
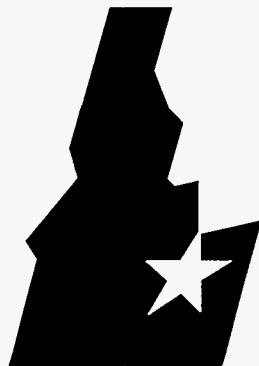


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July 1997

Radioactive Waste Management Information for 1996 and Record-To-Date

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Idaho National Engineering Laboratory

U.S. Department of Energy Idaho Field Office



Radioactive Waste Management Information For 1996 And Record-To-Date

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Published July 1997

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**Prepared for the
U.S. Department of Energy
DOE Idaho Operations Office**

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ABSTRACT

This document presents detailed data, bar graphs, and pie charts on volume, radioactivity, isotopic identity, origin, and status of radioactive waste for calendar year 1996. It also summarizes the radioactive waste data records compiled from 1952 to present for the Idaho National Engineering and Environmental Laboratory (INEEL). The data presented are from the INEEL Radioactive Waste Management Information System.

EXECUTIVE SUMMARY

This document, *Radioactive Waste Management Information for 1996 and Record-To-Date*, contains computerized radioactive waste data records from the Idaho National Engineering and Environmental Laboratory (INEEL). Data are compiled from information supplied by the U.S. Department of Energy (DOE) contractors. This report provides data on airborne and liquid radioactive effluents and solid radioactive waste that is stored, disposed, and sent to the INEEL for volume reduction. This report provides summarized data for the years 1952 through 1995 and detailed data for the calendar year 1996.

Airborne and liquid waste was released to the environment through engineered release points identified on Table 1 in the Engineered Release Points section. Monitoring and effluent sampling systems are an integral part of each engineered release point. Releases to the environment may also occur at locations other than engineered release points.

In 1996, 2,904 curies of airborne radioactivity were released, of which 2,889 or 99 percent were noble gases. In 1995, the curie amount was 1,380 curies, and in 1994, it was 2,228 curies.

A total of 2.239E+09 liters containing 73 curies of liquid radioactive waste was released to the INEEL environment during 1996. Ninety-six percent of that radioactivity was tritium. The radioactivity discharged as liquid waste in 1996 was 12 percent more than that discharged in 1995 and 11 percent more than that discharged in 1994.

During 1996, a total of 651 cubic meters (m^3) of solid radioactive waste containing 14,445 curies was shipped to the Radioactive Waste Management Complex (RWMC) for disposal. During 1995, 1,189 m^3 containing 25,908 curies was shipped for disposal. During 1994, 1,906 m^3 containing 49,526 curies was shipped for disposal.

In 1996, The majority of the nuclides disposed in solid waste at RWMC consisted of Ni-63, Fe-55, and Co-60. These nuclides accounted for 96 percent of total curies.

The Waste Calcining Facility did not operate in 1996.

In 1996, the Waste Experimental Reduction Facility (WERF) received 2,033 m^3 and 19 curies of solid radioactive waste for volume reduction. In 1995, WERF received 1,216 m^3 containing four curies, and in 1994, it received 769 m^3 containing 12 curies.

In 1996, a total of 1,279 m^3 and four curies of solid radioactive waste were sent off-site to Scientific Ecology Group (SEG) for volume reduction. In 1995, 899 m^3 and four curies were sent to SEG for reduction. The ash was returned to the INEEL for disposal.

In 1996, a total of 2,690 m^3 containing less than one curie were sent off-site for disposal. In addition, 1,024 m^3 of waste with a radioactivity of 2.4E-02 curies was sent off-site to SEG for smelting and recycle use as shielding.

With the development of new technology, a total of 5.607 cubic meters with 7.775E+02 curies were returned from RWMC to CPP storage for treatment. This waste had been in storage at RWMC since 1983.

Radioactive effluent discharges at the INEEL in 1996 met all applicable DOE requirements (DOE 5400.5 "Radiation Protection of the Public and Environment," 5820.2 "Radioactive Waste Management") and State of Idaho regulations and standards.

The INEEL Site Environmental Surveillance Program constantly monitors impact of this waste on the environment, both on-site and off-site. The results of this program for 1996 are published in the annual report, *The Idaho National Engineering Laboratory Site Environmental Report for Calendar Year 1996*, DOE/ID-12082(95), published July 1997.

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ACRONYMS AND ABBREVIATIONS

A1W	Large ship reactor at Naval Reactors Facility	ILTSF	Intermediate-Level Transuranic Storage Facility
ANL-E	Argonne National Laboratory-East	INEEL	Idaho National Engineering and Environmental Laboratory
ANL-W	Argonne National Laboratory-West	LITCO	Lockheed Idaho Technologies Company
ARA	Auxiliary Reactor Area	LMITCO	Lockheed Martin Idaho Technologies Company
ATR	Advanced Test Reactor	L&O	Lab and Office Building
BCL	Battelle Columbus Laboratories	LOF	loss-of-fluid test
BEN	Bendix—Grand Junction, Colorado	LOFT	loss-of-fluid test
BET	Bettis Atomic Power Laboratory	MAP	Mixed Activation Products
BNL	Brookhaven National Laboratory	MDL	Monsanto Dayton Laboratory
B&W	Babcock & Wilcox	MFP	Mixed Fission Products
CEG	Combustion Engineering General Atomics	MRC	Monsanto Research Corporation
CFA	Central Facilities Area	MTR	Materials Test Reactor
CG	Concentration Guide (also referred to as DCG)	MWSF	Mixed Waste Storage Facility
CPP	Chemical Processing Plant (also referred to as ICPP)	NRF	Naval Reactors Facility
CTF	Containment Test Facility (LOFT became CTF on 10/01/86)	NSA	North Storage Area
CY	calendar year	NWCF	New Waste Calcining Facility
D+D	decontamination and decommissioning	OFF	off-site
DCG	Derived Concentration Guide	OTH	other
DOE	U.S. Department of Energy	PBF	Power Burst Facility
DOE-ID	U.S. Department of Energy, Idaho Operations Office	PER	Special Power Excursion Reactor Test (also referred to as SPERT)
EBR	ANL Storage Area	PREPP	Process Reduction Experimental Pilot Plant
EBR-II	Experimental Breeder Reactor II	R&D	research and development
ECF	Expended Core Facility	RAL	Radiation Analysis Laboratory
ETR	Engineering Test Reactor	RC	reactor compartment (NRF only)
FASB	Fuel Assembly and Storage Building	RESL/IL	Radiological and Environmental Sciences Laboratory/Idaho Operations
FAST	Fluorinel and Storage Facility	RFO	Rocky Flats Office (Kaiser/Hill Rocky Flats, Colorado)
FCF	Fuel Cycle Facility	RLWTF	Radioactive Liquid Waste Treatment Facility
FMF	Fuel Manufacturing Facility	RWDS	Radioactive Waste Disposal System
JCH	J.C. Haynes/Wright Patterson Air Force Base	RWMC	Radioactive Waste Management Complex
HFEF	Hot Fuels Examination Facility	RWMIS	Radioactive Waste Management Information System
HFEF-N	Hot Fuels Examination Facility-North	S1W	submarine prototype at NRF
HFEF-S	Hot Fuels Examination Facility-South		
ICPP	Idaho Chemical Processing Plan (also referred to as CPP)		

S5G	submarine prototype at NRF	TREAT	Transient Reactor Test Facility
SCND	special case non-defense waste	TSA	Transuranic Storage Area
SDA	Subsurface Disposal Area	TSF	Test Support Facility
SEG	Scientific Ecology Group	WCF	Waste Calcining Facility
SL-1	Stationary Low Power Reactor No. 1	WER	Waste Experimental Reduction Facility (also referred to as WERF)
SMC	Specific Manufacturing Capability	WERF	Waste Experimental Reduction Facility (also referred to as WER)
SPERT	Special Power Excursion Reactor Test (also referred to as PER)	WMC	Waste Management Complex (also referred to as RWMC)
SPF	Sodium Process Facility	WVRF	Waste Volume Reduction Facility
SWEPP	Stored Waste Examination Pilot Plant	WROC	Waste Reduction Operations Complex
TAN	Test Area North	ZPPR	Zero Power Plutonium Reactor
TRA	Test Reactor Area		

CONVERSION FACTORS

The following table provides the conversion factors.

Table 1. Conversion factors.

To Convert	Into	Multiply By
Cubic yards	Cubic meters	0.7646
Cubic meters	Cubic feet	35.340
Liters	Gallons (U.S. liquid)	0.2642
Kilograms	Pounds	2.2046

DEFINITIONS

Curie—A unit of radioactivity, defined as that quantity of any radioactive nuclide that has $3.7\text{E}+10$ disintegrations per second (abbreviated Ci).

Exponential notation—Numbers in this document are expressed as either whole numbers or in exponential notation form. For example: $1,000,000=1 \times 10^6 = 1\text{E}+06$.

RADIOACTIVE WASTE MANAGEMENT INFORMATION FOR 1996 AND RECORD-TO-DATE

INTRODUCTION

This document summarizes radioactive waste data records for the Idaho National Engineering and Environmental Laboratory (INEEL) compiled since 1952, and provides detailed data for calendar year (CY) 1996. A computerized Radioactive Waste Management Information System (RWMIS) has been used at the INEEL since January 1971. Since then, several improvements to the data base system and data reporting have been made. These improvements include:

- In 1982, the data base language was converted from COBOL to NOMAD, a fourth generation data base language. NOMAD had many statistical analysis features that were applied to the data, and allowed for modifying data reporting requirements with minimal impact on the data base.
- In January 1986, solid waste data reporting requirements changed from a per-shipment basis to a per-container basis. A shipment could consist of one to 70 containers. By changing to a per-container basis, tracking solid waste location on the INEEL is more accurate. It is now possible to identify each container and to determine its waste classification.
- In February 1988, waste generators were given the ability to provide the analytical uncertainty, at one sigma, for the reported nuclides of air and liquid effluent releases.
- In May 1996, while converting the data from NOMAD to the Oracle language, one improper location coding was identified. Correcting this coding caused 10 cubic

meters and 82 curies, not previously reported, to now be reported for Waste Management Complex (WMC) 1987 Transuranic Storage Area (TSA) total.

- In June 1996, the conversion from the NOMAD to the ORACLE platform was completed. During the data verification phase of the conversion, discrepancies were noted between the summary columns in the NOMAD reports. For example, the "INEL Radioactive Airborne Waste Discharges Record-To-Date" summary through 1985 shows the "1952 - 1985" CPP total of 7,589,244 curies. However, the same summary report through 1995 shows the "1952 - 1985" CPP total to be 7,589,163 curies. This reporting problem resulted from a difference in methodology of summing the data in the summary columns. This has been corrected on all ORACLE reports, accounting for some deviations between the 1995 and 1996 Annual Reports.

U.S. Department of Energy (DOE) contractors routinely report information on airborne and liquid radioactive effluents and solid radioactive waste that is stored, disposed, and sent to the INEEL for reduction. Types of information include volume, radioactivity, isotopic identity, and origin. This reporting system is the official one for this data. It provides reports for all types of radioactive effluents and disposed waste, sent for volume reduction, or stored at the INEEL.

In 1987, graphics were added to the report to improve the data presentation. The area-specific solid low-level waste graphics in this report depict waste in five categories:

1. Direct Disposal—waste that is sent directly to the Radioactive Waste Management Complex (RWMC) for disposal without reduction in its volume.
2. Compaction—Compactable waste that is sent to the Waste Experimental Reduction Facility (WERF) to be compacted.
3. Metal Sizing—Metallic waste that is sent to WERF for volume reduction.
4. Incineration—Combustible waste sent to WERF for incineration.
5. Reduction—Waste shipped to private industry for volume reduction.

In 1990, additional reports and graphics were added to better represent previously summarized data. These reports and graphics included a detailed list of generators that ship waste to WERF and details on stored waste by generator.

The RWMIS is continually undergoing review and enhancement. Comments on the system are encouraged. This report is updated annually to incorporate waste management data for the current year and to reflect changes from previous annual reports. These changes are made to more accurately reflect the current status of waste operations at the INEEL.

Annual and special RWMIS reports have been useful to various levels of management in appraising their radioactive waste programs. Annual reports provide a summary by type and generator of waste. The volume, weight, and curie (see definition) content in all RWMIS reports are expressed in exponential notation (see definition).

A comparison of the annual mean average of released nuclides concentrations and the Derived Concentrations Guide (DCG) limits are included in the detailed RWMIS. The concentration of liquid releases is compared directly to the reference DCG

limits for drinking water. It must be noted that the DCG liquid release limits are for protecting the public from ingesting radiation-contaminated water. INEEL liquid releases flow to areas inaccessible to the general public. The calculated concentration of airborne releases as dispersed to the INEEL boundary is compared to the reference airborne DCG limits. The reference DCG values are given in DOE Order 5400.5, "Radiation Protection of the Public and the Environment," February 1990. The right-hand column of many RWMIS reports indicate total and average values. Total values include the total content in curies for each radionuclide released during the year. Average values are the annual mean concentrations of radionuclides.

The RWMIS provides readily available information that permits ongoing evaluation of INEEL waste management activities, including compliance with DOE regulations and those of other federal and state agencies. The RWMIS continues to be a valuable asset to the overall waste management effort at the INEEL and continues to alert the DOE Idaho Operations Office (DOE-ID) of trends and potential problem areas.

Reports Included in Document

Five report categories are included in this document. A brief description of each follows.

INEEL Record-to-Date Summary

This report summarizes the volume and curies of all effluents and solid waste on the INEEL by CY for the period from 1987 through 1996 and a cumulative total from 1952 through 1986.

INEEL Record-to-Date Discharges and Solid Waste

These reports summarize, by discharge/waste type, the volume and curies of all discharges and solid waste on the INEEL by discharge/waste type for each area that generates waste. These reports

are by CY from 1987 through 1996 and a cumulative total from 1952 through 1986.

INEEL 1996 Year-to-Date Summary

This report summarizes, by facility, the amounts of radioactivity generated at INEEL facilities or at off-site facilities and shipped to the INEEL. It identifies liquid and airborne waste that is released and quantities of solid wastes stored, disposed, or received for reduction. The volume of the media containing the radioactivity is also included.

Nuclide Summary in Curies for Airborne, Liquid, and Solid Waste

These reports summarize the annual curie values, by nuclide, for each area reporting effluents or solid waste on the INEEL.

Area 1996 Graphics

These graphics include volume and curie monthly data for airborne, liquid, and solid waste generated by INEEL areas and for non-INEEL areas shipping solid waste to the INEEL.

Engineered Release Points

These tables identify the area and type of discharge of the airborne and liquid waste released to the environment.

INEEL Record-to-Date Summary

INEEL Record-to-Date Summary INEEL-3
INEEL Record-to-Date Summary Bar Graphs INEEL-4

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

INEEL RECORD-TO-DATE SUMMARY

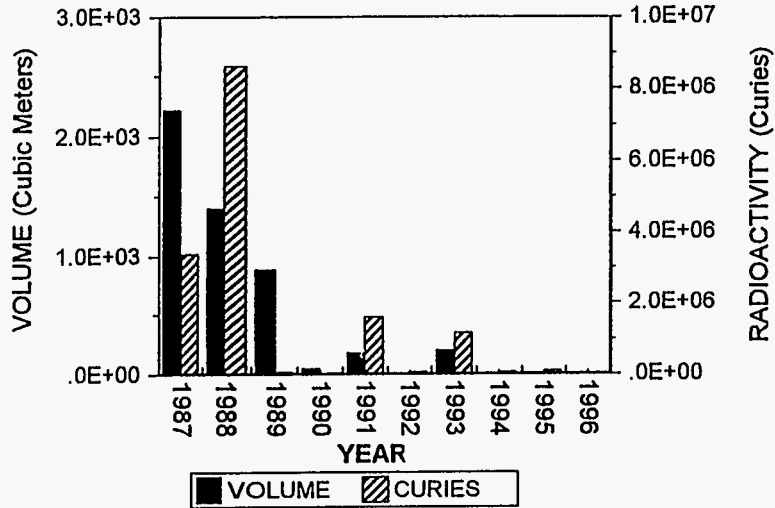
TYPE / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
AIRBORNE												
VOLUME	162593	12220	13389	13514	13450	12963	12715	13150	12856	14968	17071	298889
CURIES	13143544	254949	173936	22370	24459	63879	24179	2719	2228	1380	2904	13,716,546
LIQUID												
VOLUME	77517	2536	2357	1922	2642	2490	2799	2659	1995	1779	2239	100934
CURIES	74960	357	270	137	189	170	187	130	50	84	73	76,608
SOLID DISPOSED ONSITE												
VOLUME	198091	2958	2045	1364	1762	1272	844	852	1906	1189	693	212975
CURIES	10565721	247439	149743	590070	207544	187565	143953	429594	49526	25907	14445	12,611,508
SOLID DISPOSED OFFSITE												
VOLUME											2690	2690
CURIES											<1	0
SOLID STORED												
VOLUME	63749	2228	1395	880	44	178	<1	203	3	6	<1	68686
CURIES	83362573	3400882	8609487	51118	4656	1603000	39741	1142365	72614	77767	38938	98,403,141
SOLID TO SEG FOR REDUCTION*												
VOLUME									1713	899	1279	3892
CURIES									26	4	4	33
SOLID TO WERF FOR REDUCTION												
VOLUME	3811	2529	2967	2659	3161	2029	940	446	769	1216	2033	22560
CURIES	4	5	6	6	12	15	13	2	1	4	19	88

INEEL-3

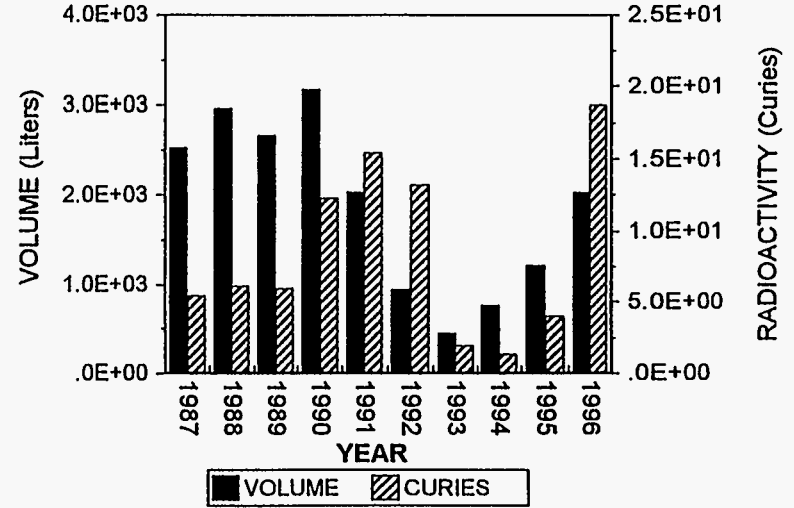
- 1 LIQUID VOLUME IN MILLIONS OF LITERS ONE CUBIC METER EQUALS 35.31 CUBIC FEET
- 2 AIRBORNE VOLUME IN MILLIONS OF CUBIC METERS ONE MILLION LITERS EQUALS 264,180 GALLONS
- 3 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING
- 4 * DOES NOT INCLUDE WASTE SHIPPED TO SEG FROM WERF

INEEL RECORD-TO-DATE SUMMARY CY 1996

1987 - 1996 SOLID STORED WASTE

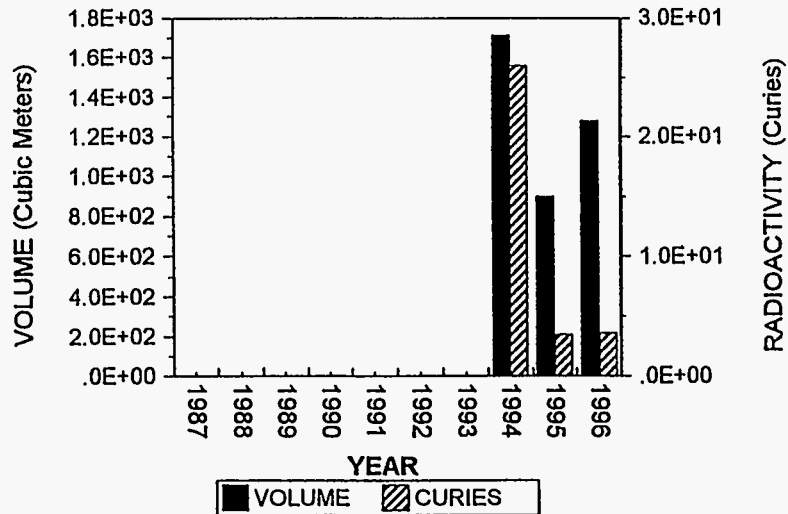


1987 - 1996 SOLID WASTE TO WERF FOR VOLUME REDUCTION



WERF began reducing waste in 1984

1987 - 1996 INCINERABLE WASTE SENT TO PRIVATE INDUSTRY

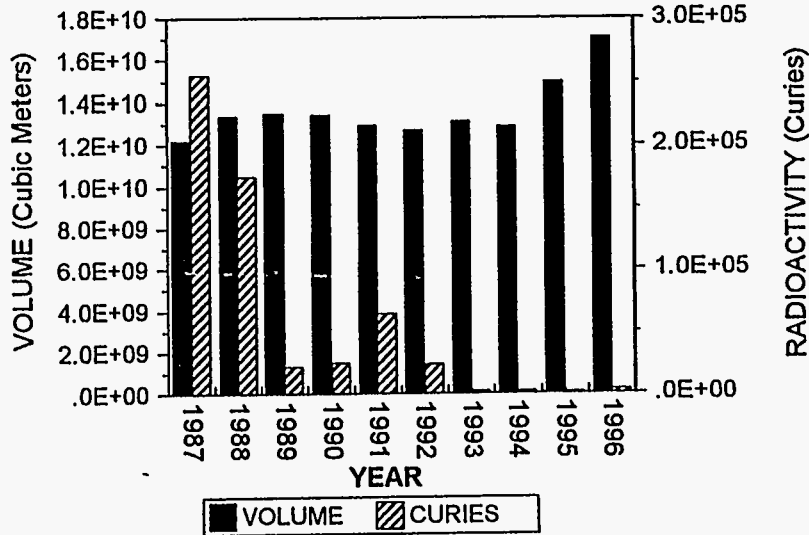


1994 was the first year private industry was used. Doesn't include waste sent from WERF

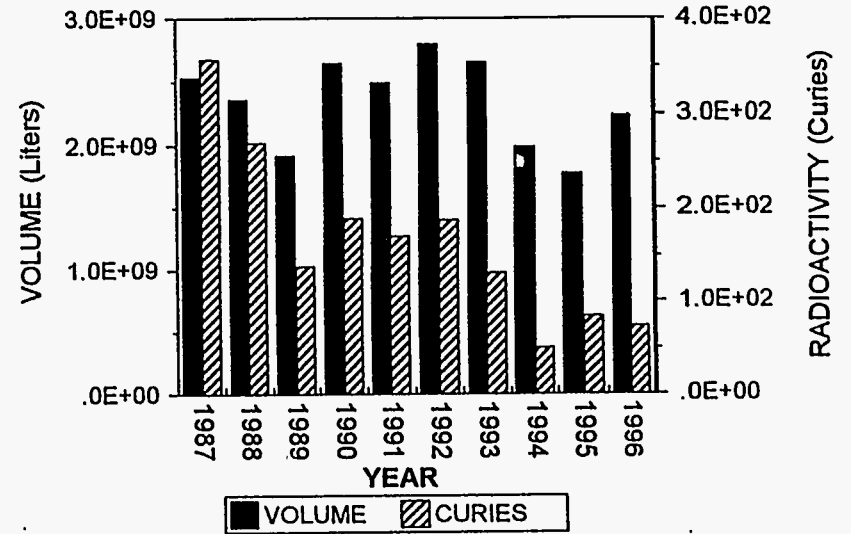
INEEL-4

INEEL RECORD-TO-DATE SUMMARY CY 1996

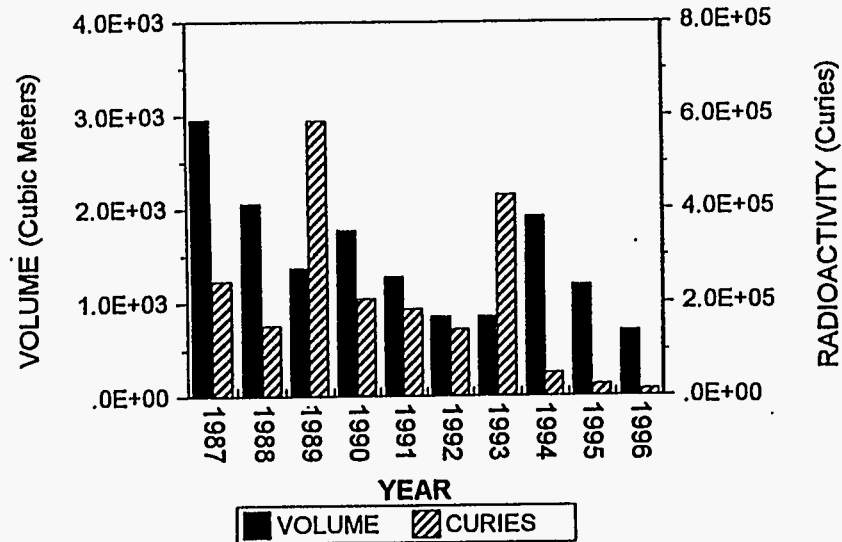
INEEL 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



INEEL 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



INEEL 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



INEEL-5

INEEL Record-to-Date Discharges and Solid Waste

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Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**INEEL RECORD-TO-DATE SUMMARY
AIRBORNE WASTE DISCHARGES**

AREA / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
ANL												
VOLUME	37000	2532	2554	2540	2535	2542	2542	2522	2520	2405	2414	62107
CURIES	47379	890	618	686	716	551	739	1160	1154	10	1049	54954
ARA												
VOLUME	480	47	32									560
CURIES	<1	<1	<1									0
CFA												
VOLUME	1077	77	59	58	58	58	58	34				1481
CURIES	<1	<1	<1	<1	<1	<1	<1	<1				0
CPP												
VOLUME	47995	3911	3893	3794	3827	3916	3895	4244	4156	4106	3264	87002
CURIES	7600100	250918	170708	20002	20002	60043	20000	62	<1	<1	<1	8141836
CTF												
VOLUME	155	63										218
CURIES	<1	<1										0
LOF												
VOLUME	822											822
CURIES	8810											8810
NRF												
VOLUME	32431	1630	1745	2377	2151	1795	1654	1646	1329	1983	6197	54938
CURIES	35	<1	<1	<1	<1	<1	<1	1	2	1	1	43
PBF												
VOLUME	1024	58	60	60	62	63	58	52	59	54	60	1609
CURIES	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0
PER												
VOLUME	<1											<1
CURIES	6											6
SMC												
VOLUME	1432	1962	3046	2812	3031	3122	3047	3141	3166	4710	3306	32774
CURIES	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0
TAN												
VOLUME	15488	660	645	632	492	191	182	191	197	131	177	18985
CURIES	53725	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	53725

1 Volume in millions of cubic meters
2 Details may not add up because of rounding

INEEL-9

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Radioactive Waste Management Information System

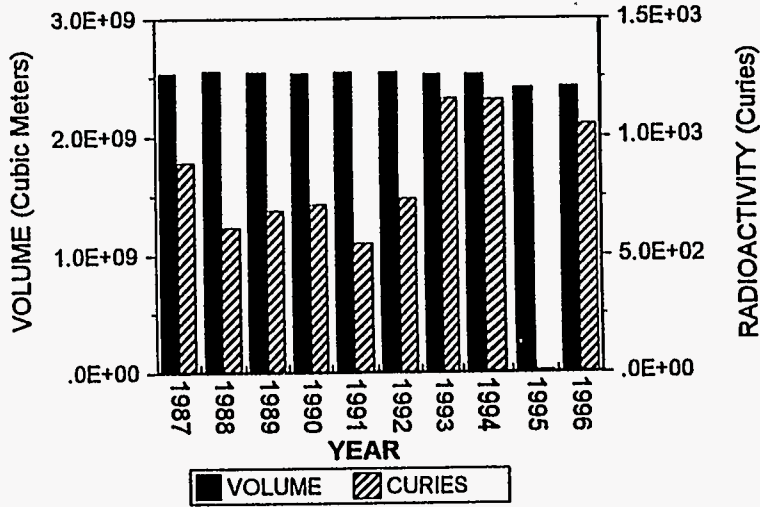
**INEEL RECORD-TO-DATE SUMMARY
AIRBORNE WASTE DISCHARGES**

