IDO-10057(80)

INDUSTRIAL WASTE MANAGEMENT INFORMATION FOR 1980 AND RECORD-TO-DATE

JULY 1981

IDAHO OPERATIONS OFFICE

IDAHO NATIONAL ENGINEERING LABORATORY

DEPARTMENT OF ENERGY

IDO-10057(80)
Distribution Category
Limited

INDUSTRIAL WASTE MANAGEMENT INFORMATION FOR 1980 AND YEAR-TO-DATE

H. M. Batchelder
Waste Programs Division

EG&G Idaho, Inc.
Idaho Falls, Idaho 83415

Published July 1981

PREPARED FOR THE
U.S. DEPARTMENT OF ENERGY
IDAHO OPERATIONS OFFICE
UNDER CONTRACT NO. DE-AC07-76ID01570

CONTENTS

Acronyms & Abbreviations v

Conversion Factors vi

Abstract vii

Summary viii

INEL Industrial Waste Summary, Record-to-Date 1

INEL Solid & Liquid Industrial Waste Summary, Record-to-Date 2

INEL Industrial Waste Summary, 1980 4

Airborne & Liquid Industrial Waste Substances Summary, Record-to-Date . 6

Airborne & Liquid Industrial Waste Substances Summary, 1980 9

INEL Fuel Oil Summary, Record-to-Date 13

INEL Water Usage Summary, Record-to-Date 14

Industrial Waste Management Information, 1980

Idaho National Engineering Laboratory (INEL)

Report 1 INEL Monthly Water Usage Summary 15

Report 2 INEL Year-to-Date Water Usage Summary 16

Report 3 INEL Industrial Waste Summary 17

Report 4 INEL Airborne & Liquid Disposed Substances Summary 21

Report 5 INEL Monthly Fuel Oil Summary 24

Report 6 INEL Year-to-Date Fuel Oil Summary 25

EG&G Idaho, Incorporated

Report 085 LOFT Liquid Disposed Substances Summary 26

Report 086 LOFT Industrial Waste Summary 28

Report 087 LOFT Water Usage & Disposal Summary 29

Report 088 LOFT Fuel Oil Usage & Stack Effluents Summary . . 30

Report 095 WRF Liquid Disposed Substances Summary 31

Report 097 WRF Water Usage & Disposal Summary 33

Report 098 WRF Fuel Oil Usage & Stack Effluents Summary . . . 34

Report 104 TRA Airborne Disposed Substances Summary 35

Report 105 TRA Liquid Disposed Substances Summary 36

Report 106 TRA Industrial Waste Summary 40

Report 107 TRA Water Usage & Disposal Summary 42

Report 108 TRA Fuel Oil Usage & Stack Effluents Summary . . . 43

Report 115 MHD Liquid Disposed Substances Summary 44
Report 116 MHD Industrial Waste Summary 47
Report 117 MHD Water Usage & Disposal Summary 48
Report 118 MHD Fuel Oil Usage & Stack Effluents Summary . . . 49
Report 126 WMC Industrial Waste Summary 50
Report 127 WMC Water Usage & Disposal Summary 51
Report 128 WMC Fuel Oil Usage & Stack Effluents Summary . . . 53
Report 135 PBF Liquid Disposed Substances Summary 54
Report 136 PBF Industrial Waste Summary 56
Report 137 PBF Water Usage & Disposal Summary 57
Report 138 PBF Fuel Oil Usage & Stack Effluents Summary . . . 59
Report 146 ARA Industrial Waste Summary 60
Report 147 ARA Water Usage & Disposal Summary 61
Report 148 ARA Fuel Oil Usage & Stack Effluents Summary . . . 62
Report 155 TAN Liquid Disposed Substances Summary 63
Report 156 TAN Industrial Waste Summary 65
Report 157 TAN Water Usage & Disposal Summary 66
Report 158 TAN Fuel Oil Usage & Stack Effluents Summary . . . 67
Report 165 CFA Liquid Disposed Substances Summary 68
Report 166 CFA Industrial Waste Summary 70
Report 167 CFA Water Usage & Disposal Summary 72
Report 168 CFA Fuel Oil Usage & Stack Effluents Summary . . . 73

Exxon Nuclear Idaho Company (ENICO)

Report 204 CPP Airborne Disposed Substances Summary 74
Report 205 CPP Liquid Disposed Substances Summary 76
Report 206 CPP Industrial Waste Summary 78
Report 207 CPP Water Usage & Disposal Summary 79
Report 208 CPP Fuel Oil Usage & Stack Effluents Summary . . . 80

Naval Reactors Facility (NRF)

Report 304 NRF Airborne Disposed Substances Summary 81
Report 305 NRF Liquid Disposed Substances Summary 82
Report 306 NRF Industrial Waste Summary 85
Report 307 NRF Water Usage & Disposal Summary 87
Report 308 NRF Fuel Oil Usage & Stack Effluents Summary . . . 88

Argonne National Laboratory-West (ANL)
Report 404 ANL Airborne Disposed Substances Summary 89
Report 405 ANL Liquid Disposed Substances Summary 91
Report 406 ANL Industrial Waste Summary 96
Report 407 ANL Water Usage & Disposal Summary 98
Report 408 ANL Fuel Oil Usage & Stack Effluents Summary . . . 100
Engineered Release Points to the Environment 101

ACRONYMS & ABBREVIATIONS

ANL	Argonne National Laboratory-West
ARA	Auxiliary Reactor Area
CFA	Central Facilities Area
CPP	Chemical Processing Plant
EBR	Experimental Breeder Reactor I
ENICO	Exxon Nuclear Idaho Company
INEL	Idaho National Engineering Laboratory
IWMIS	Industrial Waste Management Information System
kg	Kilograms
L	Litres
LOF	Loss-of-Fluid Test Facility
LOFT	Loss-of-Fluid Test Facility
LPT	Low Power Test Facility
M^3	Cubic Metres
MHD	Magnetohydrodynamics Component Development and Integration Facility (Butte, Montana)
NRF	Naval Reactor Facility
PBF	Power Burst Facility
TAN	Test Area North
TRA	Test Reactor Area
WMC	Waste Management Complex
WRF (WRRTF)	Water Reactor Research Test Facility

CONVERSION FACTORS

To Convert	Into	Multiply By
cubic metres	cubic feet	35.31
litres	gallons (U.S. liquid)	0.2642
kilograms	pounds	2.2046

ABSTRACT

The industrial waste data associated with activities at the Idaho National Engineering Laboratory (INEL) for 1979 and record-to-date are summarized. Summaries of the quantities of liquid industrial waste, the volumes of solid waste, the fuel oil and water used, and the quantities of SO_2 and particulates released are included. The waste data are from the INEL Industrial Waste Management Information System (IWMIS).

SUMMARY

A computerized Industrial Waste Management Information System (IWMIS) has been used at the Idaho National Engineering Laboratory (INEL) since 1971. The system provides for timely reports on the amount of all types of industrial waste that has been stored and disposed at the INEL, fuel oil usage, and water usage and disposal. The system serves as the official record for all types of industrial wastes stored or disposed at the INEL. The quantities of industrial waste are reported for the following categories: disposal of airborne and liquid effluents, fuel oil consumption, and water usage.

A total of 38 950 m^3 of solid industrial waste was disposed to sanitary landfills at the INEL during 1980. This represents an increase from the 31 380 m^3 in 1979.

During 1980, a total of 11 470 litres of waste oils and solvents was disposed of by mixing it with No. 5 oil and utilizing it as fuel in the INEL boilers. This compares with 42 100 litres in 1979 and 23 060 litres in 1978.

A total of 4 122 000 kg of liquid and airborne industrial waste was discharged in 1980. This includes 1 708 500 kg of chemicals, 1 360 000 kg of total dissolved solids, and 478 500 kg of total hardness which were discharged as liquid wastes to the lithosphere at the INEL. This liquid waste represents a decrease from the total quantity of 4 128 000 kg in 1979 and 4 559 000 kg in 1978.

During 1980, a total of 16 620 000 litres of fuel oil was used at the INEL, which produced 317 100 kg of SO_2 and 16 920 kg of particulates. During 1979, 22 030 000 litres of fuel oil were used, producing 308 300 kg of SO_2 and 26 250 kg of particulates. The reduction in fuel consumption usage reflects changes in facility operations and energy conservation efforts.

A total of 7 312 000 000 litres of water was used at the INEL during 1980, compared to 8 695 000 000 litres in 1979, and 9 022 000 000 litres in 1978. However, the majority of this water is returned to the lithosphere through injection wells and seepage ponds. The remaining water is lost to the atmosphere through cooling towers and other evaporatory processes.

The following reports are included in this document:

Report 1 - INEL Monthly Water Usage Summary

This report summarizes the quantity of water pumped at each facility and the quantity of water disposed to the atmosphere, ground surfaces, and subsurfaces. The percent accountability is also shown.

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

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

Report 3 - INEL Industrial Waste Summary

This report summarizes the quantity and type of industrial waste for each area at the INEL. The waste is shown in Types 1 through 9, which correspond generally with the standard classifications for sanitary wastes.

Report 4 - INEL Airborne & Liquid Disposed Substances Summary

This report provides the monthly total weight of all substances disposed to the environment. It also provides the total amount of waste disposed for the year-to-date.

Report 5 - INEL Monthly Fuel Oil Summary

This report summarizes information on the types and quantities of fuel oil used during the month for each facility at the INEL. It also provides the quantities of SO_2, NO_x, and particulates released to the atmosphere.

Report 6 - INEL Year-to-Date Fuel Oil Summary

This report provides similar information to Report 5 for the year-to-date.

Series XX4, (Facility) Airborne Disposed Substances Summary

Series XX5, (Facility) Liquid Disposed Substances Summary

Series XX6, (Facility) Industrial Waste Summary

Series XX7, (Facility) Water Usage & Disposal Summary

Series XX8, (Facility) Fuel Oil Usage & Stack Effluent Summary

SCHED. NO. P68PM012-A

INEL INDUSTRIAL WASTE SUMMARY
RECORD-TO-DATE

WASTE TYPE		1971-1977	1978	1979	1980
SANITARY WASTE	(CU. METERS)	148,500	26,250	31,380	38,950
OIL-SOLVENTS	(LITERS)	334,100	23,060	42,100	11,470
LIQUID WASTE	(KILOGRAMS)	30,710,000	4,559,000	4,128,000	3,547,000
AIRBORNE WASTE	(KILOGRAMS)*	4,862,000	714,600	585,900	575,000
FUEL OIL:					
QUANTITY	(LITERS)	188,600,000	22,820,000	22,030,000	16,620,000
SO2	(KILOGRAMS)	3,382,000	247,900	308,300	317,100
PARTICULATES	(KILOGRAMS)	275,000	26,410	26,250	16,920
WATER-USED	(1,000 LITERS)	67,070,000	9,022,000	8,695,000	7,312,000

* NOTE: INCLUDES SO2 AND PARTICULATES FROM FUEL OIL TOTALS

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. NO. P68PM013-A

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

YEAR	ANL	ARA	CFA	CPP	LOF	MHD	NRF	PBF	TAN
RECORD-TO-DATE (71-78)									
SANITARY WASTE (CU. METERS)	20,560	198	32,650	21,970			53,780	3,937	18,560
OILS & SOLVENTS (LITERS)	13,100		102,200				235,700		568
CHEMICALS									
LIQUIDS (LITERS)	4			45			43,190	284	17,050
SOLIDS (KILOGRAMS)	274		1,355				3,625		<1
1979									
SANITARY WASTE (CU. METERS)	4,179	497	4,438	7,866			6,710	507	3,491
OILS & SOLVENTS (LITERS)	1,980						40,120		
CHEMICALS									
LIQUIDS (LITERS)		11					700		
SOLIDS (KILOGRAMS)							6,332		
1980									
SANITARY WASTE (CU. METERS)	4,412	521	10,370	9,628	264	122	6,544	877	3,525
OILS & SOLVENTS (LITERS)	2,192						9,274		
CHEMICALS									
LIQUIDS (LITERS)	1,401	95						132	
SOLIDS (KILOGRAMS)	581								

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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

YEAR	TRA	WMC	TOTAL
RECORD-TO-DATE (71-78)			
SANITARY WASTE (CU. METERS)	22,900	225	174.800
OILS & SOLVENTS (LITERS)	5,678		357.200
CHEMICALS			
LIQUIDS (LITERS)	6,281	145	67.000
SOLIDS (KILOGRAMS)	17,580		22.840
1979			
SANITARY WASTE (CU. METERS)	3,503	185	31.380
OILS & SOLVENTS (LITERS)			42.100
CHEMICALS			
LIQUIDS (LITERS)			717
SOLIDS (KILOGRAMS)			6.337
1980			
SANITARY WASTE (CU. METERS)	3,406	285	38.950
OILS & SOLVENTS (LITERS)			11.470
CHEMICALS			
LIQUIDS (LITERS)			1.628
SOLIDS (KILOGRAMS)			581

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. NO. P68PM013-B

INEL INDUSTRIAL WASTE SUMMARY IN CUBIC METERS*
FOR JANUARY THROUGH DECEMBER 1980

TYPES	ANL	ARA	CFA	CPP	LOF	MHD	NRF	PBF	TAN
1. TRASH	2,933	497	3,817	5,751	264	122	3,964	507	2,719
2. CAFETERIA GARBAGE	588		1,085	611			1,188		564
3. WOOD & SCRAP LUMBER	57	13	458	919			322	20	40
4. MASONRY & CONCRETE	430	9	862	207			466	70	6
5. SCRAP METAL	26		57	15			283	4	43
6. OIL (LITERS)	2,192						9,274		
7. SOLVENTS (LITERS)									
8. CHEMICALS									
LIQUID (LITERS)	1,401	95						132	
SOLIDS (KILOGRAMS)	581								
9. OTHERS									
LIQUID (LITERS)	845		1,429	1,041				4,997	
SOLIDS (CU. METERS)	377	3	4,090	1,123			320	271	152
TOTALS									
SANITARY TYPES 1, 2, 3, 4, 5, & 9 (CUBIC METERS)	4,412	521	10,370	8,628	264	122	6,544	877	3,525
OILS & SOLVENTS TYPES 6 & 7 (LITERS)	2,192						9,274		
CHEMICALS									
LIQUIDS (GALLONS)	1,401	95						132	
SOLIDS (KILOGRAMS)	581								

*.EXCEPT AS NOTED

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. NO. P68PM013-B

INEL INDUSTRIAL WASTE SUMMARY IN CUBIC METERS*
FOR JANUARY THROUGH DECEMBER 1980

TYPES	TRA	WMC	TOTAL
1. TRASH	2,630	161	23,370
2. CAFETERIA GARBAGE	161		4,198
3. WOOD & SCRAP LUMBER	242	21	2,092
4. MASONRY & CONCRETE	71	2	2,123
5. SCRAP METAL	8		436
6. OIL (LITERS)			11,470
7. SOLVENTS (LITERS)			
8. CHEMICALS			
LIQUID (LITERS)			1,628
SOLIDS (KILOGRAMS)			581
9. OTHERS			
LIQUID (LITERS)	662		8,974
SOLIDS (CU. METERS)	293	102	6,730
TOTALS			
SANITARY TYPES 1, 2, 3, 4, 5, & 9 (CUBIC METERS)	3,406	285	38,950
OILS & SOLVENTS TYPES 6 & 7 (LITERS)			11,470
CHEMICALS			
LIQUIDS (GALLONS)			1,628
SOLIDS (KILOGRAMS)			581

* EXCEPT AS NOTED

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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

SCHED. NO. P68PM014-A

SUBSTANCE IDENTIFICATION	1971-1978	1979	1980	TOTAL
ACETIC ACID			12	12
AMIDES	738	78	79	895
AMMONIA			36	36
AUTO CLEANERS	17,140	2,014	1,742	20,890
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 194	828			828
BETZ J-12	18			18
BETZ NEUTRMEEN	1,669			1,669
BETZ 109	35			35
BETZ 194	301			301
BETZ 406	129			129
BETZ 429	5,171			5,171
BETZ 65	544			544
BIOCIDE D-2	9,640			9,640
BLEACH	898			898
BORON			1,851	1,851
CALCIUM ION	2,745	2,577	2,379	7,702
CARBONTHIOCYANATES	109	16	16	140
CHLORIDE ION	3,107,000	444,100	420,000	3,971,000
CHLOROCARBONS	2			2
CHLORCHYDROCARBONS	472			472
CHLOROSULFONES	565	62	64	691
CHROMATE ION	142	57	17	216
CITRIC ACID			91	91
CLOROHYDROCARBONS				
CR+6			794	794
DIANODIC 194	15,530			15,530
DIMETHYLAMINE	501	263	249	1,014
DIPHOSPHONATE	6,975	2,883	2,113	11,970
DISPERSANT 403	13,030			13,030
FLOURIDE ION			2	2
FORMIC ACID			5	5
HEDP			123	123
HEXAVALENT CR	2,581	18	31	2,631
HPA	3,236	916	247	4,398
HYDRAZINE	12			12
HYDROCARBON-AMINES	26	10	10	46
HYDROCARBONS	1,087	156	159	1,402
HYDROXYCARBON	66			66
HYDROXYCARBONS	9,573	3,859	2,710	16,140
HYPOCHLORITE	16,050			16,050
HYPOCHLORITE ION	7,426	6,991	6,986	21,400
KP40 COOLANT CNTRL	73			73
KWIK KLEEN	2,098			2,098
LAUNDRY PRODUCTS	11,820	4,381	4,773	20,970
M-60 ALGAECIDE	4			4

