, Office of Environmental Restoration, Eastern Area On-Site Remediation Branch, EM-422 (GTN), Washington, DC 20545-0002
- 372. John W. Darby, Bechtel National, Inc., FUSRAP Engineering and Technology, P.O. Box 350, Oak Ridge, TN 37831-0350
- 373. Amyia K. Das, U.S. Department of Energy, EM-453 (GTN), Trevion II, Washington, DC 20585-0002
- 374. Karl J. Daubel, U.S. Army Engineer Center & Ft. Leonard Wood, Weldon Spring Training Area, 7301 Highway 94 South, St. Charles, MO 63304
- 375. Jim Davis, U.S. Department of Energy, EM-343 (GTN), Trevion II, Washington, DC 20585-0002
- 376. M. Jeanette Davis, U.S. Department of Energy, EM-422 (GTN), Trevion II, Washington, DC 20585-0002
- 377. William P. Davis, EG&G Mound Applied Technologies, D&D/Engineering Division, P.O. Box 3000, Miamisburg, OH 45343-3000
- 378. Norman Davison, U.S. Department of Energy, EM-23 (GTN), Trevion II, Washington, DC 20585-0002
- 379. Pabitra L. De, International Atomic Energy Agency, Nuclear Fuel Cycle and Waste Management Division, Wagramerstrasse 5, P.O. Box 100, A-1400 Vienna, Austria
- 380. Herbert L. Debban, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop X0-43, Richland, WA 99352
- 381. Thomas R. Decker, U.S. Nuclear Regulatory Commission, Region 2, DRSS/RPEP, 101 Marietta Street, NW, Suite 2900, Atlanta, GA 30323
- 382. Cherri DeFigh-Price, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop H1- 63, Richland, WA 99352
- 383. Karen L. DeLara-Menozzi, Argonne National Laboratory, TIS Department/Acquisitions, Building 203-CE111, 9700 South Cass Avenue, Argonne, IL 60439
- 384. Walter Demant, Kernforschungszentrum Karlsruhe GmbH, Projektbereich Anlagan (PBA), Postfach 3640, Karlsruhe, Germany D-75(t)
- 385. Thomas F. Demmitt, Bechtel Environmental, Inc., 513 Lee Boulevard, Richland, WA 99352
- 386. Lata S. Desai, Westinghouse Electric Corporation, Waste Isolation Division, Technical Library, P.O. Box 2078, Carlsbad, NM 88221
- 387. Barbara Deshler, IT Corporation, 5301 Central Avenue, NE, Suite 700, Albuquerque, NM 87108

388. Micheline A. Devaurs, Los Alamos National Laboratory, Environmental Restoration Group, MS M992, P.O. Box 1663, Los Alamos, NM 87545

- 389. Brenda Dever, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 390. Jas Devgun, Argonne National Laboratory, R&D Program Coordination Office, CMT-205, 9700 South Cass Avenue, Argonne, IL 60439
- 391. Jeff A. Dick, Science Applications International Corporation, Environmental Compliance and Assessment, 3930 U.S. Rt. 23, P.O. Box 789, Bldg. XT-801, Piketon, OH 45661-0789
- 392. Scott Dickerson, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 393. Janet A. Diediker, Westinghouse Hanford Company, Environmental Restoration Program, P.O. Box 1970, Mail Stop L4-88, Richland, WA 99352
- 394. Julie Diliberto, Westinghouse Hanford Company, DOE/EM-431 (GTN), Washington, DC 20585-0002
- 395. Rick DiSalvo, U.S. Department of Energy, Rocky Flats Office, Waste Protection Branch, P.O. Box 928, Golden, CO 80402-0928
- 396. Robert L. Dodge, Reynolds Electric & Engineering Company, Inc., ES&H Division, 3281 South Highland, Suite 807, Las Vegas, NV 89109
- 397. Leslie R. Dole, QUALTEC, Inc., Knoxville Laboratory, 725 Pellissippi Parkway, Knoxville, TN 37932-3363
- 398. Mary E. Donnelly, United Technologies Corporation, Library, 400 Main Street, East Hartford, CT 06108
- 399. William P. Dornsife, Pennsylvania Department of Environmental Resources, Bureau of Radiation Protection, P.O. Box 2063, 16th Floor, Fulton Building, Harrisburg, PA 17105-2063
- 400. Leonard L. Dowd, U.S. General Accounting Office, Richland Sublocation, P.O. Box 321, Richland, WA 99352
- 401. Bill Downs, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 402. Karen Downs, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 403. M.N. Dowson, Westinghouse Idaho Nuclear Company, Restoration Project Integration, P.O. Box 4000, Idaho Falls, ID 83403
- 404. A. Louise Dressen, Environmental Issues Management, Inc., 1147 21st Avenue, Seattle, WA 98112
- 405. Kay Drey, Coalition for the Environment, 515 West Point Avenue, University City, MO 63130-4099
- 406. Leo P. Duffy, U.S. Department of Energy, Director, Office of Environmental Restoration and Waste Management, EM-1 (FORS), Washington, DC 20585
- 407. Michael J. Dunn, Bradtec US, Inc., 1010 Hunteliff Trail, Suite 1350, Atlanta, GA 30350-1809
- 408. Cindy Duran, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 409. L.C. Durante, Westinghouse Idaho Nuclear Company, Restoration Project Management Administration, P.O. Box 4000, Idaho Falls, ID 83403
- 410. Anthony J. Dvorak, Argonne National Laboratory, Environmental Assessment and Information Sciences Division, Building 301, 9700 South Cass Avenue, Argonne, IL 60439
- 411. Robert E. Dye, U.S. Environmental Protection Agency, Region 7, ARTX/ARBR/RAID, 726 Minnesota Avenue, Kansas City, KS 66101
- 412. Emily F. Dyson, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 413. Otis K. Earle, Westinghouse Idaho Nuclear Company, Environmental Compliance Department, P.O. Box 4000, Idaho Falls, ID 83403
- Laurie C. Easterling, Radian Corporation, Central Records/Library, 120 South Jefferson Circle, Suite 100, Oak Ridge, TN 37830
- 415. Martha A. Ebra, Westinghouse Savannah River Company, Waste Management and Environmental Restoration, P.O. Box 616, Merrill Lynch, Aiken, SC 29802

- 416. Cynthia R. Echols, TMA/Eberline, FUSRAP, P.O. Box 350, 151 Lafayette Drive, Oak Ridge, TN 37922
- 417. Russ Edge, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 418. Paul H. Edmonds, Radian Corporation, 120 South Jefferson Circle, Suite 100, Oak Ridge, TN 37830
- 419. EG&G Idaho, Inc., Technical Library, P.O. Box 1625, Idaho Falls, ID 83415-2300
- 420. EG&G Mound Applied Technologies, Library, Mail Stop L6811, P.O. Box 3000, Miamisburg, OH 45343-0987
- 421. Kenneth J. Eger, Ebasco Services, Inc., Environmental Division, 111 Union Valley Road, Oak Ridge, TN 37830
- 422. Donald R. Eggett, Commonwealth Edison Company, Nuclear Engineering Department, 1400 Opus Place, Suite 300, Downers Grove, IL 60515
- 423. Philip V. Egidi, Oak Ridge Institute for Science & Education, Grand Junction Office, EESD/ESSAP/GJ, 2597 B 3/4 Road, Grand Junction, CO 81503
- 424. Scott B. Ekman, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 425. Robert E. Elder, Westinghouse Hanford Company, Occupational Safety & Health, P.O. Box 1970, MSIN L8-16, Richland, WA 99352
- 426. Darrell J. Elliott, IT Corporation, 312 Directors Drive, Knoxville, TN 37923
- 427. Geneva Ellis, U.S. Department of Energy, EM-441 (GTN), Trevion II, Washington, DC 20585-0002
- 428. Sue Ellis, TCT St. Louis, Library, 1908 Innerbelt Business Center, St. Louis, MO 63114-5700
- 429. Richard W. Emmett, H&R Technical Associates, Inc., P.O. Box 4159, 575 Oak Ridge Turnpike, Oak Ridge, TN 37831-4159
- 430. Rob Emons, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 431. Energy Technology Engineering Center, Library, P.O. Box 1449, Canoga Park, CA 91304
- 432. G. Allan Engebretson, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 433. John P. Englert, Dames & Moore, 3065 Southwestern Boulevard, Suite 202, Orchard Park, NY 14127-1240
- 434. William Y. Epling, NJG, Inc., 13204 Executive Park Terrace, Germantown, MD 20874
- 435. John D. Erickson, Wyoming Department of Environmental Quality, Land Quality Division, 250 Lincoln Street, Lander, WY 82520
- 436. Julie K. Erickson, U.S. Department of Energy, Richland Field Office, Environmental Restoration Division, Environmental Remediation Branch, P.O. Box 550, Mail Stop A5-19, Richland, WA 99352
- 437. Peter B. Erickson, U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Mail Stop 11-B-20, Washington, DC 20555
- 438. Edward H. Essington, Los Alamos National Laboratory, Environmental Science Group, P.O. Box 1663, Mail Stop J495, Los Alamos, NM 87545
- 439. John F. Falkenbury, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 440. William E. Fallon, Pacific Northwest Laboratory, TPAC Division, 901 D Street, SW, Suite 900, Washington, DC 20024-2115
- 441. David J. Fauth, West Valley Nuclear Services Company, Inc., Vitrification Process Development, P.O. Box 191, Rock Springs Road, West Valley, NY 14171
- 442. Sharon L. Fauver, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 443. Melville A. Feraday, M.A. Feraday & Associates Limited, P.O. Box 131, Station U, Etobicoke, Ontario, Canada M8Z 5M4
- 444. Richard D. Ferguson, Jacobs Engineering Group, Inc., Weldon Spring Site, 7295 Highway 94 South, St. Charles, MO 63304
- 445. Stephen E. Fieser, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874

D-11 Distribution

446. Donald J. Fingleton, New Mexico State University, Carlsbad Center for Environmental Research, 1500 University Drive, Carlsbad, NM 88220

- 447. James J. Fiore, U.S. Department of Energy, Office of Environmental Restoration and Waste Management, Office of Eastern Area Programs, EM-42, Trevion II Building, Washington, DC 20585
- 448. Dennis L. Fish, Westinghouse Savannah River Company, Interim Waste/Savannah River Laboratory, Building 773-A, B-112, Aiken, SC 29808
- 449. Michael B. Fisher, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 450. Donald A. Flater, Iowa Department of Public Health, Bureau of Environmental Health, 321 East 12th Street, Lucas State Office Building, Des Moines, IA 50319-0075
- 451. Robert C. Fleming, U.S. Department of Energy, EM-431 (GTN), Trevion II, Washington, DC 20585-0002
- 452. Connie M. Flohr, NJG Associates, Inc., DOE/EM-432 (GTN), Washington, DC 20585-0002
- 453. Dale Flores, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 454. Richard D. Flotard, U.S. Environmental Protection Agency, Nuclear Radiation Assessment Division, P.O. Box 98517, Las Vegas, NV 89193-3478
- 455. Kathryn L. Flowers, Dames & Moore, Library, 11701 Borman Drive, Suite 340, St. Louis, MO 63146
- 456. Len Flowers, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 457. Thomas Flynn, New York State Department of Health, Library-Center For Laboratories and Research, Empire State Plaza-San 310-7655, Albany, NY 12201
- 458. Hans G. Forsstrom, Swedish Nuclear Fuel and Waste Management Company (SKB), Systems and Facilities Division, P.O. Box 5864, S-102 48 Stockholm, Sweden
- 459. Foster Wheeler Enviresponse, Inc., Library, 12 Peach Tree Hill Road, Livingston, NJ 07039
- 460. Cindy Foster, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 461. B.R. Fourr, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID 83403
- 462. Annette M. Frahm, Battelle Seattle Research Center, P.O. Box 5395, Seattle, WA 98105-5428
- 463. Clyde Frank, U.S. Department of Energy, Office of Technology Development, EM-50 (FORS), Room 8H-023, 1000 Independence Avenue, SW, Washington, DC 20585
- 464. Timothy A. Frazier, U.S. Department of Energy, Dayton Area Office, P.O. Box 66, Miamisburg, OH 45343-0066
- 465. Roger D. Freeberg, U.S. Department of Energy, Richland Field Office, Environmental Restoration Division, Environmental Programs Branch, P.O. Box 550, MSIN A5-19, Richland, WA 99352
- 466. Denise C. Freeman, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 467. Charles S. Friedman, EG&G Mound Applied Technologies, Environment, Safety and Health, P.O. Box 3000, Miamisburg, OH 45343-3000
- 468. Neal A. Frink, Modern Technologies Corporation, 2542 Halstead Street, Cincinnati, OH 45214
- 469. Joe Fritts, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 470. Donna R. Frost, Science Applications International Corporation, 20201 Century Boulevard, Germantown, MD 200874
- 471. Shirley A. Frush, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 472. Donald C. Fulmer, U.S. Department of Energy, Office of Environmental Restoration, Eastern Area Programs Division, EM-42 (GTN), Washington, DC 20585-0002
- 473. Rodney R. Gadd, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop H5-27, Richland, WA 99352
- 474. Matthew J. Galbraith, Westinghouse Hanford Company, Environmental Division/Decommi ssioning Engineering, P.O. Box 1970, Mail Stop R2-77, Richland, WA 99352
- 475. Floyd L. Galpin, U.S. Environmental Protection Agency, Office of Radiation Programs, ANR-460, 401 M Street SW, Washington, DC 20460

