IDO-10057(78)

INDUSTRIAL WASTE MANAGEMENT INFORMATION

FOR 1978 AND RECORD-TO-DATE

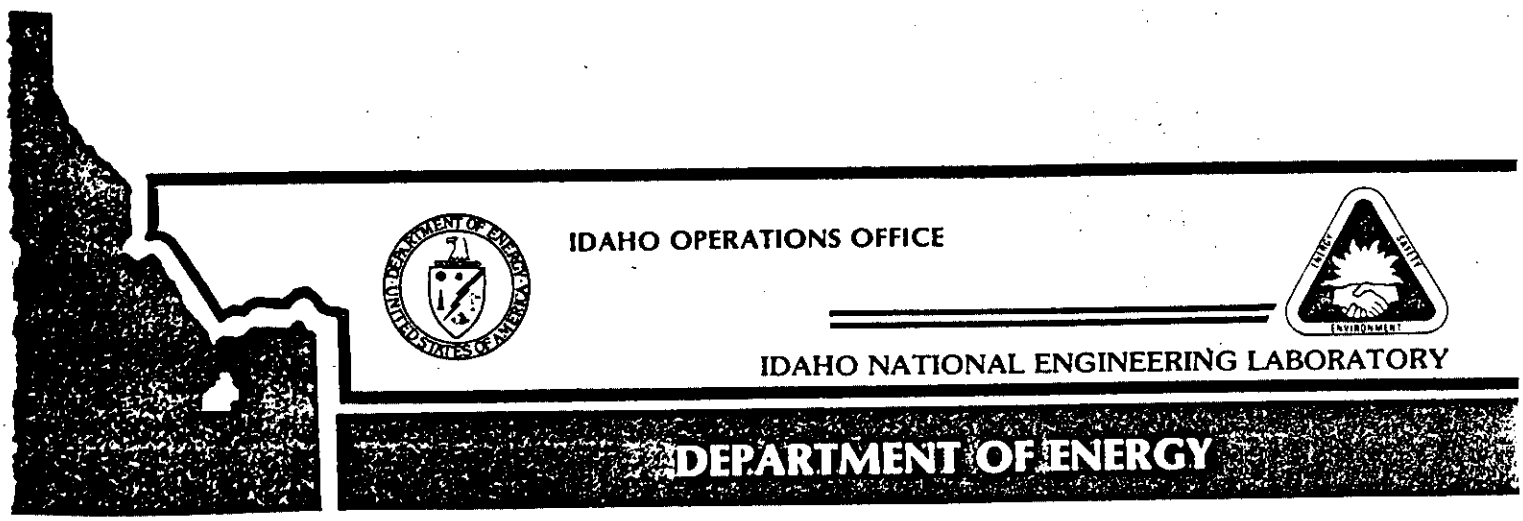
PREPARED BY

WASTE MANAGEMENT PROGRAMS
EG&G IDAHO, INC.
FOR

NUCLEAR FUEL CYCLE DIVISION

IDAHO OPERATIONS OFFICE

MAY 1979



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ABSTRACT

The industrial waste data associated with activities at the Idaho National Engineering Laboratory (INEL) for 1978 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).

ABBREVIATIONS

ANL	Argonne National Laboratory--West
ARA	Auxiliary Reactor Area
CFA	Central Facilities Area
EBR-II	Experimental Breeder Reactor No. 2
INEL	Idaho National Engineering Laboratory
LOFT	Loss of Fluid Test Facility
LPT	Low Power Test Facility
NRF	Naval Reactors Facility
PBF	Power Burst Facility
SPERT (PER)	Special Power Excursion Reactor Test
TAN	Test Area North
TSF	Technical Support Facilities (TAN)
TRA	Test Reactors Area
TREAT	Transient Reactor Test Facility
WMC	Waste Management Complex

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 and accurate reports on the amount of all types of industrial waste that has been stored and disposed at the INEL, fuel oil usage, and water usage and disposal. The system serves as the official record for all types of industrial wastes stored or disposed at the INEL. The quantities of industrial waste are reported for the following categories: disposal of airborne and liquid effluents, fuel oil consumption, and water usage.

A total of 34,340 yd^3 of solid industrial waste was disposed to sanitary landfills at the INEL during 1978. This represents an increase from the 21,400 yd^3 in 1977.

During 1978, a total of 6,091 gallons of waste oils and solvents was disposed of by mixing it with No. 5 oil and utilizing it as fuel in the INEL boilers. This compares with 8,435 gallons in 1977 and 6,000 gallons in 1976.

A total of 11,020,000 pounds of liquid and airborne industrial waste was discharged in 1978. This includes 6,138,000 pounds of chemicals, 3,981,000 pounds of total dissolved solids, and 901,400 pounds of total hardness which were discharged as liquid wastes to the lithosphere at the INEL. This liquid waste represents a decrease from the total quantity of 12,200,000 pounds in 1977 and 12,940,000 pounds in 1976.

During 1978, a total of 5,472,000 gallons of fuel oil was used at the INEL, which produced 546,500 pounds of SO_2 and 58,220 pounds of particulates. During 1977, 5,844,000 gallons of fuel oil were used, producing 719,700 pounds of SO_2 and 61,630 pounds of particulates. The reduction in fuel consumption usage reflects changes in facility operations and energy conservation efforts.

A total of 2,384,000,000 gallons of water was used at the INEL during 1978, compared to 2,377,000,000 gallons in 1977, and 2,552,000,000 gallons in 1976. 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 by Types 1 through 9, which correspond generally with the standard classifications for sanitary wastes.

Report 4 - INEL Airborne & Liquid Disposed Substances Summary. This report provides the monthly total weight of all substances disposed to the environment. It also provides the total amount of waste disposed for the year-to-date.

Report 5 - INEL Monthly Fuel Oil Summary. This report summarizes information on the types and quantities of fuel oil used during the month for each facility at the INEL. It also provides the quantities of SO_2, NO_x, and particulates released to the atmosphere.

Report 6 - INEL Year-to-Date Fuel Oil Summary. This report provides similar information to Report 5 for the year-to-date.

Series XX4, (Facility) Airborne Disposed Substances Summary

Series XX5, (Facility) Liquid Disposed Substances Summary

Series XX6, (Facility) Industrial Waste Summary

Series XX7, (Facility) Water Usage & Disposal Summary

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

INEL INDUSTRIAL WAS MMARY
RECORD-TO-DATE

WASTE TYPE		1971-1975	1976	1977	1978
SANITARY WASTE	(CUBIC YARDS)	153,700	19,160	21,400	34,340
OIL-SOLVENTS	(GALLONS)	73,840	6,000	8,435	6,091
LIQUID WASTE	(POUNDS)	44,110,000	12,180,000	11,420,000	10,050,000
AIRBORNE WASTE	(POUNDS)*	7,253,000	1,908,000	1,558,000	1,575,000
FUEL OIL:					
QUANTITY	(GALLONS)	36,380,000	7,170,000	6,295,000	6,028,000
SO2	(POUNDS)	5,658,000	1,078,000	719,700	546,500
PARTICULATES	(POUNDS)	365,000	69,450	61,630	58,220
WATER-USED	(1,000 GALLONS)	12,790,000	2,552,000	2,377,000	2,384,000

* NOTE: INCLUDES SO2 AND PARTICULATES FROM FUEL OIL TOTALS

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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

YEAR	ANL	ARA	CFA	CPP	NRF	PBF	TAN	TRA	WMC	TOTAL
RECORD-TO-DATE (71-76)										
SANITARY WASTE (CU. YDS)	20,550	1	29,900	20,020	54,020	4,873	18,700	24,780		172,900
OILS & SOLVENTS (GALLONS)	666		27,000		50,520		150	1,500		79,840
CHEMICALS										
LIQUIDS (GALLONS)	1				10,970	75	<1	1,659		12,710
SOLIDS (POUNDS)	605		2,988		7,992		1	38,770		50,350
1977										
SANITARY WASTE (CU. YDS)	2,298		5,875	2,207	6,952		2,031	2,037		21,400
OILS & SOLVENTS (GALLONS)	1,655				6,780					8,435
CHEMICALS										
LIQUIDS (GALLONS)					440		4		38	482
SOLIDS (POUNDS)										
1978										
SANITARY WASTE (CU. YDS)	4,046	258	6,920	6,503	9,360	276	3,542	3,136	294	34,330
OILS & SOLVENTS (GALLONS)	1,141				4,950					6,091
CHEMICALS										
LIQUIDS (GALLONS)							4,500			4,500
SOLIDS (POUNDS)										

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEL INDUSTRIAL WASTE SL .Y IN CUBIC YARDS*
FOR JANUARY THROUGH DECEMBER 1978

TYPES	ANL	ARA	CFA	CPP	NRF	PBF	TAN	TRA	WMC	TOTAL
1. TRASH	2,966	191	4,422	2,617	4,645	213	3,008	2,843	271	21,170
2. CAFETERIA GARBAGE	697		938	588	1,422		471	126		4,242
3. WOOD & SCRAP LUMBER	13	21	669	3,133	252	51	17	61	10	4,225
4. MASONRY & CONCRETE	330	24	551	130	2,760	10	44	94		3,942
5. SCRAP METAL	40		52		127		2	1		222
6. OIL (GALLONS)	1,141				4,950					6,091
7. SOLVENTS (GALLONS)										
8. CHEMICALS										
LIQUID (GALLONS)							4,500			4,500
SOLIDS (POUNDS)										
9. OTHERS										
LIQUID (GALLONS)										
SOLIDS (CU. FT.)		594	7,790	972	4,212	54		338	354	14,310
TOTALS										
SANITARY TYPES 1, 2, 3, 4, 5, & 9 (CUBIC YARDS)	4,046	258	6,920	6,503	9,360	276	3,542	3,136	294	34,330
OILS & SOLVENTS TYPES 6 & 7 (GALLONS)	1,141				4,950					6,091
CHEMICALS										
LIQUIDS (GALLONS)							4,500			4,500
SOLIDS (POUNDS)										

* EXCEPT AS NOTED

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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

SUBSTANCE IDENTIFICATION	1971-1976	1977	1978	TOTAL
AMIDES	520	961	146	1,627
AUTO CLEANERS	29,020	4,352	4,416	37,780
BETZ A-9	150			150
BETZ DE 419	5,897			5,897
BETZ DE 453	250			250
BETZ DE 481	17,370			17,370
BETZ DIANODIC 194	1,824			1,824
BETZ J-12	40			40
BETZ NEUTRMEEN	3,680			3,680
BETZ 109	76			76
BETZ 194	663			663
BETZ 406	285			285
BETZ 429	11,400			11,400
BETZ 65	1,200			1,200
BICCIDE D-2	21,250			21,250
BLEACH	1,979			1,979
CALCIUM ION	1,192	591	4,269	6,052
CARBONTHIOCYANATES	48	162	29	240
CHLORIDE ION	4,789,000	928,500	1,132,000	6,849,000
CHLOROCARBONS	5			5
CHLOROHYDROCARBONS	965	75		1,040
CHLOROSULFONES	380	750	117	1,246
CHROMATE ION	99	149	64	312
CLOROHYDROCARBONS				
DIANODIC 194	34,240			34,240
DIMETHYLAMINE		545	560	1,105
DIPHOSPHONATE	3,744	4,610	7,023	15,380
DISPERSANT 403	28,720			28,720
HEXAVALENT CR	5,560	81	50	5,691
HPA	1,235	2,920	2,978	7,133
HYDRAZINE	27			27
HYDROCARBON-AMINES	9	27	21	57
HYDROCARBONS	483	1,622	292	2,397
HYDROXYCARBON	146			146
HYDROXYCARBONS	5,164	6,563	9,379	21,110
HYPOCHLORITE	35,390			35,390
HYPOCHLORITE ION	1,514	3,219	11,640	16,370
KP40 COOLANT CNTRL	160			160
KWIK KLEEN	4,625			4,625
LAUNDRY PRODUCTS	10,760	6,180	9,113	26,060
M-60 ALGAECIDE	8			8
M-80T ALGAECIDE	8			8
MORPHOLINE	74	638	654	1,366
N-HYDROCARBON	2,092	2,800	1,992	6,884
NALCO 7312	392			392
NALCO 7323	408			408
NALCOOL 7351	1,853			1,853
NAPTHA	56	30		86
NITRATE ION	318,400	163,600	287,500	769,500

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN POUNDS
RECORD-TO-DATE

SUBSTANCE IDENTIFICATION	1971-1976	1977	1978	TOTAL
NITRIC OXIDE		101,600	89,940	191,500
NITROGEN DIOXIDE	1,991,000	674,700	880,600	3,546,000
ORGCOL 194	150			150
ORGCOL 734	155,000			155,000
OXYCARBONS	1			1
PHOSPHATE	200	1,200	1,200	2,600
PHOSPHATE ION	132,300	32,950	34,180	199,500
PHOSPHONATE		67	935	1,003
PHOSPHONATES	51			51
PHOTO LAB CHEMICAL	23,200	5,580	5,090	33,870
POLYHYDROXYCARBON	25	26	5	56
POLYMETHACRYLATE		45	623	668
POLYNODIC 606	137,200			137,200
POLYNODIC 633	5,000			5,000
POLYPHOSPHATE		157	2,182	2,339
POTASSIUM ION	4,386	6,141	7,349	17,880
SILICACARBONS	45			45
SILICATE ION	79	50		130
SKASOL	1,360			1,360
SKAZOL	6,976			6,976
SLIMICIDE A-9	21,900			21,900
SLIMICIDE C-35	7,571			7,571
SLIMICIDE D-2	4,484			4,484
SLIMICIDE J-12	16,590			16,590
SLIMICIDE J-9	35,100			35,100
SLIMICIDE 403	4,968			4,968
SOAP	67,930	6,950	7,050	81,930
SODIUM ION	4,055,000	773,700	825,900	5,655,000
SODIUM PHOSPHATE		15	4	19
SPRA-SAF	1,900			1,900
SULFATE ION	15,160,000	2,395,000	2,809,000	20,370,000
SULFITE ION	13,810	928	932	15,670
SULFONATE		45	623	668
SULFONATES	1,909	1,213		3,122
SULFUR DIOXIDE	18,210			18,210
TDS	27,270,000	5,008,000	3,981,000	36,260,000
THIOCARBONS	38			38
THIOHYDROCARBONS	98	8		106
TOTAL HARDNESS	3,791,000	2,062,000	901,400	6,754,000
TRIVALENT CR	1,397	876	875	3,149
ZINC ION	4,283	301	284	4,868
TOTAL	58,280,000	12,200,000	11,020,000	81,500,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN POUNDS
FOR JANUARY THROUGH DECEMBER, 1978