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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

SCHED. NO. P68PM014-A

SUBSTANCE IDENTIFICATION	1971-1978	1979	1980	TOTAL
M-BOT ALGAECIDE	4			4
METHBISTHIOCYANATE		68		68
MORPHOLINE	620	111	109	840
N-HYDROCARBON	3,123	594	745	4,462
NALCO 7312	178			178
NALCO 7323	185			185
NALCOOL 7351	840			840
NAPTHA	39			39
NITRATE ION	349,000	121,100	137,200	607,300
NITRIC OXIDE	86,870	20,440	68,270	175,600
NITRITE ION			3	3
NITROGEN DIOXIDE	1,609,000	230,900	172,700	2,012,000
OROCOL 194	68			68
OROCOL 734	70,310			70,310
OXYCARBONS				
PHOSPHATE	1,179	544	907	2,631
PHOSPHATE ION	90,470	14,970	8,130	113,600
PHOSPHONATE	455	1,080	655	2,190
PHOSPHONATES	23			23
PHOTO LAB CHEMICAL	15,360	1,960	1,960	19,280
POLYACRYLATE			2,106	2,106
POLYHYDROXYCARBON	26	20		45
POLYMETHACRYLATE	303	720	436	1,460
POLYNODIC 606	62,210			62,210
POLYNODIC 633	2,268			2,268
POLYPHOSPHATE	1,061	2,521	1,528	5,110
POTASSIUM ION	8,109	2,459	1,726	12,290
PYRIDINE			3	3
SILICACARBONS	20			20
SILICATE ION	59			59
SKASOL	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	37,160	3,243	2,182	42,590
SODIUM ION	2,565,000	344,300	297,100	3,206,000
SODIUM PHOSPHATE	9	1		10
SPRA-SAF	862			862
SULFATE ION	9,239,000	1,141,000	807,700	11,190,000
SULFITE ION	7,106	570	238	7,914
SULFONATE	303	720	436	1,460
SULFONATES	1,416			1,416
SULFUR DIOXIDE	8,259			8,259
SULFURIC ACID			1	1
TDS	16,450,000	1,592,000	1,360,000	19,400,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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

SCHED. NO. P68PM014-A

SUBSTANCE IDENTIFICATION	1971-1978	1979	1980	TOTAL
THICCARBONS	17			17
THICHYDROCARBONS	48			48
THIOUREA			1	1
TOTAL HARDNESS	3,064,000	431,100	478,500	3,973,000
TRIVALENT CR	1,428	357	169	1,955
ZINC ION	2,208	122	55	2,386
TOTAL	36,970,000	4,379,000	3,788,000	45,130,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
FOR JANUARY THROUGH DECEMBER, 1980

SCHED. NO. P68PM014-B

SUBSTANCE IDENTIFICATION	ANL	CFA	CPP	LOF	MHO	NRF	PBF	TAN	TRA
ACETIC ACID					12				
AMIDES	79								
AMMONIA	36								
AUTO CLEANERS		1,742							
BORON				1,851					
CALCIUM ION	481	131	41			1,726			
CARBONTHIOCYANATES	16								
CHLORIDE ION	387	1,357	337,000	1,844	16	68,020		8,821	914
CHLOROSULFONES	64								
CHROMATE ION							17		
CITRIC ACID	91								
CR+6					794				
DIMETHYLAMINE	249								
DIPHOSPHONATE									2,113
FLOURIDE ION					2				
FORMIC ACID					5				
HEDP	123								
HEXAVALENT CR	31								
HPA									247
HYDROCARBON-AMINES	10								
HYDROCARBONS	159								
HYDROXYCARBONS									2,710
HYPOCHLORITE ION	309	531	420			4,432			1,294
LAUNDRY PRODUCTS		4,773							
MORPHOLINE	109								
N-HYDROCARBON									745
NITRATE ION			137,200		5				
NITRIC OXIDE			68,270						
NITRITE ION	3								
NITROGEN DIOXIDE			172,700						
PHOSPHATE		907							
PHOSPHATE ION	336			15	5	1,755	2	150	5,819
PHOSPHONATE						655			
PHOTO LAB CHEMICAL	1,960								
POLYACRYLATE	2,106								
POLYHYDROXYCARBON									
POLYMETHACRYLATE						436			
POLYPHOSPHATE						1,528			
POTASSIUM ION					193				1,534
PYRIDINE	3								
SOAP		2,182							
SODIUM ION	5,413	642	173,500	2,233		75,500	464	6,183	31,560
SULFATE ION	87,240		59,110	3,331	77	168,800	521	281	487,600
SULFITE ION				29				138	10
SULFONATE						436			
SULFURIC ACID	1								
TDS			667,600						692,700
THIOUREA	1								
TOTAL HARDNESS									478,500

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
FOR JANUARY THROUGH DECEMBER, 1980

SCHED. NO. P68PM014-B

SUBSTANCE IDENTIFICATION	ANL	CFA	CPP	LOF	MHD	NRF	PBF	TAN	TRA
TRIVALENT CR	169								
ZINC ION	55								
TOTAL	99,630	12,270	1,616,000	9,302	1,108	323,300	1,006	15,570	1,706,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
FOR JANUARY THROUGH DECEMBER, 1980

SCHED. NO. P68PM014-8

SUBSTANCE IDENTIFICATION	WRF	TOTAL
ACETIC ACID		12
AMIDES		79
AMMONIA		36
AUTO CLEANERS		1,742
BORON		1,851
CALCIUM ION		2,379
CARBONTHIOCYANATES		16
CHLORIDE ION	1,640	420,000
CHLOROSULFONES		64
CHROMATE ION		17
CITRIC ACID		91
CR+6		794
DIMETHYLAMINE		249
DIPHOSPHONATE		2,113
FLOURIDE ION		2
FORMIC ACID		5
HEDP		123
HEXAVALENT CR		31
HPA		247
HYDROCARBON-AMINES		10
HYDROCARBONS		159
HYDROXYCARBONS		2,710
HYPOCHLORITE ION		6,986
LAUNDRY PRODUCTS		4,773
MORPHOLINE		109
N-HYDROCARBON		745
NITRATE ION		137,200
NITRIC OXIDE		68,270
NITRITE ION		3
NITROGEN DIOXIDE		172,700
PHOSPHATE		907
PHOSPHATE ION	49	8,130
PHOSPHONATE		655
PHOTO LAB CHEMICAL		1,960
POLYACRYLATE		2,106
POLYHYDROXYCARBON		
POLYMETHACRYLATE		436
POLYPHOSPHATE		1,528
POTASSIUM ION		1,726
PYRIDINE		3
SOAP		2,182
SODIUM ION	1,382	297,100
SULFATE ION	707	807,700
SULFITE ION	61	238
SULFONATE		436
SULFURIC ACID		1
TDS		1,360,000
THIOUREA		1
TOTAL HARDNESS		478,500

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. NO. P68PM014-B

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
FOR JANUARY THROUGH DECEMBER. 1980

SUBSTANCE IDENTIFICATION	WRF	TOTAL
TRIVALENT CR		169
ZINC ION		55
TOTAL	3,839	3,788,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHEJ. P68P4015-A

INEL FUEL C SUMMARY
RECORD-TO-DATE

AREA	1971-1978 FUEL OIL (LITERS)	1971-1978 SO2 (KG)	1971-1978 PART. (KG)	1971-1978 DIESEL (LITERS)	1979 FUEL OIL (LITERS)	1979 SO2 (KG)	1979 PART. (KG)	1979 DIESEL (LITERS)	1980 FUEL OIL (LITERS)	1980 SO2 (KG)	1980 PART. (KG)	1980 DIESEL (LITERS)
ANL	18,370,000	193,800	15,820		1,323,000	5,150	1,743		996,100	3,878	1,313	
APA	1,020,000	7,961	523		237,400	1,344			125,900	785		10,430
CFA	18,260,000	200,800	22,260		2,112,000	11,960			1,188,000	7,354		90,470
CPP	55,320,000	423,200	5,504		5,954,000	63,960			5,181,000	132,600		
LOF									171,400	1,090		17,030
MHD									58,270	1,835		
NRF	45,620,000	1,266,000	62,470		4,339,000	117,800	9,308		3,337,000	86,620	7,159	
PBF	964,200	5,380	231	94,350	193,200	1,110		61,210	100,000	1,122		95,410
TAN	25,980,000	620,430	36,310	63,910	2,732,000	16,000		45,750	1,609,000	23,600		
TRA	32,610,000	911,490	108,300	13,040,000*	3,057,000	90,740	15,200	1,921,000*	1,699,000	56,450	8,449	1,642,000*
WMC	167,600	1,106			51,700	260			39,790	356		18,880
WRF									241,400	1,367		
TOTAL	198,300,000	3,630,000	251,400	13,200,000*	20,000,000	308,300	26,250	2,028,000*	14,750,000	317,100	16,920	1,875,000*

* TRA EMERGENCY GENERATOR

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. NO. P68P4016-A

INEL WATER USAGE SUMMARY IN THOUSAND LITERS

RECORD-TO-DATE

AREA	1971-1978	1979	1980	TOTAL
ANL	3,749,000	524,800	537,100	4,811,000
ARA	995,500	103,600	128,400	1,227,000
CFA	3,313,000	466,200	422,800	4,202,000
CPP	12,770,000	1,681,000	1,578,000	16,030,000
LOF			696,000	696,000
MHD			4,849	4,849
NRF	15,570,000	2,015,000	1,204,000	18,790,000
PBF	333,700	44,740	71,020	449,500
TAN	3,001,000	902,100	71,080	3,974,000
TRA	36,210,000	2,849,000	2,459,000	41,520,000
WMC	144,400	109,100	14,440	267,900
WRF			124,800	124,800
TOTAL	76,090,000	8,695,000	7,312,000	92,100,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEL MONTHLY WATER USAGE SUMMARY
DECEMBER 1980

(ALL VOLUMES = NEAREST THOUSAND LITERS)

AREA OF ORIGIN	MONTHLY VOLUME PUMPED	MONTHLY VOLUME DISPOSED					ACCOUNTA-BILITY (%)
		AIR	SURFACE	SUBSURFACE	SEWAGE	TOTAL	
ANL	39,360	16,939	18,976		1,601 *	37,516	95.3
ARA	13,934	*	13,377 *	*	556 *	13,934	100.0
CFA	23,151	*	201 *	825	14,308	15,334	66.2
CPP	204,179		*	200,356	3,823	204,179	100.0
LOF	56,829		55,606		170	55,776	98.1
MHD	3,816	45	57		3,713	3,816	100.0
NRF	69,994	49,095 *	10,883 *		4,584	64,562	92.2
PBF	3,562		1,155 *	1,931 *	231 *	3,316	93.1
TAN	5,212	*	2,362 *	*	1,556 *	3,918	75.2
TRA	209,051	43,304	19,237 *	143,274	2,434	208,248	99.6
WMC	4,652	*	*	4,565 *	83	4,648	99.9
WRF	28,723			27,530	121	27,652	96.3
GRAND TOTALS	662,462	109,384	121,853	378,481	33,182	642,899	97.0

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

INEL YEAR-TO-DATE WATER USAGE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(ALL VOLUMES = NEAREST THOUSAND LITERS)

AREA OF ORIGIN	YEARLY VOLUME PUMPED	YEARLY VOLUME DISPOSED					ACCOUNTA-BILITY (4)
		AIR	SURFACE	SUBSURFACE	SEWAGE	TOTAL	
ANL	537,089	252,018	195,832		25,165 *	473,015	88.1
ARA	128,356	*	121,678 *	*	6,677 *	128,356	100.0
CFA	422,826	*	32,800 *	8,006	177,727	218,533	51.7
CPP	1,578,054		*	1,501,666	52,729	1,554,396	98.5
LOF	696,022		556,901	81,342	2,044	640,287	92.0
MHD	4,849	49	144		4,656	4,849	100.0
NRF	1,204,482	528,117 *	549,414 *		68,275	1,145,807	95.1
PBF	71,024	2,006	33,008 *	28,435 *	2,771 *	66,220	93.2
TAN	71,084	*	29,060 *	*	30,661 *	59,721	84.0
TRA	2,458,795	790,723	346,533 *	1,247,332	30,918	2,415,506	98.2
WMC	14,448	*	2,771 *	10,682 *	992	14,445	100.0
WRF	124,798		250	121,603	1,874	123,726	99.1
GRAND TOTALS	7,311,827	1,572,913	1,868,391	2,999,066	404,489	6,844,861	93.6

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1980

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
ANL					
DISPOSED WASTE					
1 - TRASH	SOLID	214.1	CU. METERS	2,933.2	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	42.8	CU. METERS	588.0	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	.4	CU. METERS	56.6	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			430.5	CU. METERS
5 - SCRAP METAL	SOLID			26.0	CU. METERS
6 - OIL	LIQUID			1,207.5	LITERS
8 - CHEMICALS	LIQUID			1,400.6	LITERS
8 - CHEMICALS	SOLID			580.6	KILOGRAMS
9 - OTHER	LIQUID			845.3	LITERS
9 - OTHER	SOLID			377.0	CU. METERS
9 - OTHER	SOLID			28.2	KILOGRAMS
STORED WASTE					
6 - OIL	LIQUID			984.2	LITERS
ARA					
DISPOSED WASTE					
1 - TRASH	SOLID	30.6	CU. METERS	497.4	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID			12.6	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			8.6	CU. METERS
8 - CHEMICALS	LIQUID			94.6	LITERS
9 - OTHER	SOLID			2.7	CU. METERS
CFA					
DISPOSED WASTE					
1 - TRASH	SOLID	152.2	CU. METERS	3,817.1	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	62.7	CU. METERS	1,084.6	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	19.9	CU. METERS	457.9	CU. METERS
4 - MASONRY AND CONCRETE	SOLID	18.0	CU. METERS	862.1	CU. METERS
5 - SCRAP METAL	SOLID			56.8	CU. METERS
9 - OTHER	SOLID	34.8	CU. METERS	4,077.0	CU. METERS
STORED WASTE					
9 - OTHER	LIQUID			1,429.0	LITERS
9 - OTHER	SOLID			13.0	CU. METERS
CPP					
DISPOSED WASTE					
1 - TRASH	SOLID	319.8	CU. METERS	5,751.2	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	89.1	CU. METERS	611.3	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	74.2	CU. METERS	919.1	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			207.3	CU. METERS

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1980

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
CPP					
DISPOSED WASTE					
5 - SCRAP METAL	SOLID			14.8	CU. METERS
9 - OTHER	SOLID	16.8	CU. METERS	1,123.5	CU. METERS
STORED WASTE					
9 - OTHER	LIQUID			1,041.0	LITERS
LOF					
DISPOSED WASTE					
1 - TRASH	SOLID	97.9	CU. METERS	263.8	CU. METERS
MHU					
DISPOSED WASTE					
1 - TRASH	SOLID	61.2	CU. METERS	122.3	CU. METERS
NRF					
DISPOSED WASTE					
1 - TRASH	SOLID	317.2	CU. METERS	3,964.1	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	91.8	CU. METERS	1,188.3	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	16.1	CU. METERS	322.2	CU. METERS
4 - MASONRY AND CONCRETE	SOLID	6.1	CU. METERS	466.4	CU. METERS
5 - SCRAP METAL	SOLID			34.4	CU. METERS
9 - OTHER	SOLID	22.9	CU. METERS	266.2	CU. METERS
STORED WASTE					
5 - SCRAP METAL	SOLID	6.8	CU. METERS	249.0	CU. METERS
6 - OIL	LIQUID			9,274.0	LITERS
9 - OTHER	SOLID			53.5	CU. METERS
PBF					
DISPOSED WASTE					
1 - TRASH	SOLID	53.5	CU. METERS	506.6	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID			20.5	CU. METERS
4 - MASONRY AND CONCRETE	SOLID	4.6	CU. METERS	69.8	CU. METERS
5 - SCRAP METAL	SOLID			3.8	CU. METERS
8 - CHEMICALS	LIQUID			132.5	LITERS
9 - OTHER	SOLID	1.5	CU. METERS	270.8	CU. METERS
STORED WASTE					
9 - OTHER	LIQUID			4,996.6	LITERS
TAN					

