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IDO-10057(77)

# INDUSTRIAL WASTE MANAGEMENT INFORMATION

# FOR 1977 AND RECORD-TO-DATE

IDAHO OPERATIONS OFFICE

IDAHO NATIONAL ENGINEERING LABORATORY

DEPARTMENT OF ENERGY

IDO-10057(77)

# INDUSTRIAL WASTE MANAGEMENT INFORMATION

# FOR 1977 AND RECORD-TO-DATE

COMPILED BY:

S. S. WHITE
RADIOACTIVE WASTE PROGRAMS BRANCH
NUCLEAR FUEL CYCLE DIVISION
IDAHO OPERATIONS OFFICE

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## ABSTRACT

The industrial waste data associated with activities at the Idaho National Engineering Laboratory (INEL) for 1977 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 |
| 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 which has been stored and disposed at the INEL and 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 21400 cubic yards of solid industrial waste was disposed to sanitary landfills at the INEL during 1977. This represents an increase from the 19160 cubic years in 1976.

During 1977, a total of 8435 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 6000 gallons in 1976 and 8617 gallons in 1975.

A total of 12200000 pounds of liquid and airborne industrial waste was discharged in 1977. This includes 5130000 pounds of chemicals, 5008000 pounds of total dissolved solids, and 2062000 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 12940000 pounds in 1976 and 13350000 pounds in 1975.

During 1977, a total of 7895000 gallons of fuel oil was used at the INEL which produced 1158000 pounds of $SO_2$ and 61630 pounds of particulates. During 1976, 6633000 gallons of fuel oil was used producing 1078000 pounds of $SO_2$ and 69450 pounds of particulates. The slight decrease in the quantities of $SO_2$ and particulates from 1976 to 1977 is attributed to the normal fluctuation of the chemical constituents in the fuel oil.

A total of 2362000000 gallons of water was used at the INEL during 1977 compared to 2552000000 gallons in 1976, and 2495000000 gallons in 1975. 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 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 and 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 and Disposal Summary

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

INEL INDUSTRIAL WASTE SUMMARY
RECORD-TO-DATE

| WASTE TYPE | | 1971-1974 | 1975 | 1976 | 1977 |
|---|---|---|---|---|---|
| SANITARY WASTE | (CUBIC YARDS) | 129,400 | 24,250 | 19,160 | 21,400 |
| OIL-SOLVENTS | (GALLONS) | 65,220 | 8,617 | 6,000 | 8,435 |
| LIQUID WASTE | (POUNDS) | 31,290,000 | 12,820,000 | 12,180,000 | 11,420,000 |
| AIRBORNE WASTE | (POUNDS)* | 5,419,000 | 1,835,000 | 1,908,000 | 1,996,000 |
| FUEL OIL: | | | | | |
| QUANTITY | (GALLONS) | 28,640,000 | 7,744,000 | 7,170,000 | 8,339,000 |
| SO2 | (POUNDS) | 4,457,000 | 1,201,000 | 1,078,000 | 1,158,000 |
| PARTICULATES | (POUNDS) | 262,000 | 103,000 | 69,450 | 61,630 |
| WATER-USED | (1,000 GALLONS) | 10,300,000 | 2,495,000 | 2,552,000 | 2,362,000 |

* NOTE: INCLUDES SO2 AND PARTICULATES FROM FUEL OIL TOTALS

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

"EL SOLID AND LIQUID INDUSTRIAL WASTE SUMMARY
RECORD-TO-DATE

| YEA | ANL | ARA | CFA | CPP | NRF | BF | TAN | TRA | WMC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| RECORD-TO-DATE (71-75) | | | | | | | | | | |
| SANITARY WASTE (CU. YDS) | 18,090 | 1 | 27,150 | 17,730 | 47,560 | 4,849 | 16,090 | 22,210 | | 153,700 |
| OILS & SOLVENTS (GALLONS) | 666 | | 27,000 | | 44,520 | | 150 | 1,500 | | 73,840 |
| CHEMICALS LIQUIDS (GALLONS) | 1 | | | | 10,970 | 75 | <1 | 1,659 | | 12,710 |
| SOLIDS (POUNDS) | 605 | | 2,988 | | 7,992 | | | 38,770 | | 50,350 |
| 1976 | | | | | | | | | | |
| SANITARY WASTE (CU. YDS) | 2,458 | | 2,750 | 2,290 | 6,463 | 24 | 2,610 | 2,568 | | 19,160 |
| OILS & SOLVENTS (GALLONS) | | | | | 6,000 | | | | | 6,000 |
| CHEMICALS LIQUIDS (GALLONS) | | | | | | | | | | |
| SOLIDS (POUNDS) | | | | | | | 1 | | | 1 |
| 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) | | | | | | | | | | |

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEL INDUSTRIAL WASTE SUMMARY IN CUBIC YARDS*
FOR JANUARY THROUGH DECEMBER 1977

| TYPES | ANL | CFA | CPP | NRF | TAN | TRA | WMC | TOTAL |
|---|---|---|---|---|---|---|---|---|
| 1. TRASH | 1,890 | 3,478 | 1,737 | 4,246 | 1,800 | 1,985 | | 15,140 |
| 2. CAFETERIA GARBAGE | 408 | 918 | 462 | 1,245 | 216 | 52 | | 3,301 |
| 3. WOOD & SCRAP LUMBER | | 111 | | 528 | 11 | | | 650 |
| 4. MASONRY & CONCRETE | | 1,368 | 8 | 624 | 4 | | | 2,004 |
| 5. SCRAP METAL | | | | 304 | | | | 304 |
| 6. OIL (GALLONS) | 1,655 | | | 6,780 | | | | 8,435 |
| 7. SOLVENTS (GALLONS) | | | | | | | | |
| 8. CHEMICALS | | | | | | | | |
| LIQUID (GALLONS) | | | | 440 | 4 | | 38 | 482 |
| SOLIDS (POUNDS) | | | | | | | | |
| 9. OTHERS | | | | | | | | |
| LIQUID (GALLONS) | | | | | | | | |
| SOLIDS (CU. FT.) | | | | 160 | | | | 160 |
| TOTALS | | | | | | | | |
| SANITARY TYPES 1, 2, 3, 4, 5, & 9 (CUBIC YARDS) | 2,298 | 5,875 | 2,207 | 6,952 | 2,031 | 2,037 | | 21,400 |
| OILS & SOLVENTS TYPES 6 & 7 (GALLONS) | 1,655 | | | 6,780 | | | | 8,435 |
| CHEMICALS | | | | | | | | |
| LIQUIDS (GALLONS) | | | | 440 | 4 | | 38 | 482 |
| 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 | 1971-1975 | 1976 | 1977 | TOTAL |
|---|---|---|---|---|
| AMIDES | | 520 | 961 | 1,481 |
| AUTO CLEANERS | 24,460 | 4,552 | 4,352 | 33,370 |
| 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 | 1,724 | 100 | | 1,824 |
| BETZ J-12 | 40 | | | 40 |
| BETZ NEUTRMEEN | 3,599 | 81 | | 3,680 |
| BETZ 109 | 75 | 1 | | 76 |
| BETZ 194 | 663 | | | 663 |
| BETZ 406 | 285 | | | 285 |
| BETZ 429 | 11,400 | | | 11,400 |
| BETZ 65 | 1,200 | | | 1,200 |
| BIOCIDE D-2 | 21,250 | | | 21,250 |
| BLEACH | 1,788 | 191 | | 1,979 |
| CALCIUM ION | 986 | 206 | 591 | 1,783 |
| CARBONTHIOCYANATES | | 48 | 162 | 211 |
| CHLORIDE ION | 3,784,000 | 1,005,000 | 926,200 | 5,715,000 |
| CHLOROCARBONS | | 5 | | 5 |
| CHLOROHYDROCARBONS | | 965 | 75 | 1,040 |
| CHLOROSULFONES | | 380 | 750 | 1,130 |
| CHROMATE ION | | 99 | 149 | 248 |
| CLOROHYDROCARBONS | | | | |
| DIANODIC 194 | 34,240 | | | 34,240 |
| DIMETHYLAMINE | | | 545 | 545 |
| DIPHOSPHONATE | | 3,744 | 4,610 | 8,354 |
| DISPERSANT 403 | 28,720 | | | 28,720 |
| HEXAVALENT CR | 5,444 | 116 | 81 | 5,641 |
| HPA | | 1,235 | 2,920 | 4,155 |
| HYDRAZINE | 27 | | | 27 |
| HYDROCARBON-AMINES | | 9 | 27 | 36 |
| HYDROCARBONS | | 483 | 1,622 | 2,105 |
| HYDROXYCARBON | | 146 | | 146 |
| HYDROXYCARBONS | | 5,164 | 6,563 | 11,730 |
| HYPOCHLORITE | 34,370 | 1,016 | | 35,390 |
| HYPOCHLORITE ION | | 1,514 | 3,219 | 4,733 |
| KP40 COOLANT CNTRL | | 160 | | 160 |
| KWIK KLEEN | 3,625 | 1,000 | | 4,625 |
| LAUNDRY PRODUCTS | 5,547 | 5,215 | 6,180 | 16,940 |
| M-60 ALGAECIDE | | 8 | | 8 |
| M-80T ALGAECIDE | | 8 | | 8 |
| MORPHOLINE | 72 | 2 | 638 | 713 |
| N-HYDROCARBON | | 2,092 | 2,800 | 4,892 |
| NALCO 7312 | 392 | | | 392 |
| NALCO 7323 | 408 | | | 408 |
| NALCOOL 7351 | 1,853 | | | 1,853 |
| NAPTHA | | 56 | 30 | 86 |
| NITRATE ION | 229,300 | 89,110 | 163,600 | 482,000 |

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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

| SUBSTANCE IDENTIFICATION | 1971-1975 | 1976 | 1977 | TOTAL |
|---|---|---|---|---|
| NITRIC OXIDE | | | 101,600 | 101,600 |
| NITROGEN DIOXIDE | 1,230,000 | 760,700 | 674,700 | 2,666,000 |
| OROCOL 194 | 150 | | | 150 |
| OROCOL 734 | 150,000 | 4,984 | | 155,000 |
| OXYCARBONS | | 1 | | 1 |
| PHOSPHATE | | 200 | 1,200 | 1,400 |
| PHOSPHATE ION | 108,200 | 24,130 | 33,270 | 165,600 |
| PHOSPHONATE | | | 67 | 67 |
| PHOSPHONATES | | 51 | | 51 |
| PHOTO LAB CHEMICAL | 17,920 | 5,280 | 5,580 | 28,780 |
| POLYHYDROXYCARBON | | 25 | 26 | 52 |
| POLYMETHACRYLATE | | | 45 | 45 |
| POLYNODIC 606 | 97,450 | 39,700 | | 137,200 |
| POLYNODIC 633 | 5,000 | | | 5,000 |
| POLYPHOSPHATE | | | 157 | 157 |
| POTASSIUM ION | | 4,386 | 6,141 | 10,530 |
| SILICACARBONS | | 45 | | 45 |
| SILICATE ION | | 79 | 50 | 130 |
| SKASOL | 960 | 400 | | 1,360 |
| SKAZOL | 6,976 | | | 6,976 |
| SLIMICIDE A-9 | 20,620 | 1,280 | | 21,900 |
| SLIMICIDE C-35 | 6,899 | 672 | | 7,571 |
| SLIMICIDE D-2 | 4,484 | | | 4,484 |
| SLIMICIDE J-12 | 13,720 | 2,867 | | 16,590 |
| SLIMICIDE J-9 | 31,660 | 3,440 | | 35,100 |
| SLIMICIDE 403 | 4,968 | | | 4,968 |
| SOAP | 63,180 | 4,752 | 6,950 | 74,880 |
| SODIUM ION | 3,395,000 | 660,100 | 772,500 | 4,827,000 |
| SODIUM PHOSPHATE | | | 92 | 92 |
| SPRA-SAF | 1,900 | | | 1,900 |
| SULFATE ION | 12,530,000 | 2,633,000 | 2,394,000 | 17,560,000 |
| SULFITE ION | 12,200 | 1,610 | 1,306 | 15,110 |
| SULFONATE | | | 45 | 45 |
| SULFONATES | | 1,909 | 1,213 | 3,122 |
| SULFUR DIOXIDE | 18,210 | | | 18,210 |
| TDS | 21,190,000 | 6,077,000 | 5,008,000 | 32,270,000 |
| THIOCARBONS | | 38 | | 38 |
| THIOHYDROCARBONS | | 98 | 8 | 106 |
| TOTAL HARDNESS | 2,206,000 | 1,585,000 | 2,062,000 | 5,853,000 |
| TRIVALENT CR | 553 | 844 | 876 | 2,273 |
| ZINC ION | 3,992 | 292 | 301 | 4,584 |
| TOTAL | 45,340,000 | 12,940,000 | 12,200,000 | 70,470,000 |

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

AIRBORNE AND LIQUID
INDUSTRIAL WASTE SUBSTANCES SUMMARY IN POUNDS
FOR JANUARY THROUGH DECEMBER, 1977

| SUBSTANCE IDENTIFICATION | ANL | CFA | CPP | NRF | PBF | TAN | TRA | TOTAL |
|---|---|---|---|---|---|---|---|---|
| AMIDES | 111 | | | 850 | | | | 961 |
| AUTO CLEANERS | | 4,352 | | | | | | 4,352 |
| CALCIUM ION | 97 | 160 | 185 | 142 | | | 7 | 591 |
| CARBONTHIOCYANATES | 22 | | | 140 | | | | 162 |
| CHLORIDE ION | 128 | 15,290 | 544,500 | 331,900 | 9 | 33,460 | 915 | 926,200 |
| CHLORCHYDROCARBONS | | | | | 75 | | | 75 |
| CHLOROSULFONES | 89 | | | 661 | | | | 750 |
| CHROMATE ION | | | | | 149 | | | 149 |
| DIMETHYLAMINE | 545 | | | | | | | 545 |
| DIPHOSPHONATE | 17 | | | | | | 4,592 | 4,610 |
| HEXAVALENT CR | 32 | | | 49 | | | | 81 |
| HPA | | | | | 43 | | 2,877 | 2,920 |
| HYDROCARBON-AMINES | 27 | | | | | | | 27 |
| HYDROCARBONS | 222 | | | 1,400 | | | | 1,622 |
| HYDROXYCARBONS | 29 | | | 518 | 37 | | 5,978 | 6,563 |
| HYPOCHLORITE ION | 47 | 1,053 | 475 | 366 | | | 1,278 | 3,219 |
| LAUNDRY PRODUCTS | | 6,180 | | | | | | 6,180 |
| MORPHOLINE | 638 | | | | | | | 638 |
| N-HYDROCARBON | | | | 1,204 | 17 | | 1,579 | 2,800 |
| NAPTHA | | | | 30 | | | | 30 |
| NITRATE ION | | | 163,600 | | | | | 163,600 |
| NITRIC OXIDE | | | 101,600 | | | | | 101,600 |
| NITROGEN DIOXIDE | | | 674,700 | | | | | 674,700 |
| PHOSPHATE | | 1,200 | | | | | | 1,200 |
| PHOSPHATE ION | 1,102 | | | 11,020 | 131 | 907 | 20,110 | 33,270 |
| PHOSPHONATE | | | | 67 | | | | 67 |
| PHOTO LAB CHEMICAL | 5,580 | | | | | | | 5,580 |
| POLYHYDROXYCARBON | | | | | 26 | | | 26 |
| POLYMETHACRYLATE | | | | 45 | | | | 45 |
| POLYPHOSPHATE | | | | 157 | | | | 157 |
| POTASSIUM ION | | | | | | | 6,141 | 6,141 |
| SILICATE ION | | | | 50 | | | | 50 |
| SOAP | | 6,950 | | | | | | 6,950 |
| SODIUM ION | 38,040 | 9,437 | 381,300 | 206,000 | 4,534 | 24,420 | 108,800 | 772,500 |
| SODIUM PHOSPHATE | | | | | 1 | 91 | | 92 |
| SULFATE ION | 148,100 | | 93,700 | 522,400 | 5,482 | 3,369 | 1,621,000 | 2,394,000 |
| SULFITE ION | | | | | 3 | 1,260 | 43 | 1,306 |
| SULFONATE | | | | 45 | | | | 45 |
| SULFONATES | | | | 1,213 | | | | 1,213 |
| TDS | | | 2,033,000 | 692,400 | | | 2,283,000 | 5,008,000 |
| THIOHYDROCARBONS | | | | | 8 | | | 8 |
| TOTAL HARDNESS | | | | | | | 2,062,000 | 2,062,000 |
| TRIVALENT CR | 876 | | | | | | | 876 |
| ZINC ION | 277 | | | | 23 | | | 301 |
| TOTAL | 195,900 | 44,620 | 3,993,000 | 1,771,000 | 10,540 | 63,500 | 6,117,000 | 12,200,000 |

