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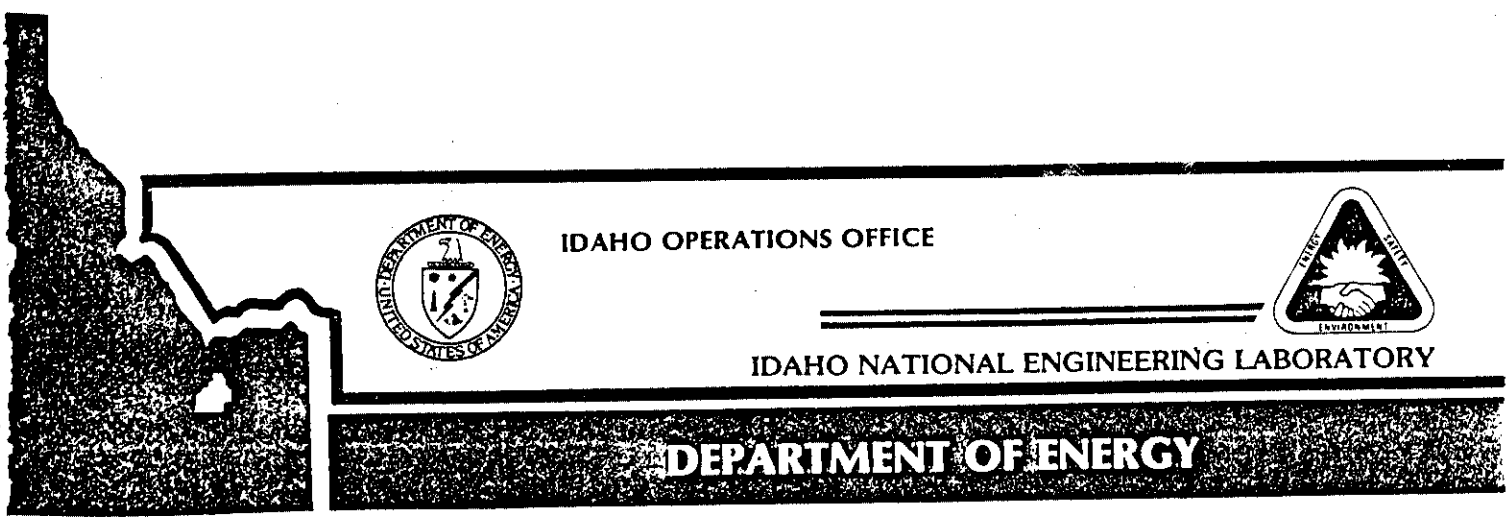
INDUSTRIAL WASTE MANAGEMENT INFORMATION

FOR 1981 AND RECORD-TO-DATE

JULY 1982



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INDUSTRIAL WASTE MANAGEMENT INFORMATION FOR 1981 AND RECORD-TO-DATE

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ACRONYMS & ABBREVIATIONS

A1W	Large Ship Reactor at NRF
ANL	Argonne National Laboratory-West
ATR	Advanced Test Reactor
ARA	Auxiliary Reactor Area
CFA	Central Facilities Area
CPP	Chemical Processing Plant
EBR	Experimental Breeder Reactor I
ENICO	Exxon Nuclear Idaho Company
ETR	Engineering Test Reactor
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 Reactors Facility
PBF	Power Burst Facility
S1W	Submarine Prototype at NRF
S5G	Submarine Prototype at NRF
TAN	Test Area North
TRA	Test Reactor Area
TREAT	Transient Reactor Test Facility
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 1981 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 waste 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 30 780 m^3 of solid industrial waste was disposed in sanitary landfills at the INEL during 1981. This represents a decrease from the 38 950 m^3 in 1980.

During 1981, waste oils and solvents totalled 31 180 litres. This compares with 11 470 litres in 1980 and 42 100 litres in 1979. These liquids are periodically recycled.

A total of 4 338 000 kg of liquid and airborne industrial waste was discharged in 1981. This includes 2 010 300 kg of chemicals, 1 720 000 kg of total dissolved solids, and 342 100 kg of total hardness which were discharged as liquid wastes to the lithosphere at the INEL. This liquid waste represents an increase from the total quantity of 4 122 000 kg in 1980 and 4 128 000 kg in 1979.

During 1981, a total of 15 530 000 litres of fuel oil was used at the INEL, which produced 290 900 kg of SO_2 and 13 130 kg of particulates. During 1980, 16 620 000 litres of fuel oil were used, producing 317 100 kg of SO_2 and 16 920 kg of particulates. The reduction in fuel consumption reflects changes in facility operations and energy conservation efforts.

A total of 9 075 000 000 litres of water was used at the INEL during 1981, compared to 7 312 000 000 litres in 1980, and 8 695 000 000 litres in 1979. 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 waste.

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 Effluents Summary

SCHED. 268PM012-A

INEL INDUSTRIAL W SUMMARY
RECORD-TO-D

WASTE TYPE		1971-1978	1979	1980	1981
SANITARY WASTE	(CU. METERS)	174,800	31,380	38,950	30,780
OIL-SOLVENTS	(LITERS)	357,200	42,100	11,470	31,180
LIQUID WASTE	(KILOGRAMS)	35,270,000	4,128,000	3,547,000	4,072,000
AIRBORNE WASTE	(KILOGRAMS)*	5,577,000	585,900	575,000	569,400
FUEL OIL:					
QUANTITY	(LITERS)	211,500,000	22,030,000	16,620,000	15,530,000
SO2	(KILOGRAMS)	3,630,000	308,300	317,100	290,900
PARTICULATES	(KILOGRAMS)	251,400	26,250	16,920	13,130
WATER-USED	(1,000 LITERS)	76,090,000	8,695,000	7,312,000	9,075,000

* 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 (71-79)									
SANITARY WASTE (CU. METERS)	24,740	695	37,080	29,840			60,490	4,444	22,050
OILS & SOLVENTS (LITERS)	15,080		102,200				275,800		568
CHEMICALS									
LIQUIDS (LITERS)	4	11		45			43,890	284	17,050
SOLIDS (KILOGRAMS)	274		1,355				9,957		<1
1980									
SANITARY WASTE (CU. METERS)	4,412	521	10,370	8,628	264	127	6,544	877	3,525
OILS & SOLVENTS (LITERS)	2,192						9,274		
CHEMICALS									
LIQUIDS (LITERS)	1,401	95						132	
SOLIDS (KILOGRAMS)	581								
1981									
SANITARY WASTE (CU. METERS)	3,660	377	5,126	6,295	353	820	6,926	591	3,893
OILS & SOLVENTS (LITERS)	1,295						29,890		
CHEMICALS									
LIQUIDS (LITERS)							11,890		
SOLIDS (KILOGRAMS)									

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. 168PM013-A

INEL SOLID AND LIQUID I[illegible]TRIAL WASTE SUMMARY
RECORD-[illegible]DATE

YEAR	TRA	WMC	TOTAL
RECORD-TO-DATE (71-79)			
SANITARY WASTE (CU. METERS)	26,410	410	206.200
OILS & SOLVENTS (LITERS)	5,678		399.300
CHEMICALS			
LIQUIDS (LITERS)	6,281	145	67.710
SOLIDS (KILOGRAMS)	17,580		29.170
1980			
SANITARY WASTE (CU. METERS)	3,406	285	38.950
OILS & SOLVENTS (LITERS)			11.470
CHEMICALS			
LIQUIDS (LITERS)			1.628
SOLIDS (KILOGRAMS)			581
1981			
SANITARY WASTE (CU. METERS)	2,511	230	30.780
OILS & SOLVENTS (LITERS)			31.180
CHEMICALS			
LIQUIDS (LITERS)			11.890
SOLIDS (KILOGRAMS)			

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. NO. P68PM013-8

INEL INDUSTRIAL WASTE SUMMARY IN CUBIC METERS*
FOR JANUARY THROUGH DECEMBER 1981

TYPES	ANL	ARA	CFA	CPP	LOF	MHD	NRF	PPF	TAN
1. TRASH	2,768	365	2,616	3,918	353	820	3,851	421	2,173
2. CAFETERIA GARBAGE	577	5	830	558			1,169		517
3. WOOD & SCRAP LUMBER	75	3	220	1,007			720	7	39
4. MASONRY & CONCRETE	109	2	318	584			20	79	20
5. SCRAP METAL	28		44	18			199		28
6. OIL (LITERS)	1,295						29,890		
7. SOLVENTS (LITERS)									
8. CHEMICALS									
LIQUID (LITERS)							11,890		
SOLIDS (KILOGRAMS)									
9. OTHERS									
LIQUID (LITERS)	466						833		
SOLIDS (CU. METERS)	104	<1	1,098	211			967	85	1,116
TOTALS									
SANITARY TYPES 1, 2, 3, 4, 5, & 9 (CUBIC METERS)	3,660	377	5,126	6,295	353	820	6,926	591	3,893
OILS & SOLVENTS TYPES 6 & 7 (LITERS)	1,295						29,890		
CHEMICALS									
LIQUIDS (GALLONS)							11,890		
SOLIDS (KILOGRAMS)									

* EXCEPT AS NOTED

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. 268PM013-B

INEL INDUSTRIAL WASTE ARY IN CUBIC METERS*
FOR JANUARY THRO... DECEMBER 1981

TYPES	TRA	WMC	TOTAL
1. TRASH	2,155	153	19,600
2. CAFETERIA GARBAGE	157	<1	3,814
3. WOOD & SCRAP LUMBER	38	4	2,112
4. MASONRY & CONCRETE	25	10	1,165
5. SCRAP METAL	3		320
6. OIL (LITERS)			31,180
7. SOLVENTS (LITERS)			
8. CHEMICALS			
LIQUID (LITERS)			11,890
SOLIDS (KILOGRAMS)			
9. OTHERS			
LIQUID (LITERS)			1,298
SOLIDS (CU. METERS)	124	63	3,768
TOTALS			
SANITARY TYPES 1, 2, 3, 4, 5, & 9 (CUBIC METERS)	2,511	230	30,780
OILS & SOLVENTS TYPES 6 & 7 (LITERS)			31,180
CHEMICALS			
LIQUIDS (GALLONS)			11,890
SOLIDS (KILOGRAMS)			

* 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	1971-1979	1980	1981	TOTAL
ACETIC ACID		12		12
AMIDES	816	79	102	997
AMMONIA		36		36
ARSENIC				
AUTO CLEANERS	19,150	1,742	1,742	22,640
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 45			9	9
BETZ 65	544			544
BIOCIDE D-2	9,640			9,640
BLEACH	898			898
BORON		1,851	5,280	7,130
CALCIUM ION	5,322	2,379	2,496	10,200
CARBONTHIOCYANATES	124	16	20	161
CHLORIDE ION	3,551,000	420,000	699,900	4,671,000
CHLOROCARBONS	2			2
CHLOROHYDROCARBONS	472			472
CHLOROSULFONES	628	64	82	773
CHROMATE ION	199	17	6	222
CITRIC ACID		91		91
CLOROHYDROCARBONS				
CR+6		794	1,021	1,814
DIANODIC 194	15,530			15,530
DIMETHYLAMINE	764	249	218	1,231
DIPHOSPHONATE	9,857	2,113	1,279	13,250
DISPERSANT 403	13,030			13,030
FLOURIDE ION		2		2
FLUORIDE ION			4	4
FORMIC ACID		5		5
HEDP		123	726	849
HEXAVALENT CR	2,600	31		2,631
HPA	4,151	247	12	4,411
HYDRAZINE	12			12
HYDROCARBON-AMINES	36	10	8	54
HYDROCARBONS	1,243	159	204	1,606
HYDROXYCARBON	66			66
HYDROXYCARBONS	13,430	2,710	1,668	17,810
HYPOCHLORITE	16,050			16,050
HYPOCHLORITE ION	14,420	6,986	7,242	28,650
KP43 COOLANT CNTRL	73			73

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE LIQUID
INDUSTRIAL WASTE SUBSTANCE SUMMARY IN KILOGRAMS
RECORD-TO-DATE

SCHED. NO. P68PM014-A

SUBSTANCE IDENTIFICATION	1971-1979	1980	1981	TOTAL
KWIK KLEEN	2,098			2,098
LAUNDRY PRODUCTS	16,200	4,773	5,942	26,910
M-60 ALGAECIDE	4			4
M-80T ALGAECIDE	4			4
MERCURY				
METHBISTHIOCYANATE	68			68
MORPHOLINE	730	109	149	989
N-HYDROCARBON	3,717	745	744	5,206
NALCO 7312	178			178
NALCO 7323	185			185
NALCOOL 7351	840			840
NAPTHA	39			39
NITRATE ION	470,100	137,200	147,000	754,300
NITRIC OXIDE	107,300	68,270	74,610	250,200
NITRITE ION		3		3
NITROGEN DIOXIDE	1,839,000	172,700	190,700	2,203,000
OROCOL 194	68			68
OROCOL 734	70,310			70,310
OXYCARBONS				
PHOSPHATE	1,724	907	2,632	5,262
PHOSPHATE ION	105,400	8,130	20,470	134,000
PHOSPHONATE	1,535	655	704	2,894
PHOSPHONATES	23			23
PHOTO LAB CHEMICAL	17,320	1,960	1,960	21,240
POLYACRYLATE		2,106	10,880	12,990
POLYHYDROXYCARBON	45			45
POLYMETHACRYLATE	1,023	436	469	1,929
POLYNODIC 606	62,210			62,210
POLYNODIC 633	2,268			2,268
POLYPHOSPHATE	3,582	1,528	1,641	6,751
POTASSIUM ION	10,570	1,726	13,750	26,050
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	40,410	2,182	1,556	44,150
SODIUM ION	2,909,000	297,100	324,400	3,531,000
SODIUM PHOSPHATE	10			10
SPRA-SAF	862			862
SULFATE ION	10,380,000	807,700	755,100	11,940,000
SULFITE ION	7,676	238	208	8,122
SULFONATE	1,023	436	469	1,929

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	1971-1979	1980	1981	TOTAL
SULFONATES	1,416			1,416
SULFUR DIOXIDE	8,259			8,259
SULFURIC ACID		1		1
TDS	18,040,000	1,360,000	1,720,000	21,120,000
THIOCARBONS	17			17
THIOHYDROCARBONS	48			48
THIOUREA		1		1
TOLYTRIAZOLE			182	182
TOTAL HARDNESS	3,495,000	478,500	342,100	4,315,000
TRIVALENT CR	1,786	169		1,955
ZINC ION	2,330	55		2,386
TOTAL	41,350,000	3,788,000	4,338,000	49,470,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
FOR JANUARY THROUGH DECEMBER, 1981

SCHED. NO. P68PM014-B

SUBSTANCE IDENTIFICATION	ANL	CFA	CPP	LOF	MHD	NRF	PBF	TAN	TRA
AMIDES	102								
AMMONIA									
ARSENIC									
AUTO CLEANERS		1,742							
BETZ 45							9		
BORON				5,280					
CALCIUM ION	422	149				1,925			
CARBONTHIOCYANATES	20								
CHLORIDE ION	645	1,413	626,400	2,078	2	60,680		6,289	717
CHLORCHYDROCARBONS									
CHLORCSULFONES	82								
CHROMATE ION							6		
CR+6					1,021				
DIMETHYLAMINE	218								
DIPHOSPHONATE									1,279
FLUORIDE ION					4				
HEDP	170								556
HPA									12
HYDROCARBON-AMINES	8								
HYDROCARBONS	204								
HYDROXYCARBONS					7		1		1,659
HYPOCHLORITE ION	271	612	406			4,944			1,010
LAUNDRY PRODUCTS		5,942							
MERCURY									
MORPHOLINE	149								
N-HYDROCARBON					34		5		705
NITRATE ION			147,000		12				
NITRIC OXIDE			74,610						
NITROGEN DIOXIDE			190,700						
PHOSPHATE	388	980							1,264
PHOSPHATE ION				10	319	965		51	19,080
PHOSPHONATE						704			
PHOTO LAB CHEMICAL	1,960								
POLYACRYLATE	2,716								8,165
POLYHYDROXYCARBON									
POLYMETHACRYLATE						469			
POLYPHOSPHATE						1,641			
POTASSIUM ION	61				12,690				1,002
SOAP		1,555							
SODIUM ION	2,966	642	214,000	2,504	226	57,620	1,623	4,251	38,780
SULFATE ION	50,930		92,060	609	30	93,990	3,305	262	512,900
SULFITE ION				30				100	4
SULFONATE						469			
TDS			1,168,000						551,600
THICHYDROCARBONS									
TOLYTRIAZOLE	43								139
TOTAL HARDNESS									342,100
TOTAL	61,350	13,040	2,513,000	10,510	14,350	223,400	4,948	10,950	1,481,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN KILOGRAMS
FOR JANUARY THROUGH DECEMBER, 1981