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1980

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
TAN					
DISPOSED WASTE					
1 - TRASH	SOLID	152.9	CU. METERS	2,719.1	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	55.1	CU. METERS	564.3	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID			40.2	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			6.1	CU. METERS
5 - SCRAP METAL	SOLID	3.1	CU. METERS	43.3	CU. METERS
9 - OTHER	SOLID			151.4	CU. METERS
STORED WASTE					
9 - OTHER	SOLID			.4	CU. METERS
9 - OTHER	SOLID			408.2	KILOGRAMS
TRA					
DISPOSED WASTE					
1 - TRASH	SOLID	187.3	CU. METERS	2,630.4	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	15.3	CU. METERS	161.3	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID			241.9	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			70.7	CU. METERS
5 - SCRAP METAL	SOLID			7.6	CU. METERS
9 - OTHER	SOLID	6.1	CU. METERS	292.7	CU. METERS
STORED WASTE					
9 - OTHER	LIQUID			662.4	LITERS
9 - OTHER	SOLID			.4	CU. METERS
WMC					
DISPOSED WASTE					
1 - TRASH	SOLID	23.3	CU. METERS	161.3	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	6.9	CU. METERS	20.6	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			1.5	CU. METERS
9 - OTHER	SOLID			101.7	CU. METERS
INEL GRAND TOTALS					
DISPOSED WASTE					
1 - TRASH	SOLID	1,609.9	CU. METERS	23,366.5	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	356.7	CU. METERS	4,197.9	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	117.4	CU. METERS	2,091.7	CU. METERS
4 - MASONRY AND CONCRETE	SOLID	28.7	CU. METERS	2,123.2	CU. METERS
5 - SCRAP METAL	SOLID	3.1	CU. METERS	186.7	CU. METERS
6 - OIL	LIQUID			1,207.5	LITERS
8 - CHEMICALS	LIQUID			1,627.7	LITERS
8 - CHEMICALS	SOLID			580.6	KILOGRAMS

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1980

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
INEL GRAND TOTALS					
DISPOSED WASTE					
9 - OTHER	LIQUID			845.3	LITERS
9 - OTHER	SOLID	82.2	CU. METERS	6,662.9	CU. METERS
9 - OTHER	SOLID			28.2	KILOGRAMS
STORED WASTE					
5 - SCRAP METAL	SOLID	6.8	CU. METERS	249.1	CU. METERS
6 - OIL	LIQUID			10,258.2	LITERS
9 - OTHER	LIQUID			8,128.9	LITERS
9 - OTHER	SOLID			67.3	CU. METERS
9 - OTHER	SOLID			408.2	KILOGRAMS

IDAHO OPERATION OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1980

ALL FACILITIES	MONTHLY				YEAR-TO-DATE			
SUBSTANCES	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)
ACETIC ACID						12		12
AMIDES		8		8		79		79
AMMONIA						36		36
AUTO CLEANERS			145	145			1,742	1,742
BORON			33	33		1,818	33	1,851
CALCIUM ION		69	10	78		2,207	172	2,379
CARBONTHIOCYANATES		2		2		16		16
CHLORIDE ION		3,100	115,587	118,687		79,746	340,233	419,980
CHLOROSULFONES		7		7		64		64
CHROMATE ION						17		17
CITRIC ACID						91		91
CR+6		567		567		567	227	794
DIMETHYLAMINE		23		23		249		249
DIPHOSPHONATE			167	167			2,113	2,113
FLOURIDE ION			2	2			2	2
FORMIC ACID						5		5
HEDP		14		14	1	121		123
HEXAVALENT CR					31			31
HPA			15	15			247	247
HYDROCARBON-AMINES		1		1		10		10
HYDROCARBONS		16		16		159		159
HYDROXYCARBONS			203	203			2,710	2,710

INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1980

ALL FACILITIES	MONTHLY				YEAR-TO-DATE			
SUBSTANCES	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)
HYPOCHLORITE ION		368	114	482		5,721	1,265	6,986
LAUNDRY PRODUCTS			375	375			4,773	4,773
MORPHOLINE		12		12		109		109
N-HYDROCARBON			55	55			745	745
NITRATE ION			53,203	53,203			137,209	137,209
NITRIC OXIDE	6,502			6,502	68,265			68,265
NITRITE ION						3		3
NITROGEN DIOXIDE	14,952			14,952	172,718			172,718
PHOSPHATE			82	82			907	907
PHOSPHATE ION		34	296	330		2,257	5,873	8,130
PHOSPHONATE		34		34		655		655
PHOTO LAB CHEMICAL		163		163		1,960		1,960
POLYACRYLATE	4	212		216	14	2,092		2,106
POLYHYDROXYCARBON								
POLYMETHACRYLATE		22		22		436		436
POLYPHOSPHATE		78		78		1,528		1,528
POTASSIUM ION			321	321			1,726	1,726
PYRIDINE						3		3
SOAP			115	115			2,182	2,182
SODIUM ION		4,596	45,866	50,462		120,482	176,596	297,078
SULFATE ION		26,254	22,392	48,646		569,763	237,893	807,656
SULFITE ION		14	20	34		167	71	238

INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1980

ALL FACILITIES	MONTHLY				YEAR-TO-DATE			
SUBSTANCES	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)
SULFONATE		22		22		436		436
SULFURIC ACID						1		1
TDS			60,036	60,036		22,714	1,337,590	1,360,304
THIOUREA						1		1
TOTAL HARDNESS			36,800	36,800			478,472	478,472
TRIVALENT CR						169		169
ZINC ION					1	54		55

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

INEL MONTHLY FUEL OIL SUMMARY
DECEMBER 1980

AREA OF ORIGIN	FUEL OIL IN LITERS					KILOGRAMS DISCHARGED		
	TYPE 2	TYPE 5	TYPE 6	KEROSENE	DIESEL	SO2	NOX	PARTICULATES
ANL	145,507					567		192
ARA	14,293				2,513	98		
CFA	55,848				22,678	473		
CPP		566,721				15,017		
LCF	15,141				3,028	107		
MHD	37,815					1,191		
NRF		440,230				12,708	1,424	944
PBF	12,340					70		
TAN		284,579				7,558		
TRA		183,436			109,622	5,628		912
WMC	1,502					9		
WRF	47,392					269		
GRAND TOTALS	329,839	1,494,966			137,842	43,693	1,424	2,048

U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

INEL YEAR-TO-DATE FUEL OIL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA OF ORIGIN	FUEL OIL IN LITERS					KILOGRAMS DISCHARGED		
	TYPE 2	TYPE 5	TYPE 6	KEROSENE	DIESEL	SO2	NOX	PARTICULATES
ANL	996,098					3,878		1,313
ARA	125,918				10,429	785		
CFA	1,168,164				90,472	7,354		
CPP		5,181,319				132,617		
LOF	171,448				17,034	1,090		
MHD	58,267					1,835		
NRF		3,337,139				86,618	10,796	7,159
PBF	100,027				95,408	1,122		
TAN	243,410	1,365,358				23,598		
TRA		1,698,869			1,642,400	56,454		8,449
WMC	35,787				18,877	356		
WRF	241,389					1,367		
GRAND TOTALS	3,164,506	11,582,685			1,874,621	317,073	10,796	16,920

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

LOF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
BORON WEIGHT (KGS)	216	450						323	545		284	33	1,851
CHLORIDE ION WEIGHT (KGS)	96	165	193	83	165	261	96	96	234	83	206	165	1,843
PHOSPHATE ION WEIGHT (KGS)	4			1						1	2	3	14
SODIUM ION WEIGHT (KGS)	147	200	199	74	127	363	82	82	315	94	438	112	2,233
SULFATE ION WEIGHT (KGS)	124	1,723	167	48	48	479	48	384	99	25	186		3,332
SULFITE ION WEIGHT (KGS)	6	2	3	1		1			1	2	5	6	29

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
LOFT DISPOSAL POND SURFACE													
VOLUME (L. IN 1000)	16,599	57,120	30,453	3,566	36,248	103,187	67,870	40,011	50,950	40,578	53,941	55,417	555,939
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)	5.80	2.85	6.33	23.16	4.56	2.53	1.42	2.41	4.59	2.03	4.83	2.98	3.32
WEIGHT (KGS)	96	165	193	83	165	261	96	96	234	83	206	165	1,843
PHOSPHATE ION													
CONCENTRATION (MG/L)	.26	.01	.02	.43		.01			.01	.02	.04	.06	.03
WEIGHT (KGS)	4			1						1	2	3	14
SODIUM ION													
CONCENTRATION (MG/L)	8.82	3.20	6.53	20.90	3.49	3.51	1.21	2.05	6.19	2.32	8.12	2.03	4.02
WEIGHT (KGS)	147	200	199	74	127	363	82	82	315	94	438	112	2,233
SULFATE ION													
CONCENTRATION (MG/L)	7.49	30.16	5.50	13.45	1.31	4.64	.71	9.59	1.95	.61	3.46		5.99
WEIGHT (KGS)	124	1,723	167	48	48	479	48	384	99	25	186		3,332
SULFITE ION													
CONCENTRATION (MG/L)	.38	.04	.10	.32		.01			.01	.05	.10	.11	.05
WEIGHT (KGS)	6	2	3	1		1			1	2	5	6	29
LOFT DISPOSAL WELL SUBSURFACE													
VOLUME (L. IN 1000)	21,951	21,595	17,435	20,327	34								81,342
HYDROGEN-ION CONC. (PH)													
LOFT SEPTIC TANK SUBSURFACE													
VOLUME (L. IN 1000)	170	170	170	170	170	170	170	170	170	170	170	170	2,044
HYDROGEN-ION CONC. (PH)													
TAN DISPOSAL POND SUBSURFACE													
VOLUME (L. IN 1000)	91	182						163	242		132	197	1,007
HYDROGEN-ION CONC. (PH)													
BORON													
CONCENTRATION (MG/L)	2[illegible]0.00	2506.00						1985.00	2250.00		2166.00	163.90	1,848.80
WEIGHT (KGS)	216	450						323	545		284	33	1,851

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

LOF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID									43.6	48.9	73.4	97.9	263.8
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID									43.6	48.9	73.4	97.9	263.8

LOF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
LO1 WATER PUMPED (L)	26,223	42,017	23,942	12,143	17,662	51,329	43,417	18,098	26,838	21,179	53,486	28,087	366,421
LO2 WATER PUMPED (L)	10,567	38,459	24,116	11,920	18,794	52,048	29,192	22,235	27,542	21,489	44,477	28,742	329,601
TOTAL WATER PUMPED (L)	36,811	80,475	48,058	24,063	36,456	103,377	72,610	40,332	54,380	42,668	97,964	56,829	696,022
WATER DISPOSAL													
AIR (L)													
SURFACE (L)	16,689	57,309	30,453	3,566	36,248	103,187	67,870	40,162	51,177	40,578	54,054	55,606	556,901
SUBSURFACE (L)	21,951	21,595	17,435	20,327	34								81,342
SEWAGE DATA													
736 BUILD VOL. (L)	170	170	170	170	170	170	170	170	170	170	170	170	2,044
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)	170	170	170	170	170	170	170	170	170	170	170	170	2,044
TOTAL WATER DISPOSED (L)	38,811	79,075	48,058	24,063	36,452	103,358	68,041	40,332	51,348	40,749	54,224	55,776	640,287
ACCOUNTABILITY (%)	100.0	98.3	100.0	100.0	100.0	100.0	93.7	100.0	94.4	95.5	55.4	98.1	92.0

LOF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)	4		2	3		1			3	2		3	17
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	38	34		16		6			2	13	48	15	171
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													

WRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)	124	165	275	206	275	16				83	63	413	1,640
PHOSPHATE ION WEIGHT (KGS)	7	9	8	7	3	3				2	2	7	49
SODIUM ION WEIGHT (KGS)	91	125	218	173	251	40		6	6	34	57	329	1,381
SULFATE ION WEIGHT (KGS)	16	32	80	80	160	64		16	16	100	32	112	706
SULFITE ION WEIGHT (KGS)	5	7	6	6	9	3				2	5	19	60

WRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
WRRTF DISPOSAL WELL SUBSURFACE													
VOLUME (L. IN 1000)	6,912	4,811	11,613	11,371	13,214	14,668	5,36E	8,827	2,055	1,912	[illegible]	27,530	121,849
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)	17.92	34.33	23.70	18.15	20.83	1.13				43.21	8.09	15.00	13.46
WEIGHT (KGS)	124	165	275	206	275	16				83	83	413	1,640
PHOSPHATE ION													
CONCENTRATION (MG/L)	.47	1.89	.68	.59	.26	.21				1.27	.16	.26	.40
WEIGHT (KGS)	7	9	8	7	3	3				2	2	7	49
SODIUM ION													
CONCENTRATION (MG/L)	13.19	25.94	18.80	15.20	19.00	2.72		.74	3.18	44.05	4.22	11.96	11.34
WEIGHT (KGS)	91	125	218	173	251	40		6	6	84	57	329	1,381
SULFATE ION													
CONCENTRATION (MG/L)	2.31	6.65	6.88	7.03	12.10	4.36		1.81	7.78	52.29	2.36	4.06	5.81
WEIGHT (KGS)	16	32	80	80	160	64		16	16	100	32	112	706
SULFITE ION													
CONCENTRATION (MG/L)	.75	1.44	.52	.51	.65	.20				1.21	.35	.68	.50
WEIGHT (KGS)	5	7	6	6	9	3				2	5	19	60
WRRTF SEWAGE POND SURFACE													
VOLUME (L. IN 1000)	110	110	110	110	57	106	144	72	117	95	723	1,192	2,945
HYDROGEN-ION CONC. (PH)													
WRRTF 2 PHASE SUMP SURFACE													
VOLUME (L. IN 1000)										4	246		250
HYDROGEN-ION CONC. (PH)													

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

WRF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
WRF WATER PUMPED (L)	7,022	4,925	11,723	11,481	13,271	14,774	5,511	8,899	2,169	2,010	14,290	28,723	124,798
WATER DISPOSAL													
AIR (L)													
SURFACE (L)										4	246		250
SUBSURFACE (L)	6,912	4,811	11,613	11,371	13,214	14,668	5,368	8,827	2,055	1,912	13,320	27,530	121,603
SEWAGE DATA													
643 BUILD VOL. (L)	110	110	110	110	57	106	144	72	117	95	723	121	1,874
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)							6.1			52.5	44.0	37.0	34.9
FINAL CONC. (MG/L)	23.6	5.0	11.0	58.3	73.0	156.8	112.6	88.3	93.5				69.3
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)												2.0	2.0
FINAL CONC. (MG/L)	7.2	6.6	6.9	5.4	7.4	7.4		1.9	4.1				5.9
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL	7.9	8.6	7.4	7.6	7.7	7.7	7.5	7.6	7.8	8.3	8.4	8.3	7.9
TOTAL SEWAGE VOL. (L)	110	110	110	110	57	106	144	72	117	95	723	121	1,874
TOTAL WATER DISPOSED (L)	7,022	4,921	11,723	11,481	13,271	14,774	5,511	8,899	2,173	2,010	14,290	27,652	123,726
ACCOUNTABILITY (%)	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.2	100.0	100.0	96.3	99.1

WRF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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)	21	38	34	30	30	11				4	27	47	241
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													

IDAHO OPERATIC OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TRA AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION SUBSTANCE	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC	ANNUAL TOT & AVE
COOLING TOWERS EVAP							
VOLUME (CU.M. IN 1000)	136,548	123,503	183,673	148,053	76,600	67,441	
	0	47,198	101,800	104,020	107,129	63,500	1,159,506