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

INEL FUEL OIL SUMMARY
RECORD-TO-DATE

| AREA | 1971-1975 FUEL OIL (GAL) | 1971-1975 SO2 (LBS) | 1971-1975 PART. (LBS) | 1971-1975 DIESEL (GAL) | 1976 FUEL OIL (GAL) | 1976 SO2 (LBS) | 1976 PART. (LBS) | 1976 DIESEL (GAL) | 1977 FUEL OIL (GAL) | 1977 SO2 (LBS) | 1977 PART. (LBS) | 1977 DIESEL (GAL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANL | 3,805,000 | 378,800 | 25,220 | | 387,200 | 17,920 | 2,380 | | 361,700 | 19,580 | 3,977 | |
| ARA | 140,000 | 10,310 | 1,153 | | 33,900 | 1,952 | | | 62,210 | 3,584 | | |
| CFA | 3,285,000 | 359,500 | 49,080 | | 492,900 | 28,390 | | | 504,200 | 28,250 | | |
| CPP | 8,692,000 | 626,000 | 12,140 | | 2,100,000 | 115,100 | | | 1,967,000 | 107,700 | | |
| NRF | 8,664,000 | 2,117,000 | 79,180 | | 1,418,000 | 374,500 | 25,380 | | 1,009,000 | 156,600 | 18,060 | |
| PBF | 140,800 | 6,488 | 509 | | 36,210 | 1,627 | | 11,520 | 39,160 | 1,884 | | 4,982 |
| TAN | 4,016,000 | 873,900 | 80,040 | 700 | 1,145,000 | 263,000 | | | 2,979,000 | 603,800 | | |
| TRA | 5,697,000 | 1,286,000 | 117,700 | 1,943,000* | 1,004,000 | 274,500 | 41,680 | 525,200* | 954,000 | 235,500 | 39,590 | 438,600* |
| WMC | | | | | 15,820 | 911 | | | 18,600 | 1,053 | | |
| TOTAL | 34,440,000 | 5,658,000 | 365,000 | 1,944,000* | 6,633,000 | 1,078,000 | 69,450 | 536,700* | 7,895,000 | 1,158,000 | 61,630 | 443,500* |

* TRA EMERGENCY GENERATOR

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

IDSL WATER USAGE SUMMARY IN THOUSAND GALLONS

RECORD-TO-DATE

| AREA | 1971-1975 | 1976 | 1977 | TOTAL |
|---|---|---|---|---|
| ANL | 578,300 | 141,400 | 131,500 | 851,200 |
| ARA | 156,300 | 33,440 | 36,280 | 226,000 |
| CFA | 585,900 | 97,780 | 92,140 | 775,800 |
| CPP | 1,787,000 | 504,600 | 524,100 | 2,816,000 |
| NRF | 2,774,000 | 330,800 | 457,600 | 3,562,000 |
| PBF | 44,450 | 9,771 | 15,010 | 69,230 |
| TAN | 272,600 | 121,100 | 112,100 | 505,700 |
| TRA | 6,592,000 | 1,301,000 | 980,700 | 8,873,000 |
| WMC | | 12,500 | 12,440 | 24,940 |
| TOTAL | 12,790,000 | 2,552,000 | 2,362,000 | 17,700,000 |

DETAILS MAY NOT ADD UP TO TOTALS BECAUSE OF ROUNDING

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



INEL MONTHLY WATER USAGE SUMMARY
DECEMBER 1977



(ALL VOLUMES = NEAREST THOUSAND GALLONS)

| AREA OF ORIGIN | MONTHLY VOLUME PUMPED | MONTHLY VOLUME DISPOSED | | | | | ACCOUNTA-BILITY (%) |
|---|---|---|---|---|---|---|---|
| | | AIR | SURFACE | SUBSURFACE | SEWAGE | TOTAL | |
| ANL | 10,466 | 5,890 | 2,718 | | 1,036 * | 9,644 | 92.1 |
| ARA | 2,940 | * | 2,766 * | * | 174 * | 2,940 | 100.0 |
| CFA | 5,363 | * | 128 * | 92 | 2,803 | 3,023 | 56.4 |
| CPP | 54,200 | | * | 40,460 | 849 | 41,309 | 76.2 |
| NRF | 23,471 | 6,320 * | 15,310 * | | 1,140 | 22,770 | 97.0 |
| PBF | 1,988 | | * | 420 * | 52 * | 472 | 23.7 |
| TAN | 24,894 | * | 2,431 * | 10,230 * | 484 * | 13,145 | 52.8 |
| TRA | 68,423 | 7,127 | 4,628 * | 42,310 | 906 | 54,971 | 80.3 |
| WMC | 3,000 | * | 62 * | 2,920 * | 18 | 3,000 | 100.0 |
| GRAND TOTALS | 194,745 | 19,337 | 28,043 | 96,432 | 7,462 | 151,274 | 77.7 |

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 1977



(ALL VOLUMES = NEAREST THOUSAND GALLONS)

| AREA OF ORIGIN | YEARLY VOLUME PUMPED | YEARLY VOLUME DISPOSED | | | | | ACCOUNTA-BILITY (%) |
|---|---|---|---|---|---|---|---|
| | | AIR | SURFACE | SUBSURFACE | SEWAGE | TOTAL | |
| ANL | 131,476 | 73,292 | 30,339 | | 11,387 * | 115,018 | 87.5 |
| ARA | 36,275 | * | 34,185 * | * | 2,088 * | 36,273 | 100.0 |
| CFA | 92,145 | * | 24,393 * | 1,459 | 44,373 | 70,225 | 76.2 |
| CPP | 524,100 | | * | 418,110 | 11,485 | 429,595 | 82.0 |
| NRF | 457,638 | 240,809 * | 175,324 * | | 23,215 | 439,348 | 96.0 |
| PBF | 15,014 | 265 | * | 4,292 * | 624 * | 5,181 | 34.5 |
| TAN | 112,077 | * | 15,051 * | 48,475 * | 6,678 * | 70,204 | 62.6 |
| TRA | 980,689 | 113,806 | 347,048 * | 382,100 | 9,272 | 852,226 | 86.9 |
| WMC | 12,445 | * | 706 * | 11,520 * | 216 | 12,442 | 100.0 |
| GRAND TOTALS | 2,361,859 | 428,172 | 627,046 | 865,956 | 109,338 | 2,030,512 | 86.0 |

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

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1977

| AREA OF ORIGIN / TYPE OF WASTE | | MONTHLY VOLUME OR WEIGHT | UNITS | YEAR-TO-DATE VOLUME OR WEIGHT | UNITS |
|---|---|---|---|---|---|
| ANL | | | | | |
| DISPOSED WASTE | | | | | |
| 1 - TRASH | SOLID | 160.0 | CU. YD. | 1,890.0 | CU. YD. |
| 2 - CAFETERIA GARBAGE | SOLID | 32.0 | CU. YD. | 408.0 | CU. YD. |
| 6 - OIL | LIQUID | 75.0 | GALLONS | 1,655.0 | GALLONS |
| CFA | | | | | |
| DISPOSED WASTE | | | | | |
| 1 - TRASH | SOLID | 162.0 | CU. YD. | 3,478.0 | CU. YD. |
| 2 - CAFETERIA GARBAGE | SOLID | 28.0 | CU. YD. | 918.0 | CU. YD. |
| 3 - WOOD AND SCRAP LUMBER | SOLID | 34.9 | CU. YD. | 110.9 | CU. YD. |
| 4 - MASONRY AND CONCRETE | SOLID | 1,265.0 | CU. YD. | 1,368.0 | CU. YD. |
| CPP | | | | | |
| DISPOSED WASTE | | | | | |
| 1 - TRASH | SOLID | 120.0 | CU. YD. | 1,737.0 | CU. YD. |
| 2 - CAFETERIA GARBAGE | SOLID | 32.0 | CU. YD. | 461.7 | CU. YD. |
| 4 - MASONRY AND CONCRETE | SOLID | | | 8.0 | CU. YD. |
| NRF | | | | | |
| DISPOSED WASTE | | | | | |
| 1 - TRASH | SOLID | 220.0 | CU. YD. | 4,245.8 | CU. YD. |
| 2 - CAFETERIA GARBAGE | SOLID | 64.0 | CU. YD. | 1,244.9 | CU. YD. |
| 3 - WOOD AND SCRAP LUMBER | SOLID | 50.9 | CU. YD. | 527.5 | CU. YD. |
| 4 - MASONRY AND CONCRETE | SOLID | 152.2 | CU. YD. | 623.6 | CU. YD. |
| 5 - SCRAP METAL | SOLID | 83.1 | CU. YD. | 304.4 | CU. YD. |
| 8 - CHEMICALS | LIQUID | | | 440.0 | GALLONS |
| 9 - OTHER | SOLID | | | 160.0 | CU. FT. |
| STORED WASTE | | | | | |
| 6 - OIL | LIQUID | | | 6,780.0 | GALLONS |
| TAN | | | | | |
| DISPOSED WASTE | | | | | |
| 1 - TRASH | SOLID | 200.0 | CU. YD. | 1,800.0 | CU. YD. |
| 2 - CAFETERIA GARBAGE | SOLID | 16.0 | CU. YD. | 216.0 | CU. YD. |
| 3 - WOOD AND SCRAP LUMBER | SOLID | 11.0 | CU. YD. | 11.0 | CU. YD. |
| 4 - MASONRY AND CONCRETE | SOLID | 4.0 | CU. YD. | 4.0 | CU. YD. |
| 8 - CHEMICALS | LIQUID | | | 4.0 | GALLONS |
| TRA | | | | | |
| DISPOSED WASTE | | | | | |
| 1 - TRASH | SOLID | 70.0 | CU. YD. | 1,985.0 | CU. YD. |
| 2 - CAFETERIA GARBAGE | SOLID | 4.0 | CU. YD. | 52.0 | CU. YD. |

INEL INDUSTRIAL WASTE SUMMARY
DECEMBER AND YEAR-TO-DATE 1977



| AREA OF ORIGIN / TYPE OF WASTE | | MONTHLY VOLUME OR WEIGHT | UNITS | YEAR-TO-DATE VOLUME OR WEIGHT | UNITS |
|---|---|---|---|---|---|
| WMC | | | | | |
| DISPOSED WASTE | | | | | |
| 8 - CHEMICALS | LIQUID | | | 38.4 | GALLONS |
| INEL GRAND TOTALS | | | | | |
| DISPOSED WASTE | | | | | |
| 1 - TRASH | SOLID | 932.0 | CU. YD. | 15,135.8 | CU. YD. |
| 2 - CAFETERIA GARBAGE | SOLID | 176.0 | CU. YD. | 3,300.6 | CU. YD. |
| 3 - WOOD AND SCRAP LUMBER | SOLID | 96.8 | CU. YD. | 649.4 | CU. YD. |
| 4 - MASONRY AND CONCRETE | SOLID | 1,421.2 | CU. YD. | 2,003.6 | CU. YD. |
| 5 - SCRAP METAL | SOLID | 83.1 | CU. YD. | 304.4 | CU. YD. |
| 6 - OIL | LIQUID | 75.0 | GALLONS | 1,655.0 | GALLONS |
| 8 - CHEMICALS | LIQUID | | | 482.4 | GALLONS |
| 9 - OTHER | SOLID | | | 160.0 | CU. FT. |
| STORED WASTE | | | | | |
| 6 - OIL | LIQUID | | | 6,780.0 | GALLONS |

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INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1977



| 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 | | 961 | | 961 |
| AUTO CLEANERS | | | 320 | 320 | | | 4,352 | 4,352 |
| CALCIUM ION | | 42 | 22 | 64 | | 246 | 345 | 591 |
| CARBONTHIOCYANATES | | 4 | | 4 | | 162 | | 162 |
| CHLORIDE ION | | 30,977 | 62,577 | 93,554 | | 360,058 | 566,170 | 926,228 |
| CHLORCHYDROCARBONS | | | | | | | 75 | 75 |
| CHLORCSULFONES | | 14 | | 14 | | 750 | | 750 |
| CHROMATE ION | | | 56 | 56 | | | 149 | 149 |
| DIMETHYLAMINE | | 50 | | 50 | | 545 | | 545 |
| DIPHOSPHONATE | | | 696 | 696 | | 17 | 4,592 | 4,610 |
| HEXAVALENT CR | 4 | | | 4 | 32 | 49 | | 81 |
| HPA | | | 313 | 313 | | | 2,920 | 2,920 |
| HYDROCARBON-AMINES | | 2 | | 2 | | 27 | | 27 |
| HYDROCARBONS | | 36 | | 36 | | 1,622 | | 1,622 |
| HYDROXYCARBONS | | | 927 | 927 | | 547 | 6,016 | 6,563 |
| HYPOCHLORITE ION | | 75 | 148 | 223 | | 893 | 2,326 | 3,219 |
| LAUNDRY PRODUCTS | | | 430 | 430 | | | 6,180 | 6,180 |
| MORPHOLINE | | 87 | | 87 | | 638 | | 638 |
| N-HYDROCARBON | | | 210 | 210 | | 1,204 | 1,596 | 2,800 |
| NAPTHA | | | | | | 30 | | 30 |
| NITRATE ION | | | 31,681 | 31,681 | | | 163,624 | 163,624 |
| NITRIC OXIDE | 12,637 | | | 12,637 | 101,569 | | | 101,569 |

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INEL AIRBORNE AND LIQUID DISPOSED SUBSTANCES SUMMARY
DECEMBER AND YEAR-TO-DATE 1977



| ALL FACILITIES | MONTHLY | | | | YEAR-TO-DATE | | | |
|---|---|---|---|---|---|---|---|---|
| SUBSTANCES | ATMOSPHERE (POUNDS) | SURFACE (POUNDS) | SUBSURFACE (POUNDS) | TOTAL (POUNDS) | ATMOSPHERE (POUNDS) | SURFACE (POUNDS) | SUBSURFACE (POUNDS) | TOTAL (POUNDS) |
| NITROGEN DIOXIDE | 83,031 | | | 83,031 | 674,667 | | | 674,667 |
| PHOSPHATE | | | 100 | 100 | | | 1,200 | 1,200 |
| PHOSPHATE ION | | 598 | 1,065 | 1,664 | | 12,817 | 20,451 | 33,268 |
| PHOSPHONATE | | 67 | | 67 | | 67 | | 67 |
| PHOTO LAB CHEMICAL | | 470 | | 470 | | 5,580 | | 5,580 |
| POLYHYDROXYCARBON | | | 10 | 10 | | | 26 | 26 |
| POLYMETHACRYLATE | | 45 | | 45 | | 45 | | 45 |
| POLYPHOSPHATE | | 157 | | 157 | | 157 | | 157 |
| POTASSIUM ION | | | 723 | 723 | | | 6,141 | 6,141 |
| SILICATE ION | | | | | | 50 | | 50 |
| SOAP | | | 600 | 600 | | | 6,950 | 6,950 |
| SODIUM ION | | 24,925 | 45,179 | 70,104 | | 370,247 | 402,238 | 772,485 |
| SODIUM PHOSPHATE | | | | | | 91 | 1 | 92 |
| SULFATE ION | | 178,070 | 68,856 | 246,926 | | 1,906,758 | 486,873 | 2,393,630 |
| SULFITE ION | | 46 | 9 | 55 | | 904 | 402 | 1,306 |
| SULFONATE | | 45 | | 45 | | 45 | | 45 |
| SULFONATES | | | | | | 1,213 | | 1,213 |
| TDS | | 137,861 | 350,359 | 488,220 | | 1,370,258 | 3,637,773 | 5,008,031 |
| THICHYDROCARBONS | | | | | | | 8 | 8 |
| TOTAL HARDNESS | | | 112,077 | 112,077 | | | 2,061,722 | 2,061,722 |
| TRIVALENT CR | | 66 | | 66 | | 876 | | 876 |
| ZINC ION | | 21 | 9 | 30 | 3 | 275 | 23 | 301 |

SCHED. NO. INF6164-A

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

RUN DATE: 05/01/78

INEL MONTHLY FUEL OIL SUMMARY
DECEMBER 1977



| AREA OF ORIGIN | FUEL OIL IN GALLONS | | | | | POUNDS DISCHARGED | | |
|---|---|---|---|---|---|---|---|---|
| | TYPE 2 | TYPE 5 | TYPE 6 | KEROSENE | DIESEL | SO2 | NOX | PARTICULATES |
| ANL | 38,610 | | | | | 2,224 | | 425 |
| ARA | 13,550 | | | | | 781 | | |
| CFA | 76,970 | | | | | 3,638 | | |
| CPP | 225,900 | | | 15,300 | | 11,344 | 76,806 | |
| NRF | | 134,700 | | | | 17,306 | 3,637 | 2,411 |
| PBF | 2,792 | 3 | | | | 132 | | |
| TAN | | 84,920 | | | | 9,274 | | |
| TRA | | 140,000 | | | 63,300 | 18,935 | | 5,810 |
| WMC | 1,863 | | | | | 88 | | |
| GRAND TOTALS | 359,685 | 359,623 | | 15,300 | 63,300 | 63,722 | 80,443 | 8,646 |

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM



INEL YEAR-TO-DATE FUEL OIL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| AREA OF ORIGIN | FUEL OIL IN GALLONS | | | | | POUNDS DISCHARGED | | |
|---|---|---|---|---|---|---|---|---|
| | TYPE 2 | TYPE 5 | TYPE 6 | KEROSENE | DIESEL | SO2 | NOX | PARTICULATES |
| ANL | 361,651 | | | | | 19,576 | | 3,977 |
| ARA | 62,212 | | | | | 3,584 | | |
| CFA | 504,200 | | | | | 28,248 | | |
| CPP | 1,899,180 | | | 68,228 | | 107,730 | 76,806 | |
| NRF | | 1,009,070 | | | | 156,610 | 27,244 | 18,062 |
| PBF | 39,156 | 3 | | | 4,982 | 1,884 | | |
| TAN | 491,790 | 2,487,380 | | | | 603,840 | | |
| TRA | | 954,020 | | | 438,550 | 235,542 | | 39,593 |
| WMC | 18,600 | | | | | 1,053 | | |
| GRAND TOTALS | 3,376,789 | 4,450,473 | | 68,228 | 443,532 | 1,158,067 | 104,050 | 61,632 |