Distribution D-12

- 476. Gonzalez Garcia-Suelto, ENRESA, Emilio Vargas 7, 28043 Madrid, Spain
- 477. Raymond Garde, Los Alamos National Laboratory, Waste Management Division, EM-7, P.O. Box 1663, Mail Stop E-517, Los Alamos, NM 87545
- 478. Rosemary H. Gardewing, Westinghouse Environmental Management Company of Ohio, Communications/Library, P.O. Box 398704, Cincinnati, OH 45239-8704
- 479. Donald L. Gardner, Westinghouse Hanford Company, Health and Safety Department, Contamination Control Improvement Project, P.O. Box 1970, MSIN R3-12, Richland, WA 99352
- 480. Gene Gardner, Virginia Polytechnic Institute, Management Systems Laboratories, Environmental System Laboratory, 1900 Kraft Drive, Blacksburg, VA 24060
- 481. Gary F. Gartzke, Texas Department of Health, Bureau of Radiation Control, 1100 West 49th Street, Austin, TX 78756-3189
- 482. Jacob W. Gatrell, U.S. Department of Energy, Office of Environmental Restoration, Southwest Area Programs Division, Off-Site Remediation Branch, Mail Stop EM-451 (GTN), Room D-247, Washington, DC 20545
- 483. Jack R. Geichman, EG&G Mound Applied Technologies, Engineering Division, P.O. Box 3000, Miamisburg, OH 45342
- 484. George H. Gelb, TRW, Inc., Systems Engineering and Development, P.O. Box 6213, 1762 Glenn Curtiss, Mail Stop DH2/2020, Carson, CA 90746
- 485. General Electric Company, Nuclear Energy Division Library, 175 Curtner Avenue, San Jose, CA 95125
- 486. Dale S. Genser, Allied-Signal Aerospace Company, Inc., D/837, MS 2C42, P.O. Box 419159, Kansas City, MO 64141-6159
- 487. Roy E. Gephart, Pacific Northwest Laboratory, DOE/EM-431 (GTN), Washington, DC 20585-0002
- 488. Michele S. Gerber, Westinghouse Hanford Company, Environmental Engineering Group, P.O. Box 1970, Mail Stop H4-55, Richland, WA 99352
- 489. Claire M. Gesalman, U.S. Department of Energy, EM-453 (GTN), Trevion II, Washington, DC 20585-0002
- 490. Gilbert/Commonwealth, Inc., Lancaster Avenue Library, P.O. Box 1498, Reading, PA 19603
- 491. Richard O. Gilbert, Pacific Northwest Laboratory, Analytic Sciences Department, P.O. Box 999, Mail Stop K7-34, Richland, WA 99352
- 492. Roger L. Gilchrist, Westinghouse Hanford Company, Technology Development, P.O. Box 1970, Mail Stop L5-63, Richland, WA 99352
- 493. Paul Gilinsky, BDM International, Inc., DOE/EM-442 (GTN), Washington, DC 20585-0002
- 494. Jerry L. Gillette, Argonne National Laboratory, Environmental Assessment & Information Sciences Division, 9700 South Cass Avenue, Argonne, IL 60439-4832
- 495. Jacquelyn C. Gillings, Ecology & Environment, Inc., Nuclear Programs Division, 368 Pleasantview Drive, Lancaster, NY 14086
- 496. Robert G. Gisch, U.S. Department of Energy, Division of Naval Reactors, NE-60, Washington, DC 20545
- 497. Clayton S. Gist, U.S. Department of Energy, Oak Ridge Field Office, Environmental Restoration Division, EW-912, P.O. Box 2001, Federal Building, Oak Ridge, TN 37831-8621
- 498. Robert E. Glass, Sandia National Laboratories, Division 6322, P.O. Box 5800, Albuquerque, NM 87185
- 499. Steven C. Goheen, Pacific Northwest Laboratory, Chemical Sciences Department, P.O. Box 999, Richland, WA 99352
- 500. Lewis C. Goidell, U.S. Department of Energy, Savannah River Field Office, Environmental Restoration Division, P.O. Box A, Aiken, SC 29802
- 501. Norbert W. Golchert, Argonne National Laboratory, Environment and Waste Management Programs, 9700 South Cass Avenue, Building 201, Room 228, Argonne, IL 60439
- 502. D. Gombert, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID 83403

- 503. James D. Goodenough, U.S. Department of Energy, Richland Field Office, Environmental Restoration Division, Environmental Remediation Branch, P.O. Box 550, Mail Stop A5-19, Richland, WA 99352
- 504. Craig Z. Gordon, U.S. Nuclear Regulatory Commission, Region 1, 475 Allendale Road, King of Prussia, PA 19406
- 505. Frank F. Gorup, U.S. Department of Energy, Chicago Field Office, Argonne Area Office, 9800 South Cass Avenue, Building 201, Argonne, IL 60439
- 506. Amy C. Gossett, Chem-Nuclear Systems, Inc., Library, 140 Stoneridge Drive, Columbia, SC 29210
- 507. Augustine (Gus) Grace, Inhalation Toxicology Research Institute, Health Protection Operations, P.O. Box 5890, Albuquerque, NM 87185-5890
- 508. Scott R. Grace, U.S. Department of Energy, Rocky Flats Office, Environmental Restoration Division, Building 116, P.O. Box 928, Golden, CO 80402-0928
- 509. Helen F. Gram, ICF Kaiser Engineers, Environmental Group, 1900 Diamond Drive, Los Alamos, NM 87544
- 510. Benjamin B. Greeley, U.S. Department of Energy, EM-453 (GTN), Trevion II, Washington, DC 20585-0002
- 511. Don J. Green, Westinghouse Hanford Company, Engineering Applications Department, P.O. Box 1970, Mail Stop H5-53, Richland, WA 99352
- 512. Paula Green, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 513. David Greenberg, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 514. Raymond I. Greenberg, U.S. Department of Energy, Office of Environmental Restoration, EM-453, Trevion II Building (GTN), Washington, DC 20585-0002
- 515. Bradford C. Grems, Waste Policy Institute, 1999 South Main Street, Suite 500, Blacksburg, VA 24060-6613
- 516. Jean-Louis Grenier, Atomic Energy of Canada Limited, Corporate Office, 20 Goldenrod Avenue, Ottawa, Ontario, Canada K11A 034
- 517. Michael Gresalfi, Science Applications International Corporation, 20030 Century Boulevard, Suite 20%. Germantown, MD 20874
- 518. Martha A. Grib, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 519. Hillis Griffin, Lawrence Berkeley National Laboratory, Head Librarian, Building 50B, Room 4206, Berkeley, CA 94720
- 520. Joseph H. Griffin, Law Environmental, Inc., Environmental Restoration Department, 114 TownPark Drive, 4th Floor, Kennesaw, GA 30144-5599
- 521. Paul W. Griffin, Westinghouse Hanford Company, Environmental Restoration, P.O. Box 1970, Mail Stop R2-77, Richland, WA 99352
- 522. Paul D. Grimm, U.S. Department of Energy, Office of Environmental Quality Assurance/Quality Control, EM-20 (GTN), Washington, DC 20545
- 523. Sharyn M. Grimm, U.S. Department of Energy, EM-45 (GTN), Trevion II, Washington, DC 20585-0002
- 524. Armand Groffman, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 525. Dean Gross, Parsons Company, Nuclear Safety Department, 6120 South Gilmore Road, Fairfield, OH 45014
- 526. Arnold E. Guevera, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 527. Carl W. Guidice, U.S. Department of Energy, Office of Environmental Restoration and Waste Management, EM-10 (FORS), Room GE-063, 1000 Independence Avenue, SW, Washington, DC 20585

- 528. Thomas C. Gunderson, Los Alamos National Laboratory, Environmental Management Division, P.O. Box 1663, Mail Stop K491, Los Alamos, NM 87545
- 529. Andy Gupta, U.S. Department of Energy, PR-24, Forrestal Building, Washington, DC 20585
- 530. Tom Gutmann, U.S. Department of Energy, EM-343 (GTN), Trevion II, Washington, DC 20585-0002
- 531. Loren J. Habegger, Argonne National Laboratory, Environmental Assessment and Information Sciences Division, 9700 South Cass Avenue, Building 900, Argonne, IL 60439
- 532. Susan E. Hack, Foster Wheeler Development Corporation, Research Information Center and Library, 12 Peach Tree Hill Road, Livingston, NJ 07039
- 533. Dennis R. Haffner, Pacific Northwest Laboratory, Waste Systems Department, P.O. Box 999, MSIN K7-97, Richland, WA 99352
- 534. Ralph A. Hagan, U.S. Department of Energy, DP-642 (GTN), Washington, DC 20585
- 535. Kathleen E. Hain, U.S. Department of Energy, Office of Technology Development EM-55, 19101 Germantown Road, Trevion II, Washington, DC 20585-0002
- 536. John B. Hall, U.S. Department of Energy, Nevada Field Office, ERWM/AM, P.O. Box 98518, Las Vegas, NV 89193-8518
- 537. Martha Hall, Tennessee Valley Authority, Technical Library, 1101 Market Street, Chattanooga, TN 37402
- 538. Vernon W. Hall, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop L4- 88, Richland, WA 99352
- 539. Steve M. Halupa, Westinghouse Idaho Nuclear Company, Inc., Projects Department, P.O. Box 4000, Mail Stop 5227, Idaho Falls, ID 83401
- 540. Jack D. Hammond, MK-Ferguson Company, Power Division, 1500 West 3rd Street, Cleveland, OH 44113-1406
- 541. James L. Hammond, B&W Nuclear Services Company, Inc., Nuclear Engineering, 3225 Old Forest Road, #1 Forest Plaza West, Lynchburg, VA 24501
- 542. Steven Hamp, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 543. Roy Hancock, Nuclear Electric, plc., Environmental Technology Branch, Berkeley Nuclear Laboratories, Berkeley, Gloucestershire, United Kingdom GL13 9PB
- 544. Jeanne I. Handren, NJG Associates, Inc., DOE/EM-421 (GTN), Washington, DC 20585-0002
- 545. Kristine M. Handren, NJG Associates, Inc., DOE/EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 546. Jonathan W. Handy, Westinghouse Hanford Company, Restoration & Remediation/Envi ronmental Division, P.O. Box 1970, Mail Stop B2-19, Richland, WA 99352
- 547. Earl M. Hansen, Roy F. Weston, Inc., Analytics Division, 208 Welsh Pool Road, Lionville, PA 19341-1313
- 548. Wayne R. Hansen, Los Alamos National Laboratory, Environmental Sciences Division, P.O. Box 1663, Mail Stop J495, Los Alamos, NM 87545
- 549. Werner Harbecke, KWL, Scuttorfer Strasse 100, D-4450 Lingen/EMS, Germany
- 550. Richard R. Harbert, Bechtel National, Inc., P.O. Box 350, Oak Ridge, TN 37831-0350
- 551. James Harless, Tennessee Department of Environment & Conservation, DOE Oversight Office, 761 Emory Valley Road, Oak Ridge, TN 37830-7072
- 552. Corena A. Harman, U.S. Department of Energy, EM-441 (GTN), Trevion II, Washington, DC 20585-0002
- 553. John E. Harmon, Westinghouse Environmental Management Company of Ohio, Environmental Management, P.O. Box 398704, Cincinnati, OH 45246
- 554. Mary K. Harmon, U.S. Department of Energy, Office of Environmental Restoration, EM-442, Trevion II Building, Washington, DC 20585-0002
- 555. Johnny R. Harper, Los Alamos National Laboratory, EM-7, Mail Stop J595, P.O. Box 1663, Los Alamos, NM 87545
- 556. Allan C. Harris, U.S. Department of Energy, Richland Field Office, Environmental Restoration Division, P.O. Box 550, Mail Stop A5-19, Richland, WA 99352

- 557. James M. Harris, Rockwell International, Rocketdyne Division, P.O. Box 9030, Schenectady, NY 12309
- 558. Lyle E. Harris, U.S. Department of Energy, Office of Environmental Restoration and Waste Management, EM-44, Washington, DC 20585
- 559. Randal L. Harris, U.S. Department of Energy, EM-452 (GTN), Trevion II, Washington, DC 20585-0002
- 560. Robert J. Harrison, Chem-Nuclear Geotech, Inc., P.O. Box 14000, Grand Junction, CO 81502
- 561. Gary S. Hartman, U.S. Department of Energy, Oak Ridge Field Office, Former Sites Restoration Division, P.O. Box 2001, Building 2714-H, EW-93, Oak Ridge, TN 37831-8723
- 562. George Hartmann, Geraghty & Miller, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 563. Timothy J. Harvey, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 564. Audrey Hasford, Stone & Webster Engineering Corporation, Technical Library, P.O. Box 2325, Boston, MA 02107
- Leslie T. Hatch, Foster Wheeler Envirosponse, Inc., 7221 South Chapparal Circle West, Aurora, CO 80016
- 566. George Hauquitz, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 567. Kimberly A. Hayes, U.S. Department of Energy, Eastern Area Programs Division, EM-424, Trevion II, 19901 Germantown Road, Germantown, MD 20874
- 568. Shelley Haynie, Virginia Polytechnic Institute, Management Systems Laboratories, 1900 Kraft Drive, Blacksburg, VA 24060
- 569. William M. Hayward, Westinghouse Hanford Company, Environmental Division, R2-77, P.O. Box 1970, Richland, WA 99352
- 570. Fred F. Haywood, Radian Corporation, Environmental and Health Services Department, 120 South Jefferson Circle, Suite 100, Oak Ridge, TN 37830
- 571. Gregory R. Hazelhurst, Chem-Nuclear Geotech, Inc., UMTRA Program Office, P.O. Box 14000, Grand Junction, CO 81502-5504
- 572. Richard F. Hazelton, Pacific Northwest Laboratory, Reactor Systems, Fuels and Materials, P.O. Box 999, MSIN P8-10, Richland, WA 99352
- 573. Harold W. Heacock, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop H0-30, Richland, WA 99352
- 574. William O. Heath, Pacific Northwest Laboratory, Batelle Boulevard, P.O. Box 999, Richland, WA 99352
- 575. Joel B. Hebdon, Science Applications International Corporation, Waste Management Technology Division, P.O. Box 50697, Idaho Falls, ID 83405-0697
- 576. E.R. Heiberg, III, J.A. Jones Construction Services Company, 6135 Park South Drive, Charlotte, NC 28210
- 577. William F. Heine, Westinghouse Hanford Company, Environmental Division, P.O. Box 1970, MSIN B2-35, Richland, WA 99352
- 578. James E. Helt, Argonne National Laboratory, Chemical Technology Division, 9700 South Cass Avenue, Argonne, IL 60439
- 579. James E. Hemsley, Argonne National Laboratory, Office of Environmental Restoration, DOE/EM-443 (GTN), Washington, DC 20585-0002
- 580. Paul L. Hendrickson, Pacific Northwest Laboratory, Technology Planning & Analysis Center, P.O. Box 999, Mail Stop K6-63, Richland, WA 99352
- 581. Donald R. Henley, Argonne National Laboratory, Engineering Physics Division, 9700 South Cass Avenue, Argonne, IL 60439
- 582. Jack Hennessey, U.S. Department of Energy, EM-343 (GTN), Trevion II, Washington, DC 20585-0002
- 583. Donald Henninger, U.S. Department of Energy, EM-331 (GTN), Trevion II, Washington, DC 20585-0002