SCHED. NO. P63P4014-B

SUBSTANCE IDENTIFICATION	WRF	TOTAL
AMIDES		102
AMMONIA		
ARSENIC		
AUTO CLEANERS		1,742
BETZ 45		9
BORON		5,280
CALCIUM ION		2,496
CARBONTHIOCYANATES		20
CHLORIDE ION	1,679	699,900
CHLORCHYDROCCARBONS		
CHLOROSULFONES		82
CHROMATE ION		6
CR+6		1,021
DIMETHYLAMINE		218
DIPHOSPHONATE		1,279
FLUORIDE ION		4
HEDP		726
HPA		12
HYDROCARBON-AMINES		8
HYDROCARBONS		204
HYDROXYCARBONS		1,668
HYPOCHLORITE ION		7,242
LAUNDRY PRODUCTS		5,942
MERCURY		
MORPHOLINE		149
N-HYDROCARBON		744
NITRATE ION		147,000
NITRIC OXIDE		74,610
NITROGEN DICXIDE		190,700
PHOSPHATE		2,632
PHOSPHATE ION	47	20,470
PHOSPHONATE		704
PHOTO LAB CHEMICAL		1,960
POLYACRYLATE		10,880
POLYHYDROXYCARBON		
POLYMETHACRYLATE		469
POLYPHOSPHATE		1,641
POTASSIUM ION		13,750
SOAP		1,556
SODIUM ION	1,763	324,400
SULFATE ION	1,032	755,100
SULFITE ION	75	208
SULFONATE		469
TDS		1,720,000
THIOHYDROCARBONS		
TOLYTRIAZOLE		182
TOTAL HARDNESS		342,100
TOTAL	4,596	4,338,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

SCHED. 68PM015-A

INEL FUEL C JMMARY
RECORD-TL .TE

AREA	1971-1979 FUEL OIL (LITERS)	1971-1979 SO2 (KG)	1971-1979 PART. (KG)	1971-1979 DIESEL (LITERS)	1980 FUEL OIL (LITERS)	1980 SO2 (KG)	1980 PART. (KG)	1980 DIESEL (LITERS)	1981 FUEL OIL (LITERS)	1981 SO2 (KG)	1981 PART. (KG)	1981 DIESEL (LITERS)
ANL	19,690,300	193,900	17,560		996,100	3,878	1,313		930,300	3,622	1,226	
ARA	1,257,000	9,306	523		125,900	785		10,430	67,550	383		
CFA	20,370,000	212,900	22,260		1,188,000	7,354		90,470	579,000	3,340		8,596
CPP	61,280,000	487,100	5,504		5,181,000	132,600			5,474,000	140,100		
LOF					171,400	1,090		17,030	163,900	1,000		10,220
MHD					58,270	1,835			432,000	3,196		
NRF	49,960,000	1,384,000	71,780		3,337,000	86,620	7,159		2,730,000	61,640	5,856	
PBF	1,157,000	6,490	231	155,600	100,000	1,122		95,410	96,680	642		16,590
TAN	28,710,000	636,400	36,310	109,700	1,609,000	23,600			1,572,000	30,000		46,040
TRA	35,670,000	1,002,000	123,500	14,970,000*	1,699,000	56,450	8,449	1,642,000*	1,216,000	44,910	6,046	1,829,000*
WMC	219,300	1,367			39,790	356		18,880	36,790	208		
WRF					241,400	1,367			307,500	1,823		11,750
TOTAL	218,300,000	3,938,000	277,700	15,230,000*	14,750,000	317,100	16,920	1,875,000*	13,610,000	290,900	13,130	1,922,000*

* 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	1971-1979	1980	1981	TOTAL
ANL	4,274,000	537,100	546,000	5,357,000
ARA	1,099,000	128,400	137,400	1,365,000
CFA	3,780,000	422,800	383,500	4,586,000
CPP	14,450,000	1,578,000	2,074,000	18,100,000
LOF		696,000	520,800	1,217,000
MHO		4,849	18,710	23,560
NRF	17,590,000	1,204,000	1,603,000	20,390,000
PBF	378,500	71,020	31,490	481,000
TAN	3,903,000	71,080	1,315,000	5,289,000
TRA	39,060,000	2,459,000	2,296,000	43,820,000
WMC	253,500	14,440	33,460	301,400
WRF		124,800	114,800	239,600
TOTAL	84,790,000	7,312,000	9,075,000	101,200,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEL MONTHLY WATER USAGE SUMMARY
DECEMBER 1981

(ALL VOLUMES = NEAREST THOUSAND LITERS)

AREA OF ORIGIN	MONTHLY VOLUME PUMPED	MONTHLY VOLUME DISPOSED					ACCOUNTA-BILITY (%)
		AIR	SURFACE	SUBSURFACE	SEWAGE	TOTAL	
ANL	40,109	16,012	12,719		1,836 *	30,566	76.2
ARA	11,420	*	10,864 *	*	556 *	11,420	100.0
CFA	19,733	*	129 *	863	15,111	16,103	81.6
CPP	167,575		*	163,903	3,672	167,575	100.0
LOF	33,530		16,784		170	16,954	50.6
MHD	632	49			579	628	99.4
NRF	148,766	115,944 *	15,898 *		4,046	135,888	91.3
PBF	5,598		492 *	4,815 *	231 *	5,538	98.9
TAN	324,991	*	3,884 *	*	2,036 *	5,920	1.8
TRA	153,865	49,512	18,559 *	84,488	1,306	153,865	100.0
WMC	7,340	*	727 *	6,530 *	83	7,340	100.0
WRF	15,236			15,001	235	15,236	100.0
GRAND TOTALS	928,795	181,516	80,055	275,600	29,862	567,034	61.1

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

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

INEL YEAR-TO-DATE WATER USAGE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(ALL VOLUMES = NEAREST THOUSAND LITERS)

AREA OF ORIGIN	YEARLY VOLUME PUMPED	YEARLY VOLUME DISPOSED					ACCOUNTA-BILITY (%)
		AIR	SURFACE	SUBSURFACE	SEWAGE	TOTAL	
ANL	546,007	225,312	217,571		19,506 *	462,390	84.7
ARA	137,448	*	130,771 *	*	6,677 *	137,448	100.0
CFA	383,527	*	135,253 *	27,905	125,441	288,599	75.2
CPP	2,073,625		*	2,018,549	48,187	2,066,736	99.7
LOF	520,835		430,180		2,044	432,224	83.0
MHD	18,722	4,705			14,002	18,707	99.9
NRF	1,603,404	1,074,056 *	350,136 *		59,694	1,483,887	92.5
PBF	31,490	428	7,817 *	19,210 *	2,809 *	30,263	96.1
TAN	1,314,945	*	35,131 *	*	24,794 *	59,925	4.6
TRA	2,296,458	1,067,114	275,441 *	922,788	21,906	2,287,249	99.6
WMC	33,458	*	5,421 *	26,970 *	1,067	33,458	100.0
WRF	114,812			112,454	2,313	114,767	100.0
GRAND TOTALS	9,074,731	2,371,615	1,587,721	3,127,876	328,440	7,415,653	81.7

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

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1981

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
ANL					
DISPOSED WASTE					
1 - TRASH	SOLID	206.5	CU. METERS	2,767.6	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	42.8	CU. METERS	576.5	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID			74.6	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			108.6	CU. METERS
5 - SCRAP METAL	SOLID			28.3	CU. METERS
6 - OIL	LIQUID	22.7	LITERS	1,086.4	LITERS
9 - OTHER	LIQUID			465.6	LITERS
9 - OTHER	SOLID			103.6	CU. METERS
STORED WASTE					
6 - OIL	LIQUID			208.2	LITERS
ARA					
DISPOSED WASTE					
1 - TRASH	SOLID	19.1	CU. METERS	365.1	CU. METERS
2 - CAFETERIA GARBAGE	SOLID			6.1	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID			3.4	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			1.5	CU. METERS
9 - OTHER	SOLID			.8	CU. METERS
CFA					
DISPOSED WASTE					
1 - TRASH	SOLID	245.8	CU. METERS	2,615.8	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	71.1	CU. METERS	830.4	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	16.4	CU. METERS	220.2	CU. METERS
4 - MASONRY AND CONCRETE	SOLID	6.9	CU. METERS	318.1	CU. METERS
5 - SCRAP METAL	SOLID	4.2	CU. METERS	43.6	CU. METERS
9 - OTHER	SOLID	2.3	CU. METERS	1,098.0	CU. METERS
CPP					
DISPOSED WASTE					
1 - TRASH	SOLID	312.0	CU. METERS	3,918.1	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	49.2	CU. METERS	557.7	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	65.0	CU. METERS	1,006.6	CU. METERS
4 - MASONRY AND CONCRETE	SOLID	21.4	CU. METERS	584.0	CU. METERS
5 - SCRAP METAL	SOLID	1.1	CU. METERS	18.0	CU. METERS
9 - OTHER	SOLID	5.2	CU. METERS	210.6	CU. METERS
LOF					
DISPOSED WASTE					
1 - TRASH	SOLID			353.5	CU. METERS

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1981

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
MHD					
DISPOSED WASTE					
1 - TRASH	SOLID	73.4	CU. METERS	819.7	CU. METERS
9 - OTHER	SOLID			9,071.8	KILOGRAMS
NRF					
DISPOSED WASTE					
1 - TRASH	SOLID	294.0	CU. METERS	3,850.7	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	97.9	CU. METERS	1,169.1	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	9.9	CU. METERS	599.0	CU. METERS
4 - MASONRY AND CONCRETE	SOLID	.8	CU. METERS	19.7	CU. METERS
5 - SCRAP METAL	SOLID	.8	CU. METERS	26.5	CU. METERS
8 - CHEMICALS	LIQUID			4,812.3	LITERS
9 - OTHER	LIQUID			832.8	LITERS
9 - OTHER	SOLID	19.4	CU. METERS	890.4	CU. METERS
STORED WASTE					
3 - WOOD AND SCRAP LUMBER	SOLID	9.0	CU. METERS	120.6	CU. METERS
5 - SCRAP METAL	SOLID	14.1	CU. METERS	172.4	CU. METERS
6 - OIL	LIQUID			29,888.7	LITERS
8 - CHEMICALS	LIQUID			7,078.5	LITERS
9 - OTHER	SOLID			76.3	CU. METERS
PBF					
DISPOSED WASTE					
1 - TRASH	SOLID	6.5	CU. METERS	420.6	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	6.9	CU. METERS	7.3	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			78.7	CU. METERS
9 - OTHER	SOLID	.8	CU. METERS	84.9	CU. METERS
TAN					
DISPOSED WASTE					
1 - TRASH	SOLID	237.8	CU. METERS	2,173.1	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	42.8	CU. METERS	516.9	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID			38.6	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			19.9	CU. METERS
5 - SCRAP METAL	SOLID	9.2	CU. METERS	28.3	CU. METERS
9 - OTHER	SOLID	322.7	CU. METERS	1,116.4	CU. METERS
TRA					
DISPOSED WASTE					
1 - TRASH	SOLID	240.9	CU. METERS	2,164.7	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	12.2	CU. METERS	156.6	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	6.1	CU. METERS	38.5	CU. METERS

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1981

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
TRA					
DISPOSED WASTE					
4 - MASONRY AND CONCRETE	SOLID			24.7	CU. METERS
5 - SCRAP METAL	SOLID			3.1	CU. METERS
9 - OTHER	SOLID	3.3	CU. METERS	123.7	CU. METERS
WMC					
DISPOSED WASTE					
1 - TRASH	SOLID	15.3	CU. METERS	152.9	CU. METERS
2 - CAFETERIA GARBAGE	SOLID			.8	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID			3.5	CU. METERS
4 - MASONRY AND CONCRETE	SOLID			9.6	CU. METERS
9 - OTHER	SOLID	.8	CU. METERS	63.1	CU. METERS
INEL GRAND TOTALS					
DISPOSED WASTE					
1 - TRASH	SOLID	1,651.2	CU. METERS	19,601.9	CU. METERS
2 - CAFETERIA GARBAGE	SOLID	316.0	CU. METERS	3,814.1	CU. METERS
3 - WOOD AND SCRAP LUMBER	SOLID	104.4	CU. METERS	1,991.7	CU. METERS
4 - MASONRY AND CONCRETE	SOLID	29.1	CU. METERS	1,164.8	CU. METERS
5 - SCRAP METAL	SOLID	15.4	CU. METERS	147.7	CU. METERS
6 - OIL	LIQUID	22.7	LITERS	1,086.4	LITERS
8 - CHEMICALS	LIQUID			4,812.3	LITERS
9 - OTHER	LIQUID			1,298.4	LITERS
9 - OTHER	SOLID	354.4	CU. METERS	3,691.5	CU. METERS
9 - OTHER	SOLID			9,071.8	KILOGRAMS
STORED WASTE					
3 - WOOD AND SCRAP LUMBER	SOLID	9.0	CU. METERS	120.6	CU. METERS
5 - SCRAP METAL	SOLID	14.1	CU. METERS	172.4	CU. METERS
6 - OIL	LIQUID			30,096.9	LITERS
8 - CHEMICALS	LIQUID			7,078.5	LITERS
9 - OTHER	SOLID			76.3	CU. METERS

INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1981

ALL FACILITIES	MONTHLY				YEAR-TO-DATE			
SUBSTANCES	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)
AMIDES		10		10		102		102
AMMONIA								
ARSENIC								
AUTO CLEANERS			145	145			1,742	1,742
BETZ 45						9		9
BORON		269		269		5,280		5,280
CALCIUM ION		106	16	122		2,347	149	2,496
CARBONTHIOCYANATES		2		2		20		20
CHLORIDE ION		5,339	27,125	32,465		70,212	629,732	699,944
CHLOROHYDROCARBONS								
CHLOROSULFONES		8		8		82		82
CHROMATE ION						6		6
CR+6						1,021		1,021
DIMETHYLAMINE		18		18		218		218
DIPHOSPHONATE							1,279	1,279
FLUORIDE ION							4	4
HEDP		17	45	63	3	174	549	726
HPA							12	12
HYDROCARBON-AMINES		1		1		8		8
HYDROCARBONS		20		20		204		204
HYDROXYCARBONS			20	21		2	1,666	1,668
HYPOCHLORITE ION		234	103	337		5,950	1,292	7,242

INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1981

ALL FACILITIES	MONTHLY				YEAR-TO-DATE			
SUBSTANCES	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)
LAUNDRY PRODUCTS			445	445			5,942	5,942
MERCURY								
MORPHOLINE		27		27		149		149
N-HYDROCARBON		2	95	97		8	736	744
NITRATE ION			2,781	2,781			146,970	146,970
NITRIC OXIDE	11,446			11,446	74,605			74,605
NITROGEN DIOXIDE	29,246			29,246	190,747			190,747
PHOSPHATE	1	39	185	224	7	397	2,228	2,632
PHOSPHATE ION		67	226	293		1,349	19,122	20,471
PHOSPHONATE		41		41		704		704
PHOTO LAB CHEMICAL		163		163		1,960		1,960
POLYACRYLATE	3	198	227	428	38	2,764	8,078	10,881
POLYHYDROXYCARBON								
POLYMETHACRYLATE		28		28		469		469
POLYPHOSPHATE		96		96		1,641		1,641
POTASSIUM ION		6	16	23	1	63	13,689	13,752
SOAP			72	72			1,556	1,556
SODIUM ION		13,387	17,071	30,458	2	107,164	217,241	324,406
SULFATE ION		32,325	17,445	49,770		438,349	316,777	755,126
SULFITE ION		24	8	32		130	79	208
SULFONATE		28		28		469		469
TDS			147,278	147,278		10,917	1,708,904	1,719,821