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



TRA AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| RELEASE POINT DESCRIPTION<br>SUBSTANCE | JAN<br>JUL | FEB<br>AUG | MAR<br>SEP | APR<br>OCT | MAY<br>NOV | JUN<br>DEC | ANNUAL<br>TOT & AVE |
|---|---|---|---|---|---|---|---|
| COOLING TOWERS EVAP | | | | | | | |
| VOLUME (CU.FT. IN 1000) | 1,425 | 1,615 | 2,123 | 1,103 | 0 | 0 | |
| | 410,816 | 1,230,488 | 5,066,596 | 1,854 | 1,333 | 874 | 6,718,227 |
| STEAM LOSS (WATER) | | | | | | | |
| VOLUME (CU.FT. IN 1000) | 61 | 55 | 46 | 49 | 30 | 16 | |
| | 19,757 | 9,304 | 28,577 | 39 | 54 | 79 | 58,067 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALCIUM ION WEIGHT (POUNDS) | | | | | | | | 7 | 1 | | | | 8 |
| CHLORIDE ION WEIGHT (POUNDS) | 57 | 71 | 72 | 86 | 139 | 33 | 71 | 44 | 132 | 75 | 73 | 61 | 914 |
| DIPHOSPHONATE WEIGHT (POUNDS) | 613 | 613 | 368 | 490 | | | 162 | | 494 | 664 | 490 | 696 | 4,590 |
| HPA WEIGHT (POUNDS) | 198 | 165 | 99 | 165 | 132 | 264 | 198 | 297 | 627 | 132 | 333 | 297 | 2,877 |
| HYDROXYCARBONS WEIGHT (POUNDS) | 772 | 755 | 466 | 627 | 46 | 44 | 172 | 72 | 557 | 912 | 628 | 927 | 5,978 |
| HYPOCHLORITE ION WEIGHT (POUNDS) | 73 | 96 | 97 | 115 | 197 | 49 | 104 | 76 | 189 | 100 | 102 | 79 | 1,277 |
| N-HYDROCARBON WEIGHT (POUNDS) | 210 | 157 | 157 | 210 | 111 | | | 105 | 105 | 210 | 105 | 210 | 1,580 |
| PHOSPHATE ION WEIGHT (POUNDS) | 1,439 | 1,488 | 627 | 601 | 105 | 121 | 432 | 408 | 8,799 | 4,143 | 940 | 1,010 | 20,113 |
| POTASSIUM ION WEIGHT (POUNDS) | 620 | 586 | 351 | 503 | 137 | 275 | 372 | 309 | 1,150 | 468 | 647 | 723 | 6,141 |
| SODIUM ION WEIGHT (POUNDS) | 9,045 | 10,677 | 9,130 | 12,802 | 6,815 | 4,837 | 12,072 | 8,524 | 8,867 | 9,097 | 8,401 | 8,534 | 108,801 |
| SULFATE ION WEIGHT (POUNDS) | 155,309 | 161,369 | 131,059 | 160,066 | 75,980 | 61,090 | 145,979 | 103,382 | 186,754 | 129,571 | 137,129 | 172,882 | 1,620,570 |
| SULFITE ION WEIGHT (POUNDS) | 4 | 4 | 4 | 5 | 6 | 3 | 3 | 2 | 3 | 4 | 3 | 3 | 44 |
| TDS WEIGHT (POUNDS) | 248,250 | 192,675 | 192,029 | 199,727 | 117,704 | 140,614 | 162,644 | 184,573 | 358,248 | 149,891 | 158,476 | 177,706 | 2,282,537 |
| TOTAL HARDNESS WEIGHT (POUNDS) | 118,718 | 89,227 | 93,181 | 78,871 | 42,925 | 37,309 | 39,124 | 97,928 | 159,509 | 100,121 | 92,730 | 112,377 | 2,061,720 |

| 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) | 1,890 | 2,144 | 1,779 | 2,267 | 1,371 | 744 | 1,804 | 1,498 | 1,897 | 1,811 | 1,872 | 2,574 | 21,651 |
| HYDROGEN-ION CONC. (PH) | | | | | | | | | | | | | |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 553.77 | 579.43 | 602.26 | 663.49 | 595.04 | 778.26 | 796.34 | 681.66 | 544.46 | 579.83 | 521.92 | 380.91 | 589.28 |
| WEIGHT (POUNDS) | 8,734 | 10,367 | 8,941 | 12,552 | 6,808 | 4,834 | 11,989 | 8,521 | 8,619 | 8,763 | 8,153 | 8,182 | 106,463 |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 6697.39 | 6845.08 | 6614.10 | 6815.22 | 6640.89 | 9107.00 | 7244.27 | 8269.86 | 8330.02 | 5603.94 | 6316.85 | 5528.38 | 6,831.37 |
| WEIGHT (POUNDS) | 105,634 | 122,473 | 58,194 | 126,934 | 75,980 | 56,567 | 109,061 | 103,382 | 131,871 | 84,693 | 98,683 | 118,753 | 1,234,225 |
| DESERT SURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 22,960 | 25,370 | 31,330 | 42,260 | 40,620 | 45,520 | 56,150 | 22,340 | 25,910 | | 6,237 | 2,054 | 320,751 |
| HYDROGEN-ION CONC. (PH) | | | | | | | 7.9 | 7.9 | | | 7.9 | 8.0 | 7.9 |
| TDS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 252.00 | 259.00 | 238.00 | 251.00 | 221.00 | 239.00 | 230.00 | 230.00 | 200.00 | | 253.00 | 231.00 | 235.17 |
| WEIGHT (POUNDS) | 48,197 | 54,735 | 62,113 | 88,358 | 74,779 | 90,624 | 107,578 | 42,801 | 43,166 | | 13,144 | 3,952 | 629,447 |
| DISPOSAL WELL SUBSURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 31,600 | 28,950 | 26,890 | 34,810 | 28,950 | 24,080 | 24,210 | 35,410 | 37,400 | 34,940 | 32,550 | 42,310 | 382,100 |
| HYDROGEN-ION CONC. (PH) | 8.1 | 8.4 | 8.1 | 8.3 | 8.8 | 8.6 | 8.1 | 9.1 | 8.1 | 8.5 | 7.9 | 7.5 | 8.3 |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .11 | .17 | .19 | .16 | .45 | .03 | .18 | .11 | .36 | .19 | .20 | .08 | .19 |
| WEIGHT (POUNDS) | 29 | 41 | 43 | 48 | 109 | 6 | 35 | 34 | 111 | 57 | 54 | 28 | 595 |
| DIPHOSPHONATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2.33 | 2.53 | 1.64 | 1.69 | | | .80 | | 1.59 | 2.28 | 1.81 | 1.97 | 1.44 |
| WEIGHT (POUNDS) | 613 | 613 | 368 | 490 | | | 162 | | 494 | 664 | 490 | 696 | 4,590 |
| HPA | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .75 | .68 | .44 | .57 | .55 | 1.31 | .98 | 1.01 | 2.01 | .45 | 1.12 | .84 | .90 |
| WEIGHT (POUNDS) | 198 | 165 | 99 | 165 | 132 | 264 | 198 | 297 | 627 | 132 | 303 | 297 | 2,877 |
| HYDROXYCARBONS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2.93 | 3.12 | 2.07 | 2.15 | .19 | .22 | .85 | .25 | 1.78 | 3.13 | 2.31 | 2.63 | 1.87 |
| WEIGHT (POUNDS) | 772 | 755 | 466 | 627 | 46 | 44 | 172 | 72 | 557 | 912 | 628 | 927 | 5,978 |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .12 | .22 | .25 | .21 | .64 | .05 | .25 | .15 | .50 | .25 | .27 | .09 | .25 |
| WEIGHT (POUNDS) | 33 | 53 | 55 | 61 | 154 | 9 | 52 | 45 | 157 | 74 | 74 | 31 | 798 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

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



TRA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| RELEASE POIN DESCRIPTION<br>SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOT & AVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N-HYDROCARBON | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .80 | .05 | .70 | .72 | .46 | | | .35 | .34 | .72 | .39 | .59 | .50 |
| WEIGHT (POUNDS) | 210 | 157 | 157 | 210 | 111 | | | 105 | 105 | 210 | 105 | 210 | 1,580 |
| PHOSPHATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 5.46 | 6.17 | 2.80 | 2.07 | .43 | .60 | 2.14 | 1.39 | 28.24 | 14.24 | 3.46 | 2.87 | 6.31 |
| WEIGHT (POUNDS) | 1,439 | 1,488 | 627 | 601 | 105 | 121 | 432 | 408 | 8,799 | 4,143 | 940 | 1,010 | 20,113 |
| POTASSIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2.35 | 2.42 | 1.57 | 1.73 | .57 | 1.37 | 1.84 | 1.05 | 3.68 | 1.61 | 2.38 | 2.05 | 1.93 |
| WEIGHT (POUNDS) | 620 | 586 | 351 | 503 | 137 | 275 | 372 | 309 | 1,150 | 468 | 647 | 723 | 6,141 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 1.18 | 1.28 | .84 | .86 | .03 | .02 | .42 | | .78 | 1.15 | .92 | .99 | .73 |
| WEIGHT (POUNDS) | 310 | 310 | 189 | 250 | 7 | 3 | 83 | 2 | 248 | 334 | 247 | 352 | 2,335 |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 188.37 | 161.00 | 146.46 | 107.17 | | 22.51 | 182.73 | | 175.84 | 153.91 | 141.53 | 153.30 | 121.17 |
| WEIGHT (POUNDS) | 49,674 | 38,896 | 32,865 | 31,132 | | 4,523 | 36,918 | | 54,883 | 44,877 | 38,445 | 54,129 | 386,342 |
| SULFITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .01 | .02 | .02 | .02 | .03 | .02 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| WEIGHT (POUNDS) | 4 | 4 | 4 | 5 | 6 | 3 | 3 | 2 | 3 | 4 | 3 | 3 | 44 |
| TDS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 760.00 | 572.00 | 580.00 | 355.00 | 178.00 | 222.00 | 229.00 | 450.00 | 958.00 | 515.00 | 536.00 | 493.00 | 503.27 |
| WEIGHT (POUNDS) | 200,053 | 137,940 | 129,916 | 102,938 | 42,925 | 44,530 | 46,182 | 132,734 | 298,457 | 149,891 | 145,332 | 173,754 | 1,604,652 |
| TOTAL HARDNESS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 4250.00 | 370.00 | 416.00 | 272.00 | 178.00 | 186.00 | 194.00 | 332.00 | 512.00 | 344.00 | 342.00 | 318.00 | 646.62 |
| WEIGHT (POUNDS) | 118,718 | 89,227 | 93,181 | 76,871 | 42,925 | 37,309 | 39,124 | 97,928 | 159,509 | 100,121 | 92,730 | 112,077 | 2,061,720 |
| IRRIGATION SURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | | | | 4,032 | | 2,742 | 4,637 | 4,717 | 9,979 | | | | 26,107 |
| HYDROGEN-ION CONC. (PH) | | | | | | | 7.9 | 7.9 | | | | | 7.9 |
| TDS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | 251.00 | | 239.00 | 230.00 | 230.00 | 200.00 | | | | 222.33 |
| WEIGHT (POUNDS) | | | | 8,430 | | 5,459 | 8,884 | 9,037 | 16,625 | | | | 48,435 |
| SEWAGE PLANT SURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 617 | 684 | 654 | 885 | 667 | 643 | 947 | 871 | 1,087 | 707 | 604 | 906 | 9,272 |
| HYDROGEN-ION CONC. (PH) | 7.5 | 7.4 | 7.4 | 7.4 | 7.3 | 7.4 | 7.4 | 7.5 | 7.5 | 7.6 | 7.8 | 7.6 | 7.5 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

| RELEASE POINT DESCRIPTION<br>SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOT & AVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALCIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | .90 | .09 | | | | .09 |
| WEIGHT (POUNDS) | | | | | | | | 7 | 1 | | | | 8 |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 5.43 | 5.17 | 5.32 | 5.08 | 5.39 | 5.04 | 4.55 | 1.38 | 2.32 | 3.05 | 3.77 | 4.37 | 4.11 |
| WEIGHT (POUNDS) | 28 | 29 | 29 | 37 | 30 | 27 | 36 | 10 | 21 | 18 | 19 | 33 | 317 |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 1.89 | 1.50 | 1.71 | 1.37 | 1.83 | 1.31 | 6.61 | 4.30 | 3.59 | 4.43 | 5.47 | 6.34 | 6.21 |
| WEIGHT (POUNDS) | 41 | 43 | 42 | 54 | 44 | 39 | 52 | 31 | 33 | 26 | 28 | 48 | 481 |

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 Y SOLID | 247.0 | 105.0 | 245.0 | 285.0 | 175.0 | 140.0 | 160.0 | 143.0 | 140.0 | 175.0 | 100.0 | 70.0 | 1,985.0 |
| 2 Y SOLID | | | | | | | 16.0 | 16.0 | | 16.0 | | 4.0 | 52.0 |
| GRAND TOTALS | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 247.0 | 105.0 | 245.0 | 285.0 | 175.0 | 140.0 | 160.0 | 143.0 | 140.0 | 175.0 | 100.0 | 70.0 | 1,985.0 |
| 2 Y SOLID | | | | | | | 16.0 | 16.0 | | 16.0 | | 4.0 | 52.0 |

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



TRA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | | 5,416 | 18,140 | 13,560 | 1,155 | | 1,264 | 890 | 41,840 | 10,850 | 7,853 | 4,309 | 105,277 |
| 3 WATER PUMPED (GAL) | | | | 10 | | | | 3,238 | | | 30 | 1,394 | 4,672 |
| 4 WATER PUMPED (GAL) | 77,440 | 74,530 | 67,500 | 89,420 | 76,100 | 78,250 | 97,250 | 75,030 | 70,410 | 49,950 | 52,140 | 62,720 | 870,740 |
| TOTAL WATER PUMPED (GAL) | 77,440 | 79,946 | 85,640 | 102,990 | 77,255 | 78,250 | 98,514 | 79,158 | 112,250 | 60,800 | 60,023 | 68,423 | 980,689 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) | 11,110 | 12,490 | 16,220 | 8,619 | 223 | 117 | 2,197 | 6,326 | 25,990 | 14,150 | 9,237 | 7,127 | 113,806 |
| SURFACE (GAL) * | 24,850 | 27,520 | 33,110 | 44,530 | 41,990 | 46,260 | 62,590 | 23,840 | 27,810 | 1,811 | 8,109 | 4,628 | 347,048 |
| SUBSURFACE (GAL) | 31,600 | 28,950 | 26,890 | 34,810 | 28,950 | 24,080 | 24,210 | 35,410 | 37,400 | 34,940 | 32,550 | 42,310 | 382,100 |
| SEWAGE DATA | | | | | | | | | | | | | |
| BUILD VOL. (GAL) | 617 | 684 | 654 | 885 | 667 | 643 | 947 | 871 | 1,087 | 707 | 604 | 906 | 9,272 |
| BIOCHEMICAL OXYGEN DEMAND (BOD) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | 53.2 | 70.2 | 65.0 | 47.9 | 85.0 | 68.7 | 56.3 | 38.1 | 57.9 | 36.3 | 28.9 | 31.6 | 53.3 |
| FINAL CONC. (PPM) | 12.8 | 17.4 | 13.9 | 14.4 | 25.4 | 15.1 | 16.6 | 13.1 | 11.1 | 13.2 | 16.5 | 16.6 | 15.5 |
| % REMOVED | 75.9 | 75.2 | 78.6 | 69.9 | 70.1 | 78.0 | 70.5 | 65.6 | 80.8 | 63.6 | 42.9 | 47.5 | 70.9 |
| DISSOLVED OXYGEN (DO) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | 2.5 | 1.3 | 1.8 | 1.5 | 3.8 | .7 | .3 | .7 | 1.7 | 1.3 | 2.7 | .9 | 1.6 |
| FINAL CONC. (PPM) | 5.3 | 5.2 | 4.7 | 4.8 | 3.5 | 4.2 | 3.6 | 3.8 | 4.9 | 5.4 | 6.7 | 4.5 | 4.7 |
| INCREASED FACTOR | 1.1 | 3.0 | 1.6 | 2.2 | -.1 | 5.0 | 11.0 | 4.4 | 1.9 | 3.2 | 1.5 | 4.0 | 1.9 |
| SETTLEABLE SOLIDS (SS) | | | | | | | | | | | | | |
| RAW CONC. (ML/L) | 3.1 | 3.3 | 2.5 | 2.5 | 3.5 | 2.8 | 1.9 | 2.3 | 3.3 | 2.9 | 3.0 | 2.9 | 2.8 |
| FINAL CONC. (ML/L) | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| % REMOVED | 98.4 | 98.5 | 98.0 | 98.0 | 98.6 | 98.2 | 97.4 | 97.8 | 98.5 | 98.3 | 98.3 | 98.3 | 98.2 |
| PH-FINAL | 7.5 | 7.5 | 7.3 | 7.4 | 7.3 | 7.5 | 7.6 | 7.7 | 7.7 | 7.7 | 7.9 | 7.9 | 7.6 |
| TOTAL SEWAGE VOL. (GAL) | 617 | 684 | 654 | 885 | 667 | 643 | 947 | 871 | 1,087 | 707 | 604 | 906 | 9,272 |
| TOTAL WATER DISPOSED (GAL) | 68,177 | 69,644 | 76,874 | 88,844 | 71,830 | 71,100 | 89,944 | 66,447 | 92,287 | 51,608 | 50,500 | 54,971 | 852,226 |
| ACCOUNTABILITY (%) | 88.0 | 87.1 | 89.6 | 86.3 | 93.0 | 90.9 | 91.3 | 83.9 | 82.2 | 84.9 | 84.1 | 80.3 | 86.9 |

