NUREG-0304
Vol. 21, No. 3

Regulatory and Technical Reports (Abstract Index Journal)

Compilation for
Third Quarter 1996
July - September

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Compilation for
Third Quarter 1996
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Date Published: February 1997

M. A. Sheehan, Project Manager

Publications Branch
Office of Information Resources Management
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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PREFACE

This compilation consists of bibliographic data and abstracts for the formal regulatory and technical reports issued by the U.S. Nuclear Regulatory Commission (NRC) Staff and its contractors. It is NRC's intention to publish this compilation quarterly and to cumulate it annually. Your comments will be appreciated. Please send them to:

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The main citations and abstracts in this compilation are listed in NUREG number order: NUREG-XXXX, NUREG/CP-XXXX, NUREG/CR-XXXX, and NUREG/IA-XXXX. These precede the following indexes:

Secondary Report Number Index
Personal Author Index
Subject Index
NRC Originating Organization Index (Staff Reports)
NRC Originating Organization Index (International Agreements)
NRC Contract Sponsor Index (Contractor Reports)
Contractor Index
International Organization Index
Licensed Facility Index

A detailed explanation of the entries precedes each index.

The bibliographic elements of the main citations are the following:

Staff Report

NUREG-0808: MARK II CONTAINMENT PROGRAM EVALUATION AND ACCEPTANCE CRITERIA. ANDERSON, C. J. Division of Safety Technology. August 1981. 90 pp. 8109140048. 09570:200.

Where the entries are (1) report number, (2) report title, (3) report author, (4) organizational unit of author, (5) date report was published, (6) number of pages in the report, (7) the NRC Document Control System accession number, (8) the microfiche address (for internal NRC use).

Conference Report

NUREG/CP-0017: EXECUTIVE SEMINAR ON THE FUTURE ROLE OF RISK ASSESSMENT AND RELIABILITY ENGINEERING IN NUCLEAR REGULATION. JANERP, J.S. Argonne National Laboratory. May 1981. 141 pp. 8105280299. ANL-81-3. 08632:070.

Where the entries are (1) report number, (2) report title, (3) report author, (4) organization that compiled the proceedings, (5) date report was published, (6) number of pages in the report, (7) the NRC Document Control System accession number, (8) the report number of the originating organization, (9) the microfiche address (for NRC internal use).

Contractor Report

NUREG/CR-1556: STUDY OF ALTERNATE DECAY HEAT REMOVAL CONCEPTS FOR LIGHT WATER REACTORS-CURRENT SYSTEMS AND PROPOSED OPTIONS. BERRY, D.L.; BENNETT, P.R. Sandia Laboratories. May 1981. 100 pp. 8107010449. SAND80-0929. 08912:242.

Where the entries are (1) report number, (2) report title, (3) report authors, (4) organizational unit of authors or publisher, (5) date report was published, (6) number of pages in the report, (7) the NRC Document Control System accession number, (8) the report number of the originating organization (if given), (9) the microfiche address (for NRC internal use).

Grant Report

NUREG/GR-0013: APPLICATIONS OF A NEW MAGNETIC MONITORING TECHNIQUE TO IN SITU EVALUATION OF FATIGUE DAMAGE IN FERROUS COMPONENTS. JILES, D.C.; BINER, S.B.; GOVINDARAJU, M.; et al. Iowa State Univ., Ames, IA. June 1994. 41 pp. 9407250286. 80328:195.

Where the entries are (1) report number, (2) report title, (3) report authors, (4) organizational unit of authors or publisher, (5) date report was published, (6) number of pages in the report, (7) the NRC Document Control System accession number, (8) the report number of the originating organization (if given), (9) the microfiche address (for NRC internal use).

International Agreement Report

NUREG/IA-0001: ASSESSMENT OF TRAC-PD2 USING SUPER CANNON AND HDR EXPERIMENTAL DATA. NEUMANN, U. Kraftwerk Union. August 1986. 223 pp. 8608270424. 37659:138.

Where the entries are (1) report number, (2) report title, (3) report author, (4) organizational unit of author, (5) date report was published, (6) number of pages in the report, (7) the NRC Document Control System accession number, (8) the report number of the originating organization (if given), and (9) the microfiche address (for NRC internal use).

The following abbreviations are used to identify the document status of a report:

ADD	- addendum
APP	- appendix
DRFT	- draft
ERR	- errata
N	- number
R	- revision
S	- supplement
V	- volume

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NRC Report Codes

The NUREG designation, NUREG-XXXX, indicates that the document is a formal NRC staff-generated report. Contractor-prepared formal NRC reports carry the report code NUREG/CR-XXXX. This type of identification replaces contractor-established codes such as ORNL/NUREG/TM-XXX and TREE-NUREG-XXXX, as well as various other numbers that could not be correlated with NRC sponsorship or the work being reported.

In addition to the NUREG and NUREG/CR codes, NUREG/CP is used for NRC-sponsored conference proceedings NUREG/GR is used for NRC grant reports, and NUREG/IA is used for international agreement reports.

All these report codes are controlled and assigned by the staff of the Publications Branch of the NRC Office of Information Resources Management.

Main Citations and Abstracts

The report listings in this compilation are arranged by report number, where NUREG-XXXX is an NRC staff-originated report, NUREG/CP-XXXX is an NRC-sponsored conference report, NUREG/CR-XXXX is an NRC contractor-prepared report, and NUREG/IA-XXXX is an international agreement report. The bibliographic information (see Preface for details) is followed by a brief abstract of this report.

NUREG-0040 V20 N02: LICENSEE CONTRACTOR AND VENDOR INSPECTION STATUS REPORT. Quarterly Report, April-June 1996. (White Book) * Office of Nuclear Reactor Regulation (Post 941001). August 1996. 224pp. 9609100272. 89604:009.

This periodical covers the results of inspections performed by the NRC's Special Inspection Branch, Vendor Inspection Section, that have been distributed to the inspected organizations during the period from April through June 1996.

NUREG-0304 V21 N02: REGULATORY AND TECHNICAL REPORTS (ABSTRACT INDEX JOURNAL). Compilation For Second Quarter 1996, April-June. * Division of Freedom of Information & Publications Services (Post 940714). August 1996. 42pp. 9609100247. 89600:307.

This journal includes all formal reports in the NUREG series prepared by the NRC staff and contractors, proceedings of conferences and workshops, grants, and international agreement reports. The entries in this compilation are indexed for access by title and abstract, secondary report number, personal author, subject, NRC organization for staff and international agreements, contractor, international organization, and licensed facility.

NUREG-0325 R20: U.S. NUCLEAR REGULATORY COMMISSION ORGANIZATION CHARTS AND FUNCTIONAL STATEMENTS. July 1, 1996. * Ofc of Personnel (Post 870413). July 1996. 68pp. 9608050055. 89244:273.

Functional statements and organization charts for the U.S. Nuclear Regulatory Commission offices, divisions, and branches are presented.

NUREG-0325 R21: U.S. NUCLEAR REGULATORY COMMISSION ORGANIZATION CHARTS AND FUNCTIONAL STATEMENTS. August 19, 1996. * Ofc of Personnel (Post 870413). August 1996. 68pp. 9609100243. 89609:235.

See NUREG-0325, R20 abstract.

NUREG-0525 V02 R04: SAFEGUARDS SUMMARY EVENT LIST (SSEL). January 1, 1990 Through December 31, 1995. FADDEN, M.A.; YARDUMIAN, J. Operations Branch. July 1996. 109pp. 9608060289. 89262:238.

The Safeguards Summary Event List provides brief summaries of hundreds of safeguards-related events involving nuclear material or facilities regulated by the U.S. Nuclear Regulatory Commission. Events are described under the categories: Bomb-related, Intrusion, Missing/Allegedly Stolen, Transportation-related, Tampering/Vandalism, Arson, Firearms-related, Radiological Sabotage, Non-radiological Sabotage, and Miscellaneous. Because of the public interest, the Miscellaneous category also includes events reported involving source material, byproduct material, and natural uranium, which are exempt from safeguards requirements. Information in the event descriptions was obtained from official NRC sources.

NUREG-0540 V18 N05: TITLE LIST OF DOCUMENTS MADE PUBLICLY AVAILABLE. May 1-31, 1996. * Division of Freedom of Information & Publications Services (Post 940714). July 1996. 367pp. 9608050217. 89245:233.

This document is a monthly publication containing descriptions of information received and generated by the U.S. Nuclear Regulatory Commission (NRC). This information includes (1) docketed material associated with civilian nuclear power plants and other uses of radioactive materials, and (2) nondocketed material received and generated by NRC pertinent to its role as a regulatory agency. The following indexes are included: Personal Author, Corporate Source, Report Number, and Cross Reference of Enclosures to Principal Documents.

NUREG-0540 V18 N06: TITLE LIST OF DOCUMENTS MADE PUBLICLY AVAILABLE. June 1-30, 1996. * Division of Freedom of Information & Publications Services (Post 940714). August 1996. 300pp. 9609030364. 89546:001.

See NUREG-0540, V18, N05 abstract.

NUREG-0654 R01 S03: CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS. Criteria For Protective Action Recommendations For Severe Accidents. Draft Report For... CONGEL, F.; KANTOR, F.; MCKENNA, T.; et al. Office of Nuclear Reactor Regulation (Post 941001). July 1996. 19pp. 9608230202. FEMA-REP-1. 89452:321.

The Nuclear Regulatory Commission (NRC) and the Federal Emergency Management Agency (FEMA) have added Supplement 3 to NUREG-0654/FEMA-REP-1, Revision 1, which provides guidance for development of protective action recommendations for the public for severe reactor accidents involving actual or projected core damage with the potential for loss of containment. Studies of severe reactor accidents and their consequences since the issuance of NUREG-0654/FEMA-REP-1, Revision 1, have led the NRC staff to conclude that the preferred initial protective action for a severe (core damage) accident is to evacuate promptly rather than to shelter the population near the plant, barring any constraints to evacuation. The guidance in this document is intended to update and simplify the decisionmaking process for protective actions for severe reactor accidents given in Appendix 1 to NUREG-0654/FEMA-REP-1, Revision 1.

NUREG-0725 R11: PUBLIC INFORMATION CIRCULAR FOR SHIPMENTS OF IRRADIATED REACTOR FUEL. * Office of Nuclear Material Safety & Safeguards. July 1996. 32pp. 9608210216. 89420:305.

This circular has been prepared to provide information on the shipment of irradiated reactor fuel (spent fuel) subject to regulation by the Nuclear Regulatory Commission (NRC), and to meet the requirements of Public Law 96-295. The report provides a brief description of NRC authority for certain aspects of transporting spent fuel. It provides descriptive statistics on spent fuel shipments regulated by the NRC from 1979 to 1995. It also lists detailed highway and railway segments used within each state from January 1, 1993, through December 31, 1995.

2 Main Citations and Abstracts

NUREG-0750 V43 N05: NUCLEAR REGULATORY COMMISSION ISSUANCES FOR MAY 1996. * Division of Freedom of Information & Publications Services (Post 940714). July 1996. 30pp. 9608060271. 89258:145.

Legal issuances of the Commission, the Atomic Safety and Licensing Board Panel, the Administrative Law Judges, and NRC Program Offices are presented.

NUREG-0750 V43 N06: NUCLEAR REGULATORY COMMISSION ISSUANCES FOR JUNE 1996. * Division of Freedom of Information & Publications Services (Post 940714). August 1996. 129pp. 9609200257. 89729:124.

See NUREG-0750,V43,N05 abstract.

NUREG-0837 V16 N02: NRC TLD DIRECT RADIATION MONITORING NETWORK. Progress Report. (April-June, 1996). STRUCKMEYER, R. Region 1 (Post 820201). August 1996. 248pp. 9609200268. 89727:134.

This report provides the status and results of the NRC Thermoluminescent Dosimeter (TLD) Direct Radiation Monitoring Network. It presents the radiation levels measured in the vicinity of NRC licensed facilities throughout the country for the second quarter of 1996.

NUREG-0933 S20: A PRIORITIZATION OF GENERIC SAFETY ISSUES. EMRIT, R. Division of Engineering Technology (Post 941217). July 1996. 232pp. 9608050226. 89245:001.

