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DOE/ID-10057(90)
August 1991

Industrial Waste Management Information for 1990 and Record-to-Date

Idaho National Engineering Laboratory

U.S. Department of Energy Field Office, Idaho

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INDUSTRIAL WASTE MANAGEMENT INFORMATION FOR 1990 AND RECORD-TO-DATE

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Published August 1991

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**Prepared for the
U.S. Department of Energy
Idaho Operations Office
Under DOE Contract No. DE-AC07-76ID01570**

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ABSTRACT

This document provides detailed data and graphics on airborne and liquid effluent releases, fuel oil consumption, and water usage for the calendar year 1990. It summarizes industrial waste data records compiled since 1971 for the Idaho National Engineering Laboratory (INEL). The data presented are from the INEL Industrial Waste Management Information System (IWMIS).

Reports are included on the following:

- INEL Record-to-Date Summary
- INEL 1990 Summaries
- Area Detailed Data Reports for 1990.

EXECUTIVE SUMMARY

The Idaho National Engineering Laboratory has used the computerized database Industrial Waste Management Information System (IW-MIS) since 1971. The system serves as the official record for all types of industrial waste stored or disposed of at the INEL. It is also the source for reports on industrial waste storage and disposal, fuel oil usage, and water usage and disposal at the INEL. Quantities of industrial waste are reported for the following categories: airborne and liquid effluent disposal, fuel oil consumption, and water usage.

A total of 80,307 m³ of solid industrial waste were disposed of in sanitary landfills at the INEL during 1990. This represents an increase of 177% from the 28,956 m³ (revised) discarded in 1989.

During 1990, there were no waste oils and solvents reported.

A total of 2,686,795 kg of liquid and airborne industrial waste were discharged in 1990. The industrial waste included 1,713,071 kg of chemicals, 537,348 kg of total dissolved solids, and 368,595 kg of total hardness which were discharged as liquid wastes to the lithosphere at the INEL. This waste represents an 8% decrease over the total quantity of 2,923,228 kg in 1989 and a decrease from the total quantity of 3,213,502 kg in 1988.

The INEL used a total of 8,465,936 liters of fuel oil during 1990 which produced 105,309 kg of sulfur dioxide (SO₂) and 4,754 kg of particulates. During 1989, 14,658,618 liters of fuel oil were used, producing 217,557 kg of SO₂ and 9,792 kg of particulates.

A total of 7,539,155,000 liters of water were used by the INEL during 1990 compared to 6,268,060,000 liters in 1989 and 7,424,356,000 liters in 1988. However, the majority of this water returned to the lithosphere through seepage ponds. Remaining water was lost to the atmosphere through cooling towers and other evaporatory processes.

NOTE: Argonne National Laboratory – West (ANL) did not operate its cooling towers in April as a result of routine reactor maintenance. In addition, the increase of reported waste at the Sanitary Landfill is a result of a change in reporting methods. Prior to 1990 the waste was reported as compacted waste at the Landfill. During 1990 the waste was reported as uncompacted waste at the Landfill.

Tables and figures found within the tab sections "INEL Record-to-Date Summaries" and "INEL 1990 Summaries" provide a detailed overview of INEL industrial waste management data.

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ACRONYMS AND ABBREVIATIONS^a

ANL	Argonne National Laboratory – West	m	Meter
CFA	Central Facilities Area	NO _x	Nitric oxides
CPP	Chemical Processing Plant	NRF	Naval Reactors Facility
CTF	Containment Test Facility (LOFT became CTF on 10/1/86)	PBF	Power Burst Facility
EBR	Experimental Breeder Reactor I	RWMC	Radioactive Waste Management Com- plex
HMDA	Hazardous Material Disposal Area	SO ₂	Sulfur dioxide
HWSF	Hazardous Waste Storage Facility	TAN	Test Area North
INEL	Idaho National Engineering Laboratory	TDS	Total dissolved solids
IWMIS	Industrial Waste Management Information System	TRA	Test Reactor Area
kg	Kilogram	TSF	Technical Support Facility – Test Area North
L	Liter	WER	Waste Experimental Reduction Facil- ity
LOF	Loss-of-Fluid Test Facility (became CTF on 10/1/86)	WERF	Waste Experimental Reduction Facil- ity (same as WER)
LOFT	Loss-of-Fluid Test Facility (became CTF on 10/1/86)	WMC	Radioactive Waste Management Complex (same as RWMC)
MHD	Magnetohydrodynamics Component Development and Integration Facility (Butte, MT)	WRF	Water Reactor Research Test Facility (WRRTF) – Test Area North

a. 1-bromo-3-chloro-5,5-dimethyldantoin appears as 1-bromo-3-chloro-5,5-dimethydant throughout the document. Also, nonylphenoxypoly (ethyleneoxy) ethanol appears as nonylphenoxypoly (ethyleneoxy) ethano throughout the document.

CONVERSION FACTORS

<u>To Convert From</u>	<u>To</u>	<u>Multiply By</u>
Cubic meters	Cubic feet	35.314
Liters	Gallons (U.S. liquid)	0.2642
Kilograms	Pounds	2.2046

INDUSTRIAL WASTE MANAGEMENT INFORMATION FOR 1990 AND RECORD-TO-DATE

INTRODUCTION

This report summarizes industrial waste data records for the Idaho National Engineering Laboratory (INEL) for 1990 and record-to-date. It includes summaries of the quantities of liquid industrial waste, the volumes of solid waste, the fuel oil and water used, and the quantities of SO₂ and particulates released. The waste data are from the INEL Industrial Waste Management Information System (IWMIS), a computerized database that has been used at the INEL since 1971. An INEL Waste Information Task Force determined solid hazardous waste reporting in the IWMIS should discontinue. Figures have been revised to reflect this request.

This report provides graphics to aid in the presentation of the INEL summary data. The graphics display volumes of water and fuel oil used, volumes of solid waste discarded at the landfill, and weights of chemicals released as liquid and airborne effluents for the record-to-date and the current year.

Some summaries in this report address wastes by type. The types of industrial waste handled at the INEL are:

<u>Waste Type</u>	<u>Description</u>
1	Trash
2	Cafeteria Garbage
3	Wood and Scrap Lumber
4	Masonry and Concrete
5	Scrap Metal
6	Oil
7	Solvent
8	Chemicals
9	Other (must be specified)

The INEL Industrial Waste Summary, a chart listing the waste data available from the period 1971 through 1990, is located within the tab section entitled "INEL Record-to-Date Summaries." Also found in this section are tables that summarize INEL record-to-date information, and graphics that provide 1980-1990 summaries, and detailed data for solid and liquid industrial waste, sanitary landfill waste, airborne and liquid industrial waste, chemical usage, fuel oil usage, and water usage.

Charts that summarize INEL industrial waste information for the period January through December 1990 are located in the tab section "INEL 1990 Summaries." This section begins with tables that summarize both the solid waste and the airborne and liquid waste generated at each INEL facility. Additional detailed reports and summaries follow that include Reports 2, 3, and 6.

Report 2 – INEL Water Usage Summary — Year-to-Date

This report provides the quantity of water pumped and discharged and the percent accountability at each facility for the year-to-date.

Report 3 – INEL Industrial Waste Summary

This report summarizes the December and year-to-date quantity and type of industrial waste for each INEL facility. The waste is shown in Types 1 through 9 which correspond with the classification for sanitary waste.

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INEL INDUSTRIAL WASTE SUMMARY

RECORD-TO-DATE

WASTE TYPE	1971-1987	1988	1989	1990
SANITARY WASTE (CU. METERS)	466,479	25,397	28,956	80,307
OIL-SOLVENTS (LITERS)	579,827			
LIQUID WASTE (KILOGRAMS)	61,998,189	2,555,794	2,913,395	2,619,025
AIRBORNE WASTE (KILOGRAMS)*	10,666,644	867,055	237,188	177,843
FUEL OIL:				
QUANTITY (LITERS)	355,250,176	10,340,242	14,658,618	8,465,936
SO2 (KILOGRAMS)	6,225,677	196,910	217,557	105,309
PARTICULATES (KILOGRAMS)	412,520	12,424	9,792	4,754
WATER-USED (1,000 LITERS)	147,426,968	7,424,356	6,268,060	7,539,155

* NOTE: INCLUDES SO2 AND PARTICULATES FROM FUEL OIL TOTALS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEL SOLID AND LIQUID INDUSTRIAL WASTE SUMMARY
RECORD-TO-DATE

YEAR	ANL	ARA	CFA	CPP	CTF	LOF	MHD	NRF	PBF	TAN	TRA	TSF	WER	WMC	WRF	TOTAL
RECORD-TO-DATE (71-88)																
SANITARY WASTE (CU. METERS)	51227	2883	88385	89126	89	1055	7035	136032	8912	44942	50850	7523	196	3596	28	491876
OILS & SOLVENTS (LITERS)	30098		84821					458284		568	5678			379		579827
CHEMICALS																
LIQUIDS (LITERS)	1196	106		45				43830	416	17052	9968			145		72760
SOLIDS (KILOGRAMS)	492		1612					8517		0	20511					31133
OTHERS																
LIQUIDS (LITERS)	276		2336					4671	4997	8						12287
SOLIDS (KILOGRAMS)			34				9072									9106
1989																
SANITARY WASTE (CU. METERS)	1920		6131	5948			815	7268	294		4151	2101		328		28956
1990																
SANITARY WASTE (CU. METERS)	8261		22125	14713			881	23929	580		3604	5214		1001		80307

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING
0 IN A COLUMN INDICATES A TOTAL OF < 1

CY 1981-1990 INEL SANITARY LANDFILL WASTE

CY 1990 INEL WASTE BY AREA
CFA 27.6%

CY 1990 INEL WASTE BY TYPE

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
RECORD-TO-DATE

SUBSTANCE IDENTIFICATION	1971-1987	1988	1989	1990	TOTAL
ACETIC ACID	12				12
ALUMINUM NITRATE				40	40
AMERPLEX 6255	182				182
AMIDES	1,432	64	51	49	1,596
AMINOMETHYLPROPANOL	17	19			36
AMMONIA	36				36
AROMATIC SOLVENTS				135	135
ARSENIC	1				1
AUTO CLEANERS	26,604	218	218	18	27,058
B-BROMO-B-NITROSTYRENE				17	17
BARIUM	776			0	776
BARIUM SULFATE				0	0
BENZOTRIAZOLE	330	209	42	157	738
BERYLLIUM	0				0
BETZ A-9	68				68
BETZ DE 419	2,675				2,675
BETZ DE 453	113				113
BETZ DE 481	7,878				7,878
BETZ DIANODIC 154	828				828
BETZ FERROPERSEHP	375	50			425
BETZ J-12	18				18
BETZ NEUTRMEEN	1,669				1,669
BETZ 109	35				35
BETZ 194	301				301
BETZ 20K	5,685	10,557	2,710	9,015	27,968
BETZ 406	129				129
BETZ 429	5,171				5,171
BETZ 45	149				149
BETZ 65	544				544
BETZ 736	9				9
BIOCIDES D-2	9,640				9,640
BIS(1,2,3,4,5,6-HEPTACHLOROMETHYL)SULFONE				18	18
BLEACH	898				898
BORON	11,987	34	133	333	11,987
BROMINE					2
CADMIUM	2				2
CALCIUM CHLORIDE				87	87
CALCIUM FLUORIDE				25	25
CALCIUM ION		821	922	799	25,073
CALCIUM NITRATE	22,530			132	132
CALCIUM PERCHLORATE				3	3
CALCIUM PHOSPHATE, TRIBASIC				19	19
CALCIUM SULFATE, ANHYDROUS				1	1
CARBONTHIOCYANATES	248	13	10	10	280
CHLORIDE ION	7,316,281	605,812	578,843	712,288	9,213,222
CHLORINE		15	6		21

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AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
RECORD-TO-DATE

SUBSTANCE IDENTIFICATION	1971-1987	1988	1989	1990	TOTAL
CHLOROCARBONS	2				2
CHLOROHYDROCARBONS	472				472
CHLOROSULFONES	1,121	51	41	39	1,252
CHROMATE ION	327				327
CHROMIUM	120				120
CITRIC ACID	91				91
CLOROHYDROCARBONS	0				0
CR+6	1,814				1,814
CYCLOHEXYLAMINE		81	162	265	508
DIANODIC 194	15,531	8	16	27	15,531
DIETHYLAMINOETHANOL	2,131				2,131
DIMETHYLAMINE		19		17	36
DIMETHYLFORMAMIDE (DMF)	17				17
DIMETHYLISOPROPANOLAMINE	13,249				13,249
DIPHOSPHONATE	13,026				13,026
DISPERSANT 403			116		116
DREMGARD				19	19
ETHYL ALCOHOL	5	8	3	3	19
ETHYLAMINE		121	202	125	448
ETHYLENEDIAMINE TETRAACETIC ACID	11,578	907	1,718	473	14,677
FLUORIDE ION	5				5
FORMIC ACID				13	13
HEAVY AROMATIC NAPHTHA	7,568	1,366	884	1,371	11,189
HEDP	2,631				2,631
HEXAVALENT CR	4,415				4,415
HPA	17	7	0		24
HYDRAZINE	97	3	659	9	768
HYDROCARBON-AMINES	2,476	127	102	99	2,804
HYDROCARBONS			10	48	57
HYDROGEN CHLORIDE		93	27	243	18,902
HYDROXYCARBONS	18,539				18,539
HYPOCHLORITE	16,053				16,053
HYPOCHLORITE ION	64,899	3,221	76,657	1,397	146,175
ISOPROPANOL			5	24	29
JANITORIAL SUPPLIES	73			938	938
KP40 COOLANT CNTRL	2,098				2,098
KWIK KLEEN	56,779	9,791	3,584	20,631	90,785
LAUNDRY PRODUCTS	243				243
LEAD	4				4
M-60 ALGAECIDE	4				4
M-80T ALGAECIDE	64				64
MERCURY	68				68
METHBISTHIOCYANATE				12	12
METHYLENE BIS(THIOCYANATE)					
MOGUL PC 1222	8,611				8,611
MOLYBDATE SALT	0		0		0

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0 IN A COLUMN INDICATES A TOTAL OF < 1

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
RECORD-TO-DATE

SUBSTANCE IDENTIFICATION	1971-1987	1988	1989	1990	TOTAL
MORPHOLINE	1,559	82	172	17	1,831
N-HYDROCARBON	8,297	435	124	1,132	9,988
N-METHYLPYRROLIDONE				18	18
NALCO 7312	178				178
NALCO 7323	185				185
NALCOOL 7351	840				840
NAPHTHA	39				39
NITRATE ION	1,417,625	68,697	35,557	19,265	1,541,142
NITRIC OXIDE	362,442	65,771	980	6,768	435,960
NITRILOTRIACETIC ACID	49	69	0		119
NITRITE ION	3				3
NITRITE SALT	0		0		0
NITROGEN DICHLORIDE	3,660,979	591,844	8,818	60,917	4,322,557
NONYLPHENOLPOLY(ETHYLENEOXY)ETHANOL				14	14
OROCOL 194	68				68
OROCOL 734	70,313				70,313
OXYCARBONS	0				0
PHOSPHATE	21,137	3,279	2,101	3,127	29,644
PHOSPHATE ION	179,029	4,915	9,126	9,778	202,848
PHOSPHONATE	14,675		457	113	15,245
PHOTO LAB CHEMICAL	32,837	1,796	1,960	1,633	38,226
POLYACRYLATE	30,694	4,900	20,770	4,957	61,320
POLYACRYLATE ACID	0		0		0
POLYHYDROXYCARBON	48				48
POLYMETHACRYLATE	9,678		304	75	10,057
POLYNODIC 606	62,210				62,210
POLYNODIC 633	2,268				2,268
POLYPHOSPHATE	34,141		1,064	264	35,468
POTASSIUM HYDROXIDE		95	110	52	257
POTASSIUM ION	28,465	492	318	493	29,769
PYRIDINE	3				3
SALT OF EDTA	0		0		0
SELENIUM	0				0
SILICACARBONS	20				20
SILICATE ION	59				59
SILVER	72				72
SKAZOL	617				617
SKAZOL	3,164				3,164
SLIMICIDE A-9	9,935				9,935
SLIMICIDE C-35	3,434				3,434
SLIMICIDE D-2	2,034				2,034
SLIMICIDE J-12	7,523				7,523
SLIMICIDE J-9	15,920				15,920
SLIMICIDE 403	2,253				2,253
SOAP	51,407	816	1,073	874	54,170
SODIUM BISULFITE		93	194	259	545

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING
0 IN A COLUMN INDICATES A TOTAL OF < 1

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
RECORD-TO-DATE

SUBSTANCE IDENTIFICATION	1971-1987	1988	1989	1990	TOTAL
SODIUM HYDROXIDE					2,235
SODIUM ION	995	629	126	485	2,235
SODIUM LIGNOSULFONATE	4,828,899	93,191	121,754	251,625	5,295,468
SODIUM PHOSPHATE		95	110	52	257
SODIUM PHOSPHATE, TRIBASIC	77	7	99	486	84
SODIUM POLYACRYLATE		11		10	596
SPRA-S/f		1			11
SULFATE ION	862				862
SULFITE ION	16,221,369	643,181	533,979	563,934	17,962,432
SULFONATE	9,793	8,806	141	104,723	123,463
SULFUR DIOXIDE	11,168		304	75	11,547
SULFURIC ACID	8,259				8,259
TDS	1				1
THIOCARBONS	24,808,032	657,427	1,087,669	537,348	27,090,464
THIOHYDROCARBONS	17				17
THIOUREA	48				48
TOLYTRIAZOLE	1				1
TOTAL HARDNESS	1,861	341	221	343	2,767
TRIVALENT CR	6,434,837	432,924	428,534	368,595	7,664,889
ZINC ION	1,955				1,955
1-BROMO-3-CHLORO-5,5-DIMETHYLHYDANT	2,386		44	472	2,386
2-(2-BUTOXYETHOXY)-ETHANOL				2	516
					2
	66,025,376	3,213,502	2,923,228	2,686,795	74,848,848