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

TRA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(ALL VALUES = NEAREST THOUSAND)

| FUEL OIL TYPE / EFFLUENTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIESEL | | | | | | | | | | | | | |
| VOLUME (GAL) | 38 | 35 | 44 | 36 | 3 | 8 | 25 | 45 | 64 | 35 | 41 | 63 | 437 |
| SO2 (LBS) | 2 | 2 | 3 | 2 | | | 1 | 3 | 4 | 2 | 2 | 4 | 25 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| TYPE 5 | | | | | | | | | | | | | |
| VOLUME (GAL) | 128 | 117 | 103 | 97 | 60 | 41 | 41 | 26 | 49 | 62 | 90 | 140 | 954 |
| SO2 (LBS) | 31 | 29 | 25 | 24 | 15 | 10 | 10 | 6 | 12 | 15 | 17 | 15 | 209 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | 5 | 5 | 4 | 4 | 3 | 2 | 2 | 1 | 2 | 3 | 4 | 6 | 41 |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | 33 | 31 | 28 | 26 | 15 | 10 | 11 | 9 | 16 | 17 | 19 | 19 | 234 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | 5 | 5 | 4 | 4 | 3 | 2 | 2 | 1 | 2 | 3 | 4 | 6 | 41 |

WMC INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

| 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 HBR | | | | | 1.3 | | | | | | | | 1.3 |
| 8 K LIQUID HCL | | | | | 13.0 | | | | | | | | 13.0 |
| 8 K LIQUID NACH | | | | | 18.0 | | | | | | | | 18.0 |
| 8 K LIQUID NITRIC ACID | | | | | 2.0 | | | | | | | | 2.0 |
| 8 K LIQUID PHOSPHORIC ACID | | | | | 2.0 | | | | | | | | 2.0 |
| 8 K LIQUID SULFURIC ACID | | | | | 2.1 | | | | | | | | 2.1 |
| GRAND TOTALS | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 8 K LIQUID | | | | | 38.4 | | | | | | | | 38.4 |

WMC WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 117 | 90 | 81 | 73 | 60 | 100 | 93 | 112 | 78 | 79 | 115 | 1,036 | 2,034 |
| WMC WATER PUMPED (GAL) | 2,832 | 1,946 | 1,718 | 1,415 | 33 | 8 | 116 | 107 | 73 | 33 | 166 | 1,964 | 10,411 |
| TOTAL WATER PUMPED (GAL) | 2,949 | 2,036 | 1,799 | 1,488 | 93 | 108 | 209 | 219 | 151 | 112 | 281 | 3,000 | 12,445 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) * | | | | | | | | | | | | | |
| SURFACE (GAL) * | 62 | 62 | 62 | 62 | 27 | 2 | 110 | 101 | 67 | 27 | 62 | 62 | 706 |
| SUBSURFACE (GAL) * | 2,868 | 1,956 | 1,718 | 1,407 | 48 | 88 | 81 | 100 | 66 | 67 | 201 | 2,920 | 11,520 |
| SEWAGE DATA | | | | | | | | | | | | | |
| EBR BUILD VOL. (GAL) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 6 | 6 | 132 |
| 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 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) | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 12 | 12 | 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) | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 216 |
| TOTAL WATER DISPOSED (GAL) | 2,948 | 2,036 | 1,798 | 1,467 | 93 | 108 | 209 | 219 | 151 | 112 | 281 | 3,000 | 12,442 |
| ACCOUNTABILITY (%) | 100.0 | 100.0 | 99.9 | 99.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

WMC FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

(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) | 1 | 3 | 3 | 2 | 2 | | | | | 4 | 2 | 2 | 19 |
| SO2 (LBS) | | | | | | | | | | | | | |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | | | | | | | | | | | | | |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |

PBF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHLORIDE ION WEIGHT (POUNDS) | | | | | | 5 | 1 | | | | 1 | 2 | 9 |
| CHLORCHYDROCARBONS WEIGHT (POUNDS) | | | | | | 25 | 25 | | | | 25 | | 75 |
| CHROMATE ION WEIGHT (POUNDS) | 28 | | | 58 | | 7 | | | | | | 56 | 149 |
| HPA WEIGHT (POUNDS) | 8 | | | 16 | | 2 | | | | | | 16 | 42 |
| HYDROXYCARBONS WEIGHT (POUNDS) | | | | | | 13 | 13 | | | | 11 | | 37 |
| N-HYDROCARBON WEIGHT (POUNDS) | | | | | | 9 | 9 | | | | | | 18 |
| PHOSPHATE ION WEIGHT (POUNDS) | 25 | | | 50 | | 6 | | | | | | 50 | 131 |
| POLYHYDROXYCARBON WEIGHT (POUNDS) | 5 | | | 10 | | 1 | | | | | | 10 | 26 |
| SODIUM ION WEIGHT (POUNDS) | 169 | 72 | 575 | 482 | 432 | 299 | 365 | 144 | 287 | 431 | 796 | 481 | 4,533 |
| SODIUM PHOSPHATE WEIGHT (POUNDS) | | | | | | | | | | | | | |
| SULFATE ION WEIGHT (POUNDS) | 196 | 88 | 705 | 570 | 529 | 358 | 441 | 176 | 352 | 529 | 969 | 569 | 5,482 |
| SULFITE ION WEIGHT (POUNDS) | | 1 | 1 | | 1 | | | | | | | | 3 |
| THIOHYDROCARBONS WEIGHT (POUNDS) | | | | | | 3 | 3 | | | | 3 | | 9 |
| ZINC ION WEIGHT (POUNDS) | 4 | | | 9 | | 1 | | | | | | 9 | 23 |

PBF LIQUID DISPOSED SUBSTANCES SUMMARY 
FOR JANUARY THROUGH DECEMBER 1977

| 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) | 10 | 5 | 40 | 108 | 30 | 20 | 25 | 10 | 20 | 30 | 55 | 30 | 383 |
| HYDROGEN-ION CONC. (PH) | | | | | | | | | | | | | |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | 30.03 | 4.85 | | | | 1.63 | 7.99 | 2.75 |
| WEIGHT (POUNDS) | | | | | | 5 | 1 | | | | 1 | 2 | 9 |
| CHLORCHYDROCARBONS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | 150.49 | 120.39 | | | | 54.72 | | 23.58 |
| WEIGHT (POUNDS) | | | | | | 25 | 25 | | | | 25 | | 75 |
| CHROMATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 336.48 | | | 64.08 | | 42.06 | | | | | | 224.32 | 46.63 |
| WEIGHT (POUNDS) | 28 | | | 58 | | 7 | | | | | | 56 | 149 |
| HPA | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 98.86 | | | 18.31 | | 12.73 | | | | | | 65.91 | 13.57 |
| WEIGHT (POUNDS) | 8 | | | 16 | | 2 | | | | | | 16 | 42 |
| HYDROXYCARBONS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | 78.18 | 62.55 | | | | 24.35 | | 11.66 |
| WEIGHT (POUNDS) | | | | | | 13 | 13 | | | | 11 | | 37 |
| N-HYDROCARBON | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | 52.35 | 41.88 | | | | | | 5.47 |
| WEIGHT (POUNDS) | | | | | | 9 | 9 | | | | | | 18 |
| PHOSPHATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 298.97 | | | 55.37 | | 37.37 | | | | | | 199.32 | 40.99 |
| WEIGHT (POUNDS) | 25 | | | 50 | | 6 | | | | | | 50 | 131 |
| POLYHYDROXYCARBON | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 59.32 | | | 10.98 | | 7.64 | | | | | | 39.54 | 8.14 |
| WEIGHT (POUNDS) | 5 | | | 10 | | 1 | | | | | | 10 | 26 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2019.98 | 1722.55 | 1722.55 | 534.29 | 1722.55 | 1793.81 | 1749.73 | 1722.55 | 1722.55 | 1722.55 | 1734.90 | 1920.84 | 1,418.15 |
| WEIGHT (POUNDS) | 169 | 72 | 575 | 482 | 431 | 299 | 365 | 144 | 287 | 431 | 796 | 481 | 4,532 |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2354.40 | 2111.63 | 2111.63 | 631.52 | 2111.63 | 2141.98 | 2111.63 | 2111.63 | 2111.63 | 2111.63 | 2111.63 | 2273.48 | 1,715.00 |
| WEIGHT (POUNDS) | 196 | 88 | 705 | 569 | 525 | 358 | 441 | 176 | 352 | 529 | 969 | 569 | 5,481 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

| RELEASE POINT DESCRIPTION<br>SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOT & AVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| THICHYDROCARBONS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | 15.28 | 12.22 | | | | 5.56 | | 2.39 |
| WEIGHT (POUNDS) | | | | | | 3 | 3 | | | | 3 | | 9 |
| ZINC ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 53.44 | | | 9.90 | | 6.68 | | | | | | 35.63 | 7.33 |
| WEIGHT (POUNDS) | 4 | | | 9 | | 1 | | | | | | 9 | 23 |
| WARM WASTE WELL SUBSURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 289 | 295 | 331 | 321 | 319 | | | | | 346 | | 312 | 2,213 |
| HYDROGEN-ION CONC. (PH) | | | | | | | | | | | | | |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .04 | .12 | .15 | .17 | .22 | | | | | .07 | | | .11 |
| WEIGHT (POUNDS) | | | | | 1 | | | | | | | | 1 |
| SODIUM PHOSPHATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | .04 | | .08 | .08 | | | | | | | | .03 |
| WEIGHT (POUNDS) | | | | | | | | | | | | | |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | .29 | | | | | | | | | .04 |
| WEIGHT (POUNDS) | | | | 1 | | | | | | | | | 1 |
| SULFITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .07 | .21 | .27 | | .39 | | | | | .12 | | | .15 |
| WEIGHT (POUNDS) | | 1 | 1 | | 1 | | | | | | | | 3 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

PBF WATER USAGE AND DISPOSAL SUMMARY PG 1 RPT 137-I
FOR JANUARY THROUGH DECEMBER 1977 PBF

(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) | 302 | 41 | 289 | 275 | 278 | 207 | 886 | 1,403 | 1,150 | 902 | 849 | 1,046 | 7,628 |
| 2 WATER PUMPED (GAL) | 531 | 376 | 242 | 536 | 658 | 552 | 841 | 414 | 390 | 983 | 921 | 942 | 7,386 |
| TOTAL WATER PUMPED (GAL) | 833 | 417 | 531 | 811 | 936 | 759 | 1,727 | 1,817 | 1,540 | 1,885 | 1,770 | 1,988 | 15,014 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) | 70 | 108 | | 5 | 15 | 67 | | | | | | | 265 |
| SURFACE (GAL) * | | | | | | | | | | | | | |
| SUBSURFACE (GAL) * | 299 | 256 | 370 | 429 | 349 | 348 | 341 | 362 | 344 | 376 | 398 | 420 | 4,292 |
| 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

PBF WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 421 | 416 | 422 | 486 | 416 | 467 | 393 | 414 | 396 | 428 | 450 | 472 | 5,181 |
| ACCOUNTABILITY (%) | 50.5 | 99.8 | 79.5 | 59.9 | 44.4 | 61.5 | 22.8 | 22.8 | 25.7 | 22.7 | 25.4 | 23.7 | 34.5 |

PBF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(ALL VALUES = NEAREST THOUSAND)

| FUEL OIL TYPE / EFFLUENTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIESEL | | | | | | | | | | | | | |
| VOLUME (GAL) | 3 | 2 | | | | | | | | | | | 5 |
| SO2 (LBS) | | | | | | | | | | | | | |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| TYPE 2 | | | | | | | | | | | | | |
| VOLUME (GAL) | 5 | 5 | 8 | 2 | 2 | 4 | | 2 | | | 8 | 3 | 39 |
| SO2 (LBS) | | | | | | | | | | | | | |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| TYPE 5 | | | | | | | | | | | | | |
| VOLUME (GAL) | | | | | | | | | | | | | |
| SO2 (LBS) | | | | | | | | | | | | | |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | | | | | | | | | | | | | |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |

ARA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 1,398 | 1,551 | 1,665 | 1,282 | 1,479 | 1,693 | 1,930 | 1,480 | 1,576 | 1,412 | 1,304 | 1,398 | 18,168 |
| 3 WATER PUMPED (GAL) | 1,542 | 1,573 | 1,287 | 1,760 | 847 | 971 | 1,140 | 2,027 | 2,058 | 1,532 | 1,828 | 1,542 | 18,107 |
| TOTAL WATER PUMPED (GAL) | 2,940 | 3,124 | 2,952 | 3,042 | 2,326 | 2,664 | 3,070 | 3,507 | 3,634 | 2,944 | 3,132 | 2,940 | 36,275 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) * | | | | | | | | | | | | | |
| SURFACE (GAL) * | 2,766 | 2,950 | 2,778 | 2,868 | 2,152 | 2,490 | 2,895 | 3,333 | 3,460 | 2,770 | 2,957 | 2,766 | 34,185 |
| SUBSURFACE (GAL) * | | | | | | | | | | | | | |
| SEWAGE DATA | | | | | | | | | | | | | |
| BUILD VOL. (GAL) * | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 2,088 |
| 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) | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 2,088 |
| TOTAL WATER DISPOSED (GAL) | 2,940 | 3,124 | 2,952 | 3,042 | 2,326 | 2,664 | 3,069 | 3,507 | 3,634 | 2,944 | 3,131 | 2,940 | 36,273 |
| 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

AFA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 14 | 9 | 5 | 7 | 8 | | | | | 3 | 2 | 14 | 62 |
| SO2 (LBS) | 1 | | | | | | | | | | | 1 | 2 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | 1 | | | | | | | | | | | 1 | 2 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |

TAN LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHLORIDE ION WEIGHT (POUNDS) | 1,608 | 2,549 | 7,464 | 2,169 | 1,827 | 2,002 | 4,035 | 2,731 | 2,154 | 2,640 | 3,246 | 1,032 | 33,457 |
| PHOSPHATE ION WEIGHT (POUNDS) | 144 | 113 | 104 | 274 | 114 | 9 | 24 | 6 | 27 | 23 | 29 | 40 | 907 |
| SODIUM ION WEIGHT (POUNDS) | 1,239 | 1,946 | 5,047 | 1,823 | 1,296 | 1,721 | 2,776 | 2,042 | 1,611 | 1,812 | 2,244 | 859 | 24,416 |
| SODIUM PHOSPHATE WEIGHT (POUNDS) | | | | 85 | 6 | | | | | | | | 91 |
| SULFATE ION WEIGHT (POUNDS) | 119 | 195 | 122 | 106 | 35 | 705 | 270 | 514 | 452 | 158 | 308 | 385 | 3,369 |
| SULFITE ION WEIGHT (POUNDS) | 154 | 256 | 141 | 454 | 32 | 8 | 39 | 30 | 32 | 27 | 34 | 52 | 1,259 |

| RELEASE POINT DESCRIPTION / SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOT & AVG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DISPOSAL POND SURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 372 | 377 | 440 | 381 | 372 | 351 | 527 | 599 | 578 | 453 | 468 | 412 | 5,330 |
| HYDROGEN-ION CONC. (PH) | | | | | | | | | | | | | |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 390.93 | 579.38 | 1877.78 | 620.25 | 488.66 | 466.77 | 504.08 | 267.28 | 251.69 | 481.54 | 621.47 | | 535.13 |
| WEIGHT (POUNDS) | 1,214 | 1,820 | 6,867 | 1,972 | 1,517 | 1,365 | 2,215 | 1,335 | 1,214 | 1,820 | 2,427 | | 23,786 |
| PHOSPHATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 21.55 | 21.29 | 18.24 | 84.15 | 21.55 | .55 | 3.81 | | 3.75 | 4.78 | 6.34 | 7.40 | 14.39 |
| WEIGHT (POUNDS) | 67 | 67 | 67 | 268 | 67 | 2 | 17 | | 18 | 18 | 25 | 25 | 641 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 280.15 | 404.22 | 1241.44 | 524.85 | 327.09 | 303.00 | 332.45 | 176.66 | 168.72 | 316.85 | 409.05 | 7.42 | 365.38 |
| WEIGHT (POUNDS) | 870 | 1,270 | 4,553 | 1,669 | 1,015 | 886 | 1,461 | 882 | 814 | 1,198 | 1,598 | 25 | 16,241 |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 15.77 | 23.37 | 20.02 | 3.08 | | | 5.57 | 5.29 | | | | | 5.77 |
| WEIGHT (POUNDS) | 49 | 73 | 73 | 10 | | | 24 | 26 | | | | | 255 |
| SULFITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 20.45 | 20.21 | 17.31 | 139.80 | | .48 | 4.05 | 3.43 | 3.95 | 4.37 | 5.69 | 6.66 | 16.92 |
| WEIGHT (POUNDS) | 63 | 63 | 63 | 444 | | 1 | 18 | 17 | 19 | 17 | 22 | 23 | 750 |
| LOFT DISPOSAL POND SURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 258 | 427 | 298 | 498 | 258 | 218 | 372 | 3,151 | 3,049 | 1,623 | 3,175 | 2,454 | 15,781 |
| HYDROGEN-ION CONC. (PH) | | | | | | | | | | | | | |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 98.79 | 119.28 | 85.46 | 32.88 | 2.96 | 100.06 | 342.06 | 24.23 | 8.35 | 15.68 | 8.02 | 20.74 | 29.89 |
| WEIGHT (POUNDS) | 212 | 425 | 212 | 137 | 6 | 182 | 1,062 | 637 | 212 | 212 | 212 | 425 | 3,934 |
| PHOSPHATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 6.22 | 3.48 | 1.54 | | | 2.21 | 1.15 | .11 | .19 | .16 | .13 | .45 | .46 |
| WEIGHT (POUNDS) | 13 | 12 | 4 | | | 4 | 4 | 3 | 5 | 2 | 3 | 9 | 59 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 74.33 | 100.51 | 76.90 | 22.68 | 16.63 | 66.91 | 243.85 | 24.14 | 12.19 | 13.73 | 8.75 | 20.21 | 26.54 |
| WEIGHT (POUNDS) | 160 | 358 | 191 | 94 | 36 | 122 | 757 | 635 | 310 | 186 | 232 | 414 | 3,495 |
| SODIUM PHOSPHATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | 20.47 | 2.91 | | | | | | | | .69 |
| WEIGHT (POUNDS) | | | | 85 | 6 | | | | | | | | 91 |