The report presents the safety priority ranking for generic safety issues related to nuclear power plants. The purpose of these rankings is to assist in the timely and efficient allocation of NRC resources for the resolution of those safety issues that have a significant potential for reducing risk. The safety priority rankings are HIGH, MEDIUM, LOW, and DROP, and have been assigned on the basis of risk significance estimates, the ratio of risk to costs and other impacts estimated to result if resolution of the safety issues were implemented, and the consideration of uncertainties and other quantitative or qualitative factors. To the extent practical, estimates are quantitative.

NUREG-0936 V15 N01: NRC REGULATORY AGENDA. Semiannual Report. January-June 1996. * Division of Freedom of Information & Publications Services (Post 940714). August 1996. 58pp. 9609100239. 89601:267.

The NRC Regulatory Agenda is a compilation of all rules on which the NRC has recently completed action, or has proposed action, or is considering action, and all petitions for rulemaking which have been received by the Commission and are pending disposition by the Commission. The Regulatory Agenda is updated and issued semiannually.

NUREG-0940 V15 N1 P1: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED INDIVIDUAL ACTIONS. Semiannual Progress Report, January-June 1996. * Ofc of Enforcement (Post 870413). August 1996. 375pp. 9609100232. 89603:001.

This compilation summarizes significant enforcement actions that have been resolved during the period (January - June 1996) and includes copies of Orders and Notices of Violation sent by the Nuclear Regulatory Commission to individuals with respect to these enforcement actions. It is anticipated that the information in this publication will be widely disseminated to managers and employees engaged in activities licensed by the NRC. The Commission believes this information may be useful to licensees in making employment decisions.

NUREG-0940 V15 N1 P2: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED REACTOR LICENSEES. Semiannual Progress Report, January-June 1996. * Ofc of Enforcement (Post 870413). August 1996. 266pp. 9609100251. 89601:001.

This compilation summarizes significant enforcement actions that have been resolved during the period (January - June 1996) and includes copies of letters, Notices, and Orders sent by the Nuclear Regulatory Commission to reactor licensees with respect to these enforcement actions. It is anticipated that the

information in this publication will be widely disseminated to managers and employees engaged in activities licensed by the NRC, so that actions can be taken to improve safety by avoiding future violations similar to those described in this publication.

NUREG-0940 V15 N1 P3: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED MATERIAL LICENSEES. Semiannual Progress Report, January-June 1996. * Ofc of Enforcement (Post 870413). August 1996. 350pp. 9609100230. 89602:001.

This compilation summarizes significant enforcement actions that have been resolved during the period (January - June 1996) and includes copies of letters, Notices, and Orders sent by the Nuclear Regulatory Commission to material licensees with respect to these enforcement actions. It is anticipated that the information in this publication will be widely disseminated to managers and employees engaged in activities licensed by the NRC, so that actions can be taken to improve safety by avoiding future violations similar to those described in this publication.

NUREG-1272 V09 N01: OFFICE FOR ANALYSIS AND EVALUATION OF OPERATIONAL DATA. 1994-FY 95 Annual Report - Reactors. * Office for Analysis & Evaluation of Operational Data, Director. July 1996. 306pp. 9609100257. 89600:001.

This annual report of the U.S. Nuclear Regulatory Commission's Office for Analysis and Evaluation of Operational Data (AEOD) describes activities conducted during CY 1994 and FY 1995. The report is published in three parts. NUREG-1272, Vol. 9, No. 1, covers power reactors and presents an overview of the operating experience of the nuclear power industry from the NRC perspective, including comments about the trends of some key performance measures. The report also includes the principal findings and issues identified in AEOD studies over the past year and summarizes information from such sources as licensee event reports, diagnostic evaluations, and reports to the NRC's Operations Center. NUREG-1272, Vol. 9, No. 2, covers nuclear materials and presents a review of the events and concerns during 1993 associated with the use of licensed material in non-reactor applications, such as personnel overexposures and medical misadministrations. Both reports also contain a discussion of the Incident Investigation Team program and summarize both the Incident Investigation Team and Augmented Inspection Team reports. Each volume contains a list of the AEOD reports issued from 1980 through 1993. NUREG-1272, Vol. 9, No. 3, covers technical training and presents the activities of the Technical Training Center in support of the NRC's mission.

NUREG-1307 R06: REPORT ON WASTE BURIAL CHARGES. Escalation Of Decommissioning Waste Disposal Costs At Low-Level Waste Burial Facilities. * Division of Regulatory Applications (Post 941217). September 1996. 66pp. 9609200324. 89726:236.

One of the requirements placed upon nuclear power reactor licensees by the U.S. Nuclear Regulatory Commission (NRC) is for the licensees to periodically adjust the estimate of the cost of decommissioning their plants, in dollars of the current year, as part of the process to provide reasonable assurance that adequate funds for decommissioning will be available when needed. This report, which is scheduled to be revised periodically, contains the development of a formula for escalating decommissioning cost estimates that is acceptable to the NRC, and contains values for the escalation of radioactive waste burial costs, by site and by year. The licensees may use the formula, the coefficients, and the burial escalation from this report in their escalation analyses, or they may use an escalation rate at least equal to the escalation approach presented herein.

NUREG-1350 V08: NUCLEAR REGULATORY COMMISSION INFORMATION DIGEST. 1996 Edition. GARVER, M. Division of Budget & Analysis (Post 890205). July 1996. 138pp. 9609030260. 89545:001.

The Nuclear Regulatory Commission Information Digest (digest) provides a summary of information about the U.S. Nuclear Regulatory Commission (NRC), NRC's regulatory responsibilities, NRC licensed activities, and general information on domestic and worldwide nuclear energy. The digest, published annually, is a compilation of nuclear- and NRC-related data and is designed to provide a quick reference to major facts about the agency and the industry it regulates. In general, the data cover 1975 through 1995, with exceptions noted. Information on generating capacity and average capacity factor for operating U.S. commercial nuclear power reactors is obtained from monthly operating reports that are submitted directly to the NRC by the licensee. This information is reviewed by the NRC for consistency only and no independent validation and/or verification is performed.

NUREG-1423 V06: A COMPILATION OF REPORTS OF THE ADVISORY COMMITTEE ON NUCLEAR WASTE. July 1995 - June 1996. * Advisory Committee on Nuclear Waste. August 1996. 54pp. 9609030264. 89547:283.

This compilation contains 8 reports issued by the Advisory Committee on Nuclear Waste (ACNW) during the eighth year of its operation. The reports were submitted to the Chairman and Commissioners of the U.S. Nuclear Regulatory Commission. All reports prepared by the Committee have been made available to the public through the NRC Public Document Room, the U.S. Library of Congress, and the internet at <http://www.nrc.gov/ACRSACNW>.

NUREG-1524: A REASSESSMENT OF THE POTENTIAL FOR AN ALPHA-MODE CONTAINMENT FAILURE AND A REVIEW OF THE CURRENT UNDERSTANDING OF BROADER FUEL-COOLANT INTERACTION ISSUES. Report Of The Second Steam Explosion Review Group Workshop. BASU, S. Division of Systems Technology (Post 941217). GINSBERG, T. Brookhaven National Laboratory. August 1996. 200pp. 9608230217. 89450:001.

This report summarizes the review and evaluation by experts of the current understanding of the molten fuel-coolant interaction (FCI) issues covering the complete spectrum of interactions, i.e., from mild quenching to very energetic interactions including those that could lead to the alpha-mode containment failure. The experts' review and evaluation took place in the form of a Second Steam Explosion Review Group (SERG-2) Workshop, held in Annapolis, Maryland, on June 15 and 16, 1995. The first such workshop (SERG-1) took place in 1985. Extensive discussions took place at the SERG-2 workshop on the alpha-mode failure issue, based on the experts' responses to the questions raised, and consensus opinions on the status of resolution of the issue emerged from the discussions. Of the eleven experts polled, all but two concluded that the alpha-mode failure issue was resolved from a risk perspective, meaning that this mode of failure is of very low probability, that it is of little or no significance to the overall risk from a nuclear power plant, and that any further reduction in residual uncertainties is not likely to change the probability in an appreciable manner. To a lesser degree, discussions also took place on the broader FCI issues such as mild quenching of core melt during non-explosive FCI, and shock loading of lower head and ex-vessel support structures arising from explosive localized FCIs. These latter issues are relevant with regard to determining the efficacy of certain accident management strategies for operating reactors as well as for advanced light water reactors. The experts reviewed the status of understanding of the FCI phenomena in the context of these broader issues, identified residual uncertainties in the understanding, and recommended further research (both experimental and analytical) to reduce the uncertainties.

NUREG-1543: DRAFT ENVIRONMENTAL IMPACT STATEMENT DECOMMISSIONING OF THE SHIELDALLOY METALLURGICAL CORPORATION, CAMBRIDGE, OHIO, FACILITY. Docket No. 40-8948, License No. SMB-1507. WADE, M.C.; BLASING, T.J.; CURTIS, A.H.; et al. Oak Ridge National Laboratory. July 1996. 249pp. 9608060185. 89260:063.

Shieldalloy Metallurgical Corporation holds a license from the U.S. Nuclear Regulatory Commission (NRC) for the possession of source material at its Cambridge, Ohio, facility. The source material is in the form of slag and is located in two piles that contain a total of 546,000 metric tons (606,000 tons) of material. The piles also contain chemical contaminants that may require remediation. Shieldalloy proposed to stabilize, cap, and grade the slag piles as part of decommissioning the site and terminating the NRC license. The DEIS evaluates radiological and nonradiological impacts associated with the proposed action and five alternative actions, including no action. Impacts are assessed for land use, socioeconomic and cultural resources, geology, air quality, water quality and wetlands, human health, and biological resources. The staff concludes that the environmental impacts of the on-site and the off-site disposal alternatives are not significant if mitigation as described is carried out and that there is no obviously superior alternative. A cost benefit analysis shows that the proposed action is less costly than all other alternatives except no action. The no-action alternative has no economic benefits. The on-site disposal alternatives have identical economic benefits, and the off-site disposal alternative has the greatest associated economic benefits to local residents.

NUREG-1547: METHODOLOGY FOR DEVELOPING AND IMPLEMENTING ALTERNATIVE TEMPERATURE-TIME CURVE FOR TESTING THE FIRE RESISTANCE OF BARRIERS FOR NUCLEAR POWER PLANT APPLICATIONS. COOPER, L.Y.; STECKLER, K.D. National Institute of Standards & Technology (formerly National Bureau of Standards). * Office of Nuclear Reactor Regulation (Post 941001). August 1996. 125pp. 9609200310. 89729:001.

Advances in fire science over the past 40 years have offered the potential for developing technically sound alternative temperature-time curves for use in evaluating fire barriers for areas where fire exposures can be expected to be significantly different than the ASTM E-119, standard temperature-time exposure. This report summarizes the development of the ASTM E-119, standard temperature-time curve, and the efforts by the federal government and the petrochemical industry to develop alternative fire endurance curves for specific applications. The report also provides a framework for the development of alternative curves for application at nuclear power plants. The staff has concluded that in view of the effort necessary for the development of nuclear power plant specific temperature-time curves, such curves are not a viable approach for resolving the issues concerning Thermo-Lag fire barriers. However, the approach may be useful to licensees in the development of performance-based fire protection methods in the future.

NUREG-1552: FIRE BARRIER PENETRATION SEALS IN NUCLEAR POWER PLANTS. BAJWA, C.S.; WEST, K.S. Office of Nuclear Reactor Regulation (Post 941001). July 1996. 55pp. 9608230207. 89455:045.

Nuclear power plants are divided into separate fire areas by fire-rated structural barriers. Fire-rated penetration seals are installed to seal certain openings in these barriers. The seals maintain the fire-resistive integrity of the barriers and provide reasonable assurance that a fire will be confined to the area in which it started. The U.S. Nuclear Regulatory Commission conducted a comprehensive technical assessment of penetration seals to address reports of potential problems, to determine if there were any problems of safety significance, and to determine if NRC requirements, review guidance, and inspection procedures are adequate. The staff did not find plant-specific problems of safety significance or concerns with generic implica-

4 Main Citations and Abstracts

tions. The staff concluded that the general condition of penetration seal programs in industry is satisfactory. The staff also concluded that actions it had taken in 1988 and 1994 to address potential penetration seal problems increased industry awareness of such problems and resulted in more thorough surveillances, maintenance, and corrective actions. These previous staff actions, together with continued licensee upkeep of existing penetration seal programs and continued NRC inspections, are adequate to maintain public health and safety.