SUBSTANCE IDENTIFICATION	ANL	CFA	CPP	NRF	PBF	TAN	TRA	TOTAL
AMIDES	146							146
AUTO CLEANERS		4,416						4,416
CALCIUM ION	712	288	217	3,052				4,269
CARBONTHIOCYANATES	29							29
CHLORIDE ION	411	15,460	729,000	354,100		31,710	1,065	1,132,000
CHLOROSULFONES	117							117
CHROMATE ION					64			64
DIMETHYLAMINE	560							560
DIPHOSPHONATE							7,023	7,023
HEXAVALENT CR	38			12				50
HPA					8		2,970	2,978
HYDROCARBON-AMINES	21							21
HYDROCARBONS	292							292
HYDROXYCARBONS							9,379	9,379
HYPOCHLORITE ION	457	1,300	557	7,837			1,487	11,640
LAUNDRY PRODUCTS		9,113						9,113
MORPHOLINE	654							654
N-HYDROCARBON							1,992	1,992
NITRATE ION			287,500					287,500
NITRIC OXIDE			89,940					89,940
NITROGEN DIOXIDE			880,600					880,600
PHOSPHATE		1,200						1,200
PHOSPHATE ION	1,697			6,044	37	667	25,740	34,180
PHOSPHONATE				935				935
PHOTO LAB CHEMICAL	5,090							5,090
POLYHYDROXYCARBON					5			5
POLYMETHACRYLATE				623				623
POLYPHOSPHATE				2,182				2,182
POTASSIUM ION	160						7,189	7,349
SOAP		7,050						7,050
SODIUM ION	23,600	9,437	466,600	186,900	2,564	25,030	111,800	825,900
SODIUM PHOSPHATE					4			4
SULFATE ION	140,400		151,800	715,100	3,114	7,393	1,791,000	2,809,000
SULFITE ION					6	893	33	932
SULFONATE				623				623
TDS			1,717,000	775,400			1,489,000	3,981,000
TOTAL HARDNESS							901,400	901,400
TRIVALENT CR	875							875
ZINC ION	277				7			284
TOTAL	175,500	48,260	4,323,000	2,053,000	5,809	65,690	4,350,000	11,020,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEL FUEL OIL SUMMARY
RECORD-TO-DATE

AREA	1971-1976 FUEL OIL (GAL)	1971-1976 SO2 (LBS)	1971-1976 PART. (LBS)	1971-1976 DIESEL (GAL)	1977 FUEL OIL (GAL)	1977 SO2 (LBS)	1977 PART. (LBS)	1977 DIESEL (GAL)	1978 FUEL OIL (GAL)	1978 SO2 (LBS)	1978 PART. (LBS)	1978 DIESEL (GAL)
ANL	4,192,000	396,700	27,600		361,700	19,580	3,977		298,700	10,890	3,286	
ARA	173,900	12,260	1,153		62,210	3,584			33,270	1,705		
CFA	3,778,000	387,900	49,080		504,200	28,250			541,600	26,660		
CPP	10,790,000	741,100	12,140		1,967,000	107,700			1,856,000	84,130		
NRF	10,080,000	2,491,000	104,600		1,009,000	156,600	18,060		960,200	142,500	15,110	
PBF	177,000	8,115	509	11,520	39,160	1,884		4,982	38,540	1,861		8,421
TAN	5,161,000	1,137,000	80,040	700	927,800	165,500		7,200	773,500	65,410		8,985
TRA	6,701,000	1,561,000	159,400	2,468,000*	954,000	235,500	39,590	438,600*	959,700	212,900	39,820	539,300*
WMC	15,820	911			18,600	1,053			9,861	475		
TOTAL	41,070,000	6,736,000	434,400	2,480,000*	5,844,000	719,700	61,630	450,700*	5,472,000	546,500	58,220	556,700*

* TRA EMERGENCY GENERATOR

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEL WATER USAGE SUMMARY IN THOUSAND GALLONS

RECORD-TO-DATE

AREA	1971-1976	1977	1978	TOTAL
ANL	719,700	131,500	139,300	990,400
ARA	185,800	36,280	36,950	263,000
CFA	683,700	92,140	99,520	875,300
CPP	2,292,000	524,100	558,300	3,374,000
NRF	3,105,000	457,600	551,300	4,114,000
PBF	54,220	15,010	18,930	88,160
TAN	393,600	127,200	272,000	792,800
TRA	7,892,000	980,700	694,100	9,567,000
WMC	12,500	12,440	13,210	38,150
TOTAL	15,340,000	2,377,000	2,384,000	20,100,000

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

AREA OF ORIGIN	MONTHLY VOLUME PUMPED	MONTHLY VOLUME DISPOSED					ACCOUNTABILITY (%)
		AIR	SURFACE	SUBSURFACE	SEWAGE	TOTAL	
AML	12,104	6,647	2,320		1,983 *	10,950	90.5
ARA	2,367	*	2,220 *	*	147 *	2,367	100.0
CFA	4,480	*	49 *	294	3,207	3,550	79.2
CPP	32,200		*	23,800	1,002	24,802	77.0
NRF	54,346	26,320 *	22,890 *		2,213	51,423	94.6
PBF	965		*	304 *	52 *	356	36.9
TAN	46,695	*	17,540 *	3,163 *	1,042 *	21,745	46.6
TRA	47,902	13,620	1,484 *	26,400	680	42,184	88.1
WMC	3,873	*	62 *	3,793 *	18	3,873	100.0
GRAND TOTALS	204,934	46,587	46,565	57,754	10,344	161,250	78.7

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

SCHED. NO. INF6161-B

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

RUN DATE: 04/23/79

INEL YEAR-TO-DATE WATER USAGE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

AREA OF ORIGIN	YEARLY VOLUME PUMPED	YEARLY VOLUME DISPOSED					ACCOUNTA-BILITY (%)
		AIR	SURFACE	SUBSURFACE	SEWAGE	TOTAL	
ANL	139,252	75,928	31,761		17,676 *	125,365	90.0
ARA	36,954	*	35,189 *	*	1,764 *	36,953	100.0
CFA	99,523	*	26,543 *	2,950	42,535	72,028	72.4
CPP	558,250		*	427,260	12,012	439,272	78.7
NRF	551,337	254,182 *	252,050 *		16,857	523,089	94.9
PBF	18,929	427	*	3,841 *	624 *	4,892	25.8
TAN	271,960	*	119,923 *	61,328 *	11,067 *	192,318	70.7
TRA	694,100	273,230	33,706 *	269,070	9,439	585,445	84.3
WMC	13,209	*	1,674 *	11,270 *	264	13,208	100.0
GRAND TOTALS	2,383,514	603,767	500,846	775,719	112,238	1,992,570	83.6

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

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1978

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
ANL					
DISPOSED WASTE					
1 - TRASH	SOLID	186.0	CU. YD.	2,966.0	CU. YD.
2 - CAFETERIA GARBAGE	SOLID	70.0	CU. YD.	697.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID			13.0	CU. YD.
4 - MASONRY AND CONCRETE	SOLID			3 0.0	CU. YD.
5 - SCRAP METAL	SOLID			40.0	CU. YD.
6 - OIL	LIQUID			1,1 1.0	GALLONS
ARA					
DISPOSED WASTE					
1 - TRASH	SOLID	60.0	CU. YD.	191.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID	1.0	CU. YD.	21.0	CU. YD.
4 - MASONRY AND CONCRETE	SOLID	1.0	CU. YD.	23.5	CU. YD.
9 - OTHER	SOLID			5[illegible]4.0	CU. FT.
CFA					
DISPOSED WASTE					
1 - TRASH	SOLID	375.5	CU. YD.	4,422.0	CU. YD.
2 - CAFETERIA GARBAGE	SOLID	130.0	CU. YD.	938.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID	67.5	CU. YD.	6[illegible]8.8	CU. YD.
4 - MASONRY AND CONCRETE	SOLID	2.0	CU. YD.	551.0	CU. YD.
5 - SCRAP METAL	SOLID	39.5	CU. YD.	[illegible]2.0	CU. YD.
9 - OTHER	SOLID			7,789.5	CU. FT.
CPP					
DISPOSED WASTE					
1 - TRASH	SOLID	166.0	CU. YD.	2,616.5	CU. YD.
2 - CAFETERIA GARBAGE	SOLID	36.0	CU. YD.	588.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID	22.0	CU. YD.	3,1 2.5	CU. YD.
4 - MASONRY AND CONCRETE	SOLID	3.0	CU. YD.	130.0	CU. YD.
9 - OTHER	SOLID	945.0	CU. FT.	9[illegible]2.0	CU. FT.
NRF					
DISPOSED WASTE					
1 - TRASH	SOLID	347.4	CU. YD.	4,644.6	CU. YD.
2 - CAFETERIA GARBAGE	SOLID	116.0	CU. YD.	1,422.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID	8.1	CU. YD.	2 1.7	CU. YD.
4 - MASONRY AND CONCRETE	SOLID	8.7	CU. YD.	2,759.5	CU. YD.
5 - SCRAP METAL	SOLID			6.2	CU. YD.
9 - OTHER	SOLID			4,212.0	CU. FT.
STORED WASTE					
5 - SCRAP METAL	SOLID			40.3	CU. YD.

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1978

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
NRF					
STORED WASTE					
6 - OIL	LIQUID			4,950.0	GALLONS
PBF					
DISPOSED WASTE					
1 - TRASH	SOLID			213.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID			50.5	CU. YD.
4 - MASONRY AND CONCRETE	SOLID	.5	CU. YD.	0.0	CU. YD.
9 - OTHER	SOLID			54.0	CU. FT.
TAN					
DISPOSED WASTE					
1 - TRASH	SOLID	126.0	CU. YD.	3,007.7	CU. YD.
2 - CAFETERIA GARBAGE	SOLID	24.0	CU. YD.	471.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID			7.0	CU. YD.
4 - MASONRY AND CONCRETE	SOLID			44.0	CU. YD.
5 - SCRAP METAL	SOLID			2.0	CU. YD.
8 - CHEMICALS	LIQUID			4,500.0	GALLONS
TRA					
DISPOSED WASTE					
1 - TRASH	SOLID	305.0	CU. YD.	2,842.5	CU. YD.
2 - CAFETERIA GARBAGE	SOLID	12.0	CU. YD.	126.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID			60.5	CU. YD.
4 - MASONRY AND CONCRETE	SOLID			93.5	CU. YD.
5 - SCRAP METAL	SOLID			1.0	CU. YD.
9 - OTHER	SOLID			337.5	CU. FT.
WMC					
DISPOSED WASTE					
1 - TRASH	SOLID			271.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID			0.3	CU. YD.
9 - OTHER	SOLID	354.0	CU. FT.	354.0	CU. FT.
INEL GRAND TOTALS					
DISPOSED WASTE					
1 - TRASH	SOLID	1,565.9	CU. YD.	21,154.3	CU. YD.
2 - CAFETERIA GARBAGE	SOLID	388.0	CU. YD.	4,242.0	CU. YD.
3 - WOOD AND SCRAP LUMBER	SOLID	98.6	CU. YD.	4,2 5.3	CU. YD.
4 - MASONRY AND CONCRETE	SOLID	15.2	CU. YD.	3,941.5	CU. YD.
5 - SCRAP METAL	SOLID	39.5	CU. YD.	1 1.2	CU. YD.