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 (PPM) | | 20.45 | .01 | 18.47 | 11.39 | | 44.88 | 14.53 | 16.36 | 1.74 | 8.98 | 15.35 | 13.43 |
| WEIGHT (POUNDS) | | 73 | | 77 | 24 | | 139 | 382 | 416 | 105 | 238 | 314 | 1,768 |
| SULFITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 12.70 | 9.36 | 5.81 | | | 1.75 | 5.11 | .29 | .34 | .52 | .42 | 1.13 | 1.15 |
| WEIGHT (POUNDS) | 27 | 23 | 14 | | | 3 | 16 | 8 | 9 | 7 | 11 | 23 | 151 |
| LOFT DISPOSAL WELL SUBSURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 30 | 6 | 68 | 60 | 68 | 168 | 3,293 | 3,609 | 3,795 | 2,749 | 4,083 | 5,985 | 23,914 |
| 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) | 1,764 | 1,685 | 1,229 | 2,176 | 2,437 | 1,327 | 2,560 | 2,652 | 1,769 | 2,166 | 1,655 | 4,242 | 25,662 |
| HYDROGEN-ION CONC. (PH) | | | | | | | | | | | | | |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 12.37 | 21.58 | 35.50 | 3.44 | 14.92 | 41.10 | 35.50 | 34.27 | 49.32 | 33.57 | 43.94 | 17.14 | 26.78 |
| WEIGHT (POUNDS) | 182 | 303 | 364 | 61 | 303 | 455 | 758 | 758 | 728 | 607 | 607 | 607 | 5,733 |
| PHOSPHATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 4.34 | 2.38 | 3.26 | .37 | 2.30 | .30 | .16 | .15 | .27 | .15 | .05 | .15 | .97 |
| WEIGHT (POUNDS) | 64 | 33 | 33 | 7 | 47 | 3 | 3 | 3 | 4 | 3 | 1 | 5 | 206 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 14.23 | 22.64 | 29.54 | 3.29 | 12.04 | 64.36 | 26.14 | 23.71 | 32.96 | 23.66 | 30.02 | 11.86 | 21.86 |
| WEIGHT (POUNDS) | 209 | 318 | 303 | 60 | 245 | 713 | 558 | 525 | 487 | 428 | 415 | 420 | 4,681 |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 4.79 | 3.48 | 4.77 | 1.09 | .52 | 63.65 | 4.95 | 4.78 | 2.39 | 2.92 | 5.10 | 1.99 | 6.28 |
| WEIGHT (POUNDS) | 70 | 49 | 49 | 20 | 11 | 705 | 106 | 106 | 35 | 53 | 70 | 70 | 1,344 |
| SULFITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 4.31 | 11.29 | 6.19 | .52 | 1.56 | .34 | .24 | .23 | .30 | .21 | .05 | .18 | 1.66 |
| WEIGHT (POUNDS) | 63 | 159 | 63 | 10 | 32 | 4 | 5 | 5 | 4 | 4 | 1 | 6 | 356 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

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

TAN INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| 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 ZINC BROMIDE | | | | | | 4.0 | | | | | | | 4.0 |
| CFA LANDFILL | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 200.0 | 40.0 | 200.0 | 40.0 | 40.0 | 160.0 | 320.0 | 200.0 | 80.0 | 200.0 | 120.0 | 200.0 | 1,800.0 |
| 2 Y SOLID | | | | | | 8.0 | 64.0 | 24.0 | | 80.0 | 24.0 | 16.0 | 216.0 |
| 3 Y SOLID | | | | | | | | | | | | 11.0 | 11.0 |
| 4 Y SOLID | | | | | | | | | | | | 4.0 | 4.0 |
| GRAND TOTALS | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 200.0 | 40.0 | 200.0 | 40.0 | 40.0 | 160.0 | 320.0 | 200.0 | 80.0 | 200.0 | 120.0 | 200.0 | 1,800.0 |
| 2 Y SOLID | | | | | | 8.0 | 64.0 | 24.0 | | 80.0 | 24.0 | 16.0 | 216.0 |
| 3 Y SOLID | | | | | | | | | | | | 11.0 | 11.0 |
| 4 Y SOLID | | | | | | | | | | | | 4.0 | 4.0 |
| 8 K LIQUID | | | | | | 4.0 | | | | | | | 4.0 |

TAN WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

(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 | | | | | | | | | | | | | |
| LO1 WATER PUMPED (GAL) | 624 | 453 | 520 | 306 | 333 | 1,727 | 2,250 | 3,649 | 4,221 | 3,651 | 4,803 | 5,310 | 27,847 |
| LO2 WATER PUMPED (GAL) | 556 | 535 | 568 | 542 | 248 | 1,551 | 1,893 | 2,638 | 4,144 | 3,579 | 4,814 | 13,550 | 34,618 |
| LPT WATER PUMPED (GAL) | 1,764 | 1,685 | 1,229 | 2,176 | 2,437 | 1,372 | 2,560 | 2,652 | 1,769 | 2,166 | 1,655 | 4,242 | 25,707 |
| TF1 WATER PUMPED (GAL) | 1,314 | 1,324 | 1,201 | 1,700 | 1,829 | 1,719 | 2,870 | 2,198 | 2,443 | 2,450 | 1,734 | 1,790 | 22,572 |
| TF2 WATER PUMPED (GAL) | 102 | 202 | 110 | 136 | 307 | 460 | 3 | 3 | 5 | 2 | 1 | 2 | 1,333 |
| TOTAL WATER PUMPED (GAL) | 4,360 | 4,199 | 3,628 | 4,860 | 5,154 | 6,829 | 9,576 | 11,140 | 12,582 | 11,848 | 13,007 | 24,894 | 112,077 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) * | | | | | | | | | | | | | |
| SURFACE (GAL) * | 320 | 529 | 372 | 523 | 110 | | 182 | 3,020 | 2,931 | 1,586 | 3,047 | 2,431 | 15,051 |
| SUBSURFACE (GAL) * | 1,789 | 1,744 | 1,296 | 2,236 | 2,505 | 299 | 5,853 | 6,261 | 5,564 | 4,915 | 5,783 | 10,230 | 48,475 |
| SEWAGE DATA | | | | | | | | | | | | | |
| 623 BUILD VOL. (GAL) | 309 | 274 | 365 | 356 | 520 | 648 | 716 | 730 | 695 | 490 | 596 | 439 | 6,138 |
| BIOCHEMICAL OXYGEN DEMAND (BOD) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | 163.5 | 223.0 | 244.0 | 178.6 | 228.0 | 112.8 | 133.9 | 61.9 | 142.3 | 190.2 | 36.9 | 117.3 | 152.7 |
| FINAL CONC. (PPM) | 25.1 | 31.6 | 41.5 | 34.8 | 12.6 | 21.9 | 26.8 | 14.3 | 25.2 | 45.2 | 21.6 | 39.0 | 28.3 |
| % REMOVED | 84.6 | 85.8 | 83.0 | 80.5 | 94.5 | 80.6 | 80.0 | 76.9 | 82.3 | 76.2 | 41.5 | 66.8 | 81.5 |
| DISSOLVED OXYGEN (DO) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | | | | 2.9 | | 1.1 | | | | .6 | .9 | | 1.4 |
| FINAL CONC. (PPM) | .4 | | .1 | 34.7 | .1 | 24.8 | .6 | .2 | 1.1 | .8 | .7 | .5 | 5.8 |
| INCREASED FACTOR | | | | 11.0 | | 21.5 | | | | .3 | -.2 | | |
| SETTLEABLE SOLIDS (SS) | | | | | | | | | | | | | |
| RAW CONC. (ML/L) | | | | 50.2 | | 30.4 | | | .3 | 1.0 | .3 | .5 | 13.8 |
| FINAL CONC. (ML/L) | | | | 1.85 | | | | .05 | .08 | .20 | .15 | .30 | .44 |
| % REMOVED | | | | 96.3 | | | | | 73.3 | 80.0 | 50.0 | 40.0 | |
| PH-FINAL | 7.8 | 7.6 | 7.3 | 7.8 | | 7.6 | 7.6 | 7.9 | 8.3 | 8.2 | 8.7 | 8.6 | 7.9 |

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

TAN WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 354 | 319 | 410 | 401 | 565 | 693 | 761 | 775 | 740 | 535 | 641 | 484 | 6,678 |
| TOTAL WATER DISPOSED (GAL) | 2,463 | 2,592 | 2,078 | 3,160 | 3,180 | 992 | 6,796 | 10,056 | 9,235 | 7,036 | 9,471 | 13,145 | 70,204 |
| ACCOUNTABILITY (%) | 56.5 | 61.7 | 57.3 | 65.0 | 61.7 | 14.5 | 71.0 | 90.3 | 73.4 | 59.4 | 72.8 | 52.8 | 62.6 |

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

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM



TAN FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 162 | 12 | 12 | 10 | 250 | 3 | 25 | 10 | | | 7 | | 491 |
| SO2 (LBS) | 4 | | | | 7 | | 1 | | | | | | 12 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| TYPE 5 | | | | | | | | | | | | | |
| VOLUME (GAL) | 738 | 866 | 79 | 87 | 51 | 372 | 4 | 43 | 43 | 50 | 71 | 85 | 2,489 |
| SO2 (LBS) | 181 | 213 | 19 | 21 | 13 | 92 | 1 | 11 | 10 | 12 | 8 | 9 | 590 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | 185 | 213 | 19 | 21 | 20 | 92 | 2 | 11 | 10 | 12 | 8 | 9 | 602 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |

CEA LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

| CEA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUTO CLEANERS WEIGHT (POUNDS) | 320 | 336 | 352 | 368 | 384 | 400 | 400 | 400 | 384 | 368 | 320 | 320 | 4,352 |
| CALCIUM ION WEIGHT (POUNDS) | 12 | 14 | 11 | 10 | 18 | 18 | 18 | 11 | 18 | 11 | 11 | 11 | 163 |
| CHLORIDE ION WEIGHT (POUNDS) | 1,268 | 1,274 | 1,267 | 1,258 | 1,271 | 1,274 | 1,272 | 1,283 | 1,286 | 1,284 | 1,277 | 1,275 | 15,289 |
| HYPOCHLORITE ION WEIGHT (POUNDS) | 79 | 87 | 78 | 65 | 83 | 87 | 85 | 101 | 105 | 103 | 92 | 89 | 1,054 |
| LAUNDRY PRODUCTS WEIGHT (POUNDS) | 467 | 443 | 593 | 405 | 508 | 423 | 445 | 647 | 441 | 951 | 427 | 430 | 6,180 |
| PHOSPHATE WEIGHT (POUNDS) | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 1,200 |
| SOAP WEIGHT (POUNDS) | 450 | 400 | 450 | 450 | 800 | 800 | 600 | 600 | 600 | 600 | 600 | 600 | 6,950 |
| 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 1977



| 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) | 4,201 | 3,254 | 4,167 | 3,834 | 4,331 | 4,684 | 3,532 | 4,583 | 3,636 | 3,522 | 3,106 | 2,803 | 45,653 |
| HYDROGEN-ION CONC. (PH) | | 7.3 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 7.7 | 7.8 | 7.7 | 7.5 | 7.4 | 7.4 |
| AUTO CLEANERS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 9.13 | 12.37 | 10.12 | 11.50 | 10.62 | 10.23 | 13.57 | 10.46 | 12.66 | 12.52 | 12.35 | 13.68 | 11.42 |
| WEIGHT (POUNDS) | 320 | 336 | 352 | 368 | 384 | 400 | 400 | 400 | 384 | 368 | 320 | 320 | 4,352 |
| CALCIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .35 | .52 | .30 | .32 | .45 | .45 | .60 | .28 | .58 | .36 | .41 | .45 | .42 |
| WEIGHT (POUNDS) | 12 | 14 | 11 | 10 | 18 | 18 | 18 | 11 | 18 | 11 | 11 | 11 | 163 |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 36.18 | 46.91 | 36.44 | 39.32 | 35.17 | 32.59 | 43.14 | 33.55 | 42.39 | 43.70 | 49.26 | 54.50 | 40.13 |
| WEIGHT (POUNDS) | 1,268 | 1,274 | 1,267 | 1,258 | 1,271 | 1,274 | 1,272 | 1,283 | 1,286 | 1,284 | 1,277 | 1,275 | 15,289 |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2.26 | 3.22 | 2.23 | 2.01 | 2.30 | 2.24 | 2.87 | 2.65 | 3.45 | 3.49 | 3.54 | 3.80 | 2.76 |
| WEIGHT (POUNDS) | 79 | 87 | 78 | 65 | 83 | 87 | 85 | 101 | 105 | 103 | 92 | 89 | 1,054 |
| LAUNDRY PRODUCTS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 13.32 | 16.32 | 17.05 | 12.66 | 14.06 | 10.82 | 15.10 | 16.92 | 14.53 | 32.36 | 16.47 | 18.38 | 16.22 |
| WEIGHT (POUNDS) | 467 | 443 | 593 | 405 | 508 | 423 | 445 | 647 | 441 | 951 | 427 | 430 | 6,180 |
| PHOSPHATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2.85 | 3.68 | 2.88 | 3.13 | 2.77 | 2.56 | 3.39 | 2.61 | 3.30 | 3.40 | 3.86 | 4.28 | 3.15 |
| WEIGHT (POUNDS) | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 1,200 |
| SOAP | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 12.84 | 14.73 | 12.94 | 14.36 | 22.13 | 20.47 | 20.36 | 15.69 | 19.77 | 20.41 | 23.15 | 25.65 | 18.24 |
| WEIGHT (POUNDS) | 450 | 400 | 450 | 450 | 800 | 800 | 600 | 600 | 600 | 600 | 600 | 600 | 6,950 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 22.43 | 28.96 | 22.61 | 24.58 | 21.76 | 20.12 | 26.68 | 20.56 | 25.92 | 26.76 | 30.34 | 33.62 | 24.77 |
| WEIGHT (POUNDS) | 786 | 786 | 786 | 786 | 786 | 786 | 786 | 786 | 786 | 786 | 786 | 786 | 9,432 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

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NEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CFA INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| D 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 | 246.0 | 202.0 | 310.0 | 259.0 | 184.0 | 162.0 | 24.0 | 160.0 | 140.0 | 150.0 | 1,479.0 | 162.0 | 3,478.0 |
| 2 Y SOLID | 68.0 | 84.0 | 100.0 | 98.0 | 96.0 | 40.0 | 64.0 | | 44.0 | | 296.0 | 28.0 | 918.0 |
| 3 Y SOLID | 12.0 | | 12.0 | 4.0 | 16.0 | 8.0 | | | 24.0 | | | 34.9 | 110.9 |
| 4 Y SOLID | 3.0 | 18.0 | | 22.0 | 8.0 | 8.0 | 40.0 | | 4.0 | | | 1,265.0 | 1,368.0 |
| GRAND TOTALS | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 246.0 | 202.0 | 310.0 | 259.0 | 184.0 | 162.0 | 24.0 | 160.0 | 140.0 | 150.0 | 1,479.0 | 162.0 | 3,478.0 |
| 2 Y SOLID | 68.0 | 84.0 | 100.0 | 98.0 | 96.0 | 40.0 | 64.0 | | 44.0 | | 296.0 | 28.0 | 918.0 |
| 3 Y SOLID | 12.0 | | 12.0 | 4.0 | 16.0 | 8.0 | | | 24.0 | | | 34.9 | 110.9 |
| 4 Y SOLID | 3.0 | 18.0 | | 22.0 | 8.0 | 8.0 | 40.0 | | 4.0 | | | 1,265.0 | 1,368.0 |