NUREG/CP-0151: PROCEEDINGS OF THE IAEA SPECIALISTS' MEETING ON CRACKING IN LWR RPV HEAD PENETRATIONS. Held At ASTM Headquarters, Philadelphia, Pennsylvania, May 2-3, 1995. PUGH, C.E.; RANNEY, S.J. Oak Ridge National Laboratory. July 1996. 304pp. 9608210221. ORNL/TM-13187. 89420:001.

This report contains 17 papers that were presented in four sessions at the IAEA Specialists' Meeting on Cracking in LWR RPV Head Penetrations held at ASTM Headquarters in Philadelphia on May 2-3, 1995. The papers are compiled here in the order they were presented in the sessions, and they relate to operational observations, inspection techniques, analytical modeling, and regulatory control. The goal of the meeting was to allow international experts to review experience in the field of ensuring adequate performance of reactor pressure vessel (RPV) heads and penetrations. The emphasis was aimed at better understanding of behavior of reactor component materials, to provide guidance and recommendations assuring reliability, adequate performance, and directions for further investigations. The international nature of the meeting is illustrated by the fact that papers were presented by researchers from 10 countries. There were technical experts present from other countries who participated in discussions of the results presented. The IAEA issued a Working Material version of the meeting papers (IAEA IWG-LMNPP-95/1), and this present document incorporates the final version of the papers as received from the authors.

NUREG/CP-0152: PROCEEDINGS OF THE FOURTH NRC/ASME SYMPOSIUM ON VALVE AND PUMP TESTING. Held At The Hyatt Regency Hotel, Washington, DC, July 15-18, 1996. * Office of Nuclear Reactor Regulation (Post 941001). * American Society of Mechanical Engineers. July 1996. 700pp. 9608140271. 89352:001.

The 1996 Symposium on Valve and Pump Testing, jointly sponsored by the Board on Nuclear Codes and Standards of the American Society of Mechanical Engineers and by the Nuclear Regulatory Commission, provides a forum for the discussion of current programs and methods for inservice testing and motor-operated valve testing at nuclear power plants. The symposium also provides an opportunity to discuss the need to improve that testing in order to help ensure the reliable performance of pumps and valves. The participation of industry representatives, regulators, and consultants results in the discussion of a broad spectrum of ideas and perspectives regarding the improvement of inservice testing of pumps and valves at nuclear power plants.

NUREG/CR-2800 S05: GUIDELINES FOR NUCLEAR POWER PLANT SAFETY ISSUE PRIORITIZATION INFORMATION DEVELOPMENT. DALING, P.M.; LAVENDER, J.C. Battelle Memorial Institute, Pacific Northwest Laboratory. July 1996. 237pp. 9608050237. PNL-4297. 89243:001.

This is the sixth in a series of reports to document the use of a methodology developed by Pacific Northwest Laboratories to calculate, for prioritization purposes, the risk, dose, and cost impacts of implementing resolutions to reactor safety issues (NUREG/CR-2800, Andrews, et al., 1983). This report contains the results of issue-specific analyses for 34 generic issues. The results are referenced, as one consideration in setting priorities for reactor safety issues, in NUREG-0933, A Prioritization of Generic Safety Issues.

NUREG/CR-4219 V12 N1: HEAVY-SECTION STEEL TECHNOLOGY PROGRAM. Semiannual Progress Report For October 1994 - March 1995. PENNELL, W.E. Oak Ridge National Laboratory. July 1996. 146pp. 9608070004. ORNL/TM-9593. 89285:040.

The Heavy-Section Steel Technology (HSST) Program is conducted for the U.S. Nuclear Regulatory Commission (NRC) by Oak Ridge National Laboratory (ORNL). The program focus is on the development and validation of technology for the assessment of fracture-prevention margins in commercial nuclear reactor pressure vessels. The HSST Program is organized in seven tasks: (1) program management, (2) constraint effects analytical development and validation, (3) evaluation of cladding effects, (4) ductile to cleavage fracture mode conversion, (5) fracture analysis methods development and applications, (6) material property data and test methods, and (7) integration of results into a state-of-the-art methodology. The program tasks have been structured to place emphasis on the resolution fracture issues with near-term licensing significance. Resources to execute the research tasks are drawn from ORNL with subcontract support from universities and other research laboratories. Close contact is maintained with the sister Heavy-Section Steel Irradiation Program at ORNL with related research programs both in the United States and abroad. This report provides an overview of principal developments in each of the seven program tasks from October 1994 - March 1995.

NUREG/CR-4667 V21: ENVIRONMENTALLY ASSISTED CRACKING IN LIGHT WATER REACTORS. Semiannual Report, April 1995 - December 1995. CHOPRA, O.K.; CHUNG, H.M.; GRUBER, E.E.; et al. Argonne National Laboratory. July 1996. 87pp. 9608210264. ANL-96/1. 89422:253.

This report summarizes work performed by Argonne National Laboratory on fatigue and environmentally assisted cracking (EAC) in light water reactors (LWRs) from April 1995 to December 1995. Topics that have been investigated include (a) fatigue of carbon and low-alloy steel used in reactor piping and pressure vessels, (b) EAC of Alloys 600 and 690, and (c) irradiation-assisted stress corrosion cracking (IASCC) of Type 304 SS. Fatigue tests were conducted on ferritic steels in water that contained various concentrations of dissolved oxygen (DO) to determine whether a slow strain rate applied during different portions of a tensile-loading cycle are equally effective in decreasing fatigue life. Crack-growth-rate tests were conducted on compact-tension specimens from several heats of Alloys 600 and 690 in simulated LWR environments. Effects of fluoride-ion contamination on susceptibility to intergranular cracking of high- and commercial-purity Type 304 SS specimens from control-blade absorber tubes irradiated in boiling water reactors were determined in slow-strain-rate-tensile tests at 288 degrees C. Microchemical changes in the specimens were studied by Auger electron spectroscopy and scanning electron microscopy to determine whether trace impurity elements may contribute to IASCC of these materials.

NUREG/CR-4918 V09: CONTROL OF WATER INFILTRATION INTO NEAR SURFACE LLW DISPOSAL UNITS. Progress Report On Field Experiments At A Humid Region Site, Beltsville, Maryland. SCHULZ, R.K. California, Univ. of, Los Angeles, CA. RIDKY, R.W. Maryland, Univ. of, College Park, MD. O'DONNELL, E. Division of Regulatory Applications (Post 941217). August 1996. 30pp. 9609030360. 89546:303.

The project objective is to assess means for controlling waste infiltration through waste disposal unit covers in humid regions. Experimental work is being performed in large scale lysimeters (70'x45'x10') at Beltsville, MD, and results of the assessment are applicable to disposal of LLW, uranium mill tailings, hazardous waste, and sanitary landfills. Three concepts are under investigation: (1) resistive layer barrier, (2) conductive layer barrier, and (3) bioengineering water management. The resistive layer barrier consists of compacted earth (clay). The conductive layer barrier is a special case of the capillary barrier and it requires a

flow layer (e.g. fine sandy loam) over a capillary break. As long as unsaturated conditions are maintained water is conducted by the flow layer to below the waste. This barrier is most efficient at low flow rates and is thus best placed below a resistive layer barrier. Such a combination of the resistive layer over the conductive layer barrier promises to be highly effective provided there is no appreciable subsidence. Bioengineering water management is a surface cover that is designed to accommodate subsidence. It consists of impermeable panels which enhance run-off and limit infiltration. Vegetation is planted in narrow openings between panels to transpire water from below the panels. This system has successfully dewatered two lysimeters thus demonstrating that this procedure could be used for remedial action "drying out" existing water-logged disposal sites at low cost.

NUREG/CR-5595 R01: FORECAST: REGULATORY EFFECTS COST ANALYSIS SOFTWARE MANUAL. Version 4.1. LOPEZ,B.; SCIACCA,F.W. Science & Engineering Associates, Inc. * S. Cohen & Associates, Inc. July 1996. 143pp. 9608050060. SEA95-2755010A1. 89250:001.

The FORECAST program was developed to facilitate the preparation of the value-impact portion of NRC regulatory analyses. This PC program integrates the major cost and benefit considerations that may result from a proposed regulatory change. FORECAST automates much of the calculations typically needed in a regulatory analysis and thus reduces the time and labor required to perform these analyses. More importantly, its integrated and consistent treatment of the different value impact considerations should help assure comprehensiveness, uniformity, and accuracy in the preparation of NRC regulatory analyses. The current FORECAST version 4.1 has been upgraded from the previous version and now includes an uncertainty package and an automatic cost escalation package. In addition, it now explicitly addresses public health impacts, occupational health impacts, onsite property damage, and government costs.

NUREG/CR-5758 V06: FITNESS FOR DUTY IN THE NUCLEAR POWER INDUSTRY. Annual Summary Of Program Performance Reports CY 1995. SILBERNAGEL,M.; BRICHOUX,J.; DURBIN,N. Battelle Seattle Research Center. July 1996. 96pp. 9608060285. PNL-11202. 89258:230.

This report summarizes the data from the semiannual reports of fitness-for-duty program submitted to the NRC by utilities for two reporting periods: January 1 through June 30, 1995, and July 1 through December 31, 1995. During 1995, licensees reported that they conducted 150,121 tests for the presence of illegal drugs and alcohol. Of these tests, 1,476 (.98%) were confirmed positive. Positive test results varied by category of test and category of worker. The majority of positive test results (1,122) were obtained through pre-access testing. Of tests conducted on workers having access to the protected area, 180 were positive from random testing and 139 were positive from for-cause testing. Follow-up testing of workers who had previously tested positive resulted in 35 positive tests. For-cause testing resulted in the highest percentage of positive tests; about 18% of for-cause tests were positive. In comparison, 1.41% of pre-access tests and .27% of random tests were positive. Positive test rates also varied by category of worker. When all types of tests are combined (pre-access, random, for-cause and follow-up testing), short-term contractor personnel had the highest positive test rate at 1.44%. Licensee employees and long-term contractors had lower combined positive test rates (.34% and .40%, respectively). Of the substances tested, marijuana was responsible for the highest percentage of positive test results (53.08%), followed by cocaine (24.24%) and alcohol (17.17%).

NUREG/CR-5973 R03: CODES AND STANDARDS AND OTHER GUIDANCE CITED IN REGULATORY DOCUMENTS. NICKOLAUS,J.R.; BOHLANDER,K.L. Battelle Memorial Institute, Pacific Northwest Laboratory. August 1996. 555pp. 9609030269. PNL-8462. 89548:001.

As part of the U.S. Nuclear Regulatory Commission (NRC) Standard Review Plan Update and Development Program (SRP-UDP), Pacific Northwest National Laboratory developed a listing of industry consensus codes and standards and other government and industry guidance referred to in regulatory documents. The SRP-UDP has been completed and the SRP-Maintenance Program (SRP-MP) is now maintaining this listing. Besides updating previous information, Revision 3 adds approximately 80 citations. This listing identifies the version of the code or standard cited in the regulatory document, the regulatory document, and the current version of the code or standard. It also provides a summary characterization of the nature of the citation. This listing was developed from electronic searches of the Code of Federal Regulations and the NRC's Bulletins, Information Notices, Circulars, Enforcement Manual, Generic Letters, Inspection Manual, Policy Statements, Regulatory Guides, Standard Technical Specifications and the Standard Review Plan (NUREG-0800).

NUREG/CR-6163: COMPUTER PROGRAMS FOR THE ACQUISITION AND ANALYSIS OF EDDY-CURRENT ARRAY PROBE DATA. PATE,J.R.; DODD,C.V. Oak Ridge National Laboratory. July 1996. 186pp. 9608210249. ORNL/TM-13212. 89424:001.