AREA / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
TRA												
VOLUME	24673	1199	1190	1069	1130	1140	1130	1155	1190	1277	1351	36503
CURIES	5433487	3140	2609	1682	3741	3284	3439	1495	1072	1368	1854	5457171
WER												
VOLUME	16	72	161	156	164	137	135	155	239	301	302	1838
CURIES	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0
WMC												
VOLUME		9	4	15			14	10				52
CURIES		<1	<1	<1			<1	<1				0
TOTAL VOLUME	162593	12220	13389	13514	13450	12963	12715	13150	12856	14968	17071	298889
CURIES	13143544	254949	173936	22370	24459	63879	24179	2719	2228	1380	2904	13,716,546

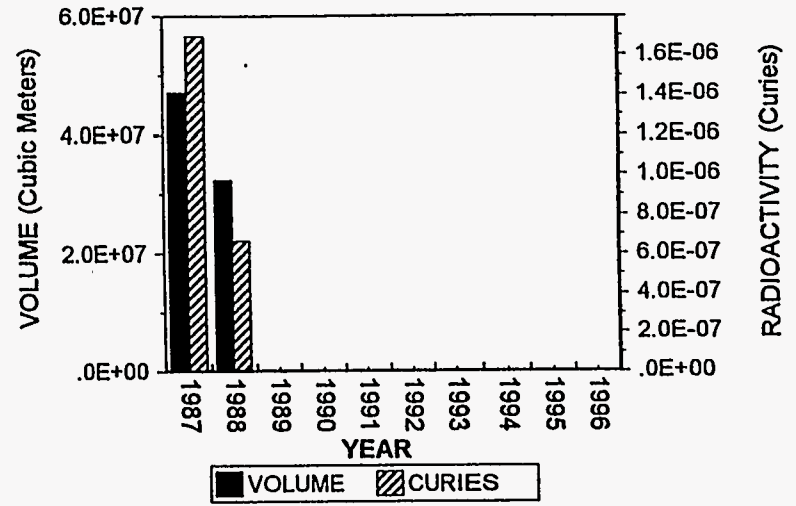
1 Volume in millions of cubic meters
2 Details may not add up because of rounding

INEEL RADIOACTIVE AIRBORNE WASTE DISCHARGES RECORD-TO-DATE

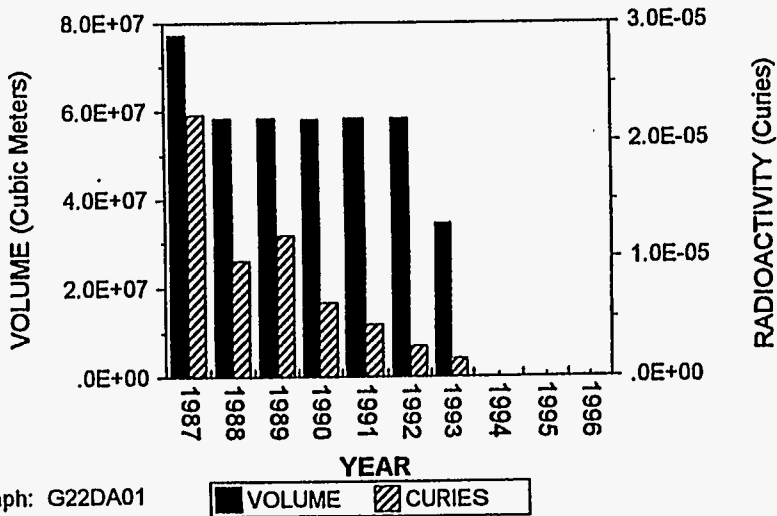
ANL 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



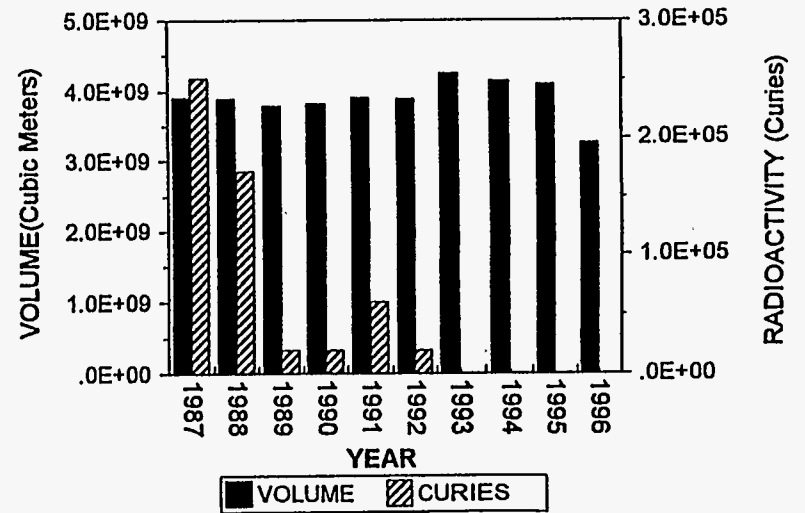
ARA 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



CFA 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



CPP 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES

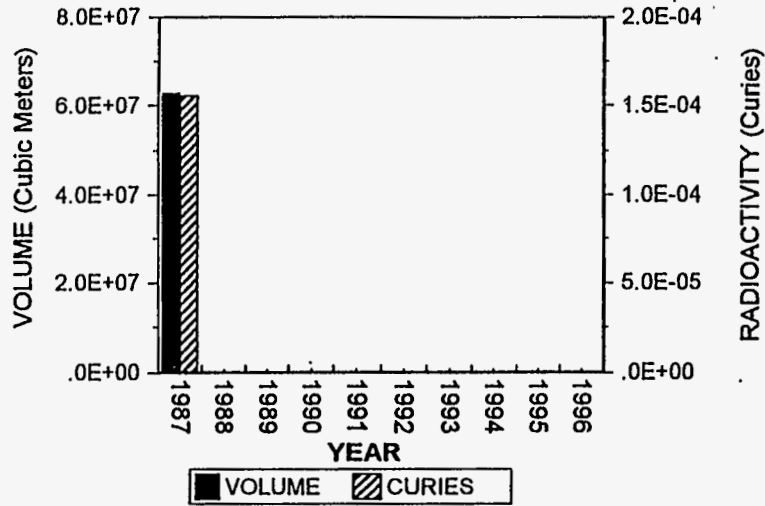


INEEL-11

Graph: G22DA01

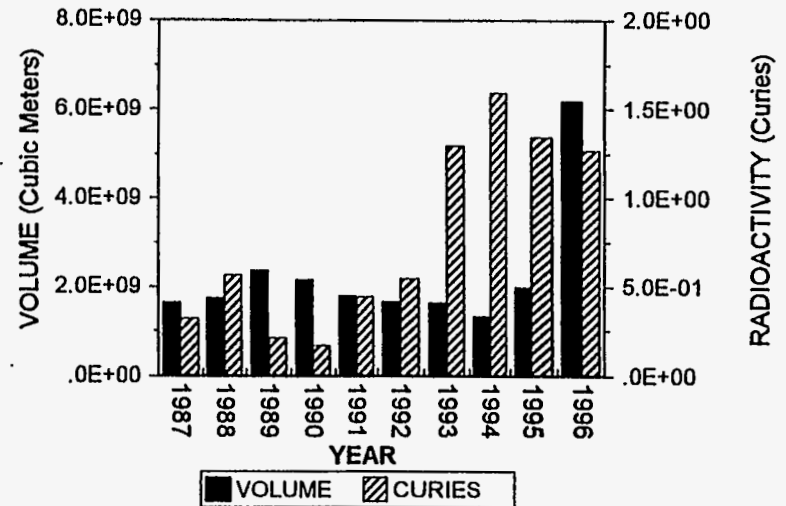
INEEL RADIOACTIVE AIRBORNE WASTE DISCHARGES RECORD-TO-DATE

CTF 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES

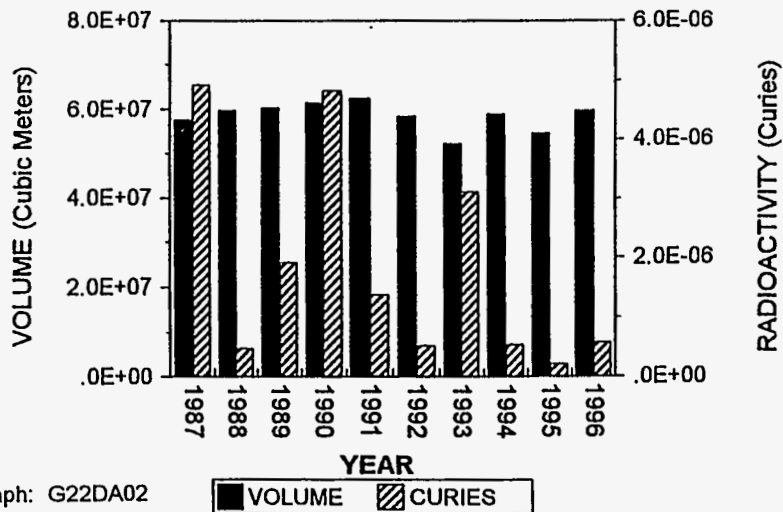


CTF RELEASED EFFLUENTS IN 1986 AND 1987 ONLY

NRF 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES

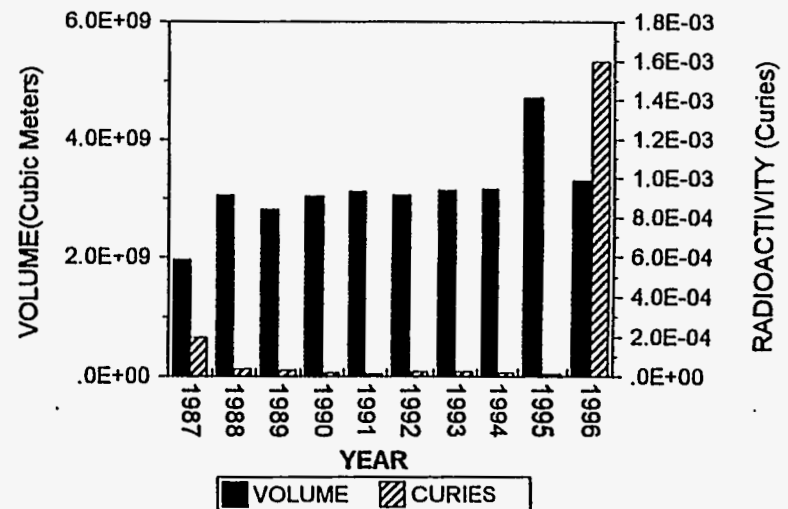


PBF 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



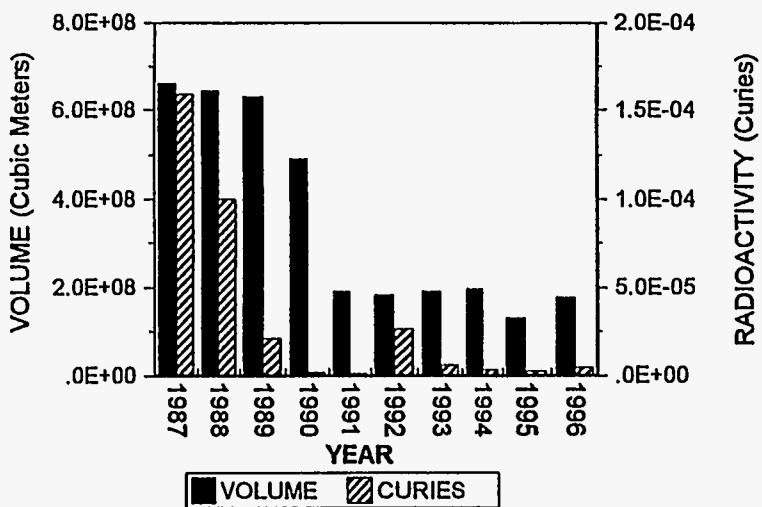
Graph: G22DA02

SMC 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES

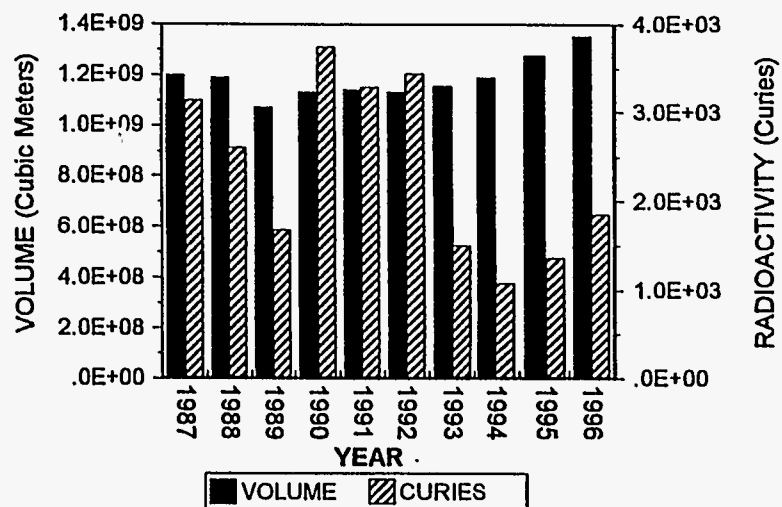


INEEL RADIOACTIVE AIRBORNE WASTE DISCHARGES RECORD-TO-DATE

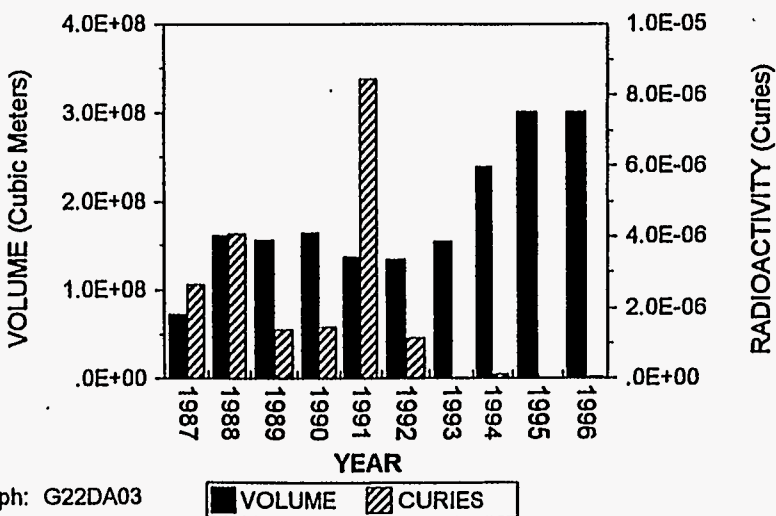
TAN 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



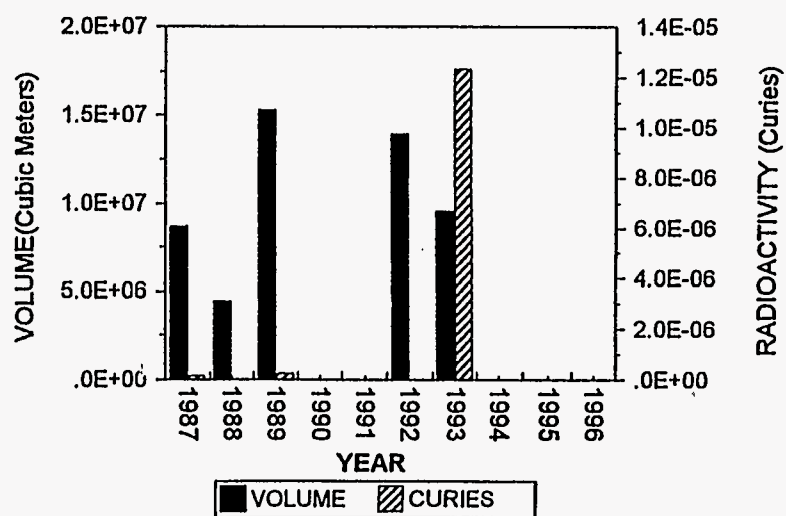
TRA 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



WER 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



WMC 1987 - 1996 AIRBORNE EFFLUENT VOLUME & CURIES



Graph: G22DA03

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**INEEL RECORD-TO-DATE SUMMARY
LIQUID WASTE DISCHARGES**

AREA / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
ANL												
VOLUME	70	2	2	1	2	2	1	5	5			91
CURIES	21	<1	<1	<1	<1	<1	<1	<1	<1			23
ARA												
VOLUME	62	2	1									65
CURIES	<1	<1	<1									0
CFA												
VOLUME	4848	89	62	117	154	192	160	44				5668
CURIES	51	2	1	2	2	3	3	<1				65
CPP												
VOLUME	46848	2268	2140	1664	2357	2107	2433	2515	1964	1751	2219	68266
CURIES	21945	216	89	<1	<1	2	<1	<1	<1	<1	<1	22,254
CTF												
VOLUME	71	22										93
CURIES	<1	<1										0
LOF												
VOLUME	2813											2813
CURIES	<1											0
NRF												
VOLUME	1569											1569
CURIES	349						<1					349
PBF												
VOLUME	9											9
CURIES	<1											0
PER												
VOLUME	76											76
CURIES	155											155
TAN												
VOLUME	2194	82	81	67	58	90	116	24				2712
CURIES	59	<1	<1	<1	<1	<1	<1	2				61
TRA												
VOLUME	18957	70	70	73	71	99	88	71	25	28	20	19572
CURIES	52379	139	179	134	185	165	184	128	50	84	73	53,700

1 Volume in million liters
2 Details may not add up to totals because of rounding

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 U.S. Department of Energy
 Radioactive Waste Management Information System

**INEEL RECORD-TO-DATE SUMMARY
 LIQUID WASTE DISCHARGES**

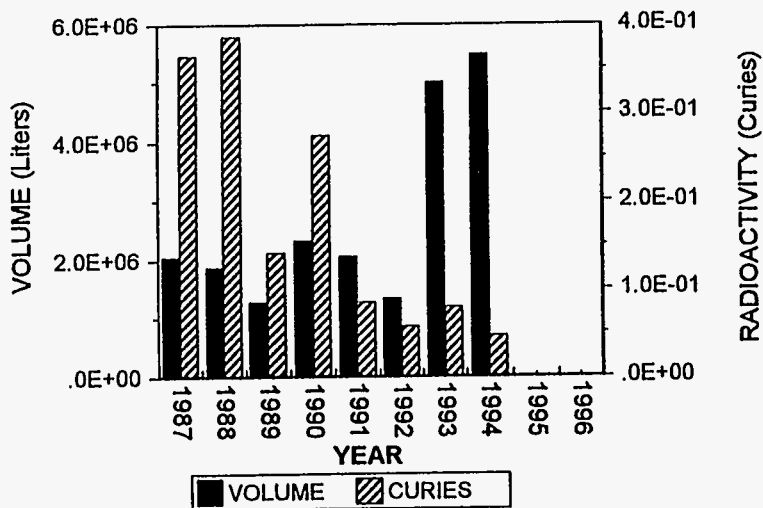
AREA / YEAR	1952-1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
WMC												
VOLUME												<1
CURIES	<1											0
TOTAL VOLUME	77517	2536	2357	1922	2642	2490	2799	2659	1995	1779	2239	100934
CURIES	74960	357	270	137	189	170	187	130	50	84	73	76,608

INEEL-15

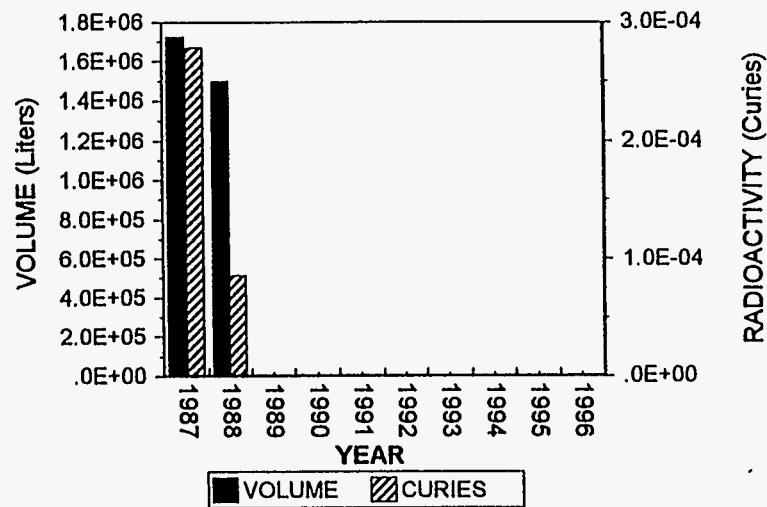
1 Volume in million liters
 2 Details may not add up to totals because of rounding.

INEEL RADIOACTIVE LIQUID WASTE DISCHARGE RECORD-TO-DATE

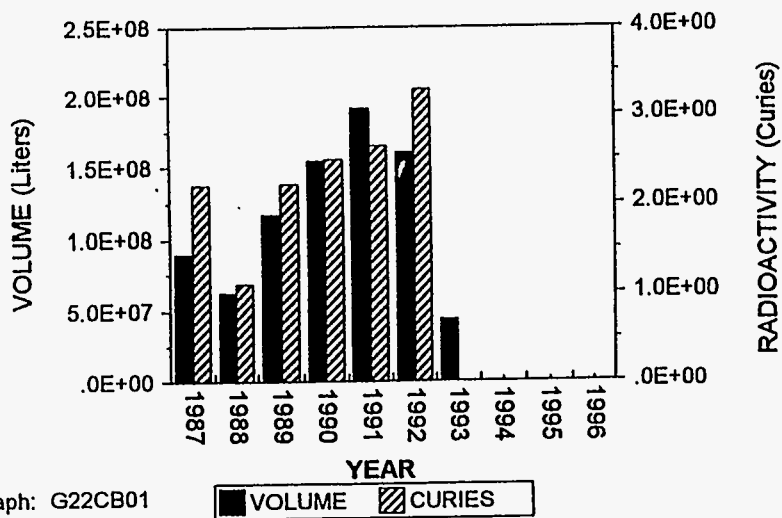
ANL 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



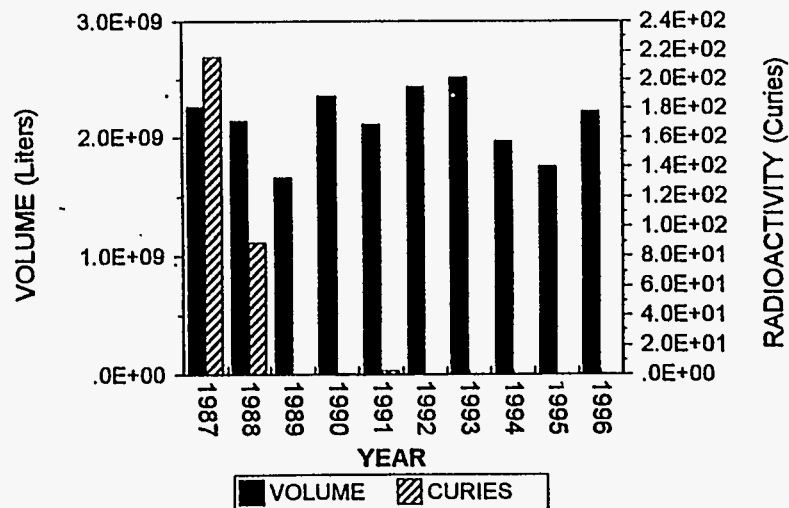
ARA 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



CFA 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



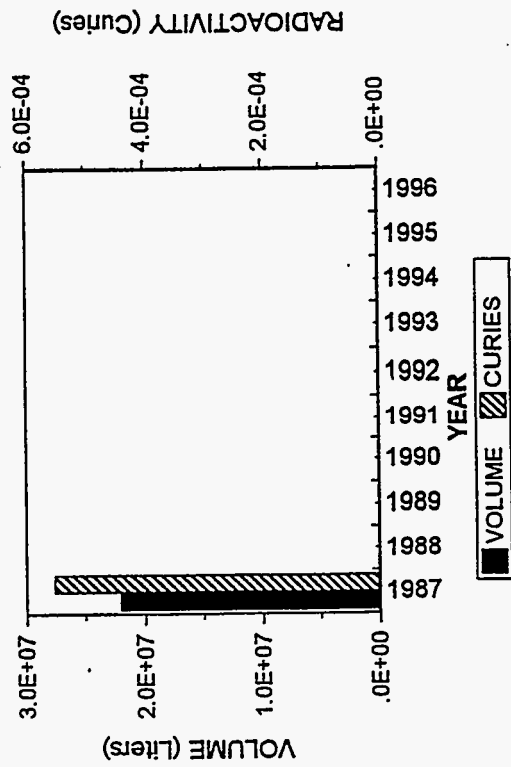
CPP 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



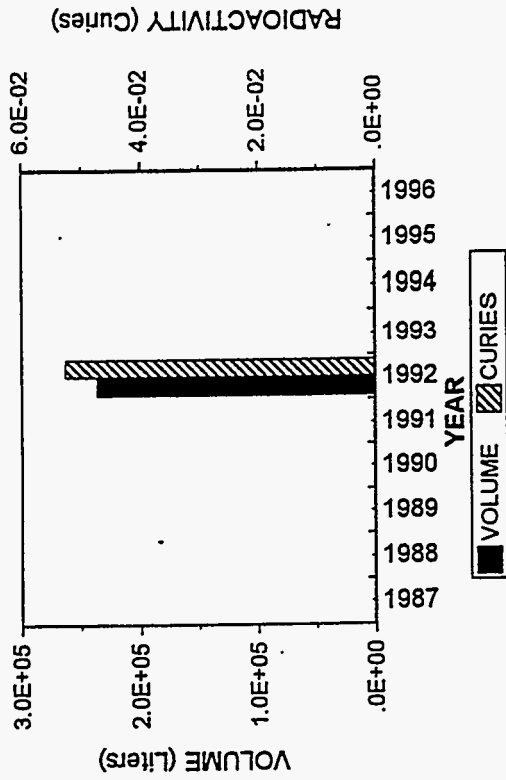
Graph: G22CB01

INEEL RADIOACTIVE LIQUID WASTE DISCHARGE RECORD-TO-DATE

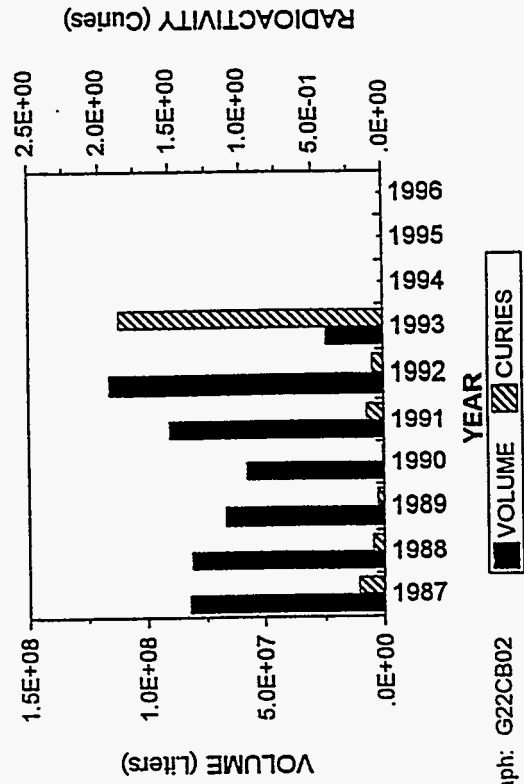
CTF 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



