Document Discussion

ENTERED

Return To Library > Records 2 > ERID-109500 through ERID-109999 > ERID-109806 1) WASTEWATER STREAM CHARACTERIZATION FOR TA-16-430, 2) ATTACHED CD

| | |
|---|---|
| Created By: | Aurelia A. Martinez/USERS/LANL |
| File name: | Master-Media Target.pdf |
| Version: | 1.0 |
| Document Type: | RPF Record |
| Description: | N/A |

**Document Details:**

| | |
|---|---|
| **Title:** | ERID-109806 1) WASTEWATER STREAM CHARACTERIZATION FOR TA-16-430, 2) ATTACHED CD |
| **Log ID:** | 657 |
| **ERID Number.StartPage:** | 109806 |
| **Transmitted By:** | GLENDA FRED |
| **Office of Record:** | Business & Project Services |
| **Date Received:** | 06/30/2010 |
| **Official Use Only:** | N |
| **Page Count:** | 19 |
| **Record Type:** | Letter |
| **Document Date:** | 03/01/92 |
| **To:(Addressees - Organization)** | N/A |
| **From:(Senders - Organization)** | SANTA FE ENGINEERING' |
| **Other Document Number(s):** | PKG-1726 |
| **TA:** | TA-16 |

*October 22nd, 2009*

*** Denotes Fields that are mandatory.**

To download this file, right mouse click on the file and select 'Save to Disk' or 'Save Target as'

Master-Media Target.pdf <-- This link points to this version.

To check-out and/or edit this file, select Edit Document or Check Out Document from the Document menu above.

File Cabinet: Records 2

Binder Category: ERID-100000 through ERID-109999

Binder: ERID-109500 through ERID-109999

33931

# WASTEWATER STREAM CHARACTERIZATION FOR TA 16-430

ENVIRONMENTAL STUDY

prepared for:
THE LOS ALAMOS NATIONAL LABORATORY
Los Alamos, New Mexico

under subcontract 9-XG8-2874P-1

by:
Santa Fe Engineering, Ltd.
P.O. Box 1764
Santa Fe, New Mexico 87504
(505) 988-7438

Engineering and Information Resources (WX-12)
Los Alamos National Laboratory
Los Alamos, New Mexico 87545
(505) 665-2510

March, 1992

## EXECUTIVE SUMMARY

Building 16-430 was visited to document all drain piping and to make permitting recommendations. Forty pipes were found exiting the building, as follows: fifteen vapor vents, five fire water drains, three combined storm water and floor drain discharges, four floor drain discharges, three High Explosives (HE) sump drain pipes, one steam condensate discharge, one French drain, seven pipes not connected inside the building and one discharge to the TA-16 sanitary treatment plant (03S).

A revised EPA Form 2C is included for one HE outfall. Flows shown on the forms are estimated from site observations and discussions with users and analytical data are defined from information obtained from previously sampled outfalls.

Recommendations for repiping are provided to permit outfall consolidation to minimize permit maintenance requirements and to bring the facility into compliance with the Laboratory's NPDES Permit. Floor drain plugging and spill containment are recommended where the potential for discharge of pollutants exists.

A waste stream database has been prepared listing wastewater type and flow rate for each outfall.