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1978

AREA OF ORIGIN / TYPE OF WASTE		MONTHLY VOLUME OR WEIGHT	UNITS	YEAR-TO-DATE VOLUME OR WEIGHT	UNITS
INEL GRAND TOTALS					
DISPOSED WASTE					
6 - OIL	LIQUID			1,141.0	GALLONS
8 - CHEMICALS	LIQUID			4,5 0.0	GALLONS
9 - OTHER	SOLID	1,299.0	CU. FT.	14,313.0	CU. FT.
STORED WASTE					
5 - SCRAP METAL	SOLID			40.3	CU. YD.
6 - OIL	LIQUID			4,9 0.0	GALLONS

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1978

ALL FACILITIES	MONTHLY				YEAR-TO-DATE			
SUBSTANCES	ATMOSPHERE (POUNDS)	SURFACE (POUNDS)	SUBSURFACE (POUNDS)	TOTAL (POUNDS)	ATMOSPHERE (POUNDS)	SURFACE (POUNDS)	SUBSURFACE (POUNDS)	TOTAL (POUNDS)
AMIDES		18		18		146		146
AUTO CLEANERS			400	400			4,416	4,416
CALCIUM ION		180	34	214		3,764	505	4,269
CARBONTHIOCYANATES		4		4		29		29
CHLORIDE ION		49,064	54,477	103,541		382,278	749,468	1,131,746
CHLOROSULFONES		14		14		117		117
CHROMATE ION		28		28		28	36	64
DIMETHYLAMINE		50		50		560		560
DIPHOSPHONATE			328	328			7,023	7,023
HEXAVALENT CR	5			5	38	12		50
HPA			132	132			2,978	2,978
HYDROCARBON-AMINES		2		2		21		21
HYDROCARBONS		36		36		292		292
HYDROXYCARBONS			461	461			9,379	9,379
HYPOCHLORITE ION		447	189	636		9,059	2,580	11,639
LAUNDRY PRODUCTS			1,198	1,198			9,113	9,113
MORPHOLINE		17		17		654		654
N-HYDROCARBON			105	105			1,992	1,992
NITRATE ION			20,219	20,219			287,490	287,490
NITRIC OXIDE					89,940			89,940
NITROGEN DIOXIDE					880,599			880,599
PHOSPHATE			100	100			1,200	1,200

INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1978

ALL FACILITIES	MONTHLY				YEAR-TO-DATE			
SUBSTANCES	ATMOSPHERE (POUNDS)	SURFACE (POUNDS)	SUBSURFACE (POUNDS)	TOTAL (POUNDS)	ATMOSPHERE (POUNDS)	SURFACE (POUNDS)	SUBSURFACE (POUNDS)	TOTAL (POUNDS)
PHOSPHATE ION		958	3,755	4,713		8,297	25,885	34,182
PHOSPHONATE		70		70		935		935
PHOTO LAB CHEMICAL		360		360		5,090		5,090
POLYHYDROXYCARBON							5	5
POLYMETHACRYLATE		47		47		623		623
POLYPHOSPHATE		164		164		2,182		2,182
POTASSIUM ION			303	303		160	7,189	7,349
SOAP			550	550			7,050	7,050
SODIUM ION		40,703	34,846	75,550		340,033	485,818	825,850
SODIUM PHOSPHATE							4	4
SULFATE ION		195,098	39,015	234,113		2,120,449	688,519	2,808,968
SULFITE ION		77	36	113		719	213	932
SULFONATE		47		47		623		623
TDS			240,717	240,717		802,415	3,178,829	3,981,244
TOTAL HARDNESS			71,251	71,251			901,407	901,407
TRIVALENT CR		71		71		875		875
ZINC ION		27		27	3	279	2	284

INEL MONTHLY FUEL OIL SUMMARY
DECEMBER 1978

AREA OF ORIGIN	FUEL OIL IN GALLONS					POUNDS DISCHARGED		
	TYPE 2	TYPE 5	TYPE 6	KEROSENE	DIESEL	SO2	NOX	PARTICULATES
ANL	46,350					1,311		444
ARA								
CFA	118,600					5,606		
CPP	194,000					9,169		
NRF		210,800				34,870	5,692	3,773
PBF	1,930					91		
TAN	104,640				1,200	5,003		
TRA		118,100			31,360	24,187		4,901
WMC								
GRAND TOTALS	459,520	328,900			32,560	80,237	5,692	9,118

SCHED. NL F6164-6

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

RUN DATE /24/79

INEL YEAR-TO-DATE FUEL OIL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

PG 1 RPT 6-1

AREA OF ORIGIN	FUEL OIL IN GALLONS					POUNDS DISCHARGED		
	TYPE 2	TYPE 5	TYPE 6	KEROSENE	DIESEL	SO2	NOX	PARTICULATES
ANL	298,708					10,886		3,286
ARA	33,265					1,705		
CFA	541,610					26,661		
CPP	1,780,050			76,235		84,132		
NRF		960,220				142,468	22,792	15,109
PBF	38,540				8,421	1,861		
TAN	316,609	456,898			8,985	65,413		
TRA		959,650			539,260	212,927		39,823
WMC	9,861					475		
GRAND TOTALS	3,018,643	2,376,768		76,235	556,666	546,528	22,792	58,218

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TRA AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION SUBSTANCE	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC	ANNUAL TOT & AVE
COOLING TOWERS EVAP							
VOLUME (CU.FT. IN 1000)	2,987,040	3,526,040	4,255,160	2,230,480	4,104,240	5,041,119	
	6,528,758	7,363,719	5,444,878	3,430,000	4,974,477	2,504,880	52,390,791
STEAM LOSS (WATER)							
VOLUME (CU.FT. IN 1000)	129,144	69,972	116,855	85,848	87,396	96,628	
	82,732	138,670	98,020	73,265	243,040	163,131	1,384,701

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

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

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (POUNDS)	80	67	97	70	82	120	103	98	95	89	81	84	1,086
DIPHOSPHONATE WEIGHT (POUNDS)	490	696	574	609	534	574	740	652	780	407	637	328	7,021
HPA acid ethyl p. nitrate WEIGHT (POUNDS)	165	165	330	66	66	198	594	627	297	165	165	132	2,970
HYDROXYCARBONS alcohols WEIGHT (POUNDS)	650	905	771	611	738	783	1,081	963	1,066	466	882	461	9,377
HYPOCHLORITE ION WEIGHT (POUNDS)	102	117	136	92	112	163	147	135	129	125	113	118	1,489
nitro N-HYDROCARBON WEIGHT (POUNDS)	315	210	105	210	157	262	52	157	210	105	105	105	1,993
PHOSPHATE ION WEIGHT (POUNDS)	1,073	994	791	913	542	813	4,516	944	857	722	9,846	3,725	25,736
POTASSIUM ION WEIGHT (POUNDS)	503	586	675	648	317	537	950	984	723	503	461	303	7,190
SODIUM ION WEIGHT (POUNDS)	9,896	9,112	9,725	8,891	9,739	11,278	9,053	7,927	10,776	7,225	10,067	8,114	111,803
SULFATE ION WEIGHT (POUNDS)	155,025	134,123	183,746	126,738	169,788	143,688	156,522	155,906	164,110	103,666	181,399	114,553	1,791,266
SULFITE ION WEIGHT (POUNDS)	3	3	3	3	3	4	2	2	3	1	4	4	35
TDS WEIGHT (POUNDS)	146,486	120,995	102,943	117,380	86,870	120,553	144,626	112,891	139,332	116,702	167,561	112,661	1,489,000
TOTAL HARDNESS WEIGHT (POUNDS)	83,955	76,377	61,959	67,503	54,382	72,917	91,044	66,340	87,195	68,972	99,512	71,251	901,407

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
CHEMICAL WASTE POND SURFACE													
VOLUME (GAL. IN 1000)	1,808	1,781	1,905	1,605	1,922	2,241	1,828	1,504	1,420	1,322	2,042	1,484	20,862
HYDROGEN-ION CONC. (PH)							7.5						7.5
SODIUM ION													
CONCENTRATION (PPM)	639.48	589.59	593.53	640.94	590.43	587.56	569.16	605.64	876.32	636.38	571.93	641.66	621.96
WEIGHT (POUNDS)	9,648	8,763	9,436	8,585	9,470	10,988	8,682	7,601	10,384	7,021	9,746	7,946	108,270
SULFATE ION													
CONCENTRATION (PPM)	7046.56	6751.59	8436.68	7703.91	7995.83	5228.57	6603.66	7665.12	9376.77	6144.29	7668.50	6936.80	7,232.34
WEIGHT (POUNDS)	106,319	100,347	134,123	103,187	128,249	97,782	100,739	96,206	111,116	67,786	127,270	85,907	1,259,031
DISPOSAL WELL SUBSURFACE													
VOLUME (GAL. IN 1000)	20,910	23,390	19,370	22,510	16,240	21,350	22,770	20,010	26,840	20,000	29,280	26,400	269,070
HYDROGEN-ION CONC. (PH)	7.7	7.9	7.9	8.0	8.0	8.2	8.2	8.0	8.0	7.9	8.0	7.8	8.0
CHLORIDE ION													
CONCENTRATION (PPM)	.31	.23	.28	.18	.29	.39	.39	.30	.14	.33	.11	.14	.25
WEIGHT (POUNDS)	54	46	46	34	40	70	73	50	31	54	28	31	557
DIPHOSPHONATE													
CONCENTRATION (PPM)	2.81	3.57	3.55	3.24	3.94	3.22	3.90	3.90	3.48	2.44	2.60	1.49	3.13
WEIGHT (POUNDS)	490	696	574	609	534	574	740	652	780	407	637	328	7,021
HPA													
CONCENTRATION (PPM)	.95	.85	2.04	.35	.49	1.11	3.13	3.75	1.33	.99	.68	.60	1.32
WEIGHT (POUNDS)	165	165	330	66	66	198	594	627	297	165	165	132	2,970
HYDROXYCARBONS													
CONCENTRATION (PPM)	3.73	4.63	4.77	3.25	5.45	4.40	5.69	5.77	4.76	2.78	3.61	2.09	4.18
WEIGHT (POUNDS)	650	905	771	611	738	783	1,081	963	1,066	466	882	461	9,377
HYPOCHLORITE ION													
CONCENTRATION (PPM)	.37	.30	.38	.21	.37	.51	.55	.39	.16	.44	.15	.18	.32
WEIGHT (POUNDS)	65	58	62	40	51	91	104	65	36	74	36	41	723
N-HYDROCARBON													
CONCENTRATION (PPM)	1.80	1.07	.05	1.12	1.16	1.47	.28	.94	.94	.63	.43	.48	.89
WEIGHT (POUNDS)	315	210	105	210	157	262	52	157	210	105	105	105	1,993
PHOSPHATE ION													
CONCENTRATION (PPM)	6.16	5.10	4.91	4.86	4.00	4.57	23.80	5.66	3.83	4.33	40.36	16.93	11.46
WEIGHT (POUNDS)	1,073	994	791	913	542	813	4,516	944	857	722	9,846	3,725	25,736

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
POTASSIUM ION													
CONCENTRATION (PPM)	2.88	3.00	4.18	3.45	2.34	3.02	5.00	5.89	3.23	3.01	1.88	1.37	3.20
WEIGHT (POUNDS)	503	586	675	648	317	537	950	984	723	503	461	303	7,190
SODIUM ION													
CONCENTRATION (PPM)	1.41	1.80	1.79	1.63	1.98	1.62	1.96	1.95	1.75	1.22	1.32	.77	1.57
WEIGHT (POUNDS)	247	349	290	307	268	290	370	326	391	204	321	168	3,531
SULFATE ION													
CONCENTRATION (PPM)	279.12	171.04	307.00	136.02	306.50	257.65	293.57	357.51	236.59	214.98	221.52	130.02	237.05
WEIGHT (POUNDS)	48,705	33,775	49,626	25,552	41,539	45,905	55,783	59,699	52,993	35,880	54,129	28,646	532,232
SULFITE ION													
CONCENTRATION (PPM)	.01	.01	.02	.02	.02	.02	.01	.01	.01	.01	.02	.02	.01
WEIGHT (POUNDS)	3	3	3	3	3	4	2	2	3	1	4	4	35
TDS													
CONCENTRATION (PPM)	841.00	621.00	638.00	626.00	635.00	647.00	737.00	626.00	609.00	676.40	687.00	512.30	651.14
WEIGHT (POUNDS)	146,486	120,995	102,943	117,380	85,902	115,066	139,790	104,344	136,158	112,688	167,561	112,661	1,461,974
TOTAL HARDNESS													
CONCENTRATION (PPM)	482.00	392.00	384.00	360.00	402.00	410.00	480.00	398.00	390.00	414.00	408.00	324.00	401.47
WEIGHT (POUNDS)	83,955	76,377	61,959	67,503	54,382	72,917	91,044	66,340	87,195	68,972	99,512	71,251	901,407
IRRIGATION SURFACE													
VOLUME (GAL. IN 1000)					323	2,722	2,419	4,072	1,512	1,800			12,848
HYDROGEN-ION CONC. (PH)					7.9	8.0	8.0	8.0	8.0	7.9			8.0
TDS													
CONCENTRATION (PPM)					360.00	242.00	240.00	252.00	252.00	267.70			252.09
WEIGHT (POUNDS)					967	5,487	4,836	8,548	3,174	4,014			27,026
SEWAGE PLANT SURFACE													
VOLUME (GAL. IN 1000)	703	844	939	744	754	923	735	840	902	546	829	680	9,439
HYDROGEN-ION CONC. (PH)	7.6	7.5	7.4	7.4	7.5	7.7	7.5	7.6	7.5	7.5	7.5	7.5	7.5
CHLORIDE ION													
CONCENTRATION (PPM)	4.34	5.75	6.51	5.80	6.68	6.43	4.81	6.85	8.50	7.68	7.66	9.34	6.69
WEIGHT (POUNDS)	25	40	51	36	42	49	29	48	64	35	53	53	525
HYPOCHLORITE ION													
CONCENTRATION (PPM)	6.31	8.35	9.44	8.41	9.69	9.33	6.98	9.94	12.34	11.14	11.12	13.55	9.71
WEIGHT (POUNDS)	37	59	74	52	61	72	43	70	93	51	77	77	766

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

IDAHO OPERATIONS OFFICE
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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

TRA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

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 Y SOLID	315.0	105.0	421.0	245.0	292.0	352.0	165.0	180.0	182.5	140.0	140.0	305.0	2,842.5
2 Y SOLID	36.0	4.0	6.0	4.0		12.0		12.0	16.0	4.0	20.0	12.0	126.0
3 Y SOLID	12.0	28.0	4.5	6.0					6.0	.0			60.5
4 Y SOLID		20.0	.5			12.0		15.0	45.5	.5			93.5
5 Y SOLID				1.0									1.0
9 F SOLID				216.0	40.5	81.0							337.5
WEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID	315.0	105.0	421.0	245.0	292.0	352.0	165.0	180.0	182.5	140.0	140.0	305.0	2,842.5
2 Y SOLID	36.0	4.0	6.0	4.0		12.0		12.0	16.0	1.0	20.0	12.0	126.0
3 Y SOLID	12.0	28.0	4.5	6.0					6.0	4.0			60.5
4 Y SOLID		20.0	.5			12.0		15.0	45.5	.5			93.5
5 Y SOLID				1.0									1.0
9 F SOLID				216.0	40.5	81.0							337.5