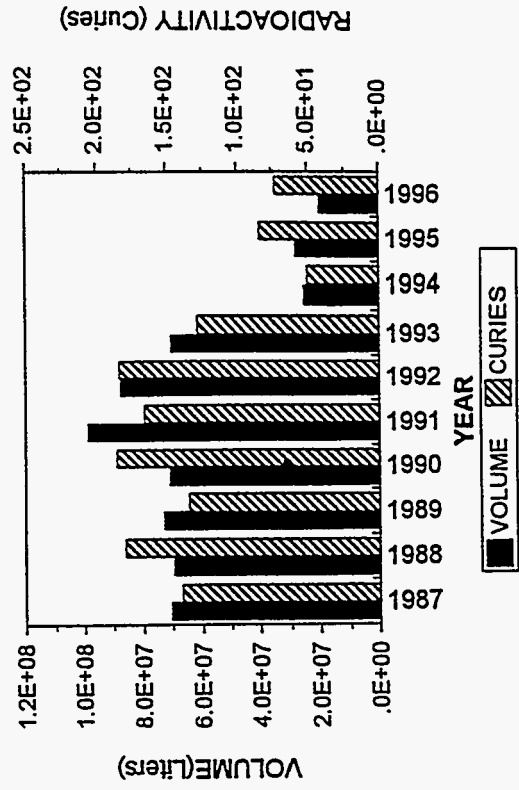
NRF 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



TAN 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



TRA 1987 - 1996 LIQUID EFFLUENT VOLUME & CURIES



Graph: G22CB02

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Radioactive Waste Management Information System

**INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY
DISPOSED WASTE**

AREA / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
OTHER*												
VOLUME	1365											1,365
CURIES	2434											2,434
OFFSITE												
VOLUME	6501											6,501
CURIES	37734											37,734
SL-1												
VOLUME	2319											2,319
CURIES	599											599
ALE												
VOLUME	4885	309	204									5,398
CURIES	591	840	50									1,481
ANL												
VOLUME	7521	109	473	172	65	30	56	77	211	46	21	8,781
CURIES	1415255	204684	142616	463322	130512	82260	92899	87062	12303	2	16	2,630,932
ARA												
VOLUME	415	20							101			536
CURIES	4024	<1							<1			4,025
BEN												
VOLUME	<1											1
CURIES	<1											0
BNL												
VOLUME	5											5
CURIES	<1											0
CEG												
VOLUME								22				22
CURIES								1967				1,967
CFA												
VOLUME	2491	4	5	4	45			84	42	58	<1	2,733
CURIES	382	4	<1	<1	<1			<1	<1	<1	3	388
CPP												
VOLUME	29518	1151	578	513	752	544	129	7	127	157	145	33,621
CURIES	614241	218	192	115	211	24	2	<1	2	24	5	615,035

1 VOLUME IN CUBIC METERS
2 * ML-1, GCRP, OMRE
3 #FACILITY TOTALS (EXCEPT FOR RFO) DO NOT INCLUDE DATA FOR 1952-1960
4 THIS INFORMATION (18460 CUBIC METERS AND 60920 CURIES) IS REPORTED IN LUMP SUM UNDER WMC FOR 1960
5 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY
DISPOSED WASTE**

AREA / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
CTF												
VOLUME	805	251	27					54				1,138
CURIES	277	25	<1					<1				303
D+D												
VOLUME	2402	8	95	24	21	58	185	344	654	247	246	4,284
CURIES	5693	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	5,698
LOF												
VOLUME	73											73
CURIES	3											3
NRF												
VOLUME	20813	171	111	134	419	270	159	146	222	165	96	22,708
CURIES	4193722	29665	6732	126489	74089	102848	49796	42198	36901	17619	14158	4,694,217
PBF												
VOLUME	876	45	29						179			1,129
CURIES	559	11	3						<1			573
PER												
VOLUME	499	4		6		2						510
CURIES	24	<1		<1		<1						24
RFO												
VOLUME	73124											73,124
CURIES	256011											256,011
SMC												
VOLUME	43	7	53	21		24	50		34	5		237
CURIES	<1	<1	<1	<1		<1	<1		2	<1		4
TAN												
VOLUME	8685	224	56	76	43	24	87	82	134	57	42	9,509
CURIES	101485	359	1	67	2658	<1	347	216	<1	24	157	105,313
TRA												
VOLUME	15544	219	158	62	37	72	179	28	196	133	24	16,652
CURIES	3871761	11631	147	77	68	2430	909	298149	317	8226	105	4,193,821
WER												
VOLUME	392	273	254	328	359	248		7	5	319	111	2,296
CURIES	<1	<1	<1	<1	6	3		<1	<1	11	1	22

1 VOLUME IN CUBIC METERS
 2 * ML-1, GCRF, OMRE
 3 #FACILITY TOTALS (EXCEPT FOR RFO) DO NOT INCLUDE DATA FOR 1952-1960:
 4 THIS INFORMATION (18460 CUBIC METERS AND 60920 CURIES) IS REPORTED IN LUMP SUM UNDER WMC FOR 1960
 5 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY
DISPOSED WASTE

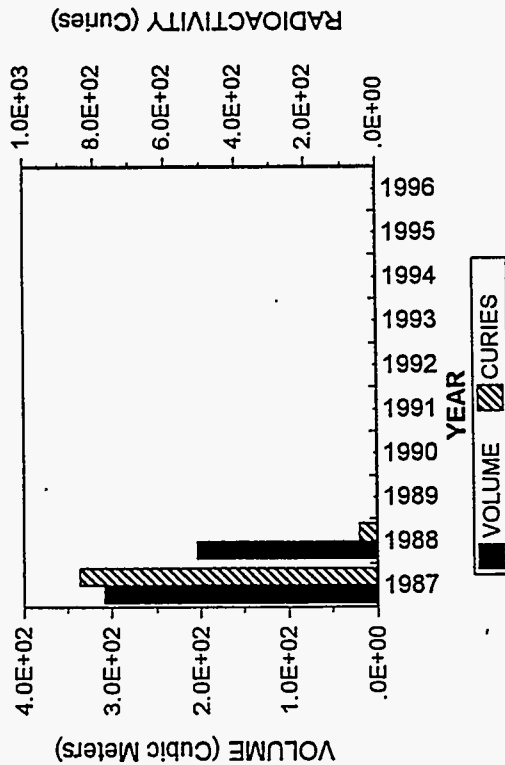
AREA / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
WMC												
VOLUME	19814	166		23	22					2	6	20,033
CURIES	60926	<1		<1	<1					<1	<1	60,927
TOTAL VOLUME	198091	2958	2045	1364	1762	1272	844	852	1906	1189	693	212,975
CURIES	10565721	247439	149743	590070	207544	187565	143953	429594	49526	25907	14445	12,611,508

INEEL-20

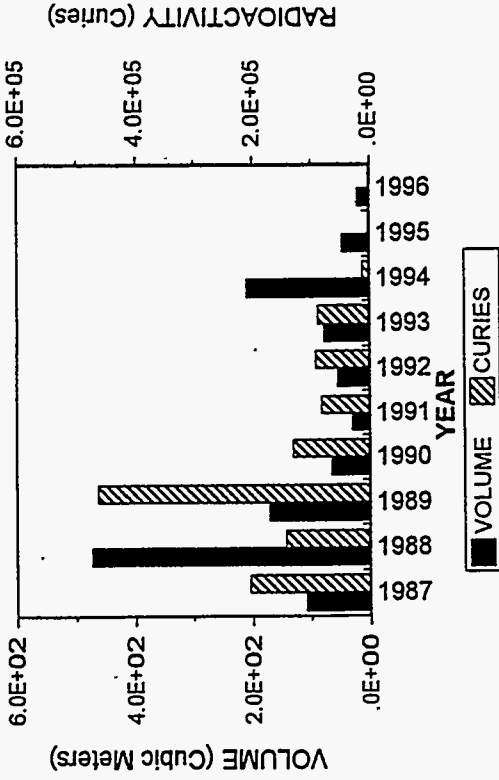
- 1 VOLUME IN CUBIC METERS
- 2 * ML-1, GCRP, OMRE
- 3 #FACILITY TOTALS (EXCEPT FOR RFO) DO NOT INCLUDE DATA FOR 1952-1960
- 4 THIS INFORMATION (18460 CUBIC METERS AND 60920 CURIES) IS REPORTED IN LUMP SUM UNDER WMC FOR 1960
- 5 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEEL SOLID RECORD-TO-DATE SUMMARY DISPOSED WASTE

ALE 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES

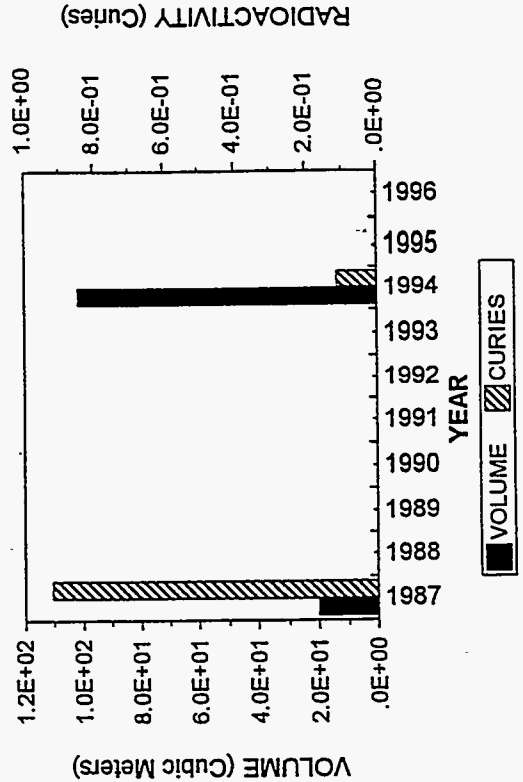


ANL 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



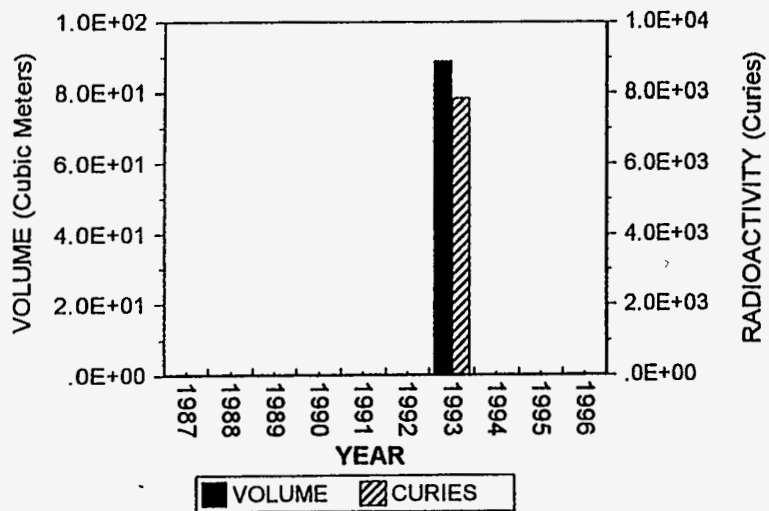
ALE HAS NOT DISPOSED WASTE AT INEL SINCE 1988

ARA 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES

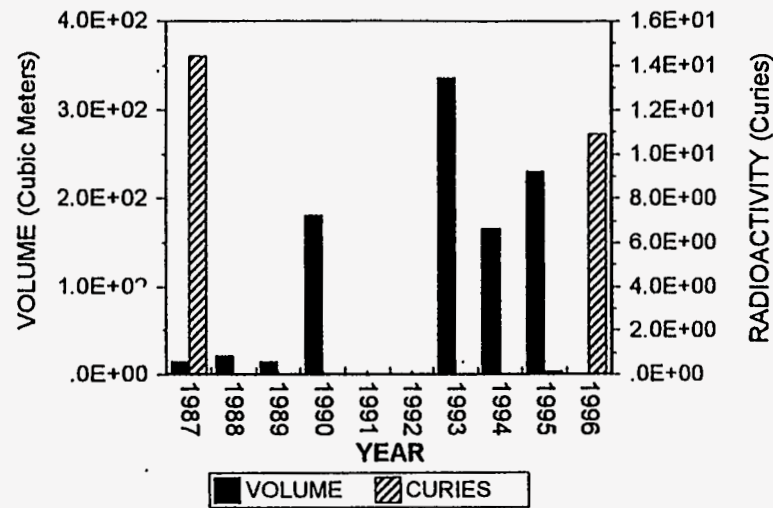


INEEL SOLID RECORD-TO-DATE SUMMARY DISPOSED WASTE

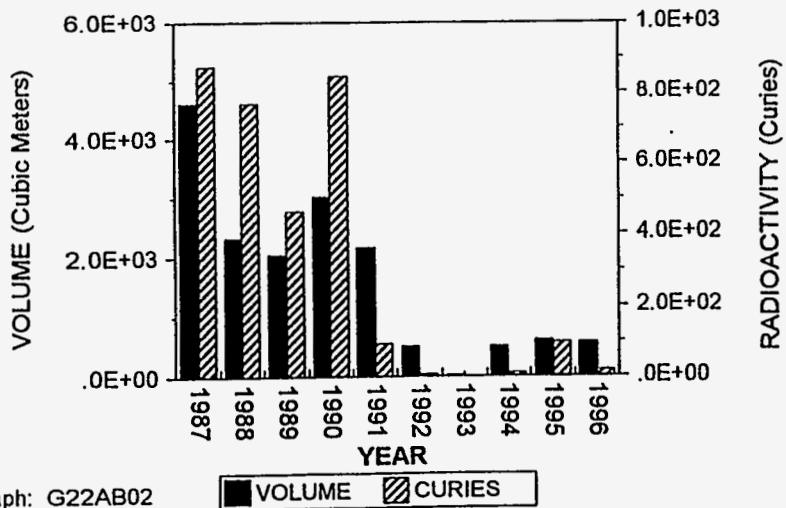
CEG 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



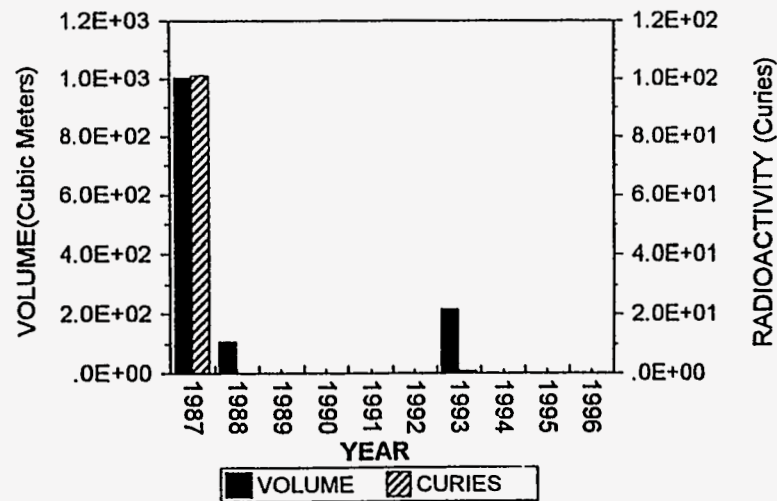
CFA 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



CPP 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



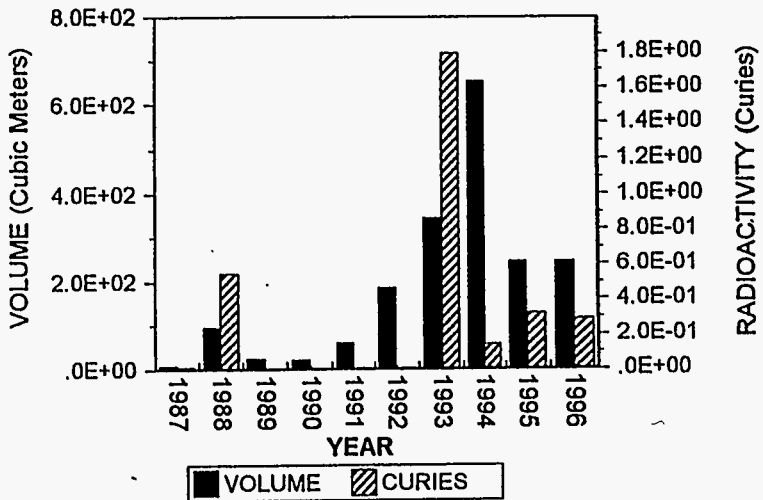
CTF 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



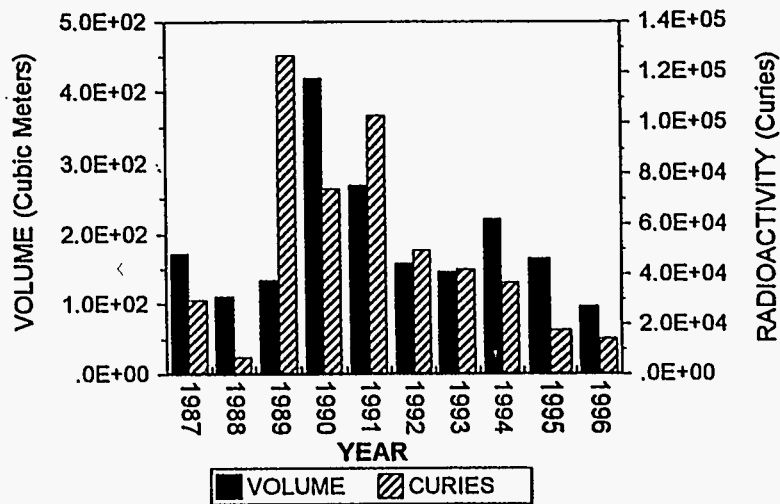
Graph: G22AB02

INEEL SOLID RECORD-TO-DATE SUMMARY DISPOSED WASTE

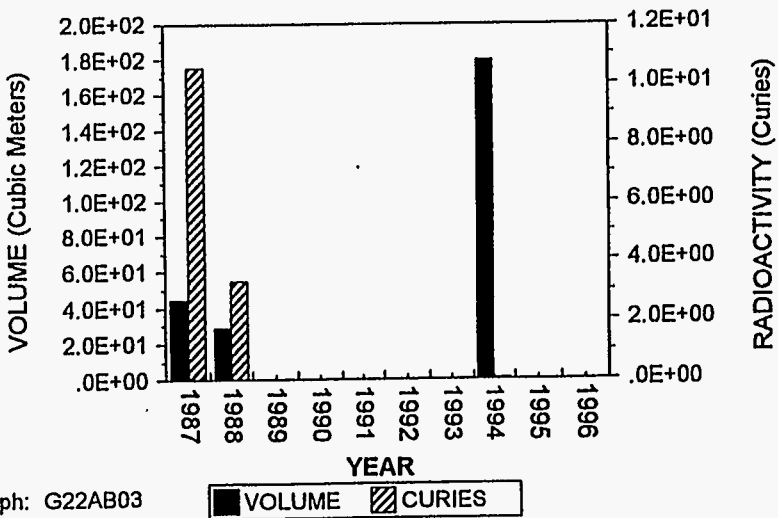
D+D 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



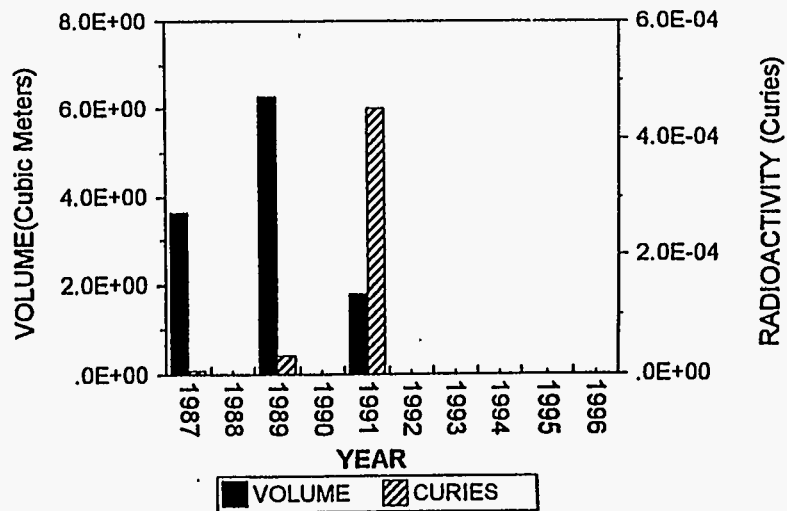
NRF 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



PBF 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



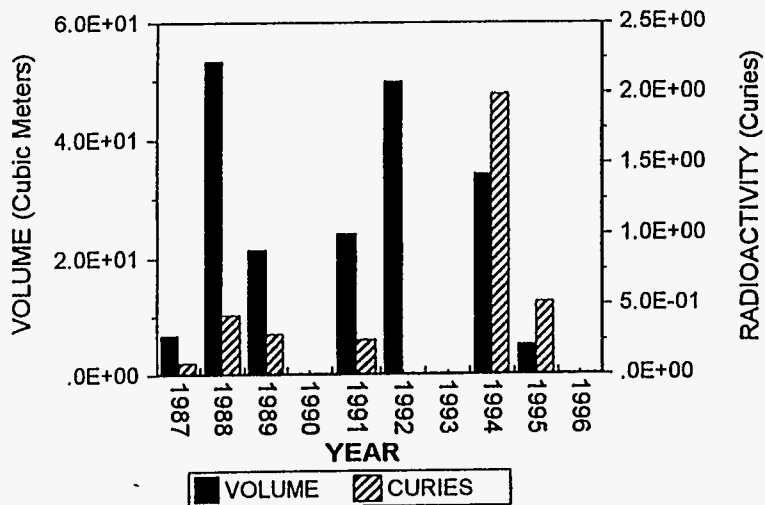
PER 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



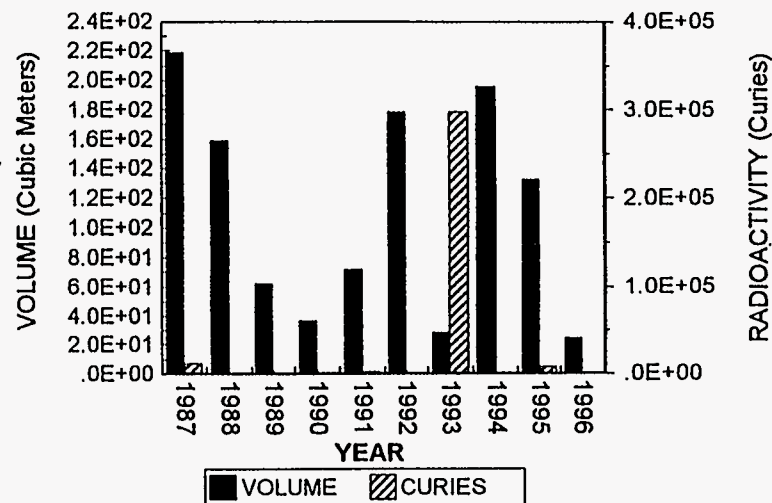
Graph: G22AB03

INEEL SOLID RECORD-TO-DATE SUMMARY DISPOSED WASTE

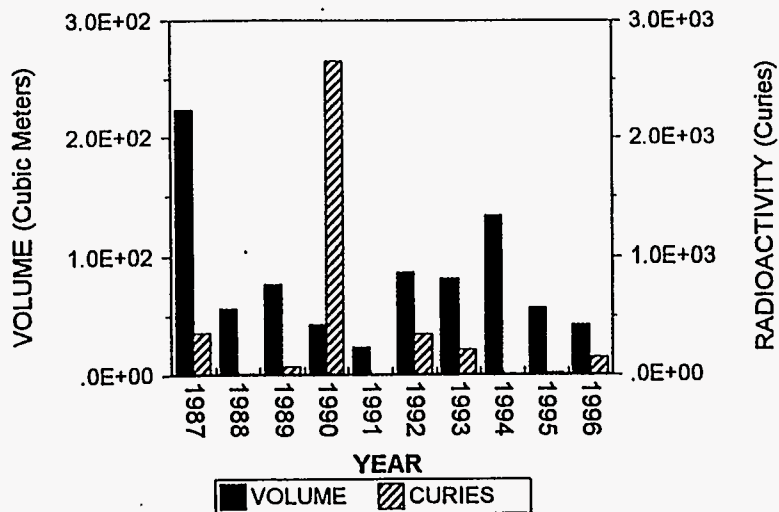
SMC 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



TRA 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



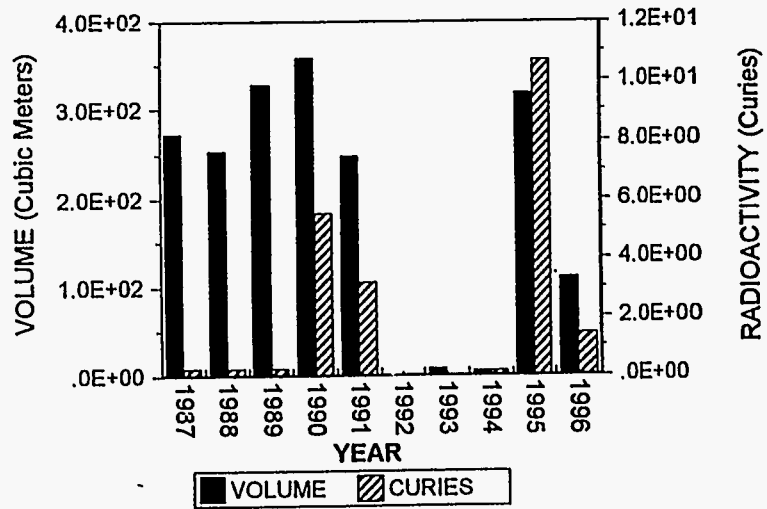
TAN 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



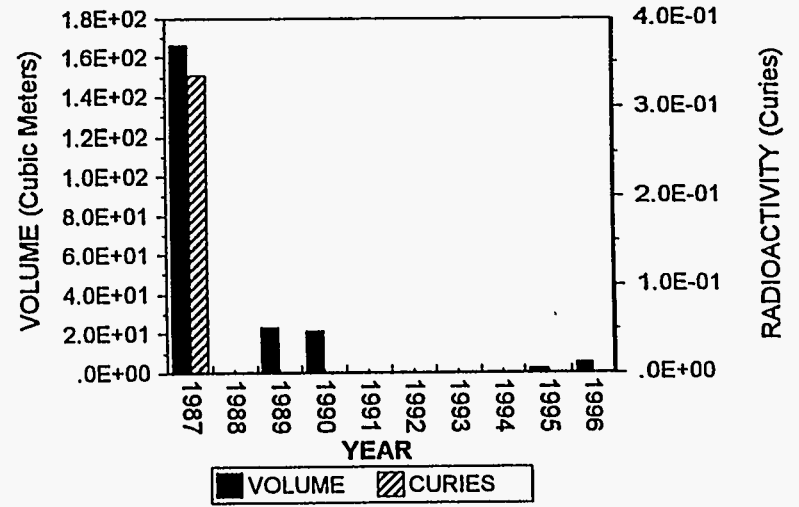
INEEL-24

INEEL SOLID RECORD-TO-DATE SUMMARY DISPOSED WASTE

WER 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



WMC 1987 - 1996 SOLID DISPOSED WASTE VOLUME & CURIES



INEEL-25

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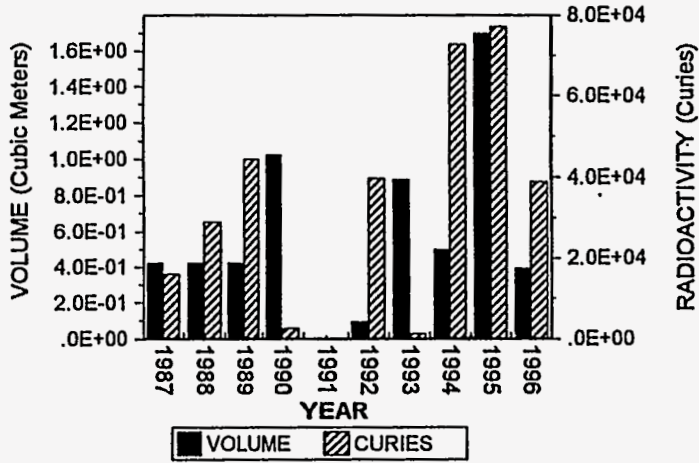
**INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY
STORED WASTE**

AREA / YEAR	1952-1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
EBR												
VOLUME	90	<1	<1	<1	1		<1	<1	<1	2	<1	96
CURIES	9965950	16010	28962	44496	2774		39741	1165	72610	77016	39978	10,288,700
ILT												
VOLUME	44	8	5		12			6	3	3	<1	81
CURIES	4166	1524	3913		120			60	4	748	5	10,539
TSA												
VOLUME	60719	2102	1068	873	4	<1	<1			<1		64,767
CURIES	448457	24348	10612	6623	83	<1	<1			4		490,127
WCF												
VOLUME	2896											2,896
CURIES	72944000											72,944,000
TOTAL VOLUME	63749	2110	1073	873	17	<1	<1	7	3	6	<1	67,839
CURIES	83362573	41882	43487	51118	2976	<1	39741	1225	72614	77767	39983	83,733,367

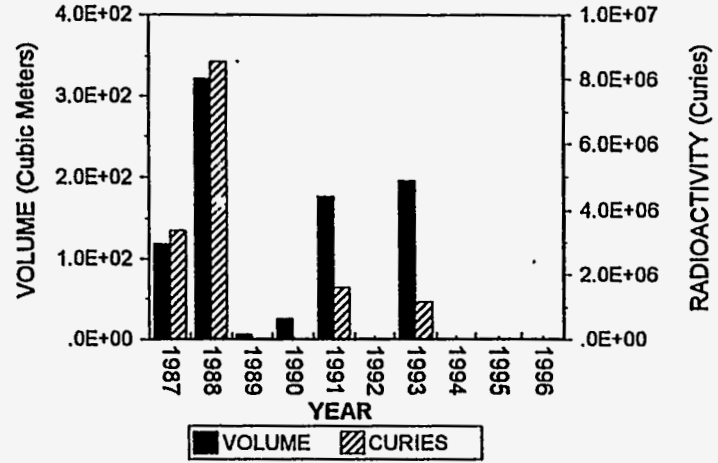
1 VOLUMES IN CUBIC METERS
2 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEEL RECORD-TO-DATE SUMMARY STORED WASTE

EBR 1987 - 1996 SOLID STORED WASTE VOLUME & CURIES

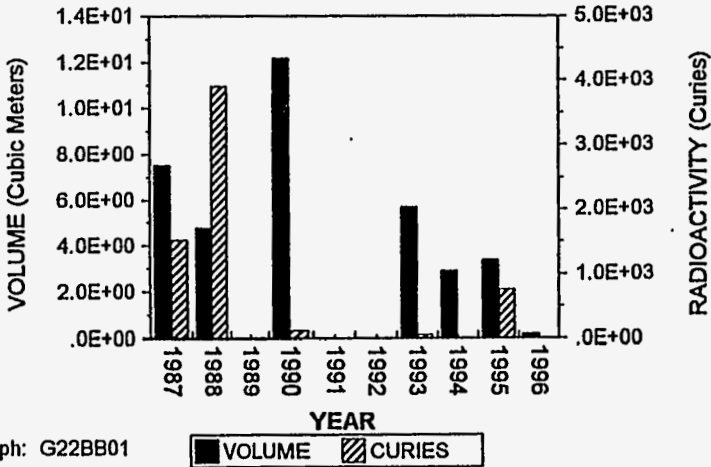


WCF 1987 - 1996 SOLID STORED WASTE VOLUME & CURIES



CPP SENT NO CALCINED SOLIDS TO STORAGE IN 88, 92, 94, 95, 96. 1989 VOLUME IS A RESULT OF NONRADIOACTIVE CALCINE RUN.