ALL FACILITIES	MONTHLY				YEAR-TO-DATE			
SUBSTANCES	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)	ATMOSPHERE (KILOS)	SURFACE (KILOS)	SUBSURFACE (KILOS)	TOTAL (KILOS)
THIOHYDROCARBONS								
TOLYTRIAZOLE		4	11	16	1	44	137	182
TOTAL HARDNESS			29,180	29,180		1,165	340,886	342,051

INEL MONTHLY FUEL OIL SUMMARY
DECEMBER 1981

AREA OF ORIGIN	FUEL OIL IN LITERS					KILOGRAMS DISCHARGED		
	TYPE 2	TYPE 5	TYPE 6	KEROSENE	DIESEL	SO2	NOX	PARTICULATES
ANL	94,595					368		125
ARA	2,135					12		
CFA	62,268					352		
CPP		624,574				15,986		
LOF	48,452				3,028	295		
MHD	59,959					361		
NRF		515,179				12,889	1,667	1,105
PBF	15,330					87		
TAN		294,761			7,457	1,867		
TRA		171,626			91,226	5,188		854
WMC								
WRF	32,213					182		
GRAND TOTALS	314,952	1,606,141			101,711	37,587	1,667	2,083

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INEL YEAR-TO-DATE FUEL OIL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA OF ORIGIN	FUEL OIL IN LITERS					KILOGRAMS DISCHARGED		
	TYPE 2	TYPE 5	TYPE 6	KEROSENE	DIESEL	SO2	NOX	PARTICULATES
ANL	930,265					3,622		1,276
ARA	67,549					383		
CFA	579,041				8,596	3,340		
CPP		5,474,074				140,110		
LOF	163,903				10,220	1,000		
MHD	431,952					3,196		
NRF		2,730,314				61,635	8,834	5,856
PBF	96,677				16,587	642		
TAN	221,311	1,351,049			46,044	30,000		
TRA		1,215,736			1,828,754	44,909		6,046
WMC	36,789					208		
WRF	307,461				11,753	1,823		
GRAND TOTALS	2,634,948	10,771,173			1,921,956	290,868	8,834	13,128

LOF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
BORON WEIGHT (KGS)		200				56	1,957	164	2,572			269	5,279
CHLORIDE ION WEIGHT (KGS)	83		660	83		83	495	96	413	165			2,077
PHOSPHATE ION WEIGHT (KGS)		2	1	1							4	2	10
SODIUM ION WEIGHT (KGS)	56	42	678	109	59	73	582	102	515	244	6	39	2,504
SULFATE ION WEIGHT (KGS)		25	165	12	37	12	174	35	32	104		11	608
SULFITE ION WEIGHT (KGS)	4	3	3	5							7	8	30

LOF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	34,847	22,136	48,111	56,401	21,247	37,160	42,320	25,252	46,181	61,738	17,322	16,602	429,317
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)	2.37		13.73	1.46		2.22	11.71	3.81	8.94	2.67			4.84
WEIGHT (KGS)	83		660	83		83	495	96	413	165			2,077
PHOSPHATE ION													
CONCENTRATION (MG/L)	.02	.09	.02	.01							.20	.11	.02
WEIGHT (KGS)		2	1	1							4	2	10
SODIUM ION													
CONCENTRATION (MG/L)	1.61	1.91	14.09	1.93	2.76	1.97	13.75	4.02	11.16	3.93	.34	2.39	5.83
WEIGHT (KGS)	56	42	678	109	59	73	582	102	515	244	6	39	2,504
SULFATE ION													
CONCENTRATION (MG/L)		1.12	3.43	.22	1.76	.33	4.11	1.41	.69	1.69		.66	1.42
WEIGHT (KGS)		25	165	12	37	12	174	35	32	104		11	608
SULFITE ION													
CONCENTRATION (MG/L)	.10	.14	.06	.08						.01	.42	.49	.07
WEIGHT (KGS)	4	3	3	5							7	8	30
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 SURFACE													
VOLUME (L. IN 1000)		38				15	246	19	379			182	878
HYDROGEN-ION CONC. (PH)													
BORON													
CONCENTRATION (MG/L)		1108.54				3395.00	7969.00	8686.00	6808.00			1493.00	6,020.19
WEIGHT (KGS)		260				56	1,957	164	2,572			269	5,279

NOTE: UNDERLINE = CALCULATED CONCE ION BASED UPON CHEMICAL USAGE

LOF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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	12.2	61.2	99.6	73.4	24.5	73.4				9.2			353.5
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	12.2	61.2	99.6	73.4	24.5	73.4				9.2			353.5

LOF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	14,051	2,669	36,528	55,985	1,790	435	32,637	13,642	13,816	30,926	8,793	4,894	216,167
LO2 WATER PUMPED (L)	20,967	19,680	11,768	7,075	23,321	47,619	48,793	15,800	35,245	36,782	8,983	28,636	304,667
TOTAL WATER PUMPED (L)	35,018	22,348	48,297	63,059	25,112	48,054	81,429	29,442	49,061	67,708	17,776	33,530	520,835
WATER DISPOSAL													
AIR (L)													
SURFACE (L)	34,847	22,174	48,111	56,401	21,247	37,179	42,547	25,271	46,559	51,738	17,322	16,784	430,180
SUBSURFACE (L)													
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)	35,018	22,345	48,282	56,571	21,417	37,350	42,717	25,441	46,730	61,909	17,492	16,954	432,224
ACCOUNTABILITY (%)	100.0	100.0	100.0	89.7	85.3	77.7	52.5	86.4	95.2	91.4	98.4	50.6	83.0

LOF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)			5	2								3	10
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	28	24	17	6		2	2	3		10	23	48	164
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													

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WRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)	440	137	206	275	151			14		137	179	137	1,678
PHOSPHATE ION WEIGHT (KGS)	20	2	3	2	2	3		2	5	3	3	2	47
SODIUM ION WEIGHT (KGS)	325	107	152	235	128	12	46	55	95	220	247	141	1,763
SULFATE ION WEIGHT (KGS)	48	32	32	59	32	16	112	89	196	175	175	65	1,031
SULFITE ION WEIGHT (KGS)	18	6	5	5	5	5		5	5	6	7	8	75

WRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	2,983	10,591	16,326	6,121	5,799	2,725	8,066	10,716	9,471	12,544	12,109	15,001	112,454
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)	147.70	12.99	12.64	44.97	26.10					10.97	14.77	9.17	14.81
WEIGHT (KGS)	440	137	206	275	151					137	179	137	1,665
PHOSPHATE ION													
CONCENTRATION (MG/L)	6.92	.21	.17	.35	.31	1.21		.16	.48	.23	.28	.12	.42
WEIGHT (KGS)	20	2	3	2	2	3		2	5	3	3	2	47
SODIUM ION													
CONCENTRATION (MG/L)	109.06	10.12	9.30	38.41	22.15	4.42	5.66	.35	.49	17.50	20.41	9.37	14.42
WEIGHT (KGS)	325	107	152	235	128	12	46	4	5	220	247	141	1,621
SULFATE ION													
CONCENTRATION (MG/L)	16.08	3.02	1.96	9.72	5.51	5.87	13.87			13.96	14.46	4.35	6.64
WEIGHT (KGS)	48	32	32	59	32	16	112			175	175	65	746
SULFITE ION													
CONCENTRATION (MG/L)	5.99	.54	.34	.85	.87	2.01		.40	.46	.48	.59	.56	.67
WEIGHT (KGS)	18	6	5	5	5	5		5	5	6	7	8	75
WRRTF SEWAGE POND SURFACE													
VOLUME (L. IN 1000)	114	102	136	197	242	242	57	303	201	185	492	235	2,506
HYDROGEN-ION CONC. (PH)													
SODIUM ION													
CONCENTRATION (MG/L)								138.94	456.23				53.15
WEIGHT (KGS)								42	91				133
SULFATE ION													
CONCENTRATION (MG/L)								292.04	985.46				113.83
WEIGHT (KGS)								89	196				285
WRRTF 2 PHASE SUMP SURFACE													
VOLUME (L. IN 1000)								38	57	379	38		511
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)								363.56					26.93
WEIGHT (KGS)								14					14

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

WRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SODIUM ION													
CONCENTRATION (MG/L)								235.58					17.45
WEIGHT (KGS)								9					9

NOTE: UNDERLINE = CALCULATED CON ATION BASED UPON CHEMICAL USAGE

WRF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	3,093	10,697	16,462	6,356	6,041	2,968	8,127	11,023	9,569	12,639	12,601	15,236	114,812
WATER DISPOSAL													
AIR (L)													
SURFACE (L)													
SUBSURFACE (L)	2,983	10,591	16,326	6,121	5,799	2,725	8,066	10,716	9,471	12,544	12,109	15,001	112,454
SEWAGE DATA													
643 BUILD VOL. (L)	114	102	136	197	242	242	57	303	98	95	492	235	2,313
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	29.0	23.8	87.8	19.2	14.3	44.2	32.4	24.8	24.0	64.9	41.0	24.4	35.8
FINAL CONC. (MG/L)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	2.5	2.7	2.0	2.7	4.0	4.4	2.2	2.6	3.2	3.0	4.0	3.4	3.1
FINAL CONC. (MG/L)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL	8.3			8.0	8.2	7.8	7.9	7.8	7.7	7.9	7.6	8.0	7.9
TOTAL SEWAGE VOL. (L)	114	102	136	197	242	242	57	303	98	95	492	235	2,313
TOTAL WATER DISPOSED (L)	3,096	10,693	16,462	6,318	6,041	2,968	8,123	11,019	9,569	12,639	12,601	15,236	114,767
ACCOUNTABILITY (%)	100.1	100.0	100.0	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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WRF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)					11								12
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	57	36	40	34	20	19	10	8	11	20	21	32	307
SO2 (KGS)													2
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													2
NOX (KGS)													
PARTICULATES (KGS)													

TRA AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	134,716	114,844	66,165	108,961	163,746	113,679	
	134,272	198,105	115,788	166,855	175,070	72,603	1,564,803

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)	23	31	40	34	36	23	179	194	46	49	34	29	718
DIPHOSPHONATE WEIGHT (KGS)	233	221	149	221	240	205	9						1,279
HEDP WEIGHT (KGS)							68	159	91	102	91	45	556
HPA WEIGHT (KGS)	12												12
HYDROXYCARBONS WEIGHT (KGS)	330	259	199	259	262	262	10	10	15	20	10	20	1,658
HYPOCHLORITE ION WEIGHT (KGS)	31	43	56	47	50	31	257	279	64	67	46	39	1,010
N-HYDROCARBON WEIGHT (KGS)	64	48	48	48	48	48	48	48	71	95	48	95	706
PHOSPHATE WEIGHT (KGS)							155	361	206	232	206	103	1,264
PHOSPHATE ION WEIGHT (KGS)	104	16,550	225	297	389	239	270	272	218	138	153	224	19,078
POLYACRYLATE WEIGHT (KGS)							1,134	2,268	1,361	2,041	1,134	227	8,165
POTASSIUM ION WEIGHT (KGS)	106	150	75	150	188	115	43	57	33	37	33	16	1,002
SODIUM ION WEIGHT (KGS)	2,321	2,517	3,067	2,051	2,531	1,867	3,125	4,671	3,450	5,469	3,522	4,092	38,783
SULFATE ION WEIGHT (KGS)	45,828	37,999	29,864	39,144	52,005	32,514	40,419	53,143	40,075	53,224	56,554	32,141	512,910
SULFITE ION WEIGHT (KGS)	1			1									4
TDS WEIGHT (KGS)	186	34,598	50,844	43,919	65,222	64,331	51,504	66,799	50,873	49,834	27,672	45,843	551,625

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
TOLYTRIAZOLE WEIGHT (KGS)							17	39	23	25	23	11	138
TOTAL HARDNESS WEIGHT (KGS)	163	28,035	29,932	28,905	41,732	42,960	31,769	37,539	30,047	26,471	15,318	29,180	342,050

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	3,096	2,570	2,430	2,566	3,339	2,491	2,366	3,524	3,123	4,134	2,956	3,074	35,669
HYDROGEN-ION CONC. (PH)													
SODIUM ION													
CONCENTRATION (MG/L)	711.77	936.02	1230.96	755.92	722.46	708.92	1302.78	1300.25	1088.60	1309.12	1208.73	1322.98	1,060.81
WEIGHT (KGS)	2,203	2,404	2,991	1,939	2,411	1,765	3,082	4,581	3,399	5,411	3,572	4,067	37,826
SULFATE ION													
CONCENTRATION (MG/L)	8228.84	7461.91	7461.57	8546.17	7995.58	6424.66	7812.87	7311.03	7734.86	7815.24	7612.52	7489.89	7,672.69
WEIGHT (KGS)	25,467	19,170	18,130	21,923	26,688	15,999	18,484	25,759	24,149	32,305	22,494	23,024	273,593
OLD WASTE TO L. POND SURFACE													
VOLUME (L. IN 1000)											2,536		2,536
HYDROGEN-ION CONC. (PH)											8.3		8.3
CHLORIDE ION													
CONCENTRATION (MG/L)											.49		.49
WEIGHT (KGS)											1		1
HEDP													
CONCENTRATION (MG/L)											2.72		2.72
WEIGHT (KGS)											7		7
HYDROXYCARBONS													
CONCENTRATION (MG/L)											.30		.30
WEIGHT (KGS)											1		1
HYPOCHLORITE ION													
CONCENTRATION (MG/L)											.65		.65
WEIGHT (KGS)											2		2
N-HYDROCARBON													
CONCENTRATION (MG/L)											1.42		1.42
WEIGHT (KGS)											4		4
PHOSPHATE													
CONCENTRATION (MG/L)											6.18		6.18
WEIGHT (KGS)											16		16
PHOSPHATE ION													
CONCENTRATION (MG/L)											4.60		4.59
WEIGHT (KGS)											12		12

NOTE: UNDERLINE = CALCULATED CONC TION BASED UPON CHEMICAL USAGE

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
POLYACRYLATE													
CONCENTRATION (MG/L)											33.98		33.98
WEIGHT (KGS)											86		86
POTASSIUM ION													
CONCENTRATION (MG/L)											.98		.98
WEIGHT (KGS)											2		2
SODIUM ION													
CONCENTRATION (MG/L)											1.53		1.53
WEIGHT (KGS)											4		4
SULFATE ION													
CONCENTRATION (MG/L)											6062.10		6,062.58
WEIGHT (KGS)											15,377		15,377
TDS													
CONCENTRATION (MG/L)											831.00		829.55
WEIGHT (KGS)											2,104		2,104
TOLYTRIAZOLE													
CONCENTRATION (MG/L)											.68		.68
WEIGHT (KGS)											2		2
TOTAL HARDNESS													
CONCENTRATION (MG/L)											460.00		459.20
WEIGHT (KGS)											1,165		1,165
CONDENSATE LOSS SUBSURFACE													
VOLUME (L. IN 1000)	1,578	818	787	655	591				125	1,147	1,245	1,435	8,381
HYDROGEN-ION CONC. (PH)													
DISPOSAL WELL SUBSURFACE													
VOLUME (L. IN 1000)	91,869	71,466	102,695	80,438	86,381	86,078	82,027	71,769	70,331	57,650	30,824	33,049	914,578
HYDROGEN-ION CONC. (PH)	7.9		8.1	7.8	7.7	8.6	8.7	8.6	8.5	8.9	8.3	8.7	8.3
CHLORIDE ION													
CONCENTRATION (MG/L)	.05	.21	.23	.22	.19	.08	.24	.25	.43	.50	.49	.16	.23
WEIGHT (KGS)	5	15	24	18	16	6	20	18	30	29	15	14	210
DIPHOSPHONATE													
CONCENTRATION (MG/L)	2.54	3.09	1.45	2.75	2.78	2.38	.11						1.40
WEIGHT (KGS)	233	221	149	221	240	205	9						1,279