- 584. Everett H. Henry, Westinghouse Environmental Management Company of Ohio, Safe Shutdown Program, P.O. Box 398704, Cincinnati, OH 45239-8704
- 585. John B. Herman, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 586. Henry O. Hernandez, Lockheed Engineering & Sciences Company, Environmental Programs, P.O. Box 58999, A-16, Houston, TX 77258-8999
- 587. Robert V. Hernon, U.S. Department of Energy, Fernald Environmental Management Project Division, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 588. Michele A. Hessler, U.S. Department of Energy, EM-433 (GTN), Trevion II, Washington, DC 20585-0002
- 589. Sue L. Heston, U.S. Department of Energy, Chicago Field Office, Environmental Restoration Division, 9800 South Cass Avenue, Argonne, IL 60439
- 590. Patsy A. Hevner, U.S. Department of Energy, Decontamination and Decommissioning Division, EM-423 (GTN), Room D-432, Washington, DC 20545
- 591. Richard B. Hibbard, Washington State Department of Ecology, Nuclear & Mixed Waste Management Program, P.O. Box 47600, Olympia, WA 98504-7600
- 592. Werner Hild, AM Feldgraben 1, DW3340 Wolfenbuttel, Germany
- 593. Stephen R. Hill, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 594. Kim K. Hoag, Jacobs Engineering Group, Inc., Environmental Programs, 251 South Lake Avenue, Pasadena, CA 91101
- 595. J.E. Hodgson, Westinghouse Hanford Company, Hanford Restoration Operations, P.O. Box 1970, Richland, WA 99352
- 596. Kent M. Hodgson, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop S4- 25, Richland, WA 99352
- 597. Patti J. Holcombe, NJG Associates, Inc., DOE/EM-443 (GTN), Washington, DC 20585-0002
- 598. Larry Holm, CH2M Hill, Geosciences Division, 599 Oak Ridge Turnpike, Oak Ridge, TN 37830
- 599. Mark E. Holt, Library of Congress, Congressional Research Service, Environmental and Natural Resources Policy Division, LM-423, Washington, DC 20540
- 600. Kou Hong, Argonne National Laboratory, Assessment and Information Science Division, EID- 900, 9700 South Cass Avenue, Argonne, IL 60439
- Jack R. Hoopes, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 602. Mark D. Hoover, Inhalation Toxicology Research Institute, P.O. Box 5890, Albuquerque, NM 87185-5890
- 603. Daniel R. Hopkins, EG&G Mound Applied Technologies, ES&H Division, P.O. Box 3000, Miamisburg, OH 45343-3000
- 604. David R. Hopkins, U.S. Environmental Protection Agency, Office of Federal Facility Coordination, 345 Courtland Street, Atlanta, GA 30365
- 605. Phil Hopkins, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 606. James P. Hopper, Westinghouse Environmental Management Company of Ohio, Environmental Restoration Department, P.O. Box 398704, Cincinnati, OH 45239-8704
- 607. Phillip H. Horton, Rockwell International, Rocketdyne Division, Energy Technology Engineering Center, 6633 Canoga Avenue, MS/T020, Canoga Park, CA 91304
- 608. Tsutao Hoshi, Japan Atomic Energy Research Institute, Tokai Research Establishment, Department of JPDR, Reactor Decommissioning Operation Division, 2-4 Shirakata-Shirame, Tokai-mura, Ibaraki-ken, Japan 319-11
- 609. Ronald J. Hover, EG&G Idaho, Inc., Environmental Restoration Division, P.O. Box 1625, Idaho Falls, ID 83415-1545
- 610. Gale K. Hovey, Bechtel National, Inc., FUSRAP Department, P.O. Box 350, Oak Ridge, TN 37831-0350

- 611. Deny See Hoye, Atomic Energy of Canada Limited, Corporate Office, 344 Slater Street, Ottawa, Ontario, Canada K1A 0S4
- 612. Song T. Huang, The Ralph M. Parsons Company, Systems Division, 100 West Walnut Street, Pasadena, CA 91124
- 613. Rudolf Hudcovie, NPP A-1, 91931 Jaslovske, Bohunice, Czeckoslovakia
- 614. Richard D. Hudson, U.S. Department of Energy, Richland Field Office, Environmental Restoration Division, Environmental Programs Branch, P.O. Box 550, MSIN A6-95, Richland, WA 99352
- 615. Anastasia Huff, NJG Associates, Inc., DOE/EM-423 (GTN), Washington, DC 20585-0002
- 616. Michael C. Hughes, Westinghouse Hanford Company, Hanford Surplus Facilities Program, MSIN R1-15, P.O. Box 1970, Richland, WA 99352
- 617. Robert F. Hughes, Oak Ridge Institute for Science & Education, Energy-Environment Systems Division, P.O. Box 2567, Grand Junction, CO 81504
- 618. Larry C. Hull, EG&G Idaho, Inc., Environmental Restoration Program, P.O. Box 1625, Mail Stop 1545, Idaho Falls, ID 83415-1545
- 619. Chuck Hundertmark, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 620. Stan Hungerford, Alaska State Department of Environment & Conservation, Pouch O/Library, Juneau, AK 99811
- 621. Bill Hunt, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 622. James A. Hunter, Westinghouse Hanford Company, Chemical Process Engineering, P.O. Box 1970, Mail Stop L5-31, Richland, WA 99352
- 623. Jay O. Hunze, U.S. Department of Energy, Chicago Field Office, Environmental Restoration Division, 9800 South Cass Avenue, Argonne, 1L 60439
- 624. Leonard L. Hutterman, Westinghouse Idaho Nuclear Company, Environmental Compliance Division, P.O. Box 4000, Idaho Falls, ID 83403-3906
- 625. Jou Hwang, Science Applications International Corporation, 20201 Century Boulevard, 2nd Floor, Germantown, MD 20874
- 626. Jerry M. Hyde, U.S. Department of Energy, Division of Demonstration, Testing and Evaluation, EM-551, Trevion II, Washington, DC 20585-0002
- 627. Jerry B. Hymas, MK-Ferguson Company, Procurement Division, P.O. Box 9136, 2309 Renard Place, SE, Suite 300, Albuquerque, NM 87119
- 628. O. Ilari, OECD Nuclear Energy Agency, Radiation Protection and Waste Management Division, 38, boulevard Suchet, 75016 Paris, France
- 629. Rebecca M. Imholz, Virginia Polytechnic Institute, Management Systems Laboratory, Environmental Systems Laboratory, 1900 Kraft Drive, Blackburg, VA 24060
- 630. Jeffrey W. Immer, Westinghouse Savannah River Company, Waste Management and Environmental Restoration, P.O. Box 616, Merrill Lynch, Aiken, SC 29802
- 631. Lilly Ingham-Hill, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 632. International Energy Associates Limited, Library, 3211 Jermantown Road, 3rd Floor, Fairfax, VA 22030
- 633. Emilio Iranzo, Centro De Investigaciones Energeticas, Medioambientales y Tecnologicas (CIEMAT), I.M.A. Department, Avenida Complutense, 22, Madrid, Spain 28040
- 634. Nimia E. Irizarry, University of Puerto Rico, Center for Energy and Environmental Research, Environmental Quality & Occupational Safety Division, P.O. Box 5262, College Station, Mayaguez, Puerto Rico 00681
- 635. Jeffrey W. Irvin, Systematic Management Services, Inc., Chicago Project Office, 9800 South Cass Avenue, T308-2, Argonne, IL 60439
- 636. Diane J. Isbell, U.S. Department of Energy, EM-431 (GTN), Trevion II, Washington, DC 20585-0002
- 637. John M. Isham, MK-Ferguson Company, ES&H Division, P.O. Box 9136, Albuquerque, NM 87119

- 638. William F. Isherwood, Lawrence Livermore National Laboratory, Environmental Monitoring and Analysis Division, P.O. Box 808, Mail Stop L-255, Livermore, CA 94550
- 639. Ronald D. Izatt, U.S. Department of Energy, Richland Field Office, Office of Assistant Manager for Environmental Management, P.O. Box 550, MSIN A6-95, Richland, WA 99352
- 640. Darlene Jackson, NJG Associates, Irc., DOE/EM-431 (GTN), Washington, DC 20585-0002
- 641. Kathy Jackson, Science Applications international Corporation, DOE/EM-42 (GTN), Washington, DC 20585-0002
- 642. Paul D. James, Chem-Nuclear Geotech, Inc., Operations/Construction Management Division, P.O. Box 14000, Grand Junction, CO 81502
- 643. Mark Janaskie, U.S. Department of Energy, EM-443 (GTN), Trevion II, Washington, DC 20585-0002
- 644. Daniel S. Janke, Pacific Northwest Laboratory, Waste Technology Center/Waste Treatment Technology Department, P.O. Box 999, Mail Stop P7-41, Richland, WA 99352
- 645. Richard E. Jaquish, Pacific Northwest Laboratory, Office of Hanford Environment, P.O. Box 999, Richland, WA 99352
- 546. James H. Jarrett, Pacific Northwest Laboratory, Waste Process Engineering Department, P.O. Box 999, MSIN P7-43, Richland, WA 99352
- 647. L. Scot Jenkins, Westinghouse Idaho Nuclear Company, Environmental Restoration Division, P.O. Box 4000, Mail Stop 3202, Idaho Falls, ID 83403-9953
- 648. Von Jennings, Martin Marietta Corporation, Mail Stop MP-490, 103 Chesapeake Park Plaza, Baltimore, MD 21220
- 649. Edward A. Jennrich, Rogers & Associates Engineering Corporation, P.O. Box 330, Salt Lake City, UT 84110-0330
- 650. Doo J. Jin, Geoenvironment Consultants, 610 South Sunset Court, Grand Junction, CO 81504
- 651. James A. Johnesee, Waste Policy Institute, 12850 Middlebrook Road, Suite 108, Germantown, MD 20874
- 652. Astrid G. Johnsen, Institutt for Energiteknikk, Library, P.O. Box 40, Kjeller 2007, Norway
- 653. Nels R. Johnson, TMA/Eberline, 5635 Jefferson Boulevard, NE, Albuquerque, NM 87109
- 654. Sharon V. Johnson, U.S. Department of Energy, Savannah River Field Office, Environmental Restoration Division, P.O. Box A, 703A, Room 231, Aiken, SC 29808
- 655. T. C. Johnson, U.S. Nuclear Regulatory Commission, Division of Low-Level Waste Management and Decommissioning, Washington, DC 20555
- 656. Wayne R. Johnson, Rockwell International, Rocketdyne Division, Nuclear Operations, 6633 Canoga Avenue, Canoga Park, CA 91304
- 657. Charles A. Jones, Chem-Nuclear Geotech, Inc., Waste Management Programs, P.O. Box 14000, Grand Junction, CO 81503
- 658. Charles W. Jones, Woodward-Clyde, Denver Federal Services, P.O. Box 37071, Denver, CO 80237-0071
- 659. Kirkland L. Jones, New Mexico Department of Health and Environment, Environmental Improvement Division Library, P.O. Box 968, Santa Fe, NM 87504-0968
- 660. Meshell Jones, U.S. Department of Energy, EM-40 (GTN), Trevion II, Washington, DC 20585-0002
- 661. Stephen Jones, BDM International, Inc., Environmental Systems, 20030 Century Boulevard, Suite 101, Germantown, MD 20874
- Michael R. Jugan, U.S. Department of Energy, Oak Ridge Field Office, Waste Management Branch,
 P.O. Box 2001, Federal Building, Room 2130, Oak Ridge, TN 37831-8621
- 663. Drew G. Kachele, Westinghouse Hanford Company, Environmental Division, P.O. Box 490, Mail Stop S4-67, Richland, WA 99352
- 664. Reed A. Kaldor, Advanced Sciences, Inc., 1777 Terminal Drive, Richland, WA 99337
- 665. Ted M. Karas, EG&G Rocky Flats, Inc., Facilities Project Management/Remedi al Operations, P.O. Box 464 (T-371A), Golden, CO 80402-0464
- 666. Erminia U. Kauer, Westinghouse Savannah River Company, PI Library, Building 773A, Aiken, SC 29808