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM



CFA WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 1 | 3 | 1 | 3 | 1 | 1,775 | 2,772 | 4,056 | 2,478 | 4 | 3 | 2 | 11,099 |
| 2 WATER PUMPED (GAL) | 4,974 | 4,230 | 5,252 | 5,394 | 5,145 | 11,240 | 8,850 | 12,110 | 8,218 | 5,303 | 4,969 | 5,361 | 81,046 |
| TOTAL WATER PUMPED (GAL) | 4,975 | 4,233 | 5,253 | 5,397 | 5,146 | 13,015 | 11,622 | 16,166 | 10,696 | 5,307 | 4,972 | 5,363 | 92,145 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) * | | | | | | | | | | | | | |
| SURFACE (GAL) * | 39 | 49 | 54 | 156 | 73 | 5,748 | 6,986 | 8,225 | 2,753 | 89 | 93 | 128 | 24,393 |
| SUBSURFACE (GAL) | 147 | 105 | 82 | 151 | 182 | 184 | 137 | 123 | 83 | 87 | 86 | 92 | 1,459 |
| SEWAGE DATA | | | | | | | | | | | | | |
| 691 BUILD VOL. (GAL) | 4,054 | 3,149 | 4,086 | 3,683 | 4,149 | 4,500 | 3,395 | 4,460 | 3,553 | 3,435 | 3,106 | 2,803 | 44,373 |
| BIOCHEMICAL OXYGEN DEMAND (BOD) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | 40.1 | 68.9 | 70.9 | 92.0 | 181.2 | 89.7 | 39.3 | 101.9 | 65.0 | 138.3 | 30.6 | 43.6 | 80.1 |
| FINAL CONC. (PPM) | 2.2 | 3.6 | 5.7 | 4.1 | 7.1 | 4.2 | 3.2 | 3.0 | 3.0 | 4.2 | 5.0 | 7.2 | 4.4 |
| % REMOVED | 94.5 | 94.8 | 92.0 | 95.5 | 96.1 | 95.3 | 91.9 | 97.1 | 95.4 | 97.0 | 83.7 | 83.5 | 94.5 |
| DISSOLVED OXYGEN (DO) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | .1 | .7 | .4 | .5 | .5 | 1.4 | 2.1 | 1.2 | 1.6 | 1.4 | 1.8 | .4 | 1.0 |
| FINAL CONC. (PPM) | 5.7 | 5.6 | 4.5 | 5.6 | 4.9 | 4.2 | 5.7 | 5.1 | 6.1 | 5.5 | 6.4 | 5.5 | 5.4 |
| INCREASED FACTOR | 56.0 | 7.0 | 10.3 | 10.2 | 8.8 | 2.0 | 1.7 | 3.3 | 2.8 | 2.9 | 2.6 | 12.8 | 4.4 |
| SETTLEABLE SOLIDS (SS) | | | | | | | | | | | | | |
| RAW CONC. (ML/L) | 3.8 | 4.6 | 3.7 | 2.8 | 3.6 | 3.6 | 3.2 | 4.7 | 5.9 | 5.3 | 5.3 | 5.8 | 4.4 |
| FINAL CONC. (ML/L) | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| % REMOVED | 98.7 | 98.9 | 98.6 | 98.2 | 98.6 | 98.6 | 98.4 | 98.9 | 99.2 | 99.1 | 99.1 | 99.1 | 98.9 |
| PH-FINAL | 7.4 | 7.3 | 7.2 | 7.1 | 7.3 | 7.5 | 7.7 | 7.7 | 7.8 | 7.7 | 7.5 | 7.4 | 7.5 |
| TOTAL SEWAGE VOL. (GAL) | 4,054 | 3,149 | 4,086 | 3,683 | 4,149 | 4,500 | 3,395 | 4,460 | 3,553 | 3,435 | 3,106 | 2,803 | 44,373 |
| TOTAL WATER DISPOSED (GAL) | 4,240 | 3,303 | 4,222 | 3,990 | 4,404 | 10,432 | 10,518 | 12,808 | 6,389 | 3,611 | 3,285 | 3,023 | 70,225 |
| ACCOUNTABILITY (%) | 85.2 | 78.0 | 80.4 | 73.9 | 85.6 | 80.2 | 90.5 | 79.2 | 59.7 | 68.0 | 66.1 | 56.4 | 76.2 |

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

CFA FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

(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) | 92 | 63 | 63 | 47 | 36 | 8 | 8 | | | 51 | 60 | 77 | 505 |
| SO2 (LBS) | 5 | 4 | 4 | 3 | 2 | | | | | 3 | 3 | 4 | 28 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | 5 | 4 | 4 | 3 | 2 | | | | | 3 | 3 | 4 | 28 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |

| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NITRIC OXIDE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 26,280 | | | | | | | | 36,346 | 14,558 | 11,749 | 12,637 | 101,570 |
| NITROGEN DIOXIDE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 105,100 | | | | | | | | 278,614 | 110,030 | 97,892 | 83,031 | 674,667 |

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INEL INDUSTRIAL WASTE MANAGEMENT INFORMATION SYSTEM

CPP AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| 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) | 2,932,264 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 10,453,451 | 3,672,835 | 3,672,835 | 2,596,059 | 23,327,444 |
| NITRIC OXIDE | | | | | | | |
| CONCENTRATION (PPM) | 128.87 | .00 | .00 | .00 | .00 | .00 | |
| | .00 | .00 | 50.00 | 57.00 | 46.00 | 70.00 | 62.60 |
| WEIGHT (POUNDS) | 26,280 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 36,346 | 14,558 | 11,749 | 12,637 | 101,570 |
| NITROGEN DIOXIDE | | | | | | | |
| CONCENTRATION (PPM) | 336.15 | .00 | .00 | .00 | .00 | .00 | |
| | .00 | .00 | 250.00 | 281.00 | 250.00 | 300.00 | 271.24 |
| WEIGHT (POUNDS) | 105,100 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 278,614 | 110,030 | 97,892 | 83,031 | 674,667 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION

SCHED. NO. INF6166-C

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

RUN DATE: 05/31/78

CPP LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

PG 1 RPT 205-I
CPP-L

| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALCIUM ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 15 | 19 | 17 | 19 | 18 | 19 | 12 | 15 | 14 | 14 | 12 | 11 | 185 |
| CHLORIDE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 39,497 | 38,276 | 39,656 | 61,076 | 73,072 | 61,921 | 25,002 | 22,201 | 35,029 | 42,827 | 45,319 | 60,666 | 544,542 |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 38 | 49 | 45 | 49 | 47 | 49 | 31 | 38 | 36 | 36 | 31 | 28 | 477 |
| NITRATE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 14,755 | | | | | 10,794 | 14,969 | 24,094 | 16,622 | 20,302 | 30,408 | 31,681 | 163,625 |
| SODIUM ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 23,607 | 25,200 | 36,237 | 45,224 | 48,302 | 41,280 | 18,110 | 16,005 | 23,729 | 27,377 | 33,039 | 43,140 | 381,250 |
| SULFATE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 11,804 | | | | | 16,072 | 11,010 | 9,121 | 9,123 | 11,140 | 11,344 | 14,088 | 93,702 |
| TDS | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 119,625 | 187,100 | 176,401 | 285,333 | 267,517 | 199,635 | 95,841 | 98,612 | 121,358 | 146,913 | 158,179 | 176,605 | 2,033,119 |

CPP LIQUID DISPOSED SUBSTANCES SUMMARY 
FOR JANUARY THROUGH DECEMBER 1977 

| 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) | 27,250 | 28,540 | 41,040 | 55,970 | 49,560 | 40,620 | 19,240 | 20,660 | 27,130 | 32,540 | 35,100 | 40,460 | 418,110 |
| HYDROGEN-ION CONC. (PH) | 8.1 | 7.9 | 7.8 | 6.1 | 7.4 | 8.2 | 8.1 | 6.7 | 8.1 | 7.6 | 7.3 | 8.1 | 7.6 |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 174.00 | 161.00 | 116.00 | 131.00 | 177.00 | 183.00 | 156.00 | 129.00 | 155.00 | 158.00 | 155.00 | 180.00 | 156.08 |
| WEIGHT (POUNDS) | 39,497 | 38,276 | 39,656 | 61,076 | 73,072 | 61,921 | 25,002 | 22,201 | 35,029 | 42,827 | 45,319 | 60,666 | 544,542 |
| NITRATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 65.00 | | | | | 31.90 | 93.40 | 140.00 | 73.55 | 74.90 | 104.00 | 94.00 | 46.90 |
| WEIGHT (POUNDS) | 14,755 | | | | | 10,794 | 14,969 | 24,094 | 16,622 | 20,302 | 30,408 | 31,681 | 163,625 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 104.00 | 106.00 | 106.00 | 97.00 | 117.00 | 122.00 | 113.00 | 93.00 | 105.00 | 101.00 | 113.00 | 128.00 | 109.27 |
| WEIGHT (POUNDS) | 23,607 | 25,200 | 36,237 | 45,224 | 48,302 | 41,280 | 18,110 | 16,005 | 23,729 | 27,377 | 33,039 | 43,140 | 381,250 |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 52.00 | | | | | 47.50 | 68.70 | 53.00 | 40.37 | 41.10 | 38.80 | 41.80 | 26.86 |
| WEIGHT (POUNDS) | 11,804 | | | | | 16,072 | 11,010 | 9,121 | 9,123 | 11,140 | 11,344 | 14,088 | 93,702 |
| TDS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 527.00 | 787.00 | 516.00 | 612.00 | 648.00 | 590.00 | 598.00 | 573.00 | 537.00 | 542.00 | 541.00 | 524.00 | 582.73 |
| WEIGHT (POUNDS) | 119,625 | 187,100 | 176,401 | 285,333 | 267,517 | 199,635 | 95,841 | 98,612 | 121,358 | 146,913 | 158,179 | 176,605 | 2,033,119 |
| SEWAGE PLANT SUBSURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 972 | 886 | 876 | 950 | 1,046 | 912 | 932 | 1,198 | 1,102 | 881 | 881 | 849 | 11,485 |
| HYDROGEN-ION CONC. (PH) | 7.7 | 7.4 | 7.2 | 7.1 | 7.2 | 7.1 | 7.3 | 7.5 | 7.6 | 7.5 | 7.5 | 7.7 | 7.4 |
| CALCIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 1.82 | 2.56 | 2.38 | 2.39 | 2.10 | 2.49 | 1.57 | 1.46 | 1.50 | 1.91 | 1.66 | 1.55 | 1.93 |
| WEIGHT (POUNDS) | 15 | 19 | 17 | 19 | 18 | 19 | 12 | 15 | 14 | 14 | 12 | 11 | 185 |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 4.67 | 6.57 | 6.11 | 6.12 | 5.39 | 6.38 | 4.03 | 3.76 | 3.86 | 4.90 | 4.26 | 3.98 | 4.96 |
| WEIGHT (POUNDS) | 38 | 49 | 45 | 49 | 47 | 49 | 31 | 38 | 36 | 36 | 31 | 28 | 477 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

CPP INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| 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 | 197.0 | 180.0 | 180.0 | 180.0 | 90.0 | 210.0 | 160.0 | 180.0 | 90.0 | 60.0 | 90.0 | 120.0 | 1,737.0 |
| 2 Y SOLID | 51.0 | 48.0 | 48.0 | 48.0 | 24.0 | 56.0 | 42.7 | 48.0 | 24.0 | 16.0 | 24.0 | 32.0 | 461.7 |
| 4 Y SOLID | | | | | | | 8.0 | | | | | | 8.0 |
| GRAND TOTALS | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 197.0 | 180.0 | 180.0 | 180.0 | 90.0 | 210.0 | 160.0 | 180.0 | 90.0 | 60.0 | 90.0 | 120.0 | 1,737.0 |
| 2 Y SOLID | 51.0 | 48.0 | 48.0 | 48.0 | 24.0 | 56.0 | 42.7 | 48.0 | 24.0 | 16.0 | 24.0 | 32.0 | 461.7 |
| 4 Y SOLID | | | | | | | 8.0 | | | | | | 8.0 |

CPP WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 40,000 | 40,000 | 60,000 | 60,000 | 60,000 | 50,000 | 25,230 | 26,760 | 36,620 | 34,240 | 37,050 | 54,200 | 524,100 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) | | | | | | | | | | | | | |
| SURFACE (GAL) * | | | | | | | | | | | | | |
| SUBSURFACE (GAL) | 27,250 | 28,540 | 41,040 | 55,970 | 49,560 | 40,620 | 19,240 | 20,660 | 27,130 | 32,540 | 35,100 | 40,460 | 418,110 |
| SEWAGE DATA | | | | | | | | | | | | | |
| BUILD VOL. (GAL) | 972 | 886 | 876 | 950 | 1,046 | 912 | 932 | 1,198 | 1,102 | 881 | 881 | 849 | 11,485 |
| BIOCHEMICAL OXYGEN DEMAND (BOD) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | 124.0 | 108.5 | 125.0 | 85.8 | 97.1 | 117.0 | 116.0 | 89.0 | 93.9 | 114.3 | 49.4 | 34.2 | 96.2 |
| FINAL CONC. (PPM) | 23.0 | 18.6 | 17.1 | 19.7 | 21.9 | 22.2 | 22.6 | 20.3 | 16.0 | 22.8 | 16.1 | 10.8 | 19.3 |
| % REMOVED | 81.5 | 82.9 | 86.3 | 77.0 | 77.4 | 81.0 | 80.5 | 77.2 | 83.0 | 80.1 | 67.4 | 68.4 | 79.9 |
| DISSOLVED OXYGEN (DO) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | 3.6 | 2.7 | 2.6 | 1.7 | 1.4 | .9 | 1.1 | 1.9 | 3.0 | 3.4 | 2.6 | 3.0 | 2.3 |
| FINAL CONC. (PPM) | 4.5 | 4.4 | 4.2 | 3.4 | 3.6 | 3.4 | 3.5 | 4.3 | 4.9 | 4.7 | 5.7 | 5.3 | 4.3 |
| INCREASED FACTOR | .5 | .6 | .6 | 1.0 | 1.6 | 2.8 | 2.2 | 1.3 | .6 | .4 | 1.2 | .8 | .9 |
| SETTLEABLE SOLIDS (SS) | | | | | | | | | | | | | |
| RAW CONC. (ML/L) | 4.3 | 4.9 | 3.9 | 3.9 | 3.3 | 2.5 | 3.5 | 3.6 | 5.2 | 4.4 | 3.7 | 4.1 | 3.9 |
| FINAL CONC. (ML/L) | .05 | .11 | .05 | .05 | .07 | .05 | .20 | .05 | .05 | .07 | .05 | .05 | .07 |
| % REMOVED | 98.8 | 97.8 | 98.7 | 98.7 | 97.9 | 98.0 | 94.3 | 98.6 | 99.0 | 98.4 | 98.6 | 98.8 | 98.2 |
| PH-FINAL | 7.7 | 7.4 | 7.2 | 7.1 | 7.2 | 7.1 | 7.5 | 7.5 | 7.6 | 7.5 | 7.6 | 7.7 | 7.4 |
| TOTAL SEWAGE VOL. (GAL) | 972 | 886 | 876 | 950 | 1,046 | 912 | 932 | 1,198 | 1,102 | 881 | 881 | 849 | 11,485 |
| TOTAL WATER DISPOSED (GAL) | 28,222 | 29,426 | 41,916 | 56,920 | 50,606 | 41,532 | 20,172 | 21,858 | 28,232 | 33,421 | 35,981 | 41,309 | 423,595 |
| ACCOUNTABILITY (%) | 70.6 | 73.6 | 69.9 | 94.9 | 84.3 | 83.1 | 80.0 | 81.7 | 77.1 | 97.6 | 97.1 | 76.2 | 82.0 |

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

IDAHO OPERATIONS 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 1977



(ALL VALUES = NEAREST THOUSAND)

| FUEL OIL TYPE / EFFLUENTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KEROSENE | | | | | | | | | | | | | |
| VOLUME (GAL) | 17 | 1 | | | | | | | 7 | 12 | 15 | 15 | 67 |
| SO2 (LBS) | | | | | | | | | | | | | |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| TYPE 2 | | | | | | | | | | | | | |
| VOLUME (GAL) | 218 | 194 | 164 | 224 | 149 | 118 | 78 | 64 | 120 | 145 | 178 | 226 | 1,898 |
| SO2 (LBS) | 13 | 11 | 11 | 13 | 9 | 7 | 4 | 4 | 7 | 8 | 10 | 11 | 108 |
| NOX (LBS) | | | | | | | | | | | | 77 | 77 |
| PARTICULATES (LBS) | | | | | | | | | | | | | |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | 13 | 11 | 11 | 13 | 9 | 7 | 4 | 4 | 7 | 8 | 10 | 11 | 108 |
| NOX (LBS) | | | | | | | | | | | | 77 | 77 |
| PARTICULATES (LBS) | | | | | | | | | | | | | |