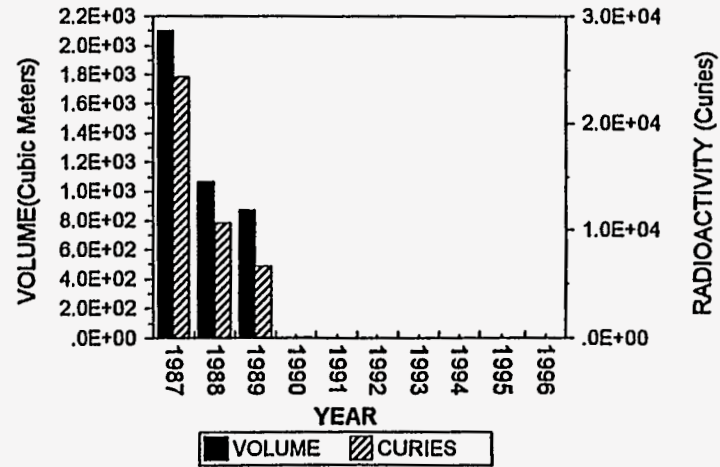
ILT 1987 - 1996 SOLID STORED WASTE VOLUME & CURIES



Graph: G22BB01

NO WASTE SENT TO ILTSF IN 86, 91, 92

TSA 1987 - 1996 SOLID STORED WASTE VOLUME & CURIES



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 Radioactive Waste Management Information System

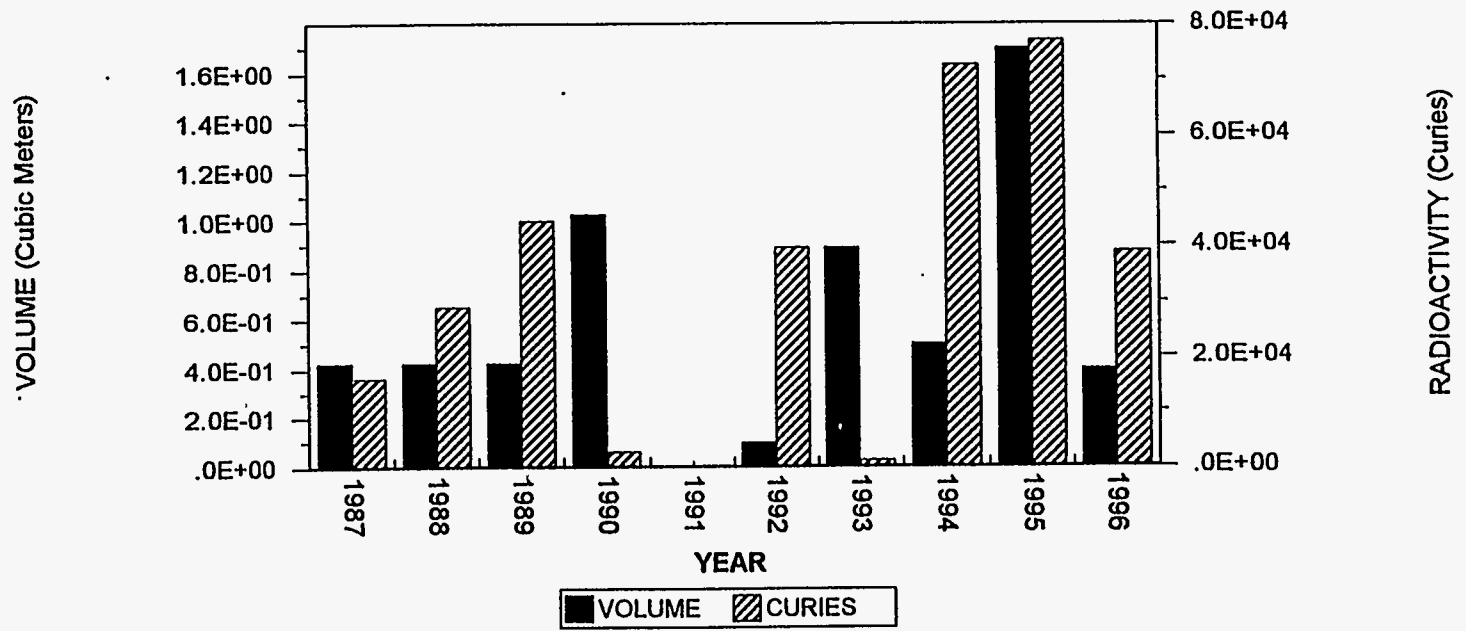
**INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY
 EBR STORAGE WASTE**

AREA / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
ANL												
VOLUME	89	<1	<1	<1	1		<1	<1	<1	2	<1	95
CURIES	9965950	16010	28962	44496	2774		39741	1165	72610	77016	39978	10,288,700
TRA												
VOLUME	<1											0
CURIES	<1											0
TOTAL VOLUME	90	<1	<1	<1	1		<1	<1	<1	2	<1	96
CURIES	9965950	16010	28962	44496	2774		39741	1165	72610	77016	39978	10,288,700

1 VOLUME IN CUBIC METERS
 2 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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1987 - 1996 EBR SOLID STORED WASTE VOLUME & CURIES



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**INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY
ILTSF WASTE**

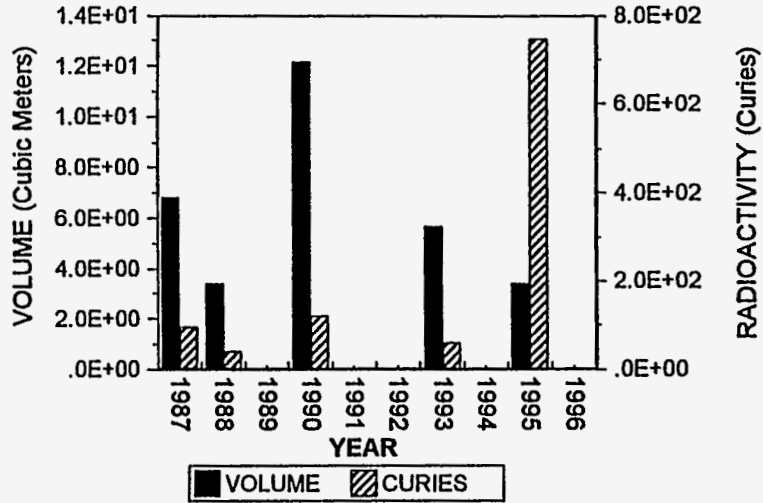
AREA / YEAR	1952-1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
ALE												
VOLUME	38	7	3		12			6		3		69
CURIES	233	95	42		120			60		748		1,297
ANL												
VOLUME	3	<1	1									5
CURIES	3782	1429	3268									8,479
BET												
VOLUME			<1									0
CURIES			604									604
CPP												
VOLUME	<1											0
CURIES	70											70
NRF												
VOLUME	3											3
CURIES	81											81
TRA												
VOLUME									3		<1	3
CURIES									4		5	9
TOTAL VOLUME	44	8	5		12			6	3	3	<1	81
CURIES	4166	1524	3913		120			60	4	748	5	10,539

1 VOLUME IN CUBIC METERS
2 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

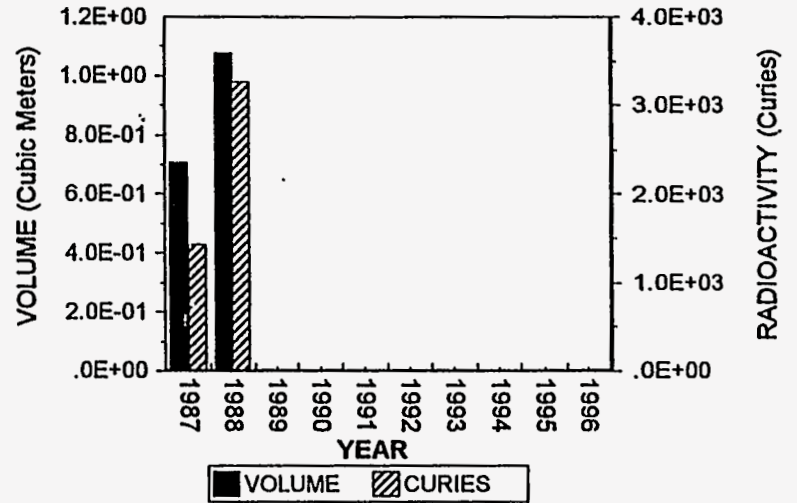
INEEL-30

INEEL SOLID RECORD-TO-DATE SUMMARY INTERMEDIATE LEVEL TRANSURANIC STORAGE FACILITY (ILTSF) WASTE

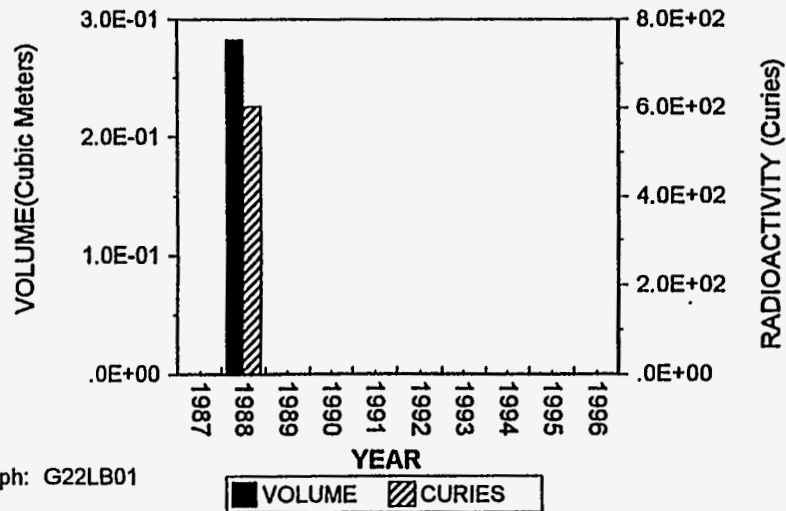
ALE 1987 - 1996 ILTSF STORAGE SOLID WASTE



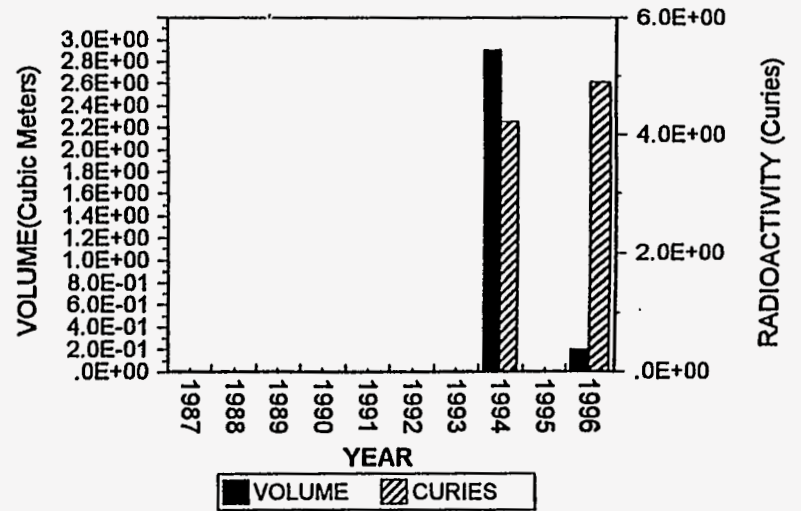
ANL 1987 - 1996 ILTSF SOLID STORAGE WASTE



BET 1987 - 1996 ILTSF SOLID STORAGE WASTE



TRA 1987 - 1996 ILTSF SOLID STORAGE WASTE



INEEL-31

Graph: G22LB01

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Radioactive Waste Management Information System

**INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY
TSA WASTE**

AREA / YEAR	1952-1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
ALE												
VOLUME	1465	5										1,471
CURIES	8241	12										8,253
ANL												
VOLUME	17	9	4	6	1	<1	<1					39
CURIES	422	212	59	126	23	<1	<1					842
ARA												
VOLUME	10											10
CURIES	21											21
BCL												
VOLUME	214											214
CURIES	180											180
BEN												
VOLUME	<1											0
CURIES	19											19
BET												
VOLUME	429	4										433
CURIES	957	26										984
CFA												
VOLUME	<1											0
CURIES	<1											0
CPP												
VOLUME	43											43
CURIES	342											342
CTF												
VOLUME		<1										0
CURIES		1										1
D+D												
VOLUME					<1							0
CURIES					3							3

1 VOLUMES IN CUBIC METERS
2 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY
TSA WASTE

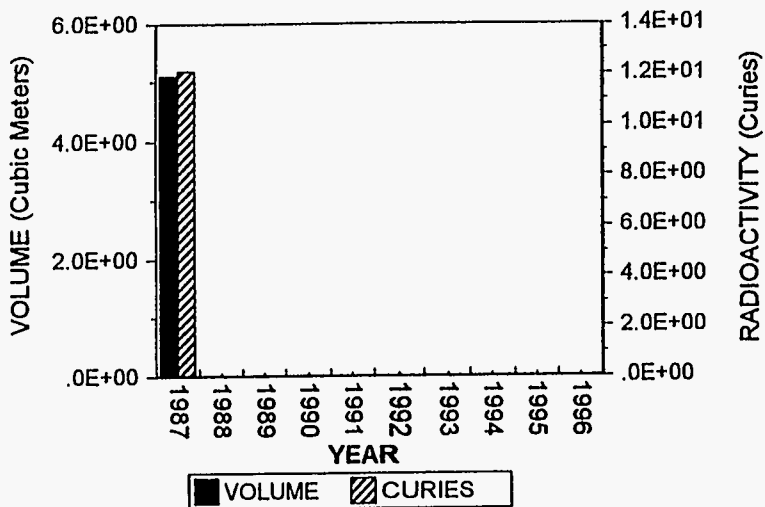
AREA / YEAR	1952-1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
MRC												
VOLUME	3618	126	87									3,831
CURIES	67765	104	1527									69,396
NRF												
VOLUME	3				<1							4
CURIES	331				8							339
RFO												
VOLUME	50505	1946	977	867								54,294
CURIES	348535	23818	9026	6497								387,875
TAN												
VOLUME	<1									<1		1
CURIES	16									3		19
TRA												
VOLUME	8	<1			2					<1		10
CURIES	1890	90			49					<1		2,030
WMC												
VOLUME	4403	12										4,415
CURIES	19737	85										19,823
TOTAL VOLUME	60719	2102	1068	873	4	<1	<1			<1		64,767
CURIES	448457	24348	10612	6623	83	<1	<1			4		490,127

1 VOLUMES IN CUBIC METERS
 2 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

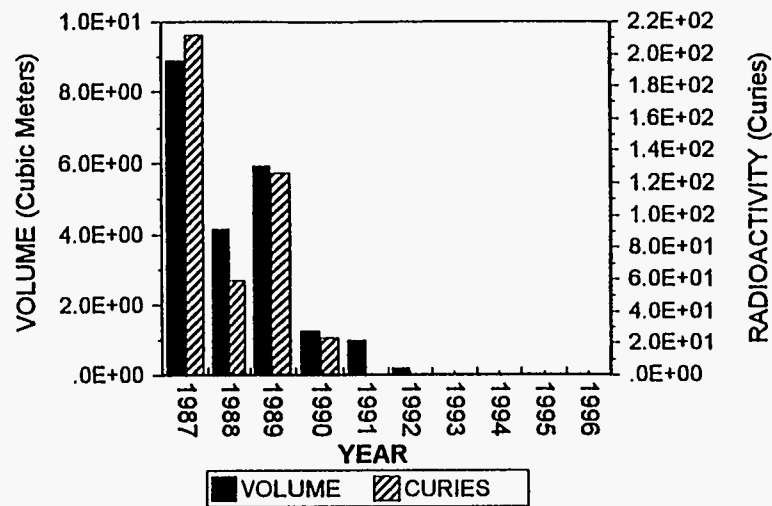
INEEL-33

INEEL SOLID RECORD-TO-DATE SUMMARY TSA WASTE

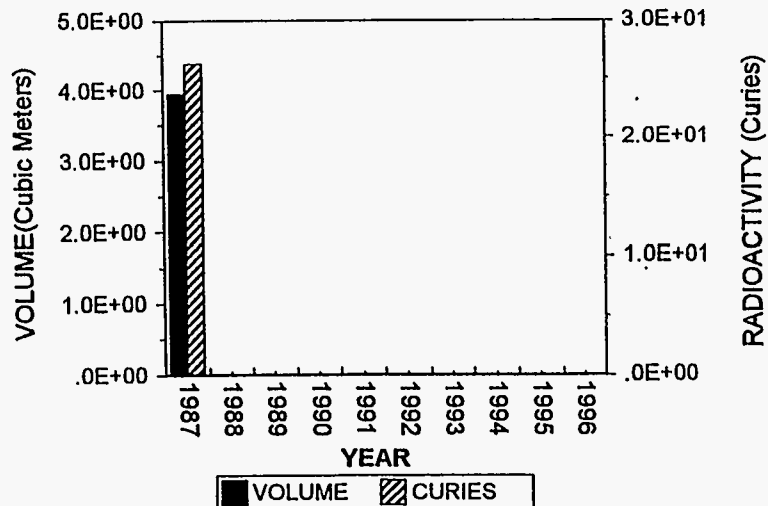
ALE 1987 - 1996 TSA SOLID STORAGE WASTE



ANL 1987 - 1996 TSA SOLID STORAGE WASTE



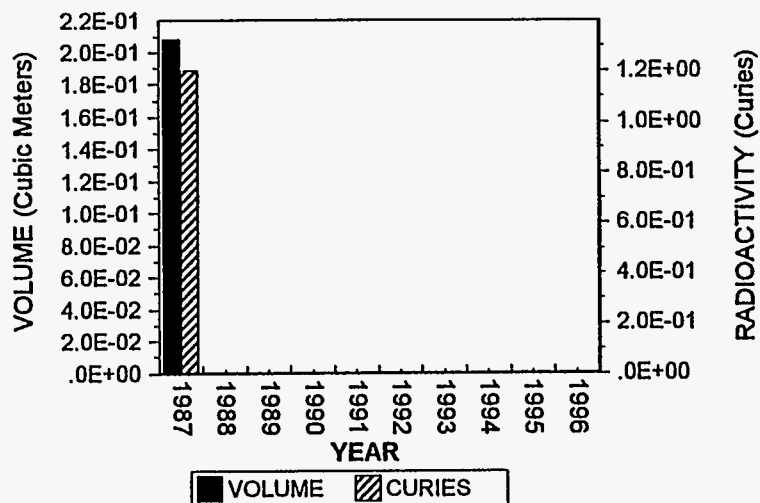
BET 1987 - 1996 TSA SOLID STORAGE WASTE



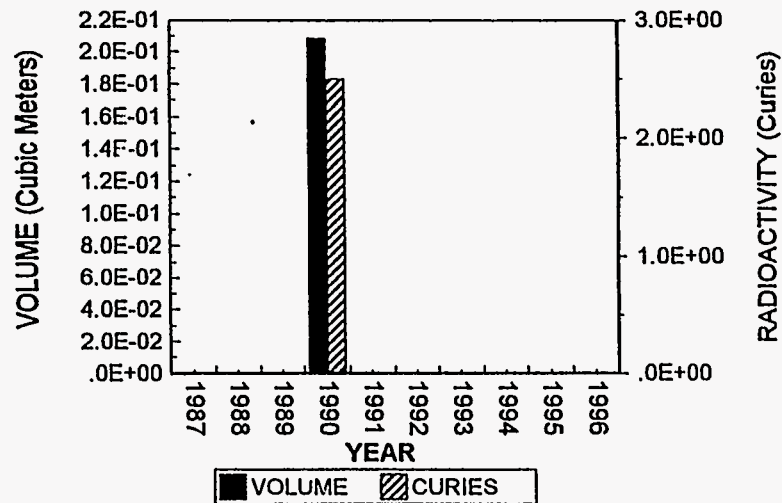
INEEL-34

INEEL SOLID RECORD-TO-DATE SUMMARY TRANSURANIC STORAGE AREA (TSA) WASTE

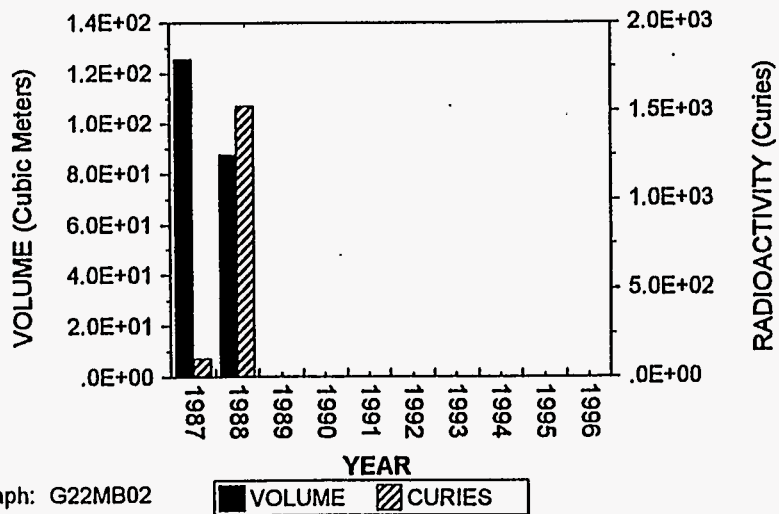
CTF 1987 - 1996 TSA STORAGE SOLID WASTE



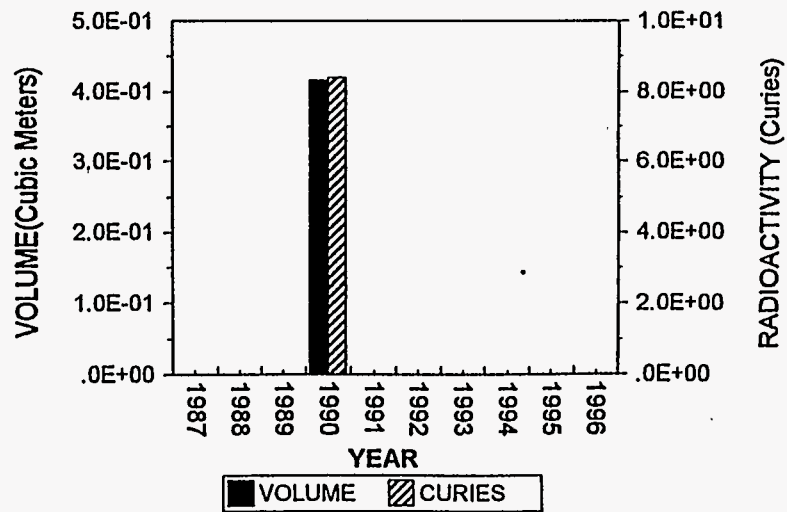
D+D 1987 - 1996 TSA STORAGE SOLID WASTE



MRC 1987 - 1996 TSA STORAGE SOLID WASTE



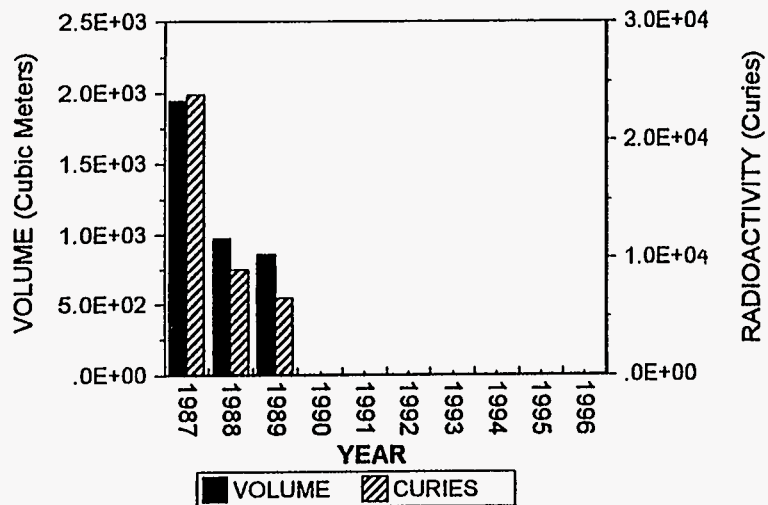
NRF 1987 - 1996 TSA STORAGE SOLID WASTE



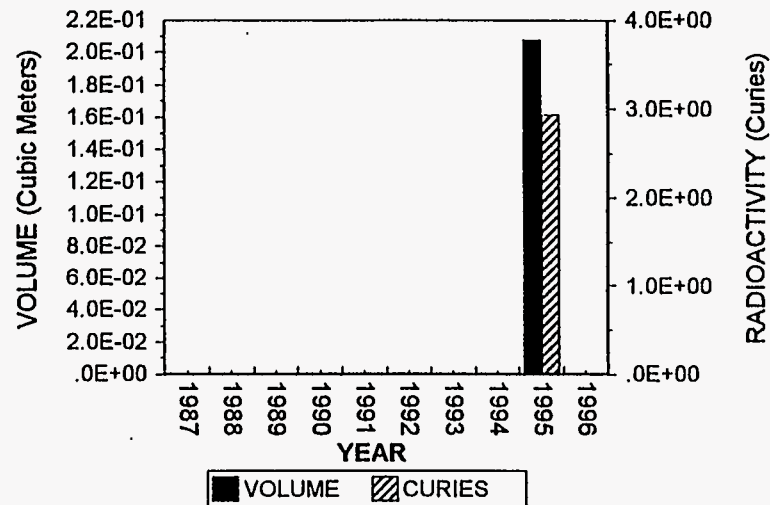
Graph: G22MB02

INEEL SOLID RECORD-TO-DATE SUMMARY TRANSURANIC STORAGE AREA (TSA) WASTE

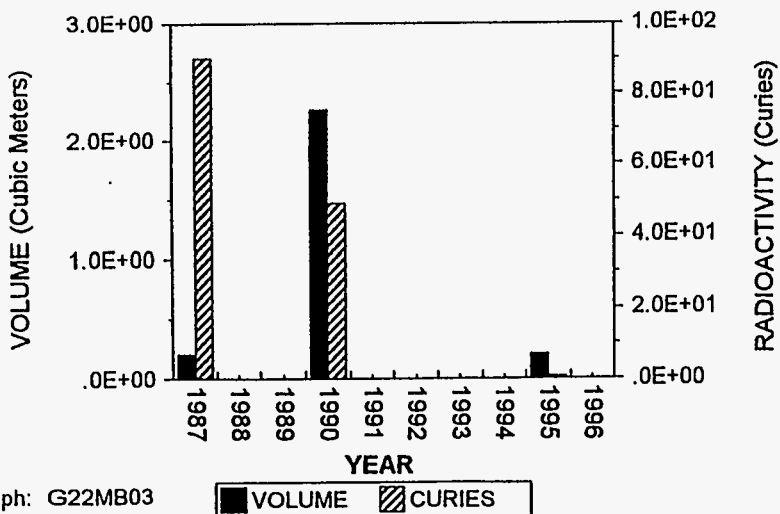
RFO 1987 - 1996 TSA STORAGE SOLID WASTE



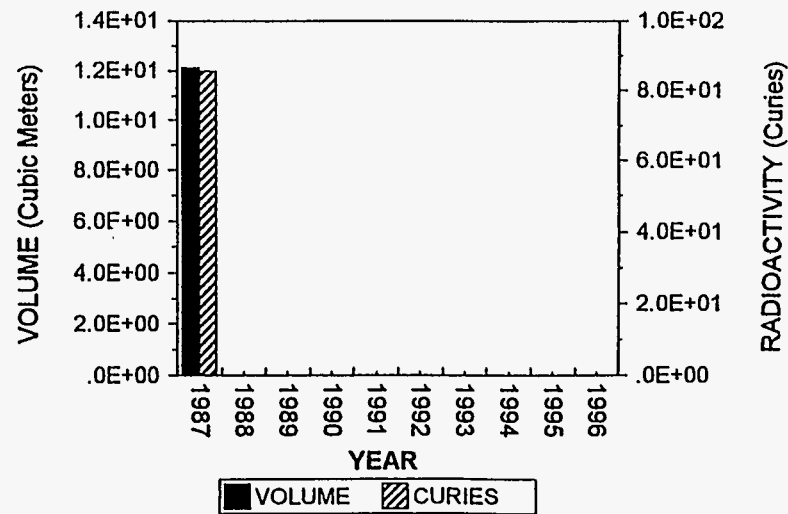
TAN 1987 - 1996 TSA STORAGE SOLID WASTE



TRA 1987 - 1996 TSA STORAGE SOLID WASTE



WMC 1987 - 1996 TSA STORAGE SOLID WASTE



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**INEEL RECORD-TO-DATE SUMMARY
 CPP HIGH-LEVEL LIQUID/SOLID WASTE STORAGE**