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
HEDP													
CONCENTRATION (MG/L)							.83	2.21	1.29	1.77	2.72	.55	.60
WEIGHT (KGS)							68	159	91	102	84	45	549
HPA													
CONCENTRATION (MG/L)	.13												.01
WEIGHT (KGS)	12												12
HYDROXYCARBONS													
CONCENTRATION (MG/L)	3.60	3.63	1.94	3.23	3.03	3.04	.12	.14	.22	.35	.31	.25	1.81
WEIGHT (KGS)	330	259	199	259	262	262	10	10	15	20	10	20	1,657
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	.05	.28	.32	.29	.24	.08	.33	.33	.58	.66	.65	.19	.30
WEIGHT (KGS)	4	20	33	24	21	7	27	24	41	38	20	16	274
N-HYDROCARBON													
CONCENTRATION (MG/L)	.69	.67	.46	.59	.55	.55	.58	.66	1.01	1.65	1.43	1.15	.77
WEIGHT (KGS)	64	48	48	48	48	48	48	48	71	95	44	95	703
PHOSPHATE													
CONCENTRATION (MG/L)							1.89	5.03	2.93	4.03	6.19	1.24	1.37
WEIGHT (KGS)							155	361	206	232	191	103	1,248
PHOSPHATE ION													
CONCENTRATION (MG/L)	1.13	231.99	2.19	3.69	4.51	2.78	3.29	3.80	3.10	2.40	4.60	2.70	20.85
WEIGHT (KGS)	104	16,550	225	297	389	239	270	272	218	138	142	224	19,066
POLYACRYLATE													
CONCENTRATION (MG/L)							13.82	31.60	19.35	35.41	33.99	2.73	8.83
WEIGHT (KGS)							1,134	2,268	1,361	2,041	1,048	227	8,078
POTASSIUM ION													
CONCENTRATION (MG/L)	1.15	2.10	.73	1.87	2.17	1.33	.53	.80	.46	.64	.98	.20	1.09
WEIGHT (KGS)	106	150	75	150	188	115	43	57	33	37	30	16	1,000
SODIUM ION													
CONCENTRATION (MG/L)	1.29	1.56	.74	1.40	1.39	1.19	.52	1.24	.73	1.00	1.53	.31	1.04
WEIGHT (KGS)	118	112	76	112	120	102	43	89	51	58	47	25	953
SULFATE ION													
CONCENTRATION (MG/L)	221.62	263.46	114.26	214.09	293.08	191.86	267.42	381.55	226.44	362.87	606.14	109.78	244.87
WEIGHT (KGS)	20,360	18,829	11,734	17,221	25,316	16,515	21,936	27,383	15,926	20,920	18,683	9,117	223,940

NOTE: UNDERLINE = CALCULATED CONCEN ION BASED UPON CHEMICAL USAGE

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SULFITE ION													
CONCENTRATION (MG/L)	.01	.01	.01	.01	.01								
WEIGHT (KGS)	1			1									4
TDS													
CONCENTRATION (MG/L)	2.02	485.00	496.00	547.00	751.00	740.00	600.20	876.00	707.70	866.00	831.00	553.00	591.26
WEIGHT (KGS)	186	34,598	50,844	43,919	64,754	63,582	49,143	62,756	49,683	49,834	25,568	45,843	540,708
TOLYTRIAZOLE													
CONCENTRATION (MG/L)							.21	.55	.32	.44	.68	.14	.15
WEIGHT (KGS)							17	39	23	25	21	11	137
TOTAL HARDNESS													
CONCENTRATION (MG/L)	1.78	393.00	292.00	360.00	484.00	500.00	388.00	524.00	428.00	460.00	460.00	352.00	372.75
WEIGHT (KGS)	163	28,035	29,932	28,905	41,732	42,960	31,769	37,539	30,047	26,471	14,153	29,180	340,886
IRRIGATION SURFACE													
VOLUME (L. IN 1000)					1,908	3,051	10,531	17,552	4,732				37,774
HYDROGEN-ION CONC. (PH)					8.0	7.8			7.9				7.9
TDS													
CONCENTRATION (MG/L)					246.00	246.00	224.60	230.80	252.00				233.32
WEIGHT (KGS)					469	749	2,361	4,044	1,190				8,813
RADIOACTIVE STREAM SURFACE													
VOLUME (L. IN 1000)	17,552	15,050	14,615	15,493	18,908	15,262	14,956	20,221	17,552	24,143	13,430	15,486	202,669
HYDROGEN-ION CONC. (PH)													
SEWAGE PLANT SURFACE													
VOLUME (L. IN 1000)	2,877	2,301	1,662	1,575	1,851	2,495	1,469	2,052	1,253	1,688	1,378	1,306	21,906
HYDROGEN-ION CONC. (PH)	7.5	7.5	7.4	7.4	7.5	7.6	7.6	7.6	7.6	7.5	7.4	7.4	7.5
CHLORIDE ION													
CONCENTRATION (MG/L)	6.39	6.90	9.55	10.09	10.72	6.55	108.18	85.66	12.69	11.74	12.33	12.16	23.08
WEIGHT (KGS)	18	16	16	16	20	16	159	176	16	20	17	16	505
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	9.27	10.01	13.86	14.64	15.56	9.56	156.99	124.30	18.42	17.04	17.90	17.65	33.49
WEIGHT (KGS)	27	23	23	23	29	24	230	255	23	29	24	23	733

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TRA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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												
TRA LANDFILL													
DISPOSED WASTE													
1 M SOLID	203.4	170.5	224.8	112.4	209.5	214.1	156.0	160.6	74.2	214.1	184.3	240.9	2,164.7
2 M SOLID	9.2	18.4	9.9	4.6	22.9	6.1	12.2	16.8	18.4	12.2	13.6	12.2	156.6
3 M SOLID	4.1		4.6	.8	2.3		5.4			15.3		6.1	38.5
4 M SOLID	.2			7.6	2.3		.8	6.1			7.6		24.7
5 M SOLID				3.1									3.1
9 M SOLID ASPHALT								45.9		15.3			61.2
9 M SOLID BARRELS		5.7				5.4							11.1
9 M SOLID BOXES						5.4							5.4
9 M SOLID DEAD DEER									.8				.8
9 M SOLID GLASS								1.5					1.5
9 M SOLID LAVA ROCK										1.5			1.5
9 M SOLID METAL							2.3						2.3
9 M SOLID METAL SHAVINGS					4.6								4.6
9 M SOLID OIL-SAWDUST								.8					.8
9 M SOLID PAPER BARRELS AND TIRE												.8	.8
9 M SOLID ROOFING						7.6							7.6
9 M SOLID STRUCT CONSIST. OF WOOD,GLASS,METAL										19.1			19.1
9 M SOLID TREE LIMBS							2.3						2.3
9 M SOLID VISQUEEN												1.0	1.0
9 M SOLID WEEDS			2.3										2.3
9 M SOLID 55-GAL DRUM												1.5	1.5
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	203.4	170.5	224.8	112.4	209.5	214.1	156.0	160.6	74.2	214.1	184.3	240.9	2,164.7
2 M SOLID	9.2	18.4	9.9	4.6	22.9	6.1	12.2	16.8	18.4	12.2	13.6	12.2	156.6

TRA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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													
3 M SOLID	4.1		4.6	.8	2.3		5.4			15.3		6.1	38.5
4 M SOLID	.2			7.6	2.3		.8	6.1			7.6		24.7
5 M SOLID				3.1									3.1
9 M SOLID		5.7	2.3		4.6	18.4	4.6	48.2	.8	35.9		3.3	123.7

TRA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	9,615	12,037	13,926	20,868	15,580	28,216	13,718	12,756	7,673	18,783	10,924	10,364	174,461
3 WATER PUMPED (L)						12,450		462		1,003	49		13,964
4 WATER PUMPED (L)	203,043	158,491	154,175	154,705	209,479	146,643	189,416	237,717	168,446	181,619	160,800	143,501	2,108,034
TOTAL WATER PUMPED (L)	212,658	170,528	168,101	175,574	225,059	187,308	203,134	250,935	176,119	201,404	171,773	153,865	2,296,458
WATER DISPOSAL													
AIR (L)	91,869	78,318	45,121	74,305	111,666	77,523	91,566	135,097	78,961	113,786	119,388	49,512	1,067,114
SURFACE (L) *	20,645	17,621	17,045	15,989	24,154	20,804	27,856	41,298	25,407	27,141	18,923	18,559	275,441
SUBSURFACE (L)	93,459	72,261	103,490	81,081	86,948	86,078	82,027	71,769	70,331	58,786	32,069	84,488	922,788
SEWAGE DATA													
BUILD VOL. (L)	2,877	2,301	1,662	1,575	1,851	2,495	1,469	2,052	1,253	1,688	1,378	1,306	21,906
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	139.0	107.5	179.0	136.0	213.3	159.2	193.8	152.6	172.8	235.0	190.0	150.0	169.0
FINAL CONC. (MG/L)	8.3	21.0	13.5	4.0	12.3	14.9	14.9	13.1	18.4	26.1	30.4	20.0	16.4
% REMOVED	94.0	80.5	92.5	97.1	94.2	90.6	92.3	91.4	89.4	88.9	84.0	86.7	90.3
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	2.3	1.3	2.5	1.0	4.0	1.4	.5	.4	4.0	3.8	2.5	3.0	2.2
FINAL CONC. (MG/L)	4.8	4.5	3.0	5.0	4.0	4.0	4.0	2.8	1.5	1.8	4.0	4.0	3.6
INCREASED FACTOR	1.1	2.5	.2	4.0		1.9	7.0	6.0	-.6	-.5	.6	.3	.6
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	2.9	2.6	5.2	5.4	5.3	4.5	2.7	3.6	3.2	3.0	7.2	6.0	4.3
FINAL CONC. (ML/L)	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
% REMOVED	98.3	98.1	99.0	99.1	99.1	98.9	98.1	98.6	98.4	98.3	99.3	99.2	98.8
PH-FINAL	7.4	7.5	7.4	6.9	8.0	7.4	7.6	7.8	7.6	7.7	7.5	7.5	7.5
TOTAL SEWAGE VOL. (L)	2,877	2,301	1,662	1,575	1,851	2,495	1,469	2,052	1,253	1,688	1,378	1,306	21,906
TOTAL WATER DISPOSED (L)	208,850	170,501	167,318	172,950	224,620	186,899	202,919	250,216	175,952	201,401	171,758	153,865	2,287,249
ACCOUNTABILITY (%)	98.2	100.0	99.5	98.5	99.8	99.8	99.9	99.7	99.9	100.0	100.0	100.0	99.6

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

TRA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)	173	146	131	156	187	118	142	202	149	188	146	91	1,829
SO2 (KGS)	1	1	1	1	1	1	1	1	1	1	1	1	13
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 5													
VOLUME (LITERS)	185	163	145	133	105				24	146	143	172	1,216
SO2 (KGS)	5	4	4	4	3				1	4	4	5	32
NOX (KGS)													
PARTICULATES (KGS)	1	1	1	1	1					1	1	1	6
GRAND TOTALS													
SO2 (KGS)	6	5	5	5	4	1	1	1	2	5	5	5	45
NOX (KGS)													
PARTICULATES (KGS)	1	1	1	1	1					1	1	1	6

MHD LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
AMMONIA WEIGHT (KGS)													
ARSENIC WEIGHT (KGS)													
CHLORIDE ION WEIGHT (KGS)			1		1								2
CR+6 WEIGHT (KGS)	1,021												1,021
FLUORIDE ION WEIGHT (KGS)									2	2			5
HYDROXYCARBONS WEIGHT (KGS)			7										7
MERCURY WEIGHT (KGS)													
N-HYDROCARBON WEIGHT (KGS)			34										34
NITRATE ION WEIGHT (KGS)									7	5			12
PHOSPHATE ION WEIGHT (KGS)	312								4	3			319
POTASSIUM ION WEIGHT (KGS)						193			7,036	5,459			12,689
SODIUM ION WEIGHT (KGS)	226												226
SULFATE ION WEIGHT (KGS)					30								30

MHD LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)			1,862		935	102			1,329	1,030			5,258
HYDROGEN-ION CONC. (PH)			7.3		10.2	10.2			10.0	9.7			9.5
AMMONIA													
CONCENTRATION (MG/L)					.01	.12			.02	.02			.01
WEIGHT (KGS)													
ARSENIC													
CONCENTRATION (MG/L)					.01				.01	.01			.01
WEIGHT (KGS)													
CHLORIDE ION													
CONCENTRATION (MG/L)			.55		1.26								.42
WEIGHT (KGS)			1		1								2
FLUORIDE ION													
CONCENTRATION (MG/L)					.64	.49			1.61	1.61			.84
WEIGHT (KGS)									2	2			5
HYDROXYCARBONS													
CONCENTRATION (MG/L)			3.90										1.38
WEIGHT (KGS)			7										7
MERCURY													
CONCENTRATION (MG/L)					.09								.02
WEIGHT (KGS)													
N-HYDROCARBON													
CONCENTRATION (MG/L)			18.15										6.43
WEIGHT (KGS)			34										34
NITRATE ION													
CONCENTRATION (MG/L)					.02	.26			5.20	5.20			2.34
WEIGHT (KGS)									7	5			12
PHOSPHATE ION													
CONCENTRATION (MG/L)					.22	2.00			3.15	3.15			1.49
WEIGHT (KGS)									4	3			7
POTASSIUM ION													
CONCENTRATION (MG/L)						1920.00			5310.00	5310.00			2,414.14
WEIGHT (KGS)						193			7,036	5,459			12,689

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
SULFATE ION													
CONCENTRATION (MG/L)					32.60								5.79
WEIGHT (KGS)					30								30
EVAPORATION POND SURFACE													
VOLUME (L. IN 1000)	167												167
HYDROGEN-ION CONC. (PH)	7.0												7.0
CR+6													
CONCENTRATION (MG/L)	6127.64												6,128.12
WEIGHT (KGS)	1,021												1,021
PHOSPHATE ION													
CONCENTRATION (MG/L)	1870.84												1,870.98
WEIGHT (KGS)	312												312
SODIUM ION													
CONCENTRATION (MG/L)	1359.31												1,359.42
WEIGHT (KGS)	226												226

NOTE: UNDERLINE = CALCULATED CONCE ION BASED UPON CHEMICAL USAGE

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

MHD INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	VOLUME OR WEIGHT BY MONTH JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DOT LANDFILL													
DISPOSED WASTE													
1 M SOLID	61.2	61.2	61.2	61.2	61.2	73.4	73.4	73.4	73.4	73.4	73.4	73.4	819.7
9 KG SOLID							9,071.8						9,071.8
FLY ASH													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	61.2	61.2	61.2	61.2	61.2	73.4	73.4	73.4	73.4	73.4	73.4	73.4	819.7
9 KG SOLID							9,071.8						9,071.8

MHD WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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													
BUT WATER PUMPED (L)	1,802	2,619	1,915	1,806	1,582	924	1,878	996	2,237	1,416	916	632	18,722
WATER DISPOSAL													
AIR (L)	45	49	49	284	647	821	644	727	908	382	98	49	4,705
SURFACE (L)													
SUBSURFACE (L)													
SEWAGE DATA													
BUILD VOL. (L)	1,756	2,570	1,862	1,522	935	102	1,234	265	1,329	1,030	818	579	14,002
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)	1,756	2,570	1,862	1,522	935	102	1,234	265	1,329	1,030	818	579	14,002
TOTAL WATER DISPOSED (L)	1,802	2,619	1,912	1,806	1,582	924	1,878	992	2,237	1,412	916	628	18,707
ACCOUNTABILITY (%)	100.0	100.0	99.8	100.0	100.0	100.0	100.0	99.6	100.0	99.7	100.0	99.4	99.9

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

MHD FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	23	64	48	3	48	23	3	49	13	39	59	60	432
SO2 (KGS)	1												3
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	1												3
NOX (KGS)													
PARTICULATES (KGS)													