NRF AIRBORNE DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

| RELEASE POINT DESCRIPTION<br>SUBSTANCE | JAN<br>JUL | FEB<br>AUG | MAR<br>SEP | APR<br>OCT | MAY<br>NOV | JUN<br>DEC | ANNUAL<br>TOT & AVE |
|---|---|---|---|---|---|---|---|
| COOLING TOWERS | | | | | | | |
| VOLUME (CU.FT. IN 1000) | 812 | 1,727 | 2,756 | 2,660 | 2,206 | 4,085 | |
| | 5,570 | 1,252 | 3,345 | 3,485 | 3,448 | 1,238,720 | 1,270,066 |

NOTE: UNDERLINE = CALCULATED CON SATION BASED UPON CHEMICAL USAGE

NPF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AMIDES | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 270 | 135 | 150 | 25 | 25 | | 135 | 110 | | | | | 850 |
| CALCIUM ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | 81 | 61 | | | | 142 |
| CARBONTHIOCYANATES | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 44 | 22 | 30 | | | | 22 | 22 | | | | | 140 |
| CHLORIDE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 35,078 | 18,725 | 18,985 | 22,573 | 62,111 | 28,481 | 8,553 | 19,491 | 26,652 | 29,560 | 31,188 | 30,483 | 331,890 |
| CHLOROSULFONES | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 210 | 105 | 120 | 17 | 17 | | 105 | 88 | | | | | 662 |
| HEXAVALENT CR | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 18 | | | 7 | 2 | 9 | 8 | | 5 | | 1 | | 50 |
| HYDROCARBONS | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 440 | 220 | 300 | | | | 220 | 220 | | | | | 1,400 |
| HYDROXYCARBONS | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 126 | 61 | 39 | 83 | 83 | | 83 | 22 | 22 | | | | 519 |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | 209 | 157 | | | | 366 |
| N-HYDROCARBON | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 184 | 81 | 184 | 184 | 184 | | 184 | 103 | 103 | | | | 1,207 |
| NAPTHA | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 10 | 5 | | 5 | 5 | | 5 | | | | | | 30 |
| PHOSPHATE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 918 | 622 | 769 | 425 | 444 | 958 | 420 | 1,606 | 538 | 3,421 | 473 | 421 | 11,015 |
| PHOSPHONATE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | | | | | 67 | 67 |
| POLYMETHACRYLATE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | | | | | 45 | 45 |
| POLYPHOSPHATE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | | | | | 157 | 157 |

WRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

AREA GRAND TOTALS

| SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SILICATE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 15 | 16 | 15 | | 5 | | | | | | | | 51 |
| SODIUM ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 19,929 | 12,286 | 11,441 | 25,184 | 16,024 | 18,326 | 19,503 | 16,976 | 15,428 | 19,726 | 15,826 | 15,355 | 206,004 |
| SULFATE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 23,381 | 44,715 | 39,273 | 48,906 | 32,524 | 45,600 | 28,057 | 61,917 | 36,140 | 87,141 | 27,297 | 47,493 | 522,444 |
| SULFONATE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | | | | | 45 | 45 |
| SULFONATES | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 370 | 374 | 351 | | 117 | | | | | | | | 1,212 |
| TDS | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 118,204 | | | | | | | 128,469 | | 199,537 | 112,256 | 133,909 | 692,375 |

| 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) | 2,311 | 2,090 | 1,389 | 3,705 | 1,944 | 1,655 | 1,637 | 2,961 | 1,418 | 1,626 | 1,338 | 1,140 | 23,214 |
| HYDROGEN-ION CONC. (PH) | 8.3 | 8.0 | 7.3 | 7.4 | 10.8 | 11.1 | 11.2 | 11.3 | 11.2 | 11.2 | 10.6 | 9.6 | 9.8 |
| WASTE DITCH SURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 9,746 | 7,108 | 9,450 | 10,200 | 8,220 | 13,530 | 8,410 | 27,540 | 12,660 | 34,220 | 10,520 | 15,310 | 166,914 |
| HYDROGEN-ION CONC. (PH) | 6.1 | 2.9 | 3.1 | 3.3 | 2.7 | 2.9 | 3.9 | 6.0 | 8.4 | 6.0 | 7.6 | 5.6 | 4.9 |
| AMIDES | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 3.32 | 2.27 | 1.90 | .29 | .36 | | 1.93 | .48 | | | | | .61 |
| WEIGHT (POUNDS) | 270 | 135 | 150 | 25 | 25 | | 135 | 110 | | | | | 850 |
| CALCIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | .35 | .58 | | | | .10 |
| WEIGHT (POUNDS) | | | | | | | | 81 | 61 | | | | 142 |
| CARBONTHIOCYANATES | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .54 | .37 | .38 | | | | .31 | .10 | | | | | .10 |
| WEIGHT (POUNDS) | 44 | 22 | 30 | | | | 22 | 22 | | | | | 140 |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 432.09 | 316.25 | 241.17 | 265.67 | 907.09 | 252.70 | 122.29 | 84.96 | 252.73 | 103.70 | 355.90 | 239.10 | 238.29 |
| WEIGHT (POUNDS) | 35,078 | 18,725 | 18,985 | 22,573 | 62,111 | 28,481 | 8,553 | 19,491 | 26,652 | 29,560 | 31,188 | 30,493 | 331,890 |
| CHLOROSULFONES | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2.57 | 1.76 | 1.52 | .20 | .24 | | 1.49 | .38 | | | | | .47 |
| WEIGHT (POUNDS) | 210 | 105 | 120 | 17 | 17 | | 105 | 88 | | | | | 662 |
| HEXAVALENT CR | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .22 | | | .08 | .03 | .08 | .11 | | .04 | | .01 | | .03 |
| WEIGHT (POUNDS) | 18 | | | 7 | 2 | 9 | 8 | | 5 | | 1 | | 50 |
| HYDROCARBONS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 5.41 | 3.71 | 3.80 | | | | 3.13 | .96 | | | | | 1.01 |
| WEIGHT (POUNDS) | 440 | 220 | 300 | | | | 220 | 220 | | | | | 1,400 |
| HYDROXYCARBONS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 1.55 | 1.02 | .50 | .97 | 1.20 | | 1.18 | .10 | .21 | | | | .37 |
| WEIGHT (POUNDS) | 126 | 61 | 39 | 83 | 83 | | 83 | 22 | 22 | | | | 519 |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | .91 | 1.48 | | | | .26 |
| WEIGHT (POUNDS) | | | | | | | | 209 | 157 | | | | 366 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

NRF LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

| RELEASE POINT DESCRIPTION / SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOT & AVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N-HYDROCARBON | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2.26 | 1.37 | 2.33 | 2.16 | 2.68 | | 2.62 | .45 | .97 | | | | .86 |
| WEIGHT (POUNDS) | 184 | 81 | 184 | 184 | 184 | | 184 | 103 | 103 | | | | 1,207 |
| NAPTHA | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .12 | .08 | | .06 | .07 | | .07 | | | | | | .02 |
| WEIGHT (POUNDS) | 10 | 5 | | 5 | 5 | | 5 | | | | | | 30 |
| PHOSPHATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 11.31 | 10.21 | 9.77 | 5.00 | 6.48 | 8.50 | 6.00 | 7.00 | 5.10 | 12.00 | 5.40 | 3.30 | 7.91 |
| WEIGHT (POUNDS) | 918 | 622 | 769 | 425 | 444 | 958 | 420 | 1,606 | 538 | 3,421 | 473 | 421 | 11,015 |
| PHOSPHONATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | | | | | .53 | .05 |
| WEIGHT (POUNDS) | | | | | | | | | | | | 67 | 67 |
| POLYMETHACRYLATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | | | | | .35 | .03 |
| WEIGHT (POUNDS) | | | | | | | | | | | | 45 | 45 |
| POLYPHOSPHATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | | | | | 1.23 | .11 |
| WEIGHT (POUNDS) | | | | | | | | | | | | 157 | 157 |
| SILICATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .19 | .26 | .18 | | .07 | | | | | | | | .04 |
| WEIGHT (POUNDS) | 15 | 16 | 15 | | 5 | | | | | | | | 51 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 245.47 | 207.50 | 145.34 | 296.40 | 234.01 | 162.60 | 278.40 | 74.00 | 146.30 | 69.20 | 180.60 | 120.40 | 147.90 |
| WEIGHT (POUNDS) | 19,929 | 12,286 | 11,441 | 25,184 | 16,024 | 18,326 | 19,503 | 16,976 | 15,428 | 19,726 | 15,826 | 15,355 | 206,004 |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 288.00 | 755.20 | 498.90 | 575.60 | 475.00 | 404.60 | 400.50 | 269.90 | 342.70 | 305.70 | 311.50 | 372.40 | 375.10 |
| WEIGHT (POUNDS) | 23,381 | 44,715 | 39,273 | 48,906 | 32,524 | 45,600 | 28,057 | 61,917 | 36,140 | 87,141 | 27,297 | 47,493 | 522,444 |
| SULFONATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | | | | | .35 | .03 |
| WEIGHT (POUNDS) | | | | | | | | | | | | 45 | 45 |
| SULFONATES | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 4.56 | 6.31 | 4.45 | | 1.71 | | | | | | | | .87 |
| WEIGHT (POUNDS) | 370 | 374 | 351 | | 117 | | | | | | | | 1,212 |

NOTE: UNDERLINE = CALCULATED C[illegible]NTRATION BASED UPON CHEMICAL USAGE

| RELEASE POINT DESCRIPTION<br>SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL<br>TOT & AVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TDS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 1456.00 | | | | | | | 560.00 | | 700.00 | 1281.00 | 1050.00 | 497.10 |
| WEIGHT (POUNDS) | 118,204 | | | | | | | 128,469 | | 199,537 | 112,256 | 133,909 | 692,375 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

NRF INDUSTRIAL WASTE SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

| 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 | | | | | | | 440.0 | | | | | | 440.0 |
| AMMONIUM HYDROXIDE | | | | | | | | | | | | | |
| CFA LANDFILL | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 510.0 | 442.8 | 530.0 | 480.0 | 381.5 | 250.0 | 375.9 | 258.1 | 111.1 | 461.4 | 225.0 | 220.0 | 4,245.8 |
| 2 Y SOLID | 104.0 | 118.0 | 166.9 | 144.0 | 112.0 | 80.0 | 144.0 | 80.0 | 32.0 | 104.0 | 96.0 | 64.0 | 1,244.9 |
| 3 Y SOLID | 25.0 | 28.3 | 14.4 | 15.2 | 56.4 | 22.7 | 4.5 | 35.2 | 8.1 | 18.8 | 248.0 | 50.9 | 527.5 |
| 4 Y SOLID | 24.7 | | | 36.3 | 58.6 | 51.3 | 10.0 | | 1.7 | 97.4 | 191.4 | 152.2 | 623.6 |
| 9 F SOLID | | | | | | | | | 160.0 | | | | 160.0 |
| PLANTS, DIRT, AND CONCRETE | | | | | | | | | | | | | |
| CFA OIL DEPOT | | | | | | | | | | | | | |
| STORED WASTE | | | | | | | | | | | | | |
| 6 K LIQUID | | 1,300.0 | 1,650.0 | 950.0 | | 500.0 | 80.0 | | | | 1,100.0 | | 5,580.0 |
| WASTE OIL | | | | | | | | | | | | | |
| CFA OILDEPOT | | | | | | | | | | | | | |
| STORED WASTE | | | | | | | | | | | | | |
| 6 K LIQUID | 1,200.0 | | | | | | | | | | | | 1,200.0 |
| WASTE OIL | | | | | | | | | | | | | |
| CFA SCRAPYARD | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 5 Y SOLID | 3.0 | 14.1 | 8.5 | 18.7 | 22.8 | 6.2 | 18.6 | 3.7 | 14.8 | 7.6 | 103.3 | 83.1 | 304.4 |
| GRAND TOTALS | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 510.0 | 442.8 | 530.0 | 480.0 | 381.5 | 250.0 | 375.9 | 258.1 | 111.1 | 461.4 | 225.0 | 220.0 | 4,245.8 |
| 2 Y SOLID | 104.0 | 118.0 | 166.9 | 144.0 | 112.0 | 80.0 | 144.0 | 80.0 | 32.0 | 104.0 | 96.0 | 64.0 | 1,244.9 |
| 3 Y SOLID | 25.0 | 28.3 | 14.4 | 15.2 | 56.4 | 22.7 | 4.5 | 35.2 | 8.1 | 18.8 | 248.0 | 50.9 | 527.5 |
| 4 Y SOLID | 24.7 | | | 36.3 | 58.6 | 51.3 | 10.0 | | 1.7 | 97.4 | 191.4 | 152.2 | 623.6 |
| 5 Y SOLID | 3.0 | 14.1 | 8.5 | 18.7 | 22.8 | 6.2 | 18.6 | 3.7 | 14.8 | 7.6 | 103.3 | 83.1 | 304.4 |
| 8 K LIQUID | | | | | | | 440.0 | | | | | | 440.0 |
| 9 F SOLID | | | | | | | | | 160.0 | | | | 160.0 |
| STORED WASTE | | | | | | | | | | | | | |
| 6 K LIQUID | 1,200.0 | 1,300.0 | 1,650.0 | 950.0 | | 500.0 | 80.0 | | | | 1,100.0 | | 6,780.0 |

| WEL BUILDING NO. / SEWAGE BUILDING NO. | JAN | FEB | MAR | APR | MAY | JUN | JUL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WATER DATA** | | | | | | | | | | | | | |
| 1 WATER PUMPED (GAL) | 18,460 | 23,160 | 32,120 | 32,420 | 27,300 | 44,050 | 41,380 | 37,700 | 39,270 | 55,650 | 39,640 | 17, | 408,930 |
| 2 WATER PUMPED (GAL) | 81 | 15 | 34 | 138 | 43 | 611 | 10,530 | 410 | 453 | 4,455 | 871 | 4 | 17,645 |
| 3 WATER PUMPED (GAL) | 264 | 375 | 1,595 | 3,409 | 1,150 | 4,474 | 4,444 | 2,800 | 2,151 | 4,708 | 6 | 5,687 | 31,063 |
| TOTAL WATER PUMPED (GAL) | 18,805 | 23,550 | 33,749 | 35,967 | 28,493 | 49,135 | 56,354 | 40,910 | 41,874 | 64,813 | 40,517 | 23,471 | 457,638 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) * | 6,071 | 12,920 | 20,620 | 19,900 | 16,500 | 30,560 | 41,670 | 9,368 | 25,020 | 26,070 | 25,790 | 6,320 | 240,809 |
| SURFACE (GAL) * | 9,746 | 7,108 | 9,450 | 10,200 | 8,220 | 13,530 | 13,040 | 28,580 | 15,400 | 34,220 | 10,520 | 15,310 | 175,324 |
| SUBSURFACE (GAL) | | | | | | | | | | | | | |
| **SEWAGE DATA** | | | | | | | | | | | | | |
| BUILD VOL. (GAL) | 2,311 | 2,090 | 1,389 | 3,705 | 1,944 | 1,655 | 1,638 | 2,961 | 1,418 | 1,626 | 1,338 | 1,140 | 23,215 |
| BIOCHEMICAL OXYGEN DEMAND (BOD) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | 82.6 | 98.5 | 67.0 | 41.4 | 38.9 | 50.9 | 21.3 | 17.6 | 24.2 | 9.8 | 12.5 | 18.0 | 40.2 |
| FINAL CONC. (PPM) | | | | | | | | | | | | | |
| % REMOVED | | | | | | | | | | | | | |
| DISSOLVED OXYGEN (DO) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | | | | .8 | 9.4 | 11.9 | 10.7 | 14.4 | 13.8 | 17.5 | 11.3 | .2 | 10.0 |
| FINAL CONC. (PPM) | | | | | | | | | | | | | |
| INCREASED FACTOR | | | | | | | | | | | | | |
| SETTLEABLE SOLIDS (SS) | | | | | | | | | | | | | |
| RAW CONC. (ML/L) | | | | | | | | | | | | | |
| FINAL CONC. (ML/L) | | | | | | | | | | | | | |
| % REMOVED | | | | | | | | | | | | | |
| PH-FINAL | 8.3 | 8.0 | 7.3 | 7.4 | | | | | | | | 9.6 | 8.1 |
| TOTAL SEWAGE VOL. (GAL) | 2,311 | 2,090 | 1,389 | 3,705 | 1,944 | 1,655 | 1,638 | 2,961 | 1,418 | 1,626 | 1,338 | 1,140 | 23,215 |
| TOTAL WATER DISPOSED (GAL) | 18,128 | 22,118 | 31,459 | 33,805 | 26,664 | 45,745 | 56,348 | 40,909 | 41,838 | 61,916 | 37,648 | 22,770 | 439,348 |
| ACCOUNTABILITY (%) | 96.4 | 93.9 | 93.2 | 94.0 | 93.6 | 93.1 | 100.0 | 100.0 | 99.9 | 95.5 | 92.9 | 97.0 | 96.0 |

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

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



NRF FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(ALL VALUES = NEAREST THOUSAND)

| FUEL OIL TYPE EFFLUENTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TYPE 5 | | | | | | | | | | | | | |
| VOLUME (GAL) | 176 | 130 | 133 | 95 | 75 | 26 | | 12 | 18 | 80 | 124 | 135 | 1, |
| SO2 (LBS) | 23 | 19 | 8 | 37 | 14 | 7 | | 1 | 3 | 10 | 17 | 17 | |
| NOX (LBS) | 5 | 4 | 4 | 3 | 2 | 1 | | | | 2 | 3 | 4 | |
| PARTICULATES (LBS) | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 2 | |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | 23 | 19 | 8 | 37 | 14 | 7 | | 1 | 3 | 10 | 17 | 17 | |
| NOX (LBS) | 5 | 4 | 4 | 3 | 2 | 1 | | | | 2 | 3 | 4 | |
| PARTICULATES (LBS) | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 2 | |