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)	210	32	42	33	30	37	20	205	61	39	51	174	915
DIPHOSPHONATE WEIGHT (KGS)	218	149	316	260	93	167		83	250	205	205	167	2,113
HPA WEIGHT (KGS)	45	30	30		23	45		60				15	247
HYDROXYCARBONS WEIGHT (KGS)	272	204	393	335	145	211		120	314	262	252	203	2,711
HYPOCHLORITE ION WEIGHT (KGS)	300	44	58	44	41	50	29	295	93	55	45	249	1,293
N-HYDROCARBON WEIGHT (KGS)	55	48	48	95	71	71		71	143	48		55	745
PHOSPHATE ION WEIGHT (KGS)	464	200	389	362	495	292		257	366	2,420	290	283	5,819
POTASSIUM ION WEIGHT (KGS)	197	106	219	150	61	159		119	169	112	112	128	1,533
SODIUM ION WEIGHT (KGS)	3,517	3,133	5,001	3,209	2,204	2,187	2,101	1,714	2,700	1,631	1,864	2,295	31,555
SULFATE ION WEIGHT (KGS)	49,695	50,632	65,384	50,881	39,602	38,136	16,812	28,172	43,825	36,280	38,172	29,996	487,587
SULFITE ION WEIGHT (KGS)	1	1	1	1					1		1	1	10
TDS WEIGHT (KGS)	51,760	48,323	58,660	58,260	70,213	84,111	40,983	40,550	69,940	52,125	57,758	60,013	692,695
TOTAL HARDNESS WEIGHT (KGS)	31,111	29,737	35,109	70,047	63,463	48,082	29,684	27,610	38,721	32,664	35,444	36,800	478,473

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
CHEMICAL WASTE POND SURFACE													
VOLUME (L. IN 1000)	5,061	4,671	4,773	3,380	2,309	3,975	3,210	3,910	4,402	2,616	2,609	3,021	44,137
HYDROGEN-ION CONC. (PH)				7.4									7.4
SODIUM ION													
CONCENTRATION (MG/L)	673.04	654.40	1014.13	910.05	934.36	529.23	654.48	427.82	584.63	583.98	626.98	731.63	650.79
WEIGHT (KGS)	3,406	3,057	4,841	3,078	2,156	2,103	2,101	1,673	2,574	1,528	1,761	2,209	30,486
SULFATE ION													
CONCENTRATION (MG/L)	7279.19	7236.42	8397.04	8877.91	11810.18	5560.63	4598.95	4397.25	6045.20	7954.34	7724.41	6290.63	7,014.72
WEIGHT (KGS)	36,840	33,811	40,081	30,023	27,257	22,101	14,761	17,194	26,613	20,818	21,692	18,393	309,584
CONDENSATE LOSS SUBSURFACE													
VOLUME (L. IN 1000)	1,662	1,366	988	598	155	102			79	731	977	1,499	8,157
HYDROGEN-ION CONC. (PH)													
DISPOSAL WELL SUBSURFACE													
VOLUME (L. IN 1000)	67,757	73,018	87,062	78,848	98,266	130,896	135,173	121,319	138,542	85,888	80,703	141,797	1,239,269
HYDROGEN-ION CONC. (PH)	7.4	7.7	7.7		7.5	7.2	8.0	7.7	7.0	7.8	7.9	7.8	7.6
CHLORIDE ION													
CONCENTRATION (MG/L)	.28	.20	.22	.21	.14	.13	.03	.34	.32	.28	.20	.06	.19
WEIGHT (KGS)	20	15	19	16	14	17	5	41	44	24	16	9	239
DIPHOSPHONATE													
CONCENTRATION (MG/L)	3.21	2.04	3.63	3.30	.95	1.28		.69	1.81	2.38	2.53	1.18	1.71
WEIGHT (KGS)	218	149	316	260	93	167		83	250	205	205	167	2,113
HPA													
CONCENTRATION (MG/L)	.66	.41	.34		.23	.34		.49				.11	.20
WEIGHT (KGS)	45	30	30		23	45		60				15	247
HYDROXYCARBONS													
CONCENTRATION (MG/L)	4.01	2.80	4.52	4.25	1.48	1.62		.99	2.26	3.05	3.12	1.43	2.19
WEIGHT (KGS)	272	204	393	335	145	211		120	314	262	252	203	2,711
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	.35	.26	.29	.25	.17	.16	.05	.46	.42	.38	.29	.08	.25
WEIGHT (KGS)	24	19	26	20	17	21	7	56	58	32	24	11	315
N-HYDROCARBON													
CONCENTRATION (MG/L)	1.40	.65	.55	1.21	.73	.55		.59	1.03	.55		.39	.60
WEIGHT (KGS)	95	48	48	95	71	71		71	143	48		55	745

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
PHOSPHATE ION													
CONCENTRATION (MG/L)	6.85	2.75	4.48	4.60	5.06	2.23		2.12	2.65	28.23	3.60	2.00	4.70
WEIGHT (KGS)	464	200	389	362	495	292		257	366	2,420	290	283	5,819
POTASSIUM ION													
CONCENTRATION (MG/L)	2.91	1.46	2.52	1.20	.62	1.22		.97	1.22	1.31	1.40	.90	1.24
WEIGHT (KGS)	197	106	219	150	61	159		119	169	112	112	128	1,533
SODIUM ION													
CONCENTRATION (MG/L)	1.64	1.05	1.84	1.67	.38	.63		.34	.92	1.19	1.29	.61	.86
WEIGHT (KGS)	111	77	160	132	47	83		41	126	103	103	86	1,068
SULFATE ION													
CONCENTRATION (MG/L)	189.73	230.37	290.63	264.53	125.63	122.50	15.18	90.48	124.24	180.03	224.20	81.83	143.65
WEIGHT (KGS)	12,856	16,821	25,303	20,858	12,345	16,035	2,052	10,977	17,212	15,462	18,479	11,603	178,004
SULFITE ION													
CONCENTRATION (MG/L)	.02	.02	.02	.01					.01	.01	.01	.01	.01
WEIGHT (KGS)	1	1	1	1					1		1	1	10
TDS													
CONCENTRATION (MG/L)	765.30	663.00	675.00	725.00	658.00	617.00	268.00	264.00	485.00	608.00	717.00	424.00	540.67
WEIGHT (KGS)	51,760	48,323	58,660	57,061	68,465	80,616	36,160	31,970	67,071	52,125	57,758	50,013	669,581
TOTAL HARDNESS													
CONCENTRATION (MG/L)	460.00	408.00	404.00	890.00	647.00	368.00	220.00	228.00	280.00	381.00	440.00	260.00	386.12
WEIGHT (KGS)	31,111	29,737	35,109	70,047	63,463	48,082	29,684	27,610	38,721	32,664	35,444	36,800	478,473
IRRIGATION SURFACE													
VOLUME (L. IN 1000)				4,883	6,867	13,165	18,162	33,576	10,493				87,145
HYDROGEN-ION CONC. (PH)					8.1	7.9	7.9	8.1	8.0				8.0
TDS													
CONCENTRATION (MG/L)				246.00	255.00	266.00	266.00	256.00	274.00				260.67
WEIGHT (KGS)				1,199	1,748	3,495	4,822	8,580	2,870				22,714
RADIOACTIVE STREAM SURFACE													
VOLUME (L. IN 1000)	23,049	20,179	24,752	17,306	15,179	18,453	14,380	16,553	19,036	15,346	14,789	16,216	215,240
HYDROGEN-ION CONC. (PH)													
SEWAGE PLANT SURFACE													
VOLUME (L. IN 1000)	2,487	2,589	3,066	2,510	2,336	3,051	2,517	2,320	2,983	2,332	2,294	2,434	30,918
HYDROGEN-ION CONC. (PH)	7.5	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.4	7.5	7.4	7.3	7.4

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
CHLORIDE ION													
CONCENTRATION (MG/L)	76.65	6.66	7.32	6.55	7.04	6.47	6.31	10.82	5.70	6.81	6.42	67.58	21.84
WEIGHT (KGS)	191	17	22	16	16	20	16	164	17	16	15	164	674
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	111.23	9.07	10.63	9.50	10.22	9.39	9.15	102.77	8.27	9.88	9.32	98.07	31.69
WEIGHT (KGS)	277	25	33	24	24	29	23	239	24	23	21	239	980

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TRA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA HMCA													
STORED WASTE													
9 L LIQUID							624.6						624.6
ACID													
9 L LIQUID							37.9						37.9
PYRE-M.L.VARNISH													
9 M SOLID							.1						.1
LABORATORY REAGENTS													
9 M SOLID							.4						.4
MERCURY AND SODIUM WASTE - 3 BAGS													
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	191.9	254.2	222.5	247.0	251.6	224.9	195.7	202.6	220.2	267.6	184.8	187.3	2,630.4
2 M SOLID	4.6	13.8	15.3	12.2	12.2	6.1	6.1	36.7	6.9	18.4	13.8	15.3	161.3
3 M SOLID		2.7	71.9	116.2	33.6	14.0	1.1	1.5	.8				241.9
4 M SOLID		.8		11.1	1.5		.8	13.8	34.4	8.4			70.7
5 M SOLID			4.6		3.1								7.6
9 M SOLID		6.9				3.1	60.4						70.3
ASBESTOS													
9 M SOLID										8.4	9.2		17.6
ASPHALT													
9 M SOLID									2.7				2.7
ASPHALT AND GRAVEL													
9 M SOLID								.6	1.5	9.2		6.1	17.4
BARRELS													
9 M SOLID							1.5						1.5
CARDBOARD BARRELS													
9 M SOLID						32.1			.8		4.6		37.5
DIRT													
9 M SOLID					3.1								3.1
INSULATED PIPES													
9 M SOLID						3.1		4.6			3.8		11.5
METAL SHAVINGS													
9 M SOLID								35.9	5.4				41.3
ROOFING MATERIAL													
9 M SOLID								81.1					81.1
SAGEBRUSH													
9 M SOLID										4.6			4.6
SOD													
9 M SOLID									4.2				4.2
SOD AND DIRT													
GRAND TOTALS													

DISPOSAL OR STORAGE LOCATION TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
GRAND TOTALS													
DISPOSED WASTE													
DISPOSED WASTE													
1 M SOLID	191.9	254.2	222.5	247.0	251.6	224.9	195.7	202.6	220.2	267.6	164.6	187.3	2,630.4
2 M SOLID	4.6	13.8	15.3	12.2	12.2	6.1	6.1	36.7	6.9	18.4	13.8	15.3	161.3
3 M SOLID		2.7	71.9	116.2	33.6	14.0	1.1	1.5	.8				241.9
4 M SOLID		.8		11.1	1.5		.8	13.8	34.4	8.4			70.7
5 M SOLID			4.6		3.1								7.6
9 M SOLID		.9			3.1	38.2	61.9	122.2	14.5	22.2	17.6	6.1	292.7
STORED WASTE													
9 L LIQUID							662.4						662.4
9 M SOLID							.4						.4

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TRA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
1 WATER PUMPED (L)	3,566	6,957		3,615	2,483	49,852	62,079	1,934	9,240	1,650	14,346	43,607	199,330
3 WATER PUMPED (L)		136		170		3,838	12,650		1,703	117		2,676	21,292
4 WATER PUMPED (L)	195,624	185,063	253,691	208,721	177,947	166,099	101,181	210,690	237,641	177,796	160,951	162,768	2,238,172
TOTAL WATER PUMPED (L)	199,190	192,157	253,691	212,507	180,430	219,790	175,910	212,624	248,584	179,563	175,297	209,051	2,458,795
WATER DISPOSAL													
AIR (L)	93,118	84,223	125,256	100,992	52,237	45,991		32,186	69,422	70,937	73,056	43,304	790,723
SURFACE (L) *	28,110	24,847	29,525	25,570	24,355	35,593	35,752	54,054	33,931	17,961	17,598	19,237	346,533
SUBSURFACE (L)	69,422	74,361	88,046	79,453	98,418	130,971	135,173	121,319	138,618	86,608	81,649	143,274	1,247,232
SEWAGE DATA													
BUILD VOL. (L)	2,487	2,589	3,066	2,510	2,336	3,051	2,517	2,320	2,983	2,332	2,294	2,434	30,918
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	166.3	112.5	95.0	128.8	176.3	138.0	116.3	88.8	132.0	152.5	137.5	131.0	131.3
FINAL CONC. (MG/L)	18.6	16.3	12.8	23.3	20.3	31.0	24.3	23.8	30.0	22.0	9.6	15.9	20.7
% REMOVED	88.7	85.5	86.5	81.9	88.5	77.5	79.1	73.2	77.3	85.6	93.0	87.9	84.2
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	1.9	2.3	2.4	1.5	1.8	1.0	1.3	.8	.8	1.8	1.0	1.2	1.5
FINAL CONC. (MG/L)	5.3	4.8	3.0	4.3	4.0	3.6	4.0	4.3	4.0	5.0	5.3	5.0	4.4
INCREASED FACTOR	1.8	1.1	.3	1.9	1.2	2.6	2.1	4.4	4.0	1.8	4.3	3.2	1.9
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	5.7	5.1	4.8	4.5	5.5	3.0	3.2	3.6	3.7	3.3	3.2	2.9	4.0
FINAL CONC. (ML/L)	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
% REMOVED	99.1	99.0	99.0	98.9	99.1	98.3	98.4	98.6	98.6	98.5	98.4	98.3	98.8
PH-FINAL	7.5	7.6	7.4	7.4	7.2	7.5	7.4	7.5	7.5	7.5	7.5	7.5	7.5
TOTAL SEWAGE VOL. (L)	2,487	2,589	3,066	2,510	2,336	3,051	2,517	2,320	2,983	2,332	2,294	2,434	30,918
TOTAL WATER DISPOSED (L)	193,137	186,040	245,893	208,525	177,345	215,607	173,442	209,880	244,954	177,837	174,597	208,248	2,415,516
ACCOUNTABILITY (%)	97.0	96.8	96.9	98.1	98.3	98.1	98.6	98.7	98.5	99.0	99.5	99.6	98.2

NOTE: "*" IN COLUMNS INDICATE PORTION OF VOLUME IS ESTIMATED

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TRA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)	135	134	156	154	136	98	34	201	223	124	138	110	1,642
SO2 (KGS)	1	1	1	1	1	1		1	2	1	1	1	11
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 5													
VOLUME (LITERS)	343	310	322	164	67	74			25	72	138	183	1,699
SO2 (KGS)	9	8	9	4	2	2			1	2	4	5	45
NOX (KGS)													
PARTICULATES (KGS)	2	2	2	1							1	1	8
GRAND TOTALS													
SO2 (KGS)	10	9	10	5	3	3		1	2	3	5	6	56
NOX (KGS)													
PARTICULATES (KGS)	2	2	2	1							1	1	8

MHD LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
ACETIC ACID WEIGHT (KGS)											12		12
AMMONIA WEIGHT (KGS)													
CHLORIDE ION WEIGHT (KGS)												16	16
CR+6 WEIGHT (KGS)											227	567	794
FLUORIDE ION WEIGHT (KGS)												2	2
FORMIC ACID WEIGHT (KGS)											5		5
NITRATE ION WEIGHT (KGS)												5	5
PHOSPHATE ION WEIGHT (KGS)												5	5
POTASSIUM ION WEIGHT (KGS)												193	193
SULFATE ION WEIGHT (KGS)												78	78

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
BUTTE CITY SEWER SUBSURFACE													
VOLUME (L. IN 1000)											943	3,713	4,656
HYDROGEN-ION CONC. (PH)												6.5	6.5
AMMONIA													
CONCENTRATION (MG/L)													
WEIGHT (KGS)													
CHLORIDE ION													
CONCENTRATION (MG/L)												4.30	3.42
WEIGHT (KGS)												16	16
CR+6													
CONCENTRATION (MG/L)											240.02		48.73
WEIGHT (KGS)											227		227
FLOURIDE ION													
CONCENTRATION (MG/L)												.44	.35
WEIGHT (KGS)												2	2
NITRATE ION													
CONCENTRATION (MG/L)												1.40	1.11
WEIGHT (KGS)												5	5
PHOSPHATE ION													
CONCENTRATION (MG/L)												1.40	1.11
WEIGHT (KGS)												5	5
POTASSIUM ION													
CONCENTRATION (MG/L)												52.70	41.40
WEIGHT (KGS)												193	193
SULFATE ION													
CONCENTRATION (MG/L)												20.90	16.64
WEIGHT (KGS)												78	78
EVAPORATION POND SURFACE													
VOLUME (L. IN 1000)											87	19	106
HYDROGEN-ION CONC. (PH)												9.0	9.0
ACETIC ACID													
CONCENTRATION (MG/L)											133.97		110.46
WEIGHT (KGS)											12		12

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

MHD LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
CR+6													
CONCENTRATION (MG/L)												2,957.33	5,259.78
WEIGHT (KGS)												567	567
FORMIC ACID													
CONCENTRATION (MG/L)											21.22		42.84
WEIGHT (KGS)											5		5