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING
0 IN A COLUMN INDICATES A TOTAL OF < 1

CY 1981-1990 INEL CHEMICAL USAGE (RELEASED AS AIRBORNE EFFLUENTS)

CY 1990 INEL CHEMICAL USAGE BY AREA

CY 1981--1990 INEL CHEMICAL USAGE (RELEASED AS LIQUID EFFLUENTS)

CY 1990 INEL CHEMICAL USAGE BY AREA

INEL FUEL OIL SUMMARY

RECORD-TO-DATE

AREA	1971-1988				1989				1990			
	FUEL OIL (LITERS)	S02 (KG)	PART. (KG)	DIESEL (LITERS)	FUEL OIL (LITERS)	S02 (KG)	PART. (KG)	DIESEL (LITERS)	FUEL OIL (LITERS)	S02 (KG)	PART. (KG)	DIESEL (LITERS)
ANL	31,513,566	246,782	33,139		2,054,933	10,911	2,709		1,142,309	6,065	1,506	
ARA	1,878,357	13,212	523	56,117								177,621
CFA	25,731,157	252,486	22,262	1,345,352	371,921	3,548		208,906	466,758	3,870		
CPP	90,785,297	1,223,738	5,504		2,037,627	33,900			358,036	5,957		
CTF	353,358	2,080		11,356	152,654	865			90,374	804		42,342
LOF	1,508,075	10,492	3	270,683								
MHD	2,504,564	17,153			50,780	306			41,294	248		
NRF	83,997,551	2,274,295	144,793		3,302,144	83,778	7,083		2,671,831	53,355	3,248	
PBF	2,394,113	15,584	231	523,272	125,441	728		3,051	95,882	545		265
TAN	39,629,152	861,634	36,306	155,705								
TRA	47,512,537	1,417,831	182,184	29,627,782*		8,107		1,174,465*		10,944		1,585,435*
TSF	2,988,305	71,273			3,445,838	65,613			1,070,733	22,766		599,289
WMC	443,042	2,820		28,492								
WRF	2,332,176	13,290		11,753	1,730,878	9,803			80,059	755		43,720
=====												
	333,571,249	6,422,665	424,944	32,030,513	13,272,216	217,557	9,792	1,386,422	6,017,276	105,309	4,754	2,448,673

* TRA EMERGENCY GENERATOR

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

CY 1981-1990 INEL FUEL OIL USAGE

CY 1990 INEL FUEL OIL USAGE BY AREA

INEL WATER USAGE SUMMARY IN THOUSAND LITERS

RECORD-TO-DATE

AREA	1971-1987	1988	1989	1990	TOTAL
ANL	8,691,286	688,120	366,121	581,232	10,326,759
ARA	1,921,381	40,022			1,961,403
CFA	6,885,306	479,532	524,060	538,542	8,427,440
CPP	30,834,004	2,175,411	1,701,491	2,398,364	37,109,270
CTF	235,596	55,856	161,357	96,039	548,848
LOF	3,326,583				3,326,583
MHD	273,549	21,849	27,250	21,777	344,425
NR1	30,480,630	950,084	859,405	1,048,375	33,338,494
P8F	859,303	63,464	22,750	30,552	976,069
TAN	4,434,219				4,434,219
TRA	58,379,698	2,789,314	2,431,292	2,705,230	66,305,534
TSF	116,447	137,945	136,232	96,228	486,852
WNC	414,151	12,027	18,917	10,428	455,523
WRF	575,087	10,745	19,197	12,401	617,430
	147,427,240	7,424,369	6,268,072	7,539,168	168,658,849

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

CY 1981--1990 INEL WATER USAGE

CY 1990 INEL WATER DISPOSED BY TYPE

CY 1990 INEL WATER USAGE

CY 1990 INEL WATER PUMPED BY AREA

CY 1990 INEL WATER DISPOSED BY AREA

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INEL INDUSTRIAL WASTE SUMMARY IN CUBIC METERS *
FOR JANUARY THROUGH DECEMBER, 1990

TYPES	ANL	CFA	CPP	CTF	MHD	NRF	PBF	TRA	TSF	WMC	MRF	TOTAL
1. TRASH	6,148	11,993	11,044		881	17,746	561	2,354	3,249	776		54,752
2. CAFETERIA GARBAGE	830	1,231	1,120			2,165		447	779			6,572
3. WOOD & SCRAP LUMBER	640	1,376	1,123			770	7	119	112	46		4,194
4. MASONRY & CONCRETE	439	3,400	328			794		455	188	145		5,749
5. SCRAP METAL	113	564	185			231		129	181	11		1,415
9. OTHERS												
SOLIDS (CU. METERS)	91	3,560	912			2,223	12	99	704	22		7,624
TOTALS												
SANITARY TYPES 1, 2, 3, 4, 5, & 9 (CUBIC METERS)	8,261	22,125	14,713		881	23,929	580	3,604	5,214	1,001		80,307

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

INEL INDUSTRIAL WASTE SUMMARY
 FOURTH QUARTER AND YEAR-TO-DATE 1990

RPT 3-1

AREA OF ORIGIN	TYPE OF WASTE	QUARTERLY VOLUME		YEAR TO DATE VOLUME		
		OR WEIGHT UNITS	OR WEIGHT UNITS	OR WEIGHT UNITS	OR WEIGHT UNITS	
ANL	DISPOSED WASTE					
	1 - TRASH	SOLID	1114.8 CU.	METERS	6148.5 CU.	METERS
	2 - CAFETERIA GARBAGE	SOLID	177.4 CU.	METERS	829.6 CU.	METERS
	3 - WOOD AND SCRAP LUMBER	SOLID	68.1 CU.	METERS	640.0 CU.	METERS
	4 - MASONRY AND CONCRETE	SOLID			438.9 CU.	METERS
	5 - SCRAP METAL	SOLID	32.1 CU.	METERS	113.2 CU.	METERS
9 - OTHER	SOLID	61.9 CU.	METERS	91.0 CU.	METERS	
CFA	DISPOSED WASTE					
	1 - TRASH	SOLID	1157.7 CU.	METERS	11993.0 CU.	METERS
	2 - CAFETERIA GARBAGE	SOLID	74.9 CU.	METERS	1231.1 CU.	METERS
	3 - WOOD AND SCRAP LUMBER	SOLID	81.8 CU.	METERS	1376.4 CU.	METERS
	4 - MASONRY AND CONCRETE	SOLID	220.2 CU.	METERS	3400.1 CU.	METERS
	5 - SCRAP METAL	SOLID	93.3 CU.	METERS	563.5 CU.	METERS
9 - OTHER	SOLID	396.1 CU.	METERS	3560.5 CU.	METERS	
CPP	DISPOSED WASTE					
	1 - TRASH	SOLID	1945.2 CU.	METERS	11044.2 CU.	METERS
	2 - CAFETERIA GARBAGE	SOLID	250.8 CU.	METERS	1120.2 CU.	METERS
	3 - WOOD AND SCRAP LUMBER	SOLID	74.9 CU.	METERS	1121.4 CU.	METERS
	4 - MASONRY AND CONCRETE	SOLID	16.1 CU.	METERS	327.9 CU.	METERS
	5 - SCRAP METAL	SOLID	21.4 CU.	METERS	185.3 CU.	METERS
9 - OTHER	SOLID	161.0 CU.	METERS	913.6 CU.	METERS	
MHD	DISPOSED WASTE					
	1 - TRASH	SOLID	220.2 CU.	METERS	880.9 CU.	METERS
NRF	DISPOSED WASTE					
	1 - TRASH	SOLID	2775.6 CU.	METERS	17745.8 CU.	METERS
	2 - CAFETERIA GARBAGE	SOLID	471.0 CU.	METERS	2164.7 CU.	METERS
	3 - WOOD AND SCRAP LUMBER	SOLID	156.8 CU.	METERS	770.0 CU.	METERS
	4 - MASONRY AND CONCRETE	SOLID	380.8 CU.	METERS	794.1 CU.	METERS
	5 - SCRAP METAL	SOLID	55.1 CU.	METERS	231.3 CU.	METERS
9 - OTHER	SOLID	1176.8 CU.	METERS	2222.8 CU.	METERS	
P8F	DISPOSED WASTE					
	1 - TRASH	SOLID	12.2 CU.	METERS	560.9 CU.	METERS
	3 - WOOD AND SCRAP LUMBER	SOLID			7.3 CU.	METERS

DE..LIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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RPT 3-I

INEL INDUSTRIAL WASTE SUMMARY
 FOURTH QUARTER AND YEAR-TO-DATE 1990

AREA OF ORIGIN	TYPE OF WASTE	QUARTERLY		YEAR TO DATE	
		VOLUME OR WEIGHT	UNITS	VOLUME OR WEIGHT	UNITS
PBF	DISPOSED WASTE				
	9 - OTHER			12.1 CU.	METERS
TRA	DISPOSED WASTE				
	1 - TRASH	445.8 CU.	METERS	2353.6 CU.	METERS
	2 - CAFETERIA GARBAGE	48.9 CU.	METERS	447.3 CU.	METERS
	3 - WOOD AND SCRAP LUMBER	26.0 CU.	METERS	119.3 CU.	METERS
	4 - MASONRY AND CONCRETE	35.2 CU.	METERS	455.0 CU.	METERS
	5 - SCRAP METAL	10.7 CU.	METERS	129.2 CU.	METERS
	9 - OTHER	78.0 CU.	METERS	99.4 CU.	METERS
TSF	DISPOSED WASTE				
	1 - TRASH	805.9 CU.	METERS	3249.0 CU.	METERS
	2 - CAFETERIA GARBAGE	159.8 CU.	METERS	779.2 CU.	METERS
	3 - WOOD AND SCRAP LUMBER	26.8 CU.	METERS	112.4 CU.	METERS
	4 - MASONRY AND CONCRETE	51.2 CU.	METERS	188.1 CU.	METERS
	5 - SCRAP METAL	71.1 CU.	METERS	181.4 CU.	METERS
	9 - OTHER			703.9 CU.	METERS
MHC	DISPOSED WASTE				
	1 - TRASH	138.4 CU.	METERS	776.4 CU.	METERS
	3 - WOOD AND SCRAP LUMBER	10.7 CU.	METERS	46.1 CU.	METERS
	4 - MASONRY AND CONCRETE	0.8 CU.	METERS	148.3 CU.	METERS
	5 - SCRAP METAL	3.1 CU.	METERS	13.9 CU.	METERS
	9 - OTHER	0.8 CU.	METERS	16.0 CU.	METERS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

INEL INDUSTRIAL WASTE SUMMARY
FOURTH QUARTER AND YEAR-TO-DATE 1990

RPT 3-I

AREA OF ORIGIN	TYPE OF WASTE	QUARTERLY		YEAR TO DATE	
		VOLUME OR WEIGHT	UNITS	VOLUME OR WEIGHT	UNITS
INEL GRAND TOTALS					
DISPOSED WASTE					
1	-TRASH	SOLID	8,615.9 CU. METERS	54,752.2 CU. METERS	
2	-CAFETERIA GARBAGE	SOLID	1,182.9 CU. METERS	6,572.1 CU. METERS	
3	-WOOD AND SCRAP LUMBER	SOLID	445.0 CU. METERS	4,192.8 CU. METERS	
4	-MASONRY AND CONCRETE	SOLID	653.0 CU. METERS	5,752.4 CU. METERS	
5	-SCRAP METAL	SOLID	266.9 CU. METERS	1,417.9 CU. METERS	
9	-OTHER	SOLID	1,945.6 CU. METERS	7,619.3 CU. METERS	

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
FOR JANUARY THROUGH DECEMBER, 1990

SUBSTANCE IDENTIFICATION	ANL	CFA	CPP	CTF	NRF	PBF	TRA	TSF	MRF	TOTAL
ALUMINUM NITRATE		40								40
AMIDES	49									49
AROMATIC SOLVENTS	135									135
AUTO CLEANERS		18								18
B-BROMO-B-NITROSTYRENE	17									17
BARIIUM		0								0
BARIIUM SULFATE		0								0
BENZOTRIAZOLE					157					157
BETZ 20K	9,015									9,015
BIS(1TRICHLOROMETHYL)SULFONE	18									18
BROMINE							333			333
CALCIUM CHLORIDE		87								87
CALCIUM FLUORIDE		25								25
CALCIUM ION		347		1	443			8		799
CALCIUM NITRATE		132								132
CALCIUM PERCHLORATE		3								3
CALCIUM PHOSPHATE, TRIBASIC		19								19
CALCIUM SULFATE, ANHYDROUS		1								1
CARBONTHIOCYANATES	10									10
CHLORIDE ION	24	32,260	619,584	496	55,190	2	568	3,926	239	712,288
CHLOROSULFONES	39									39
CYCLOHEXYLAMINE								265		265
DIETHYLAMINOETHANOL								27		27
DIMETHYLFORMAMIDE(DMF)	17									17
ETHYL ALCOHOL		19								19
ETHYLAMINE	3									3
ETHYLENEDIAMINE TETRAACETIC ACID		48				4		74		125
FLUORIDE ION	13		473							473
HEAVY AROMATIC NAPHTHA							1,367			1,371
HEDP										9
HYDROCARBON-AMINES	9									99
HYDROCARBONS	99									48
HYDROGEN CHLORIDE	48									243
HYDROXYCARBONS						12	231			1,397
HYPOCHLORITE ION		223		1	1,138		30	5		24
ISOPROPANOL	24									24
JANITORIAL SUPPLIES		694						236	8	938
LAUNDRY PRODUCTS		20,203		30				394	4	20,631
METHYLENE BIS(THIOCYANATE)	12									12
MORPHOLINE	17									17
N-HYDROCARBON						54	1,078			1,132
N-METHYLPYRROLIDONE	18									18
NITRATE ION										19,265

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING
0 IN A COLUMN INDICATES A TOTAL OF < 1

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
FOR JANUARY THROUGH DECEMBER, 1990

SUBSTANCE IDENTIFICATION	ANL	CFA	CPP	CTF	NRF	PBF	TRA	TSF	MRF	TOTAL
NITRIC OXIDE			6,768							6,768
NITROGEN DIOXIDE			60,917							60,917
NONYLPHENOXYPOLY(ETHYLENEOXY)ETHANO PHOSPHATE	14					8	3,110			3,127
PHOSPHATE ION		8	862	11	3,198		5,691		17	9,778
PHOSPHONATE					113					113
PHOTO LAB CHEMICAL										1,633
POLYACRYLATE	1,633					7	4,247			4,957
POLYMETHACRYLATE	703				75					75
POLYPHOSPHATE					264					264
POTASSIUM HYDROXIDE						4				52
POTASSIUM ION		48				1	492			493
SOAP		845						28		874
SODIUM BISULFITE								259		259
SODIUM HYDROXIDE								14		485
SODIUM ION	9,396	155,214		486	33,273	6	50,356	2,643	252	251,625
SODIUM LIGNOSULFONATE		48		136		4			350	52
SODIUM PHOSPHATE, TRIBASIC								10		486
SODIUM POLYACRYLATE								257		10
SULFATE ION	44,908	6	83,065	81	65,108	3	370,363		146	563,934
SULFITE ION		104,640		24					56	104,723
SULFONATE					75					75
TDS							537,348			537,348
TOLYTRIAZOLE						1	342			343
TOTAL HARDNESS							368,595			368,595
1-BROMO-3-CHLORO-5,5-DIMETHYLHYDANT	472									472
2-(2-BUTOXYETHOXY)-ETHANOL		2								2
TOTAL	66,693	314,928	790,934	1,266	159,504	108	1,344,152	8,146	1,071	2,686,795

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING
0 IN A COLUMN INDICATES A TOTAL OF < 1

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 UNITED STATES DEPARTMENT OF ENERGY
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INEL YEAR-TO-DATE WATER USAGE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 2-I

(ALL VOLUMES = NEAREST THOUSAND LITERS)

AREA OF ORIGIN	YEARLY VOLUME PUMPED	YEARLY VOLUME DISPOSED				ACCOUNTA- BILITY (%)
		AIR	SURFACE	SUBSURFACE	SEWAGE	
ANL	581,232	330,623	203,626		11,881	94.0
CFA	538,542	*	186,295	*	150,102	63.7
CPP	2,398,364		2,355,969	*	42,785	100.0
CTF	96,039		95,117		908	100.0
MHD	21,777	2,196	19,577			100.0
NRF	1,048,375	438,646	367,393	*	56,598	82.3
PBF	30,552		9,089	*	12,860	71.8
TRA	2,705,230	1,286,017	1,257,968	*	32,759	95.3
TSF	96,228	*	54,048	*	42,184	100.0
MPC	10,428	*		*	999	9.6
NRF	12,401		9,231		865	81.4
	=====	=====	=====	=====	=====	=====
GRAND TOTALS:	7,539,155	2,057,481	4,558,307	6,435	351,941	92.5
					6,974,165	

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

INEL YEAR-TO-DATE FUEL OIL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 6-I