The objective of the Improved Eddy-Current ISI for Steam Generators Tubing program is to upgrade and validate eddy-current inspections, including probes, instrumentation, and data processing techniques for inservice inspection of new, used, and repaired steam generator tubes; to improve defect detection, classification and characterization as affected by diameter and thickness variations, denting, probe wobble, tube sheet, tube supports, copper and sludge deposits, even when defect types and other variables occur in combination; to transfer this advanced technology to NRC's mobile NDE laboratory and staff. This report documents computer programs that were developed for acquisition of eddy-current data from specially-designed 16-coil array probes. Complete code as well as instructions for use are provided.

NUREG/CR-6174 V01: REVISED ANALYSES OF DECOMMISSIONING FOR THE REFERENCE BOILING WATER REACTOR POWER STATION. Effects Of Current Regulatory And Other Considerations On The Financial Assurance Requirements Of The Decommissioning Rule And.... SMITH,R.I.; BIRSCHBACH,M.C; KONZEK,G.J.; et al. Battelle Memorial Institute, Pacific Northwest Laboratory. July 1996. 120pp. 9608210240. PNL-9975. 89428:001.

With the issuance of the Decommissioning Rule in 1988, nuclear power plant licensees are required to submit to the U.S. Nuclear Regulatory Commission (NRC) decommissioning cost estimates for review. This reevaluation study provides some of the needed bases documentation to the NRC staff that will assist them in assessing the adequacy of the licensee submissions. This report presents the results of a review and reevaluation of the PNL 1980 decommissioning study of the WNP-2 nuclear plant for the DECON, SAFSTOR, and ENTOMB decommissioning alternatives. These alternatives now include an initial 5-7 year period during which the spent fuel is stored in the spent fuel pool, prior to beginning major disassembly or extended safe storage of the plant. This report also includes NRC consideration that decommissioning activities leading to termination of the nuclear license be completed within 60 years of final reactor shutdown, consideration of packaging and disposal requirements for Greater-Than-Class C low-level waste, and reflects all costs in 1993 dollars. Sensitivity of the total license termination cost to the disposal at different low-level radioactive waste disposal sites, and to different depths of contaminated concrete surface removed, is also examined.

6 Main Citations and Abstracts

NUREG/CR-6174 V02: REVISED ANALYSES OF DECOMMISSIONING FOR THE REFERENCE BOILING WATER REACTOR POWER STATION. Effects Of Current Regulatory And Other Considerations On The Financial Assurance Requirements Of The Decommissioning Rule And... SMITH, R.I.; BIERSCHBACH, M.C.; KONZEK, G.J.; et al. Battelle Memorial Institute, Pacific Northwest Laboratory. July 1996. 252pp. 9608210245. PNL-9975. 89422:001.

With the issuance of the Decommissioning Rule in 1988, nuclear power plant licensees are required to submit to the U.S. Nuclear Regulatory Commission (NRC) decommissioning cost estimates for review. This reevaluation study provides some of the needed bases documentation to the NRC staff that will assist them in assessing the adequacy of the licensee submittals. This report presents the results of a review and reevaluation of the PNL 1980 decommissioning study of the WNP-2 nuclear plant for the DECON, SAFSTOR, and ENTOMB decommissioning alternatives. These alternatives now include an initial 5-7 year period during which the spent fuel is stored in the spent fuel pool, prior to beginning major disassembly or extended safe storage of the plant. This report also includes NRC consideration that decommissioning activities leading to termination of the nuclear license be completed within 60 years of final reactor shutdown, consideration of packaging and disposal requirements for Greater-Than-Class C low-level waste, and reflects all costs in 1993 dollars. Sensitivity of the total license termination cost to the disposal at different low-level radioactive waste disposal sites, and to different depths of contaminated concrete surface removed, is also examined.

NUREG/CR-6189: A SIMPLIFIED MODEL OF AEROSOL REMOVAL BY NATURAL PROCESSES IN REACTOR CONTAINMENTS. POWERS, D.A.; WASHINGTON, K.E. Sandia National Laboratories. BURSON, S.B.; et al. Division of Systems Technology (Post 941217). July 1996. 263pp. 9608060182. SAND94-0407. 89278:001.

Simplified formulae are developed for estimating the aerosol decontamination that can be achieved by natural processes in the containments of pressurized water reactors and in the drywells of boiling water reactors under severe accident conditions. These simplified formulae were derived by correlation of results of Monte Carlo uncertainty analyses of detailed models of aerosol behavior under accident conditions. Monte Carlo uncertainty analyses of decontamination by natural aerosol processes are reported for 1000, 2000, 3000, and 4000 MW(th) pressurized water reactors and for 1500, 2500, and 3500 MW(th) boiling water reactors. Uncertainty distributions for the decontamination factors and decontamination coefficients as functions of time were developed in the Monte Carlo analyses by considering uncertainties in aerosol processes, material properties, reactor geometry, and severe accident progression. Phenomenological uncertainties examined in this work included uncertainties in aerosol coagulation by gravitational collision, Brownian diffusion, turbulent diffusion, and turbulent inertia. Uncertainties in aerosol deposition by gravitational settling, thermophoresis, diffusio-phoresis, and turbulent diffusion were examined. Electrostatic charging of aerosol particles in severe accidents is discussed. Median (50 percentile), 90, and 10 percentile values of the uncertainty distributions for effective decontamination coefficients were correlated with time and reactor thermal power. These correlations constitute a simplified model that can be used to estimate the decontamination by natural aerosol processes at three levels of conservatism. Example applications of the simplified model are described.

NUREG/CR-6317: NUMERICAL INVESTIGATION OF 3-D CONSTRAINT EFFECTS ON BRITTLE FRACTURE IN SE(B) AND C(T) SPECIMENS. NEVALAINEN, M. Technical Research Centre of Finland (VTT). DODDS, R.H. Illinois, Univ. of, Urbana, IL. July 1996. 56pp. 9608230213. 89455:100.

This investigation employs 3-D nonlinear finite element analyses to conduct an extensive parametric evaluation of crack front stress triaxiality for deep notch SE(B) and C(T) specimens and

shallow notch SE(B) specimens, with and without side grooves. Crack front conditions are characterized in terms of J-Q trajectories and the constraint scaling model for cleavage fracture toughness proposed previously by Dodds and Anderson. The 3-D computational results imply that a significantly less strict size/deformation limits indicated by previous plane-strain computations, relative to the limits indicated by previous plane strain computations, is needed to maintain small-scale yielding conditions at fracture by a stress-controlled cleavage mechanism in deep notch SE(B) and C(T) specimens. Additional new results made available from the 3-D analyses also include revised η -plastic factors for use in experimental studies to convert measured work quantities to thickness average and maximum (local) J-values over the crack front.

NUREG/CR-6357: EVALUATION AND FIELD VALIDATION OF EDDY-CURRENT ARRAY PROBES FOR STEAM GENERATOR TUBE INSPECTION. DODD, C.V.; PATE, J.R. Oak Ridge National Laboratory. July 1996. 86pp. 9608210247. ORNL/TM-13213. 89424:189.

The objective of the Improved Eddy-Current ISI for Steam Generator Tubing program is to upgrade and validate eddy-current inspections, including probes, instrumentation, and data processing techniques for inservice inspection of new, used, and repaired steam generator tubes; to improve defect detection, classification and characterization as affected by diameter and thickness variations, denting, probe wobble, tube sheet, tube supports, copper and sludge deposits, even when defect types and other variables occur in combination; to transfer this advanced technology to NRC's mobile NDE laboratory and staff. This report describes the design of specialized high-speed 16-coil eddy-current array probes. Both pancake and rejection coils are considered. Test results from inspections using the probes in working steam generators are given. Computer programs developed for probe calculations are also supplied.

NUREG/CR-6374: WHOLE-BODY EFFECTIVE HALF-LIVES FOR RADIOLABELED ANTIBODIES AND RELATED ISSUES. KAURIN, D.G.; CARSTEN, A.L.; et al. Brookhaven National Laboratory. BARBER, D.E. Minnesota, Univ. of, Minneapolis, MN. August 1996. 176pp. 9609100277. BNL-NUREG-52476. 89609:061.

Radiolabeled antibodies (RABs) are being developed and used in medical imaging and therapy in rapidly increasing numbers. There are concerns about the radiation exposure of caregivers and the general public from treated patients. The magnitude of this hazard is closely related to the RABs' whole-body effective half-life ($T(e)$). Data on whole-body effective half-lives were calculated from external dose rates obtained from attending physicians and radiation safety officers at participating institutions. Calculations of $T(e)$ s were made using exponential regression analyses of data from patients receiving single and multiple administrations. These data were analyzed on the basis of age, sex, isotope label, radiation energy, antibody type, disease treated, method of administration, and number of administrations. The effective half-life in the blood did not correlate with the $T(e)$. The values of $T(e)$ varied by a factor of two for patients taking the same RAB. A single exponential clearance rate, compared with a bi-exponential clearance rate, provides an adequate fit for 95% of the data sets tested.

NUREG/CR-6375: STRAIN RATE AND INERTIAL EFFECTS ON IMPACT LOADED SINGLE-EDGE NOTCH BEND SPECIMENS. VARGAS, P.M.; DODDS, R.H. Illinois, Univ. of, Urbana, IL. June 1996. 27pp. 9608060180. 89258:203.

When the severity of impact loads is sufficient to produce large inelastic deformations, the assessment of crack-tip conditions must include the effects of plasticity, strain rate and inertia. This work examines the interaction of impact loading, inelastic material deformation and rate sensitivity with the goal of improving the interpretation of ductile fracture toughness values measured under dynamic loading. Three-dimensional, nonlinear

dynamic analyses are performed for SE(B) fracture specimens ($a/W = 0.5, 0.15, 0.0725$) subjected to impact loading. Loading rates obtained in conventional drop tower tests (impact load-line velocities of ≈ 6 m/sec) are applied in the analyses. Strains at key locations on the specimens and the support reactions (applied load) are extracted from the analyses to assess the accuracy of static formulas commonly used to estimate applied J values. Inertial effects on the applied J are quantified by examining the acceleration component of J evaluated through a domain integral procedure.

NUREG/CR-6388: SEISMIC RESPONSE OF ROCK JOINTS AND JOINTED ROCK MASS. GHOSH, A.; HSIUNG, S.M.; CHOWDHURY, A.H. Center for Nuclear Waste Regulatory Analyses. June 1996. 120pp. 9608060191. CNWRA 95-013. 89266:191.

Two key technical uncertainties (KTU) that can potentially pose a high risk of noncompliance with the performance objectives of 10 CFR Part 60 are the prediction of (i) thermal-mechanical effects on stability of emplacement drifts and the engineered barrier system (EBS), and (ii) thermal-mechanical-hydrological effects on the host rock surrounding the EBS. This final report summarizes the research activities concerned with the repetitive seismic load aspect of both these KTUs. This research project has the dual focus of (i) understanding the key parameters affecting repository performance under repeated seismic loading, and (ii) evaluating current capabilities for calculating such effects. Laboratory experiments on Apache Leap tuff joints using cyclic pseudostatic and dynamic loads indicate that the shear strength in the reverse direction of shearing is less than that in the forward direction. But the reverse shear strength predicted by UDEC (versions 1.82 and 1.83) is found to be inconsistent with these findings. Thus, a new joint model is desirable. Field experiments at Lucky Friday Mine, scale-model experiments conducted at CNWRA, and information in the literature show that for excavations subjected to repetitive seismic motions, accumulation of shear displacement along the joints is the primary mode of deformation for the rock mass. However, the currently available seismic design procedure for underground excavations is based on the probable peak particle motion concept and does not explicitly take into account of either the time history of individual events or the effects of repetitive seismic events. An adequate seismic design methodology is desirable. The results of this research project will be used to: conduct preclearing reviews, provide guidance to DOE, develop CDMs, support IPA, and provide basis for developing seismic design methodology.

NUREG/CR-6450: CHARACTERIZATION OF CONTAMINATION THROUGH THE USE OF POSITION SENSITIVE DETECTORS AND DIGITAL IMAGE PROCESSING. SHONKA, J.J.; DEBORD, D.M.; BENNETT, T.E.; et al. Shonka Research Associates, Inc. June 1996. 46pp. 9609200298. 89726:188.