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

WMC INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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	10.7	18.4	9.2	13.0	9.9		13.4	37.5	8.4	11.1	6.1	15.3	152.9
2 M SOLID										.8			.8
3 M SOLID			.8		1.5	.2	.2		.8				3.5
4 M SOLID					9.2	.4							9.6
9 M SOLID												.8	.8
NUTS AND RUBBER													
9 M SOLID				55.1									55.1
ROOFING MATERIAL													
9 M SOLID				5.4				1.9					7.3
WEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	10.7	18.4	9.2	13.0	9.9		13.4	37.5	8.4	11.1	6.1	15.3	152.9
2 M SOLID										.8			.8
3 M SOLID			.8		1.5	.2	.2		.8				3.5
4 M SOLID					9.2	.4							9.6
9 M SOLID				60.4				1.9				.8	63.1

WMC INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

DISPOSAL OR STORAGE LOCATION TYPE OF WASTE	VOLUME OR WEIGHT BY MONTH JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS

END OF SCHED. NO. P68PM006-B

WMC WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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													
EBR WATER PUMPED (L)	927	496	863	939	231	939	893	2,252	1,374	500	519	227	10,160
WMC WATER PUMPED (L)		1,949	121	310	98	556	2,638	3,630	2,252	1,923	2,706	7,113	23,299
TOTAL WATER PUMPED (L)	927	2,445	984	1,249	329	1,495	3,532	5,882	3,626	2,423	3,225	7,340	33,458
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *								2,888	708	469	628	727	5,421
SUBSURFACE (L) *	844	2,362	897	1,166	246	1,389	3,426	2,888	2,835	1,874	2,513	6,530	26,970
SEWAGE DATA													
EBR BUILD VOL. (L)	45	45	45	45	45	68	68	68	45	45	45	45	613
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 PORTION OF VOLUME IS ESTIMATED

WMC WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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	38	38	38	38	38	454
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)	83	83	83	83	83	106	106	106	83	83	83	83	1,067
TOTAL WATER DISPOSED (L)	927	2,445	980	1,249	329	1,495	3,532	5,882	3,626	2,426	3,225	7,340	33,458
ACCOUNTABILITY (%)	100.0	100.0	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.2	100.0	100.0	100.0

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

WMC FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	8	11			9		8						37
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													

PBF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
BETZ 45 WEIGHT (KGS)										9			9
CHLORIDE ION WEIGHT (KGS)													
CHLOROHYDROCARBONS WEIGHT (KGS)													
CHROMATE ION WEIGHT (KGS)	5												6
HPA WEIGHT (KGS)													
HYDROXYCARBONS WEIGHT (KGS)													1
N-HYDROCARBON WEIGHT (KGS)											2	2	5
POLYHYDROXYCARBON WEIGHT (KGS)													
SODIUM ION WEIGHT (KGS)	2				163	65	65		1,043		113	170	1,622
SULFATE ION WEIGHT (KGS)		1,421	7		200	107	128		1,279		82	82	3,305
THIOHYDROCARBONS 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)	19	19	19	295	95	38	326		76	76	38	57	1,056
HYDROGEN-ION CONC. (PH)													
BETZ 45													
CONCENTRATION (MG/L)				.01						116.11			8.33
WEIGHT (KGS)										9			9
CHLORIDE ION													
CONCENTRATION (MG/L)											1.85	1.23	.13
WEIGHT (KGS)													
CHLOROHYDROCARBONS													
CONCENTRATION (MG/L)													
WEIGHT (KGS)													
CHROMATE ION													
CONCENTRATION (MG/L)	255.24			1.09	3.32						8.51		5.48
WEIGHT (KGS)	5												6
HPA													
CONCENTRATION (MG/L)										1.83			.13
WEIGHT (KGS)													
HYDROXYCARBONS													
CONCENTRATION (MG/L)											13.18	8.79	.95
WEIGHT (KGS)													1
N-HYDROCARBON													
CONCENTRATION (MG/L)											61.42	40.95	4.40
WEIGHT (KGS)											2	2	5
POLYHYDROXYCARBON													
CONCENTRATION (MG/L)										1.10			.08
WEIGHT (KGS)													
SODIUM ION													
CONCENTRATION (MG/L)	104.25			.45	1723.90	1722.55	200.30		13780.37	.57	2999.21	2995.73	1,536.51
WEIGHT (KGS)	2				163	65	65		1,043		113	170	1,622
SULFATE ION													
CONCENTRATION (MG/L)		75080.27	375.40	.01	2111.63	2815.51	392.86		16893.06		2156.93	1437.95	3,129.32
WEIGHT (KGS)		1,421	7		200	107	128		1,279		82	82	3,305

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
THIOHYDROCARBONS													
CONCENTRATION (MG/L)													
WEIGHT (KGS)													

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												
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	45.9	38.2			1.9		101.7	45.9	74.2	73.4	32.9	6.5	420.6
3 M SOLID						.4						6.9	7.3
4 M SOLID			7.6						1.9	64.5	4.6		78.7
9 M SOLID												.8	.8
BARRELS-SALT BRINE AND ASBESTOS													
9 M SOLID			76.5										76.5
DIRT AND ASPHALT													
9 M SOLID								6.1					6.1
INSULATION													
9 M SOLID							1.5						1.5
TANK													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	45.9	38.2			1.9		101.7	45.9	74.2	73.4	32.9	6.5	420.6
3 M SOLID						.4						6.9	7.3
4 M SOLID			7.6						1.9	64.5	4.6		78.7
9 M SOLID			76.5				1.5	6.1				.8	84.9

PBF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	1,306	1,181	1,332	2,207	1,806	3,751	3,747	2,718	2,362	3,585	882	5,591	30,468
2 WATER PUMPED (L)	4	4	4	91	19	8		114	8	136	628	8	1,022
TOTAL WATER PUMPED (L)	1,310	1,185	1,336	2,298	1,825	3,759	3,747	2,831	2,370	3,721	1,510	5,598	31,490
WATER DISPOSAL													
AIR (L)	185					83	159						428
SURFACE (L) *	333	326	326	640	420	1,211	1,052	326	401	1,412	878	492	7,817
SUBSURFACE (L) *	530	8	734	1,382	1,124	2,139	2,222	2,222	1,647	2,025	363	4,815	19,210
SEWAGE DATA													
619 BUILD VOL. (L)	182	182	182	220	182	182	182	182	182	182	182	182	2,218
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

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PBF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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	269	231	231	231	231	231	231	231	231	2,809
TOTAL WATER DISPOSED (L)	1,279	564	1,291	2,290	1,775	3,664	3,664	2,778	2,279	3,668	1,472	5,538	30,263
ACCOUNTABILITY (%)	97.7	47.6	96.6	99.7	97.3	97.5	97.8	98.1	96.2	98.6	97.5	98.9	96.1

PBF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981 PBF

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)			3	8						6			17
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	25	4	11		10	10	9			6	7	15	97
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													1
NOX (KGS)													
PARTICULATES (KGS)													

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ARA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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	65.8	52.0	27.9		1.5		4.6	36.7	84.1	26.8	46.6	19.1	365.1
2 M SOLID		6.1											6.1
3 M SOLID	3.1		.4										3.4
4 M SOLID		1.5											1.5
9 M SOLID	.8												.8
OTHER-WEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	65.8	52.0	27.9		1.5		4.6	36.7	84.1	26.8	46.6	19.1	365.1
2 M SOLID		6.1											6.1
3 M SOLID	3.1		.4										3.4
4 M SOLID		1.5											1.5
9 M SOLID	.8												.8

ARA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	5,542	6,537	6,655	4,372	4,482	6,957	7,976	8,422	2,907	8,214	6,348	7,139	75,551
3 WATER PUMPED (L)	7,325	4,474	7,279	7,264	4,857	5,159	5,470	5,296	2,956	3,551	3,986	4,281	61,897
TOTAL WATER PUMPED (L)	12,866	11,011	13,934	11,636	9,338	12,117	13,445	13,718	5,863	11,765	10,334	11,420	137,448
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *	12,310	10,455	13,377	11,080	8,782	11,560	12,889	13,161	5,307	11,208	9,777	10,864	130,771
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)	12,866	11,011	13,934	11,636	9,338	12,117	13,445	13,718	5,863	11,765	10,334	11,420	137,448
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

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ARA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	7	5	8	1	2	26				3	14	2	68
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													

TAN LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)	523	963	1,307	894	482	275			83	137	647	977	6,289
PHOSPHATE ION WEIGHT (KGS)	7	6	5	5	2	2			4	2	11	7	51
SODIUM ION WEIGHT (KGS)	366	644	865	603	318	184	10	7	63	100	444	647	4,250
SULFATE ION WEIGHT (KGS)	48	24	24	24			36	22	22	12	49		262
SULFITE ION WEIGHT (KGS)	8	16	14	13	7	7			4	7	10	15	100

TAN LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	4,266	3,710	4,834	4,293	3,952	5,746	7,192	6,730	4,743	4,482	4,054	5,920	59,921
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)	122.59	259.69	270.47	208.39	121.88	47.90			17.41	30.71	159.55	165.04	104.97
WEIGHT (KGS)	523	963	1,307	894	482	275			83	137	647	977	6,289
PHOSPHATE ION													
CONCENTRATION (MG/L)	1.71	1.59	1.10	1.06	.54	.35			.90	.51	2.69	1.13	.86
WEIGHT (KGS)	7	6	5	5	2	2			4	2	11	7	51
SODIUM ION													
CONCENTRATION (MG/L)	85.86	173.63	179.02	140.55	80.39	31.99	1.34	1.05	13.19	22.37	109.44	109.28	70.94
WEIGHT (KGS)	366	644	865	603	318	184	10	7	63	100	444	647	4,250
SULFATE ION													
CONCENTRATION (MG/L)	11.24	6.46	4.96	5.59			5.00	3.30	4.68	2.73	12.08		4.36
WEIGHT (KGS)	48	24	24	24			36	22	22	12	49		262
SULFITE ION													
CONCENTRATION (MG/L)	1.76	4.27	2.80	2.95	1.75	1.20			.85	1.54	2.42	2.63	1.66
WEIGHT (KGS)	8	16	14	13	7	7			4	7	10	15	100

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TAN INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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	140.7	175.9	202.6	191.2	145.3	164.4	149.1	237.0	137.6	225.6	165.9	237.8	2,173.1
2 M SOLID	39.8	42.8	55.1	42.8	36.7	48.9	30.6	61.2	36.7	48.9	30.6	42.8	516.9
3 M SOLID							.8	35.6	.8		1.5		38.6
4 M SOLID					2.3	.8	2.3	9.2			5.4		19.9
5 M SOLID		.8	3.1		4.6		4.6			6.1		9.2	28.3
9 M SOLID								3.8		627.0		322.7	953.5
OTHER-ROOFING													
9 M SOLID				83.3	79.5								162.9
ROOFING													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	140.7	175.9	202.6	191.2	145.3	164.4	149.1	237.0	137.6	225.6	165.9	237.8	2,173.1
2 M SOLID	39.8	42.8	55.1	42.8	36.7	48.9	30.6	61.2	36.7	48.9	30.6	42.8	516.9
3 M SOLID							.8	35.6	.8		1.5		38.6
4 M SOLID					2.3	.8	2.3	9.2			5.4		19.9
5 M SOLID		.8	3.1		4.6		4.6			6.1		9.2	28.3
9 M SOLID				83.3	79.5			3.8		627.0		322.7	1,116.4

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TAN WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	2,945	8	1,310	3,857	2,286	4,118	1,541	1,991	21,425	23,227	26,864	31,327	120,899
TF2 WATER PUMPED (L)	1,438	4,599	4,376	1,196	2,366	2,642	6,916	5,928	287,607	291,090	292,225	293,664	1,194,046
TOTAL WATER PUMPED (L)	4,383	4,607	5,686	5,053	4,652	6,761	8,456	7,919	309,032	314,316	319,089	324,991	1,314,945
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *	2,305	2,112	2,862	2,476	1,855	3,876	4,520	3,358	2,021	2,487	3,376	3,884	35,131
SUBSURFACE (L) *													
SEWAGE DATA													
623 BUILD VOL. (L)	1,961	1,601	1,972	1,817	2,097	1,870	2,669	3,373	2,722	1,999	678	2,036	24,794
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	111.0	130.0	85.6	46.6	76.2	67.0	82.5	67.0	119.5	134.5	125.4	64.0	92.4
FINAL CONC. (MG/L)	17.5	8.4	27.6	4.6	5.1	24.2	11.9	11.3	16.5	9.6	21.0	17.2	14.6
% REMOVED	84.2	93.5	67.8	90.1	93.3	63.9	85.6	83.1	86.2	92.9	83.3	73.1	84.2
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	2.8	2.3	2.4	1.3	2.5	2.5	5.0	1.0	3.7	3.0	2.4	3.0	2.7
FINAL CONC. (MG/L)	5.1	4.8	3.4	4.6	4.6	5.0	3.8	10.5	2.0	3.0	4.0	4.0	4.6
INCREASED FACTOR	.8	1.1	.4	2.5	.8	1.0	-.2	9.5	-.5		.7	.3	.7
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	3.4	2.5	1.8	1.8	.4	.4	1.9	.8	1.9	1.9	1.0	1.9	1.6
FINAL CONC. (ML/L)	.27	.10	.10	.05	.05	.05	.15	.01	.30	.23			.13
% REMOVED	92.1	96.0	94.4	97.2	87.5	87.5	92.1	98.8	84.2	87.9			
PH-FINAL	7.6	7.5	7.4	7.3	7.6	7.6	7.6	7.5	7.4	7.5	7.8	7.7	7.5
TOTAL SEWAGE VOL. (L)	1,961	1,601	1,972	1,817	2,097	1,870	2,669	3,373	2,722	1,999	678	2,036	24,794
TOTAL WATER DISPOSED (L)	4,266	3,713	4,834	4,293	3,952	5,746	7,188	6,730	4,743	4,486	4,054	5,920	59,925
ACCOUNTABILITY (%)	97.3	80.6	85.0	84.9	84.9	85.0	85.0	85.0	1.5	1.4	1.3	1.8	4.6

NOTE: "*" IN COLUMNS INDICAT ORTION OF VOLUME IS ESTIMATED

TAN FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (LITERS)				8						15	15	7	46
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)					34	79			19	90			221
SO2 (KGS)										1			1
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 5													
VOLUME (LITERS)	217	257	236	192	83						71	295	1,351
SO2 (KGS)	6	7	6	5	2							2	28
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	6	7	6	5	2					1	1	2	30
NOX (KGS)													
PARTICULATES (KGS)													

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CFA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	17	11	12	12	8	9	11	12	10	21	9	16	148
CHLORIDE ION WEIGHT (KGS)	119	111	118	118	113	117	117	124	117	121	115	120	1,412
HYPOCHLORITE ION WEIGHT (KGS)	54	40	52	51	44	51	51	60	49	56	49	54	611
LAUNDRY PRODUCTS WEIGHT (KGS)	464	472	497	713	500	616	537	394	475	420	410	445	5,942
PHOSPHATE WEIGHT (KGS)	82	82	82	82	82	82	82	82	82	82	82	82	980
SOAP WEIGHT (KGS)	101	108	128	182	167	173	171	57	161	154	81	72	1,556
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 1981