AREA OF ORIGIN	FUEL OIL IN LITERS					KILOGRAMS DISCHARGED		
	TYPE 2	TYPE 5	TYPE 6	KEROSENE	DIESEL	S02	NOX	PARTICULATES
ANL	1,142,309					6,065		1,506
CFA	466,758				177,621	3,870		
CPP	358,036					5,957		
CTF	90,374				42,342	804		
MHD	41,294					248		
NRF		2,671,831				53,355	9,981	3,248
PBF	95,882				265	545		
TRA					1,585,435	10,944		
TSF	469,336	601,397			599,289	22,766		
WRF	80,059				43,720	755		
GRAND TOTALS	2,744,047	3,273,228	0	0	2,448,673	105,309	9,981	4,754

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

ARGONNE NATIONAL LABORATORY – WEST, 1990 DETAIL DATA

Report 114 – ANL Airborne Disposed Substances Summary	ANL-3
Report 115 – ANL Liquid Disposed Substances Summary	ANL-5
Report 116 – ANL Industrial Waste Summary	ANL-10
Report 117 – ANL Water Usage and Disposal Summary	ANL-11
Report 118 – ANL Fuel Oil Usage and Stack Effluents Summary	ANL-13

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06/26/91

ANL AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RPT 114-I
ANL-A

-----														ANNUAL
AREA GRAND TOTALS	SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS

BETZ 20K	WEIGHT (KGS)	7	8	8		2	8	0	10	8	10	13	15	89
POLYACRYLATE	WEIGHT (KGS)	0	1	1		0	0	1	1	1	1	1	0	7

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ANL AIRBORNE DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 114-I
 ANL-A

RELEASE POINT DESCRIPTION SUBSTANCE	ANNUAL												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT & AVE
COOLING TOWER 757 VOLUME (1000 CM)	441	537	594		115	441	594	594	364	576	537	249	5,044
BETZ 20K CONC. (MG/L)	23.40	21.91	20.93	0.00	22.54	25.62	0.43	24.98	31.06	24.45	36.29	88.39	25.86
WEIGHT (KGS)	7	8	8	0	2	8	0	10	8	10	13	15	89
POLYACRYLATE CONC. (MG/L)	1.63	2.18	1.63	0.00	1.65	0.98	1.86	1.40	2.40	2.12	3.14	1.48	1.90
WEIGHT (KGS)	0	1	1	0	0	0	1	1	1	1	1	0	7

NOTE: UNDERLINE = CALCULATED CONCENTRATION
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

09/16/91

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 115-I
 ANL-B

AREA GRAND TOTALS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
SUBSTANCE													
AMIDES													
WEIGHT (KGS)	5	5	5	1	5	5	5	11	9				49
AROMATIC SOLVENTS													
WEIGHT (KGS)					11	12	22	11	11	25	25	17	135
B-BROMO-B-NITROSTYRENE													
WEIGHT (KGS)					2	2	3	2	2	3	3	1	17
BETZ 20K													
WEIGHT (KGS)	633	661	771	25	303	991	25	1,459	1,101	1,019	1,261	677	8,926
BIS(TRICHLOROMETHYL)SULFONE													
WEIGHT (KGS)										5	5	9	18
CARBONTHIOCYANATES													
WEIGHT (KGS)	1	1	1	0	1	1	1	2	2				10
CHLORIDE ION													
WEIGHT (KGS)	12	12											24
CHLOROSULFONES													
WEIGHT (KGS)	4	4	4	1	4	4	4	9	7				39
DIMETHYLFORMAMIDE(DMF)													
WEIGHT (KGS)					2	2	3	2	2	3	3	1	17
ETHYLAMINE													
WEIGHT (KGS)	0	0	0		0	0	0	0	0	1	0	0	3
HEAVY AROMATIC NAPHTHA													
WEIGHT (KGS)													
HYDROCARBON-AMINES													
WEIGHT (KGS)	0	0		1	4	4							9
HYDROCARBONS													
WEIGHT (KGS)	10	10	10	2	9	9	9	21	17				99
HYDROGEN CHLORIDE													
WEIGHT (KGS)			5	5	5	5	5	5	5	5	5	5	48
ISOPROPANOL													
WEIGHT (KGS)			2	2	2	2	2	2	2	2	2	2	24

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

09/16/91

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 115-1
 ANL-B

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
METHYLENE BIS(THIOCYANATE) WEIGHT (KGS)					1	1	2	1	1	2	2	2	12
MORPHOLINE WEIGHT (KGS)	0	0		0	16	1							17
N-METHYLPYRROLIDONE WEIGHT (KGS)										5	5	9	18
NONYLPHENOXPOLY(ETHYLENEOXY)ETHANO WEIGHT (KGS)					1	1	2	1	1	3	3	3	14
PHOTO LAB CHEMICAL WEIGHT (KGS)	163	163	163	163	163	163	163	163	163	163			1,633
POLYACRYLATE WEIGHT (KGS)	44	47	60	1	22	38	107	82	85	88	109	11	696
SODIUM ION WEIGHT (KGS)	5,271	332	249	166	398	398	332	423	291	374	415	747	9,396
SULFATE ION WEIGHT (KGS)	5,298	11	5,747	900	1,800	338	7,543	8,446	4,640	355	5,987	3,842	44,908
1-BROMO-3-CHLORO-5,5-DIMETHYLHYDANT WEIGHT (KGS)	15	18	23		15	8	30	84	49	77	77	77	472

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

09/16/91

RPT 115-1
 ANL-B
 ANL LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
FACILITY 779 VOLUME(1000 L) PH	1,144	944	1,147	936	1,007	1,276	810	863	719	891	853	743	11,335
CHLORIDE ION CNC. (MG/L)	10.41	12.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10
WEIGHT (KGS)	12	12	0	0	0	0	0	0	0	0	0	0	24
HYDROGEN CHLORIDE CNC. (MG/L)	0.00	0.00	4.15	5.09	4.73	3.73	5.88	5.52	6.62	5.34	5.59	6.41	4.20
WEIGHT (KGS)	0	0	5	5	5	5	5	5	5	5	5	5	48
ISOPROPANOL CNC. (MG/L)	0.00	0.00	2.08	2.54	2.36	1.87	2.94	2.76	3.31	2.67	2.79	3.21	2.10
WEIGHT (KGS)	0	0	2	2	2	2	2	2	2	2	2	2	24
INDUSTRIAL POND 746 SURFACE VOLUME(1000 L) PH	11,481	13,680	18,200	10,474	13,135	19,506	88,311	27,110	17,409	18,926	16,448	10,671	265,351
AMIDES CNC. (MG/L)	0.44	0.37	0.28	0.10	0.35	0.23	0.05	0.39	0.50	0.00	0.00	0.00	0.18
WEIGHT (KGS)	5	5	5	1	5	5	5	11	9	0	0	0	49
AROMATIC SOLVENTS CNC. (MG/L)	0.00	0.00	0.00	0.00	0.87	0.59	0.24	0.42	0.66	1.33	1.54	1.60	0.51
WEIGHT (KGS)	0	0	0	0	11	12	22	11	11	26	26	17	135
B-BROMO-B-NITROSTYRENE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.12	0.09	0.04	0.06	0.09	0.16	0.19	0.14	0.07
WEIGHT (KGS)	0	0	0	0	2	2	3	2	2	3	3	1	17
BETZ 20K CNC. (MG/L)	55.15	48.31	42.37	2.37	23.06	50.81	0.28	53.82	63.26	53.83	76.66	63.46	33.64
WEIGHT (KGS)	633	661	771	25	303	991	25	1,459	1,101	1,019	1,261	677	8,926

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

09/16/91

RPT 115-1
 ANL-8

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT & AVE
													ANNUAL
BIS(TRICHLOROMETHYL) SULFONE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.28	0.81	0.07
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	5	5	9	18
CARBONTHIOCYANATES CNC. (MG/L)	0.09	0.07	0.06	0.02	0.07	0.05	0.01	0.08	0.10	0.00	0.00	0.00	0.04
WEIGHT (KGS)	1	1	1	0	1	1	1	2	2	0	0	0	10
CHLOROSULFONES CNC. (MG/L)	0.35	0.30	0.22	0.08	0.28	0.19	0.04	0.32	0.40	0.00	0.00	0.00	0.15
WEIGHT (KGS)	4	4	4	1	4	4	4	9	7	0	0	0	39
DIMETHYLFORMAMIDE (DMF) CNC. (MG/L)	0.00	0.00	0.00	0.00	0.12	0.09	0.04	0.06	0.09	0.16	0.19	0.14	0.07
WEIGHT (KGS)	0	0	0	0	2	2	3	2	2	3	3	1	17
ETHYLAMINE CNC. (MG/L)	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.03	0.04	0.03	0.02	0.01
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	1	0	0	3
HEAVY AROMATIC NAPHTHA CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.20	0.58	0.05
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	3	3	6	13
HYDROCARBON-AMINES CNC. (MG/L)	0.02	0.01	0.00	0.06	0.30	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.03
WEIGHT (KGS)	0	0	0	1	4	4	0	0	0	0	0	0	9
HYDROCARBONS CNC. (MG/L)	0.88	0.74	0.56	0.19	0.69	0.47	0.10	0.79	0.99	0.00	0.00	0.00	0.37
WEIGHT (KGS)	10	10	10	2	9	9	9	21	17	0	0	0	99
METHYLENE BIS(THIOCYANATE) CNC. (MG/L)	0.00	0.00	0.00	0.00	0.06	0.04	0.02	0.03	0.05	0.13	0.15	0.23	0.05
WEIGHT (KGS)	0	0	0	0	1	1	2	1	1	3	3	3	12

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

09/16/91

RPT 115-1
ANL-BANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
MORPHOLINE CNC. (MG/L)	0.01	0.00	0.00	0.02	1.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.07
WEIGHT (KGS)	0	0	0	0	16	1	0	0	0	0	0	0	17
N-METHYLPYRROLIDONE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.28	0.81	0.07
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	5	5	9	18
NONYLPHENOXPOLY(ETHYLENEOXY)ETHANO CNC. (MG/L)	0.00	0.00	0.00	0.00	0.06	0.04	0.02	0.03	0.05	0.15	0.17	0.30	0.05
WEIGHT (KGS)	0	0	0	0	1	1	2	1	1	3	3	3	14
PHOTO LAB CHEMICAL CNC. (MG/L)	14.22	11.94	8.97	15.59	12.43	8.37	1.85	6.02	9.38	8.63	0.00	0.00	6.15
WEIGHT (KGS)	163	163	163	163	163	163	163	163	163	163	0	0	1,633
POLYACRYLATE CNC. (MG/L)	3.85	3.46	3.30	0.12	1.68	1.94	1.22	3.03	4.90	4.67	6.64	1.06	2.63
WEIGHT (KGS)	44	47	60	1	22	38	107	82	85	88	109	11	696
SODIUM ION CNC. (MG/L)	459.09	24.27	13.68	15.85	30.33	20.42	3.76	15.62	16.69	19.74	25.23	70.01	35.41
WEIGHT (KGS)	5,271	332	249	166	398	398	332	423	291	374	415	747	9,396
SULFATE ION CNC. (MG/L)	461.46	0.79	315.77	85.92	137.03	17.32	85.42	311.54	266.55	18.78	364.01	360.08	169.24
WEIGHT (KGS)	5,298	11	5,747	900	1,800	338	7,543	8,446	4,640	355	5,987	3,842	44,908
1-BROMO-3-CHLORO-5,5-DIMETHYLHYDANT CNC. (MG/L)	1.31	1.29	1.30	0.00	1.12	0.41	0.34	3.10	2.82	4.06	4.67	7.20	1.78
WEIGHT (KGS)	15	18	23	0	15	8	30	84	49	77	77	77	472

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/25/91

ANL INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 116-I

DISPOSAL OR STORAGE LOCATION TYPE OF WASTE	VOLUME OR WEIGHT BY MONTH												TOT
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	448.1	532.2	409.8	575.0	746.3	568.9	802.9	636.2	314.3	483.3	301.3	330.3	6148.5
2 M SOLID	83.3	73.4	55.1	73.4	91.8	73.4	73.4	79.5	48.9	67.3	73.4	36.7	829.6
3 M SOLID	7.6	7.6						507.7	48.9	35.2	7.6	25.2	640.0
4 M SOLID	9.2			79.5	194.2	108.6			47.4				438.9
5 M SOLID	9.2			11.5	15.3	3.1	20.6	9.2	12.2	15.3	3.8	13.0	113.2
9 M SOLID				16.8									16.8
ASPHALT													
9 M SOLID											61.9		61.9
DIRT													
9 M SOLID			12.2										12.2
SHAVINGS, STRAW & GRAVEL													

GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	448.1	532.2	409.8	575.0	746.3	568.9	802.9	636.2	314.3	483.3	301.3	330.3	6148.5
2 M SOLID	83.3	73.4	55.1	73.4	91.8	73.4	73.4	79.5	48.9	67.3	73.4	36.7	829.6
3 M SOLID	7.6	7.6						507.7	48.9	35.2	7.6	25.2	640.0
4 M SOLID	9.2			79.5	194.2	108.6			47.4				438.9
5 M SOLID	9.2			11.5	15.3	3.1	20.6	9.2	12.2	15.3	3.8	13.0	113.2
9 M SOLID			12.2	16.8							61.9		91.0

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

ANL WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 117-I
 ANL

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
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WATER DATA

001 WATER PUMPED (L)	20,441	20,952	26,270	8,063	14,047	28,106	39,746	40,503	25,399	28,958	24,567	13,567	290,616
002 WATER PUMPED (L)	20,441	20,952	26,270	8,063	14,047	28,106	39,746	40,503	25,399	28,958	24,567	13,567	290,616
WATER PUMPED (L)	40,881	41,903	52,540	16,125	28,094	56,212	79,491	81,005	50,799	57,915	49,133	27,133	581,233

WATER DISPOSAL

AIR (L)	26,149	25,153	30,517	5,727	12,499	32,565	48,073	48,906	30,086	35,162	29,332	6,454	330,623
SURFACE (L)	11,481	13,680	18,200	10,474	13,135	19,506	26,588	27,110	17,409	18,926	16,447	10,671	203,626
SUBSURFACE (L)													

SEWAGE DATA

720 BUILD VOL. (L) *	45	45	45	45	45	45	45	45	45	45	45	45	545
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BIOCHEMICAL OXYGEN DEMAND (BOD)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 % REMOVED

DISSOLVED OXYGEN (DO)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 INCREASED FACTOR

SETTLEABLE SOLIDS (SS)

RAW CONC. (ML/L)
 FINAL CONC. (ML/L)
 % REMOVED

PH FINAL

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

ANL WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990
 RPT 117-1
 ANL

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
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SEWAGE DATA

779 BUILD VOL. (L) * 1,144 944 1,147 936 1,007 1,276 810 863 719 891 853 743 11,335

BIOCHEMICAL OXYGEN DEMAND (BOD)

RAW CONC. (MG/L) 700.0 270.0 470.0 230.0 370.0 250.0 381.7
 FINAL CONC. (MG/L) 14.0 200.0 5.0 2.0 4.0 18.0 40.5
 % REMOVED 98.0 25.9 98.9 99.1 98.9 92.8 89.4

DISSOLVED OXYGEN (DO)

RAW CONC. (MG/L) 0.1 0.2 0.2 0.1 0.2 0.4 0.2
 FINAL CONC. (MG/L) 10.1 0.2 3.2 0.5 0.7 6.5 3.5
 INCREASED FACTOR 100.0 15.0 4.0 4.0 2.5 15.2 16.5

SETTLABLE SOLIDS (SS)

RAW CONC. (ML/L) 0.2 0.2 0.06 0.4 0.4 0.3
 FINAL CONC. (ML/L) 0.02 0.06 0.05 0.04
 % REMOVED 90.0 87.5 86.7

PH FINAL 8.1 7.6 7.9 7.9 7.9 8.0 7.9

TOTAL SEWAGE VOL. (L) 1,189 990 1,193 982 1,053 1,322 855 909 765 937 898 786 11,881

TOTAL WATER DISPOSED (L) 38,819 39,823 49,910 17,183 26,687 53,392 75,516 76,925 48,259 55,025 46,678 17,913 546,130

ACCOUNTABILITY (%) 95.0 95.0 95.0 106.6 95.0 95.0 95.0 95.0 95.0 95.0 95.0 66.0 94.0

NOTE: "W" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

ANL FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990
 RPT 118-1
 ANL

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 2													
VOLUME (LITERS)	144	40	8	211	213	46	3	29	54	10	36	350	1,142
SO2 (KGS)	1	0	0	1	1	0	0	0	0	0	0	2	6
NOX (KGS)													
PARTICULATES (KGS)	0	0	0	0	0	0	0	0	0	0	0	0	2
GRAND TOTALS													
SO2 (KGS)	1	0	0	1	1	0	0	0	0	0	0	2	6
NOX (KGS)													
PARTICULATES (KGS)	0	0	0	0	0	0	0	0	0	0	0	0	2

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

CENTRAL FACILITIES AREA, 1990 DETAIL DATA

Report 135 – CFA Liquid Disposed Substances Summary	CFA-3
Report 136 – CFA Industrial Waste Summary	CFA-8
Report 137 – CFA Water Usage and Disposal Summary	CFA-10
Report 138 – CFA Fuel Oil Usage and Stack Effluents Summary	CFA-11