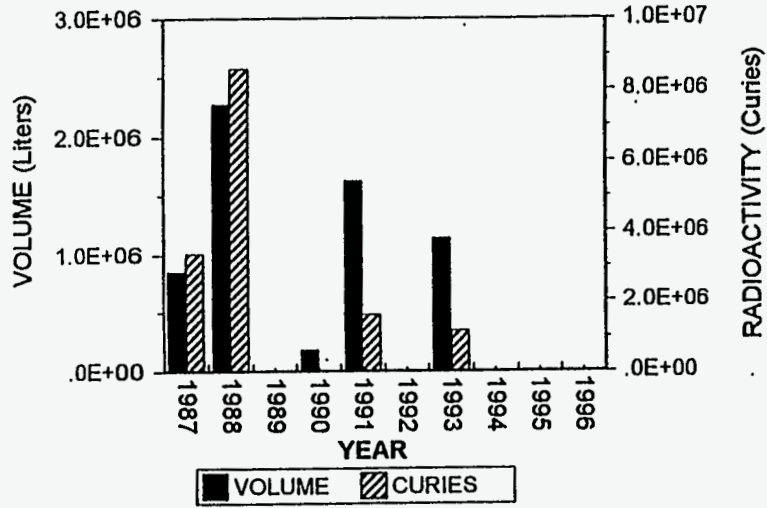
TYPE / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
LIQUID WASTE TO LIQUID WASTE TANKS												
VOLUME	26594000											26594000
CURIES	378679210											378,679,210
LIQUID WASTE TO CALICINER												
VOLUME	46126784	856257	2275040		181700	1627800		1139800				52207381
CALICINED SOLIDS TO STORAGE												
VOLUME	2896	118	322	7	26	177		197				3742
CURIES	72944000	3359000	8566000	<1	1680	1603000		1141140				87,614,820

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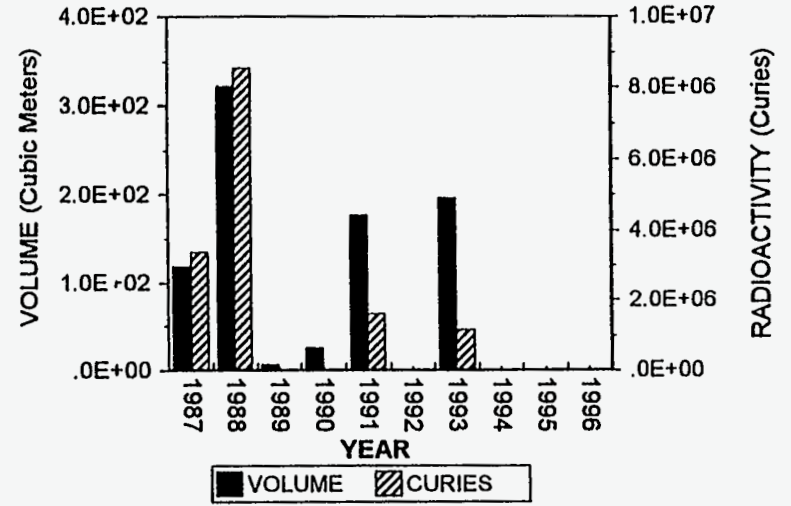
- 1 LIQUID VOLUME IN LITERS
- 2 SOLID VOLUME IN CUBIC METERS
- 3 LIQUID WASTES WERE GENERATED BEGINNING IN 1953
- 4 HOWEVER, THE WASTE CALCINATION PROCESS DID NOT BEGIN UNTIL 1963
- 5 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEEL HIGH-LEVEL LIQUID/SOLID WASTE STORAGE RECORD-TO-DATE

1987 - 1996 CPP HIGH-LEVEL LIQUID WASTE TO CALCINER



1987 - 1996 CPP HIGH-LEVEL CALCINED SOLIDS TO STORAGE



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Radioactive Waste Management Information System

INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY

WERF WASTE

AREA / YEAR	1954- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
ANL												
VOLUME	122	115	231	221	150	106	81				503	1,529
CURIES	<1	<1	<1	<1	<1	<1	<1				15	17
ARA												
VOLUME	7		27									34
CURIES	<1		<1									0
CFA												
VOLUME	178	104	66	37	74	<1	3	20	91			574
CURIES	<1	<1	<1	<1	<1	<1	<1	<1	<1			0
CPP												
VOLUME	1144	1095	1005	1090	1439	892	77	55		198	453	7,448
CURIES	3	4	4	4	7	3	<1	<1		2	<1	27
CTF												
VOLUME	91											91
CURIES	<1											0
D+D												
VOLUME	403			2	4	103	5	53	115	98	82	865
CURIES	<1			<1	<1	<1	<1	<1	<1	<1	<1	0
LOF												
VOLUME	77											77
CURIES	<1											0
NRF												
VOLUME	540	572	1119	674	1002	556	389	291	283	417	289	6,133
CURIES	<1	<1	2	2	4	7	2	2	1	2	3	26
PBF												
VOLUME	9	30	6	<1	12						35	94
CURIES	<1	<1	<1	<1	<1						<1	0
PER												
VOLUME	7			16	3		1	26				53
CURIES	<1			<1	<1		<1	<1				0
SMC												
VOLUME	38	130	178	225	186	181			280		110	1,328
CURIES	<1	<1	<1	<1	<1	<1			<1		<1	0

1 VOLUME IN CUBIC METERS
2 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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Radioactive Waste Management Information System

INEEL CONTAINERIZED RECORD-TO-DATE SUMMARY

WERF WASTE

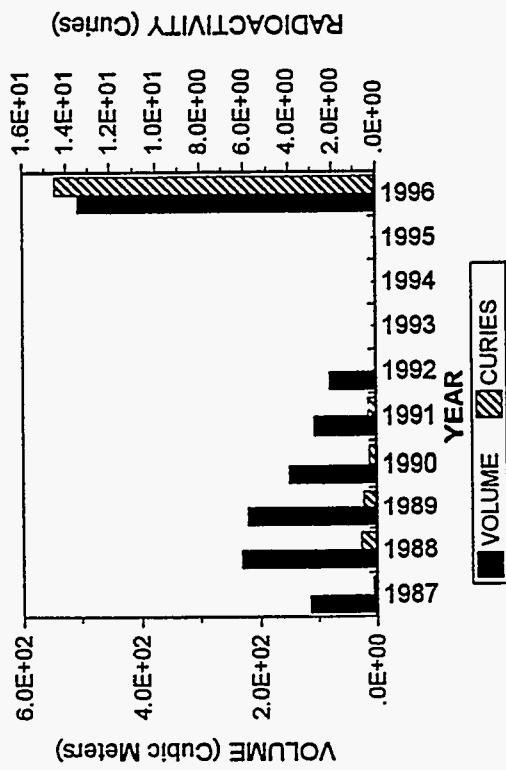
AREA / YEAR	1954-1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
TAN												
VOLUME	586	192	92	104	57	37				18	32	1,118
CURIES	<1	<1	<1	<1	<1	<1				<1	<1	1
TRA												
VOLUME	607	286	244	290	227	147	384			485	221	2,890
CURIES	<1	<1	<1	<1	<1	5	11			<1	<1	17
WER												
VOLUME											<1	0
CURIES											<1	0
WMC												
VOLUME	2	4			6	6					306	324
CURIES	<1	<1			<1	<1					<1	0
TOTAL VOLUME	3811	2529	2967	2659	3161	2029	940	446	769	1216	2033	22,560
TOTAL CURIES	4	5	6	6	12	15	13	2	1	4	19	88

1 VOLUME IN CUBIC METERS
2 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

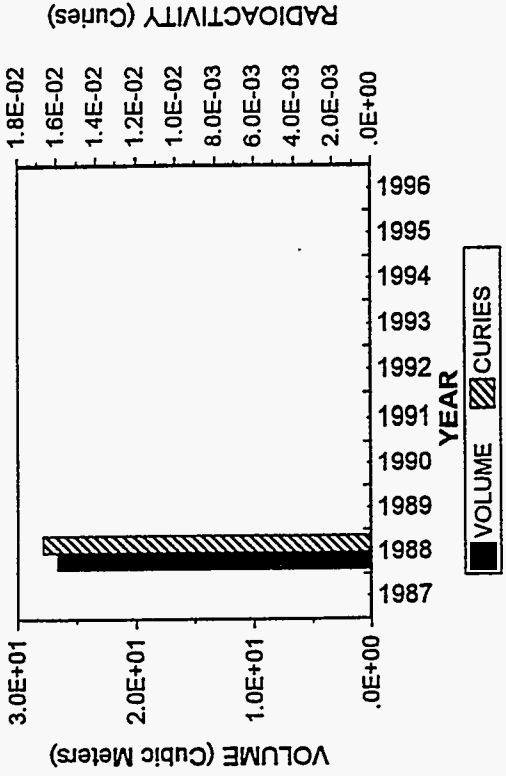
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INEEL SOLID RECORD-TO-DATE SUMMARY WERF WASTE

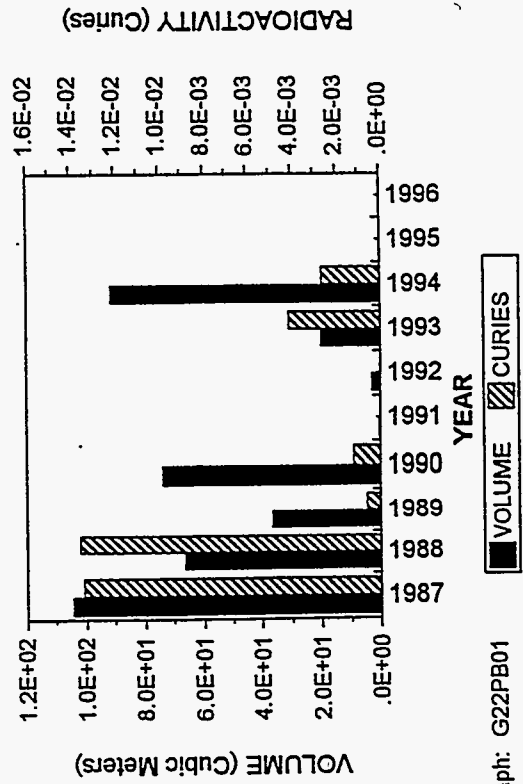
ANL 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



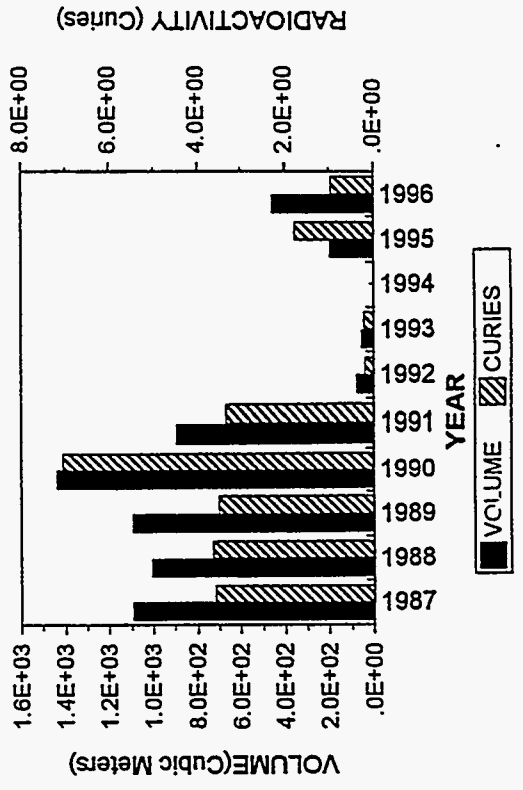
ARA 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



CFA 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



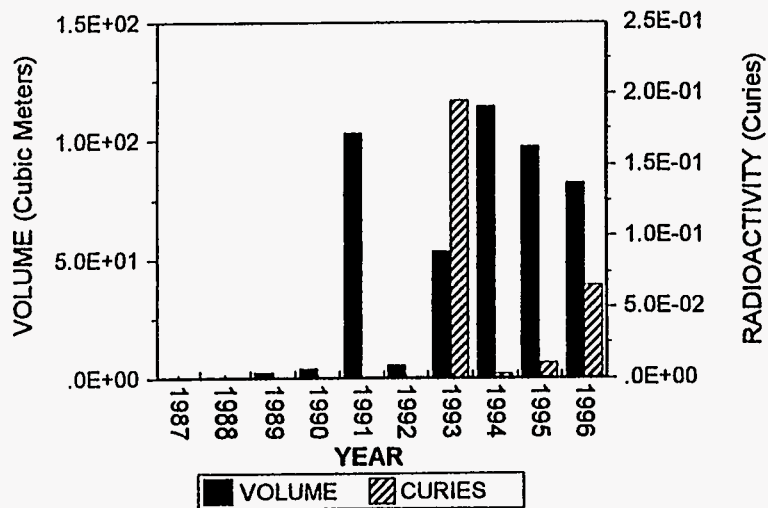
CPP 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



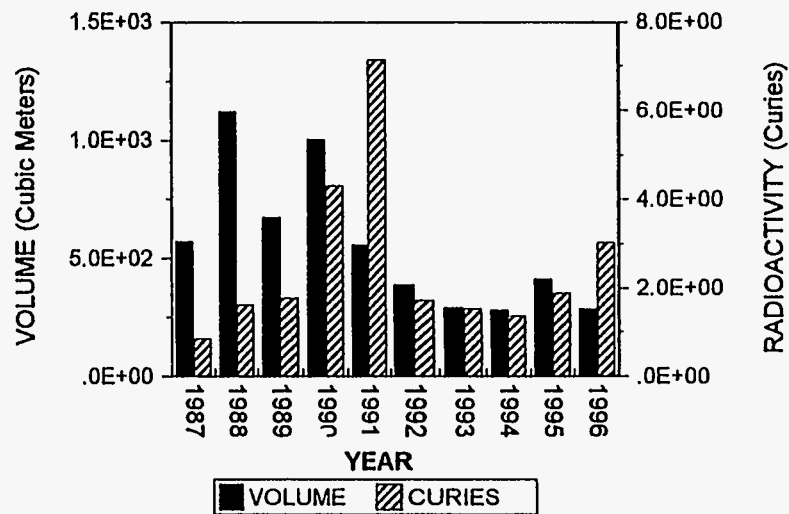
Graph: G22PB01

INEEL SOLID RECORD-TO-DATE SUMMARY WERF WASTE

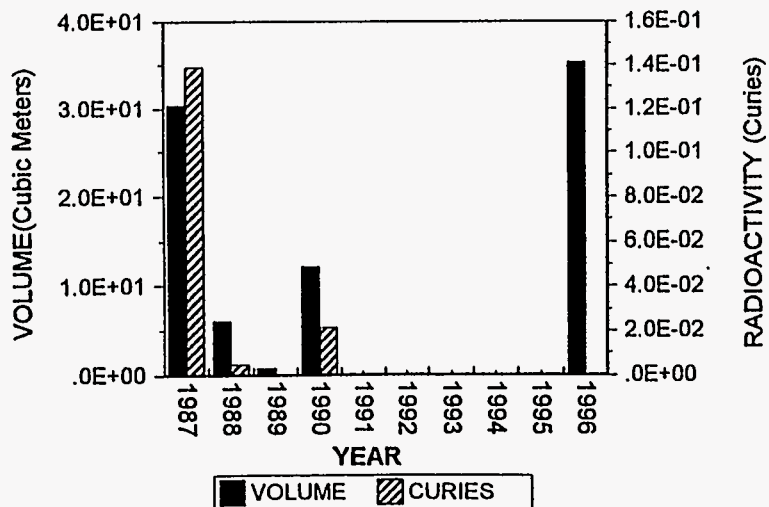
D+D 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



NRF 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



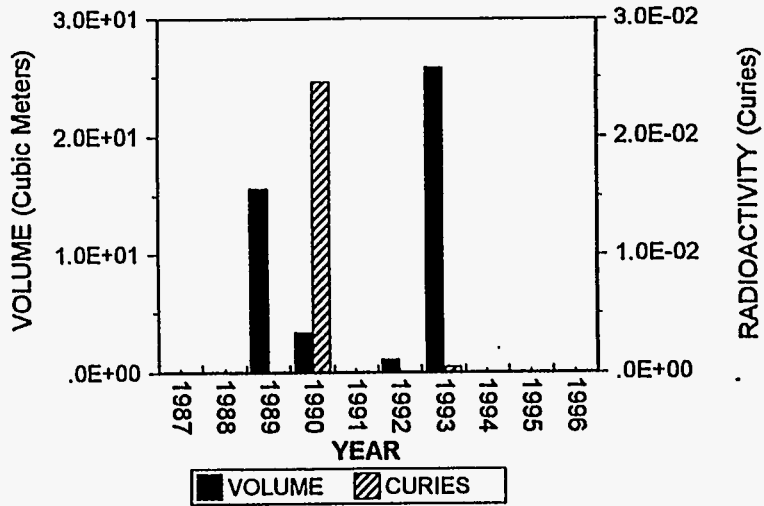
PBF 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



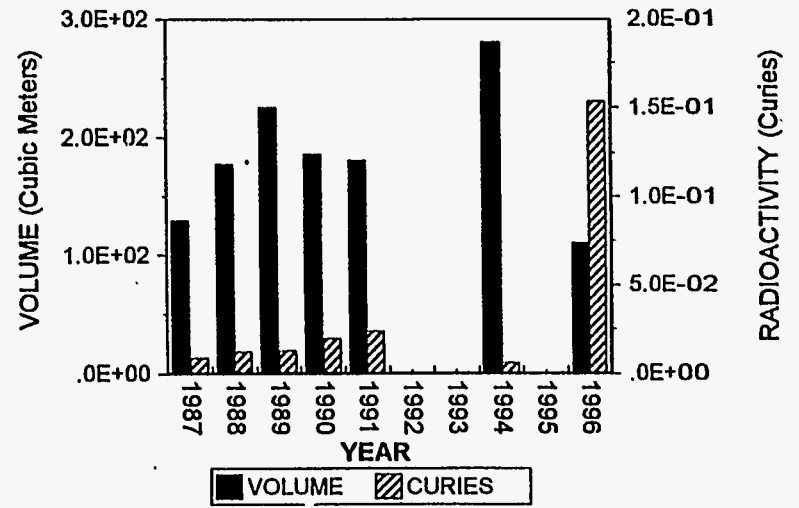
Graph: G22PB02

INEEL SOLID RECORD-TO-DATE SUMMARY WERF WASTE

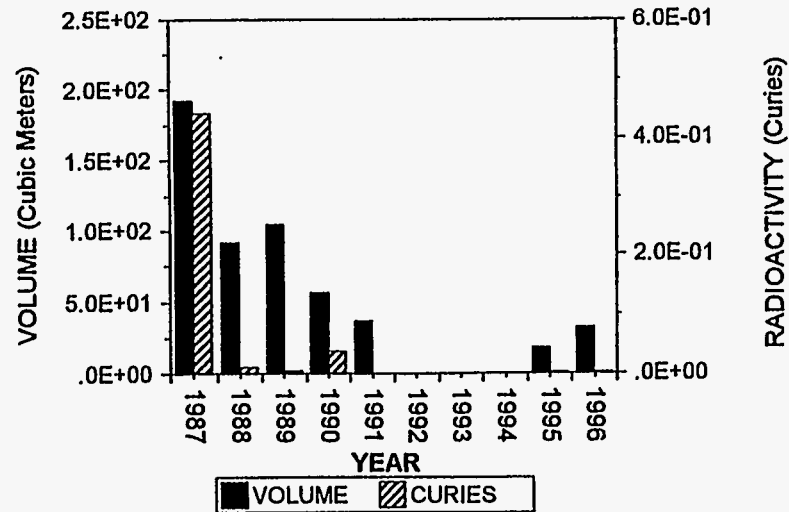
PER 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



SMC 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



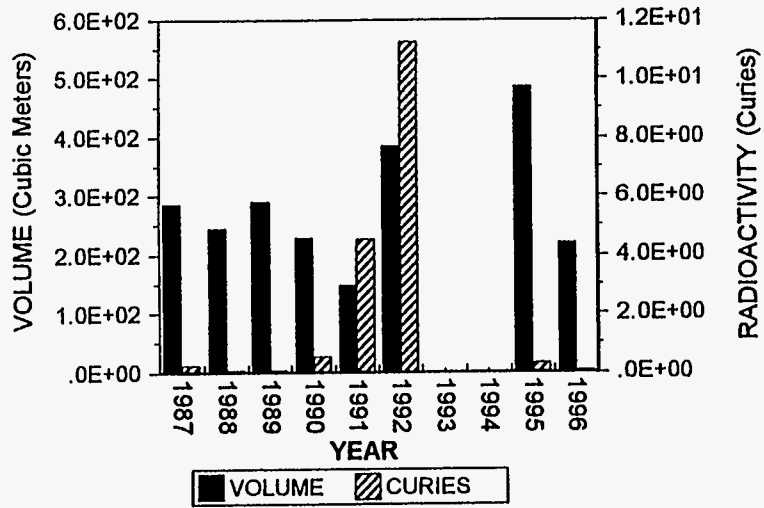
TAN 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



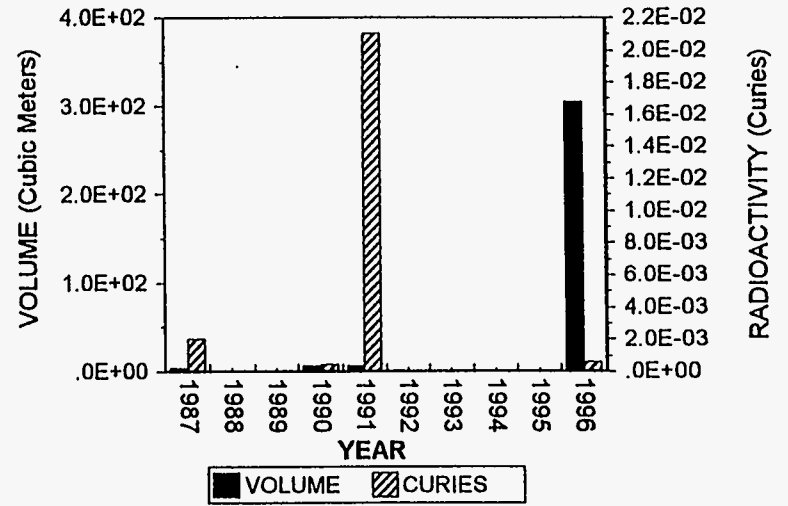
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INEEL SOLID RECORD-TO-DATE SUMMARY WERF WASTE

TRA 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



WMC 1987 - 1996 SOLID WASTE SENT TO WERF FOR REDUCTION



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**INEEL RECORD-TO-DATE SUMMARY
 SCND WASTE**

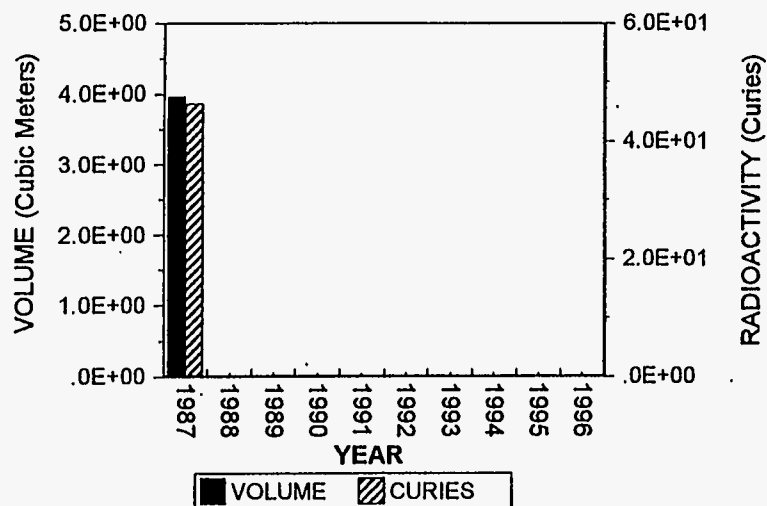
AREA / YEAR	1952- 1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	TOTAL
VOLUME CURIES												
B+W		4										4
VOLUME CURIES		46										46
JCH												4
VOLUME CURIES			4									27
MDL												17
VOLUME CURIES			17									491
TAN												2
VOLUME CURIES											2	4566
TOTAL VOLUME CURIES		4	21								2	27
		46	518								4566	5,130