## TABLE OF CONTENTS


| | | |
|---|---|---|
| **1.0** | **INTRODUCTION** | 1 |
| **2.0** | **FIELD INVESTIGATION** | 3 |
| **3.0** | **RECOMMENDATIONS** | 4 |
| 3.1 | Outfall 16-430-OPN-1 | 4 |
| 3.2 | Outfall 16-430-OPN-2 | 4 |
| 3.3 | Outfall 16-430-OPN-3 | 4 |
| 3.4 | Outfall 16-430-OPN-4 | 5 |
| 3.5 | Outfall 16-430-OPN-5 | 5 |
| 3.6 | Outfall 16-430-OPN-6 | 5 |
| 3.7 | Outfall 16-430-OPN-7 | 6 |
| 3.8 | Outfall 16-430-OPN-8 | 6 |
| 3.9 | Outfall 16-430-OPN-9 | 6 |
| 3.10 | Outfalls 16-430-OPN-10, 16-430-OPN-20, 16-430-OPN-21, 16-430-OPN-24, 16-430-OPN-26, 16-430-OPN-36 and 16-430-OPN-37 | 6 |
| 3.11 | Outfall 16-430-OPN-11 | 6 |
| 3.12 | Outfall 16-430-OPN-12 | 7 |
| 3.13 | Outfall 16-430-OPN-13 | 7 |
| 3.14 | Outfall 16-430-OPN-14 | 7 |
| 3.15 | Outfalls 16-430-OPN-15, 16-430-OPN-16, 16-430-OPN-17, 16-430-OPN-18 and 16-430-OPN-27 | 7 |
| 3.16 | Outfalls 16-430-OPN-19, 16-430-OPN-22, 16-430-OPN-23, 16-430-OPN-25, 16-430-OPN-28, 16-430-OPN-29, 16-430-OPN-30, 16-430-OPN-31, 16-430-OPN-32, 16-430-OPN-33, 16-430-OPN-34, 16-430-OPN-35, 16-430-OPN-38, 16-430-OPN-39 and 16-430-OPN-40 | 7 |
| **4.0** | **CONCLUSION** | 8 |

## APPENDICES

Appendix 1 - DRAIN SUMMARY TABLES
Appendix 2 - WASTE STREAM CHARACTERIZATION DATABASE
Appendix 3 - EPA FORMS
Appendix 4 - WX-12 DRAWINGS AND DYE STUDY INFORMATION
Appendix 5 - DRAINS SCHEMATICS

## LIST OF TABLES

1. TA 16-430 DRAIN SUMMARY
2. SUMMARY OF ABBREVIATIONS

## LIST OF FIGURES

1. TA 16-430 BUILDING DRAIN SCHEMATIC

## 1.0 INTRODUCTION

On December 14, 1990, Scott Carson and Patrick Binkley of Santa Fe Engineering (SFE) toured building 430 in TA-16 with Loren Abercrombie of Engineering and Information Resources (WX-12). The purpose of this study is to identify building drain piping, locate outfalls which discharge into the environment and to characterize the wastewater flows and sources existing at the time of the visit. This report will not reflect any subsequent changes in piping or operation. The Waste Stream Characterization Policy was followed for this study. The following tasks were performed for this purpose:

1. Building drains and all piping exiting the building were identified and laid out in schematic form;

2. Wastewater sources were identified at each drain and the wastewater was characterized according to flow rate and quality. The location of outfalls and their potential sources of discharges were determined. Potential pollutants were also noted;

3. Permit applications for discharges of clean water were not prepared since these discharges do not require permitting at this time and

4. Potential problems were identified and recommendations were made for repiping, floor drain plugging and spill containment where deemed appropriate.

The field investigation proceeded using the WX-12 drawings during a site visit to verify the SFE schematics and to insure that all pipes exiting the building were documented. The following information was used to define drain piping and characterize the wastewater streams:

1. Laboratory engineering drawings were used to prepare both WX-12 drawings and the SFE drain piping schematic. The Solid Waste Stream Characterization conducted by IT Corporation was reviewed. The National Pollutant Discharge Elimination System (NPDES) Permit, the 1990 NPDES Permit Application submitted by Los Alamos National Laboratory (LANL) in September, 1990, the latest Federal Facilities Compliance Agreement (FFCA) between the Department of Engery (DOE) and the Environmental Protection Agency (EPA) and the Administrative Order (AO) Docket Number VI-91-1329 were used for reference;

2. WX-12 verified drain piping by dye checking and

3. A site visit was performed to verify both WX-12 drawings and the SFE drain schematic and to identify potential outfall pipes exiting the building. The visit entailed a room by room inspection of wastewater sources and drains and interviews with site personnel to assist in wastestream characterization.