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

CFA LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 135-I
 CFA-B

AREA GRAND TOTALS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
SUBSTANCE													
ALUMINUM NITRATE WEIGHT (KGS)					5	5	5	5	5	5	5	5	40
AUTO CLEANERS WEIGHT (KGS)	18												18
BARIUM WEIGHT (KGS)											0		0
BARIUM SULFATE WEIGHT (KGS)					0	0	0	0	0	0	0		0
CALCIUM CHLORIDE WEIGHT (KGS)					11	11	11	11	11	11	11	11	87
CALCIUM FLUORIDE WEIGHT (KGS)						4	4	4	4	4		4	25
CALCIUM ION WEIGHT (KGS)	21	24	30	29	23	21	27	28	68	43	34		347
CALCIUM NITRATE WEIGHT (KGS)					4	4	38	38	38	4	4	4	132
CALCIUM PERCHLORATE WEIGHT (KGS)					0	0	0	0	0	0	0	0	3
CALCIUM PHOSPHATE, TRIBASIC WEIGHT (KGS)					2	2	2	2	2	2	2	2	19
CALCIUM SULFATE, ANHYDROUS WEIGHT (KGS)					0	0	0	0	0	0	0	0	1
CHLORIDE ION WEIGHT (KGS)	2,349	2,034	1,582	17,628	1,097	1,743	1,030	893	636	707	1,832	729	32,260
ETHYL ALCOHOL WEIGHT (KGS)					2	2	2	2	2	2	2	2	19
ETHYLENEDIAMINE TETRAACETIC ACID WEIGHT (KGS)	15	13	5	1	0	0	0	0	1	5		8	48
HYPOCHLORITE ION WEIGHT (KGS)	13	15	19	18	15	14	17	18	43	27	22		223

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

CFA LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990
 RPT 135-I
 CFA-B

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
JANITORIAL SUPPLIES WEIGHT (KGS)												694	694
LAUNDRY PRODUCTS WEIGHT (KGS)	319	304	216	212		330	307	569	580	449	16,614	303	20,203
PHOSPHATE WEIGHT (KGS)	8												8
POTASSIUM HYDROXIDE WEIGHT (KGS)	15	13	5	1	0	0	0	0	1	5		8	48
SOAP WEIGHT (KGS)	54	59	64	79	75	70	76	79	40	52	196		845
SODIUM ION WEIGHT (KGS)	1,536	1,322	1,023	11,416	705	1,125	661	571	394	451	1,258	134,752	155,214
SODIUM LIGNOSULFONATE WEIGHT (KGS)	15	13	5	1	0	0	0	0	1	5		8	48
SULFATE ION WEIGHT (KGS)								1		6			6
SULFITE ION WEIGHT (KGS)	21	12	8	1	1	1	1		1		87	104,507	104,640
2-(12-BUTOXYETHOXY)-ETHANOL WEIGHT (KGS)			2										2

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

CFA LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 135-1
 CFA-B

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SEWAGE PLANT VOLUME(1000 L)	10,001	8,422	9,656	11,307	9,989	10,326	14,066	17,662	15,410	17,995	16,288	15,410	156,534
PH													
ALUMINUM NITRATE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.50	0.48	0.35	0.28	0.32	0.28	0.31	0.32	0.25
WEIGHT (KGS)	0	0	0	0	5	5	5	5	5	5	5	5	40
AUTO CLEANERS CNC. (MG/L)	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
WEIGHT (KGS)	18	0	0	0	0	0	0	0	0	0	0	0	18
BARIUM CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	0	0
BARIUM SULFATE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	0	0
CALCIUM CHLORIDE CNC. (MG/L)	0.00	0.00	0.00	0.00	1.09	1.05	0.77	0.62	0.71	0.60	0.67	0.71	0.56
WEIGHT (KGS)	0	0	0	0	11	11	11	11	11	11	11	11	87
CALCIUM FLUORIDE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.40	0.29	0.23	0.27	0.23	0.00	0.27	0.16
WEIGHT (KGS)	0	0	0	0	0	4	4	4	4	4	0	4	25
CALCIUM ION CNC. (MG/L)	2.09	2.84	3.10	2.54	2.31	2.04	1.92	1.57	4.40	2.38	2.08	0.00	2.22
WEIGHT (KGS)	21	24	30	29	23	21	27	28	68	43	34	0	347
CALCIUM NITRATE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.38	0.36	2.68	2.13	2.44	0.21	0.23	0.24	0.84
WEIGHT (KGS)	0	0	0	0	4	4	38	38	38	4	4	4	132

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

CFA LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 135-I
 CFA-B

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
<u>CALCIUM PERCHLORATE</u>													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	0	3
<u>CALCIUM PHOSPHATE, TRIBASIC</u>													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.24	0.23	0.17	0.13	0.15	0.13	0.14	0.15	0.12
WEIGHT (KGS)	0	0	0	0	2	2	2	2	2	2	2	2	19
<u>CALCIUM SULFATE, ANHYDROUS</u>													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	0	1
<u>CHLORIDE ION</u>													
CNC. (MG/L)	234.85	241.46	163.84	1559.07	109.86	168.82	73.25	50.57	41.25	39.29	112.45	47.33	206.09
WEIGHT (KGS)	2,349	2,034	1,582	17,628	1,097	1,743	1,030	893	636	707	1,832	729	32,260
<u>ETHYL ALCOHOL</u>													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.24	0.23	0.17	0.13	0.15	0.13	0.14	0.15	0.12
WEIGHT (KGS)	0	0	0	0	2	2	2	2	2	2	2	2	19
<u>ETHYLENEDIAMINE TETRAACETIC ACID</u>													
CNC. (MG/L)	1.47	1.49	0.49	0.12	0.03	0.03	0.02	0.02	0.05	0.27	0.00	0.50	0.31
WEIGHT (KGS)	15	13	5	1	0	0	0	0	1	5	0	8	48
<u>HYPOCHLORITE ION</u>													
CNC. (MG/L)	1.34	1.82	1.99	1.63	1.48	1.31	1.23	1.01	2.82	1.53	1.34	0.00	1.42
WEIGHT (KGS)	13	15	19	18	15	14	17	18	43	27	22	0	223
<u>JANITORIAL SUPPLIES</u>													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.01	4.43
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	694	694
<u>LAUNDRY PRODUCTS</u>													
CNC. (MG/L)	31.89	36.07	22.41	18.76	0.00	31.92	21.80	32.23	37.65	24.95	1020.00	19.66	129.06
WEIGHT (KGS)	319	304	216	212	0	330	307	569	580	449	16,614	303	20,203

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 135-I
CFA-BCFA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT SUBSTANCE	DESCRIPTION	ANNUAL											
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOT & AVE
PHOSPHATE CNC. (MG/L)	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	---	---	---	---	---	---	---	---	---	---	---	---	---
WEIGHT (KGS)	8	0	0	0	0	0	0	0	0	0	0	0	8
	---	---	---	---	---	---	---	---	---	---	---	---	---
POTASSIUM HYDROXIDE CNC. (MG/L)	1.47	1.49	0.49	0.12	0.03	0.03	0.03	0.02	0.02	0.05	0.27	0.00	0.31
	---	---	---	---	---	---	---	---	---	---	---	---	---
WEIGHT (KGS)	15	13	5	1	0	0	0	0	0	1	5	0	48
	---	---	---	---	---	---	---	---	---	---	---	---	---
SOAP CNC. (MG/L)	5.40	7.06	6.62	7.02	7.54	6.76	5.42	4.49	4.49	2.59	2.90	12.03	5.40
	---	---	---	---	---	---	---	---	---	---	---	---	---
WEIGHT (KGS)	54	59	64	79	75	70	76	79	79	40	52	196	845
	---	---	---	---	---	---	---	---	---	---	---	---	---
SODIUM ION CNC. (MG/L)	153.58	156.98	105.96	1009.67	70.59	108.90	46.96	32.35	32.35	25.55	25.06	77.22	991.57
	---	---	---	---	---	---	---	---	---	---	---	---	---
WEIGHT (KGS)	1,536	1,322	1,023	11,417	704	1,124	660	571	571	394	451	1,257	155,214
	---	---	---	---	---	---	---	---	---	---	---	---	---
SODIUM LIGNOSULFONATE CNC. (MG/L)	1.47	1.49	0.49	0.12	0.03	0.03	0.02	0.02	0.02	0.05	0.27	0.00	0.31
	---	---	---	---	---	---	---	---	---	---	---	---	---
WEIGHT (KGS)	15	13	5	1	0	0	0	0	0	1	5	0	48
	---	---	---	---	---	---	---	---	---	---	---	---	---
SULFATE ION CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.31	0.00	0.04
	---	---	---	---	---	---	---	---	---	---	---	---	---
WEIGHT (KGS)	0	0	0	0	0	0	0	1	1	0	6	0	6
	---	---	---	---	---	---	---	---	---	---	---	---	---
SULFITE ION CNC. (MG/L)	2.08	1.40	0.81	0.13	0.07	0.08	0.05	0.00	0.00	0.10	0.00	5.37	668.49
	---	---	---	---	---	---	---	---	---	---	---	---	---
WEIGHT (KGS)	21	12	8	1	1	1	1	0	0	1	0	87	104,640
	---	---	---	---	---	---	---	---	---	---	---	---	---
2-(2-BUTOXYETHOXY)-ETHANOL CNC. (MG/L)	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	---	---	---	---	---	---	---	---	---	---	---	---	---
WEIGHT (KGS)	0	0	2	0	0	0	0	0	0	0	0	0	2
	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM
CFA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

06/25/91

RPT 136-I

DISPOSAL OR STORAGE LOCATION		VOLUME OR WEIGHT BY MONTH												TOT
TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
CCFA LANDFILL														
DISPOSED WASTE														
1 M SOLID	540.6	474.1	1410.0	5203.4	531.4	520.7	555.1	897.3	702.7	648.4	295.9	213.3	11993.0	
2 M SOLID	68.8	64.2	73.4	497.0	76.5	76.5	92.5	128.5	78.8	74.2	0.8		1231.1	
3 M SOLID	34.8	14.5	80.3	289.8	57.3	91.8	52.8	71.5	601.8	28.3	17.6	35.9	1376.4	
4 M SOLID	13.5	12.2	8.4	453.4	182.0	23.7	168.2	2052.3	266.1	139.2	42.1	39.0	3400.1	
5 M SOLID	26.0	29.4	8.4	183.9	42.1	113.9	34.4	15.3	16.8	8.4	32.1	52.8	563.5	
9 M SOLID	1.5	0.4	1.9	11.3	8.4	5.0	3.1	6.9	10.7	3.1		3.8	56.0	
ASBESTOS														
9 M SOLID				169.8	325.0		38.2			15.3	3.8	0.8	552.8	
ASPHALT														
9 M SOLID									1410.8				1410.8	
BULKY WASTE (ASPHALT-DIRT/GRAVEL)														
9 M SOLID								0.4					0.4	
COLOR CODED														
9 M SOLID								16.8		3.1			19.9	
COMPOST														
9 M SOLID					137.6						63.5	42.8	243.9	
DIRT														
9 M SOLID						406.4							406.4	
DIRT AND CONCRETE														
9 M SOLID			30.1	433.6									463.6	
DIRT/MEEDS														
9 M SOLID										255.4			255.4	
DIRT, GRAVEL														
9 M SOLID						0.8							0.8	
DOORS														
9 M SOLID													0.8	
ELECTRIC CABLE														
9 M SOLID									3.8				3.8	
FLUORESCENT TUBES														
9 M SOLID	3.1		3.1	5.4	1.5	1.5							14.5	
GLASS														
9 M SOLID						3.8							3.8	
GRASS														
9 M SOLID						4.6							4.6	
INSULATION														
9 M SOLID													0.2	
MEDICAL SUPPLIES														
9 M SOLID		2.3				12.2							14.5	
OIL FILTERS														
9 M SOLID								6.1					6.1	
OIL SLUDGE														
9 M SOLID								0.4					0.4	

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM
 CFA INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

06/25/91

RPT 136-I

DISPOSAL OR STORAGE LOCATION TYPE OF WASTE	VOLUME OR WEIGHT BY MONTH												TOT
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
RIGGING													
DISPOSED WASTE													
9 M SOLID			14.9			4.6	3.8						23.3
SLUDGE													
9 M SOLID						53.5							53.5
STYROFOAM													
9 M SOLID						3.1					4.6		7.6
TREES													
9 M SOLID					10.7	1.1			5.4				17.2
NEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	540.6	474.1	1410.0	5203.4	531.4	520.7	555.1	897.3	702.7	648.4	295.9	213.3	11993.0
2 M SOLID	68.8	64.2	73.4	497.0	76.5	76.5	92.5	128.5	78.8	74.2	0.8		1231.1
3 M SOLID	34.8	14.5	80.3	289.8	57.3	91.8	52.8	71.5	601.8	28.3	17.6	35.9	1376.4
4 M SOLID	13.5	12.2	8.4	453.4	182.0	23.7	168.2	2052.3	266.1	139.2	42.1	39.0	3400.1
5 M SOLID	26.0	29.4	8.4	183.9	42.1	113.9	34.4	15.3	16.8	8.4	32.1	52.8	563.5
9 M SOLID	5.4	2.7	49.9	620.2	483.3	496.6	48.9	30.6	1426.8	276.8	71.9	47.4	3560.5

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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RPT 137-I
 CFA

CFA WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.													TOTALS & AVERAGES	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
WATER DATA														
EDR WATER PUMPED (L)									170	326	30		526	
FS2 WATER PUMPED (L)	48	27	55	112	3,334	8,646	2,601	4,296	4,357	1,489	1,127	111	26,203	
MWG WATER PUMPED (L)						24	40	24	31	30	33	6	188	
PTI WATER PUMPED (L)						6	11		10		9	10	46	
PT1 WATER PUMPED (L)								10		13			22	
001 WATER PUMPED (L)	151	36	74	150	36	31	114	10,421	3,990	12	235	820	16,068	
002 WATER PUMPED (L)	21,459	17,950	23,533	32,584	47,051	54,508	75,555	62,117	69,006	41,033	28,140	22,557	495,491	
WATER PUMPED (L)	21,658	18,013	23,662	32,845	50,421	63,215	78,320	76,868	77,564	42,902	29,575	23,503	538,545	

WATER DISPOSAL														
AIR (L)	*													
SURFACE (L)	580	478	698	2,143	18,177	26,535	49,020	64,047	22,458	1,157	604	398	186,295	
SUBSURFACE (L)	534	525	536	486	606	467	472	682	542	629	529	425	6,435	

SEWAGE DATA														
691 BUILD VOL. (L)	9,467	7,896	9,119	10,822	9,384	9,857	13,597	16,985	14,865	17,367	15,758	14,986	150,102	

BIOCHEMICAL OXYGEN DEMAND (BOD)														
RAW CONC. (MG/L)	122.5	135.0	85.0	43.3	115.0	166.7	116.3	89.0	106.2	140.0	163.8	138.8	118.5	
FINAL CONC. (MG/L)	7.0	8.3	1.8	1.7	15.0	4.7	9.3	6.4	6.3	8.5	3.8	6.5	6.6	
% REMOVED	94.3	93.9	97.9	96.1	87.0	97.2	92.0	92.8	94.1	93.9	97.7	95.3	94.4	

DISSOLVED OXYGEN (DO)														
RAW CONC. (MG/L)	3.2	3.8	3.8	3.5	3.7	3.2	2.0	3.2	2.3	2.9	2.9	3.4	3.2	
FINAL CONC. (MG/L)	5.1	5.7	5.5	5.5	5.1	5.4	5.1	5.1	5.1	5.1	5.6	5.8	5.3	
INCREASED FACTOR	0.6	0.5	0.4	0.6	0.4	0.7	1.5	0.6	1.2	0.8	0.9	0.7	0.7	

SETTLABLE SOLIDS (SS)														
RAW CONC. (ML/L)	7.1	7.1	5.4	6.9	15.0	8.4	8.0	7.4	9.9	9.4	15.3	9.6	9.1	
FINAL CONC. (ML/L)								0.01	0.01	0.01			0.01	
% REMOVED								99.9	99.9	99.9			99.9	

PH FINAL	6.6	6.9	7.1	7.5	7.4	7.5	7.6	7.6	8.0	8.3	8.0	8.1	7.5	
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TOTAL SEWAGE VOL. (L)	9,467	7,896	9,119	10,822	9,384	9,857	13,597	16,985	14,865	17,367	15,758	14,986	150,102	
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TOTAL WATER DISPOSED (L)	10,581	8,900	10,352	13,451	28,167	36,859	63,088	81,714	37,865	19,153	16,892	15,809	342,832	
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ACCOUNTABILITY (%)	48.9	49.4	43.7	41.0	55.9	58.3	80.6	106.3	48.8	44.6	57.1	67.3	63.7	
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NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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CFA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RPT 138-I
CFA

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)	3	29	10	13	21	9	5	47	21	9	10	2	178
SO2 (KGS)	0	0	0	0	0	0	0	0	0	0	0	0	1
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	105	68	43	38	28	10	5	19	12	28	52	57	467
SO2 (KGS)	1	0	0	0	0	0	0	0	0	0	0	0	3
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	1	1	0	0	0	0	0	0	0	0	0	0	4
NOX (KGS)													
PARTICULATES (KGS)													

CHEMICAL PROCESSING PLANT, 1990 DETAIL DATA

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IDAHO OPERATIONS OFFICE
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RPT 144-I
CPP-A

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
NITRIC OXIDE WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	6,768	6,768
NITROGEN DIOXIDE WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	60,917	60,917

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 144-I
 CPP-A

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
STACK 708													
VOLUME (1000 CM)	117,000	118,000	107,000	120,000	116,000	111,000	101,000	126,000	126,000	120,000	123,000	122,000	1,407,000
NITRIC OXIDE CONC. (CC/CM)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.80	4.32
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	6,768	6,768
NITROGEN DIOXIDE CONC. (CC/CM)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	292.38	25.35
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	60,917	60,917