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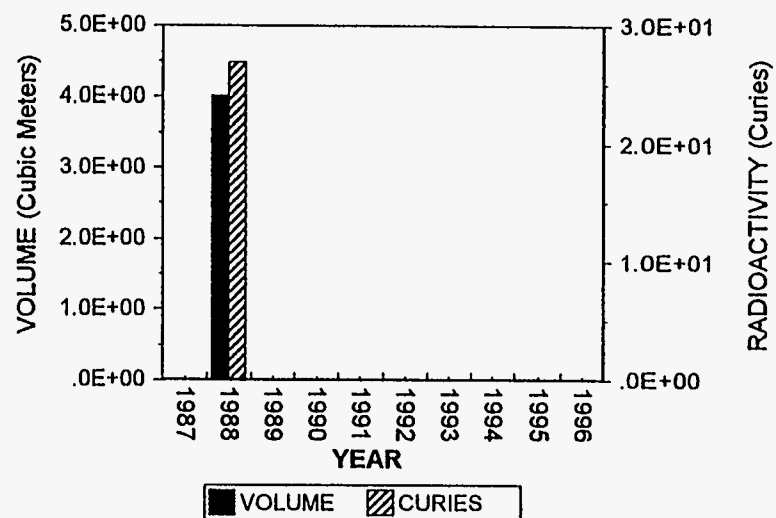
- 1 VOLUME IN CUBIC METERS
- 2 DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING
- 3 THIS IS A SUMMARY OF SCND WASTE NOT PERVIOUSLY REPORTED

INEEL RECORD-TO-DATE SCND SUMMARY

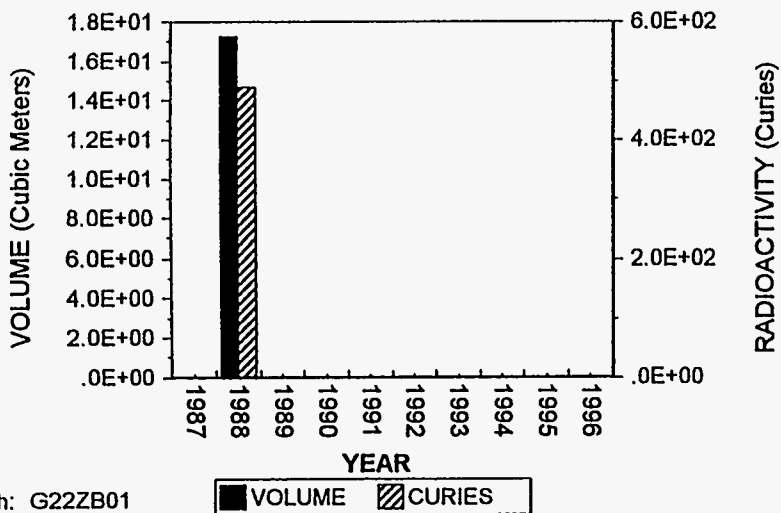
B+W 1987 - 1996 SCND WASTE STORED AT THE INEEL



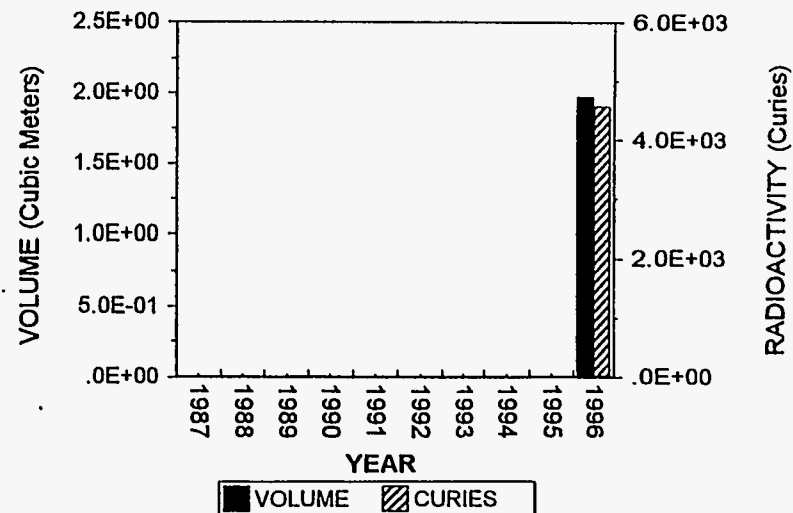
JCH 1987 - 1996 SCND WASTE STORED AT THE INEEL



MDL 1987 - 1996 SCND WASTE STORED AT THE INEEL



TAN 1987 - 1996 SCND WASTE STORED AT THE INEEL



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INEEL 1996 Year-to-Date Summary

INEEL Year-To-Date Summary, 1996 INEEL-49
INEEL Year-To-Date CY 1996 Pie Charts INEEL-52
INEEL Year-To-Date Summary CY 1996 Pie Charts INEEL-53

Idaho Operations Office
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 Radioactive Waste Management Information System

**INEEL YEAR TO DATE SUMMARY
 FOR JAN THROUGH DEC 1996**

FACILITY	AIRBORNE		LIQUID		SOLID	
	VOLUME (CU. METERS)	RADIO- ACTIVITY (CURIES)	VOLUME (LITERS)	RADIO- ACTIVITY (CURIES)	VOLUME (CU. METERS)	RADIO- ACTIVITY (CURIES)
DISPOSED WASTES						
ANL	2.414E+09	1.049E+03			2.080E+01	1.582E+01
CFA					4.140E-01	2.727E+00
CPP	3.264E+09	3.093E-02	2.219E+09	1.295E-03	1.450E+02	4.759E+00
D+D					2.465E+02	2.844E-01
NRF	6.197E+09	1.270E+00			9.644E+01	1.416E+04
PBF	5.969E+07	5.840E-07				
SMC	3.306E+09	1.601E-03				
TAN	1.765E+08	4.367E-06			4.234E+01	1.571E+02
TRA	1.351E+09	1.854E+03	1.992E+07	7.266E+01	2.441E+01	1.052E+02
WER	3.021E+08	2.970E-08			1.113E+02	1.432E+00
WMC					5.513E+00	4.284E-05
DISPOSED WASTES SUBTOTAL	1.707E+10	2.904E+03	2.239E+09	7.266E+01	6.927E+02	1.445E+04

* Solid values are for waste disposed at RWMC and are end products of WERP reduction processes

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 Radioactive Waste Management Information System

**INEEL YEAR TO DATE SUMMARY
 FOR JAN THROUGH DEC 1996**

FACILITY	LOW-LEVEL WASTE		MIXED LOW-LEVEL WASTE		TRANSURANIC	
	VOLUME CU. METERS)	RADIO- ACTIVITY CURIES	VOLUME CU. METERS)	RADIO- ACTIVITY CURIES	VOLUME CU. METERS)	RADIO- ACTIVITY CURIES
STORED WASTES						
EBR STORAGE AREA						
ANL	3.964E-01	3.893E+04	9.911E-02	1.045E+03		
	3.964E-01	3.893E+04	9.911E-02	1.045E+03		
ILT WASTE FROM:						
TRA					2.082E-01	4.896E+00
					2.082E-01	4.896E+00
STORED WASTES SUBTOTAL	3.964E-01	3.893E+04	9.911E-02	1.045E+03	2.082E-01	4.896E+00

* Solid values are for waste disposed at RWMC and are end products of WERP reduction processes

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 Radioactive Waste Management Information System

**INEEL YEAR TO DATE SUMMARY
 FOR JAN THROUGH DEC 1996**

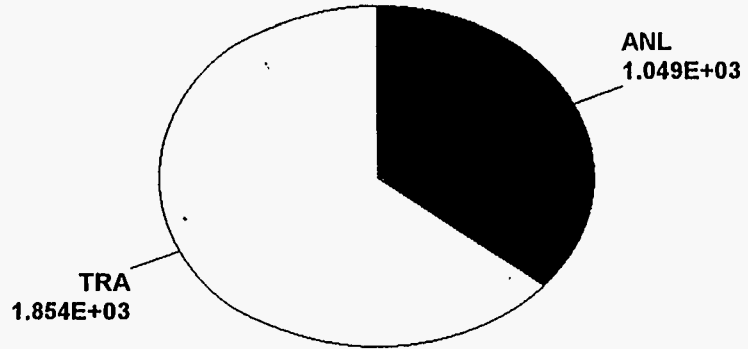
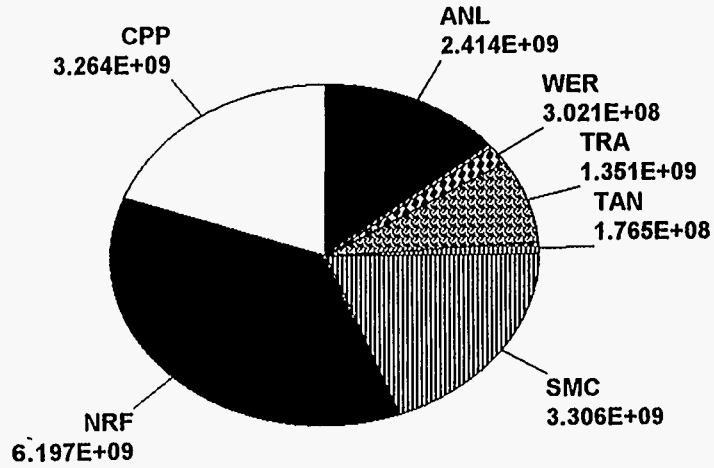
FACILITY	SOLID VOLUME CU. METERS)	RADIO- ACTIVITY (CURIES)
WASTES TO BE PROCESSED AT WERF FROM:		
ANL	5.035E+02	1.450E+01
CPP	4.531E+02	9.677E-01
D+D	8.246E+01	6.489E-02
NRF	2.894E+02	3.037E+00
PBF	3.534E+01	4.687E-07
SMC	1.101E+02	1.535E-01
TAN	3.223E+01	2.289E-03
TRA	2.207E+02	7.334E-02
WER	2.044E-01	1.120E-04
WMC	3.058E+02	5.953E-04
WERF WASTES SUBTOTAL	2.033E+03	1.880E+01

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1 • Solid values are for waste disposed at RWMC and are end products of WERF reduction processes.

INEEL YEAR-TO-DATE SUMMARY CY 1996

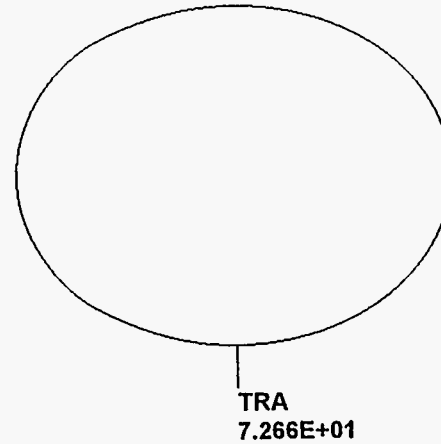
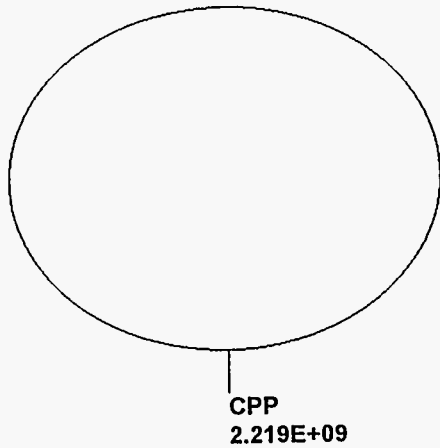
INEEL AIRBORNE EFFLUENT



Volume (Cubic Meters)
Areas not listed have values <1% of the total

Radioactivity (Curies)

INEEL LIQUID EFFLUENT

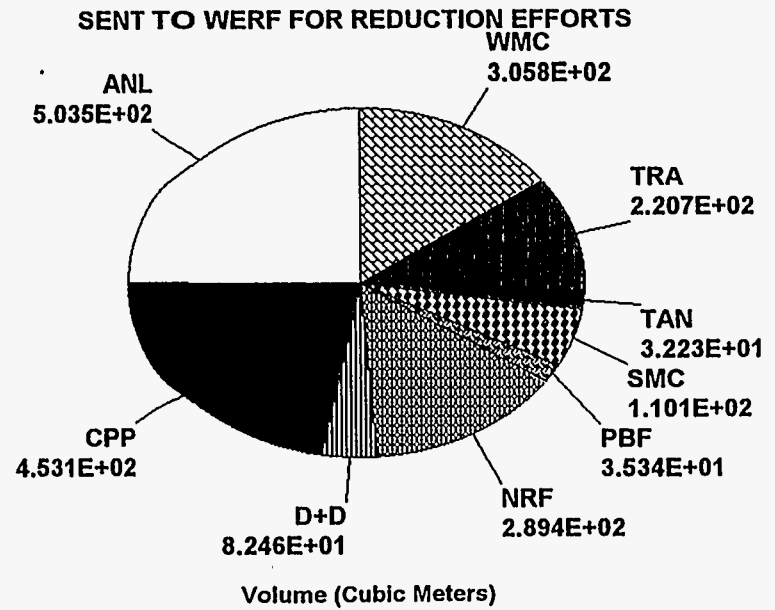
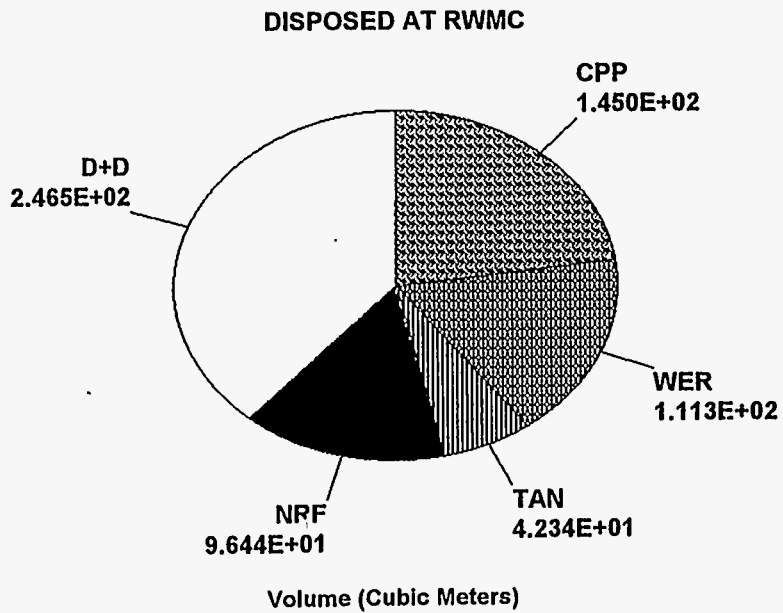


Volume (Liters)
Areas not listed have values <1% of the total

Radioactivity (Curies)

Graph: G009B01

INEEL SOLID WASTE VOLUME (Cubic Meters) DISPOSED AT RWMC AND SENT FOR REDUCTION EFFORTS



Areas not listed have values <1% of the total

INEEL-53

Nuclide Summary in Curies for Airborne, Liquid, and Solid Waste

Airborne Nuclide Summaries in Curies, 1996 INEEL-57
Liquid Nuclide Summary in Curies, 1996 INEEL-59
Disposed Solid Waste Nuclide Summary in Curies, 1996 INEEL-60
ILTS Area Nuclide Summary in Curies, 1996 INEEL-64
EBR Storage Area Nuclide Summary in Curies, 1996 INEEL-65
WERF Processed Nuclide Summary in Curies, 1996 INEEL-67

Nuclide Summary in
Curies for Airborne,
Liquid, and Solid Waste

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**AIRBORNE
NUCLIDE SUMMARY IN CURIES
FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE / GEN AREA IDENT	ANL	CPP	NRF	PBF	SMC	TAN	TRA	WER	TOTAL
AR-41	2						1802		1804
BA-139							<1		<1
C-14			1						1
CO-58							<1		<1
CO-60		<1		<1			<1		<1
CR-51							1		1
CS-134		<1							<1
CS-137		<1		<1		<1	<1	<1	<1
CS-138							2		2
EU-154		<1							<1
GROS-BET-GAM	<1								<1
GROSS-ALPHA	<1		<1	<1		<1	<1		<1
GROSS-BETA			<1	<1		<1	<1		<1
H-3	9		<1						9
HG-203			<1				<1		<1
I-129		<1							<1
I-131			<1				<1		<1
I-132							<1		<1
I-133							<1		<1
IR-192							<1		<1
KR-85	1038		<1						1038
KR-85M							5		5
KR-87							2		2
KR-88							7		7
MN-56							<1		<1
NA-24							<1		<1
PA-234					<1				<1
PU-238		<1							<1
PU-239		<1							<1
RB-88							3		3

INBEL-57

Idaho Operations Office
 U.S. Department of Energy
 Radioactive Waste Management Information System

**AIRBORNE
 NUCLIDE SUMMARY IN CURIES
 FOR JANUARY THROUGH DECEMBER 1996**

IDENT	ANL	CPP	NRF	PBF	SMC	TAN	TRA	WER	TOTAL
RU-106		<1							<1
SB-125		<1							<1
SR-90		<1				<1	<1		<1
TC-99M							<1		<1
TH-234					<1				<1
U-234					<1				<1
U-238					<1				<1
XE-131	<1								<1
XE-131M	<1								<1
XE-133							3		3
XE-135							27		27
XE-135M							1		1
XE-138							2		2
Y-90							<1		<1
TOT/L	1049	<1	1	<1	<1	<1	1854	<1	2904

INBEL-58

Idaho Operations Office
 U.S. Department of Energy
 Radioactive Waste Management Information System

**LIQUID
 NUCLIDE SUMMARY IN CURIES
 FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE / GEN AREA IDENT	CPP	TRA	TOTAL
CE-144		<1	<1
CO-58		<1	<1
CO-60		<1	<1
CR-51		1	1
CS-137	<1	<1	<1
GD-153		<1	<1
GROSS-BETA		<1	<1
H-3		70	70
HF-175		<1	<1
HF-181		<1	<1
NA-24		<1	<1
PU-238	<1		<1
SB-124		<1	<1
SC-46		<1	<1
SR-89		<1	<1
SR-90	<1	<1	<1
TA-182		<1	<1
U-234	<1		<1
U-235	<1		<1
U-238	<1		<1
Y-90		<1	<1
ZR-95		<1	<1
TOTAL	<1	73	73

INEEL-59

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**DISPOSED SOLID WASTE
NUCLIDE SUMMARY IN CURIES
FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE / GEN AREA IDENT	ANL	CFA	CPP	D+D	NRF	TAN	TRA	WER	WMC	TOTAL
AC-227		<1								<1
AG-108M					<1				<1	<1
AG-110					<1					<1
AG-110M					<1		<1			<1
AM-241	<1	<1	<1		<1					<1
AM-243		<1								<1
AR-39					<1					<1
BA-133		<1					<1			<1
BA-137M	4				<1		<1			4
BE-210		<1								<1
C-14		<1			2	<1	<1			2
CID-113M	<1									<1
CE-141							<1			<1
CE-144	<1				<1			<1		<1
CI-36					<1					<1
CM-242						<1				<1
CM-244						<1				<1
CO-57	<1				<1		<1			<1
CO-58	<1		<1		27	<1	<1			27
CO-60	<1	<1	<1		2545	134	<1	<1	<1	2680
CR-51					<1	<1	103	<1		104
CS-134	<1		<1		<1	<1	<1			<1
CS-137	4	<1	3	<1	<1	<1	<1			8
CS-144										<1
EU-152	<1	<1	<1		<1	<1				<1
EU-154	<1	<1	<1		20	<1	<1			20
EU-155	<1		<1		7		<1			7

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**DISPOSED SOLID WASTE
NUCLIDE SUMMARY IN CURIES
FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE / GEN AREA IDENT	ANL	CFA	CPP	D+D	NRF	TAN	TRA	WER	WMC	TOTAL
FE-55			<1		2924	<1	<1	<1		2924
FE-59					<1		<1	<1		<1
GD-153					<1			<1		<1
II-3		<1	<1		1			<1		1
III-175					<1		<1	<1		<1
HF-181					<1	<1	<1	<1		<1
I-129					<1	<1	<1	<1		<1
I-131							<1			<1
IN-113M					3					3
IR-192					<1					<1
KR-85					<1			<1		<1
LA-140							<1			<1
MN-54	<1				10	<1	<1	<1	<1	11
MO-93					<1					<1
MO-99							<1	<1		<1
NB-93M					2			<1		2
NB-94					<1	<1	<1	<1		<1
NB-95					33		<1	<1		33
NB-95M					<1					<1
NI-59					70	<1	<1	<1		70
NI-63		<1	<1		8205	23	<1	<1	<1	8228
NP-237									<1	<1
PM-147		<1			<1			<1		<1
PR-144		<1			<1			<1		<1
PU-236		<1								<1
PU-238	<1	<1	<1		<1	<1		<1	<1	<1
PU-239	<1	<1	<1		<1	<1		<1	<1	<1

INEEL-61

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**DISPOSED SOLID WASTE
NUCLIDE SUMMARY IN CURIES
FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE/GEN AREA IDENT	ANL	CFA	CPP	D+D	NRF	TAN	TRA	WER	WMC	TOTAL
PU-240	<1				<1			<1	<1	<1
PU-241	<1				<1	<1		<1		<1
PU-242	<1	<1								<1
RA-226		<1								<1
RH-103M							<1			<1
RH-106					<1			<1		<1
RU-103							<1			<1
RU-106		<1			<1			<1	<1	<1
S-35					<1					<1
SB-122							<1			<1
SB-124					<1		<1			<1
SB-125	<1				101	<1	<1	<1	<1	101
SC-46							<1			<1
SE-75							<1			<1
SM-145					<1					<1
SM-151	<1				<1			<1		<1
SN-113					3		<1	<1		3
SN-119M					77					77
SN-121M					<1					<1
SN-123		<1			<1					<1
SR-85	<1									<1
SR-89					<1					<1
SR-90	4	3	1	<1	<1	<1	<1	<1	<1	9
TA-182		<1			84		<1	<1		84
TC-99	<1	<1			<1	<1	<1	<1		<1
TE-125M					23			<1		23
TH-228									<1	<1

INEEL-62

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

DISPOSED SOLID WASTE
NUCLIDE SUMMARY IN CURIES
FOR JANUARY THROUGH DECEMBER 1996

NUCLIDE / GEN AREA IDENT	ANL	CFA	CPP	D+D	NRF	TAN	TRA	WER	WMC	TOTAL
TH-229			<1							<1
TH-230		<1	<1						<1	<1
TH-232		<1	<1						<1	<1
U-232		<1						<1		<1
U-233		<1	<1					<1		<1
U-234		<1	<1						<1	<1
U-235		<1	<1					<1	<1	<1
U-236			<1						<1	<1
U-238		<1	<1					<1	<1	<1
W-185					<1					<1
Y-90	4				<1	<1	<1	<1		4
Y-91					<1					<1
ZN-65					<1		<1	<1	<1	<1
ZR-93					<1			<1		<1
ZR-95			<1		15		<1	<1		15
TOTAL	16	3	5	<1	14158	157	105	1	<1	14445

INBEL-63

**INTERMEDIATE LEVEL TRANSURANIC STORAGE AREA
 NUCLIDE SUMMARY IN CURIES
 FOR JANUARY THROUGH DECEMBER 1996**

<u>NUCLIDE IDENT</u>	<u>TRA</u>	<u>TOTAL</u>
AM-241	<1	<1
BI-210	<1	<1
BI-214	<1	<1
NP-237	<1	<1
PA-233	<1	<1
PB-210	<1	<1
PB-214	<1	<1
PO-210	<1	<1
PO-214	<1	<1
PO-218	<1	<1
RA-226	<1	<1
RN-222	<1	<1
U-233	<1	<1
TOTAL	<u>5</u>	<u>5</u>

INEEL-64

**EBR STORAGE AREA
 NUCLIDE SUMMARY IN CURIES
 FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE IDENT	ANL	TOTAL
AM-241	<1	<1
BA-137M	<1	<1
CE-144	<1	<1
CO-57	<1	<1
CO-58	8	8
CO-60	39244	39244
CR-51	<1	<1
CS-134	<1	<1
CS-137	<1	<1
EU-154	<1	<1
EU-155	<1	<1
FE-55	<1	<1
FE-59	<1	<1
H-3	<1	<1
MN-54	726	726
PM-147	<1	<1
PR-144	<1	<1
PR-144M	<1	<1
PU-238	<1	<1
PU-239	<1	<1
PU-240	<1	<1
PU-241	<1	<1
PU-242	<1	<1
RH-106	<1	<1

INEEL-65

**EBR STORAGE AREA
NUCLIDE SUMMARY IN CURIES
FOR JANUARY THROUGH DECEMBER 1996**

<u>IDENT</u>	<u>ANL</u>	<u>TOTAL</u>
RU-106	<1	<1
SB-125	<1	<1
SM-151	<1	<1
SR-85	<1	<1
SR-90	<1	<1
U-235	<1	<1
Y-90	<1	<1
ZR-95	<1	<1
TOTAL	39978	39978

INEEL-66

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**WER PROCESSED
NUCLIDE SUMMARY IN CURIES
FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE IDENT / GEN AREA	ANL	CPP	D+D	NRF	PBF	SMC	TAN	TRA	WER	WMC	TOTAL
AG-110M	<1			<1			.				<1
AM-241	<1	<1		<1			<1			<1	<1
AM-242	<1										<1
AM-242M	<1										<1
BA-137M	<1		<1	<1	<1		<1	<1	<1		<1
BA-140	<1										<1
C-14				<1							<1
CD-113M	<1										<1
CE-141	<1										<1
CE-144	<1	<1		<1							<1
CM-242				<1							<1
CM-244	<1			<1						<1	<1
CO-57				<1							<1
CO-58	<1			<1				<1			<1
CO-60	<1	<1		<1			<1	<1		<1	<1
CR-51				<1				<1			<1
CS-134	<1	<1		<1			<1	<1			<1
CS-135	<1										<1
CS-137	<1	<1	<1	<1	<1		<1	<1	<1		<1
EU-152	<1			<1			<1	<1			<1
EU-154	<1	<1		<1			<1	<1			<1
EU-155	<1	<1		<1							<1
FE-55	5			2			<1			<1	7
FE-59				<1				<1			<1
GD-153				<1							<1
H-3	2	<1		<1							2

INEEL-67

Idaho Operations Office
 U.S. Department of Energy
 Radioactive Waste Management Information System

**WER PROCESSED
 NUCLIDE SUMMARY IN CURIES
 FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE IDENT / GEN AREA	ANL	CPP	D+D	NRF	PBF	SMC	TAN	TRA	WER	WMC	TOTAL
HF-175				<1							<1
HF-181				<1				<1			<1
I-129		<1		<1							<1
IN-113M				<1							<1
K-40							<1				<1
KR-85				<1							<1
LA-140	<1										<1
MN-54	2			<1				<1			2
MO-93	<1										<1
MO-99				<1							<1
NA-22	<1										<1
NB-93M	<1			<1							<1
NB-94				<1							<1
NB-95	<1			<1				<1			<1
NI-59	<1			<1							<1
NI-63	<1			<1	<1		<1			<1	<1
NP-239	<1										<1
PA-234M						<1	<1				<1
PD-107	<1										<1
PM-147	<1			<1							<1
PR-144	<1	<1		<1							<1
PR-144M	<1										<1
PU-238	<1	<1		<1						<1	<1
PU-239	<1	<1					<1			<1	<1
PU-240	<1										<1
PU-241	<1	<1		<1						<1	<1

INEEL-68

Idaho Operations Office
U.S. Department of Energy
Radioactive Waste Management Information System

**WER PROCESSED
NUCLIDE SUMMARY IN CURIES
FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE IDENT / GEN AREA	ANL	CPP	D+D	NRF	PBF	SMC	TAN	TRA	WER	WMC	TOTAL
RH-106	<1	<1		<1							<1
RU-106	<1	<1		<1							<1
SB-124								<1			<1
SB-125	<1	<1		<1				<1			<1
SC-46								<1			<1
SM-151	<1			<1							<1
SN-113				<1							<1
SN-119M	<1										<1
SN-123	<1										<1
SN-126	<1										<1
SR-90	<1	<1	<1	<1	<1		<1	<1	<1	<1	1
TA-182				<1				<1			<1
TC-99	<1			<1							<1
TE-125M				<1							<1
TE-127M	<1										<1
TH-230							<1				<1
TH-231						<1	<1				<1
TH-234						<1	<1				<1
U-232				<1							<1
U-233	<1	<1									<1
U-234	<1	<1				<1				<1	<1
U-235	<1	<1				<1	<1			<1	<1
U-236	<1										<1
U-237	<1										<1
U-238	<1	<1				<1	<1			<1	<1
Y-90	<1	<1	<1	<1	<1		<1	<1	<1		<1