- 667. George Phil Keary, U.S. Department of Energy, Kansas City Area Office, P.O. Box 410202, Kansas City, MO 64141-0202
- 668. Christine Kefauver, Delta Associates, Inc., DOE/EM-10 (GTN), Washington, DC 20585-0002
- 669. Tammy S. Kefauver, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 670. Carl Keller, Science & Engineering Associates, Inc., Division 7, 1570 Pacheco, Suite D-1, Santa Fe, NM 87501
- 671. Joyce Kelley, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 672. Eugene W. Kendall, Reynolds Electric and Engineering Company, Inc., Waste Management Division, P.O. Box 98521, Las Vegas, NV 89193-8521
- 673. Wilbur D. Kittinger, Rockwell International, Rocketdyne Division, 2141 El Monte Drive, Thousand Oaks, CA 91362
- 674. Michael H. Kleinrock, U.S. Department of Energy, Office of Environmental Oversight, EM-22, 1000 Independence Avenue, SW, Washington, DC 20585
- Anthony F. Kluk, U.S. Department of Energy, Office of Environmental Restoration, Northwestern Area Programs Division, EM-443 (GTN), 19901 Germantown Road, Germantown, MD 20878
- 676. Knolls Atomic Power Laboratory, Document Library, P.O. Box 1072, Schenectady, NY 12301
- 677. Terri L. Knudsen, EG&G Rocky Flats, Inc., Ecology & NOAA, P.O. Box 464 (DW-051), Golden, CO 80402
- 678. Rajiv Kohli, Battelle Columbus Laboratories, 505 King Avenue, Columbus, OH 43201-2693
- 679. George J. Konzek, Pacific Northwest Laboratory, Waste Systems Department, Waste Technology Center, P.O. Box 999, ISB-II Building, MSIN K7-97, Richland, WA 99352
- 680. Bobbi Korneychuk, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 681. Ron Kowalewski, U.S. Department of Energy, EM-451 (GTN), Trevion II, Washington, DC 20585-0002
- 682. David R. Kozlowski, U.S. Department of Energy, EM-422, Trevion II (GTN), Washington, DC 20585-0002
- 683. Eddie Kramer, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 684. George E. Krauter, Stone & Webster Engineering Corporation, Environmental Services, South Region, 702 South Illinois Avenue, Suite B-104, Oak Ridge, TN 37830
- 685. Richard E. Krett, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 686. Gerald J. Krieger, Westinghouse Environmental Management Company of Ohio, Environmental Restoration Division, P.O. Box 398704, Cincinnati, OH 45239-8704
- 687. Arthur S. Kubo, BDM International, Inc., 4718 Western Street, Fairfax, VA 22030
- 688. Joe Kukauskas, EG&G Idaho, Inc., P.O. Box 1625, Mail Stop 3505, Idaho Falls, ID 83415-3505
- 689. Claude Laffaille, Commissariat a l'Energie Atomique, Valrho, Marcoule, Unite Centrale de Declassement des Installations Nucleaires, B.P. 171, 30205 Bagnols-sur-Ceze, France
- 690. Thomas S. L. Guardia, TLG Engineering, Inc., 148 New Milford Road East, Bridgewater, CT 06752
- 691. Kevin Lambert, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 692. Philip E. LaMont, U.S. Department of Energy, Richland Field Office, P.O. Box 550, MS A5-10, Richland, WA 99352
- 693. Roger R. Land, Bechtel National, Inc., FUSRAP Engineering Division, P.O. Box 350, Oak Ridge, TN 37831-0350
- 694. Edward R. Landa, U.S. Geological Survey, Water Resources Division, 431 National Center, Mail Stop 432, Reston, VA 22092
- 695. Robert R. Landolt, Purdue University, School of Health Sciences, 1338 Civil Engineering Building, West Lafayette, IN 47906-1338

- 696. Joan M. Lang, Westinghouse Savannah River Company, Environmental Protection Department, Building 742 A, Aiken, SC 29808
- 697. Raymond E. Lang, U.S. Department of Energy, Chicago Field Office, Waste Management and Technology Division, 9800 South Cass Avenue, Argonne, IL 60439
- 698. Rolland A. Langley, BNFL, Inc., 1776 Eye Street, NW, Suite 750, Washington, DC 20006-3700
- 699. Gordon Langlie, U.S. Department of Energy, EM-322 (GTN), Trevion II, Washington, DC 20585-0002
- 700. David C. Langstaff, U.S. Department of Energy, Richland Field Office, RD Division, Mail Stop A5-95, 825 Jadwin Avenue, Richland, WA 99352
- 701. Remi Beth Langum, U.S. Department of Energy, EM-431, Trevion II Building, Germantown, MD 20585-0002
- 702. Leslie LaVigne, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 703. Lynn Lawson, U.S. Department of Energy, EM-431 (GTN), Trevion II, Washington, DC 20585-0002
- 704. Mary Beth Leaf, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 705. Joyce R. Lech, Parsons Company, Library, 6120 South Gilmore Road, Fairfield, OH 45014
- 706. Frank Lechel, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 707. Linda L. LeGoullon, Westinghouse Electric Corporation, Gateway #6, Room 2182, 11 Stanwix Street, Pittsburgh, PA 15222
- 708. John C. Lehr, U.S. Department of Energy, Office of Environmental Restoration, Onsite Remediation Branch, EM-442 (GTN) Washington, DC 20585
- 709. John H. Leng, AEA Technology, Windscale WAGR Project B3, Sellafield, Seascale, Cumbria, United Kingdom CA20 1PF
- 710. Kathleen M. Leonard, Westinghouse Hanford Company, Environmental Division/Regulat ory Assessment & Permitting, P.O. Box 1970, Mail Stop B2-19, Richland, WA 99301
- 711. Ann M. Lesperance, Pacific Northwest Laboratory, Technology Planning and Analysis Center, P.O. Box 999, Mail Stop K6-26, Richland, WA 99352
- 712. David Levenstein, U.S. Department of Energy, EM-331 (GTN), Trevion II, Washington, DC 20585-0002
- 713. Mark E. Levin, EG&G Rocky Flats, Inc., Environmental Management Division, Building 080, P.O. Box 464, Golden, CO 80402-0464
- 714. Rashalee S. Levine, U.S. Department of Energy, EM-541 (GTN), Trevion II, Washington, DC 20585-0002
- 715. L. Ronald Levis, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 716. Stanley Lichtman, U.S. Department of Energy, Office of NEPA Oversight, Waste Activities Division, EH-251, 1000 Independence Avenue, SW, Washington, DC 20585
- 717. Ralph G. Lightner, U.S. Department of Energy, Office of Environmental Restoration, Southwestern Area Programs Division, EM-45 (GTN), Washington, DC 20585-0002
- 718. James T. Lilly, Kaiser Engineers Hanford, Construction Services/Environmenta 1 Restorations Division, P.O. Box 888, Richland, WA 99352
- 719. M. Judson Lilly, U.S. Department of Energy, Office of Environmental Restoration, EM-423, Trevion II (GTN), 19901 Germantown Road, Germantown, MD 20874-1290
- 720. Dale W. Lindsey, Westinghouse Hanford Company, Restoration and Remediation Division, P.O. Box 1970, Mail Stop B2-35, Richland, WA 99352
- 721. Michael Lindstrom, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 722. Frazer R. Lockhart, U.S. Department of Energy, Rocky Flats Office, Environmental Restoration Division, P.O. Box 928, Building 116, Golden, CO 80402-0928
- 723. Ulrich Loeschhorn, Kernforschungszentrum Karlsruhe GmbH, Projekttrager SE, Postfach 3640, Karlsruhe, Germany D-7500

- 724. Thomas A. Lograsso, Ames Laboratory, Metallurgy & Ceramics Division, 109 Metals Development Building, Ames, IA 50011
- 725. Thomas P. Longo, U.S. Department of Energy, Office of Environmental Restoration, Program Support Division, Program Integration Branch, EM-431 (GTN), Washington, DC 20585-0002
- 726. Harry L. Lord, Westinghouse Idaho Nuclear Company, Projects Department, P.O. Box 4000, Idaho Falls, ID 83415-2304
- 727. Lirio I. Lorenzo, Center for Energy and Environmental Research, Library Reading Room, College Station, Mayaguez, PR 00708
- 728. Los Alamos National Laboratory, Library Scrials, IS-4, Mail Stop P362, Los Alamos, NM 87545
- 729. Charles Lovato, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 730. Christi E. Lowe, U.S. Department of Energy, EM-451 (GTN), Trevion II, Washington, DC 20585-0002
- 731. Allen H. Lu, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop HO-36, Richland, WA 99352
- 732. Joseph J. Lucerna, EG&G Rocky Flats, Inc., Technology Development Division, P.O. Box 464, Golden, CO 80402
- 733. Marie Lucero, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 734. Mark W. Lusk, EG&G Idaho, Inc., Environmental Restoration Department, P.O. Box 1625, Mail Stop 1545, Idaho Falls, ID 83415
- 735. Rudi Luyendijk, Waste Policy Institute, 1999 S. Main Street, Suite 500, Blacksburg, VA 24060-6613
- 736. Jo Mabray, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 737. Donald W. Macdonald, U.S. Department of Energy, Idaho Field Office, Environmental Restoration Division, 785 DOE Place, Mail Stop 1117, Idaho Falls, ID 83401
- 738. Donald N. Mackenzie, U.S. Department of Energy, EM-442 (GTN), Trevion II, Washington, DC 20585-0002
- 739. John MacKinney, U.S. Environmental Protection Agency, Mail Code 6603-J, 401 M Street, SW, Washington, DC 20460
- 740. Robin M. Madison, Raytheon Services Nevada, Environmental Restoration and Waste Management Division, 222 South Rainbow Boulevard, Suite 214A, Las Vegas, NV 89129
- 741. Michael E. Madson, Chem-Nuclear Geotech, Inc., UMTRA Program Office, P.O. Box 14000, Grand Junction, CO 81502-5504
- 742. Frank A. Maestas, Applied Research Associates, Inc., 4300 San Mateo Boulevard, NE, Suite A-220, Albuquerque, NM 87110
- 743. Lucille Maez, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 744. Mary T. Magleby, EG&G Idaho, Inc., Waste Management, P.O. Box 1625, Idaho Falls, ID 83415-3960
- 745. Victor L. Magnus, Chem-Nuclear Geotech, Inc., Construction Management, P.O. Box 14000, Grand Junction, CO 81502-5504
- 746. Claude E. Magnuson, U.S. Department of Energy, EM-431 (GTN), Trevion II, Washington, DC 20585-0002
- 747. Judy A. Mahaffey, Pacific Northwest Laboratory, P.O. Box 999, Mail Stop P7- 82, Richland, WA 99352
- 748. Luke E. Mahier, Office of Technical Services, H&R Technical Associates, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 749. Jocelyn Mandell, Los Alamos Technical Associates, Inc., 1650 Trinity Drive, Los Alamos, NM 87544
- 750. Michael J. Manetas, Humboldt State University, Department of Environmental Resources Engineering, P.O. Box 4209, Arcata, CA 95521

- 751. Sally A. Mann, U.S. Department of Energy, Office of Environmental Restoration, Southwestern Area Programs Division, Off-Site Remediation Branch, EM-451 (GTN), Washington, DC 20585-0002
- 752. Franz R. Marcus, NKS, Nordic Nuclear Safety Research, P.O. Box 49, Roskilde, Denmark DK-4000
- 753. Lynn C. Martin, Westinghouse Savannah River Company, ESH/QA, Environmental Protection Department, P.O. Box 616, Building 742A, Room 191-15, Aiken, SC 29802
- 754. Paul Martinez, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 755. Sam J. Marutzky, Chem-Nuclear Geotech, Inc., Waste Management Projects, P.O. Box 14000, Grand Junction, CO 81502-5504
- 756. C.S. Mascareaas, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID 83403
- 757. Mason & Hanger-Silas Mason Company, Inc., Technical Library, Pantex Plant, P.O. Box 30020, Amarillo, TX 79177
- 758. David E. Mathes, U.S. Department of Energy, Office of Environmental Restoration, Southwestern Area Programs Division, Off-Site Remediation Branch, EM-451 (GTN), Washington, DC 20585-0002
- 759. Satyendra (John) Mathur, U.S. Department of Energy, EM-54 (GTN), Trevion II, Washington, DC 20585-0002
- 760. S. Matsuura, Japan Atomic Energy Research Establishment, Tokai Research Center, Tokai-mura, Naka-gun, Ibaraki-ken, Japan
- 761. Cindy May, U.S. Department of Energy, Nevada Field Office, 2753 S. Highland Drive, Las Vegas, NV 89109
- 762. Nancy Mayo, Bechtel Corporation, Power Library, P.O. Box 3965, MS 45/13/A20, San Francisco, CA 94119
- 763. William J. Mazorol, Jr., U.S. Department of Energy, Richland Field Office, Tank Farm Project Office, OPD, P.O. Box 550, Richland, WA 99352
- 764. Gretchen H. McCabe, Battelle Seattle Research Center, 4000 NE 41st Street, Seattle, WA 98105-5428
- 765. Dan McCarthy, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 766. Linda K. McClain, U.S. Department of Energy, Savannah River Field Office, Environmental Restoration Division, P.O. Box A, Aiken, SC 29802
- 767. Jennifer McCloskey, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 768. Michael W. McClurg, Black & Veatch Engineers-Architects, Power Division, Mechanical Department, P.O. Box 8405, Kansas City, MO 64114
- 769. Michael W. McCoy, Pacific Northwest Laboratory, P.O. Box 999, Mail Stop P7-68, Richland, WA 99352
- 770. James G. McCray, University of Arizona, Department of Nuclear and Energy Engineering, Tucson, AZ 85721
- 771. Brian F. McCully, U.S. Department of Energy, Office of Environmental Restoration, EM-432 (GTN), Washington, DC 20585-0002
- 772. Mary C. McCune, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 773. Thomas K. McCusker, EG&G Idaho, Inc., Engineering Department, P.O. Box 1625, Mail Stop 2307, Idaho Falls, ID 83415-2307
- 774. S.D. McDermott, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID 83403
- 775. Maria A. McDonald-McNamar, Westinghouse Hanford Company, Environmental Engineering Remedial Action Section, P.O. Box 1970, Mail Stop H4-55, Richland, WA 99352
- 776. Michael R. McDougall, TMA/Eberline, Health Physics, P.O. Box 350, 151 Lafayette Drive, Oak Ridge, TN 37830
- 777. W. Curt McGee, Bechtel National, Inc., P.O. Box 193965, San Francisco, CA 94119-3965
- 778. Michael S. McGough, Quadrex Corporation, 1940 Northwest 67th Place, Gainesville, FL 32606-1649
- 779. John R. McGranahan, U.S. Department of Energy, EM-40, 1000 Independence Avenue, SW, Washington, DC 20585