TRA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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 (GAL)	558	6,251	3,797	668	5,438	2,803			526	395	9,974	9,018	39,428
3 WATER PUMPED (GAL)	179	1,495	132	358	20	823	6,756	9,293	15		747	114	19,932
4 WATER PUMPED (GAL)	47,730	46,170	52,350	45,080	45,930	62,540	64,090	62,600	67,270	46,700	55,510	38,770	634,740
TOTAL WATER PUMPED (GAL)	48,467	53,916	56,279	46,106	51,388	66,166	70,846	71,893	67,811	47,095	66,231	47,902	694,100
WATER DISPOSAL													
AIR (GAL)	15,900	18,350	22,300	11,820	20,940	26,220	33,730	37,570	28,280	17,880	26,620	13,620	273,230
SURFACE (GAL) *	1,808	1,781	1,905	1,605	2,245	4,963	4,243	5,576	2,932	3,122	2,042	1,484	33,706
SUBSURFACE (GAL)	20,910	23,390	19,370	22,510	16,240	21,350	22,770	20,010	26,840	20,000	29,280	26,400	269,070
SEWAGE DATA													
BUILD VOL. (GAL)	703	844	939	744	754	923	735	840	902	546	829	680	9,439
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)	73.5	48.2	40.1	46.0	29.6	53.6	85.9	60.0	44.1	102.0	92.6	126.0	66.8
FINAL CONC. (PPM)	18.1	18.9	31.2	20.1	17.6	19.9	19.5	14.0	13.5	10.8	13.4	18.6	18.0
% REMOVED	75.4	60.8	22.2	56.3	40.5	62.9	77.3	76.7	69.4	89.4	85.5	85.2	73.1
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)	2.6	1.2	6.2	2.2	.3	.7	.9	.1	.1	.5	1.3	.9	1.4
FINAL CONC. (PPM)	4.2	3.6	21.7	3.8	2.9	4.2	2.3	3.3	2.5	4.6	5.4	4.5	5.3
INCREASED FACTOR	.6	2.0	2.5	.7	8.7	5.0	1.6	32.0	24.0	8.2	3.2	4.0	2.8
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	3.5	3.8	3.0	3.5	4.1	3.8	4.0	5.0	4.5	3.5	3.7	4.3	3.9
FINAL CONC. (ML/L)	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
% REMOVED	98.6	98.7	98.3	98.6	98.8	98.7	98.8	99.0	98.9	98.6	98.6	98.8	98.7
PH-FINAL	7.7	7.6	7.9	7.5	7.6	7.9	7.5	7.6	7.5	7.5	7.6	7.5	7.6
TOTAL SEWAGE VOL. (GAL)	703	844	939	744	754	923	735	840	902	546	829	680	9,439
TOTAL WATER DISPOSED (GAL)	39,321	44,365	44,514	36,679	40,179	53,456	61,478	63,996	58,954	41,548	58,771	42,184	585,445
ACCOUNTABILITY (%)	81.1	82.3	79.1	79.6	78.2	80.8	86.8	89.0	86.9	88.2	88.7	88.1	84.3

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

TRA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (GAL)	40	49	56	34	46	46	57	53	45	30	51	31	538
SO2 (LBS)	2	3	3	2	3	3	3	3	3	2	3	2	32
NOX (LBS)													
PARTICULATES (LBS)													
TYPE 5													
VOLUME (GAL)	109	117	119	60	62	62	32	38	52	50	121	118	960
SO2 (LBS)	21	22	22	15	12	12	6	7	10	10	23	22	182
NOX (LBS)													
PARTICULATES (LBS)	5	5	5	3	3	3	1	2	2	2	5	5	41
GRAND TOTALS													
SO2 (LBS)	23	25	25	17	15	15	9	10	13	12	26	24	214
NOX (LBS)													
PARTICULATES (LBS)	5	5	5	3	3	3	1	2	2	2	5	5	41

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

WMC INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

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
CFA LANDFILL													
DISPOSED WASTE													
1 Y SOLID	8.0			40.0		12.0		12.0	199.0				271.0
3 Y SOLID										10.3			10.3
9 F SOLID												30.0	30.0
UNUSED CARDBOARD BOXES													
9 F SOLID												324.0	324.0
WEEDS													
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID	8.0			40.0		12.0		12.0	199.0				271.0
3 Y SOLID										10.3			10.3
9 F SOLID												354.0	354.0

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

WMC WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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 (GAL)	534	459	434	71	133	75	47	25	158	386	126	926	3,374
WMC WATER PUMPED (GAL)	1,598	1,584	2,073	19	51	343	423	364	242	22	169	2,947	9,835
TOTAL WATER PUMPED (GAL)	2,132	2,043	2,507	90	184	418	470	389	400	408	295	3,873	13,209
WATER DISPOSAL													
AIR (GAL) *													
SURFACE (GAL) *		62	62	7	39	331	411	346	230	62	62	62	1,674
SUBSURFACE (GAL) *	2,113	1,963	2,427	65	127	57	29	13	140	328	215	3,793	11,270
SEWAGE DATA													
EBR BUILD VOL. (GAL)	6	6	6	6	6	18	18	18	18	6	6	6	120
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
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

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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. (GAL)	12	12	12	12	12	12	12	12	12	12	12	12	144
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL													
TOTAL SEWAGE VOL. (GAL)	18	18	18	18	18	30	30	30	30	18	18	18	264
TOTAL WATER DISPOSED (GAL)	2,131	2,043	2,507	90	184	418	470	389	400	408	295	3,873	13,208
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

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WMC FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 2													
VOLUME (GAL)	3	1						1			5		10
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													
GRAND TOTALS													
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													

PBF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHROMATE ION													
WEIGHT (POUNDS)			14	2				2			18	28	64
HPA													
WEIGHT (POUNDS)			8										8
PHOSPHATE ION													
WEIGHT (POUNDS)			12									25	37
POLYHYDROXYCARBON													
WEIGHT (POUNDS)			5										5
SODIUM ION													
WEIGHT (POUNDS)	72	360	373	145	145	216	359	1	360	144	7	382	2,564
SODIUM PHOSPHATE													
WEIGHT (POUNDS)		1							2				3
SULFATE ION													
WEIGHT (POUNDS)	88	441	451	176	176	264	441		441	176		461	3,115
SULFITE ION													
WEIGHT (POUNDS)		1	1		2				2				6
ZINC ION													
WEIGHT (POUNDS)			2									4	6

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
CHEM DISPOSAL WELL SUBSURFACE													
VOLUME (GAL. IN 1000)	50	25	103	10	10	15	25	50	25	10	1	25	349
HYDROGEN-ION CONC. (PH)													
CHROMATE ION													
CONCENTRATION (PPM)			16.33	25.55				5.10			2126.97		12.38
WEIGHT (POUNDS)			14	2				2			18		36
HPA													
CONCENTRATION (PPM)			9.60										2.83
WEIGHT (POUNDS)			8										8
PHOSPHATE ION													
CONCENTRATION (PPM)			14.51										4.28
WEIGHT (POUNDS)			12										12
POLYHYDROXYCARBON													
CONCENTRATION (PPM)			5.76										1.70
WEIGHT (POUNDS)			5										5
SODIUM ION													
CONCENTRATION (PPM)	172.25	1722.55	434.02	1732.98	1722.55	1722.55	1722.55	2.09	1722.55	1722.55	868.76	1722.55	871.60
WEIGHT (POUNDS)	72	359	373	145	144	216	359	1	359	144	7	359	2,538
SULFATE ION													
CONCENTRATION (PPM)	211.16	2111.63	524.32	2111.63	2111.63	2111.63	2111.63		2111.63	2111.63		2111.63	1,062.40
WEIGHT (POUNDS)	88	441	451	176	176	264	441		441	176		441	3,095
ZINC ION													
CONCENTRATION (PPM)			2.29										.77
WEIGHT (POUNDS)			2										2
EVAPORATION POND SURFACE													
VOLUME (GAL. IN 1000)												70	70
HYDROGEN-ION CONC. (PH)													
CHROMATE ION													
CONCENTRATION (PPM)												48.07	48.07
WEIGHT (POUNDS)												28	28
PHOSPHATE ION													
CONCENTRATION (PPM)												42.71	42.71
WEIGHT (POUNDS)												25	25

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

PBF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SODIUM ION													
CONCENTRATION (PPM)												38.11	38.11
WEIGHT (POUNDS)												22	22
SULFATE ION													
CONCENTRATION (PPM)												34.68	34.68
WEIGHT (POUNDS)												20	20
ZINC ION													
CONCENTRATION (PPM)												7.63	7.64
WEIGHT (POUNDS)												4	4
WARM WASTE WELL SUBSURFACE													
VOLUME (GAL. IN 1000)	311	301	322	277	276				325				1,812
HYDROGEN-ION CONC. (PH)													
SODIUM ION													
CONCENTRATION (PPM)	.11	.16	.15	.11	.45				.33				.22
WEIGHT (POUNDS)					1				1				2
SODIUM ION													
CONCENTRATION (PPM)	.04	.44			.07				.89				.25
WEIGHT (POUNDS)		1							2				3
SULFITE ION													
CONCENTRATION (PPM)	.19	.28	.26	.20	.79				.57				.38
WEIGHT (POUNDS)		1	1		2				2				6

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

IDAHO OPERATIONS OFFICE
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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

PBF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

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 Y SOLID				56.0		20.0			134.0	1.0	2.0		213.0
3 Y SOLID								6.0	21.0	8.5	15.0		50.5
4 Y SOLID									9.5			.5	10.0
9 F SOLID										54.0			54.0
SAND													
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID				56.0		20.0			134.0	1.0	2.0		213.0
3 Y SOLID								6.0	21.0	.5	15.0		50.5
4 Y SOLID									9.5			.5	10.0
9 F SOLID										54.0			54.0

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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 (GAL)	941	1,620	1,125	1,009	1,075	335	484	687	713	1,079	465	569	10,102
2 WATER PUMPED (GAL)	865	695	1,175	992	841	275	635	569	1,846	378	160	396	8,827
TOTAL WATER PUMPED (GAL)	1,806	2,315	2,300	2,001	1,916	610	1,119	1,256	2,559	1,457	625	965	18,929
WATER DISPOSAL													
AIR (GAL)	87	114	30		19			21	43	38	75		427
SURFACE (GAL) *													
SUBSURFACE (GAL) *	316	326	425	287	286	298	313	281	349	362	294	304	3,841
SEWAGE DATA													
619 BUILD VOL. (GAL)	45	45	45	45	45	45	45	45	45	45	45	45	540
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL													

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

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

PBF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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. (GAL)	7	7	7	7	7	7	7	7	7	7	7	7	84
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL													
TOTAL SEWAGE VOL. (GAL)	52	52	52	52	52	52	52	52	52	52	52	52	624
TOTAL WATER DISPOSED (GAL)	455	492	507	339	357	350	365	354	444	452	421	356	4,892
ACCOUNTABILITY (%)	25.2	21.3	22.0	16.9	18.6	57.4	32.6	28.2	17.4	31.0	67.4	36.9	25.8

PBF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (GAL)	1	2						2	4				9
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													
TYPE 2													
VOLUME (GAL)	4	4	6	1	2	4	1	7		1	6	2	38
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													
GRAND TOTALS													
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													

ARA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

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 Y SOLID				40.0				30.0	61.0			60.0	191.0
3 Y SOLID					18.0				1.0	1.0		1.0	21.0
4 Y SOLID				6.0				6.0	9.0		1.5	1.0	23.5
9 F SOLID									594.0				594.0
BASALT,DIRT,&GRAVEL													
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID				40.0				30.0	61.0			60.0	191.0
3 Y SOLID					18.0				1.0	1.0		1.0	21.0
4 Y SOLID				6.0				6.0	9.0		1.5	1.0	23.5
9 F SOLID									594.0				594.0

ARA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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 (GAL)	1,142	1,435	1,944	1,249	1,464	1,837	1,885	2,322	1,846	1,231	1,361	1,203	18,919
3 WATER PUMPED (GAL)	1,303	1,330	2,520	1,686	1,760	1,592	1,796	1,483	1,205	1,063	1,133	1,164	18,035
TOTAL WATER PUMPED (GAL)	2,445	2,765	4,464	2,935	3,224	3,429	3,681	3,805	3,051	2,294	2,494	2,367	36,954
WATER DISPOSAL													
AIR (GAL) *													
SURFACE (GAL) *	2,298	2,618	4,316	2,788	3,077	3,282	3,534	3,658	2,904	2,147	2,347	2,220	35,189
SUBSURFACE (GAL) *													
SEWAGE DATA													
BUILD VOL. (GAL) *	147	147	147	147	147	147	147	147	147	147	147	147	1,764
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL													
TOTAL SEWAGE VOL. (GAL)	147	147	147	147	147	147	147	147	147	147	147	147	1,764
TOTAL WATER DISPOSED (GAL)	2,445	2,765	4,463	2,935	3,224	3,429	3,681	3,805	3,051	2,294	2,494	2,367	36,953
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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U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

ARA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 2													
VOLUME (GAL)	7	6		7				3			10		33
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													
GRAND TOTALS													
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													