This report describes development of a significant new method for monitoring radioactive surface contamination. A floor monitor prototype has been designed which uses position sensitive proportional counter based radiation detectors. The system includes a novel operator interface consisting of an enhanced reality display providing the operator with 3 dimensional contours of contamination and background subtracted stereo "clicks". The process software saves electronic files of survey data at very high rates along with time stamped video recording and provides completely documented surveys in a visualization oriented data management system. The data management system allows simple re-assembly of strips of data that are taken with a linear PSPC and allows visualization and treatment of the data using algorithms developed for processing images from earth resource satellites. This report includes a brief history of the development path for the floor monitor, a discussion of position sensitive proportional counter technology, and details concerning the process software, post processor and hardware. The last chapter discusses the field tests that were conducted

at five sites and an application of the data management system for data not associated with detector systems.

NUREG/CR-6455: DATA ANALYSIS FOR STEAM GENERATOR TUBING SAMPLES. DODD, C.V. Oak Ridge National Laboratory. July 1996. 64pp. 9608210230. ORNL/TM-13206. 89423:282.

The objective of the Improved Eddy-Current ISI for Steam Generators program is to upgrade and validate eddy-current inspections, including probes, instrumentation, and data processing techniques for inservice inspection of new, used, and repaired steam generator tubes; to improve defect detection, classification and characterization as affected by diameter and thickness variations, denting, probe wobble, tube sheet, tube supports, copper and sludge deposits, even when defect types and other variables occur in combination; to transfer this advanced technology to NRC's mobile NDE laboratory and staff. This report provides a description of the application of advanced eddy-current neural network analysis methods for the detection and evaluation of common steam generator tubing flaws including axial and circumferential outer-diameter stress-corrosion cracking and intergranular attack. The report describes the training of the neural networks on tubing samples with known defects and the subsequent evaluation results for unknown samples. Evaluations were done in the presence of artifacts. Computer programs are given in the appendix.

NUREG/CR-6463: REVIEW GUIDELINES ON SOFTWARE LANGUAGES FOR USE IN NUCLEAR POWER PLANT SAFETY SYSTEMS. Final Report. HECHT, H.; HECHT, H.; GRAFF, S.; et al. SoHaR, Inc. June 1996. 400pp. 9608060265. 89259:001.

Guidelines for the programming and auditing of software written in high level languages for safety systems are presented. The guidelines are derived from a framework of issues significant to software safety which was gathered from relevant standards and research literature. Language-specific adaptations of these guidelines are provided for the following high level languages: Ada, C/C++, Programmable Logic Controller (PLC) Ladder Logic, International Electrotechnical Commission (IEC) Standard 1131-3 Sequential Function Charts, Pascal, and PL/M. Appendices to the report include a tabular summary of the guidelines and additional information on selected languages.

NUREG/CR-6466: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES. Impacts Of Artificial Time History Input On In-Structure Demand Spectra. SEWELL, R.T.; WU, S.C. Risk Engineering, Inc. July 1996. 315pp. 9608210251. 89421:001.

This report documents research pertaining to conservatism and variability in seismic risk estimates. Specifically, it examines whether or not artificial motions produce unrealistic evaluation demands, i.e., demands significantly inconsistent with those expected from real earthquakes motions. To study these issues, two types of artificial motions are considered; (a) motions with smooth response spectra, and (b) motions with realistic variations in spectral amplitude across vibration frequency. For both types of artificial motion, time histories are generated to match target spectral shapes. For comparison, empirical motions representative of those that might result from strong earthquakes in the Eastern U.S. are also considered. The study findings suggest that artificial motions resulting from typical simulation approaches (aimed at matching a given target spectrum) are generally adequate and appropriate in representing the peak-response demands that may be induced in linear structures and equipment responding to real earthquake motions. Also, given similar input Fourier energies at high-frequencies, levels of input Fourier energy at low frequencies observed for artificial motions are substantially similar to those levels noted in real earthquake motions. In addition, the study reveals specific problems resulting from the application of Western U.S. type motions for seismic evaluation of Eastern U.S. nuclear power plants.

NUREG/CR-6467: IMPACT OF GROUND MOTION CHARACTERIZATION ON CONSERVATISM AND VARIABILITY IN SEISMIC RISK ESTIMATES. SEWELL,R.T.; TORO,G.R.; MCGUIRE,R.K. Risk Engineering, Inc. July 1996. 151pp. 9608210260. 89423:001.

This study evaluates the impact of alternative methods in treatment and characterization of earthquake ground motions on estimates of seismic risk and its uncertainty. The objective is to formulate specific procedures and characterizations that may lead to less biased and more precise estimates of risk. This report focuses on sources of conservatism and uncertainty in risk that may be introduced by simplifications that are made at the interface of seismic hazard and fragility assessments, particularly the use of a fixed spectral shape for all magnitudes and the anchoring of this shape to PGA. Results indicate significant conservatism in the use of standard review spectra at eastern U.S. Nuclear plant sites and a strong dependence of seismic fragility on earthquake magnitude when PGA is used as the ground-motion characterization. This study concludes that a single, composite-magnitude spectrum of the appropriate shape can generally be used to characterize ground motion for fragility assessment without introducing significant bias or uncertainty in seismic risk estimates. Results also show that the inelastic or elastic spectral acceleration are superior to PGA as spectral anchors, but they bring only a modest benefit in uncertainty reduction because uncertainty in the risk is dominated by the large uncertainty in the hazard.

NUREG/CR-6468: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES.Impacts On Risk Assessment Of Uniform Hazard Spectra. WU,S.C.; SEWELL,R.T. Risk Engineering, Inc. July 1996. 130pp. 9608210262. 89423:152.

This report documents research on the subject of conservatism and variability in seismic risk estimates. Particularly, it examines the effects of the uniform hazard spectrum (UHS) for deriving probabilistic estimates of risk and in-structure demand levels, as compared to the more-exact use of realistic time history inputs (of given probability) that depend explicitly on magnitude and distance. The approach differs significantly from the conventional procedure in its exhaustive treatment of the ground-motion threat, and in its more detailed assessment of component responses to that threat. It is found that the approximate uniform hazard in-structure spectrum (UH-ISS) obtained

based on UHS appear to be very close to the more-exact results directly computed from scenario earthquakes. The conclusion does not depend on site configurations and structural characteristics. In addition, UH-ISS has composite shapes and may not correspond to the characteristics possessed in a single earthquake. The shape is largely affected by the structural property in most cases and can be derived approximately from the corresponding UHS. Motions with smooth spectra, however, will not have the same damage potential as those of more realistic motions with jagged spectral shapes. As a result, UHS-based analysis may underestimate the real demands in non-linear structural analyses.

NUREG/CR-6491: RECOMMENDATIONS FOR PROTECTING AGAINST FAILURE BY BRITTLE FRACTURE.Category II And III Ferritic Steel Shipping Containers With Wall Thickness Greater Than Four Inches. SCHWARTZ,M.W.; FISCHER,L.E. Lawrence Livermore National Laboratory. August 1996. 26pp. 9609030358. UCRL-ID-124583. 89546:334.

This report provides criteria for selecting ferritic steels that would prevent brittle fracture in Category II and III shipping containers with wall thickness greater than four inches. These methods are extensions of those previously used for Category II and III containers with wall thickness less than four inches and Category I containers with wall thickness greater than four inches.

NUREG/GR-0015: BULK TEMPERATURE MEASUREMENT IN THERMALLY STRIPED PIPE FLOWS. LEMURE,N.; OLVERA,J.R.; RUGGLES,A.E. Tennessee, Univ. of, Knoxville, TN. December 1995. 130pp. 9608050231. 89250:144.

The bulk temperature measurement of pipe flows with thermal striping is explored. An experiment is conducted to examine the feasibility of using temperature measurements on the external surface of the pipe to estimate the bulk temperature of the flow. Simple mixing models are used to characterize the development of the temperature profile in the flow. Simple averaging techniques and Backward Propagating Neural Net are used to predict bulk temperature from the external temperature measurements. Accurate bulk temperatures can be predicted. However, some temperature distributions in the flow effectively mask the bulk temperature from the wall and cause significant error in the bulk temperature predicted using this technique.

Secondary Report Number Index

This index lists, in alphabetical order, the performing organization-issued report codes for the NRC contractor and international agreement reports in this compilation. Each code is cross-referenced to the NUREG number for the report and to the 10-digit NRC Document Control System accession number.

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NUREG/CR-6174 V02: REVISED ANALYSES OF DECOMMISSIONING FOR THE REFERENCE BOILING WATER REACTOR POWER STATION. Effects Of Current Regulatory And Other Considerations On The Financial Assurance Requirements Of The Decommissioning Rule And....

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Decontamination

NUREG/CR-6189: A SIMPLIFIED MODEL OF AEROSOL REMOVAL BY NATURAL PROCESSES IN REACTOR CONTAINMENTS.

Draft Environmental Impact Statement

NUREG-1543: DRAFT ENVIRONMENTAL IMPACT STATEMENT DE-COMMISSIONING OF THE SHIELDALLOY METALLURGICAL CORPORATION, CAMBRIDGE, OHIO, FACILITY. Docket No. 40-8948, License No. SMB-1507.

Drug Testing Data

NUREG/CR-5758 V06: FITNESS FOR DUTY IN THE NUCLEAR POWER INDUSTRY. Annual Summary Of Program Performance Reports CY 1995.

Early Site Permit

NUREG-0654 R01 S03: CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS. Criteria For Protective Action Recommendations For Severe Accidents. Draft Report For....

Eddy-Current

NUREG/CR-6163: COMPUTER PROGRAMS FOR THE ACQUISITION AND ANALYSIS OF EDDY-CURRENT ARRAY PROBE DATA.
NUREG/CR-6357: EVALUATION AND FIELD VALIDATION OF EDDY-CURRENT ARRAY PROBES FOR STEAM GENERATOR TUBE INSPECTION.

Emergency Response Plan

NUREG-0654 R01 S03: CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS. Criteria For Protective Action Recommendations For Severe Accidents. Draft Report For....

Enforcement Action

NUREG-0940 V15 N1 P1: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED INDIVIDUAL ACTIONS. Semiannual Progress Report, January-June 1996.
NUREG-0940 V15 N1 P2: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED REACTOR LICENSEES. Semiannual Progress Report, January-June 1996.
NUREG-0940 V15 N1 P3: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED MATERIAL LICENSEES. Semiannual Progress Report, January-June 1996.

Enhanced Reality Display

NUREG/CR-6450: CHARACTERIZATION OF CONTAMINATION THROUGH THE USE OF POSITION SENSITIVE DETECTORS AND DIGITAL IMAGE PROCESSING.

FORECAST Computer Code

NUREG/CR-5595 R01: FORECAST: REGULATORY EFFECTS COST ANALYSIS SOFTWARE MANUAL. Version 4.1.

Ferritic Steel

NUREG/CR-6491: RECOMMENDATIONS FOR PROTECTING AGAINST FAILURE BY BRITTLE FRACTURE. Category II And III Ferritic Steel Shipping Containers With Wall Thickness Greater Than Four Inches.

Field Experiment

NUREG/CR-4918 V09: CONTROL OF WATER INFILTRATION INTO NEAR SURFACE LLW DISPOSAL UNITS. Progress Report On Field Experiments At A Humid Region Site, Beltsville, Maryland.

Financial Assurance

NUREG/CR-6174 V01: REVISED ANALYSES OF DECOMMISSIONING FOR THE REFERENCE BOILING WATER REACTOR POWER STATION. Effects Of Current Regulatory And Other Considerations On The Financial Assurance Requirements Of The Decommissioning Rule And....
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Fire Resistance

NUREG-1547: METHODOLOGY FOR DEVELOPING AND IMPLEMENTING ALTERNATIVE TEMPERATURE-TIME CURVE FOR TESTING THE FIRE RESISTANCE OF BARRIERS FOR NUCLEAR POWER PLANT APPLICATIONS.

Fitness For Duty

NUREG/CR-5758 V06: FITNESS FOR DUTY IN THE NUCLEAR POWER INDUSTRY. Annual Summary Of Program Performance Reports CY 1995.