D-23 Distribution

780. Peter E. McGrath, Science Applications International Corporation, 1710 Goodridge Drive, McLean, VA 22102

- 781. Theodore W. McIntosh, U.S. Department of Energy, EM-343 (GTN), Washington, DC 20585-0002
- 782. Kevin McKeown, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 783. Michael L. McKernan, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 784. David W. McMyler, Kaiser Engineers Hanford, Construction, P.O. Box 888, Richland, WA 99352
- 785. Edward M. McNamee, Bechtel National, Inc., P.O. Box 350, Oak Ridge, TN 37831-0350
- 786. Andie McNutt, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 787. Steve W. Meador, U.S. Department of Energy, EM-452 (GTN), Trevion II, Washington, DC 20585-0002
- 788. Mike Meininger, Chem-Nuclear Geotech, Inc., Engineering Division, P.O. Box 14000, Grand Junction, CO 81502-5527
- 789. Maureen Mendez, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 790. Shankar K. Menon, Menon Consulting AB, Fruangsgatan 25 F, S611 30 Nykoping, Sweden
- 791. Donald L. Merrick, Westinghouse Hanford Company, Office of Technology Integration, P.O. Box 1970, Mail Stop L0-18, Richland, WA 99352
- 792. Ethan S. Merrill, U.S. Department of Energy, EM-452 (GTN), Trevion II, Washington, DC 20585-0002
- 793. Richard H. Meservey, EG&G Idaho, Inc., Environmental Restoration Division, P.O. Box 1625, Idaho Falls, ID 83415-1545
- 794. Kurt A. Meunchow, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 795. James A. Mewhinney, U.S. Department of Energy, WPSO, P.O. Box 3090, Carlsbad, NM 88221
- 796. Sheldon Meyers, Jacobs Engineering Group, Inc., 3506 Dundee Drive, Chevy Chase, MD 20815
- 797. Tom Meyers, Project, Time & Cost, Inc., 3390 Peachtree Road, NE, 16th Floor, Atlanta, GA 30326-1108
- 798. Forest L. Miller, Desert Research Institute, Water Resources Center, P.O. Box 19040, Las Vegas, NV 89132-0040
- 799. M. Kay Miller, U.S. Department of Energy, EM-442 (GTN), Trevion II, Washington, DC 20585-0002
- 800. Robert L. Miller, Westinghouse Hanford Company, Environmental Restoration, P.O. Box 1970, MSIN L4-88, Richland, WA 99352
- 801. Richard M. Millikin, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop T3-28, Richland, WA 99352
- 802. William J. Millsap, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop H5- 68, Richland, WA 99352
- 803. Richard B. Millward, Chem-Nuclear Geotech, Inc., Technical Division, Health, Safety and Security Department, P.O. Box 14000, Grand Junction, CO 81502-5504
- 804. Takeo Mimori, Japan Atomic Energy Research Institute, Chemical Process Technology Division, Department of Fuels and Materials Research, Tokai-Mura, Naka-Gun, Ibaraki-Ken 319-11, Japan
- 805. Mark Minteer, Sergent, Hauskins & Beckwith, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 806. A. Edgar Mitchell, Office of Technical Services, Roy F. Weston Company, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 807. Bill Mitchell, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 808. Sue J. Mitchell, Pacific Northwest Laboratory, Waste Systems Department, P.O. Box 999, Mail Stop K7-94, Richland, WA 99352

- 809. A. Alan Moghissi, University of Maryland at Baltimore, Environmental Health and Safety Department, 737 West Lombard Street, Room 240, Baltimore, MD 21201
- 810. Phillip B. Mohrman, CWMFES, UMTRA, P.O. Box 310248, Mexican Hat, UT 84512
- 811. Teri Monaghan, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 812. Jane L. Monhart, U.S. Department of Energy, EM-442 (GTN), Trevion II, Washington, DC 20585-0002
- 813. Herminia Monk, NJG Associates, Inc., DOE/EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 814. Kathy Monks, Sergent, Hauskins & Beckwith, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 815. Tod Monks, Sergent, Hauskins & Beckwith, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 816. Gilbert M. Montoya, Los Alamos National Laboratory, EM-7, Mail Stop E516, P.O. Box 1663, Los Alamos, NM 87545
- 817. Lorraine Montoya, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 818. David C. Moody, Los Alamos Technology Office, Rocky Flats Plant, Waste Programs, P.O. Box 4013, Building T130A, Golden, CO 80402-4013
- 819. Celest A. Mooney, Westinghouse Savannah River Company, Environmental, Safety, Health and Quality Assurance, P.O. Box 616, Aiken, SC 29802
- 820. Carol Moore, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 821. Emmett B. Moore, Pacific Northwest Laboratory, P.O. Box 999, MS K6-58, Richland, WA 99352
- 822. Toni L. Morgan, NJG Associates, Inc., DOE/EM-44 (GTN), Washington, DC 20585-0002
- 823. Donald R. Morris, Westinghouse Savannah River Company, Environmental Protection Department, P.O. Box 616, Building 742-A, Aiken, SC 29802
- 824. Diane E. Morton, U.S. Department of Energy, Albuquerque Field Office, Environmental Restoration Project Office, P.O. Box 5400, Albuquerque, NM 87115
- 825. Mark R. Morton, Westinghouse Hanford Company, Environmental Division, P.O. Box 1970, Mail Stop R2-77, Richland, WA 99352
- 826. George D. Mosho, Argonne National Laboratory, ESH-HP, Building 316, 9700 South Cass Avenue, Argonne, IL 60439-4822
- 827. Paul D. Moskowitz, Brookhaven National Laboratory, Analytical Sciences Division, Building 475, Upton, NY 11973
- 828. Lawrence P. Moss, Argonne National Laboratory, Environment and Waste Management Program, 9700 South Cass Avenue, Building 214, Argonne, IL 60439
- 829. Thomas Moss, Tennessee State Department of Environment & Conservation, Pasision of Water Supply, 150 9th Avenue North, 2nd Floor Terra Building, Nashville, TN 37243-4839
- 830. Thomas A. Moss, Rockwell International, Rocketdyne Division (HA-02), 6633 Canoga Avenue, Canoga Park, CA 91303
- 831. Willard S. Mott, Nuclear Energy Services, Inc., Integrated Environmental Services, 44 Shelter Rock Road, Danbury, CT 06810
- 832. Francois Motte, Centre d'Etude de l'Energie Nucleaire, CEN/SCK, Bft3. Boerctang 200, 2400 Mol, Belgium
- 833. James J. Mueller, Controls for Environmental Pollution, Inc., P.C. Box 5351, 1925 Rosin: Street, Santa Fe, NM 87502
- 834. Kurt A. Muenchow, U.S. Department of Energy, EM-423, Trevion II, Washington, DC 20585-0002
- 835. William E. Murphie, U.S. Department of Energy, Office of Environmental Restoration, Decontamination and Decommissioning Branch, EM-423 (GTN), Washington, DC 20585-0002
- 836. Larry T. Murphy, SEC Donohue, Inc., 825 Jadwin Avenue, Mail Stop A4-35, Richland, WA 99352
- 837. Sara L. Murphy, Chem-Nuclear Geotech, Inc., Technical Resource Center, P.O. Box 14000, Grand Junction, CO 81502-5521

D-25 Distribution

838. Richard L. Murri, Chem-Nuclear Geotech, Inc., Technical/Fields Assessment Division, P.O. Box 14000, Grand Junction, CO 81503

- 839. Donna J. Myers, U.S. Department of Energy, EM-45 (GTN), Trevion II, Washington, DC 20585-0002
- 840. Tim E. Myrick, Science Applications International Corporation, Environmental Engineering Division, P.O. Box 2501, Oak Ridge, TN 37831
- 841. Richard L. Nace, U.S. Department of Energy, Oak Ridge Division, Eastern Area Programs Office, EM-423, Trevion II Building, Washington, DC 20585-0002
- 842. Karen E. Nagle, NJG Associates, Inc., DOE/EM-431 (GTN), Trevion II, Washington, DC 20585-0002
- 843. Hisashi Nakamura, Japan Atomic Energy Research Institute, Decommissioning Technology Laboratory, Shirakata-Shirane, Tokai-mura, Naka-gun, Ibaraki, 319-11 Japan
- 844. Madeleine Nawar, U.S. Environmental Protection Agency, Office of Radiation Programs (ANR-461), Radiation Studies Division, 401 M Street, SW, Washington, DC 20460
- 845. A. Paige Neathery, Kaiser Engineers Hanford, P.O. Box 888, Mail Stop E6-40, Richland, WA 99352
- Jefferson O. Neff, U.S. Department of Energy, Chicago Field Office, Battelle Columbus Laboratories Decommissioning Project, 505 King Avenue, Room 15-1-131A, Columbus, OH 43201
- 847. Richard A. Neff, EG&G Mound Applied Technologies, Environment, Safety and Health, P.O. Box 6000, Miamisburg, OH 45343-0987
- 848. Jeffrey W. Nelson, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 849. Rodney R. Nelson, U.S. Department of Energy, Oak Ridge Field Office, P.O. Box 2001, Oak Ridge, TN 37831-8621
- 850. Rebecca Neri Zagal, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 851. Barry Nestor, Science Applications International Corporation, 20201 Century Boulevard, Germantown, MD 20874
- 852. Connie Nestor, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 853. Stanley M. Neuder, Pacific Northwest Laboratory, Health Physics Department, DC Office, 901 D Street, SW, Suite 900, Washington, DC 20024-2115
- 854. Jack C. Newell, ERM Program Management Company, 855 Springdale Drive, Exton, PA 19341
- 855. Peter C. Newsom, Dames & Moore, West Valley Demonstration Project, P.O. Box 191, West Valley, NY 14171-0191
- 856. Glen A. Newtown Jr., U.S. Department of Energy, Weldon Spring Site Remedial Action Project Office, 7295 Highway 94 South, St. Charles, MO 63304
- 857. Anh Nguyen, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 858. Patricia Nichols, U.S. Department of Energy, EM-432 (GTN), Trevion II, Washington, DC 20585-0002
- 859. Debbie E. Nicholson, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 860. David Nienow, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 861. Richard W. Nieslanik, Westinghouse Electric Corporation, Bettis Atomic Power Laboratory, P.O. Box 2068, NRF (S1W3), Idaho Falls, ID 83401
- 862. Susan J. Nish, Atomic Energy of Canada Limited, CANDU, Library, 1155 Metcalfe Avenue, 8th Floor, Montreal, Quebec, Canada H3B 2V6
- 863. Clifford J. Noronha, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 864. Dana Jo Norris, U.S. Department of Energy, EM-421 (GTN), Trevion II, Washington, DC 20585-0002
- 865. Edward Norris, Los Alamos National Laboratory, EM-13, Mail Stop M992, P.O. Box 1663, Los Alamos, NM 87545

- 866. Donald J. O'Brien, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 867. Edward O'Donnell, U.S. Nuclear Regulatory Commission, Waste Management Branch, Mail Stop NLS 260, Washington, DC 20555
- 868. Jennie A. O'Leary, U.S. Department of Energy, EM-443 (GTN), Trevion II, Washington, DC 20585-0002
- 869. Office of Assistant Manager; U.S. Department of Energy; Oak Ridge Field Office; P.O. Box 2001; Oak Ridge, TN 37831
- 870-871. Office of Scientific and Technical Information, U.S. Department of Energy, P.O. Box 62, Oak Ridge, TN 37831.
- 872-873. Office of Technical Services, Roy F. Weston, Inc./H&R Technical Associates, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
 - 874. Won-Zin Oh, Korea Atomic Energy Research Institute, Decontamination Department, P.O. Box 7, 150 Daeduk-Danji, Daejon, Republic of Korea 305-606
 - 875. James G. Oldham, MK-Ferguson Company, P.O. Box 9136, 2309 Renard Place, SE, Suite 300, Albuquerque, NM 87119
 - 876. Gary R. Olhoeft, U.S. Geological Survey, P.O. Box 25046, Federal Center, Mail Stop 964, Denver, CO 80225-0046
 - 877. Kenneth Olsen, Martin Marietta Corporation, Department 1001, 6801 Rockledge Drive, Bethesda, MD 20817
 - 878. Herbert P. Olson, Westinghouse Savannah River Company, P.O. Box 616, Aiken, SC 29808-6865
 - 879. Cynthia Ortiz, U.S. Department of Energy, Nevada Field Office, Technical Library, Mail Stop 505, P.O. Box 98518, Las Vegas, NV 89193-8518
 - 880. Carolyn M. Osborne, U.S. Department of Energy, Office of NEPA Oversight, EH-25, 1000 Independence Avenue, SW, Washington, DC 20585
 - 881. W.L. Osborne, Westinghouse Hanford Company, Hanford Restoration Operations, P.O. Box 1970, Richland, WA 99352
 - 882. A. Owen, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID 83403
 - 883. David A. Padilla, U.S. Department of Energy, Los Alamos Area Office, 528 35th Street, Los Alamos, NM 87544
 - 884. Thomas L. Page, Pacific Northwest Laboratory, Battelle Environmental Management Operations, 723 The Parkway, Mail Stop B1-40, Richland, WA 99352
 - 885. Robert G. Paine, ABB Environmental Services, Inc., 107 Audobon Road, Wakefield, MA 01778
 - 886. Joseph B. Paladino, Office of Technical Services, Roy F. Weston, Inc., DOE/EM-42, (GTN) Trevion II, Washington, DC 20585-0002
 - 887. Gerald L. Palau, Bechtel National, Inc., FUSRAP Project, 104 Whippoorwill Parkway, Oak Ridge, TN 37830
 - 888. Annette Pando, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
 - 889. Donald G. Panther, Westinghouse Hanford Company, Engineering Applications, P.O. Box 1970, Mail Stop L0-18, Richland, WA 99352
 - 890. Richard Papusch, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
 - 891. Frank L. Parker, Vanderbilt University, Department of Environmental and Water Resources Engineering, P.O. Box 1596, Station B, Nashville, TN 37235
 - 892. Michael Wm. Parker, General Electric Company, Neutron Devices Department, Environmental Health and Safety Programs, P.O. Box 2908, Mail Stop 040, Largo, FL 34643
 - 893. George E. Parris, Louis Bergen & Associates, Inc., 814 West Diamond Avenue, Suite 310, Gaithersburg, MD 20878
 - 894. Michael W. Parsons, Science Applications International Corporation, 20201 Century Boulevard, Suite 201, Germantown, MD 20874