TAN LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CHLORIDE ION WEIGHT (POUNDS)	2,549	4,369	2,245	2,731	2,033	2,943	2,184	1,305	910	2,973	3,307	4,157	31,706
PHOSPHATE ION WEIGHT (POUNDS)	23	145	29	71	40	44	27	33	54	38	88	75	667
SODIUM ION WEIGHT (POUNDS)	1,768	3,374	1,531	1,981	1,488	2,275	1,614	1,152	1,007	2,492	3,005	3,340	25,027
SULFATE ION WEIGHT (POUNDS)	178	828	374	300	300	233	475	694	853	1,320	423	1,417	7,395
SULFITE ION WEIGHT (POUNDS)	21	148	44	71	75	77	50	55	81	51	112	109	894

TAN LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
DISPOSAL POND SURFACE													
VOLUME (GAL. IN 1000)	1,378	1,186	1,210	1,300	1,872	3,334	2,850	1,160	2,308	2,246	1,870	2,049	22,763
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (PPM)	179.41	355.59	159.25	156.61	97.11	76.33	51.03	47.01		116.55	155.53	161.46	113.57
WEIGHT (POUNDS)	2,063	3,519	1,608	1,699	1,517	2,124	1,214	455		1,184	2,427	2,761	21,571
PHOSPHATE ION													
CONCENTRATION (PPM)	1.19	13.52	2.32	4.62	2.14	1.20	.70	2.07	1.74	1.43	4.29	2.03	2.56
WEIGHT (POUNDS)	14	134	23	50	33	33	17	20	33	27	67	35	486
SODIUM ION													
CONCENTRATION (PPM)	117.42	264.68	105.83	107.10	66.98	51.22	34.17	33.35	2.36	78.91	136.11	109.11	80.67
WEIGHT (POUNDS)	1,350	2,620	1,069	1,162	1,046	1,425	813	323	45	1,479	2,124	1,866	15,322
SULFATE ION													
CONCENTRATION (PPM)		32.05	31.41	7.22	2.26					5.64	10.16	6.18	5.89
WEIGHT (POUNDS)		317	317	78	35					106	159	106	1,118
SULFITE ION													
CONCENTRATION (PPM)	1.02	12.83	2.64	4.68	3.66	2.05	1.33	3.28	2.64	2.03	5.29	3.16	3.26
WEIGHT (POUNDS)	12	127	27	51	57	57	32	32	51	38	83	54	621
LOFT DISPOSAL POND SURFACE													
VOLUME (GAL. IN 1000)	509	6,949	6,675	2,400	8,713	3,230	9,134	12,070	21,300	15,040	5,260	16,490	107,770
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (PPM)		7.32	3.81	21.21	2.92	7.88	7.96	6.33	3.58	5.32	13.82	7.50	6.31
WEIGHT (POUNDS)		425	212	425	212	212	607	637	637	667	607	1,032	5,673
PHOSPHATE ION													
CONCENTRATION (PPM)		.07	.06	.20		.15	.04	.03	.02	.03	.10	.07	.05
WEIGHT (POUNDS)		4	3	4		4	3	3	3	5	4	10	43
SODIUM ION													
CONCENTRATION (PPM)	10.15	7.11	3.26	20.15	2.82	11.74	6.80	6.37	3.61	7.39	10.62	8.67	6.61
WEIGHT (POUNDS)	43	412	181	403	206	316	518	642	642	928	466	1,191	5,948
SULFATE ION													
CONCENTRATION (PPM)	1.61	5.42	1.02	9.68	2.18	4.07	4.15	5.32	3.01	9.67	3.61	9.21	5.41
WEIGHT (POUNDS)	7	315	57	194	159	110	316	536	536	1,214	159	1,267	4,870

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TAN LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SULFITE ION													
CONCENTRATION (PPM)		.16	.19	.38	.07	.27	.07	.07	.04	.06	.23	.17	.11
WEIGHT (POUNDS)		10	11	8	5	7	5	7	7	7	10	23	100
LOFT DISPOSAL WELL SUBSURFACE													
VOLUME (GAL. IN 1000)	704	2,695	2,932	2,481	2,390	2,768	2,767	2,594	2,460	1,940	2,377	1,594	27,902
HYDROGEN-ION CONC. (PH)													
LOFT SEPTIC TANK SUBSURFACE													
VOLUME (GAL. IN 1000)	45	45	45	45	45	45	45	45	45	45	45	45	540
HYDROGEN-ION CONC. (PH)													
LPT DISPOSAL WELL SUBSURFACE													
VOLUME (GAL. IN 1000)	2,747	5,932	5,335	2,089	3,106	3,574	2,557	2,347	2,525	1,214	2,250	1,569	35,245
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (PPM)	21.18	8.58	9.54	34.81	11.71	20.34	17.06	10.84	12.96	11.98	14.54	27.81	15.16
WEIGHT (POUNDS)	485	425	425	607	303	607	364	212	273	121	273	364	4,459
PHOSPHATE ION													
CONCENTRATION (PPM)	.41	.14	.06	.96	.26	.22	.31	.51	.79	.66	.89	2.30	.46
WEIGHT (POUNDS)	9	7	2	17	7	7	7	10	17	7	17	30	137
SODIUM ION													
CONCENTRATION (PPM)	16.35	6.92	6.30	23.83	9.09	17.87	13.23	9.58	15.20	8.44	22.07	21.62	12.77
WEIGHT (POUNDS)	375	343	281	415	236	533	282	188	320	86	414	283	3,756
SULFATE ION													
CONCENTRATION (PPM)	7.47	3.96		1.57	4.08	4.14	7.43	8.10	15.05		5.63	3.36	4.79
WEIGHT (POUNDS)	171	196		27	106	123	159	159	317		106	44	1,408
SULFITE ION													
CONCENTRATION (PPM)	.42	.23	.14	.73	.49	.43	.60	.81	1.08	.63	1.01	2.42	.59
WEIGHT (POUNDS)	10	11	6	13	13	13	13	16	23	6	19	32	175

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL ANALYSIS

TAN INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

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 ACID PIT													
DISPOSED WASTE													
8 K LIQUID SODIUM HYDROXIDE				4,500.0									4,500.0
CFA LANDFILL													
DISPOSED WASTE													
1 Y SOLID	280.0	160.0	241.5	440.2	320.0	280.0	280.0	120.0	440.0	160.0	160.0	126.0	3,007.7
2 Y SOLID	8.0		48.0	72.0	64.0	56.0	48.0	31.0	88.0	32.0		24.0	471.0
3 Y SOLID			6.0		3.0				8.0				17.0
4 Y SOLID	8.0			18.0				10.0	8.0				44.0
5 Y SOLID						2.0							2.0
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID	280.0	160.0	241.5	440.2	320.0	280.0	280.0	120.0	440.0	160.0	160.0	126.0	3,007.7
2 Y SOLID	8.0		48.0	72.0	64.0	56.0	48.0	31.0	88.0	3 .0		24.0	471.0
3 Y SOLID			6.0		3.0				8.0				17.0
4 Y SOLID	8.0			18.0				10.0	8.0				44.0
5 Y SOLID						2.0							2.0
8 K LIQUID				4,500.0									4,500.0

TAN WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
WATER DATA													
LFT WATER PUMPED (GAL)				3,090									3,090
LC1 WATER PUMPED (GAL)	1	9,111	12,600	4,920	825	6	2	4	19,600	12,010	8,083	17,250	84,412
LO2 WATER PUMPED (GAL)	3,233	5,412	8,352	4,990	9,426	6,349	13,370	18,570	13,220	11,130	3	8,105	102,160
LPT WATER PUMPED (GAL)	2,747	5,932	5,335		3,106	3,574	2,558	2,347	2,525	121	2,251	1,570	32,066
TF1 WATER PUMPED (GAL)	1,467	1,715	1,830	1,030	1,770	3,124	2,848	2,718	6,740	229	1,942	19,770	45,183
TF2 WATER PUMPED (GAL)	9	2	2	360	103	5	1	1	4,562		4		5,049
TOTAL WATER PUMPED (GAL)	7,457	22,172	28,119	14,390	15,230	13,058	18,779	23,640	46,647	23,490	12,283	46,695	271,960
WATER DISPOSAL													
AIR (GAL) *													
SURFACE (GAL) *	1,456	7,584	7,081	9,080	1,006	5,516	11,980	13,200	22,700	16,350	6,430	17,540	119,923
SUBSURFACE (GAL) *	3,451	8,832	8,267	4,570	5,500	6,342	5,369	4,990	4,990	3,154	2,700	3,163	61,328
SEWAGE DATA													
623 BUILD VOL. (GAL)	431	551	804	612	875	1,048	1,382	1,280	916	932	699	997	10,527
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)	233.3	182.9	108.1	154.3	107.0	78.1	49.8	42.0	28.5				109.3
FINAL CONC. (PPM)	82.9	79.7	35.6	56.0	39.0	29.0	13.6	13.2	5.0	4.3			35.8
% REMOVED	64.5	56.4	67.1	63.7	63.6	62.9	72.7	68.6	82.5				
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)	.6	.1	.5	1.6	1.0	.1	.3	2.0	.1	2.2			.9
FINAL CONC. (PPM)	.2	.2	9.3	1.7	1.1	.2	.8	3.5	2.7	4.2			2.4
INCREASED FACTOR	-.7	1.0	17.6	.1	.1	1.0	1.7	.8	26.0	.9			1.7
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	.5	.5	.5	.9	1.7	4.0	6.4	6.4	3.4	5.2	4.0	2.5	3.0
FINAL CONC. (ML/L)	.23	.27	.13	.15	.23	2.50	1.00	1.00	.20	.40	1.50	1.00	.72
% REMOVED	54.0	46.0	74.0	83.3	86.5	37.5	84.4	84.4	94.1	92.3	62.5	60.0	76.0
PH-FINAL	8.4	8.7	8.2	8.6	8.0	7.9	7.7	7.7	7.8	7.3	7.8	8.0	8.0

NOTE: [illegible] IS ESTIMATED

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TAN WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

WELL OR BUILDING NO. / SEWAGE BUILDING NO.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS & AVERAGES
SEWAGE DATA													
736 BUILD VOL. (GAL) *	45	45	45	45	45	45	45	45	45	45	45	45	540
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL													
TOTAL SEWAGE VOL. (GAL)	476	596	849	657	920	1,093	1,427	1,325	961	977	744	1,042	11,067
TOTAL WATER DISPOSED (GAL)	5,383	17,012	16,197	14,307	7,426	12,951	18,776	19,515	28,651	20,481	9,874	21,745	192,318
ACCOUNTABILITY (%)	72.2	76.7	57.6	99.4	48.8	99.2	100.0	82.6	61.4	87.2	80.4	46.6	70.7

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

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TAN FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE / EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DIESEL													
VOLUME (GAL)		4	1			2						1	8
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													
TYPE 2													
VOLUME (GAL)	11	30	14	24	10	12	6	4	8	9	85	105	318
SO2 (LBS)	1	1	1	1		1					4	5	14
NOX (LBS)													
PARTICULATES (LBS)													
TYPE 5													
VOLUME (GAL)	92	79	62	47	41	40	19	10	21	33	13		457
SO2 (LBS)	10	9	7	5	4	4	2	1	2	4	1		49
NOX (LBS)													
PARTICULATES (LBS)													
GRAND TOTALS													
SO2 (LBS)	11	10	8	6	4	5	2	1	2	4	5	5	63
NOX (LBS)													
PARTICULATES (LBS)													

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CFA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
AUTO CLEANERS WEIGHT (POUNDS)	360	360	368	384	400	400	360	320	320	384	360	400	4,416
CALCIUM ION WEIGHT (POUNDS)	21	21	28	26	28	32	26	21	14	26	26	18	287
CHLORIDE ION WEIGHT (POUNDS)	1,282	1,277	1,284	1,279	1,286	1,286	1,291	1,295	1,296	1,300	1,297	1,286	15,459
HYPOCHLORITE ION WEIGHT (POUNDS)	100	92	102	95	105	104	112	119	120	125	121	106	1,301
LAUNDRY PRODUCTS WEIGHT (POUNDS)	562	551	700	713	807	656	829	622	778	750	947	1,198	9,113
PHOSPHATE WEIGHT (POUNDS)	100	100	100	100	100	100	100	100	100	100	100	100	1,200
SOAP WEIGHT (POUNDS)	600	600	600	600	600	700	600	500	500	600	600	550	7,050
SODIUM ION WEIGHT (POUNDS)	786	786	786	786	786	786	786	786	786	786	786	786	9,432

CFA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SEWAGE PLANT SUBSURFACE													
VOLUME (GAL. IN 1000)	3,351	2,810	3,061	2,872	4,003	4,194	4,957	4,162	4,983	3,878	3,711	3,501	45,483
HYDROGEN-ION CONC. (PH)	7.6	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.8		7.6	7.5	7.6
AUTO CLEANERS													
CONCENTRATION (PPM)	12.87	15.35	14.41	16.02	11.97	11.43	8.70	9.21	7.70	11.87	11.62	13.69	11.64
WEIGHT (POUNDS)	360	360	368	384	400	400	360	320	320	384	360	400	4,416
CALCIUM ION													
CONCENTRATION (PPM)	.75	.90	1.10	1.10	.84	.90	.64	.61	.34	.81	.85	.60	.76
WEIGHT (POUNDS)	21	21	28	26	28	32	26	21	14	26	26	18	287
CHLORIDE ION													
CONCENTRATION (PPM)	45.86	54.45	50.27	23.36	38.50	36.73	31.20	37.30	31.17	40.16	41.88	44.03	40.73
WEIGHT (POUNDS)	1,282	1,277	1,284	1,279	1,286	1,286	1,291	1,295	1,296	1,300	1,297	1,286	15,459
HYPOCHLORITE ION													
CONCENTRATION (PPM)	3.57	3.92	4.00	3.95	3.15	2.98	2.71	3.42	2.89	3.86	3.90	3.62	3.43
WEIGHT (POUNDS)	100	92	102	95	105	104	112	119	120	125	121	106	1,301
LAUNDRY PRODUCTS													
CONCENTRATION (PPM)	20.10	23.50	27.40	29.75	24.16	18.74	20.04	17.91	18.71	23.17	30.58	41.00	24.01
WEIGHT (POUNDS)	562	551	700	713	807	656	829	622	778	750	947	1,198	9,113
PHOSPHATE													
CONCENTRATION (PPM)	3.58	4.26	3.91	4.17	2.99	2.86	2.42	2.88	2.40	3.09	3.23	3.42	3.16
WEIGHT (POUNDS)	100	100	100	100	100	100	100	100	100	100	100	100	1,200
SOAP													
CONCENTRATION (PPM)	21.46	25.59	23.49	25.03	17.96	20.00	14.50	14.40	12.02	18.54	19.37	18.82	18.58
WEIGHT (POUNDS)	600	600	600	600	600	700	600	500	500	600	600	550	7,050
SODIUM ION													
CONCENTRATION (PPM)	28.12	33.54	30.79	32.81	23.54	22.47	19.01	22.64	18.91	24.30	25.39	26.92	24.86
WEIGHT (POUNDS)	786	786	786	786	786	786	786	786	786	786	786	786	9,432