SCHED. NC. INF6166-A

U. S. ENERGY
INEL INDUSTRIAL WASTE

ANC AIRBORNE DIS 9 SUBSTAN
FOR JANUARY GH DECEMBER 1977

| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEXAVALENT CR WEIGHT (POUNDS) | 3 | 3 | 1 | 3 | 4 | 4 | 4 | 3 | | 3 | | 4 | 32 |
| ZINC ION WEIGHT (POUNDS) | | | | | | | | | | | | | |

| RELEASE POINT DESCRIPTION<br>SUBSTANCE | JAN<br>JUL | FEB<br>AUG | MAR<br>SEP | APR<br>OCT | MAY<br>NOV | JUN<br>DEC | ANNUAL<br>TOT & AVE |
|---|---|---|---|---|---|---|---|
| COOLING TOWER 757 | | | | | | | |
| VOLUME (CU.FT. IN 1000) | 11,162 | 15,368 | 3,867 | 14,451 | 17,119 | 15,480 | |
| | 18,120 | 12,969 | 1,891 | 13,393 | 16,978 | 15,990 | 156,788 |
| HEXAVALENT CR | | | | | | | |
| CONCENTRATION (PPM) | 5.48 | 5.35 | 5.47 | 5.38 | 5.41 | 5.37 | |
| | 5.38 | 5.37 | 5.35 | 5.38 | .54 | 5.38 | 4.86 |
| WEIGHT (POUNDS) | 3 | 3 | 1 | 3 | 4 | 4 | |
| | 4 | 3 | 0 | 3 | 0 | 4 | 32 |
| ZINC ION | | | | | | | |
| CONCENTRATION (PPM) | .42 | .46 | .30 | .37 | .36 | .36 | |
| | .32 | .33 | .37 | .34 | .46 | .36 | .38 |
| WEIGHT (POUNDS) | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

SCHED. NC. INF6166-C

U. S. ENE
INEL INDUSTRIAL WA

ANL LIQUID DISP D SUBS
FOR JANUARY IGH DECEMBER

| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AMIDES | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | 18 | 10 | 18 | 18 | 18 | 2 | 9 | | 111 |
| CALCIUM ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 32 | 42 | 97 |
| CARBONTHIOCYANATES | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | 4 | 2 | 4 | 4 | 4 | | 2 | 4 | 24 |
| CHLORIDE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 22 | 27 | 129 |
| CHLOROSULFONES | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | 14 | 8 | 14 | 14 | 14 | 2 | 7 | 14 | 8 |
| DIMETHYLAMINE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 30 | 50 | 15 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 5 |
| DIPHOSPHONATE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | 17 | | | | | |
| HYDROCARBON-AMINES | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 4 | 1 | 5 | 2 | 2 | | 1 | 2 | 1 | 3 | 5 | 2 | |
| HYDROCARBONS | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | 36 | 20 | 36 | 36 | 36 | 4 | 18 | 36 | |
| HYDROXYCARBONS | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | 29 | | | | | |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | | | | | | | | | | | 20 | 27 | |
| MORPHOLINE | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 81 | 36 | 39 | 49 | 38 | 32 | 53 | 34 | 51 | 34 | 103 | 87 | |
| PHOSPHATE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 16 | 19 | 7 | 22 | 100 | 115 | 228 | 19 | 148 | 141 | 145 | 143 | |
| PHOTO LAB CHEMICAL | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 440 | 440 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 47 | |
| SODIUM ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 2,646 | 2,873 | 371 | 6,873 | 2,199 | 8,293 | 2,825 | 1,830 | 1,329 | 1,446 | 6,409 | 9 | |

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

| AREA GRAND TOTALS SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SULFATE ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 7,678 | 12,060 | 3,812 | 13,040 | 13,020 | 14,710 | 16,690 | 12,190 | 11,340 | 22,420 | 9,592 | 11,510 | 148,062 |
| TRIVALENT CR | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 56 | 65 | 24 | 77 | 85 | 95 | 97 | 66 | 97 | 60 | 88 | 66 | 876 |
| ZINC ION | | | | | | | | | | | | | |
| WEIGHT (POUNDS) | 18 | 20 | 7 | 24 | 27 | 30 | 30 | 21 | 30 | 19 | 27 | 21 | 274 |

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| 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) | 778 | 727 | 846 | 670 | 877 | 1,003 | 1,031 | 1,066 | 1,000 | 1,220 | 1,001 | 1,024 | 11,243 |
| HYDROGEN-ION CONC. (PH) | | | | 10.9 | | | | | | | | | 10.9 |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 1.23 | 1.32 | 1.13 | 1.43 | 1.09 | .96 | .93 | .90 | .96 | .79 | .96 | .94 | 1.02 |
| WEIGHT (POUNDS) | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 96 |
| INDUSTRIAL POND 746 SURFACE | | | | | | | | | | | | | |
| VOLUME (GAL. IN 1000) | 2,836 | 1,991 | 248 | 2,554 | 3,000 | 2,953 | 3,717 | 3,935 | 2,938 | 1,259 | 2,190 | 2,718 | 30,339 |
| HYDROGEN-ION CONC. (PH) | | | | | | | | | | | | | |
| AMIDES | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | .72 | .41 | .58 | .55 | .73 | .21 | .49 | .79 | .44 |
| WEIGHT (POUNDS) | | | | | 18 | 10 | 18 | 18 | 18 | 2 | 9 | 18 | 111 |
| CALCIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .07 | .17 | .77 | .09 | .08 | .08 | .08 | .07 | .10 | .31 | 1.75 | 1.86 | .38 |
| WEIGHT (POUNDS) | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 32 | 42 | 97 |
| CARBONTHIOCYANATES | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | .14 | .08 | .12 | .11 | .15 | .04 | .10 | .16 | .09 |
| WEIGHT (POUNDS) | | | | | 4 | 2 | 4 | 4 | 4 | | 2 | 4 | 24 |
| CHLORIDE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | | | | .75 | .82 | .13 |
| WEIGHT (POUNDS) | | | | | | | | | | | 14 | 19 | 33 |
| CHLOROSULFONES | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | .58 | .32 | .46 | .44 | .59 | .17 | .39 | .63 | .35 |
| WEIGHT (POUNDS) | | | | | 14 | 8 | 14 | 14 | 14 | 2 | 7 | 14 | 87 |
| DIMETHYLAMINE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 1.27 | 3.01 | 7.26 | 2.35 | 2.00 | 2.03 | 1.61 | 1.52 | 2.04 | 4.76 | 2.74 | 2.20 | 2.15 |
| WEIGHT (POUNDS) | 30 | 50 | 15 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 545 |
| DIPHOSPHONATE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | .53 | | | | | .07 |
| WEIGHT (POUNDS) | | | | | | | | 17 | | | | | 17 |
| HYDROCARBON-AMINES | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .18 | .05 | 2.48 | .08 | .06 | | .03 | .06 | .05 | .24 | .27 | .09 | .11 |
| WEIGHT (POUNDS) | 4 | 1 | 5 | 2 | 2 | | 1 | 2 | 1 | 3 | 5 | 2 | 28 |

NOTE: UNDERLINE = CALCULATED CONCENTRATION BASED UPON CHEMICAL USAGE

ANL LIQUID DISPOSED SUBSTANCES SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



| RELEASE POINT DESCRIPTION<br>SUBSTANCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL TOT & AVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HYDROCARBONS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | 1.44 | .81 | 1.16 | 1.10 | 1.47 | .43 | .98 | 1.59 | .89 |
| WEIGHT (POUNDS) | | | | | 36 | 20 | 36 | 36 | 36 | 4 | 18 | 36 | 222 |
| HYDROXYCARBONS | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | .88 | | | | | .11 |
| WEIGHT (POUNDS) | | | | | | | | 29 | | | | | 29 |
| HYPOCHLORITE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | | | | | | | | | | | 1.09 | 1.19 | .19 |
| WEIGHT (POUNDS) | | | | | | | | | | | 20 | 27 | 47 |
| MORPHOLINE | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 3.43 | 2.18 | 19.02 | 2.30 | 1.54 | 1.30 | 1.71 | 1.04 | 2.08 | 3.28 | 5.62 | 3.84 | 2.52 |
| WEIGHT (POUNDS) | 81 | 36 | 39 | 49 | 38 | 32 | 53 | 34 | 51 | 34 | 103 | 87 | 637 |
| PHOSPHATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .68 | 1.14 | 3.39 | 1.03 | 4.01 | 4.66 | 7.34 | .57 | 6.02 | 13.42 | 7.93 | 6.30 | 4.35 |
| WEIGHT (POUNDS) | 16 | 19 | 7 | 22 | 100 | 115 | 228 | 19 | 148 | 141 | 145 | 143 | 1,103 |
| PHOTO LAB CHEMICAL | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 18.59 | 26.48 | 227.46 | 22.05 | 18.77 | 19.07 | 15.15 | 14.31 | 19.17 | 44.73 | 25.72 | 20.72 | 22.04 |
| WEIGHT (POUNDS) | 440 | 440 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 470 | 5,580 |
| SODIUM ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 111.80 | 172.91 | 179.55 | 322.47 | 87.83 | 336.52 | 91.07 | 55.71 | 54.20 | 137.63 | 350.68 | 41.81 | 150.27 |
| WEIGHT (POUNDS) | 2,646 | 2,873 | 371 | 6,873 | 2,199 | 8,293 | 2,825 | 1,830 | 1,329 | 1,446 | 6,409 | 948 | 38,042 |
| SULFATE ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 324.42 | 725.84 | 1844.87 | 611.81 | 520.06 | 556.91 | 538.06 | 371.21 | 462.51 | 2133.89 | 524.84 | 507.45 | 584.85 |
| WEIGHT (POUNDS) | 7,678 | 12,060 | 3,812 | 13,040 | 13,020 | 14,710 | 16,690 | 12,190 | 11,340 | 22,420 | 9,592 | 11,510 | 148,062 |
| TRIVALENT CR | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | 2.37 | 3.91 | 11.62 | 3.61 | 3.40 | 3.84 | 3.13 | 2.02 | 3.96 | 5.71 | 4.79 | 2.92 | 3.46 |
| WEIGHT (POUNDS) | 56 | 65 | 24 | 77 | 85 | 95 | 97 | 66 | 97 | 60 | 88 | 66 | 876 |
| ZINC ION | | | | | | | | | | | | | |
| CONCENTRATION (PPM) | .76 | 1.20 | 3.58 | 1.13 | 1.07 | 1.21 | .98 | .63 | 1.24 | 1.79 | 1.50 | .92 | 1.08 |
| WEIGHT (POUNDS) | 18 | 20 | 7 | 24 | 27 | 30 | 30 | 21 | 30 | 19 | 27 | 21 | 274 |

NOTE: UNDERLINE = CALCULATED CONC' ATION BASED UPON CHEMICAL USAGE

| DISPOSAL OR STORAGE LOCATION<br>TYPE OF WASTE | JAN | FEB | MAR | APR | MAY | VOLUME OR WEIGHT BY MONTH<br>JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANL BOILERS | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 6 K LIQUID | | | 17.0 | | | | | | | | | | 17.0 |
| OIL | | | | | | | | | | | | | |
| 6 K LIQUID | | | | 10.0 | 10.0 | | | | | | | | 20.0 |
| WASTE OIL | | | | | | | | | | | | | |
| 6 K LIQUID | | | | | | | | | | 1,543.0 | | 75.0 | 1,618.0 |
| WASTE OIL FROM EBR-II TURBINE | | | | | | | | | | | | | |
| CFA LANDFILL | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 160.0 | 160.0 | 200.0 | 160.0 | 80.0 | 160.0 | 160.0 | 160.0 | 160.0 | 170.0 | 160.0 | 160.0 | 1,890.0 |
| 2 Y SOLID | 32.0 | 32.0 | 40.0 | 24.0 | 16.0 | 32.0 | 32.0 | 64.0 | 32.0 | 40.0 | 32.0 | 32.0 | 408.0 |
| GRAND TOTALS | | | | | | | | | | | | | |
| DISPOSED WASTE | | | | | | | | | | | | | |
| 1 Y SOLID | 160.0 | 160.0 | 200.0 | 160.0 | 80.0 | 160.0 | 160.0 | 160.0 | 160.0 | 170.0 | 160.0 | 160.0 | 1,890.0 |
| 2 Y SOLID | 32.0 | 32.0 | 40.0 | 24.0 | 16.0 | 32.0 | 32.0 | 64.0 | 32.0 | 40.0 | 32.0 | 32.0 | 408.0 |
| 6 K LIQUID | | | 17.0 | 10.0 | 10.0 | | | | | 1,543.0 | | 75.0 | 1,655.0 |

ANL WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

(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) | 3,736 | 4,498 | 2,030 | 5,300 | 6,085 | 6,908 | 8,211 | 5,930 | 7,096 | 5,274 | 5,437 | 5,233 | 65,738 |
| 2 WATER PUMPED (GAL) | 3,736 | 4,498 | 2,030 | 5,300 | 6,085 | 6,908 | 8,211 | 5,930 | 7,096 | 5,274 | 5,437 | 5,233 | 65,738 |
| TOTAL WATER PUMPED (GAL) | 7,472 | 8,996 | 4,060 | 10,600 | 12,170 | 13,816 | 16,422 | 11,860 | 14,192 | 10,548 | 10,874 | 10,466 | 131,476 |
| WATER DISPOSAL | | | | | | | | | | | | | |
| AIR (GAL) | 2,862 | 3,926 | 2,560 | 6,302 | 7,500 | 8,721 | 9,900 | 5,867 | 8,660 | 5,240 | 5,864 | 5,890 | 73,292 |
| SURFACE (GAL) | 2,836 | 1,991 | 248 | 2,554 | 3,000 | 2,953 | 3,717 | 3,935 | 2,938 | 1,259 | 2,190 | 2,718 | 30,339 |
| 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 INDICAT[illegible] PORTION OF VOLUME IS ESTIMATED

ANL WATER USAGE AND DISPOSAL SUMMARY
FOR JANUARY THROUGH DECEMBER 1977

(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) | 776 | 727 | 846 | 670 | 877 | 1,003 | 1,031 | 1,066 | 1,000 | 1,220 | 1,001 | 1,024 | 11,243 |
| BIOCHEMICAL OXYGEN DEMAND (BOD) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | | | | 121.2 | 162.0 | 126.0 | 114.0 | 123.0 | 58.9 | 100.0 | | | 115.0 |
| FINAL CONC. (PPM) | | | | 29.8 | 29.7 | 32.1 | 53.5 | 38.9 | 54.2 | 51.2 | | | 41.3 |
| % REMOVED | | | | 75.4 | 81.7 | 74.5 | 53.1 | 68.4 | 8.0 | 48.8 | | | 64.1 |
| DISSOLVED OXYGEN (DO) | | | | | | | | | | | | | |
| RAW CONC. (PPM) | | | | .5 | | .1 | .1 | .3 | | .2 | | | .2 |
| FINAL CONC. (PPM) | | | | 10.2 | 6.8 | 3.7 | | .1 | .5 | 9.2 | | | 5.1 |
| INCREASED FACTOR | | | | 19.4 | | 36.0 | | -.7 | | 45.0 | | | |
| SETTLEABLE SOLIDS (SS) | | | | | | | | | | | | | |
| RAW CONC. (ML/L) | | | | | | | | | | | | | |
| FINAL CONC. (ML/L) | | | | | | | | | | | | | |
| % REMOVED | | | | | | | | | | | | | |
| PH-FINAL | | | | | 9.6 | 8.7 | 9.3 | 9.5 | | | | | 9.3 |
| TOTAL SEWAGE VOL. (GAL) | 790 | 739 | 858 | 682 | 889 | 1,015 | 1,043 | 1,078 | 1,012 | 1,232 | 1,013 | 1,036 | 11,387 |
| TOTAL WATER DISPOSED (GAL) | 6,488 | 6,656 | 3,666 | 9,538 | 11,389 | 12,689 | 14,660 | 10,880 | 12,610 | 7,731 | 9,067 | 9,644 | 115,018 |
| ACCOUNTABILITY (%) | 86.8 | 74.0 | 90.3 | 90.0 | 93.6 | 91.8 | 89.3 | 91.7 | 88.9 | 73.3 | 83.4 | 92.1 | 87.5 |

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



ANL FUEL OIL USAGE AND STACK EFFLUENTS SUMMARY
FOR JANUARY THROUGH DECEMBER 1977



(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) | 89 | 33 | 78 | 25 | 13 | 11 | 7 | 16 | 4 | 25 | 22 | 39 | 362 |
| SO2 (LBS) | 5 | 2 | 4 | 1 | 1 | 1 | | 1 | | 1 | 1 | 2 | 19 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | 1 | | 1 | | | | | | | | | | 2 |
| GRAND TOTALS | | | | | | | | | | | | | |
| SO2 (LBS) | 5 | 2 | 4 | 1 | 1 | 1 | | 1 | | 1 | 1 | 2 | 19 |
| NOX (LBS) | | | | | | | | | | | | | |
| PARTICULATES (LBS) | 1 | | 1 | | | | | | | | | | 2 |