## 2.0 FIELD INVESTIGATION

The pipes exiting the buildings have been assigned an Outlet Piping Number. The four part number, sequentially, identifies the Technical Area where the pipe is located, the building from which the pipe discharges, the letters OPN to indicate that it is an outlet pipe number and the unique number for the pipe. The piping exiting the building will be labeled for easy identification in the future.

Each drain has a unique identification number. Each number consists of three parts. The first part is the floor the drain is on. The second part has letters that indicate the drain type (abbreviations used are summarized in Table 2). The final part is a unique number for each drain. For example, the floor drain numbering on the first floor would start with 1FD1. The roof drains do not have the number identifying the floor such as RD1 for Roof Drain 1.

The function of each pipe is listed in Appendix 1 in Table 1 with an abbreviations list in Table 2. Appendix 2 contains the waste stream characterization database output, listing wastewater sources, flow rates and periodicity information for each outfall drain. Completed EPA Forms are in Appendix 3 for the appropriate outfalls. Appendix 4 contains a set of the WX-12 drawings and a table of the drains dye studied by WX-12. A flow schematic of the drains is attached in Appendix 5 as Figure 1.

## 3.0 RECOMMENDATIONS

Table 1 is a list of the drains to the building outfalls. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

### 3.1 Outfall 16-430-OPN-1

This outfall is permitted as 03A060 and flows to daylight. Repiping of drains 1EWD1, 1FD2, 1FD3 and 1FD5 to the sanitary sewer is recommended. Drain 1FD1 is in the battery room. To eliminate the chance of battery acid accidently being discharged through this outfall, plugging of this drain is recommended. Drain 1FD4 is in a rest room and should be plugged to eliminate the chance of sanitary waste being discharged without treatment. Only storm water will flow out the outfall after piping changes are made. No permitting is recommended and no EPA forms were prepared.

### 3.2 Outfall 16-430-OPN-2

This outfall goes to the TA-16 sanitary treatment plant, which discharges as 03S. All of the listed drains are correct for this outfall and no changes are recommended. No EPA forms were prepared for this outfall as it does not discharge directly to the environment.

### 3.3 Outfall 16-430-OPN-3

This daylight outfall is made up of roof drains and equipment room floor drains. Plugging of 2FD3 and 2FD4 will make this a storm water outfall. No permitting is recommended and no EPA forms were completed.

### 3.4 Outfall 16-430-OPN-4

This unpermitted outfall flows to daylight and is primarily made up of floor washings from around the high explosives (HE) press in Bay 5 via Sump 3. This outfall should be combined with outfalls OPN-5 and OPN-11. An EPA Form 2C is attached for the combined outfall as 05A071.

### 3.5 Outfall 16-430-OPN-5

This outfall daylights and receives floor washings from around the HE presses in Bays 2, 3 and 4 via Sump 2. This outfall is appropriately permitted as 05A071. This outfall should be combined with OPN-4 and OPN-11. In Appendix 2, hydraulic oil is listed as being drained to the outfall only for Bay 3. In this bay, the presses are not in a pit as in the other four bays. Secondary containment is needed around these presses. The oil potential for the other four bays is in the pits not from the floor washings. An EPA Form 2C is attached for the combined outfall as 05A071.

### 3.6 Outfall 16-430-OPN-6

This outfall daylights and receives drainage from around the bottom of the HE presses through drains 1PD5, 1PD6 and 1PD7 in Bays 5, 4 and 2, respectively. The hydraulic systems for each HE press are near these three drains and each presents a chance for oil to discharge through this outfall. All of the drains to this outfall should be plugged to eliminate the chance of oil discharging to the environment. No permitting is recommended and no EPA forms were prepared.

3.7 Outfall 16-430-OPN-7

This outfall flows to daylight. The drains in this outfall could all possibly receive HE. All drains to this outfall should be plugged. No permitting is recommended and no EPA forms were completed.