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

CFA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

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 Y SOLID	252.0	279.0	502.0	307.0	453.0	351.0	334.5	452.0	654.0	265.0	197.0	375.5	4,422.0
2 Y SOLID	84.0	102.0	144.0	58.0	104.0	66.0	80.0	58.0	24.0	72.0	16.0	130.0	938.0
3 Y SOLID	54.0	24.0	68.0	128.5	30.0	33.5	52.5	91.0	87.0	2 .8	12.0	67.5	668.8
4 Y SOLID			13.0	75.5	27.0	6.0	240.0	66.0	107.0	6.5	8.0	2.0	551.0
5 Y SOLID	4.0		6.0								2.5	39.5	52.0
9 F SOLID								2,200.5					2,200.5
OTHER ASBESTOS DIRT GRAVEL ASPHALT													
9 F SOLID						202.5							202.5
OTHER ASPHALT GRASS DIRT													
9 F SOLID					189.0								189.0
OTHER CARDBOARD ROOFING ETC													
9 F SOLID									2,052.0				2,052.0
OTHER PLASTIC GLASS ROAD PATCH													
9 F SOLID				27.0									27.0
OTHER SAND													
9 F SOLID							1,323.0						1,323.0
OTHER WEEDS GRASS ASPHALT DIRT													
9 F SOLID										1,795.5			1,795.5
OTHER-GRASS WEEDS ROOF MATERIAL SAND													
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID	252.0	279.0	502.0	307.0	453.0	351.0	334.5	452.0	654.0	265.0	197.0	375.5	4,422.0
2 Y SOLID	84.0	102.0	144.0	58.0	104.0	66.0	80.0	58.0	24.0	7 .0	16.0	130.0	938.0
3 Y SOLID	54.0	24.0	68.0	128.5	30.0	33.5	52.5	91.0	87.0	20.8	12.0	67.5	668.8
4 Y SOLID			13.0	75.5	27.0	6.0	240.0	66.0	107.0	.5	8.0	2.0	551.0
5 Y SOLID	4.0		6.0								2.5	39.5	52.0
9 F SOLID				27.0	189.0	202.5	1,323.0	2,200.5	2,052.0	1,795.5			7,789.5

CFA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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 (GAL)	2	3	11	369	5,366	12,390	11,310	14,090	8,024	5,968	3,080	2	60,615
2 WATER PUMPED (GAL)	4,124	4,000	8,549	4,973	199	2,375	3,317	3,800	494	264	2,335	4,478	38,908
TOTAL WATER PUMPED (GAL)	4,126	4,003	8,560	5,342	5,565	14,765	14,627	17,890	8,518	6,232	5,415	4,480	99,523
WATER DISPOSAL													
AIR (GAL) *													
SURFACE (GAL) *	39	60	275	247	765	6,342	6,670	9,748	1,378	118	852	49	26,543
SUBSURFACE (GAL)	189	207	162	236	256	281	300	310	242	201	272	294	2,950
SEWAGE DATA													
691 BUILD VOL. (GAL)	3,162	2,603	2,899	2,636	3,747	3,913	4,657	3,853	4,742	3,677	3,439	3,207	42,535
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)	130.8	83.3	83.0	42.3	41.6	35.7	37.7	65.8	65.1	134.0	135.0	123.0	81.4
FINAL CONC. (PPM)	10.6	12.4	11.2	6.3	9.2	11.7	5.2	5.0	10.5	11.0	11.2	16.0	10.0
% REMOVED	91.9	85.1	86.5	85.1	77.9	67.2	86.2	92.4	83.9	91.8	91.7	87.0	87.7
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)	1.4	1.0	.2	1.7	.2	1.3	2.1	1.7	.1	.6	1.0	1.0	1.0
FINAL CONC. (PPM)	6.0	6.6	5.3	4.1	3.9	2.7	4.7	1.8	4.7	4.8	5.0	4.6	4.5
INCREASED FACTOR	3.3	5.6	25.5	1.4	18.5	1.1	1.2	.1	46.0	7.0	4.0	3.6	3.5
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	5.7	5.5	3.2	4.3	5.1	4.9	4.2	5.3	4.7	4.2	4.9	5.7	4.8
FINAL CONC. (ML/L)	.05	.05	.05	.05	.05	.05	.05	.05	.15	.05	.05	.05	.06
% REMOVED	99.1	99.1	98.4	98.8	99.0	99.0	98.8	99.1	96.8	98.8	99.0	99.1	98.8
PH-FINAL	7.6	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.8	7.7	7.6	7.5	7.6
TOTAL SEWAGE VOL. (GAL)	3,162	2,603	2,899	2,636	3,747	3,913	4,657	3,853	4,742	3,677	3,439	3,207	42,535
TOTAL WATER DISPOSED (GAL)	3,390	2,870	3,336	3,119	4,768	10,536	11,627	13,911	6,362	3,996	4,563	3,550	72,028
ACCOUNTABILITY (%)	82.2	71.7	39.0	58.4	85.7	71.4	79.5	77.8	74.7	64.1	84.3	79.2	72.4

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

CFA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 2													
VOLUME (GAL)	91	62	40	43	30	9	14	20	18	31	63	119	540
SO2 (LBS)	4	4	2	2	1		1	1	1	1	3	6	26
NOX (LBS)													
PARTICULATES (LBS)													
GRAND TOTALS													
SO2 (LBS)	4	4	2	2	1		1	1	1	1	3	6	26
NOX (LBS)													
PARTICULATES (LBS)													

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
NITRIC OXIDE WEIGHT (POUNDS)	17,100	17,785	1,584	4,652	9,369	13,572	8,859	8,178	8,841				89,940
NITROGEN DIOXIDE WEIGHT (POUNDS)	110,602	76,453	24,285	83,217	149,382	104,038	97,794	112,839	121,988				880,598

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION SUBSTANCE	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC	ANNUAL TOT & AVE
STACK 708							
VOLUME (CU.FT. IN 1000)	3,842,351	5,014,831	4,555,727	4,460,372	5,389,177	5,576,352	
	5,096,055	3,920,045	4,237,886	0	0	0	42,092,796
NITRIC OXIDE							
CONCENTRATION (PPM)	64.00	51.00	5.00	15.00	25.00	35.00	
	25.00	30.00	30.00	.00	.00	.00	30.72
WEIGHT (POUNDS)	17,100	17,765	1,584	4,652	9,369	13,572	
	8,859	8,173	8,841	0	0	0	89,940
NITROGEN DIOXIDE							
CONCENTRATION (PPM)	270.00	143.00	50.00	175.00	260.00	175.00	
	180.00	270.00	270.00	.00	.00	.00	196.20
WEIGHT (POUNDS)	110,602	76,453	24,285	83,217	149,382	104,038	
	97,794	112,839	121,988	0	0	0	880,598

NOTE: UNDERLINE = CALCULATED CONCENTRATION

CPP LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CALCIUM ION													
WEIGHT (POUNDS)	13	16	17	19	18	17	19	21	16	18	26	16	216
CHLORIDE ION													
WEIGHT (POUNDS)	68,820	64,413	51,996	59,591	53,397	58,388	69,441	52,418	54,707	76,126	66,899	52,795	728,991
HYPOCHLORITE ION													
WEIGHT (POUNDS)	33	42	43	49	45	44	49	55	40	47	67	42	556
NITRATE ION													
WEIGHT (POUNDS)	26,865	24,486	25,660	28,312	28,478	16,765	27,804	28,763	28,085	12,413	19,640	20,219	287,490
SODIUM ION													
WEIGHT (POUNDS)	39,010	46,924	35,357	40,716	35,905	36,709	39,915	31,182	35,106	48,289	44,190	33,250	466,553
SULFATE ION													
WEIGHT (POUNDS)	29,810	17,788	12,635	14,156	15,344	14,684	16,130	10,215	11,117	11	9	9,885	151,784
TDS													
WEIGHT (POUNDS)		214,996	15,963	172,571	171,851	136,721	196,841	113,169	188,987	199,405	178,296	128,056	1,716,856

CPP LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
DISPOSAL WELL SUBSURFACE													
VOLUME (GAL. IN 1000)	44,180	51,210	31,210	32,370	36,840	34,700	32,820	32,270	35,120	34,100	36,840	26,970	428,630
HYDROGEN-ION CONC. (PH)	7.4	8.0	7.8	7.4	7.6	7.7	8.0	8.0	7.6	8.1	8.0	8.2	7.8
CHLORIDE ION													
CONCENTRATION (PPM)	187.00	151.00	200.00	221.00	174.00	202.00	254.00	195.00	187.00	268.00	218.00	235.00	203.82
WEIGHT (POUNDS)	68,820	64,413	51,996	59,591	53,397	58,388	69,441	52,418	54,707	76,126	66,899	52,795	728,991
NITRATE ION													
CONCENTRATION (PPM)	73.00	57.40	98.70	105.00	92.80	58.00	101.70	107.00	96.00	43.70	64.00	90.00	80.38
WEIGHT (POUNDS)	26,865	24,486	25,660	26,312	28,478	16,765	27,804	28,763	28,085	12,413	19,640	20,219	287,490
SODIUM ION													
CONCENTRATION (PPM)	106.00	110.00	136.00	151.00	117.00	127.00	146.00	116.00	120.00	170.00	144.00	148.00	130.44
WEIGHT (POUNDS)	39,010	46,924	35,357	40,716	35,905	36,709	39,915	31,182	35,106	48,219	44,190	33,250	466,553
SULFATE ION													
CONCENTRATION (PPM)	81.00	41.70	48.60	52.50	50.00	50.80	59.00	38.00	38.00	.04	.03	44.00	42.44
WEIGHT (POUNDS)	29,810	17,788	12,635	14,156	15,344	14,684	16,130	10,215	11,117	11	9	9,885	151,784
TDS													
CONCENTRATION (PPM)		504.00	61.40	640.00	560.00	473.00	720.00	421.00	646.00	702.00	581.00	570.00	480.01
WEIGHT (POUNDS)		214,996	15,963	172,571	171,851	136,721	196,841	113,169	188,987	199,405	178,296	128,056	1,716,856
SEWAGE PLANT SUBSURFACE													
VOLUME (GAL. IN 1000)	973	858	918	1,011	932	952	1,078	1,079	1,204	976	1,029	1,002	12,012
HYDROGEN-ION CONC. (PH)	7.6	7.8	7.6	7.2	7.1	7.2	7.2	7.2	7.3	7.3	7.6	7.4	7.4
CALCIUM ION													
CONCENTRATION (PPM)	1.58	2.30	2.20	2.24	2.28	2.15	2.13	2.37	1.55	2.26	3.06	1.97	2.17
WEIGHT (POUNDS)	13	16	17	19	18	17	19	21	16	18	26	16	216
HYPOCHLORITE ION													
CONCENTRATION (PPM)	4.05	5.91	5.66	5.76	5.84	5.52	5.46	6.09	3.98	5.81	7.85	5.06	5.56
WEIGHT (POUNDS)	33	42	43	49	45	44	49	55	40	47	67	42	556

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

SCHED. NO. F6162-B

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

RUN DATE. 24/79

CPP INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

PG 1 RPT 206-I CPP

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 Y SOLID	184.0	210.0	210.0	270.0	240.0	240.0	186.5	336.0	354.0	94.0	126.0	166.0	2,616.5
2 Y SOLID	48.0	56.0	56.0	72.0	64.0	38.0	42.0	72.0	64.0	24.0	16.0	36.0	588.0
3 Y SOLID	172.0			534.0	412.0	194.0	290.5	464.0	506.0	187.0	351.0	22.0	3,132.5
4 Y SOLID				59.5	4.0	44.0	1.5	10.0	3.0		5.0	3.0	130.0
9 F SOLID									27.0				27.0
GRASS SOD													
9 F SOLID												945.0	945.0
GRAVEL													
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID	184.0	210.0	210.0	270.0	240.0	240.0	186.5	336.0	354.0	94.0	126.0	166.0	2,616.5
2 Y SOLID	48.0	56.0	56.0	72.0	64.0	38.0	42.0	72.0	64.0	24.0	16.0	36.0	588.0
3 Y SOLID	172.0			534.0	412.0	194.0	290.5	464.0	506.0	187.0	351.0	22.0	3,132.5
4 Y SOLID				59.5	4.0	44.0	1.5	10.0	3.0		5.0	3.0	130.0
9 F SOLID									27.0			945.0	972.0