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

SCHED. NO. PM006-B

IDAHO OPERAT. OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

RUN DATE: 05/26/81

MHD INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

PG 1 RPT 116-I
MHD

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
BUT LANDFILL													
DISPOSED WASTE													
1 M SOLID											61.2	61.2	122.3
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID											61.2	61.2	122.3

MHD WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
BOT WATER PUMPED (L)											1,033	3,816	4,849
WATER DISPOSAL													
AIR (L)											4	45	49
SURFACE (L)											87	57	144
SUBSURFACE (L)													
SEWAGE DATA													
BUILD VOL. (L)											943	3,713	4,656
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)											943	3,713	4,656
TOTAL WATER DISPOSED (L)											1,033	3,816	4,849
ACCOUNTABILITY (%)											100.0	100.0	100.0

IDAHO OPERAT. OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

MHD FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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)											20	38	58
SO2 (KGS)											1	1	2
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)											1	1	2
NOX (KGS)													
PARTICULATES (KGS)													

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

WMC INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	7.6	14.5	9.2	12.6		19.1	16.1	4.6	24.5	9.9	19.9	23.3	161.3
3 M SOLID				.8	3.8		3.1		3.1		3.1	6.9	20.6
4 M SOLID							1.5						1.5
9 M SOLID										19.9	8.4		28.3
OTHER-BARRELS													
9 M SOLID					.4								.4
OTHER-DIRT AND ROCKS													
9 M SOLID						18.4							18.4
OTHER-INSULTION													
9 M SOLID				.4									.4
OTHER-OIL CANS													
9 M SOLID									52.8				52.8
OTHER-ROOFING													
9 M SOLID					1.5								1.5
OTHER-WEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	7.6	14.5	9.2	12.6		19.1	16.1	4.6	24.5	9.9	19.9	23.3	161.3
3 M SOLID				.8	3.8		3.1		3.1		3.1	6.9	20.6
4 M SOLID							1.5						1.5
9 M SOLID				.4	1.9	18.4			52.8	19.9	8.4		101.7

WMC WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
CFA WATER PUMPED (L)	38	38	38	38	38	38	38	38		38	38		379
EBR WATER PUMPED (L)	1,942	1,923	83	140	261	1,412	1,461	568	409	617	602	3,479	12,897
WMC WATER PUMPED (L)												1,173	1,173
TOTAL WATER PUMPED (L)	1,980	1,961	121	178	299	1,450	1,499	606	409	655	640	4,652	14,448
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *						1,094	1,143	242	178	114			2,771
SUBSURFACE (L) *	1,919	1,900	61	117	238	250	250	250	117	458	556	4,565	10,682
SEWAGE DATA													
EBR BUILD VOL. (L)	23	23	23	23	23	68	68	68	68	45	45	45	522
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

WMC WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
WMC BUILD VOL. (L)	38	38	38	38	38	38	38	45	45	38	38	38	469
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)	61	61	61	61	61	106	106	114	114	83	83	83	992
TOTAL WATER DISPOSED (L)	1,980	1,961	121	178	299	1,450	1,499	606	409	655	640	4,648	14,445
ACCOUNTABILITY (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0

SCHED. NO. 009-C

IDAHO OPERATIC FICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATICN SYSTEM

RUN DATE: 0_ _6/81

WMC FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FCR JANUARY THROUGH DECEMBER 1980

PG 1 RPT 128-I
WMC

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)									16	3			19
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	11	8	10	3	3						4	2	40
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

PBF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHROMATE ION WEIGHT (KGS)					17								17
HPA WEIGHT (KGS)													
PHOSPHATE ION WEIGHT (KGS)					2								2
POLYHYDROXYCARBON WEIGHT (KGS)													
SODIUM ION WEIGHT (KGS)	98	65		33	73		33		65	98			465
SULFATE ION WEIGHT (KGS)	80	80		40	82		40		80	120			521
ZINC ION WEIGHT (KGS)													

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
EVAPORATION POND SURFACE													
VOLUME (L. IN 1000)	57	38		19	38		19		38	57			265
HYDROGEN-ION CONC. (PH)													
CHROMATE ION													
CONCENTRATION (MG/L)					450.15								64.31
WEIGHT (KGS)					17								17
HPA													
CONCENTRATION (MG/L)					.60								.09
WEIGHT (KGS)													
PHOSPHATE ION													
CONCENTRATION (MG/L)					59.79								8.54
WEIGHT (KGS)					2								2
POLYHYDROXYCARBON													
CONCENTRATION (MG/L)					.36								.05
WEIGHT (KGS)													
SODIUM ION													
CONCENTRATION (MG/L)	1722.55	1722.55		1722.55	1932.47		1722.55		1722.55	1722.55			1,752.67
WEIGHT (KGS)	98	65		33	73		33		65	98			465
SULFATE ION													
CONCENTRATION (MG/L)	1507.76	2111.63		2111.63	2160.18		2111.63		2111.63	2111.63			1,967.89
WEIGHT (KGS)	80	80		40	82		40		80	120			521
ZINC ION													
CONCENTRATION (MG/L)					10.69								1.53
WEIGHT (KGS)													

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

PBF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN.	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	30.6	26.0	29.1	38.2	30.6	36.3	47.4	84.1	29.1	45.9	55.8	53.5	506.6
3 M SOLID	.4			8.4	2.5	3.1	1.5		4.6				20.5
4 M SOLID	1.5			6.3	1.9			30.2		17.6	7.6	4.6	69.8
5 M SOLID									3.8				3.8
9 M SOLID									68.8	10.7			79.5
ASBESTOS													
9 M SOLID			4.6					156.0	4.6				165.2
ASPHALT													
9 M SOLID									1.5				1.5
DIRT													
9 M SOLID										3.8			3.8
DIRT LOGS													
9 M SOLID				3.1									3.1
ROCK													
9 M SOLID												1.5	1.5
ROOFING MATERIAL													
9 M SOLID							16.2						16.2
SOOT,ROCKS,ROOFING MATERIAL													
CFA OIL DEPOT													
STORED WASTE													
9 L LIQUID								4,996.6					4,996.6
OIL													
WMC ACID PIT													
DISPOSED WASTE													
8 L LIQUID				94.6									94.6
CHEMICALS-NITRIC ACID SODIUM HYDRO													
8 L LIQUID				37.9									37.9
CHEMICALS-SULFURIC ACID													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	30.6	26.0	29.1	38.2	30.6	36.3	47.4	84.1	29.1	45.9	55.8	53.5	506.6
3 M SOLID	.4			8.4	2.5	3.1	1.5		4.6				20.5
4 M SOLID	1.5			6.3	1.9			30.2		17.6	7.6	4.6	69.8
5 M SOLID									3.8				3.8
8 L LIQUID				132.5									132.5
9 M SOLID			4.6	3.1			16.2	156.0	74.9	14.5		1.5	270.8
STORED WASTE													
9 L LIQUID								4,996.6					4,996.6

IDAHO OPERATIC OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

PBF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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														
1 WATER PUMPED (L)		1,136	802	1,514	5,474	8,691	7,173	8,964	6,787	7,396	6,764	5,333	3,441	63,476
2 WATER PUMPED (L)		863	2,222	1,189	8	496	4	1,843	136	148	114	405	121	7,548
TOTAL WATER PUMPED (L)		1,999	3,024	2,703	5,481	9,187	7,177	10,807	6,923	7,544	6,878	5,739	3,562	71,024
WATER DISPOSAL														
AIR (L)			647	174	110		15	469		458	132			2,006
SURFACE (L)	*	382	363	326	640	6,473	4,111	4,130	3,732	4,164	4,221	3,312	1,155	33,008
SUBSURFACE (L)	*	1,329	1,609	1,874	3,615	1,934	1,934	5,508	2,158	2,309	2,101	2,135	1,931	28,435
SEWAGE DATA														
619 BUILD VOL. (L)		182	182	182	182	182	182	182	182	182	182	182	182	2,180
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

PBF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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)	49	49	49	49	49	49	49	49	49	49	49	49	591
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)	231	231	231	231	231	231	231	231	231	231	231	231	2,771
TOTAL WATER DISPOSED (L)	1,942	2,850	2,604	4,595	8,638	6,291	10,338	6,121	7,162	6,685	5,678	3,316	66,220
ACCOUNTABILITY (%)	97.2	94.2	96.4	83.8	94.0	87.7	95.7	88.4	94.9	97.2	98.9	93.1	93.2

IDAHO OPERATI OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

PBF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)	22	5	32				16	5	8	1	7		95
SO2 (KGS)													
NOX (KGS)													1
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	2	39		13		27					6	12	100
SO2 (KGS)													
NOX (KGS)													1
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													
NOX (KGS)													1
PARTICULATES (KGS)													

ARA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	22.9	27.5	22.9	30.6	29.1	30.6	38.2	15.3	46.3	97.1	100.3	30.6	497.4
3 M SOLID		4.2				8.4							12.6
4 M SOLID						4.6	2.9	1.1					8.6
9 M SOLID								.8					.8
OTHER-ASPHALT													
9 M SOLID							.8						.8
OTHER-GRAVEL													
9 M SOLID								.8			.4		1.1
OTHER-WEEDS													
WMC ACID PIT													
DISPOSED WASTE													
8 L LIQUID				37.9									37.9
CHEMICALS-NITRIC ACID													
8 L LIQUID				56.8									56.8
CHEMICALS-SODIUM HYDROXIDE													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	22.9	27.5	22.9	30.6	29.1	30.6	38.2	15.3	46.3	97.1	100.3	30.6	497.4
3 M SOLID		4.2				8.4							12.6
4 M SOLID						4.6	2.9	1.1					8.6
8 L LIQUID				94.6									94.6
9 M SOLID							.8	1.5			.4		2.7

ARA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
2 WATER PUMPED (L)	6,019	4,981	5,205	3,687	4,902	3,937	6,109	4,777	6,446	5,341	6,113	6,655	64,172
3 WATER PUMPED (L)	2,915	3,452	4,694	4,743	5,084	5,413	6,469	5,992	5,307	5,640	7,196	7,279	64,184
TOTAL WATER PUMPED (L)	8,933	8,434	9,899	8,430	9,986	9,350	12,579	10,769	11,753	10,981	13,309	13,934	128,356
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *	8,377	7,877	9,342	7,873	9,429	8,793	12,022	10,213	11,197	10,425	12,753	13,377	121,678
SUBSURFACE (L) *													
SEWAGE DATA													
BUILD VOL. (L) *	556	556	556	556	556	556	556	556	556	556	556	556	6,677
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)	556	556	556	556	556	556	556	556	556	556	556	556	6,677
TOTAL WATER DISPOSED (L)	8,933	8,434	9,899	8,430	9,986	9,350	12,579	10,769	11,753	10,981	13,309	13,934	128,356
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: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

ARA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)								7				3	10
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	17	14			9	69					2	14	126
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													

IDAHO OPERATI OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TAN LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)	1,101	977	757	1,183	826			963	165	275	1,170	1,404	8,821
PHOSPHATE ION WEIGHT (KGS)	34	35	29	14	5				4	8	15	3	150
SODIUM ION WEIGHT (KGS)	876	680	525	788	675			631	111	200	774	922	6,183
SULFATE ION WEIGHT (KGS)	48	48	24	24	44			24		44		24	281
SULFITE ION WEIGHT (KGS)	29	30	24	13	9				4	8	15	7	138

TAN LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
DISPOSAL POND SURFACE													
VOLUME (L. IN 1000)	5,871	5,567	4,433	4,523	5,103	4,558	5,148	5,935	5,186	3,759	3,595	3,918	57,885
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)	187.52	174.88	170.76	261.64	161.82			163.14	31.84	73.23	330.32	358.29	152.41
WEIGHT (KGS)	1,101	977	757	1,183	826			963	165	275	1,170	1,404	8,821
PHOSPHATE ION													
CONCENTRATION (MG/L)	5.68	6.25	6.50	3.15	1.78				.76	2.02	3.89	.69	2.59
WEIGHT (KGS)	34	35	29	14	9				4	8	15	3	150
SODIUM ION													
CONCENTRATION (MG/L)	149.29	121.78	118.41	174.16	132.25			106.81	21.46	53.33	1[illegible].66	235.39	106.82
WEIGHT (KGS)	876	680	525	788	675			631	111	200	774	922	6,183
SULFATE ION													
CONCENTRATION (MG/L)	8.17	8.58	5.41	5.30	8.70			4.06		11.81		6.12	4.85
WEIGHT (KGS)	48	48	24	24	44			24		44		24	281
SULFITE ION													
CONCENTRATION (MG/L)	4.91	5.41	5.46	2.87	1.69				.78	1.99	3.77	1.84	2.39
WEIGHT (KGS)	29	30	24	13	9				4	8	15	7	138

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TAN INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA HMDA													
STORED WASTE													
9 M SOLID						.4							.4
BERYLLIUM CHIPS													
9 KG SOLID				408.2									408.2
ZIRCONIUM CHIPS													
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	275.3	290.6	264.6	237.0	250.8	267.6	214.1	260.0	159.0	165.2	182.0	152.9	2,719.1
2 M SOLID	55.1	42.8	48.9	48.9	42.8	48.9	42.8	50.5	42.8	42.8	42.8	55.1	564.3
3 M SOLID	6.1		19.9	.1	6.1	.8		3.4	.8		3.1		40.2
4 M SOLID			6.1										6.1
5 M SOLID	3.1	3.1		.5	4.6	4.6		7.6	7.6	3.1	6.1	3.1	43.3
9 M SOLID									3.1				3.1
OTHER-METAL													
9 M SOLID									133.0	15.3			148.3
OTHER-ROOFING													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	275.3	290.6	264.6	237.0	250.8	267.6	214.1	260.0	159.0	165.2	182.0	152.9	2,719.1
2 M SOLID	55.1	42.8	48.9	48.9	42.8	48.9	42.8	50.5	42.8	42.8	42.8	55.1	564.3
3 M SOLID	6.1		19.9	.1	6.1	.8		3.4	.8		3.1		40.2
4 M SOLID			6.1										6.1
5 M SOLID	3.1	3.1		.5	4.6	4.6		7.6	7.6	3.1	6.1	3.1	43.3
9 M SOLID									136.1	15.3			151.4
STORED WASTE													
9 M SOLID						.4							.4
9 KG SOLID				408.2									408.2

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TAN WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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)	5,871	6,011	6,386	6,075	5,496	1,401	2,566	2,733	4,357	4,788	5,731	5,212	56,628
TF2 WATER PUMPED (L)						4,830	3,233	5,027	1,355	4	8		14,456
TOTAL WATER PUMPED (L)	5,871	6,011	6,386	6,075	5,496	6,231	5,795	7,760	5,712	4,792	5,739	5,212	71,084
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *	2,918	2,619	1,382	1,431	2,336	2,298	1,995	3,146	2,794	1,885	3,895	2,362	29,060
SUBSURFACE (L) *													
SEWAGE DATA													
623 BUILD VOL. (L)	2,953	2,968	3,051	3,093	2,767	2,260	3,153	2,759	2,392	1,874	1,836	1,556	30,661
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	23.3	90.0	110.5	95.0	76.3	115.0	78.8	181.6	74.5	125.0	67.5	117.0	96.2
FINAL CONC. (MG/L)	15.0	3.5	66.7	21.6	25.0	23.3	23.7	20.0	23.5	14.5	8.0	73.0	26.5
% REMOVED	35.6	96.1	39.6	77.3	67.2	79.7	69.9	89.0	68.5	88.4	88.1	37.6	72.5
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	4.2	7.0	4.0	3.6	3.6	5.2	4.6	3.5	5.2	2.5	4.0	2.0	4.1
FINAL CONC. (MG/L)	7.6	5.1	5.0	5.6	4.3	4.3	4.2	4.5	4.4	4.0	5.5	3.0	4.8
INCREASED FACTOR	.8	-.3	.3	.6	.2	-.2	-.1	.3	-.2	.6	.4	.5	.2
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	3.3	2.2	3.0	2.5	2.0	2.5	2.8	2.8	2.5	2.3	2.4	2.1	2.5
FINAL CONC. (ML/L)	.10	.10	.15	.10	.10	.40	.20	.30	.50	.50	.40	.23	.26
% REMOVED	97.0	95.5	95.0	96.0	95.0	84.0	92.9	89.3	80.0	78.3	83.3	89.0	89.6
PH-FINAL	8.7	8.8	8.4	6.8	7.5	7.5	7.5	7.5	7.5	8.3	8.2	8.9	8.0
TOTAL SEWAGE VOL. (L)	2,953	2,968	3,051	3,093	2,767	2,260	3,153	2,759	2,392	1,874	1,836	1,556	30,661
TOTAL WATER DISPOSED (L)	5,871	5,587	4,433	4,523	5,103	4,558	5,148	5,905	5,186	3,759	5,731	3,918	59,721
ACCOUNTABILITY (%)	100.0	92.9	69.4	74.5	92.8	73.1	88.8	76.1	90.8	78.4	99.9	75.2	84.0