Fracture Mechanics

NUREG/CP-0151: PROCEEDINGS OF THE IAEA SPECIALISTS' MEETING ON CRACKING IN LWR RPV HEAD PENETRATIONS. Held At ASTM Headquarters, Philadelphia, Pennsylvania, May 2-3, 1995.

Fracture Toughness

NUREG/CP-0151: PROCEEDINGS OF THE IAEA SPECIALISTS' MEETING ON CRACKING IN LWR RPV HEAD PENETRATIONS. Held At ASTM Headquarters, Philadelphia, Pennsylvania, May 2-3, 1995.
NUREG/CR-6317: NUMERICAL INVESTIGATION OF 3-D CONSTRAINT EFFECTS ON BRITTLE FRACTURE IN SE(B) AND C(T) SPECIMENS.

Fuel-Coolant Interaction

NUREG-1524: A REASSESSMENT OF THE POTENTIAL FOR AN ALPHA-MODE CONTAINMENT FAILURE AND A REVIEW OF THE CURRENT UNDERSTANDING OF BROADER FUEL-COOLANT INTERACTION ISSUES. Report Of The Second Steam Explosion Review Group Workshop.

Generic Safety Issues

NUREG-0933 S20: A PRIORITIZATION OF GENERIC SAFETY ISSUES.

Ground Motion

NUREG/CR-6466: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES. Impacts Of Artificial Time History Input On In-Structure Demand Spectra.
NUREG/CR-6467: IMPACT OF GROUND MOTION CHARACTERIZATION ON CONSERVATISM AND VARIABILITY IN SEISMIC RISK ESTIMATES.
NUREG/CR-6468: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES. Impacts On Risk Assessment Of Uniform Hazard Spectra.

Guideline

NUREG/CR-2800 S05: GUIDELINES FOR NUCLEAR POWER PLANT SAFETY ISSUE PRIORITIZATION INFORMATION DEVELOPMENT.
NUREG/CR-6463: REVIEW GUIDELINES ON SOFTWARE LANGUAGES FOR USE IN NUCLEAR POWER PLANT SAFETY SYSTEMS. Final Report.

Head Penetration

NUREG/CP-0151: PROCEEDINGS OF THE IAEA SPECIALISTS' MEETING ON CRACKING IN LWR RPV HEAD PENETRATIONS. Held At ASTM Headquarters, Philadelphia, Pennsylvania, May 2-3, 1995.

Heavy-Section Steel Technology Program

NUREG/CR-4219 V12 N1: HEAVY-SECTION STEEL TECHNOLOGY PROGRAM. Semiannual Progress Report For October 1994 - March 1995.

Humid Region Site

NUREG/CR-4918 V09: CONTROL OF WATER INFILTRATION INTO NEAR SURFACE LLW DISPOSAL UNITS. Progress Report On Field Experiments At A Humid Region Site, Beltsville, Maryland.

Impact Loading

NUREG/CR-6375: STRAIN RATE AND INERTIAL EFFECTS ON IMPACT LOADED SINGLE-EDGE NOTCH BEND SPECIMENS.

In-Structure Response Spectra

NUREG/CR-6466: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES. Impacts Of Artificial Time History Input On In-Structure Demand Spectra.

Individual Action

NUREG-0940 V15 N1 P1: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED INDIVIDUAL ACTIONS. Semiannual Progress Report, January-June 1996.

Inertia Effect

NUREG/CR-6375: STRAIN RATE AND INERTIAL EFFECTS ON IMPACT LOADED SINGLE-EDGE NOTCH BEND SPECIMENS.

Information Digest

NUREG-1350 V08: NUCLEAR REGULATORY COMMISSION INFORMATION DIGEST.1996 Edition.

Irradiated Reactor Fuel

NUREG-0725 R11: PUBLIC INFORMATION CIRCULAR FOR SHIPMENTS OF IRRADIATED REACTOR FUEL.

LWR

NUREG/CR-4667 V21: ENVIRONMENTALLY ASSISTED CRACKING IN LIGHT WATER REACTORS. Semiannual Report, April 1995 - December 1995.

Legal Issuances

NUREG-0750 V43 N05: NUCLEAR REGULATORY COMMISSION ISSUANCES FOR MAY 1996.

NUREG-0750 V43 N06: NUCLEAR REGULATORY COMMISSION ISSUANCES FOR JUNE 1996.

Light Water Reactor

NUREG/CR-4667 V21: ENVIRONMENTALLY ASSISTED CRACKING IN LIGHT WATER REACTORS. Semiannual Report, April 1995 - December 1995.

Low-Level Waste Disposal

NUREG-1307 R06: REPORT ON WASTE BURIAL CHARGES. Escalation Of Decommissioning Waste Disposal Costs At Low-Level Waste Burial Facilities.

NUREG/CR-4918 V09: CONTROL OF WATER INFILTRATION INTO NEAR SURFACE LLW DISPOSAL UNITS. Progress Report On Field Experiments At A Humid Region Site, Beltsville, Maryland.

Material Licensees

NUREG-0940 V15 N1 P3: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED MATERIAL LICENSEES. Semiannual Progress Report, January-June 1996.

Motor-Operated Valve

NUREG/CP-0152: PROCEEDINGS OF THE FOURTH NRC/ASME SYMPOSIUM ON VALVE AND PUMP TESTING. Held At The Hyatt Regency Hotel, Washington, DC, July 15-18, 1996.

NRC/ASME Symposium

NUREG/CP-0152: PROCEEDINGS OF THE FOURTH NRC/ASME SYMPOSIUM ON VALVE AND PUMP TESTING. Held At The Hyatt Regency Hotel, Washington, DC, July 15-18, 1996.

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NUREG/CR-6375: STRAIN RATE AND INERTIAL EFFECTS ON IMPACT LOADED SINGLE-EDGE NOTCH BEND SPECIMENTS.

Occupational Radiation Exposure

NUREG/CR-6174 V01: REVISED ANALYSES OF DECOMMISSIONING FOR THE REFERENCE BOILING WATER REACTOR POWER STATION. Effects Of Current Regulatory And Other Considerations On The Financial Assurance Requirements Of The Decommissioning Rule And....

NUREG/CR-6174 V02: REVISED ANALYSES OF DECOMMISSIONING FOR THE REFERENCE BOILING WATER REACTOR POWER STATION. Effects Of Current Regulatory And Other Considerations On The Financial Assurance Requirements Of The Decommissioning Rule And....

Offsite Emergency Preparedness

Organization Chart

NUREG-0325 R20: U.S. NUCLEAR REGULATORY COMMISSION ORGANIZATION CHARTS AND FUNCTIONAL STATEMENTS. July 1, 1996.

NUREG-0325 R21: U.S. NUCLEAR REGULATORY COMMISSION ORGANIZATION CHARTS AND FUNCTIONAL STATEMENTS. August 19, 1996.

Penetration Seal

NUREG-1552: FIRE BARRIER PENETRATION SEALS IN NUCLEAR POWER PLANTS.

Petitions For Rulemaking

NUREG-0936 V15 N01: NRC REGULATORY AGENDA. Semiannual Report. January-June 1996.

Pilgrim Nuclear Power Station

Pipe

NUREG/GR-0015: BULK TEMPERATURE MEASUREMENT IN THERMALLY STRIPED PIPE FLOWS.

Position Sensitive Detector

NUREG/CR-6450: CHARACTERIZATION OF CONTAMINATION THROUGH THE USE OF POSITION SENSITIVE DETECTORS AND DIGITAL IMAGE PROCESSING.

Program Performance Report

NUREG/CR-5758 V06: FITNESS FOR DUTY IN THE NUCLEAR POWER INDUSTRY. Annual Summary Of Program Performance Reports CY 1995.

Pump Testing

NUREG/CP-0152: PROCEEDINGS OF THE FOURTH NRC/ASME SYMPOSIUM ON VALVE AND PUMP TESTING. Held At The Hyatt Regency Hotel, Washington, DC, July 15-18, 1996.

Radiation Protection

NUREG/CR-6374: WHOLE-BODY EFFECTIVE HALF-LIVES FOR RADIOLABELED ANTIBODIES AND RELATED ISSUES.

Radiolabeled Antibodies

NUREG/CR-6374: WHOLE-BODY EFFECTIVE HALF-LIVES FOR RADIOLABELED ANTIBODIES AND RELATED ISSUES.

Reactor Containment

NUREG/CR-6189: A SIMPLIFIED MODEL OF AEROSOL REMOVAL BY NATURAL PROCESSES IN REACTOR CONTAINMENTS.

Reactor Licensees

NUREG-0940 V15 N1 P2: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED REACTOR LICENSEES. Semiannual Progress Report, January-June 1996.

Reactor Vessel

NUREG/CR-2800 S05: GUIDELINES FOR NUCLEAR POWER PLANT SAFETY ISSUE PRIORITIZATION INFORMATION DEVELOPMENT.

Regulatory Agenda

NUREG-0936 V15 N01: NRC REGULATORY AGENDA. Semiannual Report. January-June 1996.

Regulatory Analysis

NUREG/CR-5595 R01: FORECAST: REGULATORY EFFECTS COST ANALYSIS SOFTWARE MANUAL. Version 4.1.

Regulatory And Technical Report

NUREG-0304 V21 N02: REGULATORY AND TECHNICAL REPORTS (ABSTRACT INDEX JOURNAL). Compilation For Second Quarter 1996, April-June.

Regulatory Document

NUREG/CR-5973 R03: CODES AND STANDARDS AND OTHER GUIDANCE CITED IN REGULATORY DOCUMENTS.

Response Spectra

NUREG/CR-6467: IMPACT OF GROUND MOTION CHARACTERIZATION ON CONSERVATISM AND VARIABILITY IN SEISMIC RISK ESTIMATES.

Rock Joint

NUREG/CR-6388: SEISMIC RESPONSE OF ROCK JOINTS AND JOINTED ROCK MASS.

Rock Mass

NUREG/CR-6388: SEISMIC RESPONSE OF ROCK JOINTS AND JOINTED ROCK MASS.

Rules

NUREG-0936 V15 N01: NRC REGULATORY AGENDA. Semiannual Report. January-June 1996.

SE(B) Specimen

NUREG/CR-6317: NUMERICAL INVESTIGATION OF 3-D CONSTRAINT EFFECTS ON BRITTLE FRACTURE IN SE(B) AND C(T) SPECIMENS.

Safeguards Summary Event List

NUREG-0525 V02 R04: SAFEGUARDS SUMMARY EVENT LIST (SSEL). January 1, 1990 Through December 31, 1995.

Safety Issue Prioritization

NUREG/CR-2800 S05: GUIDELINES FOR NUCLEAR POWER PLANT SAFETY ISSUE PRIORITIZATION INFORMATION DEVELOPMENT.

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NUREG/CR-6388: SEISMIC RESPONSE OF ROCK JOINTS AND JOINTED ROCK MASS.

Seismic Risk

NUREG/CR-6467: IMPACT OF GROUND MOTION CHARACTERIZATION ON CONSERVATISM AND VARIABILITY IN SEISMIC RISK ESTIMATES.

NUREG/CR-6468: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES.Impacts On Risk Assessment Of Uniform Hazard Spectra.

Seismic Risk Analysis

NUREG/CR-6466: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES.Impacts Of Artificial Time History Input On In-Structure Demand Spectra.

Severe Accident

NUREG-0654 R01 S03: CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS.Criteria For Protective Action Recommendations For Severe Accidents.Draft Report For....

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NUREG/CR-6491: RECOMMENDATIONS FOR PROTECTING AGAINST FAILURE BY BRITTLE FRACTURE.Category II And III Ferritic Steel Shipping Containers With Wall Thickness Greater Than Four Inches.

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NUREG-1552: FIRE BARRIER PENETRATION SEALS IN NUCLEAR POWER PLANTS.

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NUREG/CR-6463: REVIEW GUIDELINES ON SOFTWARE LANGUAGES FOR USE IN NUCLEAR POWER PLANT SAFETY SYSTEMS.Final Report.

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Standard Review Plan

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NUREG-1524: A REASSESSMENT OF THE POTENTIAL FOR AN ALPHA-MODE CONTAINMENT FAILURE AND A REVIEW OF THE CURRENT UNDERSTANDING OF BROADER FUEL-COOLANT INTERACTION ISSUES. Report Of The Second Steam Explosion Review Group Workshop.