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

CPP WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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 (GAL)	46,090	55,130	50,000	40,000	46,300	45,000	44,600	53,230	54,860	43,700	47,140	32,200	558,250
WATER DISPOSAL													
AIR (GAL)													
SURFACE (GAL) *													
SUBSURFACE (GAL)	44,180	51,210	31,210	32,370	36,840	34,700	32,820	32,270	35,120	34,100	38,640	23,800	427,260
SEWAGE DATA													
BUILD VOL. (GAL)	973	858	918	1,011	932	952	1,078	1,079	1,204	976	1,029	1,002	12,012
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)	129.8	118.0	125.5	87.8	89.5	95.8	80.8	71.7	93.0	87.8	115.7	131.2	102.2
FINAL CONC. (PPM)	13.6	23.4	30.8	23.7	16.0	19.7	18.0	15.7	19.7	12.0	19.3	22.9	19.6
% REMOVED	89.5	80.2	75.5	73.0	82.1	79.4	77.7	78.1	78.8	86.3	83.3	82.5	80.8
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)	3.4	1.8	13.7	2.4	.2	2.6	2.1	.7	.5	.1	.1	1.5	2.4
FINAL CONC. (PPM)	4.6	3.3	15.9	3.0	2.6	3.1	2.4	1.8	.9	1.3	1.4	7.9	4.0
INCREASED FACTOR	.4	.8	.2	.3	12.0	.2	.1	1.6	.8	12.0	13.0	4.3	.7
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)	5.0	5.1	7.2	6.8	7.3	6.8			6.9	5.9	7.2	7.0	6.5
FINAL CONC. (ML/L)	.05	.07	.09	.06	.05	.12			.10	.05	.05	.09	.07
% REMOVED	99.0	98.6	98.8	99.1	99.3	98.2			98.6	99.2	99.3	98.7	98.9
PH-FINAL	7.6	7.8	7.6	7.2	7.1	7.2	7.2	7.2	7.3	7.3	7.6	7.5	7.4
TOTAL SEWAGE VOL. (GAL)	973	858	918	1,011	932	952	1,078	1,079	1,204	976	1,029	1,002	12,012
TOTAL WATER DISPOSED (GAL)	45,153	52,068	32,128	33,381	37,772	35,652	33,898	33,349	36,324	35,076	39,669	24,802	439,272
ACCOUNTABILITY (%)	98.0	94.4	64.3	83.5	81.6	79.2	76.0	62.7	66.2	80.3	84.2	77.0	78.7

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

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

CPP FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
KERCSENE													
VOLUME (GAL)	21	7	1	12	6	11	7	10					75
SO2 (LBS)													
NOX (LBS)													
PARTICULATES (LBS)													
TYPE 2													
VOLUME (GAL)	169	167	167	144	135	117	97	121	126	125	179	194	1,781
SO2 (LBS)	8	9	9	7	6	6	5	6	6	6	8	9	85
NOX (LBS)													
PARTICULATES (LBS)													
GRAND TOTALS													
SO2 (LBS)	8	9	9	7	6	6	5	6	6	6	8	9	85
NOX (LBS)													
PARTICULATES (LBS)													

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

NRF AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION SUBSTANCE	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC	ANNUAL TOT & AVE
COOLING TOWERS							
VOLUME (CU.FT. IN 1000)	8,355,480	4,515,840	1,871,604	3,990,560	4,629,516	1,400,028	
	4,261,040	3,980,760	5,160,677	3,753,400	2,742,040	5,158,719	49,819,664

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

NRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
CALCIUM ION WEIGHT (POUNDS)		106	332		488	366	458			632	488	132	3,052
CHLORIDE ION WEIGHT (POUNDS)	26,764	26,699	26,679	26,695	26,698	26,694	26,689	43,995	26,733	26,661	24,599	45,190	354,096
HEXAVALENT CR WEIGHT (POUNDS)	5	5	1										11
HYPOCHLORITE ION WEIGHT (POUNDS)		272	982		1,254	940	1,175			1,622	1,254	339	7,838
PHOSPHATE ION WEIGHT (POUNDS)	650	270	366	793	423	822	510	322	459	281	405	744	6,045
PHOSPHONATE WEIGHT (POUNDS)	40	121	59	55	61	64	30	81	81	142	130	70	934
POLYMETHACRYLATE WEIGHT (POUNDS)	27	81	39	36	40	42	20	54	54	94	87	47	621
POLYPHOSPHATE WEIGHT (POUNDS)	94	283	138	128	142	149	70	189	189	331	304	164	2,181
SODIUM ION WEIGHT (POUNDS)	17,265	15,706	16,498	9,939	18,203	15,184	13,854	10,985	14,291	14,219	14,354	26,370	186,868
SULFATE ION WEIGHT (POUNDS)	67,759	29,018	44,884	85,617	76,397	61,908	56,153	47,217	72,871	25,706	52,000	95,527	715,057
SULFONATE WEIGHT (POUNDS)	27	81	39	36	40	42	20	54	54	94	87	47	621
TDS WEIGHT (POUNDS)	158,020	90,614				175,105	125,950	143,193		82,507			775,389

NRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION / SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SEWAGE POND SURFACE													
VOLUME (GAL. IN 1000)	1,318	1,292	1,186	1,224	1,199	1,448	1,261	1,255	1,291	1,591	1,579	2,213	16,857
HYDROGEN-ION CONC. (PH)	8.6	8.4	8.1	7.7	9.3	11.0	10.2	10.9	10.9	10.1	10.6		9.6
WASTE DITCH SURFACE													
VOLUME (GAL. IN 1000)	21,680	12,950	7,850	19,030	16,940	21,000	18,000	16,820	16,200	11,230	12,460	22,890	197,050
HYDROGEN-ION CONC. (PH)	6.6	6.4	2.8	3.0	3.0	6.1	7.8	7.7	3.0	6.5	2.9	2.9	4.9
CALCIUM ION													
CONCENTRATION (PPM)		.98	5.84		3.45	2.09	3.05			6.74	4.69	.69	1.86
WEIGHT (POUNDS)		106	382		488	366	458			632	488	132	3,052
CHLORIDE ION													
CONCENTRATION (PPM)	148.20	247.50	408.00	168.40	189.20	152.60	178.00	314.00	198.10	285.00	237.00	237.00	215.35
WEIGHT (POUNDS)	26,764	26,699	26,679	26,695	26,698	26,694	26,689	43,995	26,733	26,661	24,599	45,190	354,096
HEXAVALENT CR													
CONCENTRATION (PPM)	.03	.05	.02										.01
WEIGHT (POUNDS)	5	5	1										11
HYPOCHLORITE ION													
CONCENTRATION (PPM)		2.51	14.99		8.87	5.36	7.82			17.30	12.06	1.78	4.77
WEIGHT (POUNDS)		272	982		1,254	940	1,175			1,622	1,254	339	7,838
PHOSPHATE ION													
CONCENTRATION (PPM)	3.60	2.50	5.60	5.00	3.00	4.70	3.40	2.30	3.40	3.00	3.90	3.90	3.68
WEIGHT (POUNDS)	650	270	366	793	423	822	510	322	459	281	405	744	6,045
PHOSPHONATE													
CONCENTRATION (PPM)	.22	1.12	.90	.34	.43	.36	.20	.58	.60	1.51	1.26	.37	.57
WEIGHT (POUNDS)	40	121	59	55	61	64	30	81	81	142	130	70	934
POLYMETHACRYLATE													
CONCENTRATION (PPM)	.15	.75	.60	.23	.29	.24	.13	.38	.40	1.01	.84	.25	.38
WEIGHT (POUNDS)	27	81	39	36	40	42	20	54	54	94	87	47	621
POLYPHOSPHATE													
CONCENTRATION (PPM)	.52	2.62	2.11	.80	1.00	.85	.46	1.35	1.40	3.53	2.93	.86	1.33
WEIGHT (POUNDS)	94	283	138	126	142	149	70	189	189	331	304	164	2,181
SODIUM ION													
CONCENTRATION (PPM)	95.60	145.60	252.30	62.70	129.00	86.80	92.40	78.40	105.90	152.00	138.30	138.30	113.65
WEIGHT (POUNDS)	17,265	15,706	16,498	9,939	18,203	15,184	13,854	10,985	14,291	14,219	14,354	26,370	186,868

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

NRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
SULFATE ION													
CONCENTRATION (PPM)	375.20	269.00	686.40	540.10	541.40	353.90	374.50	337.00	540.00	274.80	501.00	501.00	434.87
WEIGHT (POUNDS)	67,759	29,018	44,884	85,617	76,397	61,908	56,153	47,217	72,871	25,706	52,000	95,527	715,057
SULFONATE													
CONCENTRATION (PPM)	.15	.75	.60	.23	.29	.24	.13	.38	.40	1.01	.84	.25	.38
WEIGHT (POUNDS)	27	81	39	36	40	42	20	54	54	94	87	47	621
TDS													
CONCENTRATION (PPM)	875.00	640.00				1001.00	840.00	1022.00		882.00			471.56
WEIGHT (POUNDS)	158,020	90,614				175,105	125,950	143,193		82,507			775,389

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

NRF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

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 Y SOLID	466.5	420.5	455.5	350.0	460.0	474.0	364.8	412.4	455.6	329.6	108.3	347.4	4,644.6
2 Y SOLID	144.0	128.0	144.0	112.0	144.0	144.0	120.0	128.0	144.0	96.0	2.0	116.0	1,422.0
3 Y SOLID	42.6	34.8	2.7	18.8	28.4	4.7	11.1	24.7	41.5	2 .5	11.8	8.1	251.7
4 Y SOLID	8.1	17.5	54.5	850.2	149.1	720.9		417.8	532.7			8.7	2,759.5
5 Y SOLID			6.2	19.8	3.8	18.0		16.0	22.4				86.2
9 F SOLID				3,982.5									3,982.5
MISC ROOFING/EXCAVATION DEBRIS													
CFA LANFILL													
DISPOSED WASTE													
9 F SOLID	229.5												229.5
ROOFING MATERIAL													
CFA OIL DEPOT													
STORED WASTE													
6 K LIQUID								1,000.0					1,000.0
OIL													
6 K LIQUID				600.0	600.0	850.0	300.0		1,600.0				3,950.0
WASTE OIL													
CFA SCRAPYARD													
STORED WASTE													
5 Y SOLID	10.5	6.1								14.8	8.9		40.3
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID	466.5	420.5	455.5	350.0	460.0	474.0	364.8	412.4	455.6	329.6	108.3	347.4	4,644.6
2 Y SOLID	144.0	128.0	144.0	112.0	144.0	144.0	120.0	128.0	144.0	96.0	2.0	116.0	1,422.0
3 Y SOLID	42.6	34.8	2.7	18.8	28.4	4.7	11.1	24.7	41.5	2 .5	11.8	8.1	251.7
4 Y SOLID	8.1	17.5	54.5	850.2	149.1	720.9		417.8	532.7			8.7	2,759.5
5 Y SOLID			6.2	19.8	3.8	18.0		16.0	22.4				86.2
9 F SOLID	229.5			3,982.5									4,212.0
STORED WASTE													
5 Y SOLID	10.5	6.1								14.8	8.9		40.3
6 K LIQUID				600.0	600.0	850.0	300.0	1,000.0	1,600.0				4,950.0

NRF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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 (GAL)	38,060	13,640	10,860	12,820	16,670	24,120	40,440	9,004	5,242	1,010	34	143	172,063
2 WATER PUMPED (GAL)	7	7	33	3	8	6	91	51	183	33	2	95	519
3 WATER PUMPED (GAL)	32,280	26,200	8,756	30,060	42,710	6,259	22,890	51,590	41,290	33,060	29,550	54,110	378,755
TOTAL WATER PUMPED (GAL)	70,367	39,847	19,649	42,883	59,388	30,385	63,421	60,645	46,715	34,103	29,586	54,348	551,337
WATER DISPOSAL													
AIR (GAL) *	42,630	23,040	9,549	20,360	23,620	7,143	21,740	20,310	26,330	19,150	13,990	26,320	254,182
SURFACE (GAL) *	21,680	12,950	7,850	19,030	31,940	21,000	38,000	36,820	16,200	1,230	12,460	22,890	252,050
SUBSURFACE (GAL)													
SEWAGE DATA													
BUILD VOL. (GAL)	1,318	1,292	1,186	1,224	1,199	1,448	1,261	1,255	1,291	1,591	1,579	2,213	16,857
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)	76.4	126.0	68.7	66.3		26.3	26.0	44.1	8.0	14.4	26.4		48.3
FINAL CONC. (PPM)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)			.2	7.5	7.6	9.2	17.1	9.7	10.3	13.8	7.9		9.3
FINAL CONC. (PPM)													
INCREASED FACTOR													
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL	8.8	8.4	8.1	7.7	9.3								8.5
TOTAL SEWAGE VOL. (GAL)	1,318	1,292	1,186	1,224	1,199	1,448	1,261	1,255	1,291	1,591	1,579	2,213	16,857
TOTAL WATER DISPOSED (GAL)	65,628	37,282	18,585	40,614	56,759	29,591	61,001	58,385	43,821	31,971	28,029	51,423	523,089
ACCOUNTABILITY (%)	93.3	93.6	94.6	94.7	95.6	97.4	96.2	96.3	93.8	93.7	94.7	94.6	94.9

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

SCHED. NO. INF6164-C

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

RUN DATE: 04/24/79

NRF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 5													
VOLUME (GAL)	136	120	110	86	78	25				77	116	211	959
SO2 (LBS)	15	31	12	9	9	3				9	19	35	142
NOX (LBS)	4	3	3	2	2	1				2		6	23
PARTICULATES (LBS)	2	2	2	2	1					1		4	14
GRAND TOTALS													
SO2 (LBS)	15	31	12	9	9	3				9	19	35	142
NOX (LBS)	4	3	3	2	2	1				2		6	23
PARTICULATES (LBS)	2	2	2	2	1					1		4	14