3.8 Outfall 16-430-OPN-8

A French drain system is installed around the Bay 1 pit and sump. The system discharges to daylight through 16-430-OPN-8. The water leaving it should be uncontaminated ground water. Sampling of the water for contamination is recommended. Permitting is not recommended and no EPA forms were prepared.

3.9 Outfall 16-430-OPN-9

This outfall drains oil and possibly HE from around the press in Bay 1 to daylight. This drain should be plugged and an alarm installed to indicate an oil spill. No permitting is recommended and no EPA forms were prepared.

3.10 Outfalls 16-430-OPN-10, 16-430-OPN-20, 16-430-OPN-21, 16-430-OPN-24, 16-430-OPN-26, 16-430-OPN-36 and 16-430-OPN-37

These seven pipes are either not connected or are blinded. Plugging, capping or removal of these pipes is recommended to insure no discharge. No permitting is needed and no EPA forms were prepared.

3.11 Outfall 16-430-OPN-11

This outfall is from HE Sump 1 and flows to daylight. HE washed off the floor in Bay 1 goes to this sump. This outfall should be combined with OPN-4 and OPN-5. An EPA Form 2C is attached for the combined as 05A071.

3.12 Outfall 16-430-OPN-12

Steam condensate from the Bay 1 pit is discharged to daylight at 16-430-OPN-12. This outfall should be included under a Notice of Intent to Discharge (NOI). No EPA forms were prepared.

3.13 Outfall 16-430-OPN-13

This outfall to daylight receives water from three roof drains (RD3, RD4 and RD5) and from two floor drains (2FD5 and 2FD6). It is recommended that the two floor drains be repiped to sanitary sewer or plugged making 16-430-OPN-13 all storm water. No EPA forms were prepared.

3.14 Outfall 16-430-OPN-14

This outfall to daylight receives water from a steam pit (1PD1), a floor drain (2FD2) and a roof drain (RD2). The first two sources should be routed to the sanitary sewer. The only flow to the outfall will be storm water and will not need permitting. No EPA forms were prepared.

3.15 Outfalls 16-430-OPN-15, 16-430-OPN-16, 16-430-OPN-17, 16-430-OPN-18 and 16-430-OPN-27

These five outfalls are drains to daylight from the fire water system. These outfalls will be covered by an NOI. No piping changes are recommended and no EPA forms were prepared.

3.16 Outfalls 16-430-OPN-19, 16-430-OPN-22, 16-430-OPN-23, 16-430-OPN-25, 16-430-OPN-28, 16-430-OPN-29, 16-430-OPN-30, 16-430-OPN-31, 16-430-OPN-32, 16-430-OPN-33, 16-430-OPN-34, 16-430-OPN-35, 16-430-OPN-38, 16-430-OPN-39 and 16-430-OPN-40

These fifteen outfalls are vapor vents to atmosphere from equipment and should not produce any liquid discharge. No permitting is needed under NPDES and no EPA forms were prepared.

## 4.0 CONCLUSION

This document provides the information to characterize building TA 16-430. NPDES permit application forms have been completed for the following outfalls (Appendix 3):

Forms 2C:

1. 16-430-OPN-4 (05A071)
2. 16-430-OPN-5 (05A071)
3. 16-430-OPN-11 (05A071)

Permitting is not recommended for the remaining outfalls, as itemized below:

Vapor vents:

1. 16-430-OPN-19
2. 16-430-OPN-22
3. 16-430-OPN-23
4. 16-430-OPN-25
5. 16-430-OPN-28
6. 16-430-OPN-29
7. 16-430-OPN-30
8. 16-430-OPN-31
9. 16-430-OPN-32
10. 16-430-OPN-33
11. 16-430-OPN-34
12. 16-430-OPN-35
13. 16-430-OPN-38
14. 16-430-OPN-39
15. 16-430-OPN-40