D-27 Distribution

895. M. J. Pasqualetti, Arizona State University, Department of Geography, Tempe, AZ 85287-0104

- 896. Raymond S. Pastor, EG&G Mound Applied Technologies, ES&H Division, P.O. Box 3000, Miamisburg, OH 45343-3000
- 897. V. Pasupathi, Battelle Columbus Laboratories, Energy Systems Group, 505 King Avenue, Mail Stop JN-1, Columbus, OH 43201
- 898. John E. Patterson, U.S. Department of Energy, EM-421 (GTN), Trevion II, Washington, DC 20585-0002
- 899. Glenn Paulson, Illinois Institute of Technology, Pritzker Department of Environmental Engineering, 421 West Melrdee Street, Chicago, IL 60616-3799
- 900. Jean D. Pearce, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 901. Susan Pearce, Science Applications International Corporation, 20201 Century Boulevard, 2nd Floor, Germantown, MD 20874
- 902. Mary Pearl, U.S. Department of Energy, EM-433 (GTN), Trevion II, Washington, DC 20585-0002
- 903. K.S. Pedersen, Westinghouse Hanford Company, Hanford Restoration Operations, P.O. Box 1970, Richland, WA 99352
- 904. Paul Pehrson, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 905. John O. Perkins, Boeing Computer Services, Inc., P.O. Box 300, Mail Stop A2-50, Richland, WA 99352
- 906. Sandra S. Perkins, U.S. Department of Energy, Oak Ridge Field Office, Environmental Restoration Division, EW-91, P.O. Box 2001, Federal Euilding, Room 2116, Oak Ridge, TN 37831-8621
- 907. Perarnau M. Perramon, ENRESA, Ingenieria Division, Juan Vigon 17, 20 I, Madrid, Spain 28003
- 908. C. Persson-Reeves, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 909. Mark A. Peters, EG&G Rocky Flats, Inc., P.O. Box 464, Building 051 Golden, CO 80402-0464
- 910. Chris A. Petersen, Westinghouse Hanford Company, Engineered Applications/Projects, P.O. Box 1970, Mail Stop H1-60, Richland, WA 99352
- 911. Harold T. Peterson, U.S. Department of Energy, Office of Environment, Air, Water and Radiation Division, EH-232, 1000 Independence Avenue, SW, Washington, DC 20585
- 912. John M. Peterson, Argonne National Laboratory, Environmental Assessment and Information Sciences, 9700 South Cass Avenue, Building 900, MS-1, Argonne, IL 60439
- 913. Stig Pettersson, Swedish Nuclear Fuel and Waste Management Company (SKB), Systems and Facilities Division, P.O. Box 5864, S-102 48 Stockholm, Sweden
- 914. J. Wynn Phillips, Office of Technical Services, H&R Technical Associates, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- 915. Esteban D. Picazo, Dames & Moore, West Valley Nuclear Services, Safety and Environmental Assessment, P.O. Box 191, West Valley, NY 14171-0191
- 916. Michael V. Pierre, Science Applications International Corporation, 20201 Century Boulevard Germantown, MD 20874
- 917. Joseph P. Pizzarella, Kaiser Engineers Hanford, Environmental Restorations, P.O. Box 888, Richland, WA 99352
- 918. Gina I. Poole, U.S. Department of Energy, EM-431 (GTN), Trevion II, Washington, DC 20585-0002
- 919. Kevin J. Poor, MSE, Inc., P.O. Box 4078, Butte, MT 59702
- 920. Clark Poore, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 921. Kenneth R. Porter, Dames & Moore, Geosciences Division, 1125 Seventeenth Street, Suite 1200, Denver, CO 80202-2027
- 922. Gary L. Potter, EG&G Rocky Flats, Inc., P.O. Box 464, Building T130C, Golden, CO 80402-0464
- 923. Robert F. Potter, Harding Lawson Associates, Inc., 1325 4th Avenue, Suite 1800, Seattle, WA 98101
- 924. B.G. Jane Powell, U.S. Department of Energy, Oak Ridge Field Office, P.O. Box 2001, Federal Building, Oak Ridge, TN 37831-8621
- 925. Linda Presfield, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 926. Susan M. Prestwich, U.S. Department of Energy, EM-52 (GTN), Washington, DC 20585-0002

Distribution D-28

927. John B. Price, Roy F. Weston, Inc., Midwest Region, 11840-D Kempersprings Drive, Cincinnati, OH 45240

- 928. Lester K. Price, U.S. Department of Energy, Oak Ridge Field Office, Former Sites Restoration Division, P.O. Box 2001 37831-8723
- 929. Jay T. Pride, Scientific Ecology Group, Vice President, P.O. Box 2530, 1560 Bear Creek Road, Oak Ridge, TN 37831-2530
- 930. Brent A. Pulsipher, Pacific Northwest Laboratory, Applied Physics Center, P.O. Box 999, Mail Stop K7-34, Richland, WA 99352
- 931. William J. Quapp, EG&G Idaho, Inc., Waste Technology Development, P.O. Box 1625, Idaho Falls, ID 83415-3921
- 932. Robert D. Quinn, Pacific Northwest Laboratory, Technology Planning & Analysis Center, 901 D Street, SW, Suite 900, Washington, DC 20024
- 933. Keith R. Rademacher, Chem-Nuclear Geotech, Inc., Quality Assurance Division, P.O. Box 14000, Grand Junction, CO 81502-5504
- 934. Vijai N. Rai, U.S. Department of the Interior, Office of Environmental Affairs, 1849 C Street, Mail Stop 2340 MlB, Washington, DC 20240
- 935. David A. Ralston, Morrison-Knudsen Corporation, Environmental Services Division, P.O. Box 73, Boise, ID 83729
- 936. Autar Rampertaap, U.S. Department of Energy, Office of Environmental Restoration and Waste Management, EM-453 (GTN), Washington, DC 20585-0002
- 937. William N. Rankin, Westinghouse Savannah River Company, Savannah River Laboratory, WNR B-121, 773A, Aiken, SC 29802
- 938. Alan T. Raphael, Brookhaven National Laboratory, Office of Environmental Restoration, Building 51M, Upton, NY 11973
- 939. Frank Rautenkranz, Atomic Energy Control Board, Library, P.O. Box 1046, Station B, Ottawa, Ontario, Canada K1P 5S9
- 940. Joseph W. Ray, Great Lakes Industrial Technology Center, 25000 Great Northern Corporate Center, Suite 450, Cleveland, OH 44070-5310
- 941. Scott Reinert, Sergent, Hauskins & Beckwith, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 942. Michael B. Remington, U.S. Army Corps of Engineers, Occupational Safety and Health Office, Walla Walla District, Walla Walla, WA 99362
- 943. Christopher Reno, RKK Limited, 851 108th Avenue, NE, Bellevue, WA 98004
- 944. Suzanne P. Riddle, U.S. Department of Energy, Oak Ridge Field Office, Environmental Restoration Division, P.O. Box 2001, EW-911, Oak Ridge, TN 37831-8541
- 945. Richard Rife, Parsons Main, 111 Union Valley Road, Oak Ridge, TN 37830
- 946. Wade H. Riggsbee, Ebasco Services, Inc., 1201 Jadwin Avenue, Suite 202, Richland, WA 99352
- 947. Carol L. Roberts, Chem-Nuclear Geotech, Inc., Technical Resource Center, P.O. Box 14000, Grand Junction, CO 81502-5521
- 948. J.S. Roberts, Westinghouse Savannah River Company, Environmental Restoration Program, Aiken, SC 29808-0001
- 949. Janice L. Roberts, U.S. Department of Energy, Office of Environmental Restoration, Program Support Division, Resource Management Branch, EM-432 (GTN), Washington, DC 20585-0002
- 950. David E. Robertson, Pacific Northwest Laboratory, Nuclear Chemistry Department, P.O. Box 999, 329 Building, 300 Area, Richland, WA 99352
- 951. Owen C. Robertson, U.S. Department of Energy, Office of Environmental Restoration, Northwestern Area Programs Division, EM-442 (GTN), Washington, DC 20585-0002
- 952. McLouis J. Robinet, Argonne National Laboratory, ESH/HP, Building 201, 9700 South Cass Avenue, Argonne, IL 60439
- 953. Cheryl A. Robinson, Ecology & Environment, Inc., 3979 Oak Park Place, Boise, ID 83703
- 954. Richard A. Robinson, Battelle Columbus Laboratories, Environmental Restoration Division, 6120
 S. Gilmore Road, Fairfield, OH 45014

- 955. Terry Rodriguez, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 956. Jacques M. Roger, Commissariat a l'Energie Atomique, Valrho, Marcoule, Unite Centrale de Declassement des Installations Nucleaires, B.P. 171, 30205 Bagnols-sur-Ceze, France
- 957. Linda K. Rogers, Westinghouse Environmental Management Company of Ohio, Environmental Management, P.O. Box 398704, Cincinnati, OH 45239-8704
- 958. David Romero, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 959. Claire C. Ross, EG&G Idaho, Inc., P.O. Box 1625-3970, Idaho Falls, ID 83415
- 960. Donald M. Ross, Science Applications International Corporation, Technical Assessments and Planning, 20201 Century Boulevard, Germantown, MD 20874
- 961. Charlene Rouffa, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 962. Laura A. Rounds, S. Cohen & Associates, Inc., 25105 Old Hundred Road, Dickerson, MD 20842
- 963. Robert D. Rowlands, Chem-Nuclear Geotech, Inc., Technical/Engineering Department, P.O. Box 14000, Grand Junction, CO 81503
- 964. William G. Rueb, Morrison-Knudsen Corporation, Government Facilities Division, 1500 West 3rd Street, Cleveland, OH 44113
- 965. Teresa A. Russ, U.S. Department of Energy, EM-453 (GTN), Trevion II, Washington, DC 20585-0002
- 966. Thomas A. Russell, U.S. Department of Energy, Office of Environmental Restoration, EM-423 (GTN), Washington, DC 20585-0002
- 967. Karol S. Rutz, U.S. Corps of Engineers, Tulsa District Geotech, P.O. Box 31836, Amarillo, TX 79120-1836
- 968. Robert Saar, Geraghty & Miller, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 969. Miguel D. Salazar, Los Alamos National Laboratory, DOE/EM-453, (GTN) Trevion II, Washington, DC 20585-0002
- 970. Josie Sanchez, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 971. John P. Sands, U.S. Department of Energy, Office of Environmental Restoration, Northwestern Area Programs Division, EM-453 (GTN), 19901 Germantown Road, Germantown, MD 20874
- 972. Cheryl Sappington, NJG Associates, Inc., DOE/EM-45 (GTN), Trevion II, Washington, DC 20585-0002
- 973. Walter N. Sato, U.S. Department of Energy, Idaho Field Office, 785 DOE Place, MS-1114, Idaho Falls, ID 83402
- 974. Noel F. Savignac, Noel Savignac Consultants, 6100 Uptown Boulevard, NE, Suite 700, Albuquerque, NM 87110
- 975. Keith L. Schardein, IT Corporation, 5301 Central Avenue, NE, Albuquerque, NM 87108
- 976. Brenda Scheuffele, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 977. John Schlatter, Bechtel National, Inc., P.O. Box 350, Oak Ridge, TN 37831-0350
- 978. Wayne J. Scholl, Halliburton NUS Environmental Corporation, 910 Clopper Road, P.O. Box 6032, Gaithersburg, MD 20878
- 979. John J. Schreiber, U.S. Department of Energy, 212 Bainbridge Drive, Aliquippa, PA 15001
- 980. Jack G. Scott, Westinghouse Idaho Nuclear Company, Technical Department, P.O. Box 4000, Mail Stop 5217, Idaho Falls, ID 83403
- 981. Randal S. Scott, U.S. Department of Energy, Office Environmental Restoration and Wast Management, Office of Environmental QA/QC, EM-20 (FORS), Room 1H-053, 1000 Independence Avenue, SW, Washington, DC 20585
- 982. Steve Scott, U.S. Department of Energy, Office of Nuclear Safety, NS-50, 400-QO, Washington, DC 20585
- 983. William W. Scott, Battelle Columbus Laboratories, 505 King Avenue, Room 13-1-39, Columbus, OH 43201