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED

IDAHO OPERATIC OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TAN FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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)		32	24		12				21	39	115		243
SO2 (KGS)											1		1
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 5													
VOLUME (LITERS)	240	275	315	161	51						38	285	1,365
SO2 (KGS)	3	4	4	2	1						1	8	22
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	3	4	4	2	1						2	8	24
NOX (KGS)													
PARTICULATES (KGS)													

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CFA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
AUTO CLEANERS WEIGHT (KGS)	145	145	145	145	145	145	145	145	145	145	145	145	1,742
CALCIUM ION WEIGHT (KGS)	8	8	8	12	13	10	15	16	7	18	6	10	132
CHLORIDE ION WEIGHT (KGS)	122	117	121	116	121	116	113	99	107	94	108	123	1,357
HYPOCHLORITE ION WEIGHT (KGS)	58	51	55	48	56	49	44	24	35	16	36	59	530
LAUNDRY PRODUCTS WEIGHT (KGS)	209	259	387	651	410	752	362	715	280	78	295	375	4,773
PHOSPHATE WEIGHT (KGS)	45	45	82	82	82	82	82	82	82	82	82	82	907
SOAP WEIGHT (KGS)	272	272	272	272	54	150	230	161	173	111	99	115	2,182
SODIUM ION WEIGHT (KGS)	54	54	54	54	54	54	54	54	54	54	54	54	642

CFA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SEWAGE PLANT SUBSURFACE													
VOLUME (L. IN 1000)	13,521	13,922	14,573	14,736	19,055	18,544	17,136	18,590	14,274	11,821	14,414	15,206	185,794
HYDROGEN-ION CONC. (PH)	7.5	7.7	7.7	7.4	7.7	7.6	7.5	7.4	7.5	7.8	7.6	7.5	7.6
AUTO CLEANERS													
CONCENTRATION (MG/L)	10.73	10.43	9.96	9.85	7.62	7.83	8.47	7.81	10.17	12.28	10.07	9.55	9.38
WEIGHT (KGS)	145	145	145	145	145	145	145	145	145	145	145	145	1,742
CALCIUM ION													
CONCENTRATION (MG/L)	.59	.57	.55	.81	.67	.52	.84	.85	.50	1.52	.54	.65	.71
WEIGHT (KGS)	8	8	8	12	13	10	15	16	7	18	8	10	132
CHLORIDE ION													
CONCENTRATION (MG/L)	9.05	8.44	8.29	7.84	6.37	6.26	6.58	5.33	7.46	7.92	7.46	8.11	7.30
WEIGHT (KGS)	122	117	121	116	121	116	113	99	107	94	108	123	1,357
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	4.27	3.66	3.81	3.24	2.95	2.62	2.56	1.28	2.44	1.37	2.32	3.88	2.86
WEIGHT (KGS)	58	51	55	48	56	49	44	24	35	16	36	59	530
LAUNDRY PRODUCTS													
CONCENTRATION (MG/L)	15.43	18.64	26.60	44.17	21.54	40.55	21.15	38.45	19.61	6.56	20.44	24.69	25.69
WEIGHT (KGS)	209	259	387	651	410	752	362	715	280	78	295	375	4,773
PHOSPHATE													
CONCENTRATION (MG/L)	3.35	3.26	5.60	5.54	4.28	4.40	4.76	4.39	5.72	6.91	5.66	5.37	4.88
WEIGHT (KGS)	45	45	82	82	82	82	82	82	82	82	82	82	907
SOAP													
CONCENTRATION (MG/L)	20.13	19.55	18.67	18.47	2.86	8.07	13.35	8.66	12.14	9.40	6.89	7.55	11.74
WEIGHT (KGS)	272	272	272	272	54	150	230	161	173	111	99	115	2,182
SODIUM ION													
CONCENTRATION (MG/L)	3.96	3.84	3.97	3.63	2.81	2.89	3.12	2.88	3.75	4.53	3.71	3.52	3.46
WEIGHT (KGS)	54	54	54	54	54	54	54	54	54	54	54	54	642

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

CFA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA HMDA													
STORED WASTE													
9 L LIQUID						416.4							416.4
ACETONE													
9 L LIQUID	75.7												75.7
CAUSTIC													
9 L LIQUID						56.8							56.8
FLAMABLE LIQUID FROM TSB													
9 L LIQUID				28.4									28.4
NITRIC ACID													
9 L LIQUID						851.7							851.7
THINNER													
9 M SOLID				10.7									10.7
DEVELOPER PACKS													
9 M SOLID									2.3				2.3
DRUMS-CRUD CLEANUP													
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	117.0	223.7	195.4	236.7	164.4	258.1	248.5	188.1	1,647.0	201.9	164.3	152.2	3,817.1
2 M SOLID	76.5	65.8	38.2	107.0	76.5	85.6	78.0	65.4	318.9	62.7	47.4	62.7	1,084.6
3 M SOLID	16.1	4.6	18.2	20.9	11.1	117.2	48.9	52.4	100.9	24.1	23.7	19.9	457.9
4 M SOLID	.8	5.0	3.9	.2	238.2	223.7	81.8	174.3	67.3	37.8	11.1	18.0	862.1
5 M SOLID				.6	10.7	16.1	12.2	9.2		1.1	6.9		56.8
9 M SOLID			3.1		.4	.4							3.8
OTHER													
9 M SOLID						1.8			90.6			6.9	99.3
OTHER-ASBESTOS													
9 M SOLID				36.7	1.5	53.1	38.2	47.8	128.1	57.3			362.8
OTHER-ASPHALT													
9 M SOLID			168.2										168.2
OTHER-BLACKTOP													
9 M SOLID									20.6	13.8			34.4
OTHER-BOILER-ASBESTOS													
9 M SOLID		8.0			2.1	151.2	145.3	19.9	21.4	34.0		24.1	406.0
OTHER-DIRT													
9 M SOLID								3.1				3.1	6.1
OTHER-GLASS													
9 M SOLID							1.5		403.0	.8			405.3
OTHER-GRAVEL													
9 M SOLID									.8				.8
OTHER-PAINT													
9 M SOLID						1.1							1.1
OTHER-PLASTIC													
9 M SOLID								3.8			.4		4.2

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA LANDFILL													
DISPOSED WASTE													
OTHER-ROCK													
9 M SOLID				2,114.2									2,114.2
OTHER-ROCKS AND DIRT													
9 M SOLID									244.3	62.7	122.7		429.7
OTHER-ROOFING													
9 M SOLID									1.5				1.5
OTHER-SAND													
9 M SOLID			.8										.8
OTHER-SHEETROCK													
9 M SOLID				6.1			9.9	6.9	9.6	3.8	1.5	.8	38.6
OTHER-WEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	117.0	223.7	195.4	236.7	164.4	258.1	248.5	188.1	1,647.0	201.9	184.3	152.2	3,817.1
2 M SOLID	76.5	65.8	38.2	107.0	76.5	85.6	78.0	65.4	318.9	62.7	47.4	62.7	1,084.6
3 M SOLID	16.1	4.6	18.2	20.9	11.1	117.2	48.9	52.4	100.9	24.1	23.7	19.9	457.9
4 M SOLID	.8	5.0	3.9	.2	238.2	223.7	81.8	174.3	67.3	37.6	11.1	16.0	862.1
5 M SOLID				.6	10.7	16.1	12.2	9.2		1.1	6.9		56.8
9 M SOLID		5.0	172.0	2,157.0	4.1	207.7	195.0	81.4	919.9	172.4	124.6	34.8	4,077.0
STORED WASTE													
9 L LIQUID	75.7			28.4		1,324.9							1,429.0
9 M SOLID				10.7					2.3				13.0

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CFA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
FS2 WATER PUMPED (L)	4,096	2,941	2,067	273	144	53	1,022	515	170	34		3,929	15,243
1 WATER PUMPED (L)	644	416	49	1,143	121	5,364	12,420	3,986	2,684	3,713	11	49	30,600
2 WATER PUMPED (L)	18,798	19,290	21,080	22,000	29,257	35,249	50,042	41,033	43,645	60,338	17,379	19,173	376,982
TOTAL WATER PUMPED (L)	23,537	22,647	23,196	23,416	29,522	40,665	63,483	45,533	46,499	64,085	17,391	23,151	422,826
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *	295	288	1,056	840	5,057	13,241	4,081	2,112	2,884	2,612	132	291	32,800
SUBSURFACE (L)	602	575	655	901	886	848	810	700	379	254	572	825	8,006
SEWAGE DATA													
691 BUILD VOL. (L)	12,919	13,343	13,919	13,835	18,188	17,692	16,326	17,886	13,896	11,568	13,847	14,308	177,727
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	167.0	125.0	107.5	126.8	138.0	98.0	105.0	116.3	115.0	89.0	107.5	114.0	117.6
FINAL CONC. (MG/L)	16.6	17.5	13.0	23.2	19.3	25.0	23.0	22.5	28.0	16.0	13.2	14.4	19.3
% REMOVED	90.1	86.0	87.9	82.0	86.0	74.5	78.1	80.7	75.7	82.0	87.7	87.4	83.6
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	2.5	1.8	2.6	1.5	2.2	1.5	1.5	1.3	1.5	2.0	2.2	1.6	1.9
FINAL CONC. (MG/L)	6.2	5.3	6.0	4.3	5.4	4.8	4.3	5.3	4.5	5.0	5.5	4.8	5.1
INCREASED FACTOR	1.5	1.9	1.3	1.9	1.5	2.2	1.9	3.1	2.0	1.5	1.5	2.0	1.7
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	5.3	4.5	3.3	4.1	3.4	3.1	2.8	2.5	3.2	4.4	3.4	2.7	3.6
FINAL CONC. (ML/L)	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
% REMOVED	99.1	98.9	98.5	98.8	98.5	98.4	98.2	98.0	98.4	98.9	98.5	98.1	98.6
PH-FINAL		7.7	7.7	7.4	7.7	7.6	7.5	7.4	7.5	7.8	7.6	7.5	7.6
TOTAL SEWAGE VOL. (L)	12,919	13,343	13,919	13,835	18,188	17,692	16,326	17,886	13,896	11,568	13,847	14,308	177,727
TOTAL WATER DISPOSED (L)	13,816	14,206	15,630	15,577	24,131	31,781	21,217	20,698	17,159	14,433	14,551	15,334	218,533
ACCOUNTABILITY (%)	58.7	62.7	67.4	66.5	81.7	78.2	33.4	45.5	36.9	22.5	85.1	66.2	51.7

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED

IDAHO OPERATI OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CFA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)							21	7	31	9		23	90
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	297	250	209	124	96	69	3			49	35	56	1,188
SO2 (KGS)	2	1	1	1	1								7
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	2	1	1	1	1								7
NOX (KGS)													
PARTICULATES (KGS)													

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
NITRIC OXIDE WEIGHT (KGS)	8,657	1,297	12,339	9,393	7,895	7,422	2,215	1,814	1,890	3,398	5,442	6,502	68,263
NITROGEN DIOXIDE WEIGHT (KGS)	22,120	3,313	31,451	24,025	20,173	18,963	5,651	4,637	4,829	8,675	13,926	14,952	172,718

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION SUBSTANCE	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC	ANNUAL TOT & AVE
STACK 708							
VOLUME (CU.M. IN 1000)	90,907	138,019	138,485	138,485	126,018	187,026	
	176,025	144,820	150,821	123,017	138,019	126,018	1,679,661
NITRIC OXIDE							
CONCENTRATION (CC/CM)	85.50	8.44	80.00	60.90	56.25	35.63	
	11.30	11.25	11.25	24.80	35.40	45.60	36.49
WEIGHT (KGS)	8,657	1,297	12,339	9,393	7,895	7,422	
	2,215	1,814	1,890	3,398	5,442	6,502	68,263
NITROGEN DIOXIDE							
CONCENTRATION (CC/CM)	142.50	14.06	133.00	101.60	93.75	59.38	
	18.80	18.75	18.75	41.30	59.10	68.40	60.21
WEIGHT (KGS)	22,120	3,313	21,451	24,025	20,173	18,983	
	5,651	4,637	4,829	8,675	13,928	14,952	172,718

NOTE: UNDERLINE = CALCULATED CONCENTRATION

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CPP LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CALCIUM ION WEIGHT (KGS)	8	9	8	9	8								41
CHLORIDE ION WEIGHT (KGS)	10,401	13,385	12,167	11,485	7,507	12,417	11,486	24,793	30,552	42,850	44,913	115,025	336,981
HYPOCHLORITE ION WEIGHT (KGS)	20	22	20	22	21	46	41	46	46	44	46	44	420
NITRATE ION WEIGHT (KGS)	5,511	5,588	7,132	6,013	6,048	4,482	6,863	10,863	12,968	9,701	6,836	53,197	137,204
SODIUM ION WEIGHT (KGS)	6,962	9,333	8,474	7,544	5,476	5,809	7,153	13,194	16,948	21,966	25,246	45,398	173,504
SULFATE ION WEIGHT (KGS)	3,859	4,282	4,610	4,414	2,464	2,748	3,782	5,718	5,112	5,206	6,311	10,599	59,105
TDS WEIGHT (KGS)	53,180	48,861	50,139	991	35,775	26,628	40,267	75,207	87,163	120,515	128,859	24	667,610

CPP LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
DISPOSAL WELL SUBSURFACE													
VOLUME (L. IN 1000)	8-,034	110,001	101,068	112,802	91,430	94,935	111,439	146,870	134,757	150,731	175,638	200,356	1,514,059
HYDROGEN-ION CONC. (PH)	7.3	8.1	7.9	8.1	7.5	7.8	7.9	7.3	7.5		8.1	3.0	7.3
CHLORIDE ION													
CONCENTRATION (MG/L)	104.00	121.90	120.60	102.00	82.26	130.70	103.00	168.90	226.90	284.60	256.00	575.00	222.44
WEIGHT (KGS)	10,401	13,385	12,167	11,485	7,507	12,385	11,457	24,761	30,521	42,820	44,861	114,995	336,765
NITRATE ION													
CONCENTRATION (MG/L)	55.70	50.89	70.70	53.40	66.27	47.30	61.70	74.10	96.41	64.48	50.40	266.00	90.63
WEIGHT (KGS)	5,511	5,588	7,132	6,013	6,048	4,482	6,863	10,863	12,968	9,701	8,836	53,197	137,204
SODIUM ION													
CONCENTRATION (MG/L)	83.00	85.00	84.00	67.00	60.00	61.30	64.30	90.00	126.00	146.00	144.00	227.00	114.60
WEIGHT (KGS)	8,962	9,333	8,474	7,544	5,476	5,809	7,153	13,194	16,948	21,966	25,246	45,398	173,504
SULFATE ION													
CONCENTRATION (MG/L)	-6.00	39.00	45.70	39.20	27.00	29.00	34.00	39.00	38.00	34.60	36.00	53.00	39.04
WEIGHT (KGS)	3,859	4,282	4,610	4,414	2,464	2,748	3,782	5,718	5,112	5,206	6,311	10,599	59,105
TDS													
CONCENTRATION (MG/L)	634.00	445.00	497.00	8.80	392.00	281.00	362.00	513.00	648.00	801.00	735.00	.12	440.98
WEIGHT (KGS)	53,180	46,861	50,139	991	35,775	26,628	40,267	75,207	87,163	120,515	128,859	24	667,610
SEWAGE PLANT SUBSURFACE													
VOLUME (L. IN 1000)	5,299	4,346	3,899	4,202	4,769	5,129	4,682	4,493	4,141	3,906	4,046	3,823	52,737
HYDROGEN-ION CONC. (PH)	7.7	7.4	7.7	7.6	7.5	7.6	7.5	7.3	7.3	7.4	7.6	7.5	7.5
CALCIUM ION													
CONCENTRATION (MG/L)	1.46	1.97	2.06	2.04	1.74								.78
WEIGHT (KGS)	8	9	8	9	8								41
CHLORIDE ION													
CONCENTRATION (MG/L)						6.17	6.10	7.04	7.64	7.84	7.82	8.01	4.10
WEIGHT (KGS)						32	29	32	32	30	32	30	216
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	3.76	5.07	5.29	5.24	4.47	8.95	8.86	10.22	11.29	11.37	11.22	11.62	7.96
WEIGHT (KGS)	20	22	20	22	21	46	41	46	46	44	46	44	420