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)	11,083	9,353	13,044	12,295	11,023	12,438	11,829	13,479	8,328	16,519	22,136	15,974	157,503
HYDROGEN-ION CONC. (PH)	7.5	7.4	7.6	7.7	7.8	7.5	7.8	7.6	7.0	7.4	7.6	7.5	7.5
AUTO CLEANERS													
CONCENTRATION (MG/L)	13.10	15.52	11.13	11.81	13.17	11.67	12.27	10.77	17.43	8.79	6.56	9.09	11.06
WEIGHT (KGS)	145	145	145	145	145	145	145	145	145	145	145	145	1,742
CALCIUM ION													
CONCENTRATION (MG/L)	1.51	1.21	.93	.97	.69	.72	.92	.92	1.23	1.30	.40	1.02	.94
WEIGHT (KGS)	17	11	12	12	8	9	11	12	10	21	9	16	148
CHLORIDE ION													
CONCENTRATION (MG/L)	10.78	11.82	9.09	9.60	10.27	9.46	9.94	9.20	14.03	7.34	5.25	7.49	8.97
WEIGHT (KGS)	119	111	118	118	113	117	117	124	117	121	116	120	1,412
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	4.83	4.33	4.01	4.18	4.03	4.09	4.29	4.45	5.97	3.39	2.20	3.37	3.89
WEIGHT (KGS)	54	40	52	51	44	51	51	60	49	56	49	54	611
LAUNDRY PRODUCTS													
CONCENTRATION (MG/L)	41.87	50.43	38.08	57.96	45.35	49.56	45.36	29.24	57.08	25.40	18.52	27.86	37.73
WEIGHT (KGS)	464	472	497	713	500	616	537	394	475	420	410	445	5,942
PHOSPHATE													
CONCENTRATION (MG/L)	7.37	8.73	6.26	6.64	7.41	6.56	6.90	6.06	9.80	4.94	3.69	5.11	6.22
WEIGHT (KGS)	82	82	82	82	82	82	82	82	82	82	82	82	980
SOAP													
CONCENTRATION (MG/L)	9.13	11.54	9.84	14.83	15.18	13.93	14.46	4.24	19.34	9.31	3.67	4.49	9.88
WEIGHT (KGS)	101	108	128	182	167	173	171	57	161	154	81	72	1,556
SODIUM ION													
CONCENTRATION (MG/L)	4.83	5.72	4.10	4.35	4.85	4.30	4.52	3.97	6.43	3.24	2.42	3.35	4.08
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 1981

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	261.1	213.7	271.1	287.9	172.8	216.8	174.7	227.1	175.5	178.5	190.8	245.8	2,615.8
2 M SOLID	51.2	65.8	87.9	70.3	74.2	79.5	73.4	68.8	76.5	60.4	51.2	71.1	830.4
3 M SOLID	26.8	16.8	12.2	13.0	3.1	23.3	8.4	22.6	52.4	8.0	17.2	16.4	220.2
4 M SOLID	8.4	1.5	6.9	4.2	3.1	12.6	29.1	14.9	24.5	190.0	16.1	6.9	318.1
5 M SOLID	.8	.8	4.2	2.3	9.2	2.3	.8	.8	1.1	8.0	9.2	4.2	43.6
9 M SOLID										6.9	11.5	2.3	20.6
OTHER-ASBESTOS													
9 M SOLID								20.6	45.9				66.5
OTHER-ASPHALT													
9 M SOLID			11.5										11.5
OTHER-CALCIUM CHLORIDE													
9 M SOLID			.8										.8
OTHER-CANS AND BOTTLES													
9 M SOLID	11.5			1.5	2.7			5.0	100.6	61.2			182.4
OTHER-DIRT													
9 M SOLID			76.5			1.9							78.4
OTHER-DIRT AND ASPHALT													
9 M SOLID			80.3										80.3
OTHER-DIRT AND ROCK													
9 M SOLID					3.8					3.1	.8		7.6
OTHER-GLASS													
9 M SOLID					3.1	6.5							9.6
OTHER-GRASS													
9 M SOLID									573.5				573.5
OTHER-GRAVEL													
9 M SOLID				1.5									1.5
OTHER-INSULATION													
9 M SOLID	.8												.8
OTHER-PLASTIC													
9 M SOLID			15.3										15.3
OTHER-ROCK													
9 M SOLID	.8				7.6			19.9		1.5	.4		30.2
OTHER-ROOFING													
9 M SOLID						.4							.4
OTHER-RUBBER													
9 M SOLID										3.8			3.8
OTHER-SHEETROCK													
9 M SOLID				.8									.8
OTHER-SLUDGE													
9 M SOLID				1.5									1.5
OTHER-TAR													
9 M SOLID	5.0				.8		1.1	4.6	.4		.8		12.6
OTHER-WEEDS													

CFA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

DISPOSAL OR STORAGE LOCATION / TYPE OF WASTE	VOLUME OR WEIGHT BY MONTH JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	261.1	213.7	271.1	287.9	172.8	216.8	174.7	227.1	175.5	178.5	190.8	245.8	2,615.8
2 M SOLID	51.2	65.8	87.9	70.3	74.2	79.5	73.4	68.8	76.5	60.4	51.2	71.1	830.4
3 M SOLID	26.8	16.8	12.2	13.0	3.1	23.3	8.4	22.6	52.4	8.0	17.2	16.4	220.2
4 M SOLID	8.4	1.5	6.9	4.2	3.1	12.6	29.1	14.9	24.5	190.0	16.1	6.9	318.1
5 M SOLID	.8	.8	4.2	2.3	9.2	2.3	.8	.8	1.1	8.0	9.2	4.2	43.6
9 M SOLID	18.0		184.3	5.4	18.0	8.8	1.1	50.1	720.3	76.5	13.4	2.3	1,098.0

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CFA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	4,179	3,225	723	102	49	511	496	689	818	95	496	1,196	12,579
1 WATER PUMPED (L)	53	23	42	57	34	2,173	7,597	17,908	3,736	280	61	64	32,027
2 WATER PUMPED (L)	16,947	15,887	16,012	21,648	23,064	43,947	54,773	48,830	35,930	25,502	17,908	18,472	338,921
TOTAL WATER PUMPED (L)	21,179	19,135	16,776	21,807	23,147	46,631	62,866	67,428	40,484	25,876	18,465	19,733	383,527
WATER DISPOSAL													
AIR (L) *													
SURFACE (L) *	4,474	329	151	943	7,907	20,210	34,870	53,562	12,215	462		129	135,253
SUBSURFACE (L)	670	9,051	12,866	314	280	598	526	980	825	507	424	863	27,905
SEWAGE DATA													
691 BUILD VOL. (L)	10,413	303	182	11,984	10,743	11,844	11,303	12,499	7,502	16,012	17,545	15,111	125,441
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	102.5	85.0	41.0	174.0	126.2	112.0	81.2	88.0	48.7	187.0	102.0	59.0	100.6
FINAL CONC. (MG/L)	13.0	6.5	10.5	26.0	8.0	8.8	16.5	3.2	16.3	20.0	22.0	25.0	14.7
% REMOVED	87.3	92.4	74.4	85.1	93.7	92.1	79.7	96.4	66.5	89.3	78.4	57.6	85.4
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	1.3	1.5	2.0	2.1	1.8	2.3	1.8	.4	3.5	3.3	3.0	3.0	2.2
FINAL CONC. (MG/L)	4.2	4.3	3.0	4.0	4.0	3.8	3.7	1.2	1.7	2.0	3.5	3.8	3.3
INCREASED FACTOR	2.2	1.9	.5	.9	1.2	.7	1.1	2.0	-.5	-.4	.2	.3	.5
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	3.7	3.3	3.3	2.0	2.0	3.1	2.1	2.0	1.1	1.5	.9	.4	2.1
FINAL CONC. (ML/L)	.05	.05	.05	.05	.05	.39	.26	.45					.17
% REMOVED	98.6	98.5	98.5	97.5	97.5	87.4	87.6	77.5					
PH-FINAL	7.5	7.4	7.6	7.7	7.8	7.5	7.8	7.6	7.0	7.4	7.6	7.5	7.5
TOTAL SEWAGE VOL. (L)	10,413	303	182	11,984	10,743	11,844	11,303	12,499	7,502	16,012	17,545	15,111	125,441
TOTAL WATER DISPOSED (L)	15,558	9,683	13,199	13,241	18,930	32,652	46,699	67,041	20,543	16,981	17,969	16,103	288,599
ACCOUNTABILITY (%)	73.5	50.6	78.7	60.7	81.8	70.0	74.3	99.4	50.7	65.6	97.3	81.6	75.2

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

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CFA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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	4											9
SO2 (KGS)													
NOX (KGS)													
PARTICULATES (KGS)													
TYPE 2													
VOLUME (LITERS)	92	42	39	49	44	52	16	33		76	72	62	579
SO2 (KGS)	1												3
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	1												3
NOX (KGS)													
PARTICULATES (KGS)													

SCHED. NO. P66PM008-A

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

RUN DATE: 04/14/82

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

PG 1 PPT 204-I
CPP-A

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
NITRIC OXIDE WEIGHT (KGS)	6,598	7,588	5,755	787	1,153	1,044	894	2,813	8,993	1,136	24,398	11,445	74,605
NITROGEN DIOXIDE WEIGHT (KGS)	21,858	19,386	14,710	2,011	2,946	2,668	2,284	7,244	22,980	2,903	62,510	29,246	190,747

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	97,714	94,373	80,811	94,213	138,019	125,018	
	107,015	101,014	116,016	136,019	147,021	137,019	1,374,254
NITRIC OXIDE							
CONCENTRATION (CC/CM)	79.00	72.19	63.94	7.50	7.50	7.50	
	7.50	25.00	69.60	7.50	149.00	75.00	48.74
WEIGHT (KGS)	8,598	7,588	5,755	787	1,153	1,044	
	894	2,813	8,993	1,136	24,398	11,445	74,605
NITROGEN DIOXIDE							
CONCENTRATION (CC/CM)	131.00	120.30	106.60	12.50	12.50	12.50	
	12.50	42.00	116.00	12.50	249.00	125.00	81.27
WEIGHT (KGS)	21,858	19,386	14,710	2,011	2,946	2,668	
	2,284	7,244	22,980	2,903	62,510	29,246	190,747

NOTE: UNDERLINE = CALCULATED CONCENTRATION

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CPP LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (KGS)	41,914	26,462	37,022	284,350	25,112	24,987	19,425	23,966	47,702	27,807	40,843	26,854	626,442
HYPOCHLORITE ION WEIGHT (KGS)	41	34	31	36	34	35	33	34	28	31	34	34	406
NITRATE ION WEIGHT (KGS)	10,860	15,097	14,336	17,628	17,434	13,616	3,836	9,412	11,436	7,030	23,491	2,781	146,958
SODIUM ION WEIGHT (KGS)	17,682	16,703	20,258	29,115	13,040	18,154	14,178	12,549	19,383	17,241	18,870	16,851	214,025
SULFATE ION WEIGHT (KGS)	7,775	8,272	9,878	10,008	6,803	8,591	2,134	6,605	7,753	7,700	8,279	8,262	92,061
TDS WEIGHT (KGS)	88,536	90,670	108,154	68,238	91,565	77,805	89,548	82,558	129,867	95,409	144,411	101,435	1,168,196

CPP LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	125,634	159,361	167,727	227,875	142,002	162,385	149,519	165,418	194,186	167,689	192,899	163,903	2,018,602
HYDROGEN-ION CONC. (PH)	7.7	7.4	7.6	8.0	7.3	7.6	7.4	7.3	8.0	7.8	7.4	7.3	7.6
CHLORIDE ION													
CONCENTRATION (MG/L)	334.00	166.20	221.00	1250.00	177.00	154.00	130.00	145.00	246.00	166.00	212.00	164.00	310.22
WEIGHT (KGS)	41,885	26,437	37,000	284,325	25,088	24,962	19,402	23,942	47,683	27,786	40,820	26,831	626,162
NITRATE ION													
CONCENTRATION (MG/L)	86.60	94.91	85.63	77.50	123.00	84.00	25.70	57.00	59.00	42.00	122.00	17.00	72.81
WEIGHT (KGS)	10,860	15,097	14,336	17,628	17,434	13,616	3,836	9,412	11,436	7,030	23,491	2,781	146,958
SODIUM ION													
CONCENTRATION (MG/L)	141.00	105.00	121.00	128.00	92.00	112.00	95.00	76.00	100.00	103.00	98.00	103.00	106.03
WEIGHT (KGS)	17,682	16,703	20,258	29,115	13,040	18,154	14,178	12,549	19,383	17,241	18,870	16,851	214,025
SULFATE ION													
CONCENTRATION (MG/L)	62.00	52.00	59.00	44.00	48.00	53.00	14.30	40.00	40.00	46.00	43.00	50.50	45.61
WEIGHT (KGS)	7,775	8,272	9,878	10,008	6,803	8,591	2,134	6,605	7,753	7,700	8,279	8,262	92,061
TDS													
CONCENTRATION (MG/L)	706.00	570.00	646.00	300.00	646.00	480.00	600.00	500.00	670.00	570.00	750.00	620.00	578.76
WEIGHT (KGS)	88,536	90,670	108,154	68,238	91,565	77,805	89,548	82,558	129,867	95,409	144,411	101,435	1,168,196
SEWAGE PLANT SUBSURFACE													
VOLUME (L. IN 1000)	3,085	4,240	348,248	3,520	4,467	3,861	3,747	47,695	4,807	4,467	4,088	3,672	435,896
HYDROGEN-ION CONC. (PH)	7.6	7.5	7.4	7.5	7.2	7.4	7.5	7.5	7.4	7.6	7.6	7.5	7.5
CHLORIDE ION													
CONCENTRATION (MG/L)	9.08	5.62	.06	6.99	5.33	6.34	6.11	.50	3.96	4.80	5.63	6.30	.64
WEIGHT (KGS)	28	24	21	24	24	24	23	24	19	21	23	23	279
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	13.18	8.15	.09	10.14	7.74	9.21	8.87	.72	5.75	6.96	8.17	9.14	.93
WEIGHT (KGS)	41	34	31	36	34	35	33	34	28	31	34	34	406

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

CPP INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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	406.8	264.3	331.6	328.3	360.5	370.5	320.0	339.3	249.3	294.8	340.8	312.0	3,918.1
2 M SOLID	52.0	30.6	42.8	55.1	42.8	48.9	42.1	50.5	38.2	56.6	48.9	49.2	557.7
3 M SOLID	55.8	31.4	67.1	64.5	117.0	77.2	62.7	109.6	183.5	68.6	104.4	65.0	1,006.6
4 M SOLID	5.4		30.6	37.4	28.1	281.5	4.4	40.8	12.2	61.6	60.8	21.4	584.0
5 M SOLID			3.1	.8		9.9					3.1	1.1	18.0
9 M SOLID							5.4						5.4
BARRELLS PLASTIC													
9 M SOLID								6.9					6.9
BARRELS													
9 M SOLID												5.2	5.2
BARRELS, CRATES													
9 M SOLID		3.3	15.3										18.6
BOXES													
9 M SOLID						4.6							4.6
DIRT BARRELS													
9 M SOLID									64.6				64.6
DIRT BUILDING MATERIALS													
9 M SOLID										73.4	22.2		95.6
DIRT, BARRELS													
9 M SOLID	.2												.2
PLASTIC													
9 M SOLID						.8							.8
VISQUEEN													
9 M SOLID	1.9												1.9
WEEDS													
9 M SOLID				4.2									4.2
WEEDS DIRT													
9 M SOLID					2.7								2.7
WEEDS,BARRELS													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	406.8	264.3	331.6	328.3	360.5	370.5	320.0	339.3	249.3	294.8	340.8	312.0	3,918.1
2 M SOLID	52.0	30.6	42.8	55.1	42.8	48.9	42.1	50.5	38.2	56.6	48.9	49.2	557.7
3 M SOLID	55.8	31.4	67.1	64.5	117.0	77.2	62.7	109.6	183.5	68.6	104.4	65.0	1,006.6
4 M SOLID	5.4		30.6	37.4	28.1	281.5	4.4	40.8	12.2	61.6	60.8	21.4	584.0
5 M SOLID			3.1	.8		9.9					3.1	1.1	18.0
9 M SOLID	2.1	3.3	15.3	4.2	2.7	5.4	5.4	6.9	64.6	73.4	22.2	5.2	210.6