- 984. Karen S. Scotti, Chem-Nuclear Geotech, Inc., Office of the President, P.O. Box 14000, Grand Junction, CO 81502-5504
- 985. Joseph A. Scroppo, Bladon International, Inc., 25 Sheffield Lane, Oak Brook, IL 60521
- 986. Paul N. Seeley, Science Applications International Corporation, Energy and Science Group, 14062 Denver West Parkway, Bldg. 52, Suite 200, Golden, CO 80401
- 987. Arlene B. Selber, Parsons Environmental Services, Inc., 4701 Hedgemore Drive, Charlotte, NC 28209
- 988. R.D. Sellers, Westinghouse Idaho Nuclear Company, Restoration Project Management Administration, P.O. Box 4000, Idaho Falls, ID 83403
- 989. Eugene J. Senat, U.S. Department of Energy, Richland Field Office, Tank Farm Project Office, P.O. Box 550, Richland, WA 99352
- 990. David F. Shafer, U.S. Department of Energy, EM-452 (GTN), Trevion II, Washington, DC 20585-0002
- 991. W. Randell Shangraw, Project Performance Corporation, 46030 Manekin Plaza, Suite 180, Sterling, VA 22170
- 992. J.B. Shannon, Westinghouse Hanford Company, Hanford Restoration Operations, P.O. Box 1970, Richland, WA 99352
- 993. Jacob Shapiro, Harvard University, Department of Environmental Health and Safety, 46 Oxford Street, Cambridge, MA 02138
- 994. Michael R. Shay, Pacific Northwest Laboratory, Waste Systems Department P.O. Box 999, Mail Stop K7-94, Richland, WA 99352
- 995. Charles R. Sherman, Westinghouse Savannah River Company, Environmental Restoration Division, Savannah River Site, Aiken, SC 29801
- 996. Dottie L. Sherman, American Nuclear Insurers, Inc., Library/Research Center, Town Center, Suite 300S, 29 South Main Street, West Hartford, CT 06107-2445
- 997. Joe D. Sherrod, OGDEN Environmental & Energy Services, 800 Oak Ridge Turnpike, Suite 103, Oak Ridge, TN 37830
- 998. Kevin M. Shine, BDM International, Inc., Environmental Restoration Division, 20030 Century Boulevard, Suite 101, Germantown, MD 20874
- 999. James L. Shipley, Los Alamos National Laboratory, Environmental Technologies Division, P.O. Box 1663, Mail Stop F683, Los Alamos, NM 87545
- 1000. R. Steve Shirley, Westinghouse Environmental Management Company of Ohio, P.O. Box 398704, MS 50, Cincinnati, OH 45239-8704
- 1001. Thomas Shoemaker, U.S. Department of Energy, EM-40, 1000 Independence Avenue, SW, Washington, DC 20585
- 1002. Steven M. Short, Pacific Northwest Laboratory, Waste Systems Department, K7-94, P.O. Box 999, Richland, WA 99352
- 1003. Sheila I. Shorter, U.S. Department of Energy, EM-442 (GTN), Trevion II, Washington, DC 20585-0002
- 1004. Jeff Shoulta, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1005. David E. Shropshire, EG&G Idaho, Inc., Waste Technology Development, P.O. Box 1625, Idaho Falls, ID 83415- 3930
- 1006. Martin R. Siegel, Pacific Northwest Laboratory, Technology Policy Analysis Department, P.O. Box 999, Mail Stop K6-58, Richland, WA 99352
- 1007. Richard J. Sills, BNFL, Inc., 9302 Lee Highway, S vite 950, Fairfax, VA 22031-1207
- 1008. David B. Simpson, BDM International, Inc., EM-32, 12850 Middlebrook Road, Suite 300, Germantown, MD 20874
- 1009. Glenn Sjoblom, U.S. Department of Energy, Special Assistant to Director, EM-1, 1000 Independence Avenue, SW, Washington, DC 20585
- 1010. Steven W. Slaten, U.S. Department of Energy, Los Alamos Area Office, 528 E. 35th Street, Los Alamos, NM 87544

- 1011. David B. Smet, Westinghouse Hanford Company, Facilities Operations, N Reactor, P.O. Box 1970, Mail Stop X5-52, Richland, WA 99352
- 1012. Barry H. Smith, Science Applications International Corporation, 20201 Century Boulevard, Germantown, MD 20874
- 1013. Bobbie Smith, NJG Associates, Inc., DOE/EM-433 (GTN), Washington, DC 20585-0002
- 1014. David L. Smith, Westinghouse Hanford Company, Environmental Division/Hanford Restoration Operations, P.O. Box 1970, Mail Stop R2-77, Richland, WA 99352
- 1015. Donald L. Smith, EG&G Idaho, Inc., D&D Program, P.O. Box 1625, Idaho Falls, ID 83415-1545
- 1016. Douglas M. Smith, U.S. Department of Energy, Office of Environmental Restoration, Regulatory Compliance Branch, EM-431 (GTN), Washington, DC 20585-0002
- 1017. E.R. Smith, Virginia Power, Quality Assurance Division, P.O. Box 315, Surry, VA 23883
- 1018. Gordon J. Smith, Sandia National Laboratories, Department 7205, P.O. Box 5800, Mail Stop 7205, Albuquerque, NM 87185-5800
- 1019. Graham M. Smith, Intera Information Technologies Limited, Environmental Division, Chiltern House, 45 Station Road, Henley-on-Thames, Oxfordshire, United Kingdom RG9 1AT
- 1020. Melody Smith, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1021. Richard I. Smith, Pacific Northwest Laboratory, Waste Systems Department, P.O. Box 999, MS K7-90, Richland, WA 99352
- 1022. Stephen T. Smith, Westinghouse Hanford Company, Quality Assurance Division, P.O. Box 1970, Mail Stop H4-25, Richland, WA 99352
- 1023. Storey Smith, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1024. Thomas H. Smith, EG&G Idaho, Inc., Engineering Department, P.O. Box 1625, Idaho Falls, ID 83415
- 1025. Earl R. Sorom, Reynolds Electric & Engineering Company, Inc., ES&H/Health Protection Department, P.O. Box 98521, Mail Stop 235, Las Vegas, NV 89193-8521
- 1026. Lawrence Spahr, Systematic Management Services, Inc., 505 King Avenue, Mail Code 15-1-131, Columbus, IL 43021
- 1027. K. Spalti, Iowa Electric Light & Power Company, Nuclear Generation Library, 3277 DAEC Road, Palo, IA 52324-9783
- 1028. Dwayne R. Speer, Westinghouse Hanford Company, Environmental Division/Hanford Restoration Operations, P.O. Box 1970, Mail Stop R2-77, Richland, WA 99352
- 1029. Scott T. Spence, Kaiser Engineers Hanford Company, P.O. Box 888, Mail Stop E6-41, Richland, WA 99352
- 1030. Joseph D. Spencer, Pacific Northwest Laboratory, P.O. Box 999, Richland, WA 99352
- 1031. John C. Spink, Science Applications International Corporation, 20201 Century Boulevard, Germantown, MD 20874
- 1032. Mary Alice Spivey, Science Applications International Corporation, 20201 Century Boulevard, Germantown, MD 20874
- 1033. John Springer, U.S. Department of Energy, EM-422 (GTN), Trevion II, Washington, DC 20585-0002
- 1034. William F. Spurgeon, U.S. Department of Energy, EM-452 (GTN), Trevion II, Washington, DC 20585-0002
- 1035. Michael W. Stafford, NUS Corporation, Health Physics Department, 900 Trail Ridge Road, Aiken, SC 29803
- 1036. Mark T. Stahr, U.S. Department of Energy, EM-441 (GTN), Trevion II, Washingtor, DC 20585-0002
- 1037. Lee E. Stevens, U.S. Department of Energy, Office of Waste Management, EM-331 (GTN), Trevion II Building, Room 305, Washington, DC 20585-0002
- 1038. Peter R. Stevens, U.S. Geological Survey, Water Resources Division, 411 National Center, 12201 Sunrise Valley, Reston, VA 22092
- 1039. William E. Stevens, Westinghouse Savannah River Company, 773-43A, P.O. Box 616, Aiken, SC 29801-0001

- 1040. John Stewart, U.S. Department of Energy, EM-331 (GTN), Washington, DC 20585-0002
- 1041. Loren R. Stone, Rockwell International, Rocketdyne Division, Energy Technology Engineering Center, 6633 Canoga Avenue, Canoga Park, CA 91304
- 1042. Gary Stoopes, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1043. Erik Storms, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1044. Paul V. Strider, U.S. Department of Energy, EM-431 (GTN), Trevion II, Washington, DC 20505-0002
- 1045. Terry G. Stromire, Chem-Nuclear Geotech, Inc., Finance and Administration, P.O. Box 14000, Grand Junction, CO 81502-5504
- 1046. Richard C. Stupka, Dames & Moore, DOE and Nuclear Programs, 1125-17th Street, Suite 1200, Denver, CO 80202
- 1047. Harold F. Sturm, Jr., Westinghouse Savannah River Company, Savannah River Laboratory, P.O. Box 616, Aiken, SC 29802
- 1048. Lee H. Sturm, Westinghouse Idaho Nuclear Company, Environmental Restoration, Environmental Compliance, P.O. Box 4000, Idaho Falls, ID 83403
- 1049. Diego Suarez, MK-Ferguson Company, 7295 Highway 94 South, St. Charles, MO 63304
- 1050. Ganesan Subbaraman, Rockwell International, Rocketdyne Division, Energy Technology Engineering Center, MC T009, 6633 Canoga Avenue, Canoga Park, CA 91303
- 1051. Charles R. Sundgren, Boeing Computer Services, Inc., Information Resource Management, P.O. Box 300, Mail Stop H1-64, Richland, WA 99352
- 1052. John Surmeier, U.S. Nuclear Regulatory Commission, Office of Nuclear Materials Safety and Safeguards, Mail Stop WFN 5E2, Washington, DC 20555
- 1053. D.W. Swindle, Jr., Radian Corporation, Environmental & Health Services Department, 120 South Jefferson Circle, Suite 100, Oak Ridge, TN 37830
- 1054. Meryl L. Sykes, U.S. Department of Energy, EM-44 (GTN), Trevion II, Washington, DC 20585-0002
- 1055. Sandra J. Szalinski, West Valley Nuclear Services Company, Inc., Environmental, Safety & Health Division, P.O. Box 191, West Valley, NY 14170
- 1056. Carol Talbert, Roy F. Weston, Inc., Analytics Division, 208 Welsh Pool Road, Exton, PA 19341
- 1057. Ann M. Tallman, Westinghouse Hanford Company, DOE/EM-431 (GTN), Washington, DC 20585-0002
- 1058. K. Tecumseh, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1059. Charles T. Temus, Pacific Nuclear, Fuel Services Department, 1010 South 336th, SE, Federal Way, WA 98003
- 1060. Mickie Terpak, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1061. Lucien J.R. Teunckens, Belgoprocess N.V., Nuclear Services Department, Gravenstraat 73, 2480 Dessel, Belgium
- 1062. RucAnn Thomas, Westinghouse Savannah River Company, P.O. Box 616, Building 742-A, Aiken, SC 29802
- 1063. Vivian W. Thomas, Pacific Northwest Laboratory, Nuclear Chemistry Department (P8-08), P.O. Box 999, Richland, WA 99352
- 1064. Bruce M. Thomson, University of New Mexico, Department of Civil Engineering, Albuquerque, NM 87131
- 1065. Richard K. Thorpe, Lawrence Livermore National Laboratory, DOE/EM-442 (GTN), Washington, DC 20585-0002
- 1066. M. Harry Thron, U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 1067. William C. Thurber, S. Cohen & Associates, Inc., 13 Poplar Point Road, Edgewater, MD 21037
- 1068. John S. Tixier, Pacific Northwest Laboratory, Waste Treatment Technology Department, P.O. Box 999, Mail Stop P7-34, Richland, WA 99352
- 1069. Marilyn D. Tolbert-Smith, U.S. Department of Energy, EM-433 (GTN), Trevion II, Washington, DC 20585-0002

- 1070. Duane Tolle, Battelle Columbus Laboratories, 505 King Avenue, Columbus, OH 43201
- 1071. Douglas W. Tonkay, U.S. Department of Energy, Office of Environmental Restoration and Waste Management, EM-342 (GTN), Washington, DC 20585-0002
- 1072. Michael Torbert, U.S. Department of Energy, EM-321 (GTN), Trevion II, Washington, DC 20585-0002
- 1073. Albert D. Toth, U.S. Department of Energy, Richland Field Office, Tank Farm Project Office, P.O. Box 550, Richland, WA 99352
- 1074. Craig R. Toussaint, Science Applications International Corporation, Environmental and Waste Operation, 20201 Century Boulevard, Germantown, MD 20874
- Jeffrey A. Towers, EG&G Idaho, Inc., Environmental Project Management Division, P.O. Box 1625,
 Mail Stop 3505, Idaho Falls, ID 83415-3505
- 1076. Harley L. Toy, Battelle Columbus Laboratories, D&D Operations Division, 505 King Avenue, Columbus, OH 43201
- 1077. Thomas T. Traceski, U.S. Department of Energy, Office of Environmental Guidance, RCRA/CERCLA Division, EH-231, 1000 Independence Avenue, SW, Washington, DC 20585
- 1078. Michael A. Travaglini, U.S. Department of Energy, Oak Ridge Field Office, Environmental Restoration Division, P.O. Box 2001, Oak Ridge, TN 37831-8621
- 1079. Lisa C. Treichel, U.S. Department of Energy, EM-442 (GTN), Trevion II, Washington, DC 20585-0002
- 1080. Virgil Trice, U.S. Department of Energy, EM-343 (GTN), Trevion II, Washington, DC 20585-0002
- 1081. Paula A. Trinoskey, Lawrence Livermore National Laboratory, Hazards Control Division, P.O. Box 5505, Livermore, CA 94550
- 1082. Hermeka Trynham, U.S. Department of Energy, EM-40, 1000 Independence Avenue, SW, Washington, DC 20585
- 1083. John C. Tseng, U.S. Department of Energy, Office of Environmental Restoration and Waste Management, EM-35 (GTN), Washington, DC 20585-0002
- 1084. Harold Tso, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1085. Gale P. Turi, U.S. Department of Energy, Office of Environmental Restoration, Program Support Division, EM-433 (GTN), Trevion II, Washington, DC 20585-0002
- 1086. Kathy Turnham, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1087. U.S. Department of Energy, Federal Energy Regulatory Commission, Library, 825 North Capitol Street, NE, Washington, DC 20426
- 1088. U.S. Department of Energy, EM-423 (GTN), Trevion II, Washington, DC 20585-0002
- 1089. U.S. Environmental Protection Agency, Office of Radiation Programs, Director, Radiation Studies Division (ANR-461), 401 M Street, SW, Washington, DC 20460
- 1090. Luis Valencia, Kernforschungszentrum Karlsruhe GmbH, Decommissioning KKN, Division Erection and Decommissioning of Nuclear Facilities, Postfach 3640, D-7500 Karlsruhe 1, Germany
- 1091. Gene L. Valett, MK-Ferguson Company, Environmental Documentation/Conceptual Design, 7295 Highway 94 South, St. Charles, MO 63304
- 1092. Ric M. Valiente, B&W Nuclear Services Company, Inc., Environmental Restoration/Waste Management Division, 3225 Old Forest Road, No. 1 Forest Plaza West, Lynchburg, VA 24501
- 1093. Jerry S. Van Fossen, U.S. Department of Energy, Oak Ridge Field Office, Weldon Spring Site Remedial Action Project Office, 7295 Highway 94 South, St. Charles, MO 63304
- 1094. David B. Van Leuven, Pacific Northwest Laboratory, Environmental Management Operations, P.O. Box 999, 723 The Parkway, Richland, WA 99352
- 1095. Jeffrey D. Villnow, Ecology & Environment, Inc., 1500 First Interstate Building, 999 Third Avenue, Seattle, WA 98104
- 1096. Joseph E. Virgona, U.S. Department of Energy, Grand Junction Projects Office, 313 Longview Court, Grand Junction, CO 81503