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OF WEIGHT BY MONTH												
CFA HMCA													
STORED WASTE													
9 L LIQUID									1,041.0				1,041.0
NO 5 FUEL OIL													
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	437.4	531.0	460.9	379.3	445.0	719.0	506.4	581.9	425.9	485.2	459.4	319.8	5,751.2
2 M SOLID	42.8	66.5	42.8	42.8	45.9	48.9	48.9	38.2	51.2	44.3	49.7	89.1	611.3
3 M SOLID	13.0	31.7	38.2	64.3	45.1	170.9	97.6	178.4	73.0	51.2	81.4	74.2	919.1
4 M SOLID	1.8	1.5	19.1		11.5	8.6	21.4		96.0	10.7	36.7		207.3
5 M SOLID		6.1			4.8						3.8		14.8
9 M SOLID										64.2	139.9	12.2	216.4
ASPHALT													
9 M SOLID						8.4							8.4
ASPHALT LEAD													
9 M SOLID								58.5	322.7	119.3			500.5
DIRT AND GRAVEL													
9 M SOLID											110.9		110.9
INSULATION													
9 M SOLID												4.6	4.6
METAL BARRELS													
9 M SOLID			6.1				22.8						28.9
OTHER													
9 M SOLID										232.5			232.5
ROOFING MATERIAL													
9 M SOLID										13.8	7.6		21.4
WEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	437.4	531.0	460.9	379.3	445.0	719.0	506.4	581.9	425.9	485.2	459.4	319.8	5,751.2
2 M SOLID	42.8	66.5	42.8	42.8	45.9	48.9	48.9	38.2	51.2	44.3	49.7	89.1	611.3
3 M SOLID	13.0	31.7	38.2	64.3	45.1	170.9	97.6	178.4	73.0	51.2	81.4	74.2	919.1
4 M SOLID	1.8	1.5	19.1		11.5	8.6	21.4		96.0	10.7	36.7		207.3
5 M SOLID		6.1			4.8						3.8		14.8
9 M SOLID			6.1			8.4	22.8	58.5	322.7	429.7	258.4	16.8	1,123.5
STORED WASTE													
9 L LIQUID									1,041.0				1,041.0

(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)	101,446	101,938	104,966	117,004	96,222	100,083	116,133	151,374	138,921	154,630	191,158	204,179	1,578,054
WATER DISPOSAL													
AIR (L)													
SURFACE (L) *													
SUBSURFACE (L)	89,033	97,585	101,068	112,802	91,453	94,935	111,439	146,870	134,757	150,731	175,638	200,356	1,501,666
SEWAGE DATA													
BUILD VOL. (L)	5,299	4,346	3,899	4,202	4,769	5,129	4,682	4,493	4,141	3,899	4,046	3,823	52,729
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	163.0	222.5	135.5	177.5	154.3	196.6	248.8	178.8	230.0	97.8	102.5	129.0	168.9
FINAL CONC. (MG/L)	80.0	73.3	86.3	73.8	98.3	91.6	93.8	86.3	89.0	25.0	41.3	47.4	73.8
% REMOVED	50.9	67.1	36.3	58.4	31.0	53.4	62.3	51.7	61.3	74.4	59.7	63.2	56.3
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	3.2	.1	1.0	1.4	.1	.2	.1	.1	.6	.1	1.3	.1	.7
FINAL CONC. (MG/L)	1.5	1.2	.1	1.2	.1		.1	.1	.9	2.5	.3	2.4	.9
INCREASED FACTOR	-.5	11.0	-.9	-.1					.5	24.0	-.3	23.0	
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	5.6	4.0	3.9	6.1	6.2	5.1	5.4	4.3	4.1	4.8	5.4	4.2	4.9
FINAL CONC. (ML/L)	.18	.17	.17	.25	.23	.32	.50	.78	.65	.26	.35	.21	.34
% REMOVED	96.8	95.8	95.6	95.9	96.3	93.7	90.7	81.9	84.1	94.6	93.3	95.0	93.1
PH-FINAL	7.7	7.4	7.7	7.6	7.5	7.6	7.5	7.3	7.3	7.4	7.6	7.5	7.5
TOTAL SEWAGE VOL. (L)	5,299	4,346	3,899	4,202	4,769	5,129	4,682	4,493	4,141	3,899	4,046	3,823	52,729
TOTAL WATER DISPOSED (L)	89,333	101,931	104,966	117,004	96,222	100,064	116,122	151,363	138,898	154,630	179,684	204,179	1,554,396
ACCOUNTABILITY (%)	88.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.0	100.0	98.5

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED

SCHED. NO. P68PM009-C

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

RUN DATE: 03/26/81

CPP FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

PG 1 RPT 208-I
CPP

(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)	637	617	507	432	338	291	251	276	333	400	511	587	5,181
SO2 (KGS)	16	16	13	11	9	7	6	7	9	10	13	15	133
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	16	16	13	11	9	7	6	7	9	10	13	15	133
NOX (KGS)													
PARTICULATES (KGS)													

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

NRF AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION SUBSTANCE	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC	ANNUAL TOT & AVE
COOLING TOWERS							
VOLUME (CU.M. IN 1000)	32,455	74,602	70,050	40,381	85,259	82,817	
	145,540	33,571	46,915	20,849	69,995	71,993	774,425

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

NRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CALCIUM ION WEIGHT (KGS)	76	84	72	274	235	197	271	33	237	92	111	44	1,726
CHLORIDE ION WEIGHT (KGS)	9,786	5,203	1,666	5,263	5,782	3,819	12,510	9,449	1,573	10,541	1,107	1,320	68,019
HYPOCHLORITE ION WEIGHT (KGS)	195	217	184	704	602	507	697	84	609	237	284	114	4,433
PHOSPHATE ION WEIGHT (KGS)	557	200	54	160	147	73	154	249	53	48	31	28	1,754
PHOSPHONATE WEIGHT (KGS)	64	48	42	30	73	55	86	106	59	31	28	34	655
POLYMETHACRYLATE WEIGHT (KGS)	42	32	28	20	49	37	58	71	39	20	18	22	436
POLYPHOSPHATE WEIGHT (KGS)	148	112	98	71	170	128	201	247	138	71	64	78	1,528
SODIUM ION WEIGHT (KGS)	11,117	4,452	3,781	25,024	4,295	2,941	6,556	6,182	2,834	6,495	789	1,036	75,502
SULFATE ION WEIGHT (KGS)	63,732	20,765	4,901	15,303	10,296	5,175	15,159	19,491	7,972	2,906	1,673	1,432	168,805
SULFONATE WEIGHT (KGS)	42	32	28	20	49	37	58	71	39	20	18	22	436

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SEWAGE POND SURFACE													
VOLUME (L. IN 1000)	5,602	3,993	2,657	5,644	4,338	7,389	6,454	9,236	9,263	5,156	3,959	4,584	68,275
HYDROGEN-ION CONC. (PH)	7.9	7.5	7.7	8.5	10.9	10.4		10.8	11.1	10.7	9.4	8.6	9.4
WASTE DITCH SURFACE													
VOLUME (L. IN 1000)	77,561	52,654	16,576	76,085	35,979	20,460	40,692	69,195	11,477	19,252	6,638	10,883	439,451
HYDROGEN-ION CONC. (PH)	2.2	2.6	10.2	7.1	7.3	7.4		8.0	3.1	9.6	8.1	7.3	6.6
CALCIUM ION													
CONCENTRATION (MG/L)	.98	1.60	4.31	3.60	6.51	9.65	6.67	.47	20.06	4.79	12.82	4.07	3.93
WEIGHT (KGS)	76	84	72	274	235	197	271	33	[illegible]	92	111	44	1,726
CHLORIDE ION													
CONCENTRATION (MG/L)	126.40	99.00	100.70	69.30	161.00	187.00	308.00	136.80	187.30	548.50	128.40	121.50	154.79
WEIGHT (KGS)	9,786	5,203	1,666	5,263	[illegible]	3,819	12,510	9,459	1,[illegible]3	10,541	1,107	1,520	68,019
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	2.52	4.12	11.08	9.25	[illegible]	14.78	17.12	[illegible]	53.05	[illegible]	32.[illegible]	[illegible]	10.09
WEIGHT (KGS)	195	217	184	704	[illegible]	307	697	[illegible]	609	[illegible]	284	114	4,433
PHOSPHATE ION													
CONCENTRATION (MG/L)	7.20	3.80	3.30	2.10	[illegible]	3.60	3.80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.99
WEIGHT (KGS)	557	200	54	160	147	73	154	249	53	48	31	28	1,754
PHOSPHONATE													
CONCENTRATION (MG/L)	.82	.91	2.54	.40	[illegible]	.69	2.12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.49
WEIGHT (KGS)	64	48	42	30	[illegible]	55	86	106	[illegible]	31	28	34	655
POLYMETHACRYLATE													
CONCENTRATION (MG/L)	.55	.61	1.70	.27	1.35	1.79	1.41	1.32	3.43	1.36	2.12	2.06	.99
WEIGHT (KGS)	42	32	28	20	49	37	58	71	39	20	18	22	436
POLYPHOSPHATE													
CONCENTRATION (MG/L)	1.91	2.12	5.94	.94	4.71	6.27	4.95	3.57	12.01	3.71	7.[illegible]	7.19	3.48
WEIGHT (KGS)	148	112	98	71	170	128	201	247	138	71	64	78	1,528
SODIUM ION													
CONCENTRATION (MG/L)	143.60	84.70	228.50	329.50	119.60	144.00	161.40	89.50	247.40	338.00	91.50	95.40	171.82
WEIGHT (KGS)	11,117	4,452	3,781	25,024	4,295	2,941	6,556	6,182	2,834	6,495	789	1,036	75,502
SULFATE ION													
CONCENTRATION (MG/L)	623.20	395.10	296.20	201.50	286.70	253.40	373.20	282.20	695.90	151.20	194.00	131.80	384.16
WEIGHT (KGS)	63,732	20,765	4,901	15,303	10,296	5,175	15,159	19,491	7,972	2,906	1,673	1,432	168,805

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SULFONATE													
CONCENTRATION (MG/L)	.55	.61	1.70	.27	1.35	1.79	1.41	1.02	3.43	1.06	2.12	2.06	.99
WEIGHT (KGS)	42	32	28	20	49	37	58	71	39	20	16	22	436

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

NRF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA HMDA													
STORED WASTE													
9 M SOLID													
POTASSIUM CHROMATE										2.2			2.2
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	326.9	353.6	308.1	346.4	345.6	312.4	305.9	342.6	350.2	351.7	305.6	317.2	3,964.1
2 M SOLID	97.9	97.9	107.0	122.3	97.9	100.9	97.9	93.3	110.1	128.5	42.8	91.8	1,188.3
3 M SOLID	36.3	27.9	99.4	16.8	29.1	25.6	5.7	10.7		17.1	37.5	16.1	322.2
4 M SOLID		72.1						353.3	5.4	16.8	13.8	6.1	466.4
5 M SOLID							28.3	6.1					34.4
9 M SOLID	12.7				14.5				21.8				49.0
ASBESTOS													
9 M SOLID									22.9	4.6			27.5
ASPHALT													
9 M SOLID									7.6				7.6
DIRT AND GRAVEL													
9 M SOLID						27.5			45.9	35.9	10.7	22.9	143.0
ROOFING MATERIAL													
9 M SOLID								22.2					22.2
SAGEBRUSH,GRAVEL,DIRT													
9 M SOLID						4.6			3.1	9.2			16.8
WEEDS													
CFA OIL DEPOT													
STORED WASTE													
6 L LIQUID			4,163.8						2,460.4		2,649.7		9,274.0
WASTE OIL													
9 M SOLID									13.1	38.2			51.3
EMPTY OIL DRUMS													
CFA SCRAPYARD													
STORED WASTE													
5 M SOLID	9.1	3.9	3.0	8.9	2.3	2.3	186.3	21.4			5.0	6.8	249.0
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	326.9	353.6	308.1	346.4	345.6	312.4	305.9	342.6	350.2	351.7	305.6	317.2	3,964.1
2 M SOLID	97.9	97.9	107.0	122.3	97.9	100.9	97.9	93.3	110.1	128.5	42.8	91.8	1,188.3
3 M SOLID	36.3	27.9	99.4	16.8	29.1	25.6	5.7	10.7		17.1	37.5	16.1	322.2
4 M SOLID		72.1						353.3	5.4	16.8	13.8	6.1	466.4
5 M SOLID							28.3	6.1					34.4
9 M SOLID	12.7				14.5	32.1		22.2	101.3	49.7	10.7	22.9	266.2

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

NRF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
GRAND TOTALS													
STORED WASTE													
STORED WASTE													
5 M SOLID	9.1	3.9	3.0	8.9	2.3	2.3	186.3	21.4			5.0	6.8	249.0
6 L LIQUID			4,163.8						2,460.4		2,649.7		9,274.0
9 M SOLID									13.1	40.4			53.5

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

NRF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
1 WATER PUMPED (L)	621	148	1,537	1,109	356	87,213	123,741	123,136	75,214	44,932	65,561	69,990	593,558
2 WATER PUMPED (L)	8	8	11	4	8	8	4	23	4	76	4	4	159
3 WATER PUMPED (L)	107,162	112,991	70,747	121,432	123,476	22,303	52,654						610,766
TOTAL WATER PUMPED (L)	107,790	113,146	72,295	122,545	123,840	109,524	176,399	123,159	75,218	45,007	65,565	69,994	1,204,482
WATER DISPOSAL													
AIR (L) *	22,133	50,874	47,770	27,538	58,142	56,477	99,251	22,893	31,993	14,218	47,733	49,095	528,117
SURFACE (L) *	77,561	52,654	16,576	86,305	54,925	39,367	59,618	88,500	30,404	23,984	8,538	10,883	549,414
SUBSURFACE (L)													
SEWAGE DATA													
722 BUILD VOL. (L)	5,602	3,993	2,657	5,644	4,338	7,389	6,454	9,236	9,263	5,156	3,959	4,584	68,275
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	190.0	230.0	180.0	60.0	88.0	45.0	61.0	135.0	190.0	91.0	60.0	15.0	116.3
FINAL CONC. (MG/L)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	.1	.1		11.6	14.0					9.4	9.4		7.4
FINAL CONC. (MG/L)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL	7.9	7.5	7.7	8.5	9.9	9.9	9.9	9.9	9.9	9.9	9.4	8.6	9.1
TOTAL SEWAGE VOL. (L)	5,602	3,993	2,657	5,644	4,338	7,389	6,454	9,236	9,263	5,156	3,959	4,584	68,275
TOTAL WATER DISPOSED (L)	105,296	107,521	67,004	119,487	117,405	103,233	165,323	120,630	71,660	43,357	60,330	64,562	1,145,807
ACCOUNTABILITY (%)	97.7	95.0	92.7	97.5	94.8	94.3	93.7	97.9	95.3	96.3	92.0	92.2	95.1

NOTE: "*" IN COLUMNS INDICATE A PORTION OF VOLUME IS ESTIMATED

NRF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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)	671	494	446	282	159	139		7	34	293	372	440	3,337
SO2 (KGS)	12	18	10	7	4	3				8	11	13	87
NOX (KGS)	2	2	1	1	1					1	1	1	11
PARTICULATES (KGS)	1	1	1	1						1	1	1	7
GRAND TOTALS													
SO2 (KGS)	12	18	10	7	4	3				8	11	13	87
NOX (KGS)	2	2	1	1	1					1	1	1	11
PARTICULATES (KGS)	1	1	1	1						1	1	1	7

ANL AIRCRAFT DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
HEDP													
WEIGHT (KGS)													1
HEXAVALENT CR													
WEIGHT (KGS)	2	1	1		2	1	21	2					30
POLYACRYLATE													
WEIGHT (KGS)										5	5	4	14
ZINC ION													
WEIGHT (KGS)													

ANL AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION SUBSTANCE	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC	ANNUAL TOT & AVE
COOLING TOWER 757							
VOLUME (CU.M. IN 1000)	514	442	432	57	554	370	
	5,751	471	576	452	566	436	10,619
HEDP							
CONCENTRATION (MG/KG)	.00	.00	.00	.00	.00	.00	
	.00	.00	.09	.87	1.07	1.04	.14
WEIGHT (KGS)	0	0	0	0	0	0	
	0	0	0	0	0	0	1
HEXAVALENT CR							
CONCENTRATION (MG/KG)	5.37	5.13	5.37	5.38	5.38	5.37	
	5.37	5.38	.00	.00	.00	.00	4.34
WEIGHT (KGS)	2	1	1	0	2	1	
	21	2	0	0	0	0	30
POLYACRYLATE							
CONCENTRATION (MG/L)	.00	.00	.00	.00	.00	.00	
	.00	.00	1.62	14.14	13.31	12.10	1.90
WEIGHT (KGS)	0	0	0	0	0	0	
	0	0	0	5	5	4	14
ZINC ION							
CONCENTRATION (MG/KG)	.39	.36	.42	.58	.35	.42	
	.07	.00	.00	.00	.00	.00	.12
WEIGHT (KGS)	0	0	0	0	0	0	
	0	0	0	0	0	0	0