CPP WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	128,700	163,601	171,209	231,395	146,415	166,250	153,267	170,187	198,993	179,045	196,987	167,575	2,073,625
WATER DISPOSAL													
AIR (L)													
SURFACE (L)	*												
SUBSURFACE (L)	125,634	159,361	167,727	227,875	141,949	162,389	149,519	165,418	194,186	167,689	192,899	163,903	2,018,549
SEWAGE DATA													
BUILD VOL. (L)	3,066	4,240	3,482	3,520	4,467	3,861	3,747	4,769	4,807	4,467	4,088	3,672	48,187
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	123.4	158.2	165.0	139.0	155.0	128.0	155.0		138.3	94.0	155.0	189.0	145.4
FINAL CONC. (MG/L)	26.4	75.5	43.7	48.7	81.7	87.0	55.0		75.0	14.0	48.0	76.0	57.4
% REMOVED	78.6	52.3	73.5	65.0	47.3	32.0	64.5		45.8	85.1	69.0	59.8	60.5
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	.1	.4	1.8	.4	.2	5.8	.2		.2	.4	.4	.1	.9
FINAL CONC. (MG/L)	2.5	1.8	1.2	2.1	.3	5.5	.3		1.0	1.7	2.7	1.6	1.9
INCREASED FACTOR	24.0	3.5	-.3	4.3	.5	-.1	.5		4.0	3.3	5.8	15.0	1.1
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	3.5	4.6	2.6	4.1	3.9	2.7	2.7	2.4	3.1	1.5	2.2	3.0	3.0
FINAL CONC. (ML/L)	.18	.26	.32	.28	.53	.34	.43	.19	.27	.09	.12	.15	.26
% REMOVED	94.9	94.3	87.7	93.2	86.4	87.4	84.1	92.1	91.3	94.0	94.5	95.0	91.3
PH-FINAL	7.6	7.5	7.4	7.5	7.2	7.4	7.5	7.5	7.4	7.6	7.6	7.5	7.5
TOTAL SEWAGE VOL. (L)	3,066	4,240	3,482	3,520	4,467	3,861	3,747	4,769	4,807	4,467	4,088	3,672	48,187
TOTAL WATER DISPOSED (L)	128,700	163,601	171,209	231,395	146,415	166,250	153,267	170,187	198,993	172,155	196,987	167,575	2,066,736
ACCOUNTABILITY (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.2	100.0	100.0	99.7

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

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CPP FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	531	567	482	510	413	413	305	306	329	401	594	625	5,474
SO2 (KGS)	14	15	12	13	11	11	8	8	8	10	15	16	140
NOX (KGS)													
PARTICULATES (KGS)													
GRAND TOTALS													
SO2 (KGS)	14	15	12	13	11	11	8	8	8	10	15	16	140
NOX (KGS)													
PARTICULATES (KGS)													

NRF AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	55,252	51,233	570,059	184,894	105,741	82,428	
	96,527	73,658	33,415	63,278	88,478	170,019	1,574,983

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

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NRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CALCIUM ION WEIGHT (KGS)	58	83	74	155	240	243	212	461	157	65	102	74	1,926
CHLORIDE ION WEIGHT (KGS)	2,179	1,658	2,322	1,650	2,528	16,600	6,681	2,778	5,009	9,141	5,848	4,285	60,680
HYPOCHLORITE ION WEIGHT (KGS)	149	215	191	398	617	623	545	1,184	403	167	262	191	4,944
PHOSPHATE ION WEIGHT (KGS)	38	32	49	42	85	263	85	77	43	15	177	59	965
PHOSPHONATE WEIGHT (KGS)	41	22	38	45	64	68	109	142	50	42	42	41	704
POLYMETHACRYLATE WEIGHT (KGS)	27	15	25	30	43	45	73	95	34	28	28	28	470
POLYPHOSPHATE WEIGHT (KGS)	95	51	89	105	150	158	254	331	117	97	98	96	1,640
SODIUM ION WEIGHT (KGS)	1,121	2,324	2,195	876	16,544	8,259	3,820	1,413	2,505	4,746	5,615	8,205	57,623
SULFATE ION WEIGHT (KGS)	3,636	2,126	15,094	4,414	3,964	18,231	5,378	2,976	1,978	8,181	19,233	8,776	93,988
SULFONATE WEIGHT (KGS)	27	15	25	30	43	45	73	95	34	28	28	28	470

NRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	4,607	3,305	4,478	9,081	4,811	3,895	5,508	5,678	4,542	5,299	4,444	4,046	59,694
HYDROGEN-ION CONC. (PH)	7.8	7.9	8.3	9.2	10.9	8.5	8.5	11.4			9.9	8.6	9.1
WASTE DITCH SURFACE													
VOLUME (L. IN 1000)	10,080	14,691	17,624	10,966	17,465	58,559	25,842	17,435	10,413	20,899	40,351	15,898	260,224
HYDROGEN-ION CONC. (PH)	6.2	10.1	2.6	5.0	8.1	6.9	7.2	7.5	8.3	3.0	3.2	2.9	5.9
CALCIUM ION													
CONCENTRATION (MG/L)	5.76	5.68	4.21	14.13	13.76	4.14	8.21	26.46	15.06	3.11	2.53	4.67	7.40
WEIGHT (KGS)	58	83	74	155	240	243	212	461	157	65	102	74	1,926
CHLORIDE ION													
CONCENTRATION (MG/L)	216.60	113.10	132.00	150.70	145.00	284.00	259.00	159.60	481.90	438.20	145.20	270.00	233.20
WEIGHT (KGS)	2,179	1,658	2,322	1,650	2,528	16,600	6,681	2,778	5,009	9,141	5,848	4,285	60,680
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	14.78	14.59	10.82	36.29	35.34	10.64	21.09	67.94	38.68	7.99	6.49	12.00	19.00
WEIGHT (KGS)	149	215	191	398	617	623	545	1,184	403	167	262	191	4,944
PHOSPHATE ION													
CONCENTRATION (MG/L)	3.80	2.20	2.80	3.80	4.90	4.50	3.30	4.40	4.10	.70	4.40	3.70	3.71
WEIGHT (KGS)	38	32	49	42	85	263	85	77	43	15	177	59	965
PHOSPHONATE													
CONCENTRATION (MG/L)	4.03	1.48	2.16	4.11	3.69	1.16	4.21	8.16	4.81	2.00	1.04	2.60	2.71
WEIGHT (KGS)	41	22	38	45	64	68	109	142	50	42	42	41	704
POLYMETHACRYLATE													
CONCENTRATION (MG/L)	2.68	.99	1.44	2.73	2.46	.77	2.80	5.43	3.20	1.33	.69	1.73	1.80
WEIGHT (KGS)	27	15	25	30	43	45	73	95	34	28	28	28	470
POLYPHOSPHATE													
CONCENTRATION (MG/L)	9.38	3.45	5.04	9.57	8.60	2.70	9.82	19.00	11.21	4.65	2.42	6.06	6.31
WEIGHT (KGS)	95	51	89	105	150	158	254	331	117	97	98	96	1,640
SODIUM ION													
CONCENTRATION (MG/L)	111.40	158.50	124.80	80.00	949.00	141.30	148.10	81.20	241.00	227.50	139.40	517.00	221.46
WEIGHT (KGS)	1,121	2,324	2,195	876	16,544	8,259	3,820	1,413	2,505	4,746	5,615	8,205	57,623
SULFATE ION													
CONCENTRATION (MG/L)	361.30	145.00	858.00	403.30	227.40	311.90	208.50	171.00	190.30	392.20	477.50	553.00	361.21
WEIGHT (KGS)	3,636	2,126	15,094	4,414	3,964	18,231	5,378	2,976	1,978	8,181	19,233	8,776	93,988

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

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NRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SULFONATE													
CONCENTRATION (MG/L)	2.68	.99	1.44	2.73	2.46	.71	2.80	5.43	3.20	1.33	.69	1.73	1.80
WEIGHT (KGS)	27	15	25	30	43	45	73	95	34	28	28	28	470

NOTE: UNDERLINE = CALCULATED CON ATION BASED UPON CHEMICAL USAGE

NRF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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													
DISPOSED WASTE													
8 L LIQUID									7.6				7.6
AG(NO3)2,PBSO4,SODIUM CHROMATE SOLUT													
8 L LIQUID									3.8				3.8
CADMIUM WASTE													
8 L LIQUID									2,498.3				2,498.3
K2CRO4,AG(NO3),HG(NO3)2,HCHO SOLN													
8 L LIQUID									3.8				3.8
NA2S WASTE													
8 L LIQUID									1,249.1				1,249.1
PHOTOCHEMICALS													
8 L LIQUID									1,041.0				1,041.0
POTASSIUM CHROMATE SOLUTION													
8 L LIQUID									1.1				1.1
VANADATE REAGENT													
8 L LIQUID									5.3				5.3
37% HCHO SOLUTION													
8 L LIQUID									1.1				1.1
4% HCHO SOLUTION													
8 L LIQUID									1.1				1.1
80% ETHYL ALCOHOL,20% TRIETHANOLAMIN													
STORED WASTE													
8 L LIQUID				208.2									208.2
AGNO3,HG(NO3)2,HCHO,SOLUTION													
8 L LIQUID				624.6									624.6
HG(NO3)2,HCHO, SOLUTION													
8 L LIQUID				832.8									832.8
PHOTOCHEMICALS													
8 L LIQUID				5,413.0									5,413.0
POTASSIUM CHROMATE SOLUTION													
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	305.9	308.9	360.1	308.5	341.0	331.1	292.1	351.0	393.8	316.6	247.7	294.0	3,850.7
2 M SOLID	97.9	97.9	104.0	97.9	104.0	97.9	74.2	111.6	122.3	97.9	65.8	97.9	1,169.1
3 M SOLID	36.7	12.2	52.8	67.6	37.5	16.8	10.7	16.1	29.1	45.1	264.6	9.9	599.0
4 M SOLID	2.8	3.4		.1		.8				3.1	8.8	.8	19.7
5 M SOLID		1.1			.5				.8	11.6	11.7	.8	26.5
9 L LIQUID					832.8								832.8
WASTE COOKING OIL													
9 M SOLID		3.6	12.7					14.5		81.1		3.8	115.7
ASBESTOS													
9 M SOLID						13.8							13.8
ASPHALT													

NRF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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							589.3						589.3
ASPHALT & DIRT													
9 M SOLID												15.6	15.6
ASPHALT DIRT CONCRETE													
9 M SOLID							34.4						34.4
BLACKTOPPING													
9 M SOLID				15.3									15.3
DIRT													
9 M SOLID				4.6									4.6
EMPTY 55 GALLON DRUMS													
9 M SOLID					.8								.8
HYPLON													
9 M SOLID					2.7	35.2	25.5	.7					64.0
ROOFING MATERIAL													
9 M SOLID		17.0	4.5										21.5
SAND													
CFA OIL DEPOT													
STORED WASTE													
6 L LIQUID			3,618.7	22,711.8									26,330.5
OIL													
6 L LIQUID						1,892.7			1,665.5				3,558.2
WASTE OIL													
9 M SOLID					3.8								3.8
EMPTY OIL DRUMS													
CFA SCRAPYARD													
DISPOSED WASTE													
9 M SOLID											15.4		15.4
BEDDING MATERIALS													
STORED WASTE													
3 M SOLID					19.4	12.2	.1	5.1	27.4	38.2	9.1	9.0	120.6
5 M SOLID	8.0	4.7	.2	28.6	7.6	22.9	6.1	31.8	6.7	32.5	9.1	14.1	172.4
9 M SOLID						.8							.8
AUTO ACCESSORIES													
9 M SOLID						3.1							3.1
OFFICE EQUIPMENT													
9 M SOLID					12.4	29.0	27.2						68.6
ROOFING MATERIAL													
9 M SOLID													
TYPEWRITER													

NRF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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													
1 M SOLID	305.9	308.9	360.1	308.5	341.0	331.1	292.1	351.0	393.8	316.6	247.7	294.0	3,850.7
2 M SOLID	97.9	97.9	104.0	97.9	104.0	97.9	74.2	111.6	122.3	97.9	65.8	97.9	1,169.1
3 M SOLID	36.7	12.2	52.8	67.6	37.5	16.8	10.7	16.1	29.1	45.1	264.6	9.9	599.0
4 M SOLID	2.8	3.4		.1		.8				3.1	8.8	.8	19.7
5 M SOLID		1.1			.5				.8	11.6	11.7	.8	26.5
8 L LIQUID									4,812.3				4,812.3
9 L LIQUID					832.8								832.8
9 M SOLID		20.6	17.2	19.9	3.4	48.9	649.2	15.2		81.1	15.4	19.4	890.4
STORED WASTE													
3 M SOLID					19.4	12.2	.1	5.1	27.4	38.2	9.1	9.0	120.6
5 M SOLID	8.0	4.7	.2	28.6	7.6	22.9	6.1	31.8	6.7	32.5	9.1	14.1	172.4
6 L LIQUID			3,618.7	22,711.8		1,892.7			1,665.5				29,888.7
8 L LIQUID				7,078.5									7,078.5
9 M SOLID					16.2	32.8	27.2						76.3

NRF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	56,552	56,780	454,236	160,118	7,866			59,846	59,164	76,728	89,484	142,782	1,163,556
2 WATER PUMPED (L)	8	19	8	15	8	8	9,846	2,987	4	4	4	8	12,915
3 WATER PUMPED (L)			8	8	99,251	143,804	113,559	35,014	45	6,893	22,375	5,977	426,933
TOTAL WATER PUMPED (L)	56,560	56,798	454,251	160,141	107,124	143,811	123,405	97,846	59,213	83,625	111,863	148,766	1,603,404
WATER DISPOSAL													
AIR (L) *	37,679	34,938	388,750	126,088	72,110	56,212	65,826	50,231	22,788	43,152	60,338	115,944	1,074,056
SURFACE (L) *	10,080	14,691	17,624	10,966	22,197	77,485	44,780	36,362	29,340	30,362	40,351	15,898	350,136
SUBSURFACE (L)													
SEWAGE DATA													
722 BUILD VOL. (L)	4,607	3,305	4,478	9,081	4,811	3,895	5,508	5,678	4,542	5,299	4,444	4,046	59,694
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)	57.5	72.0	30.0	40.0	35.0	30.0	30.0				139.0	120.0	61.5
FINAL CONC. (MG/L)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)	.1	.1	.3	13.0	14.0						1.1	5.0	4.8
FINAL CONC. (MG/L)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL	7.8	7.9	8.3	9.2	9.9	8.5	8.5	9.0			9.9	8.6	8.8
TOTAL SEWAGE VOL. (L)	4,607	3,305	4,478	9,081	4,811	3,895	5,508	5,678	4,542	5,299	4,444	4,046	59,694
TOTAL WATER DISPOSED (L)	52,366	52,934	410,853	146,135	99,118	137,592	116,114	92,270	56,670	78,814	105,133	135,888	1,483,887
ACCOUNTABILITY (%)	92.6	93.2	90.4	91.3	92.5	95.7	94.1	94.3	95.7	94.2	94.0	91.3	92.5

NOTE: "*" IN COLUMNS INDICAT ORTION OF VOLUME IS ESTIMATED

NRF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	445	409	347	160	117	27	36		26	286	363	515	2,730
SO2 (KGS)	15	7	7	4	3					7	6	13	62
NOX (KGS)	1	1	1	1						1	1	2	9
PARTICULATES (KGS)	1	1	1							1	1	1	6
GRAND TOTALS													
SO2 (KGS)	15	7	7	4	3					7	6	13	62
NOX (KGS)	1	1	1	1						1	1	2	9
PARTICULATES (KGS)	1	1	1							1	1	1	6

ANL AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
HEDP WEIGHT (KGS)													4
PHOSPHATE WEIGHT (KGS)	1							1	1				6
POLYACRYLATE WEIGHT (KGS)	4	5	1		4	3	4	4	4	4	3	3	39
POTASSIUM ION WEIGHT (KGS)													
SODIUM ION WEIGHT (KGS)													
TOLYTRIAZOLE WEIGHT (KGS)													