NOTE: UNDERLINE = CALCULATED CONCENTRATION
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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UNITED STATES DEPARTMENT OF ENERGY
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CPP LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990
RPT 145-1
CPP-B

AREA GRAND TOTALS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)	40,835	40,801	32,082	45,032	54,191	54,090	57,044	62,198	91,320	47,012	47,188	47,791	619,584
FLUORIDE ION WEIGHT (KGS)	42	39	34	57	0	59	43	42	45	40	39	32	473
NITRATE ION WEIGHT (KGS)	1,646	4,473	1,553	1,138	1,177	1,313	1,377	1,200	2,113	1,064	1,252	959	19,265
PHOSPHATE ION WEIGHT (KGS)	37	120	72	41	129		117	124		108		114	862
SULFATE ION WEIGHT (KGS)	7,955	16,269	7,046	7,798	5,850	6,165	5,835	5,503	6,246	5,009	4,862	4,528	83,065

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 145-I
 CPP-B

CPP LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION SUBSTANCE	ANNUAL											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOT & AVE
S PERCOLATION POND SURFACE VOLUME(1000 L) 176,774 170,717 146,491 194,943 226,739 236,203 216,898 210,841 236,581 192,672 179,423 167,689 2355,971												
PH												
CHLORIDE ION CNC. (MG/L) 231.00 239.00 219.00 231.00 239.00 229.00 263.00 295.00 386.00 244.00 263.00 285.00 262.99												
WEIGHT (KGS) 40,835 40,801 32,082 45,032 54,191 54,090 57,044 62,198 91,320 47,012 47,188 47,791 619,584												
FLUORIDE ION CNC. (MG/L) 0.24 0.23 0.23 0.29 0.00 0.25 0.20 0.20 0.19 0.21 0.22 0.19 0.20												
WEIGHT (KGS) 42 39 34 57 0 59 43 42 45 40 39 32 473												
NITRATE ION CNC. (MG/L) 9.31 26.20 10.60 5.84 5.19 5.56 6.35 5.69 8.93 5.52 6.98 5.72 8.18												
WEIGHT (KGS) 1,646 4,473 1,553 1,138 1,177 1,313 1,377 1,200 2,113 1,064 1,252 959 19,265												
PHOSPHATE ION CNC. (MG/L) 0.21 0.70 0.49 0.21 0.57 0.00 0.54 0.59 0.00 0.56 0.00 0.68 0.37												
WEIGHT (KGS) 37 120 72 41 129 0 117 124 0 108 0 114 862												
SULFATE ION CNC. (MG/L) 45.00 95.30 48.10 40.00 25.80 26.10 26.90 26.10 26.40 26.00 27.10 27.00 35.26												
WEIGHT (KGS) 7,955 16,269 7,046 7,798 5,850 6,165 5,835 5,503 6,246 5,009 4,862 4,528 83,065												

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/25/91

CPP INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990
 RPT 146-I

DISPOSAL OR STORAGE LOCATION		VOLUME OR WEIGHT BY MONTH												TOT
TYPE OF WASTE	LOCATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
CFA LANDFILL														
DISPOSED WASTE														
1 M SOLID	692.6	1136.1	1018.5	1208.9	879.2	1304.3	1273.1	818.2	768.1	643.8	695.8	605.6	11044.2	
2 M SOLID	95.6	159.0	61.2	79.5	73.4	104.0	116.2	97.9	82.6	85.6	85.6	79.5	1120.2	
3 M SOLID	73.8	91.8	137.6	121.6	71.9	100.9	148.3	139.5	162.5	56.6	12.2	6.1	1123.0	
4 M SOLID	1.1	3.8	2.7	130.8	61.9	2.1	58.1	28.3	22.9	12.2	3.8		327.9	
5 M SOLID	3.1	20.1	24.5	23.7	12.2	22.2	19.3	25.3	13.3	9.2		12.2	185.3	
9 M SOLID								4.6					4.6	
ALUMINUM DUCT														
9 M SOLID	1.1		12.2						443.5	160.6			617.4	
ASPHALT														
9 M SOLID				0.8									0.8	
CINDERS														
9 M SOLID						0.8							0.8	
CONDUIT														
9 M SOLID					4.6				2.3				6.9	
CONSTRUCTION WASTE														
9 M SOLID					1.5			52.0	68.8				122.3	
DIRT														
9 M SOLID								5.4	2.3				7.6	
EMPTY BARRELS														
9 M SOLID										0.4			0.4	
FLUORESCENT TUBES														
9 M SOLID	8.4												8.4	
FOAM														
9 M SOLID						6.1							6.1	
FOAM INSULATION														
9 M SOLID				15.3									15.3	
MOBILE TRAILER														
9 M SOLID													0.8	
PLASTIC & CARDBOARD														
9 M SOLID													0.8	
PLASTIC TUBES														
9 M SOLID						0.4			0.4				0.4	
PLEXIGLASS														
9 M SOLID													0.4	
RESPIRATORS														
9 M SOLID													0.8	
ROOF MATERIAL														
9 M SOLID							12.2						12.2	
SAGE BRUSH														
9 M SOLID									103.2				103.2	
TI-VEX,BUBBLE SUIT,GLOVES,BOOTS,TAGS														
9 M SOLID					0.8								0.8	
TOTAL														
9 M SOLID						0.6							0.6	

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/25/91

CPP INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990
 RPT 146-I

DISPOSAL OR STORAGE LOCATION		VOLUME OR WEIGHT BY MONTH												TOT
TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
WELD RODS														
DISPOSED WASTE														
9 M SOLID					0.8								0.8	
55 GALLON DRUM														
9 M SOLID					0.8		0.8						1.5	
55 GALLON DRUM OF GLASS														
GRAND TOTALS														
DISPOSED WASTE														
1 M SOLID	692.6	1136.1	1018.5	1208.9	879.2	1304.3	1273.1	818.2	768.1	643.8	695.8	605.6	11044.2	
2 M SOLID	95.6	159.0	61.2	79.5	73.4	104.0	116.2	97.9	82.6	85.6	85.6	79.5	1120.2	
3 M SOLID	73.8	91.8	137.6	121.6	71.9	100.9	148.3	139.5	162.5	56.6	12.2	6.1	1123.0	
4 M SOLID	1.1	3.8	2.7	130.8	61.9	2.1	58.1	28.3	22.9	12.2	3.8		327.9	
5 M SOLID	3.1	20.1	24.5	23.7	12.2	22.2	19.3	25.3	13.3	9.2		12.2	185.3	
9 M SOLID	9.6	0.8	12.2	16.1	8.4	7.9	13.0	62.7	620.5	161.0			912.1	

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 147-I
 CPP

CPP WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
WATER DATA													
616 WATER PUMPED (L)	179,802	174,502	149,898	197,971	230,146	239,609	220,683	215,005	240,745	196,079	182,830	171,096	2,398,364
WATER DISPOSAL													
AIR (L)													
SURFACE (L) *	176,774	170,717	146,491	194,943	226,739	236,203	216,898	210,841	236,581	192,672	179,423	167,689	2,355,969
SUBSURFACE (L)													
SEWAGE DATA													
315 BUILD VOL. (L)	3,214	3,611	3,274	3,172	3,301	3,464	3,899	4,277	4,009	3,535	3,566	3,464	42,785
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	66.0	83.0	95.0	87.0	95.0	104.0	110.0	100.0	96.0	90.0	130.0	68.0	93.7
FINAL CONC. (MG/L)	5.0	4.0	8.0	13.0	11.0	14.0	17.0	7.0	5.0	10.0	12.0	9.0	9.6
% REMOVED	92.4	95.2	91.6	85.1	88.4	86.5	84.5	93.0	94.8	88.9	90.8	86.8	89.8
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	0.5	0.4	0.4	0.4	0.5	0.2	0.2	0.3	0.3	0.2	0.4	0.7	0.4
FINAL CONC. (MG/L)	7.9	6.8	11.1	12.0	6.6	6.5	0.2	0.7	4.0	7.8	7.4	6.4	6.4
INCREASED FACTOR	14.8	16.0	26.8	29.0	12.2	31.5		1.3	12.3	38.0	17.5	8.1	15.0
SETTLABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH FINAL	7.6	7.6	7.9	8.7	8.5	8.9	8.3	7.8	8.0	8.4	8.0	7.7	8.1
TOTAL SEWAGE VOL. (L)	3,214	3,611	3,274	3,172	3,301	3,464	3,899	4,277	4,009	3,535	3,566	3,464	42,785
TOTAL WATER DISPOSED (L)	179,987	174,328	149,765	198,115	230,040	239,666	220,797	215,119	240,590	196,207	182,989	171,152	2,398,754
ACCOUNTABILITY (%)	100.1	99.9	99.9	100.1	100.0	100.0	100.1	100.1	99.9	100.1	100.1	100.0	100.0

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

CPP FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1990
RPT 148-I
CPP

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 2													
VOLUME (LITERS)	19	48	31	58	20	11	16	22	8	24	16	83	358
SO2 (KGS)	0	1	1	1	0	0	0	0	0	0	0	1	6
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	0	1	1	1	0	0	0	0	0	0	0	1	6
NOX (KGS)													
PARTICULATES (KGS)													

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

CONTAINMENT TEST FACILITY, 1990 DETAIL DATA

Report 165 – CTF Liquid Disposed Substances Summary	CTF-3
Report 167 – CTF Water Usage and Disposal Summary	CTF-6
Report 168 – CTF Fuel Oil Usage and Stack Effluents Summary	CTF-7

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IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM
 CTF LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

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RPT 165-I
 CTF-B

AREA GRAND TOTALS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
SUBSTANCE													
CALCIUM ION WEIGHT (KGS)										1			1
CHLORIDE ION WEIGHT (KGS)	481									1	14		496
HYPOCHLORITE ION WEIGHT (KGS)										1			1
LAUNDRY PRODUCTS WEIGHT (KGS)										30			30
PHOSPHATE ION WEIGHT (KGS)	7	3											11
SODIUM ION WEIGHT (KGS)	317	7	29	26			78		13		11	5	486
SODIUM PHOSPHATE, TRIBASIC WEIGHT (KGS)									79		5	51	136
SULFATE ION WEIGHT (KGS)												81	81
SULFITE ION WEIGHT (KGS)		9	4								3	8	24

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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CTF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990RPT 165-I
CTF-B

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
CTF SEPTIC TANK VOLUME(1000 L)	76	76	76	76	76	76	76	76	76	76	76	76	908
PH													
CALCIUM ION CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.85	0.00	0.00	1.40
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	1	0	0	1
CHLORIDE ION CNC. (MG/L)	6358.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.45	0.00	0.00	530.51
WEIGHT (KGS)	481	0	0	0	0	0	0	0	0	1	0	0	482
HYPOCHLORITE ION CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.81	0.00	0.00	0.90
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	1	0	0	1
LAUNDRY PRODUCTS CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	397.71	0.00	0.00	33.14
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	30	0	0	30
PHOSPHATE ION CNC. (MG/L)	97.28	44.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.85
WEIGHT (KGS)	7	3	0	0	0	0	0	0	0	0	0	0	11
SODIUM ION CNC. (MG/L)	4191.06	98.23	377.31	344.51	0.00	0.00	1033.53	0.00	172.25	0.00	0.00	0.00	518.07
WEIGHT (KGS)	317	7	28	26	0	0	78	0	13	0	0	0	471
SODIUM PHOSPHATE, TRIBASIC CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1048.51	0.00	71.90	677.04	149.79
WEIGHT (KGS)	0	0	0	0	0	0	0	0	79	0	5	51	136
SULFITE ION CNC. (MG/L)	0.00	114.13	57.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.27
WEIGHT (KGS)	0	9	4	0	0	0	0	0	0	0	0	0	13

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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CTF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RPT 165-I
CTF-B

RELEASE POINT DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
---------------------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---------------------

CTF-DISPOSAL POND													
VOLUME(1000 L)	5,682		6,677	7,862	13,786	5,390	6,889	7,995	7,817	5,663	5,935	12,881	86,577
PH													

SURFACE													
VOLUME(1000 L)	8,540												8,540
PH													

CHLORIDE ION													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.32	0.00	0.14
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	14	0	14

SODIUM ION													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.84	0.36	0.16
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	11	5	16

SULFATE ION													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.28	0.85
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	81	81

SULFITE ION													
CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.63	0.12
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	3	8	12

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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CTF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RPT 167-I
CTF

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
---	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----------------------

WATER DATA

632 WATER PUMPED (L)	4,232	2,899	3,288	4,054	6,897	2,648	3,521	4,031	3,971	2,908	3,010	3,978	45,436
639 WATER PUMPED (L)	4,383	2,862	3,469	3,884	6,965	2,821	3,445	4,039	3,922	2,833	3,002	8,979	50,603
WATER PUMPED (L)	8,615	5,760	6,756	7,938	13,862	5,469	6,966	8,070	7,892	5,741	6,012	12,957	96,039

WATER DISPOSAL

AIR (L)	8,540	5,682	6,677	7,862	13,786	5,390	6,889	7,995	7,817	5,663	5,935	12,881	95,117
SURFACE (L)													
SUBSURFACE (L)													

SEWAGE DATA

736 BUILD VOL. (L)	76	76	76	76	76	76	76	76	76	76	76	76	908
--------------------	----	----	----	----	----	----	----	----	----	----	----	----	-----

BIOCHEMICAL OXYGEN DEMAND (BOD)

RAW CONC. (MG/L)													
FINAL CONC. (MG/L)													
% REMOVED													

DISSOLVED OXYGEN (DO)

RAW CONC. (MG/L)													
FINAL CONC. (MG/L)													
INCREASED FACTOR													

SETTLABLE SOLIDS (SS)

RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													

PH FINAL

TOTAL SEWAGE VOL. (L)	76	76	76	76	76	76	76	76	76	76	76	76	908
TOTAL WATER DISPOSED (L)	8,615	5,757	6,753	7,938	13,862	5,466	6,965	8,070	7,892	5,739	6,011	12,957	96,025
ACCOUNTABILITY (%)	100.0	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

NOTE: "0" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

CTF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1990
RPT 168-I
CTF

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)											16	26	42
SO2 (KGS)											0	0	0
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	30	23	25	6				6					90
SO2 (KGS)	0	0	0	0				0					1
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS											0	0	1
SO2 (KGS)	0	0	0	0				0					
NOX (KGS)													
PARTICULATES (KGS)													

CTF -7

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

**MAGNETOHYDRODYNAMICS COMPONENT DEVELOPMENT, 1990 DETAIL
DATA**

Report 176 – MHD Industrial Waste Summary	MHD-3
Report 177 – MHD Water Usage and Disposal Summary	MHD-4
Report 178 – MHD Fuel Oil Usage and Stack Effluents Summary	MHD-5

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IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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MHD INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1990
RPT 176-I

DISPOSAL OR STORAGE LOCATION		VOLUME OR WEIGHT BY MONTH											
TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
BUT LANDFILL													
DISPOSED WASTE													
1 M SOLID	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	880.9
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	880.9

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

MHD WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 177-I
 MHD

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
--	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----------------------

WATER DATA

WATER PUMPED (L)	25	27	26	1,607	2,118	1,530	1,936	5,322	3,628	1,936	2,552	1,067	21,777
WATER DISPOSAL													
AIR (L)	12	9	25	120	266	386	242	395	347	109	274	13	2,196
SURFACE (L)	14	18	2	1,487	1,852	1,144	1,694	4,925	3,281	1,828	2,278	1,054	19,577
SUBSURFACE (L)													

SEWAGE DATA

BUILD VOL. (L)

BIOCHEMICAL OXYGEN DEMAND (BOD)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 % REMOVED

DISSOLVED OXYGEN (DO)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 INCREASED FACTOR

SETTLEABLE SOLIDS (SS)

RAW CONC. (ML/L)
 FINAL CONC. (ML/L)
 % REMOVED

PH FINAL

TOTAL SEWAGE VOL. (L)

TOTAL WATER DISPOSED (L)	25	27	26	1,607	2,118	1,530	1,936	5,319	3,628	1,936	2,552	1,067	21,773
ACCOUNTABILITY (%)	100.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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MHD FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RPT 178-I
MHD

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 2													
VOLUME (LITERS)	2	4			0	11	1	11	3		10		41
SO2 (KGS)	0	0			0	0	0	0	0		0		0
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	0	0			0	0	0	0	0		0		0
NOX (KGS)													
PARTICULATES (KGS)													

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

NAVAL REACTORS FACILITY, 1990 DETAIL DATA

Report 184 – NRF Airborne Disposed Substances Summary NRF-3

Report 185 – NRF Liquid Disposed Substances Summary NRF-4

Report 186 – NRF Industrial Waste Summary NRF-7

Report 187 – NRF Water Usage and Disposal Summary NRF-8

Report 188 – NRF Fuel Oil Usage and Stack Effluents Summary NRF-9

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UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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NRF AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RP1 184-I
NRF-A

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
													TOT & AVE

COOLING TOWERS VOLUME (1000 CM)	104,673	101,343	192,363	41,192	8,575	74,037	14,730	10,145	1,225	9,141	38,289	62,160	657,874
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IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