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS

SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
AMIDES WEIGHT (KGS)	2	4	4	4	8	8	4	8	12	4	12	8	79
AMMONIA WEIGHT (KGS)			36										36
CALCIUM ION WEIGHT (KGS)	20	32	28	22	23	23	191	30	34	25	27	24	491
CARBONTHIOCYANATES WEIGHT (KGS)		1	1	1	2	2	1	2	2	1	2	2	17
CHLORIDE ION WEIGHT (KGS)	13	18	16	13	14	46	88	50	19	15	48	47	387
CHLOROSULFONES WEIGHT (KGS)	2	3	3	3	6	6	3	6	10	3	10	6	63
CITRIC ACID WEIGHT (KGS)			91										91
DIMETHYLAMINE WEIGHT (KGS)	23	23	23	5	23	23	23	23	23	18	23	23	249
HEDP WEIGHT (KGS)							29	23	24	13	18	14	122
HYDROCARBON-AMINES WEIGHT (KGS)	3			1		2		1		1			11
HYDROCARBONS WEIGHT (KGS)	5	8	8	8	16	16	8	16	24	8	24	16	159
HYPOCHLORITE ION WEIGHT (KGS)	13	20	18	14	15	15	123	20	22	16	17	15	308
MORPHOLINE WEIGHT (KGS)	12	10	8	12	14	12	4	4	4	4	15	12	109
NITRITE ION WEIGHT (KGS)			3										3
PHOSPHATE ION WEIGHT (KGS)	64	60	59	22	65	63	2						336

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
PHOTO LAB CHEMICAL WEIGHT (KGS)	163	163	163	163	163	163	163	163	163	163	163	163	1,960
POLYACRYLATE WEIGHT (KGS)							544	341	415	281	298	212	2,092
PYRIDINE WEIGHT (KGS)			3										3
SODIUM ION WEIGHT (KGS)	420	254	811	293	340	670	1,330	332	432	149	266	316	5,613
SULFATE ION WEIGHT (KGS)	5,393	4,423	3,766	26,612	4,872	5,361	9,339	5,361	6,019	4,985	4,704	6,435	87,241
SULFURIC ACID WEIGHT (KGS)			1										1
THIOUREA WEIGHT (KGS)			1										1
TRIVALENT CR WEIGHT (KGS)	28	25	27	13	38	30	9						170
ZINC ION WEIGHT (KGS)	9	8	9	4	12	10	3						54

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
FACILITY 779 SURFACE													
VOLUME (L. IN 1000)	1,760	1,609	1,722	1,855	2,328	2,442	2,737	2,415	2,150	2,604	1,442	1,556	24,620
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)	2.06	2.26	2.11	1.96	1.56	14.87	1.33	15.02	1.69	1.39	25.15	23.35	7.08
WEIGHT (KGS)	4	4	4	4	4	36	4	36	4	4	36	36	174
INDUSTRIAL POND 746 SURFACE													
VOLUME (L. IN 1000)	1-,952	14,373	12,386	10,455	11,863	16,708	22,602	20,967	21,448	14,861	16,243	18,976	195,832
HYDROGEN-ION CONC. (PH)													
AMIDES													
CONCENTRATION (MG/L)	.15	.28	.33	.39	.69	.49	.18	.39	.55	.27	.75	.43	.41
WEIGHT (KGS)	2	4	4	4	8	8	4	8	12	4	12	8	79
AMMONIA													
CONCENTRATION (MG/L)			2.93										.19
WEIGHT (KGS)			36										36
CALCIUM ION													
CONCENTRATION (MG/L)	1.36	2.22	2.27	2.07	1.94	1.37	8.46	1.46	1.61	1.72	1.65	1.28	2.46
WEIGHT (KGS)	20	32	28	22	23	23	191	30	34	25	27	24	481
CARBONTHIOCYANATES													
CONCENTRATION (MG/L)	.03	.06	.07	.08	.14	.10	.04	.08	.11	.05	.12	.09	.08
WEIGHT (KGS)		1	1	1	2	2	1	2	2	1	2	2	17
CHLORIDE ION													
CONCENTRATION (MG/L)	.60	.98	1.00	.92	.86	.61	3.74	.65	.71	.76	.73	.56	1.09
WEIGHT (KGS)	9	14	12	10	10	10	85	14	15	11	12	11	213
CHLOROSULFONES													
CONCENTRATION (MG/L)	.12	.23	.26	.31	.55	.39	.14	.31	.44	.22	.60	.34	.32
WEIGHT (KGS)	2	3	3	3	6	6	3	6	10	3	10	6	63
CITRIC ACID													
CONCENTRATION (MG/L)			7.32										.46
WEIGHT (KGS)			91										91
DIMETHYLAMINE													
CONCENTRATION (MG/L)	1.52	1.58	1.83	.43	1.91	1.36	1.30	1.08	1.06	1.22	1.40	1.20	1.27
WEIGHT (KGS)	23	23	23	5	23	23	23	23	23	18	23	23	249

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
FEDP													
CONCENTRATION (MG/L)							1.28	1.10	1.12	.89	1.13	.73	.62
WEIGHT (KGS)							29	23	24	13	18	14	122
HYDROCARBON-AMINES													
CONCENTRATION (MG/L)	.19	.02	.05	.11	.02	.13		.03	.01	.05	.04	.03	.05
WEIGHT (KGS)	3			1		2		1		1			11
HYDROCARBONS													
CONCENTRATION (MG/L)	.30	.57	.66	.78	1.28	.98	.36	.78	1.10	.55	1.01	.86	.81
WEIGHT (KGS)	5	8	8	8	16	16	8	16	24	8	24	16	159
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	.88	1.42	1.45	1.33	1.24	.68	5.43	.94	1.03	1.10	1.06	.82	1.58
WEIGHT (KGS)	13	20	18	14	15	15	123	23	22	16	17	15	308
MORPHOLINE													
CONCENTRATION (MG/L)	.82	.67	.63	1.13	1.18	.72	.17	.19	.18	.27	.89	.62	.56
WEIGHT (KGS)	12	10	8	12	14	12	4	4	4	4	15	12	109
NITRITE ION													
CONCENTRATION (MG/L)			.21										.01
WEIGHT (KGS)			3										3
PHOSPHATE ION													
CONCENTRATION (MG/L)	4.29	4.16	4.78	2.09	5.51	3.77	.11						1.71
WEIGHT (KGS)	64	60	59	22	65	63	2						336
PHOTO LAB CHEMICAL													
CONCENTRATION (MG/L)	10.92	11.36	13.18	15.62	13.76	9.77	7.22	7.79	7.61	10.99	10.05	8.61	10.01
WEIGHT (KGS)	163	163	163	163	163	163	163	163	163	163	163	163	1,960
POLYACRYLATE													
CONCENTRATION (MG/L)							24.08	16.27	19.37	18.92	10.32	11.19	10.68
WEIGHT (KGS)							544	341	415	281	298	212	2,092
PYRIDINE													
CONCENTRATION (MG/L)			.22										.01
WEIGHT (KGS)			3										3
SODIUM ION													
CONCENTRATION (MG/L)	26.13	17.68	65.48	28.03	28.63	40.10	58.84	15.84	20.13	10.25	16.36	16.64	28.66
WEIGHT (KGS)	420	254	811	293	340	670	1,330	332	432	149	206	316	5,613

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SULFATE ION													
CONCENTRATION (MG/L)	360.70	307.76	304.04	2545.40	410.65	320.88	413.21	255.71	280.65	335.44	209.39	337.52	445.52
WEIGHT (KGS)	5,393	4,423	3,766	26,612	4,872	5,361	9,339	5,361	6,019	4,985	4,704	6,405	87,241
SULFURIC ACID													
CONCENTRATION (MG/L)			.07										
WEIGHT (KGS)			1										1
THIOUREA													
CONCENTRATION (MG/L)			.07										
WEIGHT (KGS)			1										1
TRIVALENT CR													
CONCENTRATION (MG/L)	1.88	1.77	2.14	1.22	3.23	1.78	.38						.87
WEIGHT (KGS)	28	25	27	13	38	30	9						170
ZINC ION													
CONCENTRATION (MG/L)	.59	.56	.75	.38	1.01	.56	.12						.28
WEIGHT (KGS)	9	8	9	4	12	10	3						54

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
ANL BOILERS													
DISPOSED WASTE													
6 L LIQUID	64.4	215.8	41.6	60.6	45.4		75.7		227.1	257.4	219.5		1,207.5
WASTE OIL													
CFA HMDA													
DISPOSED WASTE													
8 L LIQUID						208.2							208.2
CHEMICALS-VISCOSINE													
8 KG SOLID								362.9					362.9
CHEMICALS-BORIC ACID													
9 L LIQUID											208.2		208.2
HEAVY ASPHALT													
9 L LIQUID											208.2		208.2
OIL + SOLVENTS													
9 L LIQUID											208.2		208.2
OLD PAINT													
9 L LIQUID											1.1		1.1
SAUEREISEN													
9 L LIQUID											11.4		11.4
SAUEREISEN RESIN CEMENT													
9 L LIQUID											208.2		208.2
TAR													
9 KG SOLID											.9		.9
BORON NITRIDE													
9 KG SOLID											25.0		25.0
BORON SILICIDE													
9 KG SOLID											2.3		2.3
VERSINE													
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	276.8	220.2	244.7	246.2	239.3	275.3	152.9	317.3	249.3	282.9	214.1	214.1	2,933.2
2 M SOLID	55.1	36.7	48.9	48.9	50.5	55.1	30.6	72.6	48.9	55.1	42.8	42.8	588.0
3 M SOLID	4.2			1.5	30.6		7.6		2.3	9.9		.4	56.6
4 M SOLID		102.5	35.9	18.4	50.5	12.2	132.3		22.9	25.2	30.6		430.5
5 M SOLID	2.3		6.9	4.6		3.1	4.6		4.6				26.0
8 L LIQUID							624.6						624.6
ETHYLENE GLYCOL													
8 KG SOLID							217.7						217.7
BORIC ACID													
9 M SOLID				27.8									27.8
ASBESTOS													
9 M SOLID							42.1	265.7	29.1				336.8
ASPHALT													

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
	VOLUME OR WEIGHT BY MONTH												
CFA LANDFILL													
DISPOSED WASTE													
9 M SOLID GALVANIZED ROOFING									1.5				1.5
9 M SOLID INSULATION							6.1		1.5	1.5			9.2
9 M SOLID METAL SHAVINGS											.8		.8
9 M SOLID RESIN (NEW)					.9								.9
CFA OIL DEPOT													
STORED WASTE													
6 L LIQUID OIL				567.8			416.4						984.2
CFA ROAD BASE													
DISPOSED WASTE													
8 L LIQUID CHEMICALS-ETHYLENE GLYCOL								567.8					567.8
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	276.8	220.2	244.7	246.2	239.3	275.3	152.9	317.3	249.3	282.9	214.1	214.1	2,933.2
2 M SOLID	55.1	38.7	46.9	48.9	50.5	55.1	30.6	72.6	48.9	55.1	42.8	42.8	588.0
3 M SOLID	4.2			1.5	30.6		7.6		2.3	9.9		.4	56.6
4 M SOLID		102.5	35.9	18.4	50.5	12.2	132.3		22.9	25.2	30.6		430.5
5 M SOLID	2.3		6.9	4.6		3.1	4.6		4.6				26.0
6 L LIQUID	64.4	215.8	41.6	60.6	45.4		75.7		227.1	257.4	219.5		1,207.5
8 L LIQUID						208.2	624.6	567.8					1,400.6
8 KG SOLID							217.7	362.9					580.6
9 L LIQUID											845.3		845.3
9 M SOLID				27.8	.9		48.2	265.7	32.1	1.5	.6		377.0
9 KG SOLID											28.2		28.2
STORED WASTE													
6 L LIQUID				567.8			416.4						984.2

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

ANL WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
1 WATER PUMPED (L)	18,885	18,662	19,067	9,747	26,781	21,951	33,595	27,625	28,458	21,625	22,470	19,680	268,544
2 WATER PUMPED (L)	18,885	18,662	19,067	9,747	26,781	21,951	33,595	27,625	28,458	21,625	22,470	19,680	268,544
TOTAL WATER PUMPED (L)	37,770	37,323	38,133	19,494	53,562	43,902	67,189	55,250	56,916	43,251	44,939	39,360	537,089
WATER DISPOSAL													
AIR (L)	17,677	17,469	19,672	6,439	33,780	17,314	31,638	27,186	24,233	18,942	20,726	16,939	252,018
SURFACE (L)	14,952	14,373	12,386	10,455	11,863	16,708	22,602	20,967	21,448	14,861	16,243	18,976	195,832
SUBSURFACE (L)													
SEWAGE DATA													
720 BUILD VOL. (L) *	45	45	45	45	45	45	45	45	45	45	45	45	545
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

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

ANL WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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													
779 BUILD VOL. (L)	1,760	1,609	1,722	1,855	2,328	2,442	2,737	2,415	2,150	2,604	1,442	1,556	24,620
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)					60.0	160.0	165.0	170.0	138.0				138.6
FINAL CONC. (MG/L)				80.0	30.0	62.0	30.0	60.0	75.0				56.2
% REMOVED					50.0	61.3	81.8	64.7	45.7				
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)						.1	.1	.1	2.0				.6
FINAL CONC. (MG/L)						1.6	6.3	7.8	3.6				4.8
INCREASED FACTOR						15.0	62.0	77.0	.8				7.0
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL				8.3		7.7	9.7	9.3	8.4	9.7			8.9
TOTAL SEWAGE VOL. (L)	1,806	1,654	1,768	1,900	2,373	2,487	2,782	2,460	2,195	2,650	1,488	1,601	25,165
TOTAL WATER DISPOSED (L)	34,435	33,496	33,825	18,794	48,017	36,509	57,022	50,613	47,876	36,452	38,459	37,516	473,015
ACCOUNTABILITY (%)	91.2	89.7	88.7	96.4	89.6	83.2	84.9	91.6	84.1	84.3	85.6	95.3	88.1

IDAHO OPERATIONS OFFICE
U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

ANL FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1980

(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)	155	96	108	233	24	75	5	35	27	57	30	146	996
SO2 (KGS)	1			1								1	4
NOX (KGS)													
PARTICULATES (KGS)													1
GRAND TOTALS													
SO2 (KGS)	1			1								1	4
NOX (KGS)													
PARTICULATES (KGS)													1

ENGINEERED RELEASE POINTS TO THE ENVIRONMENT

Type of Discharge	Area/Location	Type and Description of Discharge Point
Airborne	ANL	Cooling tower. Circulation rate of 7.6×10^4 lpm. Drift rate 0.01%. Blowdown rate of 100-190 lpm.
	CPP	76.2 m stack, 47.2 m^3/s discharge capacity. Sampled at the 27 m level.
	NRF/A1W & S5G	Cooling towers (2), capacity 1.3×10^6 L each.
	NRF/S1W	Spray ponds (2), capacity of 1.5×10^7 L.
	PBF	Cooling tower, capacity of 2.95×10^6 L, maximum flow 5.7×10^4 lpm.
	TRA/ETR	Cooling tower; 3 m x 113 m x 12.8 m. Evaporation rate at full reactor power 3.8×10^3 lpm.
	TRA/ATR	Cooling tower; 2.4 m x 66 m x 14.6 m. Evaporation rate at full reactor power 6.6×10^3 lpm.
Liquid	ARA	5 septic tanks, effluent for 2 tanks to underground tile field (ARA II). Effluent from 1 tank to surface depression ∿ 1/3 acre (ARA I). Effluent from 2 tanks to surface depression ∿ 1/2 acre (ARA III).
	ANL	Sanitary lagoon, 3 ponds (∿ 2.3 acres), flow rate 5.8×10^7 L per year.
	ANL	Industrial pond, ∿ 3 acres, flow rate 1.4×10^8 L per year.
	ANL	TREAT septic tank. Effluent to tile field. Flow rate ∿ 5.5×10^6 L per year.
	CFA	Sewage plant with tile field of 61 m x 610 m. Average annual flow 1.5×10^8 L.