Steam Generator

NUREG/CR-2800 S05: GUIDELINES FOR NUCLEAR POWER PLANT SAFETY ISSUE PRIORITIZATION INFORMATION DEVELOPMENT.

NUREG/CR-6163: COMPUTER PROGRAMS FOR THE ACQUISITION AND ANALYSIS OF EDDY-CURRENT ARRAY PROBE DATA.

NUREG/CR-6357: EVALUATION AND FIELD VALIDATION OF EDDY-CURRENT ARRAY PROBES FOR STEAM GENERATOR TUBE INSPECTION.

NUREG/CR-6455: DATA ANALYSIS FOR STEAM GENERATOR TUBING SAMPLES.

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NUREG/CR-6375: STRAIN RATE AND INERTIAL EFFECTS ON IMPACT LOADED SINGLE-EDGE NOTCH BEND SPECIMENTS.

Stress Corrosion Cracking

NUREG/CR-4667 V21: ENVIRONMENTALLY ASSISTED CRACKING IN LIGHT WATER REACTORS. Semiannual Report, April 1995 - December 1995.

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NUREG/CR-6450: CHARACTERIZATION OF CONTAMINATION THROUGH THE USE OF POSITION SENSITIVE DETECTORS AND DIGITAL IMAGE PROCESSING.

TLD

NUREG-0837 V16 N02: NRC TLD DIRECT RADIATION MONITORING NETWORK.Progress Report. (April-June,1996).

Temperature-Time Curve

NUREG-1547: METHODOLOGY FOR DEVELOPING AND IMPLEMENTING ALTERNATIVE TEMPERATURE-TIME CURVE FOR TESTING THE FIRE RESISTANCE OF BARRIERS FOR NUCLEAR POWER PLANT APPLICATIONS.

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NUREG/GR-0015: BULK TEMPERATURE MEASUREMENT IN THERMALLY STRIPED PIPE FLOWS.

Thermoluminescent Dosimeter

NUREG-0837 V16 N02: NRC TLD DIRECT RADIATION MONITORING NETWORK.Progress Report. (April-June,1996).

Thermophoresis

NUREG/CR-6189: A SIMPLIFIED MODEL OF AEROSOL REMOVAL BY NATURAL PROCESSES IN REACTOR CONTAINMENTS.

Title List

NUREG-0540 V18 N05: TITLE LIST OF DOCUMENTS MADE PUBLICLY AVAILABLE. May 1-31, 1996.

NUREG-0540 V18 N06: TITLE LIST OF DOCUMENTS MADE PUBLICLY AVAILABLE.June 1-30, 1996.

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NUREG/CR-6163: COMPUTER PROGRAMS FOR THE ACQUISITION AND ANALYSIS OF EDDY-CURRENT ARRAY PROBE DATA.

NUREG/CR-6357: EVALUATION AND FIELD VALIDATION OF EDDY-CURRENT ARRAY PROBES FOR STEAM GENERATOR TUBE INSPECTION.

NUREG/CR-6455: DATA ANALYSIS FOR STEAM GENERATOR TUBING SAMPLES.

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Value-Impact Analysis

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Valve Testing

NUREG/CP-0152: PROCEEDINGS OF THE FOURTH NRC/ASME SYMPOSIUM ON VALVE AND PUMP TESTING.Held At The Hyatt Regency Hotel,Washington,DC, July 15-18, 1996.

Vendor Inspection

NUREG-0040 V20 N02: LICENSEE CONTRACTOR AND VENDOR INSPECTION STATUS REPORT. Quarterly Report, April-June 1996.(White Book)

Wall Thickness

NUREG/CR-6491: RECOMMENDATIONS FOR PROTECTING AGAINST FAILURE BY BRITTLE FRACTURE.Category II And III Ferritic Steel Shipping Containers With Wall Thickness Greater Than Four Inches.

Waste Burial

NUREG-1307 R06: REPORT ON WASTE BURIAL CHARGES.Escalation Of Decommissioning Waste Disposal Costs At Low-Level Waste Burial Facilities.

Water Infiltration

NUREG/CR-4918 V09: CONTROL OF WATER INFILTRATION INTO NEAR SURFACE LLW DISPOSAL UNITS.Progress Report On Field Experiments At A Humid Region Site,Beltsville,Maryland.

NRC Originating Organization Index (Staff Reports)

This index lists those NRC organizations that have published staff reports. The index is arranged alphabetically by major NRC organizations (e.g., program offices) and then by sub-sections of these (e.g., divisions, branches) where appropriate. Each entry is followed by a NUREG number and title of the report(s). If further information is needed, refer to the main citation by NUREG number.

ADVISORY COMMITTEE(S)

ADVISORY COMMITTEE ON NUCLEAR WASTE
NUREG-1423 V06: A COMPILATION OF REPORTS OF THE ADVISORY COMMITTEE ON NUCLEAR WASTE. July 1995 - June 1996.

OFFICE OF EXECUTIVE DIRECTOR FOR OPERATIONS (EDO)

REGION 1 (POST 820201)
NUREG-0837 V16 N02: NRC TLD DIRECT RADIATION MONITORING NETWORK. Progress Report. (April-June, 1996).
OFC OF ENFORCEMENT (POST 870413)
NUREG-0940 V15 N1 P1: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED INDIVIDUAL ACTIONS. Semiannual Progress Report, January-June 1996.
NUREG-0940 V15 N1 P2: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED REACTOR LICENSEES. Semiannual Progress Report, January-June 1996.
NUREG-0940 V15 N1 P3: ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED MATERIAL LICENSEES. Semiannual Progress Report, January-June 1996.
OFC OF PERSONNEL (POST 870413)
NUREG-0325 R20: U.S. NUCLEAR REGULATORY COMMISSION ORGANIZATION CHARTS AND FUNCTIONAL STATEMENTS. July 1, 1996.
NUREG-0325 R21: U.S. NUCLEAR REGULATORY COMMISSION ORGANIZATION CHARTS AND FUNCTIONAL STATEMENTS. August 19, 1996.

EDO - OFFICE OF ADMINISTRATION (PRE 870413 & POST 890205)

DIVISION OF FREEDOM OF INFORMATION & PUBLICATIONS SERVICES (POST 940714)
NUREG-0304 V21 N02: REGULATORY AND TECHNICAL REPORTS (ABSTRACT INDEX JOURNAL). Compilation For Second Quarter 1996, April-June.
NUREG-0540 V18 N05: TITLE LIST OF DOCUMENTS MADE PUBLICLY AVAILABLE. May 1-31, 1996.
NUREG-0540 V18 N06: TITLE LIST OF DOCUMENTS MADE PUBLICLY AVAILABLE. June 1-30, 1996.
NUREG-0750 V43 N05: NUCLEAR REGULATORY COMMISSION ISSUANCES FOR MAY 1996.
NUREG-0750 V43 N06: NUCLEAR REGULATORY COMMISSION ISSUANCES FOR JUNE 1996.
NUREG-0936 V15 N01: NRC REGULATORY AGENDA. Semiannual Report. January-June 1996.

EDO - OFFICE OF THE CONTROLLER (PRE 820418 & POST 890205)

DIVISION OF BUDGET & ANALYSIS (POST 890205)
NUREG-1350 V08: NUCLEAR REGULATORY COMMISSION INFORMATION DIGEST. 1996 Edition.

EDO - OFFICE FOR ANALYSIS & EVALUATION OF OPERATIONAL DATA

OFFICE FOR ANALYSIS & EVALUATION OF OPERATIONAL DATA, DIRECTOR
NUREG-1272 V09 N01: OFFICE FOR ANALYSIS AND EVALUATION OF OPERATIONAL DATA. 1994-FY 95 Annual Report - Reactors.

EDO - OFFICE OF NUCLEAR MATERIAL SAFETY & SAFEGUARDS

OFFICE OF NUCLEAR MATERIAL SAFETY & SAFEGUARDS
NUREG-0725 R11: PUBLIC INFORMATION CIRCULAR FOR SHIPMENTS OF IRRADIATED REACTOR FUEL.
OPERATIONS BRANCH
NUREG-0525 V02 R04: SAFEGUARDS SUMMARY EVENT LIST (SSEL). January 1, 1990 Through December 31, 1995.
DIVISION OF WASTE MANAGEMENT (NMSS 940403)
NUREG-1543: DRAFT ENVIRONMENTAL IMPACT STATEMENT DECOMMISSIONING OF THE SHIELDALLOY METALLURGICAL CORPORATION, CAMBRIDGE, OHIO, FACILITY. Docket No. 40-8948, License No. SMB-1507.

EDO - OFFICE OF NUCLEAR REGULATORY RESEARCH (POST 820405)

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NUREG-0933 S20: A PRIORITIZATION OF GENERIC SAFETY ISSUES.
DIVISION OF REGULATORY APPLICATIONS (POST 941217)
NUREG-1307 R06: REPORT ON WASTE BURIAL CHARGES. Escalation Of Decommissioning Waste Disposal Costs At Low-Level Waste Burial Facilities.
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DIVISION OF SYSTEMS TECHNOLOGY (POST 941217)
NUREG-1524: A REASSESSMENT OF THE POTENTIAL FOR AN ALPHA-MODE CONTAINMENT FAILURE AND A REVIEW OF THE CURRENT UNDERSTANDING OF BROADER FUEL-COOLANT INTERACTION ISSUES. Report Of The Second Steam Explosion Review Group Workshop.
NUREG/CR-6189: A SIMPLIFIED MODEL OF AEROSOL REMOVAL BY NATURAL PROCESSES IN REACTOR CONTAINMENTS.

EDO - OFFICE OF NUCLEAR REACTOR REGULATION (POST 800428)

OFFICE OF NUCLEAR REACTOR REGULATION (POST 941001)
NUREG-0040 V20 N02: LICENSEE CONTRACTOR AND VENDOR INSPECTION STATUS REPORT. Quarterly Report, April-June 1996. (White Book)
NUREG-0654 R01 S03: CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS. Criteria For Protective Action Recommendations For Severe Accidents. Draft Report For....
NUREG-1547: METHODOLOGY FOR DEVELOPING AND IMPLEMENTING ALTERNATIVE TEMPERATURE-TIME CURVE FOR TESTING THE FIRE RESISTANCE OF BARRIERS FOR NUCLEAR POWER PLANT APPLICATIONS.
NUREG-1552: FIRE BARRIER PENETRATION SEALS IN NUCLEAR POWER PLANTS.
NUREG/CP-0152: PROCEEDINGS OF THE FOURTH NRC/ASME SYMPOSIUM ON VALVE AND PUMP TESTING. Held At The Hyatt Regency Hotel, Washington, DC, July 15-18, 1996.

NRC Originating Organization Index (International Agreements)

This index lists those NRC organizations that have published international agreement reports. The index is arranged alphabetically by major NRC organizations (e.g., program offices) and then by subsections of these (e.g., divisions, branches) where appropriate. Each entry is followed by a NUREG number and title of the report(s). If further information is needed, refer to the main citation by NUREG number.

There were no NUREG/IA reports published during this quarter.

NRC Contract Sponsor Index (Contractor Reports)

This index lists the NRC organizations that sponsored the contractor reports listed in this compilation. It is arranged alphabetically by major NRC organization (e.g., program office) and then by subsections of these (e.g., divisions) where appropriate. The sponsor organization is followed by the NUREG/CR number and title of the report(s) prepared by that organization. If further information is needed, refer to the main citation by the NUREG/CR number.

EDO - OFFICE OF NUCLEAR MATERIAL SAFETY & SAFEGUARDS
PROGRAM MANAGEMENT, POLICY DEVELOPMENT & ANALYSIS
STAFF (POST 870413)
NUREG/CR-6491: RECOMMENDATIONS FOR PROTECTING
AGAINST FAILURE BY BRITTLE FRACTURE. Category II And III Fer-
ritic Steel Shipping Containers With Wall Thickness Greater Than
Four Inches.