INEEL-69

Idaho Operations Office
 U.S. Department of Energy
 Radioactive Waste Management Information System

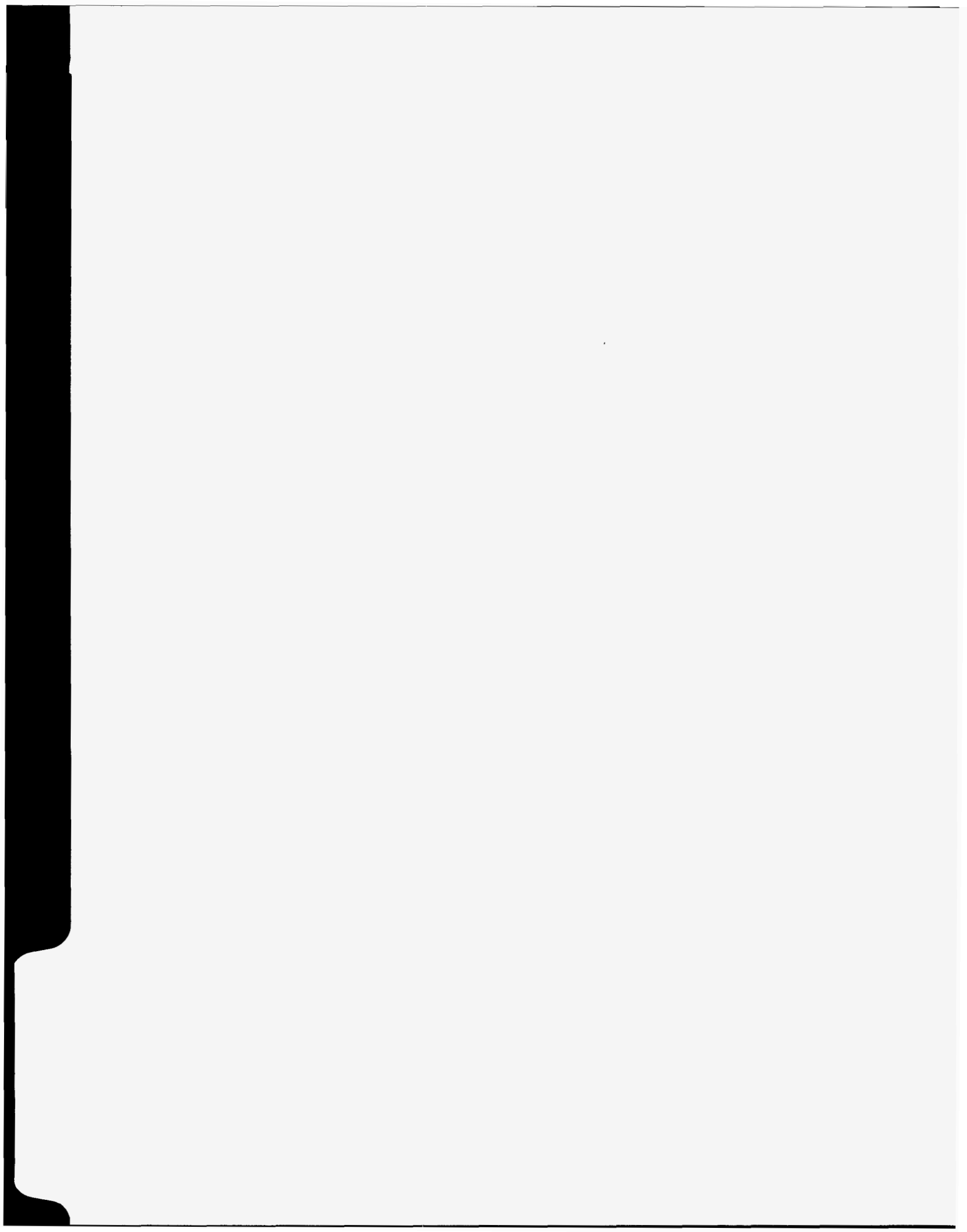
**WER PROCESSED
 NUCLIDE SUMMARY IN CURIES
 FOR JANUARY THROUGH DECEMBER 1996**

NUCLIDE IDENT / GEN AREA	ANL	CPP	D+D	NRF	PBF	SMC	TAN	TRA	WER	WMC	TOTAL
Y-91	<1										<1
ZN-65								<1			<1
ZR-93	<1			<1							<1
ZR-95	<1			<1				<1			<1
TOTAL	15	<1	<1	3	<1	<1	<1	<1	<1	<1	19

INBEL-70

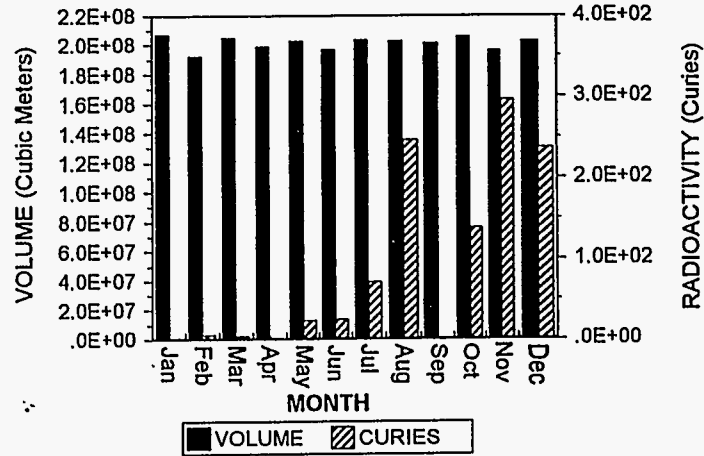
Argonne National Laboratory-West 1996 Detail Graphs

Argonne National Laboratory-West (ANL) Bar Graphs
of Annual Data by Month INEEL-73

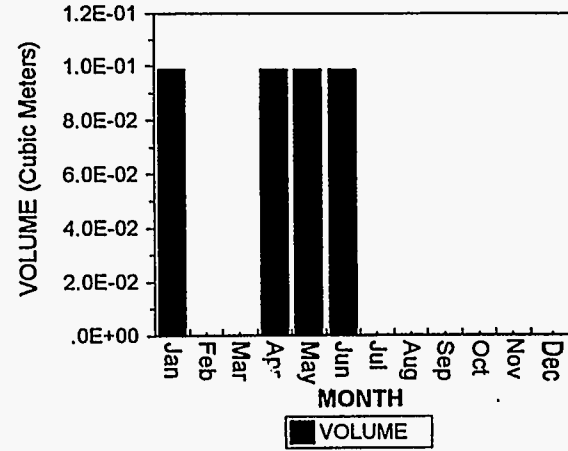


ARGONNE NATIONAL LABORATORY-WEST (ANL) MONTHLY DETAILS CY- 1996

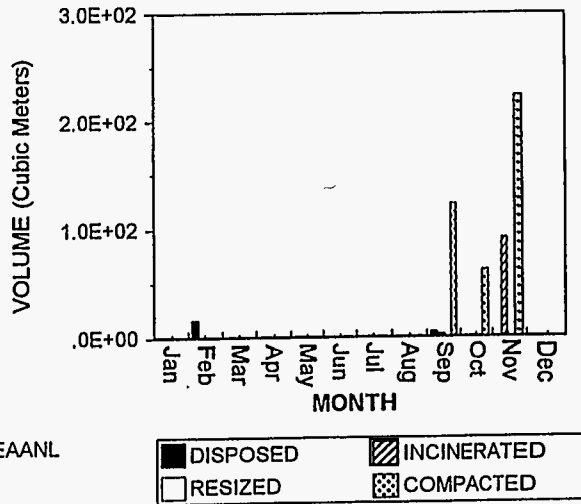
ANL CY 1996 AIRBORNE EFFLUENT



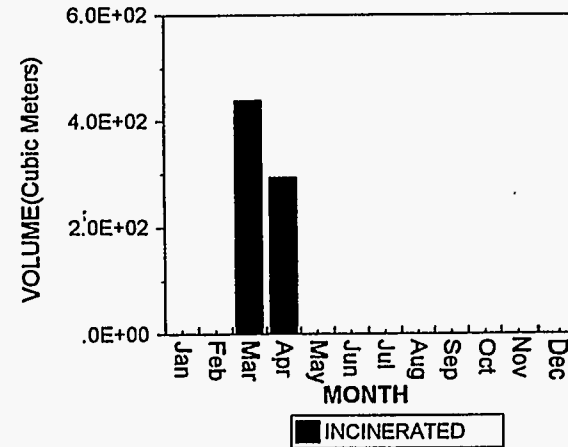
ANL CY 1996 ANL STORAGE AREA WASTE



ANL CY 1996 SHIPPED LOW LEVEL WASTE



ANL CY 1996 INCINERABLE WASTE SHIPPED TO PRIVATE INDUSTRY



INEEL-73

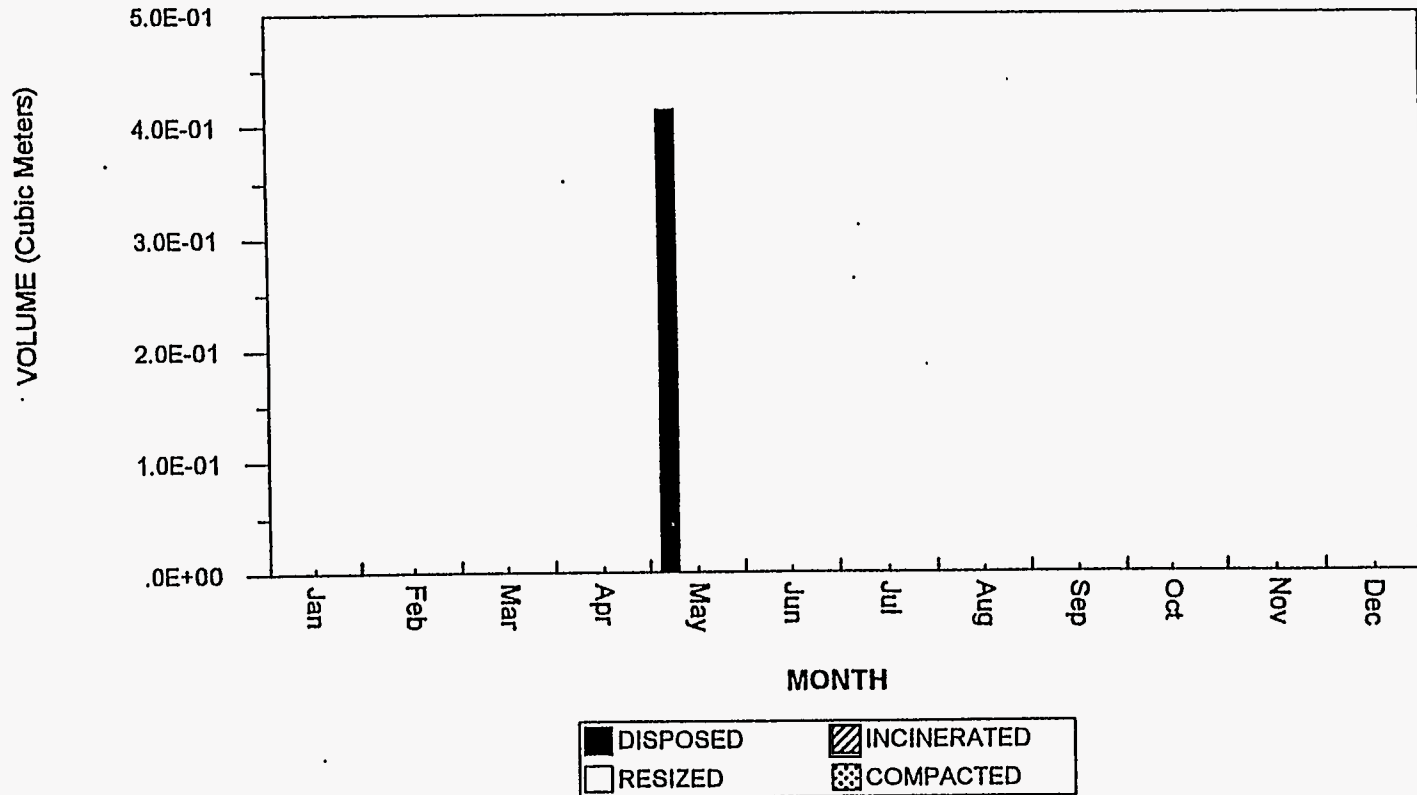
Graph: GAREAANL

Central Facilities Area 1996 Detail Graphs

Central Facilities Area (CFA) Bar Graphs of Annual Data by Month INEEL-77

CENTRAL FACILITY AREA (CFA) MONTHLY DETAILS CY-1996

CFA CY 1996 SHIPPED LOW LEVEL WASTE



INEEL-77

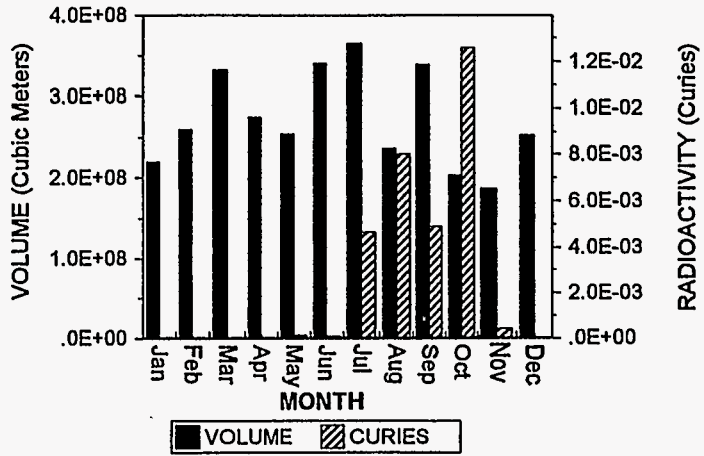
Chemical Processing Plant 1996 Detail Graphs

Chemical Processing Plant (CPP) Bar Graphs of Annual Data by Month INEEL-81

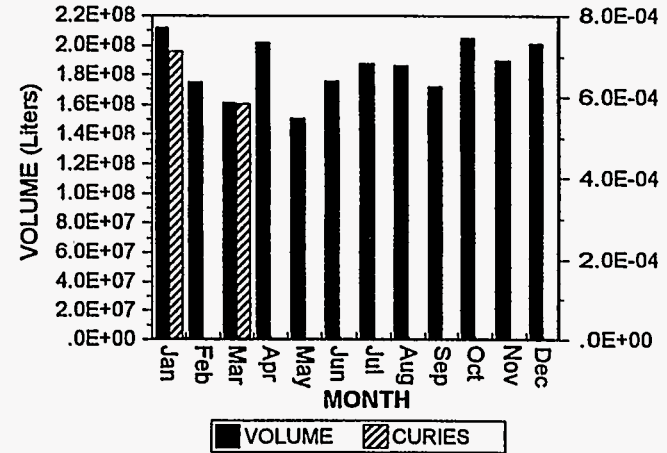
Chemical Processing Plant
1996 Detail Data

CHEMICAL PROCESSING PLANT (CPP) MONTHLY DETAILS CY- 1996

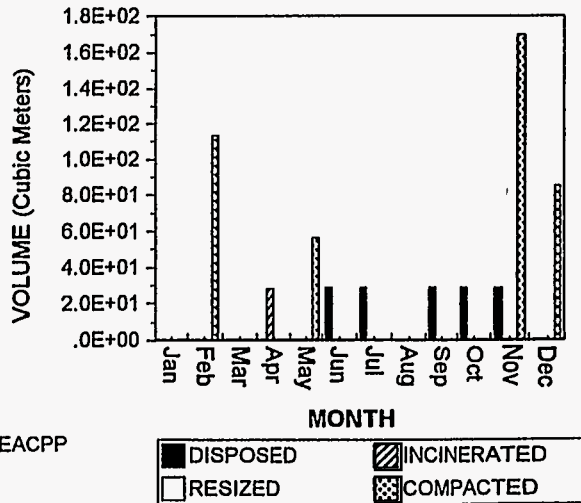
CPP CY 1996 AIRBORNE EFFLUENT



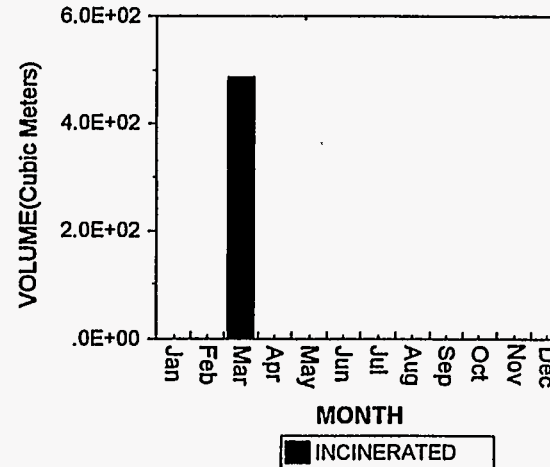
CPP CY 1996 LIQUID EFFLUENT



CPP CY 1996 SHIPPED LOW LEVEL WASTE



CPP CY 1996 INCINERABLE WASTE SHIPPED TO PRIVATE INDUSTRY



Graph: GAREACPP

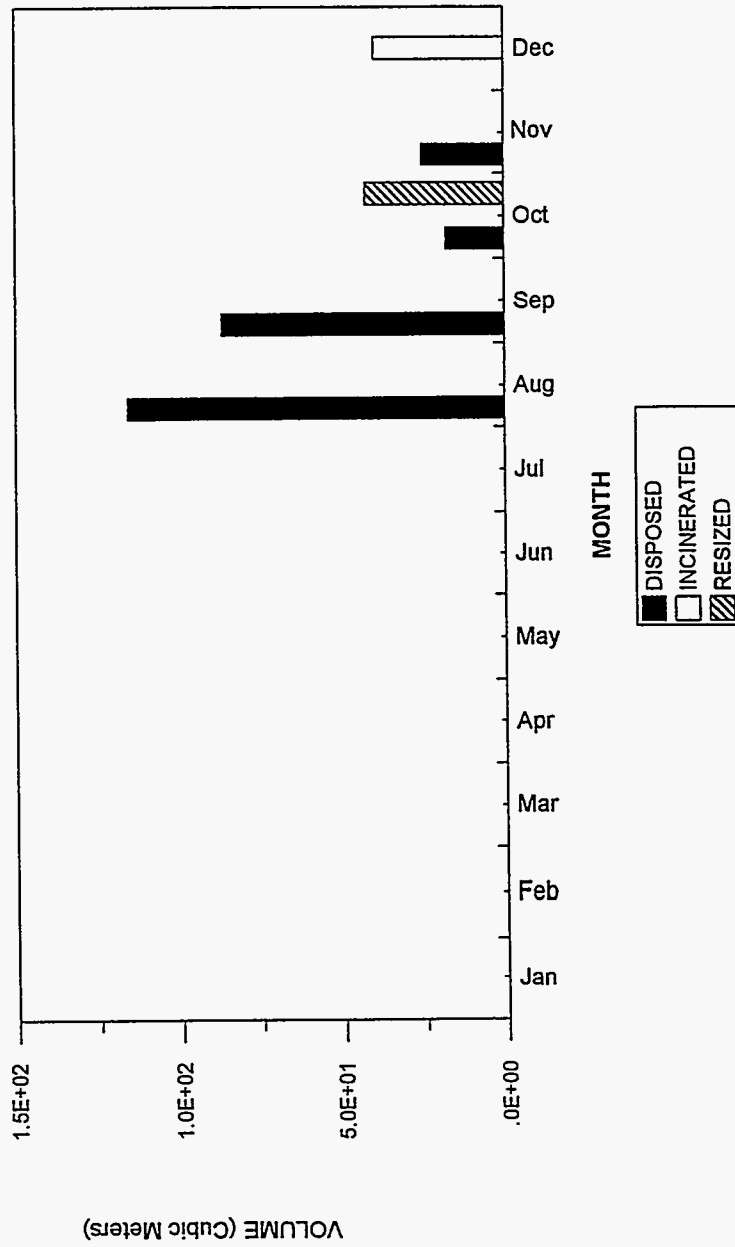
Decontamination and Decommissioning 1996 Detail Graphs

Decontamination and Decommissioning (D&D) Bar Graphs
of Annual Data by Month INEEL-85

Decontamination and
Decommissioning
1996 Detail Data

DECONTAMINATION AND DECOMMISSIONING MONTHLY DETAILS
CY-1996

D+D CY 1996 SHIPPED LOW LEVEL WASTE

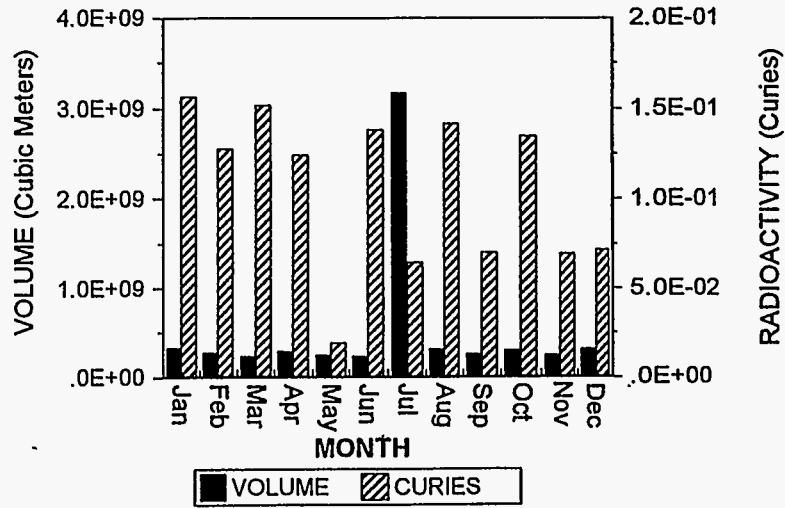


Naval Reactor Facility 1996 Detail Graphs

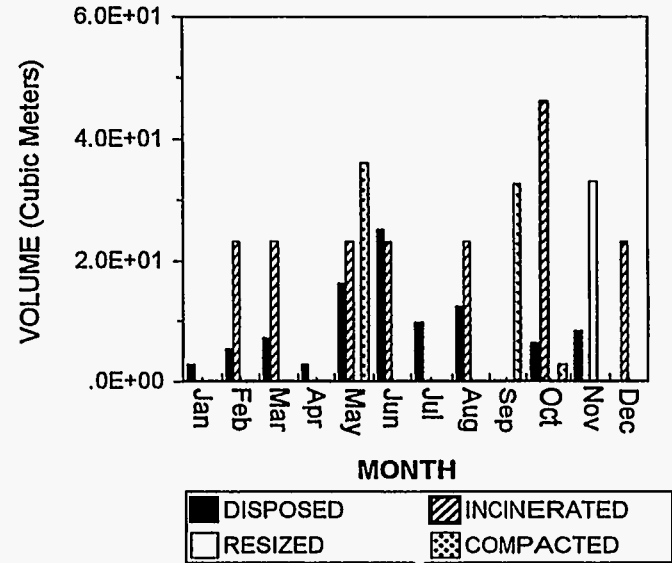
Naval Reactor Facility (NRF) Bar Graphs of Annual Data by Month INEEL-89

NAVAL REACTORS FACILITY (NRF) MONTHLY DETAILS CY- 1996

NRF CY 1996 AIRBORNE EFFLUENT



NRF CY 1996 SHIPPED LOW LEVEL WASTE



INBEL-89

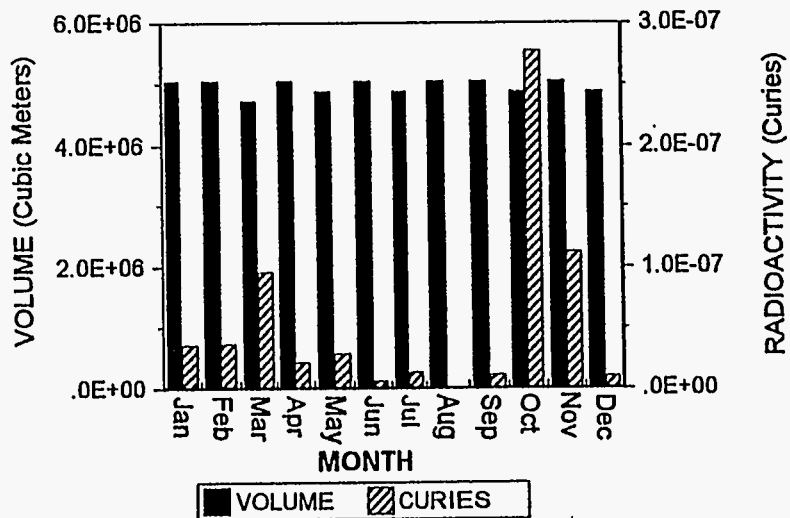
Power Burst Facility 1996 Detail Graphs

Power Burst Facility (PBF) Bar Graphs of Annual Data by Month INEEL-93

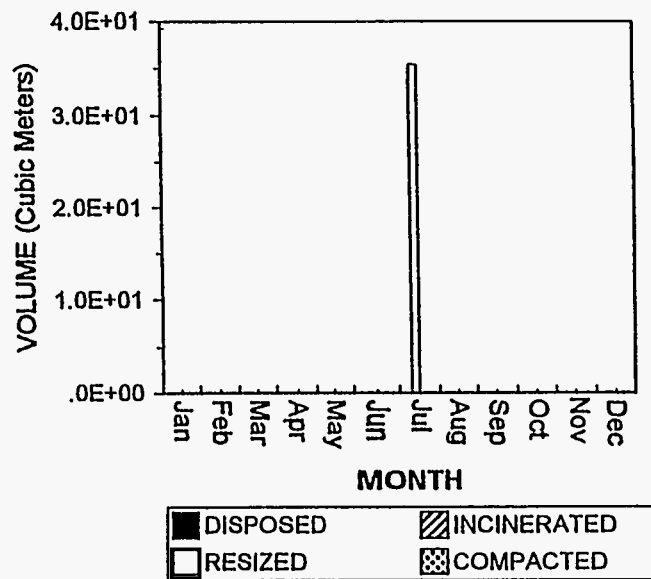


POWER BURST FACILITY (PBF) MONTHLY DETAILS CY- 1996

PBF CY 1996 AIRBORNE EFFLUENT



PBF CY 1996 SHIPPED LOW LEVEL WASTE



INEEL-93

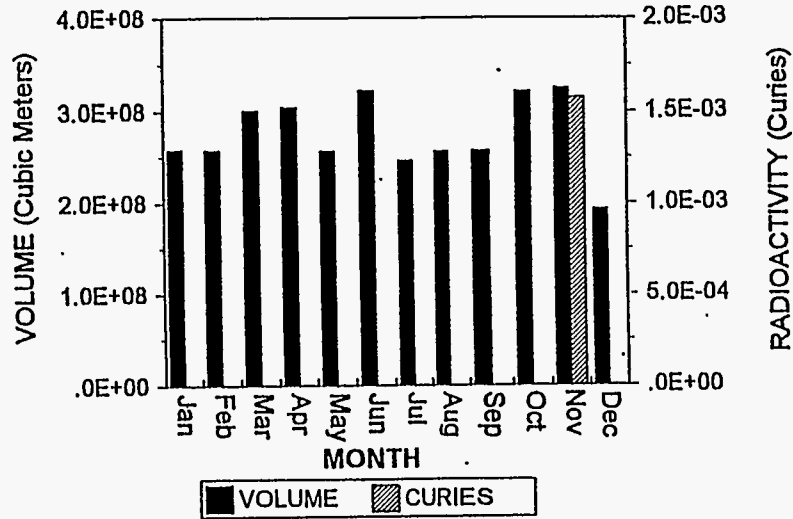
Special Manufacturing Capability 1996 Detail Graphs