ANL AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	475	484	339	0	517	281	
	528	521	555	449	544	462	5,156
HEDP							
CONCENTRATION (MG/KG)	1.01	.72	.61	.00	.79	.85	
	.79	.97	.92	.92	.75	.85	.84
WEIGHT (KGS)	0	0	0	0	0	0	
	0	0	0	0	0	0	4
PHOSPHATE							
CONCENTRATION (MG/L)	2.30	1.63	1.38	.00	1.80	1.94	
	1.80	2.21	2.09	2.08	1.71	1.94	1.91
WEIGHT (KGS)	1	0	0	0	0	0	
	0	1	1	0	0	0	6
POLYACRYLATE							
CONCENTRATION (MG/L)	12.20	13.71	6.23	.00	11.17	13.33	
	11.69	11.48	9.69	11.91	8.33	9.95	10.88
WEIGHT (KGS)	4	5	1	0	4	3	
	4	4	4	4	3	3	39
POTASSIUM ION							
CONCENTRATION (MG/L)	.36	.26	.22	.00	.28	.31	
	.28	.35	.33	.33	.27	.31	.30
WEIGHT (KGS)	0	0	0	0	0	0	
	0	0	0	0	0	0	0
SODIUM ION							
CONCENTRATION (MG/L)	.57	.40	.34	.00	.44	.48	
	.44	.55	.52	.51	.42	.48	.47
WEIGHT (KGS)	0	0	0	0	0	0	
	0	0	0	0	0	0	0
TOLYTRIAZOLE							
CONCENTRATION (MG/L)	.25	.18	.15	.00	.20	.21	
	.20	.24	.23	.23	.19	.21	.21
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 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
AMIDES WEIGHT (KGS)		12	6	8	9	9	9	8	13	9	9	10	102
CALCIUM ION WEIGHT (KGS)	32	33	29	23	33	41	36	46	44	39	34	32	422
CARBONTHIOCYANATES WEIGHT (KGS)		2	1	2	2	2	2	2	3	2	2	2	21
CHLORIDE ION WEIGHT (KGS)	50	51	49	46	51	54	52	57	55	54	63	62	645
CHLOROSULFONES WEIGHT (KGS)		10	5	6	7	7	7	6	10	7	7	8	81
DIMETHYLAMINE WEIGHT (KGS)	18	23	16		23	11	23	23	23	18	23	18	218
HEDP WEIGHT (KGS)	15	8	3	4	15	10	20	24	21	14	19	17	168
HYDROCARBON-AMINES WEIGHT (KGS)			1	1		1				1		1	9
HYDROCARBONS WEIGHT (KGS)		24	12	16	17	18	18	16	26	17	18	20	204
HYPOCHLORITE ION WEIGHT (KGS)	20	21	19	15	21	26	23	29	28	25	22	20	271
MORPHOLINE WEIGHT (KGS)	12	12	8	37	4	4	4	4	8	22	8	27	150
PHOSPHATE WEIGHT (KGS)	33	18	6	8	33	23	44	55	48	32	43	39	381
PHOTO LAB CHEMICAL WEIGHT (KGS)	163	163	163	163	163	163	163	163	163	163	163	163	1,960
POLYACRYLATE WEIGHT (KGS)	227	194	38	62	269	205	374	376	290	236	210	198	2,678
POTASSIUM ION WEIGHT (KGS)	5	3	1	1	5	4	7	9	8	5	7	6	60

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
SODIUM ION WEIGHT (KGS)	257	254	132	251	340	254	260	263	261	174	259	259	2,963
SULFATE ION WEIGHT (KGS)	3,150	3,115	2,839	1,454	5,053	4,431	7,130	8,029	6,473	3,219	5,606	433	50,931
TOLYTRIAZOLE WEIGHT (KGS)	4	2	1	1	4	3	5	6	5	4	5	4	42

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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)	1,382	1,094	1,200	1,472	1,480	1,639	1,972	1,946	1,609	1,631	1,745	1,790	18,961
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (MG/L)	26.26	33.23	30.21	24.62	24.50	22.14	18.41	18.67	22.57	22.23	27.28	26.62	24.17
WEIGHT (KGS)	36	36	36	36	36	36	36	36	36	36	48	48	458
INDUSTRIAL POND 746 SURFACE													
VOLUME (L. IN 1000)	20,301	14,426	22,121	632	25,979	14,373	17,878	21,061	17,814	11,659	11,746	12,719	190,707
HYDROGEN-ION CONC. (PH)													
AMIDES													
CONCENTRATION (MG/L)		.82	.27	12.88	.33	.63	.51	.39	.74	.74	.78	.80	.53
WEIGHT (KGS)		12	6	8	9	9	9	8	13	9	9	10	102
CALCIUM ION													
CONCENTRATION (MG/L)	1.57	2.30	1.33	36.23	1.28	2.84	2.00	2.18	2.43	3.39	2.93	2.48	2.21
WEIGHT (KGS)	32	33	29	23	33	41	36	46	44	39	34	32	422
CARBONTHIOCYANATES													
CONCENTRATION (MG/L)		.16	.05	2.58	.07	.13	.10	.08	.15	.15	.16	.16	.11
WEIGHT (KGS)		2	1	2	2	2	2	2	3	2	2	2	21
CHLORIDE ION													
CONCENTRATION (MG/L)	.69	1.02	.59	16.03	.56	1.26	.88	.96	1.08	1.50	1.30	1.10	.98
WEIGHT (KGS)	14	15	13	10	15	18	16	20	19	18	15	14	187
CHLOROSULFONES													
CONCENTRATION (MG/L)		.65	.21	10.31	.27	.50	.41	.31	.59	.59	.62	.64	.43
WEIGHT (KGS)		10	5	6	7	7	7	6	10	7	7	8	81
DIMETHYLAMINE													
CONCENTRATION (MG/L)	.89	1.57	.72		.87	.79	1.27	1.08	1.27	1.56	1.93	1.43	1.14
WEIGHT (KGS)	18	23	16		23	11	23	23	23	18	23	18	218
HEDP													
CONCENTRATION (MG/L)	.71	.54	.13	5.61	.56	.70	1.08	1.15	1.18	1.19	1.61	1.33	.88
WEIGHT (KGS)	15	8	3	4	15	10	20	24	21	14	19	17	168
HYDROCARBON-AMINES													
CONCENTRATION (MG/L)	.02	.03	.06	2.29		.06	.02	.01	.02	.10	.04	.06	.04
WEIGHT (KGS)			1	1		1				1		1	9

NOTE: UNDERLINE = CALCULATED CON ATION BASED UPON CHEMICAL USAGE

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
HYDROCARBONS													
CONCENTRATION (MG/L)		1.64	.53	25.77	.66	1.26	1.01	.78	1.48	1.48	1.56	1.60	1.07
WEIGHT (KGS)		24	12	16	17	18	18	16	26	17	18	20	204
HYPOCHLORITE ION													
CONCENTRATION (MG/L)	1.01	1.48	.85	23.25	.82	1.82	1.28	1.40	1.56	2.18	1.88	1.59	1.42
WEIGHT (KGS)	20	21	19	15	21	26	23	29	28	25	22	20	271
MORPHOLINE													
CONCENTRATION (MG/L)	.58	.81	.37	58.01	.15	.29	.21	.18	.43	1.91	.69	2.13	.78
WEIGHT (KGS)	12	12	8	37	4	4	4	4	8	22	8	27	150
PHOSPHATE													
CONCENTRATION (MG/L)	1.61	1.22	.29	12.77	1.27	1.59	2.46	2.63	2.69	2.70	3.67	3.03	2.00
WEIGHT (KGS)	33	18	6	8	33	23	44	55	48	32	43	39	381
PHOTO LAB CHEMICAL													
CONCENTRATION (MG/L)	8.04	11.32	7.38	257.70	6.29	11.36	9.13	7.75	9.17	14.01	13.90	12.84	10.28
WEIGHT (KGS)	163	163	163	163	163	163	163	163	163	163	163	163	1,960
POLYACRYLATE													
CONCENTRATION (MG/L)	11.17	13.46	1.72	97.35	10.34	14.26	20.91	17.83	16.30	20.23	17.92	15.56	14.04
WEIGHT (KGS)	227	194	38	62	269	205	374	376	290	236	210	198	2,678
POTASSIUM ION													
CONCENTRATION (MG/L)	.25	.19	.05	2.02	.20	.25	.39	.42	.43	.43	.58	.48	.32
WEIGHT (KGS)	5	3	1	1	5	4	7	9	8	5	7	6	60
SODIUM ION													
CONCENTRATION (MG/L)	12.67	17.56	5.97	396.15	13.09	17.72	14.54	12.47	14.64	14.91	22.11	20.33	15.54
WEIGHT (KGS)	257	254	132	251	340	254	260	263	261	174	259	259	2,963
SULFATE ION													
CONCENTRATION (MG/L)	155.15	215.95	128.32	2294.22	194.51	308.27	398.84	381.20	363.36	276.11	477.31	34.02	267.08
WEIGHT (KGS)	3,150	3,115	2,839	1,454	5,053	4,431	7,130	8,029	6,473	3,219	5,606	433	50,931
TOLYTRIAZOLE													
CONCENTRATION (MG/L)	.18	.13	.03	1.40	.14	.17	.27	.29	.30	.30	.40	.33	.22
WEIGHT (KGS)	4	2	1	1	4	3	5	6	5	4	5	4	42

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

ANL INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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			208.2		143.8	94.6	22.7	511.0			83.3	22.7	1,086.4
WASTE OIL													
9 L LIQUID		68.1											68.1
WASTE OIL													
CFA HMDA													
DISPOSED WASTE													
9 L LIQUID	189.3												189.3
TURCO 5865													
CFA LANDFILL													
DISPOSED WASTE													
1 M SOLID	275.7	183.5	281.4	247.7	199.6	281.4	215.6	264.6	168.2	237.0	206.5	206.5	2,767.6
2 M SOLID	55.1	36.7	55.1	48.9	42.8	55.1	42.8	61.2	50.5	48.9	36.7	42.8	576.5
3 M SOLID	.4		1.5	9.2	11.5	.8	18.4	25.2	7.6				74.6
4 M SOLID				1.5	34.4	5.4	6.1	11.5	19.1	22.9	7.6		108.6
5 M SOLID	6.1	3.1		3.1		3.8		4.6	7.6				28.3
9 L LIQUID	208.2												208.2
FOAMING CLEANING SOLUTION													
9 M SOLID					.4								.4
ANTIFREEZE ABSORBED ON OIL DRY													
9 M SOLID						6.1	1.5		25.2	7.6			40.5
ASPHALT													
9 M SOLID								15.3					15.3
ASPHALT AND CONCRETE													
9 M SOLID										42.8			42.8
ROOFING													
9 M SOLID								2.3					2.3
SIDING													
9 M SOLID										2.3			2.3
TAR+BUCKETS+PLASTIC+METAL													
CFA OIL DEPOT													
STORED WASTE													
6 L LIQUID					208.2								208.2
OIL													
GRAND TOTALS													
DISPOSED WASTE													
1 M SOLID	275.7	183.5	281.4	247.7	199.6	281.4	215.6	264.6	168.2	237.0	206.5	206.5	2,767.6
2 M SOLID	55.1	36.7	55.1	48.9	42.8	55.1	42.8	61.2	50.5	48.9	36.7	42.8	576.5
3 M SOLID	.4		1.5	9.2	11.5	.8	18.4	25.2	7.6				74.6

ANL INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

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													
4 M SOLID				1.5	34.4	5.4	6.1	11.5	19.1	22.9	7.6		108.6
5 M SOLID	6.1	3.1		3.1		3.8		4.6	7.6				28.3
6 L LIQUID			208.2		143.8	94.6	22.7	511.0			83.3	22.7	1,086.4
9 L LIQUID	397.5	68.1											465.6
9 M SOLID					.4	6.1	1.5	17.6	25.2	52.8			103.6
STORED WASTE													
6 L LIQUID					208.2								208.2

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 1981

(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)	19,188	16,405	15,694	12,264	26,467	20,077	34,507	34,094	30,369	21,205	22,678	20,055	273,003
2 WATER PUMPED (L)	19,188	16,405	15,694	12,264	26,467	20,077	34,507	34,094	30,369	21,205	22,678	20,055	273,003
TOTAL WATER PUMPED (L)	38,375	32,811	31,388	24,529	52,934	40,154	69,014	68,188	60,739	42,411	45,355	40,109	546,007
WATER DISPOSAL													
AIR (L)	17,450	15,682	6,526	632	22,776	14,373	31,142	32,266	29,639	18,866	19,949	16,012	225,312
SURFACE (L)	18,874	14,426	22,121	21,209	25,979	22,087	17,878	21,061	17,814	11,659	11,746	12,719	217,571
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 PORTION OF VOLUME IS ESTIMATED

ANL WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	1,382	1,094	1,200	1,472	1,480	1,639	1,972	1,946	1,609	1,631	1,745	1,790	18,961
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (MG/L)				160.0	30.0	60.0			160.0				102.5
FINAL CONC. (MG/L)					160.0	20.0		20.0	108.0				77.0
% REMOVED						66.7			32.5				
DISSOLVED OXYGEN (DO)													
RAW CONC. (MG/L)				.1	.1			.1	.2				.1
FINAL CONC. (MG/L)					6.4			1.0	11.3				6.2
INCREASED FACTOR					63.0			9.0	55.5				
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL				9.0	9.4	6.9		8.0	9.4				8.5
TOTAL SEWAGE VOL. (L)	1,427	1,139	1,245	1,518	1,525	1,684	2,018	1,991	1,654	1,677	1,790	1,836	19,506
TOTAL WATER DISPOSED (L)	37,751	31,248	29,893	23,359	50,280	38,144	51,037	55,318	49,107	32,202	33,485	30,566	462,390
ACCOUNTABILITY (%)	98.4	95.2	95.2	95.2	95.0	95.0	74.0	81.1	80.8	75.9	73.8	76.2	84.7

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

ANL FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1981

(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)	90	105	131	219	41	104	29	2	12	70	32	95	930
SO2 (KGS)			1	1									4
NOX (KGS)													
PARTICULATES (KGS)													1
GRAND TOTALS													
SO2 (KGS)			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.

ENGINEERED RELEASE POINTS TO THE ENVIRONMENT (Cont'd)

Type of Discharge	Area/Location	Type and Description of Discharge Point
Liquid	CPP	Disposal well, 0.25 m dia. x 182 m deep. Annual flow 1.3×10^9 L.
	CPP	Sewage plant to tile field. Annual flow 5.0×10^7 L.
	LOFT	Disposal pond; 76 m x 152 m x 6 m. Capacity $\sim 6.8 \times 10^7$ L. Annual flow 4.4×10^8 L.
	LOFT	Septic tank. Effluent to the tile field. Annual flow $\sim 2.0 \times 10^6$ L.
	LOFT	Disposal well, 0.25 m dia x 91 m deep. Annual flow $\sim 1.8 \times 10^8$ L. Usage of this well terminated in May 1980.
	MHD	Butte, Montana City Sewer.
	MHD	Evaporation ponds; 2 Hypalon-lined ponds. Each 60 m x 69.5 m x 2.4 m. Capacity of 2.13×10^6 L.
	NRF	Two sewage ponds, 1.25 acres each. Total annual flow $\sim 7.3 \times 10^7$ L.
	NRF	Waste ditch, flow rate 7.0×10^8 L/year.
	PBF	Warm waste well, 0.25 m dia. x 33.5 m deep. Annual flow 7.8×10^6 L.
	PBF	Evaporation pond; 45.7 m x 45.7 m x 1.7 m. Lined pond with capacity of 3.5×10^6 L. Annual flow 1.2×10^6 L.
	TAN	Disposal pond; 305 m x 427 m x 1.5 m. Capacity of 1.8×10^9 L. Annual flow 9.7×10^7 L.

ENGINEERED RELEASE POINTS TO THE ENVIRONMENT (Cont'd)

Type of Discharge	Area/Location	Type and Description of Discharge Point
Liquid	TRA	Chemical waste pond; 52 m x 52 m x 1.5 m. Capacity of 4.4×10^6 L. Annual flow 6.6×10^7 L.
	TRA	Disposal well, 0.15 m dia. x 387 m deep. Design flow 6400 L/minute. Annual flow 1.0×10^9 L.
	TRA	Sewage plant with leaching pond. Average flow 62 L/minute.
	WRRTF	Disposal well, 0.2 m dia. x 95.4 m deep. Annual flow 9.3×10^7 L.
	WRRTF	Sewage pond; 30.5 m x 30.5 m x 1.8 m. Capacity of 1.6×10^6 L. Divided by berm. Annual flow 1.2×10^5 L.
	WRRTF	Two-phase sump; 15.2 m x 9.2 m x 1.8 m. Capacity of 2.5×10^5 L.
	All Facilities	Waste oil and solvents are collected at CFA. Fluids are recycled, used as supplementary fuel or as dust suppressor on gravel road.
Solid	All Facilities	All routine nonradioactive wastes are placed in the landfill at CFA. Special or hazardous wastes are handled on a case basis.