EDO - OFFICE OF NUCLEAR REGULATORY RESEARCH (POST 820405)
DIVISION OF ENGINEERING TECHNOLOGY (POST 941217)
NUREG/CR-2800 S05: GUIDELINES FOR NUCLEAR POWER PLANT
SAFETY ISSUE PRIORITIZATION INFORMATION DEVELOPMENT.
NUREG/CR-4219 V12 N1: HEAVY-SECTION STEEL TECHNOLOGY
PROGRAM. Semiannual Progress Report For October 1994 - March
1995.
NUREG/CR-4667 V21: ENVIRONMENTALLY ASSISTED CRACKING
IN LIGHT WATER REACTORS. Semiannual Report, April 1995 - De-
cember 1995.
NUREG/CR-6163: COMPUTER PROGRAMS FOR THE ACQUISITION
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NUREG/CR-6357: EVALUATION AND FIELD VALIDATION OF EDDY-
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NUREG/CR-5595 R01: FORECAST: REGULATORY EFFECTS COST
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NUREG/CR-6174 V01: REVISED ANALYSES OF DECOMMISSIONING
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NUREG/CR-6174 V02: REVISED ANALYSES OF DECOMMISSIONING
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NUREG/CR-6450: CHARACTERIZATION OF CONTAMINATION
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DIVISION OF SYSTEMS TECHNOLOGY (POST 941217)
NUREG/CR-6189: A SIMPLIFIED MODEL OF AEROSOL REMOVAL
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NUREG/CR-6463: REVIEW GUIDELINES ON SOFTWARE LAN-
GUAGES FOR USE IN NUCLEAR POWER PLANT SAFETY
SYSTEMS. Final Report.

EDO - OFFICE OF NUCLEAR REACTOR REGULATION (POST 800428)
OFFICE OF NUCLEAR REACTOR REGULATION (POST 941001)
NUREG/CR-5758 V06: FITNESS FOR DUTY IN THE NUCLEAR
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ports CY 1995.
NUREG/CR-5973 R03: CODES AND STANDARDS AND OTHER
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Contractor Index

This index lists, in alphabetical order, the contractors that prepared the NUREG/CR reports listed in this compilation. Listed below each contractor are the NUREG/CR numbers and titles of their reports. If further information is needed, refer to the main citation by the NUREG/CR number.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

NUREG/CP-0152: PROCEEDINGS OF THE FOURTH NRC/ASME SYMPOSIUM ON VALVE AND PUMP TESTING. Held At The Hyatt Regency Hotel, Washington, DC, July 15-18, 1996.

ARGONNE NATIONAL LABORATORY

NUREG/CR-4667 V21: ENVIRONMENTALLY ASSISTED CRACKING IN LIGHT WATER REACTORS. Semiannual Report, April 1995 - December 1995.

BATTELLE MEMORIAL INSTITUTE, PACIFIC NORTHWEST LABORATORY

NUREG/CR-2800 S05: GUIDELINES FOR NUCLEAR POWER PLANT SAFETY ISSUE PRIORITIZATION INFORMATION DEVELOPMENT.

NUREG/CR-5758 V06: FITNESS FOR DUTY IN THE NUCLEAR POWER INDUSTRY. Annual Summary Of Program Performance Reports CY 1995.

NUREG/CR-5973 R03: CODES AND STANDARDS AND OTHER GUIDANCE CITED IN REGULATORY DOCUMENTS.

NUREG/CR-6174 V01: REVISED ANALYSES OF DECOMMISSIONING FOR THE REFERENCE BOILING WATER REACTOR POWER STATION. Effects Of Current Regulatory And Other Considerations On The Financial Assurance Requirements Of The Decommissioning Rule And....

NUREG/CR-6174 V02: REVISED ANALYSES OF DECOMMISSIONING FOR THE REFERENCE BOILING WATER REACTOR POWER STATION. Effects Of Current Regulatory And Other Considerations On The Financial Assurance Requirements Of The Decommissioning Rule And....

BATTELLE SEATTLE RESEARCH CENTER

NUREG/CR-5758 V06: FITNESS FOR DUTY IN THE NUCLEAR POWER INDUSTRY. Annual Summary Of Program Performance Reports CY 1995.

BROOKHAVEN NATIONAL LABORATORY

NUREG-1524: A REASSESSMENT OF THE POTENTIAL FOR AN ALPHA-MODE CONTAINMENT FAILURE AND A REVIEW OF THE CURRENT UNDERSTANDING OF BROADER FUEL-COOLANT INTERACTION ISSUES. Report Of The Second Steam Explosion Review Group Workshop.

NUREG/CR-6374: WHOLE-BODY EFFECTIVE HALF-LIVES FOR RADIOLABELED ANTIBODIES AND RELATED ISSUES.

CALIFORNIA, UNIV. OF, LOS ANGELES, CA

NUREG/CR-4918 V09: CONTROL OF WATER INFILTRATION INTO NEAR SURFACE LLW DISPOSAL UNITS. Progress Report On Field Experiments At A Humid Region Site, Beltsville, Maryland.

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

NUREG/CR-6388: SEISMIC RESPONSE OF ROCK JOINTS AND JOINTED ROCK MASS.

FEDERAL EMERGENCY MANAGEMENT AGENCY

NUREG-0654 R01 S03: CRITERIA FOR PREPARATION AND EVALUATION OF RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS IN SUPPORT OF NUCLEAR POWER PLANTS. Criteria For Protective Action Recommendations For Severe Accidents. Draft Report For....

ILLINOIS, UNIV. OF, URBANA, IL

NUREG/CR-6317: NUMERICAL INVESTIGATION OF 3-D CONSTRAINT EFFECTS ON BRITTLE FRACTURE IN SE(B) AND C(T) SPECIMENS. NUREG/CR-6375: STRAIN RATE AND INERTIAL EFFECTS ON IMPACT LOADED SINGLE-EDGE NOTCH BEND SPECIMENS.

LAWRENCE LIVERMORE NATIONAL LABORATORY

NUREG/CR-6491: RECOMMENDATIONS FOR PROTECTING AGAINST FAILURE BY BRITTLE FRACTURE. Category II And III Ferritic Steel Shipping Containers With Wall Thickness Greater Than Four Inches.

MARYLAND, UNIV. OF, COLLEGE PARK, MD

NUREG/CR-4918 V09: CONTROL OF WATER INFILTRATION INTO NEAR SURFACE LLW DISPOSAL UNITS. Progress Report On Field Experiments At A Humid Region Site, Beltsville, Maryland.

MINNESOTA, UNIV. OF, MINNEAPOLIS, MN

NUREG/CR-6374: WHOLE-BODY EFFECTIVE HALF-LIVES FOR RADIOLABELED ANTIBODIES AND RELATED ISSUES.

NATIONAL INSTITUTE OF STANDARDS & TECHNOLOGY (FORMERLY NATIONAL BUREAU OF

NUREG-1547: METHODOLOGY FOR DEVELOPING AND IMPLEMENTING ALTERNATIVE TEMPERATURE-TIME CURVE FOR TESTING THE FIRE RESISTANCE OF BARRIERS FOR NUCLEAR POWER PLANT APPLICATIONS.

OAK RIDGE NATIONAL LABORATORY

NUREG-1543: DRAFT ENVIRONMENTAL IMPACT STATEMENT DECOMMISSIONING OF THE SHIELDALLOY METALLURGICAL CORPORATION, CAMBRIDGE, OHIO, FACILITY. Docket No. 40-8948, License No. SMB-1507.

NUREG/CP-0151: PROCEEDINGS OF THE IAEA SPECIALISTS' MEETING ON CRACKING IN LWR RPV HEAD PENETRATIONS. Held At ASTM Headquarters, Philadelphia, Pennsylvania, May 2-3, 1995.

NUREG/CR-4219 V12 N1: HEAVY-SECTION STEEL TECHNOLOGY PROGRAM. Semiannual Progress Report For October 1994 - March 1995.

NUREG/CR-6163: COMPUTER PROGRAMS FOR THE ACQUISITION AND ANALYSIS OF EDDY-CURRENT ARRAY PROBE DATA.

NUREG/CR-6357: EVALUATION AND FIELD VALIDATION OF EDDY-CURRENT ARRAY PROBES FOR STEAM GENERATOR TUBE INSPECTION.

NUREG/CR-6455: DATA ANALYSIS FOR STEAM GENERATOR TUBING SAMPLES.

RISK ENGINEERING, INC.

NUREG/CR-6466: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES. Impacts Of Artificial Time History Input On In-Structure Demand Spectra.

NUREG/CR-6467: IMPACT OF GROUND MOTION CHARACTERIZATION ON CONSERVATISM AND VARIABILITY IN SEISMIC RISK ESTIMATES.

NUREG/CR-6468: GROUND MOTION INPUT IN SEISMIC EVALUATION STUDIES. Impacts On Risk Assessment Of Uniform Hazard Spectra.

S. COHEN & ASSOCIATES, INC.

NUREG/CR-5595 R01: FORECAST: REGULATORY EFFECTS COST ANALYSIS SOFTWARE MANUAL. Version 4.1.

SANDIA NATIONAL LABORATORIES

NUREG/CR-6189: A SIMPLIFIED MODEL OF AEROSOL REMOVAL BY NATURAL PROCESSES IN REACTOR CONTAINMENTS.

SCIENCE & ENGINEERING ASSOCIATES, INC.

NUREG/CR-5595 R01: FORECAST: REGULATORY EFFECTS COST ANALYSIS SOFTWARE MANUAL. Version 4.1.

SHONKA RESEARCH ASSOCIATES, INC.

NUREG/CR-6450: CHARACTERIZATION OF CONTAMINATION THROUGH THE USE OF POSITION SENSITIVE DETECTORS AND DIGITAL IMAGE PROCESSING.

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NUREG/CR-6463: REVIEW GUIDELINES ON SOFTWARE LANGUAGES FOR USE IN NUCLEAR POWER PLANT SAFETY SYSTEMS. Final Report.

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NUREG/CR-6317: NUMERICAL INVESTIGATION OF 3-D CONSTRAINT
EFFECTS ON BRITTLE FRACTURE IN SE(B) AND C(T) SPECIMENS.

TENNESSEE, UNIV. OF, KNOXVILLE, TN

NUREG/GR-0015: BULK TEMPERATURE MEASUREMENT IN THER-
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International Organization Index

This index lists, in alphabetical order, the countries and performing organizations that prepared the NUREG/IA reports listed in this compilation. Listed below each country and performing organization are the NUREG/IA numbers and titles of their reports. If further information is needed, refer to the main citation by the NUREG/IA number.

There were no NUREG/IA reports published during this quarter.

Licensed Facility Index

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Shieldalloy Corp., Newfield, NJ,

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1. REPORT NUMBER
(Assigned by NRC, Add Vol., Supp.,
Rev., and Addendum Numbers, if any.)

NUREG-0304
Vol. 21, No. 3

2. TITLE AND SUBTITLE

Regulatory and Technical Reports (Abstract Index Journal)

Compilation for Third Quarter 1996
July - September

3. DATE REPORT PUBLISHED

MONTH	YEAR
February	1997

4. FIN OR GRANT NUMBER

5. AUTHOR(S)

6. TYPE OF REPORT

Reference

7. PERIOD COVERED (Inclusive Dates)

July - September 1996

8. PERFORMING ORGANIZATION - NAME AND ADDRESS (if NRC, provide Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address; if contractor, provide name and mailing address.)

Publications Branch
Office of Information Resources Management
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

9. SPONSORING ORGANIZATION - NAME AND ADDRESS (if NRC, type "Same as above"; if contractor, provide NRC Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address.)

Same as 8, above.

10. SUPPLEMENTARY NOTES

M. A. Sheehan, Project Manager

11. ABSTRACT (200 words or less)

This journal includes all formal reports in the NUREG series prepared by the NRC staff and contractors; proceedings of conferences and workshops; as well as international agreement reports. The entries in this compilation are indexed for access by title and abstract, secondary report number, personal author, subject, NRC organization for staff and international agreements, contractor, international organization, and licensed facility.

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

compilation
abstract index

13. AVAILABILITY STATEMENT

Unlimited

14. SECURITY CLASSIFICATION

(This Page)

Unclassified

(This Report)

Unclassified

15. NUMBER OF PAGES

16. PRICE