Special Manufacturing Capability (SMC) Bar Graphs of
Annual Data by Month

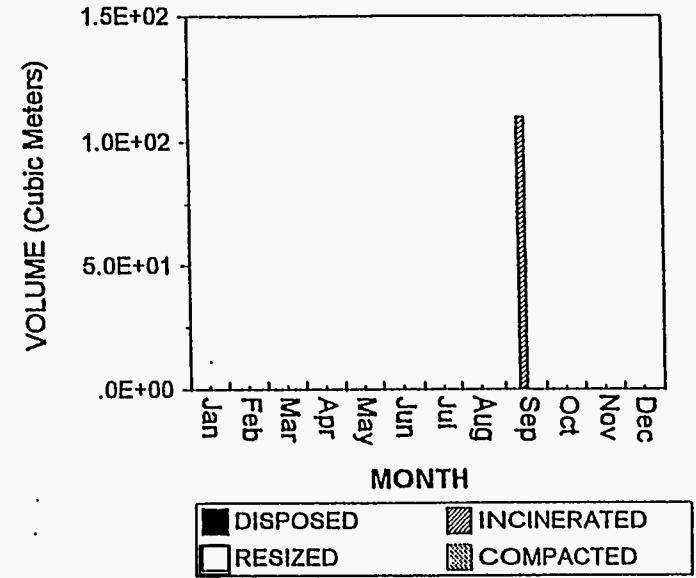
INEEL-97

SPECIAL MANUFACTURING CAPABILITY (SMC) MONTHLY DETAILS CY- 1996

SMC CY 1996 AIRBORNE EFFLUENT



SMC CY 1996 SHIPPED LOW LEVEL WASTE



INBEL-97

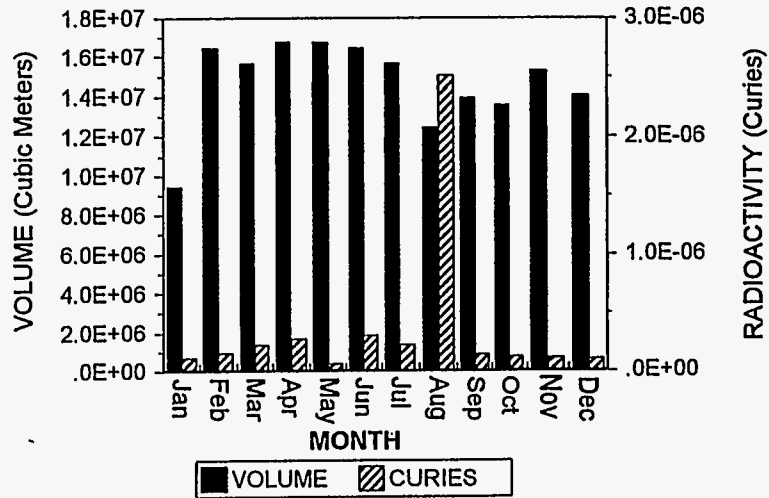
Test Area North 1996 Detail Graphs

Test Area North (TAN) Bar Graphs of Annual Data by Month INEEL-101

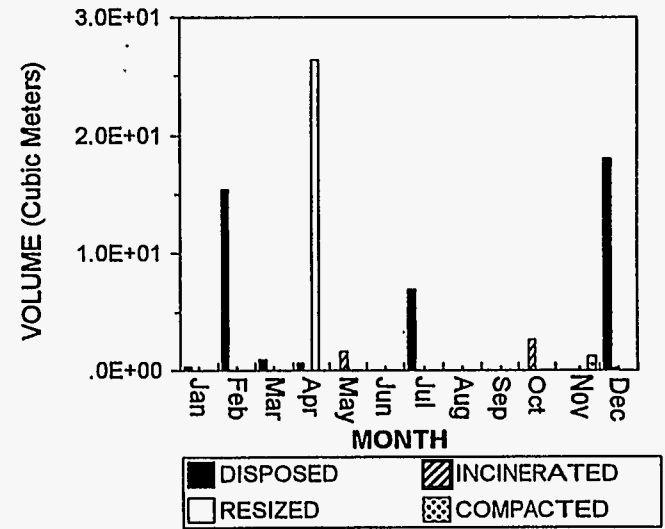
Test Area North
1996 Detail Data

TEST AREA NORTH (TAN) MONTHLY DETAILS CY- 1996

TAN CY 1996 AIRBORNE EFFLUENT



TAN CY 1996 SHIPPED LOW LEVEL WASTE



INBEL-101

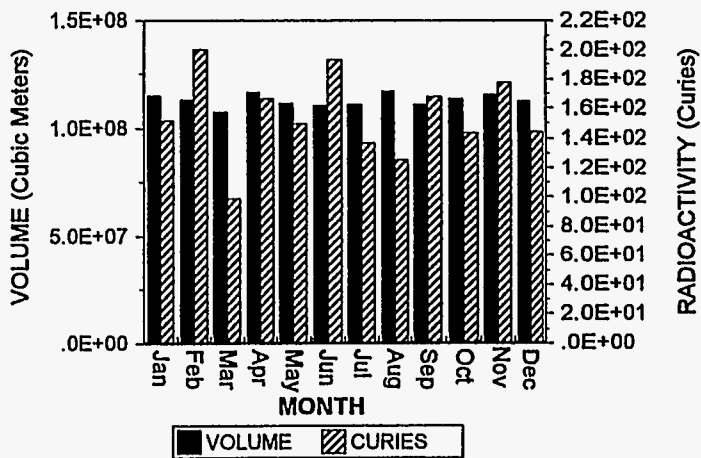
Test Reactor Area 1996 Detail Graphs

Test Reactor Area (TRA) Bar Graphs of Annual Data by Month INEEL-105

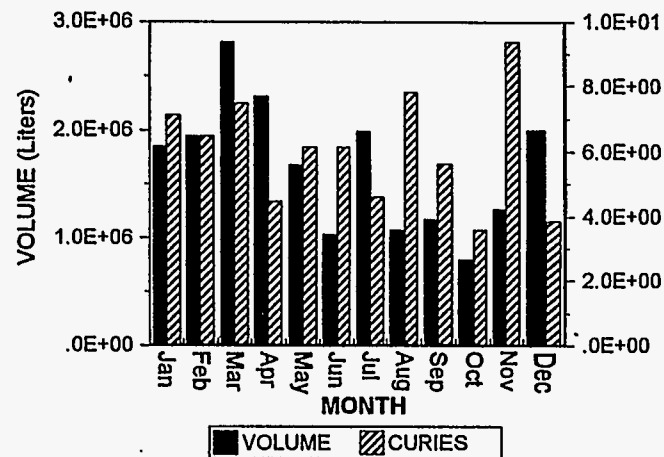
Test Reactor Area
1996 Detail Data

TEST REACTOR AREA (TRA) MONTHLY DETAILS CY- 1996

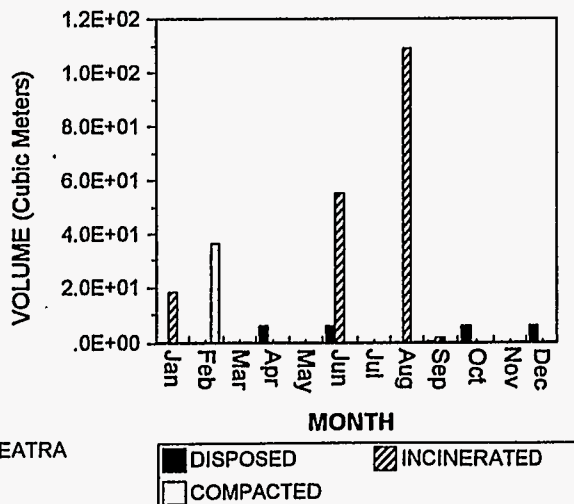
TRA CY 1996 AIRBORNE EFFLUENT



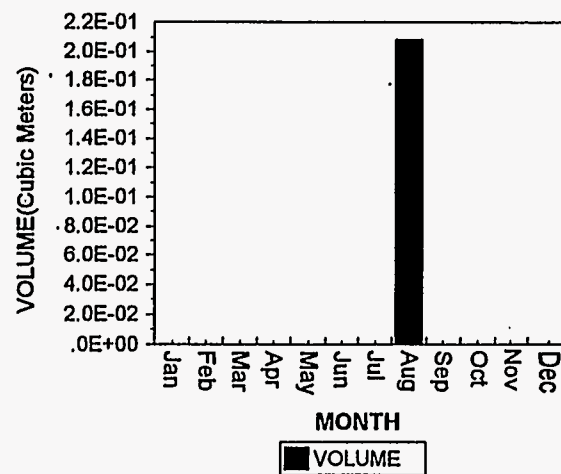
TRA CY 1996 LIQUID EFFLUENT



TRA CY 1996 SHIPPED LOW LEVEL WASTE



TRA CY 1996 SHIPPED TRANSURANIC WASTE



Graph: GAREATRA

Waste Experimental Reduction Facility 1996 Detail Graphs

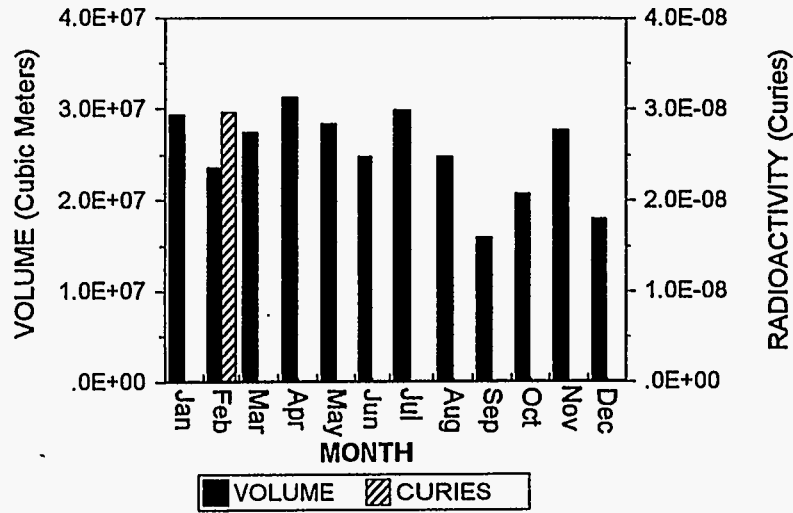
Waste Experimental Reduction Facility (WER) Bar Graphs
of Annual Data by Month

INEEL-109

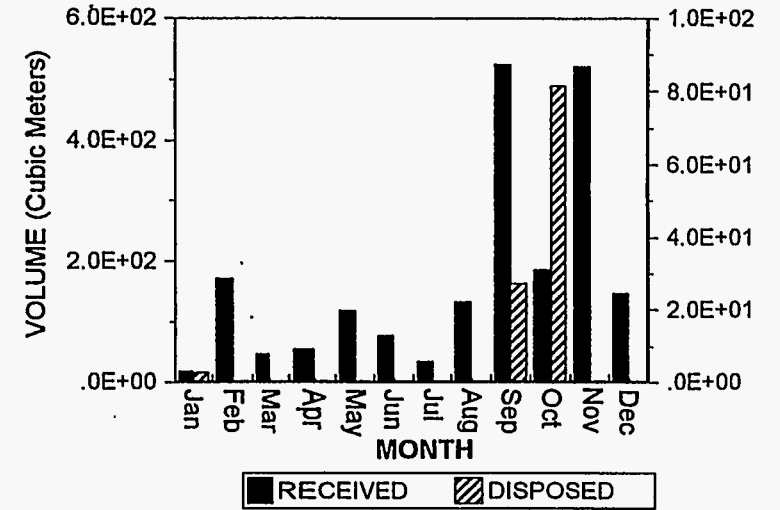
Waste Experimental
Reduction Facility
1996 Detail Data

WASTE EXPERIMENTAL REDUCTION FACILITY (WER) MONTHLY DETAILS CY- 1996

WER CY 1996 AIRBORNE EFFLUENT



WER CY 1996 RECEIVED/DISPOSED SOLID WASTE



INEEL-109

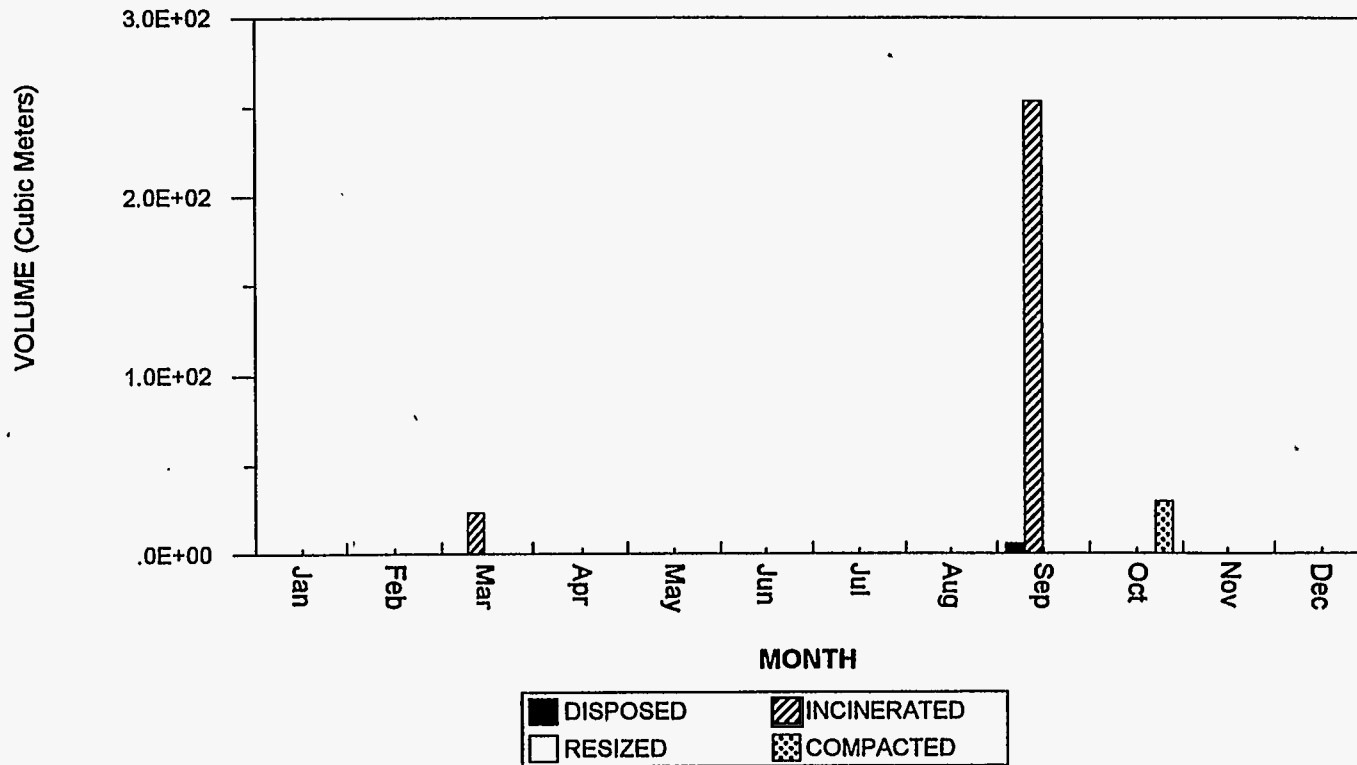
Waste Management Complex 1996 Detail Graphs

Waste Management Complex (WMC) Bar Graphs

of Annual Data by Month INEEL-113

WASTE MANAGEMENT COMPLEX (WMC) MONTHLY DETAILS CY-1996

WMC CY 1996 SHIPPED LOW LEVEL WASTE



INEEL-113

Engineered Release Points

Engineered Release Points to the Environment ERP-3

Table 2. Engineered release points to the environment.

Type of Discharge	Area/Location	Type of Description of Discharge Surface	Air Emission Inventory Stack No.	Active (Yes/No)
Airborne	ANL/EBR-II, FCF	61-m glass-coated steel stack, 30 m ³ /s discharge capacity, continuously monitored.	ANL-764-001	Yes
	ANL/FASB	10-m stack, 6.64 m ³ /s discharge capacity, continuously monitored.	ANL-787-001	Yes
	ANL/FMF	11.1-m stack, 4.6 m ³ /s discharge capacity, continuously monitored.	ANL-704-008	Yes
	ANL/HFEF	28.6-m stack, 21.7 m ³ /s discharge capacity, continuously monitored.	ANL-785-018	Yes
	ANL/L&O	Two separate stacks—one stack is 15.2 m with 10.9 m ³ /s discharge capacity. The other stack is 11.3 m with 7.8 m ³ /s discharge capacity. Both stacks are continuously monitored.	ANL-752-004 (MAIN) ANL-752-005 (NDA)	Yes
	ANL/RLWTF	14.2-m stack, 1.7 m ³ /s discharge capacity, continuously monitored.	ANL-798-017	Yes
	ANL/SCMS	14.6-m stack, 4.7 m ³ /s discharge capacity, continuously monitored.	ANL-793-001	Yes
	ANL/SPF	6.9-m stack, 2.1 m ³ /s discharge capacity, continuously monitored. This stack is presently inactive.	ANL-799-010	No
	ANL/TREAT	42.7-m steel stack, 2.8 m ³ /s discharge capacity, continuously monitored.	ANL-720-007	Yes
	ANL/ZPPR	22.9-m steel stack, 2.3 m ³ /s discharge capacity, continuously monitored.	ANL-777-002	Yes
	ARA	9.1-m stack, 1.4 m ³ /s discharge capacity, continuously monitored. These stacks were capped in 1989. D&D removal scheduled for 1996.	ARA001	No
	CFA/West	Two normal ventilation exhausts, respirator maintenance 0.6 m ³ /s flow, sampled weekly when operating. Facility placed on standby June 1, 1993.	Drying ovens CFA-617-030 CFA-617-031	No
	CFA/North	Normal ventilation exhausts, laundry dryer, 6.1 m ³ /s flow, continuously sampled when operating.	CFA-617-010 CFA-617-011	No
	CPP/FAST	50-m stack, 66.1 m ³ /s discharge capacity, continuously monitored and sampled for particulates only.	CPP-767-001	Yes
	CPP/Main Stack	76.2-m stack, 84.95 m ³ /s discharge capacity, continuously monitored.	CPP-708-001	Yes
	CPP/NWCF	22-m stack, 51.9 m ³ /s discharge capacity, continuously monitored and sampled.	CPP-659-033	Yes
	CPP/RAL Stack	14.8-m stack, 8.5 m ³ /s discharge capacity, continuously monitored and sampled.	CPP-684-001	Yes

Table 2. (continued).

Type of Discharge	Area/Location	Type of Description of Discharge Surface	Air Emission Inventory Stack No.	Active (Yes/No)
CTF (formerly LOF)		45.72-m stack, 7.8 m ³ /s discharge capacity, continuously monitored. This facility is not functioning and has no future plans to change status.	TAN-725-001	No
NRF/A1W		13.7-m stack, continuous monitoring when operated during rad work	NRF-617-002	Yes
		13.7-m stack, .47 m ³ /s discharge capacity, continuously monitored.	NRF-617-013	Yes
		13.7-m stack, 4.7 m ³ /s A-RC 4.7 m ³ /s, B-RC; these two share a stack, continuously monitored while operating.	NRF-617-020 NRF-617-021	Yes Yes
		12.2-m stack, 8.9 m ³ /s discharge capacity, continuously monitored while operating.	NRF-616-012	Yes
		9.14-m stack, 39.6 m ³ /s ELT, infrequent operation.	NRF-616-039	Yes
		17.1-m stack, 17.1 m ³ /s emergency RC, infrequent operation.	NRF-616A-002	Yes
		Multiple vent points treated as one source. Continuous ambient monitoring. Ventilation rate based on fugitive turnover from blowers on temporary containment systems	NRF-616-PCMA	Yes
NRF/A1W- RWDS		6.7-m stack, 283 m ³ /s RWDE, infrequent operation.	NRF-628-006	Yes
NRF/ECF		18 High bay roof vents, 20.4-m vents, 13900 m ³ /s continuously monitored.	NRF-618-024 through NRF-618-029 NRF-618-032 through NRF-618-043 NRF-618-HBRV	Yes
		In ORACLE all the above high bay roof vents for NRF-618 are tracked as NRF-618-HBRV		
		31.1-m stack, 23 m ³ /s; Stack 1 continuously monitored.	NRF-618-099	Yes
		18-m stack, 12 m ³ /s; Stack 2 continuously monitored.	NRF-618-103	Yes
NRF/S1W		45-m stack, 2.85 m ³ /s, fan room	NRF-601-019C	Yes
		1.3 m ³ /s Chem stack shares the stack but continuously monitored separately.	NRF-601-019A	Yes
		16-m stack, 1 m ³ /s RC exhaust; infrequent operation, monitored while operating.	NRF-601-023	Yes

Table 2. (continued).

Type of Discharge	Area/Location	Type of Description of Discharge Surface	Air Emission Inventory Stack No.	Active (Yes/No)
		6 High bay roof vents, no active radiological work, building breathing rates without any operationing fans. Multiple vents combined as single source	NRF-601-HBRV	Yes
	NRF/S5G	26-m stack, 12.5 m ³ /s RAVE; continuously operating, continuously monitored.	NRF-633A-057	Yes
		6 High bay rood vents treated as one source. Continuous ambient monitoring. Building breathing rate without any operating fans.	NRF-633-HBRV	Yes
	NRF/MSC	Miscellaneous and fugitive sources, ground level.	NRF-MS-C-MS-C	Yes
	PBF	24.4-m stack, 2.8 m ³ /s discharge capacity, continuously monitored.	PER 620-016	Yes
	SMC/R&D Process	17.7-m stack, 23.6 m ³ /s discharge capacity, continuously monitored.	TAN-607-039	Yes
	SMC/MDF QC LAB	17.99-m stack, 7.79 m ³ /s discharge capacity, continuously monitored.	TAN-607-119	Yes
	SMC/LINE 2a	14.4-m stack, 18.12 m ³ /s discharge capacity, continuously monitored.	TAN-629-013	Yes
	SMC/LINE 2b	8.36-m stack, 3.12 m ³ /s discharge capacity, continuously monitored.	TAN-629-014	Yes
	SMC/LINE 2B	8.36-m stack, 3.12 m ³ /s discharge capacity, continuously monitored.	TAN-629-012	Yes
	SMC/S. Process S6	16.97-m stack, 7.08 m ³ /s discharge capacity, continuously monitored.	TAN-679-027	Yes
	SMC/S. Process S7	16.97-m stack, 7.08 m ³ /s discharge capacity, continuously monitored.	TAN-679-026	Yes
	SMC/S. Process S8	16.97-m stack, 7.08 m ³ /s discharge capacity, continuously monitored.	TAN-679-025	Yes
	SMC/S. Process S9	16.97-m stack, 7.08 m ³ /s discharge capacity, continuously monitored.	TAN-679-024	Yes
	SMC/S. Process S10	16.97-m stack, 7.08 m ³ /s discharge capacity, continuously monitored.	TAN-679-023	Yes
	SMC/S. Process S11	16.97-m stack, 7.08 m ³ /s discharge capacity, continuously monitored.	TAN-679-022	Yes
	SMC/Scrap Handling	16.97-m stack, 7.93 m ³ /s discharge capacity, continuously monitored.	TAN-679-020	Yes
	SMC/Liquid Reclaim	16.97-m stack, 7.93 m ³ /s discharge capacity, continuously monitored.	TAN-679-018	Yes

Table 2. (continued).

Type of Discharge	Area/Location	Type of Description of Discharge Surface	Air Emission Inventory Stack No.	Active (Yes/No)
	SMC/PRI Stack S14	33.54-m stack, 0.94 m ³ /s discharge capacity, continuously monitored.	TAN-679-016	Yes
	TAN Decon	29.6-m stack, 24.9 m ³ /s discharge capacity, continuously monitored currently no emissions. Currently in process of deactivation.	TAN-607-136	No
	TAN/TSF	51.4-m stack, 7.9 m ³ /s discharge capacity, continuously monitored.	TAN-734-001	Yes
	TAN/PREPP	26.1-m stack, 3 m ³ /s discharge capacity, continuously monitored. Facility was never activated—currently being scheduled for decommissioning.	TAN-607-107	No
	TRA/ATR	76.2-m stack, 21.2 m ³ /s discharge capacity, continuously monitored.	TRA-770-001	Yes
	TRA/Chem Lab	29.6-m stack, 6.6 m ³ /s discharge capacity, continuously monitored.	TRA-604-035	Yes
	TRA/ETR	76.2-m stack, 9.4 m ³ /s discharge capacity, continuously monitored. As of March 1988, this stack is not monitored. No activity is discharged.	TRA-753-001	Yes
	TRA/Hot Cells	15.2-m stack, 1.6 m ³ /s discharge capacity, continuously monitored. Three stacks sampled as one.	TRA-632-030	Yes
	TRA/MTR	76.2-m stack, 6 m ³ /s discharge capacity, continuously monitored.	TRA-710-001	Yes
	TRA/661	8.43-m stack, 3.3 m ³ /s discharge capacity, not monitored.	TRA-661-008	Yes
	WER/North	15-m stack, 8 m ³ /s discharge capacity, continuously monitored.	PER-755-001	Yes
	WER/South	15-m stack, 9.4 m ³ /s discharge capacity, continuously monitored.	PER-756-001	Yes
	WER/765	15.5-m stack, 4.7 m ³ /s discharge capacity, continuously monitored.	PER-765-001	Yes
	WMC/SWEPP	4.5-m stack, 1.7 m ³ /s discharge capacity, continuously monitored during active Drum Vent operation.	WMF-615-001	Yes
Liquid (injection well)	CPP	181 m deep (42.7 m below water table), constantly monitored by radiation detector with a detection unit of 2 x 10 ⁻⁶ Ci/mL, flow approximately 170 x 10 ⁶ liters per month. (INEL discharges to the injection well have been terminated since 1986. This well was closed in November 1989.)		No

Table 2. (continued).

Type of Discharge	Area/Location	Type of Description of Discharge Surface	Air Emission Inventory Stack No.	Active (Yes/No)
	PBF	33.5 m deep (105 m above water table), constantly monitored, flow intermittent with a maximum of 750 liters per minute (no longer in use as of August 1980; in June 1984, this well was completely filled with concrete).		No
Liquid (seepage ponds, leaching pits, cribs)	ANL/EBR-II and L&O	Batch monitored pond approximately 1.2×10^4 m ² maximum depth of 4 m.		Yes
	ARA	Surface depression (approximately 1.3 acre), estimate flow 1.05×10^7 liters per year, continuously monitored. ARA completely shut down operations in September 1986, no further releases are being made to this release point except for drainage as a result of rain water runoff.		No
	CFA	Sewage plant tile drain field, 610 x 61 m, average flow approximately 15×10^6 liters per month, continuously monitored.		Yes
	CPP/Pond No. 1	Percolation pond, 412 ft x 480 ft x 16 ft. CPP 797 is the discharge point that is continuously monitored and sampled.		Yes
	CPP/Pond No. 2	Percolation pond, 498 ft x 498 ft x 12 to 14 ft. CPP 797 is the discharge point that is continuously monitored and sampled.		Yes
	CTF (formerly LOF)	Continuously monitored pond approximately 76 x 152 x maximum 5.5 m deep.		Yes
	NRF	Continuously monitored leaching beds handling 95,000 liters per month (releases ended April 1979).		No
	TAN	Continuously monitored pond approximately 13 hectares in size.	N/A	Yes
	TRA	Two ponds 40 x 73 and one pond 76 x 122 m, average flow approximately 90×10^6 liters per month, prior to 1988. In 1988, average flow decreased to 4.7×10^6 liters per month. Ponds are continuously monitored. Removed from service August 1993.	N/A	No
	TRA	Evaporation pond. Two adjacent lined ponds measuring 70 m x 140 m each. Double liner and leak detection system. All particulate activity remains in lined pond 3×10^6 liters per month. Continuously monitored. Zero release to soil column.		Yes

Table 2. (continued).

Type of Discharge	Area/Location	Type of Description of Discharge Surface	Air Emission Inventory Stack No.	Active (Yes/No)
Solid	All facilities	Disposal of radioactive solid waste accomplished at the INEL Radioactive Waste Management Complex (RWMC).	N/A	Yes
		Storage of transuranic radioactive solid waste accomplished at the INEL RWMC.	N/A	Yes
		Reduction of applicable radioactive solid waste volume accomplished at the INEL WERF.	N/A	Yes
		Storage of calcinated solids accomplished at CPP.	N/A	Yes
		Storage of sodium-contaminated waste generated by ANL accomplished at ANL.	N/A	Yes
		Storage of mixed waste accomplished at Mixed Waste Storage Facility (MWSF).	N/A	Yes