NRF LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 185-I
 NRF-B

AREA GRAND TOTALS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
SUBSTANCE													
BENZOTRIAZOLE WEIGHT (KGS)		17	20	21	44	31	3	21					157
CALCIUM ION WEIGHT (KGS)	43	32	40	44	57	31	27	39	40	34	31	25	443
CHLORIDE ION WEIGHT (KGS)	820	6,274	2,551	9,034	5,366	5,000	5,703	10,757	4,689	2,996	546	1,452	55,190
HYPOCHLORITE ION WEIGHT (KGS)	111	83	102	113	145	81	70	100	103	87	79	65	1,138
PHOSPHATE ION WEIGHT (KGS)	42	139	73	102	2,389	66	113	60	141	41	13	20	3,198
PHOSPHONATE WEIGHT (KGS)	6								0	0	77	31	113
POLYMETHACRYLATE WEIGHT (KGS)	4								0	0	51	21	75
POLYPHOSPHATE WEIGHT (KGS)	13								0	0	178	72	264
SODIUM HYDROXIDE WEIGHT (KGS)		51	61	62	132	94	9	62					471
SODIUM ION WEIGHT (KGS)	3,026	4,086	1,264	4,563	4,328	2,350	3,297	5,104	2,875	1,332	431	616	33,273
SULFATE ION WEIGHT (KGS)	2,641	18,891	2,055	4,954	8,503	3,695	5,962	6,868	7,962	985	926	1,666	65,108
SULFONATE WEIGHT (KGS)	4								0	0	51	21	75

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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NRF LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 185-I
 NRF-B

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
POLYPHOSPHATE CNC. (MG/L)	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.07	5.12	0.68
WEIGHT (KGS)	13	0	0	0	0	0	0	0	0	0	178	72	264
SODIUM HYDROXIDE CNC. (MG/L)	0.00	0.44	2.69	2.38	3.81	4.12	0.26	1.87	0.00	0.00	0.00	0.00	1.22
WEIGHT (KGS)	0	51	61	62	132	94	9	62	0	0	0	0	471
SODIUM ION CNC. (MG/L)	100.00	35.30	55.50	175.00	125.00	103.50	99.10	153.40	91.80	77.90	84.70	43.70	86.12
WEIGHT (KGS)	3,026	4,086	1,264	4,563	4,328	2,350	3,297	5,104	2,875	1,332	431	616	33,273
SULFATE ION CNC. (MG/L)	87.30	163.20	90.20	190.00	245.60	162.70	179.20	206.40	254.20	57.60	182.00	118.20	168.52
WEIGHT (KGS)	2,641	18,891	2,055	4,954	8,503	3,695	5,962	6,868	7,962	985	926	1,666	65,108
SULFONATE CNC. (MG/L)	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.02	1.46	0.19
WEIGHT (KGS)	4	0	0	0	0	0	0	0	0	0	51	21	75

NRF-5

NOTE: UNDERLINE = CALCULATED CONCEN RATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 185-I
NRF-BNRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SUBSTANCE														
SEWAGE POND VOLUME(1000 L) PH	SURFACE													
	5,943	6,340	6,189	4,879	4,610	4,970	5,046	4,682	3,498	2,456	2,456	4,194	3,789	56,598
	7.7	8.3	7.6	8.7	8.9	9.7	9.9	10.1	10.0	10.4	10.4	9.4	9.2	9.2
WASTE DITCH VOLUME(1000 L) PH	SURFACE													
	30,256	115,754	22,780	26,073	34,620	22,708	33,273	33,273	31,323	17,102	17,102	5,087	14,096	386,347
	7.6	7.8	7.5	7.3	7.2	7.2	7.6	7.5	7.5	7.7	7.7	7.9	8.2	7.6
BENZOTRIAZOLE CNC. (MG/L) WEIGHT (KGS)	0.00	0.15	0.90	0.79	1.27	1.37	0.09	0.62	0.00	0.00	0.00	0.00	0.00	0.41
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	0	17	20	21	44	31	3	21	0	0	0	0	0	157
CALCIUM ION CNC. (MG/L) WEIGHT (KGS)	1.42	0.28	1.74	1.69	1.63	1.38	0.82	1.17	1.28	1.99	1.99	6.06	1.79	1.15
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	43	32	40	44	57	31	27	39	40	34	34	31	25	443
CHLORIDE ION CNC. (MG/L) WEIGHT (KGS)	27.10	54.20	112.00	346.50	155.00	220.20	171.40	323.30	149.70	175.20	175.20	107.40	103.00	142.85
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	820	6,274	2,551	9,034	5,366	5,000	5,703	10,757	4,689	2,996	2,996	546	1,452	55,190
HYPOCHLORITE ION CNC. (MG/L) WEIGHT (KGS)	3.66	0.72	4.47	4.35	4.19	3.55	2.10	3.00	3.27	5.10	5.10	15.55	4.61	2.95
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	111	83	102	113	145	81	70	100	103	87	87	79	65	1,138
PHOSPHATE ION CNC. (MG/L) WEIGHT (KGS)	1.40	1.20	3.20	3.90	69.00	2.90	3.40	1.80	4.50	2.40	2.40	2.50	1.40	8.28
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	42	139	73	102	2,389	66	113	60	141	41	41	13	20	3,198
PHOSPHONATE CNC. (MG/L) WEIGHT (KGS)	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.06	2.20	0.29
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	6	0	0	0	0	0	0	0	0	0	0	77	31	113
POLYMETHACRYLATE CNC. (MG/L) WEIGHT (KGS)	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.02	1.46	0.19
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	4	0	0	0	0	0	0	0	0	0	0	51	21	75

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/25/91

RPT 186-I

NRF INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

DISPOSAL OR STORAGE LOCATION TYPE OF WASTE		VOLUME OR WEIGHT BY MONTH												TOT
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
CFA LANDFILL														
DISPOSED WASTE														
1 M SOLID	1308.3	1725.0	1900.1	1543.9	1706.7	2103.9	2517.6	1494.9	669.8	992.5	987.2	796.0	17745.8	
2 M SOLID	227.9	165.2	122.3	165.2	189.6	230.2	220.2	241.6	131.5	152.9	146.8	171.3	2164.7	
3 M SOLID	48.2	78.8	96.3	47.4	55.1	50.5	31.4	101.7	104.0	43.6	93.3	19.9	770.0	
4 M SOLID	3.8	34.4	110.1	27.5	38.2	57.0	67.3	42.8	32.1	258.4	111.6	10.7	794.1	
5 M SOLID	18.4	12.2	24.5	24.5	31.4	9.9	27.1	9.2	19.1	6.1	20.6	28.3	231.3	
9 M SOLID								3.8					3.8	
ASBESTOS														
9 M SOLID			33.6	152.9	100.2		15.3	113.9	228.6	408.3	39.8	7.6	1100.3	
ASPHALT														
9 M SOLID								19.1	39.8		158.3	455.7	672.9	
DIRT														
9 M SOLID										100.9			100.9	
DIRT-GRAVEL														
9 M SOLID		6.1	4.6	71.1	10.7	114.7	6.1	9.2					222.5	
EMPTY OIL DRUMS														
9 M SOLID				2.3									2.3	
FLOURESCENT TUBES														
9 M SOLID							1.5						1.5	
FLUORESCENT LIGHT TUBES														
9 M SOLID						107.8							107.8	
GRAVEL DIRT														
9 M SOLID											6.1		6.1	
WEEDS														
9 M SOLID									4.6				4.6	
55 GALLON DRUMS														
GRAND TOTALS														
DISPOSED WASTE														
1 M SOLID	1308.3	1725.0	1900.1	1543.9	1706.7	2103.9	2517.6	1494.9	669.8	992.5	987.2	796.0	17745.8	
2 M SOLID	227.9	165.2	122.3	165.2	189.6	230.2	220.2	241.6	131.5	152.9	146.8	171.3	2164.7	
3 M SOLID	48.2	78.8	96.3	47.4	55.1	50.5	31.4	101.7	104.0	43.6	93.3	19.9	770.0	
4 M SOLID	3.8	34.4	110.1	27.5	38.2	57.0	67.3	42.8	32.1	258.4	111.6	10.7	794.1	
5 M SOLID	18.4	12.2	24.5	24.5	31.4	9.9	27.1	9.2	19.1	6.1	20.6	28.3	231.3	
9 M SOLID		6.1	38.2	226.3	110.9	222.5	22.9	146.0	273.0	509.3	204.2	463.4	2222.8	

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 187-I
 NRF

NRF WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
WATER DATA													
001 WATER PUMPED (L)	5,807	15,876	13,956	1,196	939	3,452	1,790	1,132	837	977	927	167	47,055
002 WATER PUMPED (L)	185,442	182,981	159,172	59,883	46,938	68,665	25,520	27,633	26,577	10,273	33,977	39,670	866,730
003 WATER PUMPED (L)		23	1,590	49		1,821	121	1,359	7			1,499	6,469
004 WATER PUMPED (L)				12,283	11,750	13,120	16,708	15,444	16,519	15,228	3,398	23,673	128,123
WATER PUMPED (L)	191,248	198,860	174,718	73,412	59,626	87,058	44,019	44,330	45,291	26,485	38,302	65,009	1,048,377
WATER DISPOSAL													
AIR (L) *	71,391	69,120	131,198	28,094	5,848	50,496		6,920	836	6,234	26,115	42,395	438,646
SURFACE (L) *	105,951	21,107	22,780	26,073	34,620	22,708	33,273	33,273	31,323	17,102	5,087	14,096	367,393
SUBSURFACE (L)													
SEWAGE DATA													
722 BUILD VOL. (L)	5,943	6,340	6,189	4,879	4,610	4,970	5,046	4,682	3,498	2,456	4,194	3,789	56,598
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)													
FINAL CONC. (MG/L)	37.0	16.0	17.0	17.0	32.0	24.0	26.0	21.0	52.9	32.0	30.0	41.0	29.9
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)													
FINAL CONC. (MG/L)	0.6	0.3	2.6	0.4	6.3	5.0	2.1	20.0	7.9	10.6	3.7	1.0	5.0
INCREASED FACTOR													
SETTLABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH FINAL	7.7	8.3	7.6	8.7	8.9	9.7	9.9	10.1	10.0	10.4	9.4	9.2	9.2
TOTAL SEWAGE VOL. (L)	5,943	6,340	6,189	4,879	4,610	4,970	5,046	4,682	3,498	2,456	4,194	3,789	56,598
TOTAL WATER DISPOSED (L)	1183,284	96,567	160,167	59,047	45,079	78,174	38,319	44,875	35,657	25,793	35,396	60,281	862,637
ACCOUNTABILITY (%)	95.8	48.6	91.7	80.4	75.6	89.8	87.0	101.2	78.7	97.4	92.4	92.7	82.3

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

NRF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 188-I
 NRF

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 5													
VOLUME (LITERS)	511	423	366	144	70				9	203	381	565	2,672
SO2 (KGS)	21	8	7	4	2				2	5	4	2	53
NOX (KGS)	3	3	2	1	0								10
PARTICULATES (KGS)	1	1	1	0	0								3
GRAND TOTALS													
SO2 (KGS)	21	8	7	4	2				2	5	4	2	53
NOX (KGS)	3	3	2	1	0								10
PARTICULATES (KGS)	1	1	1	0	0								3

POWER BURST FACILITY, 1990 DETAIL DATA

Report 195 – PBF Liquid Disposed Substances Summary	PBF-3
Report 196 -- PBF Industrial Waste Summary	PBF-6
Report 197 – PBF Water Usage and Disposal Summary	PBF-7
Report 198 – PBF Fuel Oil Usage and Stack Effluents Summary	PBF-9

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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RPT 195-I
 PBF-B

PBF LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

AREA GRAND TOTALS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)								2					2
ETHYLENEDIAMINE TETRAACETIC ACID WEIGHT (KGS)	1	0	0	0					1	0	0	0	4
HEDP WEIGHT (KGS)								4					4
HYDROXYCARBONS WEIGHT (KGS)								12					12
N-HYDROXACARBON WEIGHT (KGS)								54					54
PHOSPHATE WEIGHT (KGS)								8					8
POLYACRYLATE WEIGHT (KGS)								7					7
POTASSIUM HYDROXIDE WEIGHT (KGS)	1	0	0	0					1	0	0	0	4
POTASSIUM ION WEIGHT (KGS)								1					1
SODIUM ION WEIGHT (KGS)	0	0	0	0				2	1	0	0	0	6
SODIUM LIGNOSULFONATE WEIGHT (KGS)	1	0	0	0					1	0	0	0	4
SULFITE ION WEIGHT (KGS)	0	0	0	0					1	0	0	0	3
TOLYTRIAZOLE WEIGHT (KGS)								1					1

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
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RPT 195-I
PBF-BPBF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
DRAINAGE BOILER VOLUME (1000 L) PH	SURFACE 4	4	4	4					4	4	4	4	30
ETHYLENEDIAMINE TETRAACETIC ACID CNC. (MG/L)	199.40	99.70	99.70	99.70	0.00	0.00	0.00	0.00	199.40	99.70	96.15	96.15	123.74
WEIGHT (KGS)	1	0	0	0	0	0	0	0	1	0	0	0	4
POTASSIUM HYDROXIDE CNC. (MG/L)	199.40	99.70	99.70	99.70	0.00	0.00	0.00	0.00	199.40	99.70	96.15	96.15	123.74
WEIGHT (KGS)	1	0	0	0	0	0	0	0	1	0	0	0	4
SODIUM ION CNC. (MG/L)	104.43	104.47	104.47	104.48	0.00	0.00	0.00	0.00	313.39	62.87	104.48	104.48	125.38
WEIGHT (KGS)	0	0	0	0	0	0	0	0	2	0	0	0	4
SODIUM LIGNOSULFONATE CNC. (MG/L)	199.40	99.70	99.70	99.70	0.00	0.00	0.00	0.00	199.40	99.70	96.15	96.15	123.74
WEIGHT (KGS)	1	0	0	0	0	0	0	0	1	0	0	0	4
SULFITE ION CNC. (MG/L)	80.35	80.43	80.43	80.43	0.00	0.00	0.00	0.00	241.21	8.05	80.43	80.43	91.47
WEIGHT (KGS)	0	0	0	0	0	0	0	0	1	0	0	0	3
EVAPORATION POND VOLUME (1000 L) PH	SURFACE							288					288
CHLORIDE ION CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66	0.00	0.00	0.00	0.00	5.66
WEIGHT (KGS)	0	0	0	0	0	0	0	2	0	0	0	0	2
HEDP CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.42	0.00	0.00	0.00	0.00	12.42
WEIGHT (KGS)	0	0	0	0	0	0	0	4	0	0	0	0	4

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

PBF LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 195-I
 PBF-B

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
HYDROXYCARBONS CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.44	0.00	0.00	0.00	0.00	40.44
WEIGHT (KGS)	0	0	0	0	0	0	0	12	0	0	0	0	12
N-HYDROCARBON CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	188.46	0.00	0.00	0.00	0.00	188.46
WEIGHT (KGS)	0	0	0	0	0	0	0	54	0	0	0	0	54
PHOSPHATE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.25	0.00	0.00	0.00	0.00	28.25
WEIGHT (KGS)	0	0	0	0	0	0	0	8	0	0	0	0	8
POLYACRYLATE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.12	0.00	0.00	0.00	0.00	23.12
WEIGHT (KGS)	0	0	0	0	0	0	0	7	0	0	0	0	7
POTASSIUM ION CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.47	0.00	0.00	0.00	0.00	4.47
WEIGHT (KGS)	0	0	0	0	0	0	0	1	0	0	0	0	1
SODIUM ION CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.99	0.00	0.00	0.00	0.00	6.99
WEIGHT (KGS)	0	0	0	0	0	0	0	2	0	0	0	0	2
TOLYTRIAZOLE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.10	0.00	0.00	0.00	0.00	3.10
WEIGHT (KGS)	0	0	0	0	0	0	0	1	0	0	0	0	1

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/25/91

PBF INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 196-I

DISPOSAL OR STORAGE LOCATION		VOLUME OR WEIGHT BY MONTH											
TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	183.5	42.8	24.5	31.7	24.5	82.6	79.5	42.8	36.7			12.2	560.9
3 M SOLID	3.8					0.4	3.1						7.3
9 M SOLID							0.8						0.8
ASBESTOS													
9 M SOLID					7.6								7.6
ASPHALT & DIRT													
9 M SOLID								0.8					0.8
GILSILATE 500													
9 M SOLID			0.1										0.1
NON-HAZARDOUS CHEMICAL													
9 M SOLID							0.1						0.1
NON-HAZARDOUS OILY RAGS, TRASH													
9 M SOLID	0.4												0.4
OILY DIRT													
9 M SOLID				0.4									0.4
OILY RAGS CLEAN PRODUCT													
9 M SOLID	0.4												0.4
SENSITIVE CLEAN TRASH													
9 M SOLID		0.1											0.1
SODIUM PHOSPHATE													
9 M SOLID									1.5				1.5
NEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	183.5	42.8	24.5	31.7	24.5	82.6	79.5	42.8	36.7			12.2	560.9
3 M SOLID	3.8					0.4	3.1						7.3
9 M SOLID	0.8	0.1	0.1	0.4	7.6		0.8	0.8	1.5				12.1

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 197-I
 PBF

PBF WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDINGS NO	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
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WATER DATA

001 WATER PUMPED (L)	3,467	335	799	257	338	1,054	921	3,173	3,323	2,611	290	24	16,594
002 WATER PUMPED (L)	3,732	478	181	592	590	283	1,819	1,711	3,012	803	149	608	13,958
WATER PUMPED (L)	7,200	813	981	849	928	1,337	2,740	4,885	6,335	3,414	439	632	30,552