Disconnected pipes:

1. 16-430-OPN-10
2. 16-430-OPN-20
3. 16-430-OPN-21
4. 16-430-OPN-24
5. 16-430-OPN-26
6. 16-430-OPN-36
7. 16-430-OPN-37

Discharges of fire water:

1. 16-430-OPN-15
2. 16-430-OPN-16
3. 16-430-OPN-17
4. 16-430-OPN-18
5. 16-430-OPN-27

Discharge to the sanitary treatment plant:

1. 16-430-OPN-2

Discharge from a French drain:

1. 16-430-OPN-8

Discharge of steam condensate:

1. 16-430-OPN-12

Outfalls to be eliminated:

1. 16-430-OPN-6
2. 16-430-OPN-7
3. 16-430-OPN-9

Discharges with storm water sources:

1. 16-430-OPN-1
2. 16-430-OPN-3
3. 16-430-OPN-13
4. 16-430-OPN-14

Recommended permitting and corrective actions are outlined in Table 1. Corrective actions should be performed as soon as practicable to minimize the chance of unpermitted discharge of pollutants.

# TABLE 1: TA 16-430 DRAIN SUMMARY

| OUTFALL NUMBER | ID NUMBER | ROOM ACTIVITY | STATUS OR RECOMMENDATIONS | EPA FORM PREPARED |
|---|---|---|---|---|
| 16-430-OPN-1 03A060 | 1EWD1 | Hallway | Move to OPN-2 | No |
| | 1FD1 | Battery Room | Plug | |
| | 1FD2 | Utility Room | Move to OPN-2 | |
| | 1FD3 | Utility Room | Move to OPN-2 | |
| | 1FD4 | Women's Rest Room | Plug | |
| | 1FD5 | Men's Rest Room | Move to OPN-2 | |
| | RD1 | Roof | No change | |
| | RD9 | Roof | No change | |
| | RD10 | Roof | No change | |
| 16-430-OPN-2 Sanitary Sewer | 1LV1 | Men's Rest Room | No change | No |
| | 1LV2 | Women's Rest Room | No change | |
| | 1SD1 | Men's Rest Room | No change | |
| | 1T1 | Men's Rest Room | No change | |
| | 1T2 | Women's Rest Room | No change | |
| | 1UR1 | Men's Rest Room | No change | |
| | 1WF1 | Hallway | No change | |
| | 2FD1 | Equipment Room | No change | |
| 16-430-OPN-3 | RD6 | Roof | No Change | No |
| | RD7 | Roof | No Change | |
| | RD8 | Roof | No Change | |
| | 2FD3 | Equipment Room | Plug | |
| | 2FD4 | Equipment Room | Plug | |
| 16-430-OPN-4 | SPD3 | Process Bay | Move to OPN-5 | Yes |
| 16-430-OPN-5 05A071 | SPD2 | Process Bay | Secondary Containment | Yes |
| 16-430-OPN-6 | 1PD2 | Pipe Alley | Plug | No |
| | 1PD3 | Pipe Alley | Plug | |
| | 1PD4 | Pipe Alley | Plug | |
| | 1PD5 | Press Equip Area | Plug | |
| | 1PD6 | Press Equip Area | Plug | |
| | 1PD7 | Press Equip Area | Plug | |
| 16-430-OPN-7 | 1FD6 | Storage | Plug | No |
| | 1FD7 | Hallway | Plug | |
| | 1FD8 | Hallway | Plug | |
| | 1FD9 | Hallway | Plug | |

RECOMMENDATIONS WERE REVIEWED WITH PERSONNEL FROM WX-12, EM-8 & ENG-6.