Distribution D-34

1097. Tommaso Vitiello, Ente Nazionale per l'Energia Elettrica (ENEL), DPT, Unita Attivita Nucleari, Via de Pretis 45A, I-00184 Rome, Italy

- 1098. Robert W. Vocke, Los Alamos National Laboratory, Environmental Restoration Program, EM-13, P.O. Box 1663, Mail Stop M992, Los Alamos, NM 87545
- 1099. Lawrence W. Vogel, Science Applications International Corporation, Environmental and Systems Management Division, 20201 Century Boulevard, Suite 200, Germantown, MD 20074
- 1100. Art Vollmer, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1101. Troy E. Wade, II, AWC, Inc., A Lockheed Company, 900 Grier Drive, Suite E, Las Vegas, NV 89119
- 1102. Jumes W. Wagoner, U.S. Department of Energy, Office of Environmental Restoration, Office of Eastern Area Programs, Division of Off-Site Programs, EM-421, Washington, DC 20585-0002
- 1103. Mimi Wahlmann, NJG Associates, Inc., DOE/EM-432 (GTN), Washington, DC 20585-0002
- 1104. Debra D. Wainner, EcoTek, Inc., Sales & Marketing Division, 1219 Banner Hill Road, Erwin, TN 37650
- 1105. Stanley J. Waligora, Environmental Dimensions, Inc., 4206 Louisiana Boulevard, NE, Albuquerque, NM 87109
- 1106. Bryan D. Walker, U.S. Department of Energy, Oak Ridge Field Office, Office of Environmental Restoration & Waste Management, EW-90, P.O. Box 2001, Mail Stop 8723, Oak Ridge, TN 37831-8723
- 1107. Jeffrey S. Walker, U.S. Department of Energy, Office of Technology Development, Research and Development, EM-541, 1000 Independence Avenue, SW, Washington, DC 20585
- 1108. William A. Wallace, CH2M Hill, 777 108th Avenue, NE, P.O. Box 91500, Bellevue, WA 98009-2050
- 1109. Calvin A.H. Waller, RKK Limited, 1633 Vickers Drive, Colorado Springs, CO 80918
- 1110. Richard C. Walling, Pacific Northwest Laboratory, Waste Systems Department, P.O. Box 999, Mail Stop K7-97, Richland, WA 99352
- 1111. Andrew Wallo, III, U.S. Department of Energy, Air, Water & Radiation Division, EH-232, 1000 Independence Avenue, SW, Washington, DC 20585
- 1112. Henry F. Walter, U.S. Department of Energy, Division of Technical Support, EM-351, Trevion II, Room 368, Washington, DC 20585-0002
- 1113. Jim Walter, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1114. John Walter, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1115. Stephan W. Warren, U.S. Department of Energy, EM-442, Trevion II Building, Washington, DC 20585-0002
- 1116. W. Joseph Waugh, Chem-Nuclear Geotech, Inc., Technical Programs, P.O. Box 14000, Grand Junction, CO 81502
- 1117. Angela Weathers, U.S. Department of Energy, EM-452 (GTN), Trevion II, Washington, DC 20585-0002
- 1118. B.F. Weaver, Westinghouse Hanford Company, Hanford Restoration Operations, P.O. Box 1970, Richland, WA 99352
- 1119. Ray P. Weaver, EG&G Mound Applied Technologies, Environmental Safety & Health, 1 Mound Road, Miamisburg, OH 45343
- 1120. Michael F. Weber, U.S. Nuclear Regulatory Commission, Division of Low-Level Waste Management and Decommissioning, Mail Stop 5E4, Washington, DC 20555
- 1121. Roxanna Weddle, NJG Associates, Inc., DOE/EM-40, 1000 Independence Avenue, SW, Washington, DC 20585
- 1122. Det L. Wegener, Westinghouse Hanford Company, Tank Waste Remediation, P.O. Box 1970, Mail Stop R1-62, Richland, WA 99352
- 1123. F. Hunter Weiler, U.S. Department of Energy, Office of Environmental Restoration, EM-422, Trevion II, Washington, DC 20585-0002
- 1124. Deborah Weinstock, NJG Associates, Inc., DOE/EM-43 (GTN), Washington, DC 20585-0002

- 1125. Thomas G. Weiss, Jr., West Valley Nuclear Services Company, Inc., P.O. Box 191, West Valley, NY 14176
- 1126. Cindy Wells, BDM Corporation, 12850 Middlebrook Pike, Suite 300, Germantown, MD 20874
- 1127. Nancy A. Werdel, U.S. Department of Energy, Richland Field Office, Environmental Restoration Division, Environmental Programs Branch, P.O. Box 550, Mail Stop A5-19, Richland, WA 99352
- 1128. Dee Wernette, Argonne National Laboratory, EAIS Division, 9700 South Cass Avenue, Argonne, IL 60439
- 1129. Bryan Westich, U.S. Department of Energy, EM-321 (GTN), Trevion II, Washington, DC 20585-0002
- 1130. Westinghouse Electric Corporation, Bettis Atomic Power Laboratory, Library, P.O. Box 79, West Mifflin, PA 15122-0079
- 1131. Wade C. Whitaker, U.S. Department of Energy, Savannah River Field Office, Environmental Compliance Division, P.O. Box A, Aiken, SC 29802
- 1132. Jerry D. White, Science Applications International Corporation, 7601 West Clearwater, Kennewick, WA 99336
- 1133. Kay Whitfield, U.S. Department of Energy, EM-321 (GTN), Trevion II, Washington, DC 20585-0002
- 1134. James C. Wiborg, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop R3-09, Richland, WA 99352
- 1135. Christopher L. Widrig, Pacific Northwest Laboratory, Office of Environmental Technology, P.O. Box 999, Mail Stop K1-25, Richland, WA 99352
- 1136. Steve Wiegman, Science Applications International Corporation, Richland Operation, 7601 West Clearwater Avenue, Suite 450, Kennewick, WA 99336
- 1137. Evelyn H. Wight, Virginia Polytechnic Institute, Management Systems Laboratories, Environmental Systems Laboratory, 1900 Kraft Drive, Blacksburg, VA 24060
- 1138. Thomas A. Wilczek, Reynolds Electrical & Engineering Company, Inc., Environmental Compliance Office, P.O. Box 98521, Las Vegas, NV 89117
- 1139. Austin E. Wiles, U.S. Department of Energy, EM-51 (GTN), Trevion II, Washington, DC 20585-0002
- 1140. Donald B. Williams, U.S. Department of Energy, EM-443, Trevion II Building, Washington, DC 20585-0003
- 1141. John L. Williams, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID 83403
- 1142. Lawrence P. Williams, B&W Nuclear Services Company, Inc., Business Development, 3225 Old Forest Road, No. 1 Forest Plaza West, Lynchburg, VA 24501
- 1143. Ronald E. Williams, EG&G Rocky Flats, Inc., Environmental Management Department, Building T-130B, P.O. Box 464, Golden, CO 80402-0464
- 1144. W. Alexander Williams, U.S. Department of Energy, Office of Environmental Restoration, EM-421, Trevion II, Washington, DC 20585-0002
- B.J. Willis, Westinghouse Idaho Nuclear Company, Site Remediation, P.O. Box 4000, Idaho Falls, ID
 83403
- Kenneth J. Wills, Battelle Oak Ridge Operations, 1093 Commerce Park Drive, Suite 100, Oak Ridge, TN 37830
- 1147. Dennis Wilson, U.S. Department of Energy, Albuquerque Field Office, UMTRA Project Office, 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1148. G.E. Wilson, Westinghouse Hanford Company, Hanford Restoration Operations, P.O. Box 1970, Richland, WA 99352
- William E. Wisenbaker, U.S. Department of Energy, Office of Environmental Restoration, Program Support Division, EM-43 (GTN), Washington, DC 20585-0002
- 1150. Curtis D. Wittreich, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop H4- 55, Richland, WA 99352
- 1151. Frank J. Wobber, U.S. Department of Energy, Office of Energy Research, 14 Goshen Court, Gaithersburg, MD 20882-1016
- 1152. Don D. Wodrich, Westinghouse Hanford Company, Tank Waste Remediation, P.O. Box 1970, Mail Stop R2-23, Richland, WA 99352

- 1153. Donald E. Wood, Westinghouse Hanford Company, P.O. Box 1970, Mail Stop B2- 19, Richland, WA 99352
- 1154. Steven R. Woodbury, U.S. Department of Energy, Office of Environmental Compliance, EH-22, 1000 Independence Avenue, SW. Washington, DC 20585
- 1155. C. Brad Wright, U.S. Department of Energy, Office of Environmental Restoration, EM-422 (GTN), Washington, DC 20585-0002
- 1156. Donald T. Wruble, PAI, Inc., 1050 East Flamingo Road, Suite 367, Las Vegas, NV 89119
- 1157. Robert A. Wynveen, Argonne National Laboratory, ESH Division, 9700 South Cass Avenue, Argonne, 1L 60439
- 1158. Satoshi Yanagihara, Japan Atomic Energy Research Institute, Decommissioning Technology Laboratory, JPDR, Shirakata- Shirane, Tokai-mura, Naka-gun, Ibaraki 319-11, Japan
- 1159. Clyde Yancey, Geraghty & Miller, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1160. David M. Yannitell, Ebasco Services, Inc., Advanced Technology Division, 111 Union Valley Road, Oak Ridge, TN 37830
- 1161. Jack Yanoski, U.S. Department of Energy, EM-332 (GTN), Trevion II, Washington, DC 20585-0002
- 1162. Linton Yarbrough, U.S. Department of Energy, EM-552 (GTN), Trevion II, Washington, DC 20585-0002
- 1163. Ali Yazdi, Bechtel Environmental, Inc., Environmental Projects, Oak Ridge Office, P.O. Box 350, 151 Lafayette Drive, Oak Ridge, TN 37831-0350
- 1164. David A. Yockman, U.S. Department of Energy, EM-424 (GTN), Trevion II, Washington, DC 20585-0002
- 1165. Scott Yoshino, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1166. Bennett H. Young, U.S. Department of Energy, Grand Junction Projects Office, P.O. Box 2567, Grand Junction, CO 81502-2567
- 1167. Charles D. Young, Office of Technical Services, Roy F. Weston, Inc., 12850 Middlebrook Road, Suite 210, Germantown, MD 20874
- Lawrence E. Young, Bechtel National, Inc., Geotechnical & Hydrologic Engineering, P.O. Box 350,151 Lafayette Drive, Oak Ridge, TN 37831-0350
- 1169. Jesse Yow, Jr., Lawrence Livermore National Laboratory, P.O. Box 808, L-207, 7000 East Avenue, Livermore, CA 94550
- 1170. Charley Yu, Argonne National Laboratory, EID-900, 9700 South Cass Avenue, Argonne, IL 60439
- 1171. James G. Yusko, Pennsylvania Department of Environmental Resources, Bureau of Radiation Protection, 400 Waterfront Drive, Pittsburgh, PA 15222-4745
- 1172. Anthoula Zaharopoulos, NJG Associates, Inc., DOE/EM-433 (GTN), Washington, DC 20585-0002
- 1173. James J. Zahora, EG&G Mound Applied Technologies, P.O. Box 3000, Miamisburg, OH 45343
- 1174. Mathew J. Zenkowich, U.S. Department of Energy, EM-323 (GTN), Trevion II, Washington, DC 20585-0002
- 1175. Paul R. Zielinski, U.S. Department of Energy, EM-443 (GTN), Trevion II, Washington, DC 20585-0002
- 1176. Tim Zimmerly, Jacobs Engineering Group, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1177. Robert Ziock, Roy F. Weston, Inc., 5301 Central Avenue, NE, Suite 1700, Albuquerque, NM 87108
- 1178. Josef Zlatnansky, Slovensky Energeticky Podnik, Hranicna 12, 827 36 Bratislava, Czeckoslovakia
- 1179. Auguste Zurkinden, Paul Scherrer Institut, Hauptabteilung für die Sicherheit der Kernanlangen (HSK), CH-5232 Villigen-HSK, Switzerland

DATE FILMED 5/26/93