WATER DISPOSAL

AIR (L)													
SURFACE (L) *	2,160	244	294	177	278	401	822	1,465	1,901	1,024	132	190	9,089
SUBSURFACE (L) *													

SEWAGE DATA

619 BUILD VOL. (L) *	130	146	177	106	167	241	493	879	1,140	615	79	114	4,287
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BIOCHEMICAL OXYGEN DEMAND (BOD)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 % REMOVED

DISSOLVED OXYGEN (DO)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 INCREASED FACTOR

SETTLABLE SOLIDS (SS)

RAW CONC. (ML/L)
 FINAL CONC. (ML/L)
 % REMOVED

PH FINAL

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 197-I
 PBF

PBF WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
--	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----------------------

SEWAGE DATA

620 BUILD VOL. (L) *	259	293	353	213	334	481	986	1,758	2,281	1,229	158	227	8,573
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BIOCHEMICAL OXYGEN DEMAND (BOD)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 % REMOVED

DISSOLVED OXYGEN (DO)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 INCREASED FACTOR

SETTLEABLE SOLIDS (SS)

RAW CONC. (ML/L)
 FINAL CONC. (ML/L)
 % REMOVED

PH FINAL

TOTAL SEWAGE VOL. (L)	389	439	530	319	501	722	1,480	2,638	3,421	1,844	237	341	12,860
TOTAL WATER DISPOSED (L)	2,549	683	824	497	780	1,123	2,302	4,103	5,321	2,868	369	531	21,949
ACCOUNTABILITY (%)	35.4	84.0	84.0	58.5	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	71.8

NOTE: "W" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

PBF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RPT 198-I
PBF

(ALL VALUES = NEARLY THOUSAND)

FUEL OIL TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)		0								0			0
SO2 (KGS)		0								0			0
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	38	27	9	5					0	1	15		96
SO2 (KGS)	0	0	0	0					0	0	0		1
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	0	0	0	0					0	0	0		1
NOX (KGS)													
PARTICULATES (KGS)													

RADIOACTIVE WASTE MANAGEMENT COMPLEX, 1990 DETAIL DATA

Report 256 – WMC Industrial Waste Summary WMC-3

Report 257 – WMC Water Usage and Disposal Summary WMC-4

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/25/91

WMC INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990
 RPT 256-I

DISPOSAL OR STORAGE LOCATION		VOLUME OR WEIGHT BY MONTH												TOT
TYPE OF WASTE	LOCATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
CFA LANDFILL														
DISPOSED WASTE														
1 M SOLID	62.7	3.4	115.5	70.3	61.2	61.2	61.2	81.8	134.6	47.4	86.4	52.0		776.4
3 M SOLID	1.5		6.9		0.2	3.8	3.1	3.1	15.3	4.6	4.6	6.1		46.1
4 M SOLID							144.5				0.8			145.3
5 M SOLID				3.1						4.6		3.1		10.7
9 M SOLID									1.5					1.5
ASPHALT														
9 M SOLID											0.8			0.8
DIRT, GRAVEL														
9 M SOLID							9.2							9.2
FILTERS														
9 M SOLID									2.4					2.4
STEEL DOOR-MISC														
9 M SOLID				0.4										0.4
WEEDS														
9 M SOLID								6.3						6.3
WEEDS, CHAIRS, ASBESTOS														
9 M SOLID						1.7								1.7
55 GAL DRUMS EMPTY														

GRAND TOTALS														
DISPOSED WASTE														
1 M SOLID	62.7	3.4	115.5	70.3	61.2	61.2	81.8	134.6	47.4	86.4	52.0			776.4
3 M SOLID	1.5		6.9		0.2	3.8	3.1	15.3	4.6	4.6	6.1			46.1
4 M SOLID							144.5			0.8				145.3
5 M SOLID				3.1					4.6		3.1			10.7
9 M SOLID			0.4		1.7	9.2	6.3	4.0		0.8				22.3

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

WMC WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990
 RPT 257-I
 WMC

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
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WATER DATA

WMC WATER PUMPED (L)	413	603	374	489	833	427	1,239	1,571	1,077	1,279	820	1,302	10,428
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WATER DISPOSAL
 AIR (L) *
 SURFACE (L) *
 SUBSURFACE (L) *

SEWAGE DATA

WMC BUILD VOL. (L)	83	83	83	83	83	83	83	83	83	83	83	83	999
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BIOCHEMICAL OXYGEN DEMAND (BOD)

RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 % REMOVED

DISSOLVED OXYGEN (DO)
 RAW CONC. (MG/L)
 FINAL CONC. (MG/L)
 INCREASED FACTOR

SETTLABLE SOLIDS (SS)
 RAW CONC. (ML/L)
 FINAL CONC. (ML/L)
 % REMOVED

PH FINAL

TOTAL SEWAGE VOL. (L)	83	83	83	83	83	83	83	83	83	83	83	83	999
TOTAL WATER DISPOSED (L)	83	83	83	83	83	83	83	83	83	83	83	83	999
ACCOUNTABILITY (%)	20.2	13.8	22.2	17.0	10.0	19.5	6.7	5.3	7.7	6.5	10.2	6.4	9.6

NOTE: "W" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

TEST REACTOR AREA, 1990 DETAIL DATA

Report 234 – TRA Airborne Disposed Substances Summary	TRA-3
Report 235 – TRA Liquid Disposed Substances Summary	TRA-4
Report 236 – TRA Industrial Waste Summary	TRA-8
Report 237 – TRA Water Usage and Disposal Summary	TRA-9
Report 238 – TRA Fuel Oil Usage and Stack Effluents Summary	TRA-10

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IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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RPT 234-I
TRA-A

TRA AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
COOLING TOWERS EVAP VOLUME (1000 CM)	172,605	137,030	187,534	156,788	178,322	144,633	197,913	222,500	177,100	200,466	195,416	92,352	2,062,657

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 235-I
TRA-BTRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
BROMINE WEIGHT (KGS)	23	22	22	23	23	23	23	23	5	23	102	23	333
CHLORIDE ION WEIGHT (KGS)	55	48	51	41	42	52	43	52	43	45	53	43	568
HEDP WEIGHT (KGS)	100	71	101	91	98	116	147	129	81	160	126	147	1,367
HYDROXYCARBONS WEIGHT (KGS)	10	10	10	10	20	20	26	15	24	36	23	26	231
HYPOCHLORITE ION WEIGHT (KGS)	20	10											30
N-HYDROCARBON WEIGHT (KGS)	48	48	48	48	95	95	119	71	114	166	108	119	1,078
PHOSPHATE WEIGHT (KGS)	227	163	230	206	224	263	335	293	185	364	287	334	3,110
PHOSPHATE ION WEIGHT (KGS)	355	644	457	358	401	618	397	772	535	435	347	371	5,691
POLYACRYLATE WEIGHT (KGS)	474	201	284	250	412	344	446	368	356	523	384	204	4,247
POTASSIUM ION WEIGHT (KGS)	36	26	36	33	35	42	53	46	29	58	45	53	492
SODIUM ION WEIGHT (KGS)	1,585	3,308	4,358	3,306	3,138	4,959	9,023	4,737	3,092	4,109	5,069	3,674	50,356
SULFATE ION WEIGHT (KGS)	34,726	25,951	37,404	20,938	41,942	20,578	36,631	36,120	33,269	31,085	32,603	19,117	370,363
TDS WEIGHT (KGS)	38,841	53,936	62,096	50,111	18,660	53,501	9,277	101,113	25,570	25,707	36,341	62,194	537,348
TOLYTRIAZOLE WEIGHT (KGS)	25	18	25	23	25	29	37	32	20	40	32	37	342
TOTAL HARDNESS WEIGHT (KGS)	23,586	3,641	38,959	32,214	16,192	53,626	18,017	44,137	34,360	22,280	43,316	38,267	368,595

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990
RPT 235-I
TRA-B

RELEASE POINT DESCRIPTION SUBSTANCE	ANNUAL											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOT & AVE
PHOSPHATE CNC. (MG/L)	3.87	2.17	2.51	2.77	2.90	2.51	4.99	2.92	2.31	5.94	3.34	3.86 3.23
WEIGHT (KGS)	227	163	230	206	224	263	335	293	185	364	287	334 3,110
PHOSPHATE ION CNC. (MG/L)	6.05	8.60	5.00	4.80	5.20	5.90	5.90	7.70	6.70	7.10	4.03	4.30 5.91
WEIGHT (KGS)	355	644	457	358	401	618	397	772	535	435	347	371 5,691
POLYACRYLATE CNC. (MG/L)	8.08	2.68	3.11	3.35	5.35	3.28	6.63	3.67	4.45	8.55	4.46	2.37 4.41
WEIGHT (KGS)	474	201	284	250	412	344	446	368	356	523	384	204 4,247
POTASSIUM ION CNC. (MG/L)	0.61	0.34	0.40	0.44	0.46	0.40	0.79	0.46	0.37	0.94	0.53	0.61 0.51
WEIGHT (KGS)	36	26	36	33	35	42	53	46	29	58	45	53 492
SODIUM ION CNC. (MG/L)	1.40	0.88	0.97	1.03	1.05	0.93	1.61	1.04	0.89	1.89	1.20	1.26 1.15
WEIGHT (KGS)	82	66	89	77	81	97	109	104	72	116	103	109 1,103
SULFATE ION CNC. (MG/L)	443.74	191.24	206.31	153.40	278.51	158.01	393.49	209.97	227.63	344.10	231.48	146.05 236.87
WEIGHT (KGS)	26,036	14,326	18,868	11,439	21,475	16,550	26,453	21,062	18,189	21,062	19,934	12,616 228,009
TDS CNC. (MG/L)	662.00	720.00	679.00	672.00	242.00	510.80	138.00	1008.00	320.00	420.00	422.00	720.00 558.23
WEIGHT (KGS)	38,841	53,936	62,096	50,111	18,660	53,501	9,277	101,113	25,570	25,707	36,341	62,194 537,348
TOLYTRIAZOLE CNC. (MG/L)	0.43	0.24	0.28	0.30	0.32	0.28	0.55	0.32	0.25	0.65	0.37	0.42 0.36
WEIGHT (KGS)	25	18	25	23	25	29	37	32	20	40	32	37 342
TOTAL HARDNESS CNC. (MG/L)	402.00	48.60	426.00	432.00	210.00	512.00	268.00	440.00	430.00	364.00	503.00	443.00 382.92
WEIGHT (KGS)	23,586	3,641	38,959	32,214	16,192	53,626	18,017	44,137	34,360	22,280	43,316	38,267 368,595

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990RPT 235-I
TRA-B

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
CHEMICAL WASTE POND SURFACE VOLUME (1000 L)	1,934	2,146	2,725	2,093	2,570	3,255	2,146	2,884	1,828	1,616	2,775	2,464	28,439
PH													
SODIUM ION CNC. (MG/L)	777.07	1510.50	1566.56	1542.51	1189.30	1493.41	4153.56	1605.90	1651.93	2470.46	1759.76	1446.83	1731.89
WEIGHT (KGS)	1,503	3,242	4,270	3,229	3,057	4,862	8,915	4,632	3,020	3,993	4,966	3,565	49,253
SULFATE ION CNC. (MG/L)	4492.79	5416.67	6800.89	4537.66	7963.11	1237.38	4742.17	5220.58	8248.34	4200.83	4566.09	2638.19	5005.62
WEIGHT (KGS)	8,690	11,626	18,535	9,499	20,467	4,028	10,178	15,058	15,080	10,023	12,669	6,501	142,354
COLD WASTE POND VOLUME (1000 L)	58,672	74,911	91,453	74,570	77,107	104,739	67,227	100,310	79,908	61,208	86,116	86,381	962,602
PH	7.8	7.8	7.5		7.7	7.6	7.9	7.4	7.4	7.5	7.2		7.6
BROMINE CNC. (MG/L)	0.39	0.30	0.24	0.30	0.29	0.22	0.34	0.23	0.07	0.37	1.19	0.26	0.35
WEIGHT (KGS)	23	22	22	23	23	23	23	23	5	23	102	23	333
CHLORIDE ION CNC. (MG/L)	0.69	0.55	0.56	0.55	0.56	0.50	0.64	0.51	0.54	0.73	0.62	0.50	0.57
WEIGHT (KGS)	41	41	51	41	43	53	44	52	43	45	53	44	548
HEDP CNC. (MG/L)	1.70	0.95	1.10	1.22	1.28	1.10	2.19	1.28	1.01	2.61	1.47	1.70	1.42
WEIGHT (KGS)	100	71	101	91	98	116	147	129	81	160	126	147	1,367
HYDROXYCARBONS CNC. (MG/L)	0.17	0.14	0.11	0.14	0.26	0.20	0.38	0.15	0.31	0.58	0.27	0.30	0.24
WEIGHT (KGS)	10	10	10	10	20	20	26	15	24	36	23	26	231
N-HYDROCARBON CNC. (MG/L)	0.81	0.63	0.52	0.64	1.23	0.91	1.77	0.71	1.42	2.72	1.26	1.38	1.12
WEIGHT (KGS)	48	48	48	48	95	95	119	71	114	166	108	119	1,078

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

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RPT 235-1
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TRA LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
IRRIGATION VOLUME(1000 L) PH	SURFACE			3,623	9,736	25,884	58,331	59,656	36,006				193,236
RADIOACTIVE STREAM VOLUME(1000 L) PH	SURFACE 5,799	5,034 6.4	6,673 6.0	5,216	6,689 5.7	7,737 5.8	4,951 5.2	7,957 5.7	5,175	4,819	7,022	7,446	74,517 5.8
SEWAGE PLANT VOLUME(1000 L) PH	SURFACE 1,983	2,453 7.0	2,612 6.9	3,066 7.1	2,612 7.4	3,259 7.2	3,615 7.5	3,676 7.7	2,648 7.9	2,529	2,033 8.1	2,135 8.1	32,620 7.5
CHLORIDE ION CNC. (MG/L)	7.09	2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
WEIGHT (KGS)	14	7	0	0	0	0	0	0	0	0	0	0	21
HYPOCHLORITE ION CNC. (MG/L)	10.29	4.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93
WEIGHT (KGS)	20	10	0	0	0	0	0	0	0	0	0	0	30

NOTE : UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/25/91

RPT 236-1

TRA INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

DISPOSAL OR STORAGE LOCATION		VOLUME OR WEIGHT BY MONTH												TOT
TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
CFA LANDFILL														
DISPOSED WASTE														
1 M SOLID	116.2	266.1	175.1	196.5	239.3	234.0	182.7	279.1	218.7	49.7	224.0	172.0	2353.6	
2 M SOLID	40.5	61.2	24.5	48.9	61.2	48.9	45.9	42.8	24.5	6.1	18.4	24.5	447.3	
3 M SOLID	9.9		3.8	26.0			1.5	30.6	21.4	12.2	1.5	12.2	119.3	
4 M SOLID				43.6			4.6	12.2	359.4	3.1	32.1		455.0	
5 M SOLID	14.5		47.4	27.5	2.3			26.8		9.2	1.5		129.2	
9 M SOLID		0.8											0.8	
ACID SOAKED DIRT-NEUTRALIZED														
9 M SOLID									6.9	38.2	30.6	0.8	76.5	
ASPHALT														
9 M SOLID							0.8						0.8	
BRICKS														
9 M SOLID									1.5				1.5	
CARPET														
9 M SOLID									6.9				6.9	
DIRT														
9 M SOLID														
STYRO FOAM														
9 M SOLID							3.8						3.8	
USED ACID SUITS NEUTRALIZED														
9 M SOLID											8.4		8.4	
WEEDS														
GRAND TOTALS														
DISPOSED WASTE														
1 M SOLID	116.2	266.1	175.1	196.5	239.3	234.0	182.7	279.1	218.7	49.7	224.0	172.0	2353.6	
2 M SOLID	40.5	61.2	24.5	48.9	61.2	48.9	45.9	42.8	24.5	6.1	18.4	24.5	447.3	
3 M SOLID	9.9		3.8	26.0			1.5	30.6	21.4	12.2	1.5	12.2	119.3	
4 M SOLID				43.6			4.6	12.2	359.4	3.1	32.1		455.0	
5 M SOLID	14.5		47.4	27.5	2.3			26.8		9.2	1.5		129.2	
9 M SOLID		1.5					4.6		15.3	38.2	39.0	0.8	99.4	