ANL AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
HEXAVALENT CR WEIGHT (POUNDS)	2	4	2	2	4	3	4	3	3	4	4	5	40
ZINC ION WEIGHT (POUNDS)													

RELEASE POINT DESCRIPTION SUBSTANCE	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC	ANNUAL TOT & AVE
COOLING TOWER 757							
VOLUME (CU.FT. IN 1000)	15,778	16,742	8,030	8,679	16,793	11,897	
	16,836	11,446	11,290	16,356	15,749	20,031	171,627
HEXAVALENT CR							
CONCENTRATION (PPM)	5.37	5.38	5.38	5.38	5.37	5.37	
	5.37	5.38	5.39	5.37	5.38	5.37	5.19
WEIGHT (POUNDS)	2	4	2	2	4	3	
	4	3	3	4	4	5	40
ZINC ION							
CONCENTRATION (PPM)	.46	.38	.52	.20	.31	.35	
	.38	.37	.36	.34	.41	.34	.37
WEIGHT (POUNDS)	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 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
AMIDES WEIGHT (POUNDS)	10	10		9	18	18	9	9	18	9	18	18	146
CALCIUM ION WEIGHT (POUNDS)	51	53	56	48	62	51	62	62	70	67	82	48	712
CARBONTHIOCYANATES WEIGHT (POUNDS)	2	2		2	4	4	2	2	4	2	4	4	32
CHLORIDE ION WEIGHT (POUNDS)	30	32	33	29	35	30	35	35	39	38	44	29	409
CHLOROSULFONES WEIGHT (POUNDS)	8	8		7	14	14	7	7	14	7	14	14	114
DIMETHYLAMINE WEIGHT (POUNDS)	50	50	30	30	50	50	50	50	50	50	50	50	560
HYDROCARBON-AMINES WEIGHT (POUNDS)	2	1	3	2	3	2	1	2	1	1	3	2	23
HYDROCARBONS WEIGHT (POUNDS)	20	20		18	36	36	18	18	36	18	36	36	292
HYPOCHLORITE ION WEIGHT (POUNDS)	32	34	36	31	40	32	40	40	45	43	52	31	456
MORPHOLINE WEIGHT (POUNDS)	68	123	110	34	43	68	45	38	34	23	49	17	652
PHOSPHATE ION WEIGHT (POUNDS)	118	117	133	131	144	140	154	185	143	145	140	144	1,694
PHOTO LAB CHEMICAL WEIGHT (POUNDS)	470	470	470	470	470	470	470	360	360	360	360	360	5,090
POTASSIUM ION WEIGHT (POUNDS)										160			160
SODIUM ION WEIGHT (POUNDS)	951	1,262	633	2,814	1,888	1,885	1,892	1,886	1,887	1,885	3,308	3,308	23,599
SULFATE ION WEIGHT (POUNDS)	9,065	8,149	10,440	6,061	14,260	13,110	16,610	10,060	12,480	13,560	12,270	12,270	140,355

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

AREA GRAND TOTALS SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTALS
TRIVALENT CR WEIGHT (POUNDS)	78	75	47	40	85	71	106	74	80	75	71	71	873
ZINC ION WEIGHT (POUNDS)	24	23	15	13	27	22	33	23	25	24	22	22	273

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION: SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
FACILITY 779 SURFACE													
VOLUME (GAL. IN 1000)	1,051	961	1,307	1,296	1,175	1,298	1,567	1,827	1,734	1,591	1,734	1,971	17,532
HYDROGEN-ION CONC. (PH)													
CHLORIDE ION													
CONCENTRATION (PPM)	.91	1.00	.73	.74	.82	.74	.60	.52	.55	.60	.55	.49	.66
WEIGHT (POUNDS)	8	8	8	8	8	8	8	8	8	8	8	8	96
INDUSTRIAL POND 746 SURFACE													
VOLUME (GAL. IN 1000)	3,692	2,605	1,474	1,550	3,367	2,275	5,233	2,509	2,364	2,023	2,349	2,320	31,761
HYDROGEN-ION CONC. (PH)													
AMIDES													
CONCENTRATION (PPM)	.32	.46		.70	.64	.95	.21	.43	.91	.53	.92	.93	.55
WEIGHT (POUNDS)	10	10		9	18	18	9	9	18	9	18	18	146
CALCIUM ION													
CONCENTRATION (PPM)	1.64	2.46	4.57	3.70	2.20	2.67	1.42	2.95	3.56	4.00	4.16	2.47	2.68
WEIGHT (POUNDS)	51	53	56	48	62	51	62	62	70	67	82	48	712
CARBONTHIOCYANATES													
CONCENTRATION (PPM)	.06	.09		.14	.13	.19	.04	.09	.18	.11	.18	.19	.11
WEIGHT (POUNDS)	2	2		2	4	4	2	2	4	2	4	4	32
CHLORIDE ION													
CONCENTRATION (PPM)	.73	1.09	2.02	1.63	.97	1.18	.63	1.31	1.58	1.77	1.84	1.09	1.19
WEIGHT (POUNDS)	22	24	25	21	27	22	27	27	31	30	36	21	313
CHLOROSULFONES													
CONCENTRATION (PPM)	.26	.37		.56	.51	.76	.16	.34	.73	.43	.73	.74	.44
WEIGHT (POUNDS)	8	8		7	14	14	7	7	14	7	14	14	114
DIMETHYLAMINE													
CONCENTRATION (PPM)	1.62	2.30	2.44	2.32	1.78	2.63	1.14	2.39	2.53	2.96	2.55	2.58	2.11
WEIGHT (POUNDS)	50	50	30	30	50	50	50	50	50	50	50	50	560
HYDROCARBON-AMINES													
CONCENTRATION (PPM)	.07	.06	.21	.12	.09	.09	.02	.08	.05	.06	.13	.11	.08
WEIGHT (POUNDS)	2	1	3	2	3	2	1	2	1	1	3	2	23
HYDROCARBONS													
CONCENTRATION (PPM)	.65	.92		1.39	1.28	1.90	.41	.86	1.82	1.07	1.84	1.86	1.10
WEIGHT (POUNDS)	20	20		18	36	36	18	18	36	18	36	36	292

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

RELEASE POINT DESCRIPTION SUBSTANCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOT & AVE
HYPOCHLORITE ION													
CONCENTRATION (PPM)	1.05	1.28	2.93	2.37	1.41	1.71	.91	1.90	2.29	2.57	2.67	1.58	1.72
WEIGHT (POUNDS)	32	34	36	31	40	32	40	40	45	43	52	31	456
MORPHOLINE													
CONCENTRATION (PPM)	2.21	5.64	8.98	2.64	1.52	3.58	1.03	1.84	1.72	1.39	2.51	.90	2.47
WEIGHT (POUNDS)	68	123	110	34	43	68	45	38	34	23	49	17	652
PHOSPHATE ION													
CONCENTRATION (PPM)	3.84	5.40	10.82	10.10	5.13	7.38	3.53	8.84	7.24	8.60	7.15	7.45	6.40
WEIGHT (POUNDS)	118	117	133	131	144	140	154	185	143	145	140	144	1,694
PHOTO LAB CHEMICAL													
CONCENTRATION (PPM)	15.25	21.62	38.21	36.34	16.73	24.76	10.76	17.19	18.25	21.32	18.36	18.59	19.21
WEIGHT (POUNDS)	470	470	470	470	470	470	470	360	360	360	360	360	5,090
POTASSIUM ION													
CONCENTRATION (PPM)										9.48			.60
WEIGHT (POUNDS)										160			160
SODIUM ION													
CONCENTRATION (PPM)	30.86	58.05	51.45	217.55	67.19	99.29	43.32	90.07	95.65	111.66	168.75	170.86	89.04
WEIGHT (POUNDS)	951	1,262	633	2,814	1,888	1,885	1,892	1,886	1,887	,885	3,308	3,308	23,599
SULFATE ION													
CONCENTRATION (PPM)	234.22	374.85	848.72	624.74	507.50	690.53	380.35	480.46	632.60	803.21	625.93	633.75	529.58
WEIGHT (POUNDS)	9,065	8,149	10,440	8,081	14,260	13,110	16,610	10,060	12,480	13,560	12,270	12,270	140,355
TRIVALENT CR													
CONCENTRATION (PPM)	2.54	3.43	3.85	3.11	3.03	3.74	2.44	3.55	4.08	4.44	3.63	3.68	3.30
WEIGHT (POUNDS)	78	75	47	40	85	71	106	74	80	75	71	71	873
ZINC ION													
CONCENTRATION (PPM)	.80	1.08	1.21	.98	.95	1.17	.77	1.11	1.28	1.39	1.14	1.15	1.04
WEIGHT (POUNDS)	24	23	15	13	27	22	33	23	25	24	22	22	273

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

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

ANL INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

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 K LIQUID	10.0		177.0	40.0	466.0	70.0	10.0	130.0	25.0	13.0			941.0
WASTE OIL FROM EBR-II TURBINE													
CFA LANDFILL													
DISPOSED WASTE													
1 Y SOLID	160.0	160.0	160.0	200.0	270.0	240.0	440.0	405.0	240.0	240.0	265.0	186.0	2,966.0
2 Y SOLID	32.0	32.0	40.0	80.0	56.0	58.0	106.0	72.0	48.0	49.0	54.0	70.0	697.0
3 Y SOLID							13.0						13.0
4 Y SOLID		10.0		117.0	55.0	10.0	47.0	8.0	83.0				330.0
5 Y SOLID									40.0				40.0
CFA OIL DEPOT													
DISPOSED WASTE													
6 K LIQUID										200.0			200.0
WASTE OIL FROM EBR-II TURBINE													
GRAND TOTALS													
DISPOSED WASTE													
1 Y SOLID	160.0	160.0	160.0	200.0	270.0	240.0	440.0	405.0	240.0	240.0	265.0	186.0	2,966.0
2 Y SOLID	32.0	32.0	40.0	80.0	56.0	58.0	106.0	72.0	48.0	41.0	54.0	70.0	697.0
3 Y SOLID							13.0						13.0
4 Y SOLID		10.0		117.0	55.0	10.0	47.0	8.0	83.0				330.0
5 Y SOLID									40.0				40.0
6 K LIQUID	10.0		177.0	40.0	466.0	70.0	10.0	130.0	25.0	213.0			1,141.0

ANL WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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 (GAL)	4,975	5,515	3,323	5,200	6,703	6,019	8,006	6,128	6,333	6,243	5,129	6,052	69,626
2 WATER PUMPED (GAL)	4,975	5,515	3,323	5,200	6,703	6,019	8,006	6,128	6,333	6,243	5,129	6,052	69,626
TOTAL WATER PUMPED (GAL)	9,950	11,030	6,646	10,400	13,406	12,038	16,012	12,256	12,666	12,486	10,258	12,104	139,252
WATER DISPOSAL													
AIR (GAL)	4,716	6,079	2,809	7,105	8,408	6,034	8,650	6,579	7,160	6,654	5,087	6,647	75,928
SURFACE (GAL)	3,692	2,605	1,474	1,550	3,367	2,275	5,233	2,509	2,364	2,023	2,349	2,320	31,761
SUBSURFACE (GAL)													
SEWAGE DATA													
720 BUILD VOL. (GAL) *	12	12	12	12	12	12	12	12	12	12	12	12	144
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
% REMOVED													
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)													
FINAL CONC. (PPM)													
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

ANL WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

(ALL VOLUMES = NEAREST THOUSAND GALLONS)

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. (GAL)	1,051	961	1,307	1,296	1,175	1,298	1,587	1,827	1,734	1,591	1,734	1,971	17,532
BIOCHEMICAL OXYGEN DEMAND (BOD)													
RAW CONC. (PPM)				119.3	99.0	82.1	158.6	102.5	51.6				102.2
FINAL CONC. (PPM)				33.2	53.0	24.4	46.0	39.0	6.7				33.7
% REMOVED				72.2	46.5	70.3	71.0	62.0	87.0				67.0
DISSOLVED OXYGEN (DO)													
RAW CONC. (PPM)				.3	.3	.2							.3
FINAL CONC. (PPM)				9.1	3.3	.5		3.2	.4				3.3
INCREASED FACTOR				29.3	10.0	1.5							
SETTLEABLE SOLIDS (SS)													
RAW CONC. (ML/L)													
FINAL CONC. (ML/L)													
% REMOVED													
PH-FINAL				9.6	9.5	7.5	8.8	8.3	8.4				8.7
TOTAL SEWAGE VOL. (GAL)	1,063	973	1,319	1,308	1,187	1,310	1,599	1,839	1,746	1,603	1,746	1,983	17,676
TOTAL WATER DISPOSED (GAL)	9,471	9,657	5,602	9,963	12,962	9,619	15,482	10,927	11,270	10,280	9,182	10,950	125,365
ACCOUNTABILITY (%)	95.2	87.6	84.3	95.8	96.7	79.9	96.7	89.2	89.0	82.3	89.5	90.5	90.0

SCHED. NO. INF6164-C

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

RUN DATE: 04/24/79

ANL FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1978

PG 1 RPT 408-I
ANL

(ALL VALUES = NEAREST THOUSAND)

FUEL OIL TYPE EFFLUENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
TYPE 2													
VOLUME (GAL)	37	10	45	41	13	20	12	18	13	15	33	40	297
SO2 (LBS)	2	1	1	1		1		1			1	1	9
NOX (LBS)													
PARTICULATES (LBS)													
GRAND TOTALS													
SO2 (LBS)	2	1	1	1		1		1			1	1	9
NOX (LBS)													
PARTICULATES (LBS)													