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 237-1
 TRA

TRA WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
WATER DATA													
001 WATER PUMPED (L)		11,265	11,734	108,827	144,182		100,197		39,746	9,372	5,156		430,479
003 WATER PUMPED (L)							5,860		4,671		5,913		16,443
004 WATER PUMPED (L)	185,972	166,742	220,456	86,646	76,463	243,508	165,228	326,255	201,946	203,763	219,850	161,481	2,258,309
WATER PUMPED (L)	185,972	178,008	232,190	195,473	220,645	243,508	271,285	326,255	246,562	213,135	230,918	161,481	2,705,231
WATER DISPOSAL													
AIR (L)	117,723	93,459	127,905	106,935	121,622	98,645	134,984	151,753		136,725	133,280	62,987	1,286,017
SURFACE (L) *	66,394	82,065	100,840	85,472	96,071	141,608	132,637	170,793	122,909	67,643	95,238	96,298	1,257,968
SUBSURFACE (L)													
SEWAGE DATA													
BUILD VOL. (L)	1,983	2,453	2,612	3,066	2,612	3,259	3,615	3,676	2,648	2,529	2,172	2,135	32,759
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	265.0	127.0	157.0	149.0	200.0	154.7	107.5	262.5	245.0	162.5	336.3	271.3	203.1
FINAL CONC. (MG/L)	21.0	17.0	25.3	31.3	18.3	47.0	15.0	32.8	18.3	25.7	34.8		26.0
% REMOVED	92.1	86.6	83.9	79.0	90.8	69.6	86.0	87.5	92.5	84.2	89.7		87.2
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	2.1	3.7	3.3	3.5	2.9	3.6	2.7	1.0	2.9	2.6	3.4	4.3	3.0
FINAL CONC. (MG/L)	4.7	5.9	5.3	5.7	5.0	5.5	5.3	5.0	5.7	5.4	5.6	5.7	5.4
INCREASED FACTOR	1.2	0.6	0.6	0.6	0.7	0.5	1.0	4.0	1.0	1.1	0.6	0.3	0.8
SETTLABLE SOLIDS (SS)													
RAW CONC. (ML/L)	15.8			18.8	20.0	21.7	9.4	20.0	17.9	28.2	23.6	33.0	20.8
FINAL CONC. (ML/L)	0.01	0.01	0.01	0.10	0.01	0.01	0.10	0.01	0.02	0.10	0.10		0.05
% REMOVED	99.9	99.9	99.9	99.5	99.9	100.0	98.9	99.9	99.9	99.6	99.6		99.8
PH FINAL	6.6	7.1	7.0	7.1	7.5	7.4	7.5	7.8	7.7	8.3	8.1	8.3	7.5
TOTAL SEWAGE VOL. (L)	1,983	2,453	2,612	3,066	2,612	3,259	3,615	3,676	2,648	2,529	2,172	2,135	32,759
TOTAL WATER DISPOSED (L)	186,100	177,977	231,358	195,473	220,304	243,512	271,236	326,221	125,557	206,897	230,690	161,420	2,576,743
ACCOUNTABILITY (%)	100.1	100.0	99.6	100.0	99.8	100.0	100.0	100.0	51.0	97.1	99.9	100.0	95.3

NOTE: "W" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

TRA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RPT 238-I
TRA

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)	141	129	150	122	136	142	105	156	114	141	149	101	1,585
SO2 (KGS)	1	1	1	1	1	1	1	1	1	1	1	1	11
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	1	1	1	1	1	1	1	1	1	1	1	1	11
NOX (KGS)													
PARTICULATES (KGS)													

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

TECHNICAL SUPPORT FACILITY – TEST AREA NORTH, 1990 DETAIL DATA

Report 225 – TSF Liquid Disposed Substances Summary TSF-3

Report 226 – TSF Industrial Waste Summary TSF-6

Report 227 – TSF Water Usage and Disposal Summary TSF-7

Report 228 – TSF Fuel Oil Usage and Stack Effluents Summary TSF-8

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

TSF LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 225-1
 TSF-B

AREA GRAND TOTALS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
SUBSTANCE													
CALCIUM ION WEIGHT (KGS)										8			8
CHLORIDE ION WEIGHT (KGS)	771	661	592	206	69	96	41	41	275	485	41	647	3,926
CYCLOHEXYLAMINE WEIGHT (KGS)	3	7	3								43	215	265
DIETHYLAMINOETHANOL WEIGHT (KGS)	0	0	0								4	21	27
ETHYLENEDIAMINE TETRAACETIC ACID WEIGHT (KGS)	2	5	0					6			15	46	74
HYPOCHLORITE ION WEIGHT (KGS)										5			5
JANITORIAL SUPPLIES WEIGHT (KGS)												236	236
LAUNDRY PRODUCTS WEIGHT (KGS)										185	210		394
SOAP WEIGHT (KGS)											28		28
SODIUM BISULFITE WEIGHT (KGS)		3	9					10			4	232	259
SODIUM HYDROXIDE WEIGHT (KGS)								1			3	10	14
SODIUM ION WEIGHT (KGS)	539	428	408	135	55	62	27	27	178	312	53	419	2,643
SODIUM POLYACRYLATE WEIGHT (KGS)								1			2	7	10
SULFATE ION WEIGHT (KGS)	63		45	49		13	18		16			54	257

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

07/18/91

TSF LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 225-1
 TSF-B

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
DISPOSAL POND VOLUME (1000 L) PH	7,805	6,533	6,367	5,190	9,327	6,106	10,875	11,447	10,644	7,571	3,195	2,784	87,844
CALCIUM ION CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.09
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	8	0	0	8
CHLORIDE ION CNC. (MG/L)	98.74	101.11	92.94	39.78	7.38	15.78	3.80	3.60	25.86	64.08	12.92	232.33	44.69
WEIGHT (KGS)	771	661	592	206	69	96	41	41	275	486	41	647	3,926
CYCLOHEXYLAMINE CNC. (MG/L)	0.44	0.07	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.49	77.15	3.02
WEIGHT (KGS)	3	0	3	0	0	0	0	0	0	0	43	215	265
DIETHYLAMINOETHANOL CNC. (MG/L)	0.04	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35	7.71	0.30
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	4	21	27
ETHYLENEDIAMINE TETRAACETIC ACID CNC. (MG/L)	0.24	0.76	0.05	0.00	0.00	0.00	0.00	0.53	0.00	0.00	4.72	16.35	0.84
WEIGHT (KGS)	1	5	0	0	0	0	0	6	0	0	15	44	74
HYPOCHLORITE ION CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.06
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	5	0	0	5
JANITORIAL SUPPLIES CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	84.74	2.69
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	236	236
LAUNDRY PRODUCTS CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.39	65.69	0.00	4.49
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	185	210	0	394

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 225-1
 TSF-B

TSF LIQUID DISPOSED SUBSTANCES SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SOAP CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.88	0.00	0.32
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	28	0	28
SODIUM BISULFITE CNC. (MG/L)	0.00	0.50	1.33	0.00	0.00	0.00	0.00	0.89	0.00	0.00	1.35	83.45	2.94
WEIGHT (KGS)	0	3	9	0	0	0	0	11	0	0	4	232	259
SODIUM HYDROXIDE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	1.01	3.50	0.16
WEIGHT (KGS)	0	0	0	0	0	0	0	1	0	0	3	10	14
SODIUM ION CNC. (MG/L)	68.99	65.51	64.12	26.02	5.90	10.22	2.46	2.34	16.75	41.23	16.54	150.54	30.09
WEIGHT (KGS)	536	428	408	135	55	62	27	27	178	312	53	419	2,643
SODIUM POLYACRYLATE CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.67	2.34	0.11
WEIGHT (KGS)	0	0	0	0	0	0	0	1	0	0	2	7	10
SULFATE ION CNC. (MG/L)	8.02	0.00	7.05	9.50	0.00	2.18	1.63	0.00	1.46	0.00	0.00	19.30	2.93
WEIGHT (KGS)	63	0	45	49	0	13	18	0	16	0	0	54	257

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/25/91

RPT 226-1
 TSF INDUSTRIAL WASTE SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

DISPOSAL OR STORAGE LOCATION		VOLUME OR WEIGHT BY MONTH											
TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	245.4	354.8	268.4	373.1	354.8	191.2	263.0	220.2	172.0	478.7	183.5	143.8	3249.0
2 M SOLID	50.5	48.9	36.7	42.8	61.2	48.9	48.9	263.0	18.4	84.9	48.9	26.0	779.2
3 M SOLID		5.0	18.4	11.5	7.6	7.6	10.7	13.4	11.5	19.9		6.9	112.4
4 M SOLID	0.8		7.6		48.9	35.2	9.2	82.6	3.8				188.1
5 M SOLID	13.8	6.3	18.4	42.1	16.1	9.2	9.9	7.6	6.9	13.0		38.2	181.4
9 M SOLID		0.2	10.8					1.5	0.8	1.5			14.8
ASBESTOS													
9 M SOLID				160.6	59.6	53.5	96.3				3.8		373.9
ASPHALT													
9 M SOLID								4.6					4.6
BARRELS													
9 M SOLID									164.4				164.4
BULKY (ASPHALT,DIRT,GRAVEL)													
9 M SOLID	7.6					52.8					3.8		64.2
DIRT													
9 M SOLID			7.9										7.9
DIRT/OILY RAGS													
9 M SOLID										42.1			42.1
DIRT, GRAVEL													
9 M SOLID		3.1											3.1
FUEL GRIT													
9 M SOLID				3.1	1.5								4.6
GLASS													
9 M SOLID				4.6									4.6
OILY DIRT													
9 M SOLID											19.9		19.9
SOLIDIFIED FIRE FOAM													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	245.4	354.8	268.4	373.1	354.8	191.2	263.0	220.2	172.0	478.7	183.5	143.8	3249.0
2 M SOLID	50.5	48.9	36.7	42.8	61.2	48.9	48.9	263.0	18.4	84.9	48.9	26.0	779.2
3 M SOLID		5.0	18.4	11.5	7.6	7.6	10.7	13.4	11.5	19.9		6.9	112.4
4 M SOLID	0.8		7.6		48.9	35.2	9.2	82.6	3.8				188.1
5 M SOLID	13.8	6.3	18.4	42.1	16.1	9.2	9.9	7.6	6.9	13.0		38.2	181.4
9 M SOLID	7.6	3.2	18.7	168.2	61.2	106.3	96.3	6.1	165.2	43.6	7.6	19.9	703.9

M = CUBIC METERS L = LITERS K = KILOGRAMS

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 227-1
 TSF

TSF WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
WATER DATA													
TF1 WATER PUMPED (L)	3,046	4,107	6,087	4,690	9,062	6,049	10,822	9,690	124	4,190	7,506		65,374
TF2 WATER PUMPED (L)	4,758	2,425	282	500	267	55	54	1,757	10,519	3,378	492		24,489
612 WATER PUMPED (L)												6,314	6,314
613 WATER PUMPED (L)												52	52
WATER PUMPED (L)	7,805	6,532	6,368	5,190	9,329	6,104	10,876	11,448	10,643	7,569	7,999	6,366	96,228
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *	3,629	3,182	3,385	1,712	6,075	2,944	6,715	7,181	6,772	4,065	4,804	3,583	54,048
SUBSURFACE (L) *													
SEWAGE DATA													
623 BUITLD VOL. (L) *	4,175	3,352	2,984	3,478	3,253	3,160	4,160	4,266	3,872	3,505	3,195	2,784	42,184
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	243.8	98.3	173.3	183.3	210.0	171.6	138.8	265.0	196.7	147.5	220.0	217.5	188.8
FINAL CONC. (MG/L)	9.3	6.0	6.7	14.3	20.7	24.3	6.8	22.2	16.3	16.8	14.0	6.8	13.7
% REMOVED	96.2	93.9	96.1	92.2	90.1	85.8	95.1	91.6	91.7	88.6	93.6	96.9	92.7
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	3.7	5.6	3.8	3.0	3.1	3.1	1.8	1.9	2.8	3.3	2.8	4.8	3.3
FINAL CONC. (MG/L)	5.4	6.2	5.5	6.4	5.6	6.2	4.5	5.6	6.2	6.1	6.2	6.7	5.9
INCREASED FACTOR	0.5	0.1	0.4	1.1	0.8	1.0	1.5	1.9	1.2	0.8	1.2	0.4	0.8
SETTLABLE SOLIDS (SS)													
RAW CONC. (ML/L)	4.9	6.8	7.7	12.9	14.0	17.8	14.1	11.0	6.7	6.7	8.6	7.8	9.9
FINAL CONC. (ML/L)					0.19	0.50	0.12	0.10	0.01	0.04			0.16
% REMOVED					98.6	97.2	99.1	99.1	99.9	99.4			98.4
PH FINAL	6.7	6.7	7.1	7.4	7.4	7.4	7.5	7.9	7.7	8.3	8.1	8.3	7.5
TOTAL SEWAGE VOL. (L)	4,175	3,352	2,984	3,478	3,253	3,160	4,160	4,266	3,872	3,505	3,195	2,784	42,184
TOTAL WATER DISPOSED (L)	7,805	6,535	6,368	5,190	9,329	6,104	10,875	11,447	10,644	7,570	7,998	6,367	96,232
ACCOUNTABILITY (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

NOTE: "W" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

TSF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 228-1
 TSF

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)													
SO2 (KGS)											259	340	599
NOX (KGS)											2	2	4
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)			157	50	134			30	1	98			469
SO2 (KGS)			1	0	1			0	0	1			3
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 5													
VOLUME (LITERS)			24					50					601
SO2 (KGS)			7					1					16
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	7	7	2	0	1			1	0	1	2	2	23
NOX (KGS)													
PARTICULATES (KGS)													

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

**WATER REACTOR RESEARCH TEST FACILITY – TEST AREA NORTH,
1990 DETAIL DATA**

Report 265 – WRF Liquid Disposed Substances Summary WRF-3

Report 267 – WRF Water Usage and Disposal Summary WRF-5

Report 268 – WRF Fuel Oil Usage and Stack Effluents Summary WRF-6

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 265-I
 WRF-B

WRF LIQUID DISPOSED SUBSTANCES SUMMARY,
 FOR JANUARY THROUGH DECEMBER 1990

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)		14	28		165			28			3	2	239
JANITORIAL SUPPLIES WEIGHT (KGS)												8	8
LAUNDRY PRODUCTS WEIGHT (KGS)										2	2		4
PHOSPHATE ION WEIGHT (KGS)	4			13									17
SODIUM ION WEIGHT (KGS)	4	18	36	12	107		25	36	7	1	4	2	252
SODIUM PHOSPHATE, TRIBASIC WEIGHT (KGS)		1	93				100		45	5	6	100	350
SULFATE ION WEIGHT (KGS)	22							3		13		107	146
SULFITE ION WEIGHT (KGS)	1	5	32	4			6			1	4	2	56

WRF-3

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

RPT 265-1
WRF-BWRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
WRTF EVAP POND VOLUME (1000 L) PH	1,772	1,549	818	435	587	660	998	725	521	507	490	169	9,231
CHLORIDE ION CNC. (MG/L)	0.00	8.88	33.65	0.00	281.47	0.00	0.00	37.99	0.00	0.00	5.61	11.38	25.85
WEIGHT (KGS)	0	14	28	0	165	0	0	28	0	0	3	2	239
JANITORIAL SUPPLIES CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.96	6.00
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	0	0	8	8
LAUNDRY PRODUCTS CNC. (MG/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.73	3.28	0.00	0.43
WEIGHT (KGS)	0	0	0	0	0	0	0	0	0	2	2	0	4
PHOSPHATE ION CNC. (MG/L)	2.11	0.00	0.00	29.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.82
WEIGHT (KGS)	4	0	0	13	0	0	0	0	0	0	0	0	17
SODIUM ION CNC. (MG/L)	2.00	11.68	44.47	26.74	182.39	0.00	25.54	50.05	12.51	1.63	8.71	14.21	27.34
WEIGHT (KGS)	4	19	37	11	107	0	25	36	7	1	4	2	252
SODIUM PHOSPHATE, TRIBASIC CNC. (MG/L)	0.00	0.59	113.12	0.00	0.00	0.00	100.01	0.00	87.02	8.95	12.95	591.92	37.89
WEIGHT (KGS)	0	1	93	0	0	0	100	0	45	5	6	100	350
SULFATE ION CNC. (MG/L)	12.53	0.00	0.00	0.00	0.00	0.00	0.00	3.53	0.00	26.29	0.00	634.55	15.77
WEIGHT (KGS)	22	0	0	0	0	0	0	3	0	13	0	107	146
SULFITE ION CNC. (MG/L)	0.81	2.97	39.43	8.62	0.00	0.00	5.77	0.00	0.00	2.84	8.81	11.91	6.02
WEIGHT (KGS)	1	5	32	4	0	0	6	0	0	1	4	2	56

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE
DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
 UNITED STATES DEPARTMENT OF ENERGY
 INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

07/18/91

MRF WATER USAGE AND DISPOSAL SUMMARY
 FOR JANUARY THROUGH DECEMBER 1990

RPT 267-I
 MRF

(ALL VOLUMES = NEAREST THOUSAND LITERS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
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WATER DATA

MRF WATER PUMPED (L)	1,772	1,564	970	528	587	747	1,084	811	608	594	577	2,559	12,401
WATER DISPOSAL													
AIR (L)													
SURFACE (L)	1,772	1,549	818	435	587	660	998	725	521	507	490	169	9,231
SUBSURFACE (L)													

SEWAGE DATA

643 BUILD VOL. (L)	14	152	94	87	87	87	87	87	87	87	87	87	865
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BIOCHEMICAL OXYGEN DEMAND (BOD)

RAM CONC. (MG/L)
 FINAL CONC. (MG/L)
 % REMOVED

DISSOLVED OXYGEN (DO)

RAM CONC. (MG/L)
 FINAL CONC. (MG/L)
 INCREASED FACTOR

SETTLABLE SOLIDS (SS)

RAM CONC. (ML/L)
 FINAL CONC. (ML/L)
 % REMOVED

PH FINAL

TOTAL SEWAGE VOL. (L)	14	152	94	87	87	87	87	87	87	87	87	87	865
TOTAL WATER DISPOSED (L)	1,772	1,563	970	528	587	747	1,084	811	608	593	577	256	10,096
ACCOUNTABILITY (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	10.0	81.4

NOTE: "0" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED
 DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDAHO OPERATIONS OFFICE
UNITED STATES DEPARTMENT OF ENERGY
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

06/05/91

WRF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1990

RPT 268-I
WRF

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)													
SO2 (KGS)										5	21	18	44
NOX (KGS)										0	0	0	0
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	32	20	18	1	9								80
SO2 (KGS)	0	0	0	0	0					0	0	0	0
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	0	0	0	0	0					0	0	0	1
NOX (KGS)													
PARTICULATES (KGS)													

DETAIL MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

END

**DATE
FILMED**

01/108192