# TABLE 1: TA 16-430 DRAIN SUMMARY

| OUTFALL NUMBER | ID NUMBER | ROOM ACTIVITY | STATUS OR RECOMMENDATIONS | EPA FORM PREPARED |
|---|---|---|---|---|
| 16-430-OPN-8 | | French Drain | Sample | No |
| 16-430-OPN-9 | 1PD8 | HE Press Area | Plug and alarm | No |
| 16-430-OPN-10 | | Not Connected | Plug or remove | No |
| 16-430-OPN-11 | SPD1 | Process Bay | Move to OPN-5 | Yes |
| 16-430-OPN-12 | | Condensate | NOI | No |
| 16-430-OPN-13 | RD3 | Roof | No Change | No |
| | RD4 | Roof | No Change | |
| | RD5 | Roof | No Change | |
| | 2FD5 | Equipment Room | Plug | |
| | 2FD6 | Equipment Room | Plug | |
| 16-430-OPN-14 | 1PD1 | Equipment Room | Move to OPN-2 | No |
| | 2FD2 | Equipment Room | Move to OPN-2 | |
| | RD2 | Roof | No change | |
| 16-430-OPN-15 | | Fire Water Drain | NOI | No |
| 16-430-OPN-16 | | Fire Water Drain | NOI | No |
| 16-430-OPN-17 | | Fire Water Drain | NOI | No |
| 16-430-OPN-18 | | Fire Water Drain | NOI | No |
| 16-430-OPN-19 | | Vacuum Pump Vent | No Change | No |
| 16-430-OPN-20 | | Not Connected | Cap or remove | No |
| 16-430-OPN-21 | | Not Connected | Cap or remove | No |
| 16-430-OPN-22 | | Steam PRV | No Change | No |
| 16-430-OPN-23 | | Steam PRV | No Change | No |
| 16-430-OPN-24 | | Not Connected | Cap or remove | No |
| 16-430-OPN-25 | | Hot Water Vent | No Change | No |
| 16-430-OPN-26 | | Not Connected | Cap or remove | No |
| 16-430-OPN-27 | | Fire Water Drain | NOI | No |
| 16-430-OPN-28 | | Vacuum Pump Vent | No Change | No |
| 16-430-OPN-29 | | Tempered Water Vent | No Change | No |
| 16-430-OPN-30 | | Scrubber Vent | No Change | No |
| 16-430-OPN-31 | | Tempered Water Vent | No Change | No |
| 16-430-OPN-32 | | Vacuum Vent | No Change | No |
| 16-430-OPN-33 | | Scrubber Vent | No Change | No |
| 16-430-OPN-34 | | Tempered Water Vent | No Change | No |
| 16-430-OPN-35 | | Vacuum Vent | No Change | No |

RECOMMENDATIONS WERE REVIEWED WITH PERSONNEL FROM WX-12, EM-8 & ENG-6.

# TABLE 1: TA 16-430 DRAIN SUMMARY

| OUTFALL NUMBER | ID NUMBER | ROOM ACTIVITY | STATUS OR RECOMMENDATIONS | EPA FORM PREPARED |
|---|---|---|---|---|
| 16-430-OPN-36 | | Not Connected | Cap or remove | No |
| 16-430-OPN-37 | | Blinded | Cap or remove | No |
| 16-430-OPN-38 | | HE Vent | No Change | No |
| 16-430-OPN-39 | | Vacuum Vent | No Change | No |
| 16-430-OPN-40 | | Scrubber Vent | No Change | No |

RECOMMENDATIONS WERE REVIEWED WITH PERSONNEL FROM WX-12, EM-8 & ENG-6.

# TABLE 2
# SUMMARY OF ABBREVIATIONS

| ABBREVIATION | MEANING |
|---|---|
| EWD | Eye Wash Drain |
| FD | Floor Drain |
| LV | Lavatory |
| PD | Pit Drain |
| RD | Roof Drain |
| SD | Sink Drain |
| SPD | Sump Drain |
| T | Toilet |
| UR | Urinal |
| WF | Water Fountain |

REPORT 3

| TA | BLDG | OUTLET PIPING NUMBER | EPA OUTFALL # | DRAIN # | ROOM DESCRIPTION | FLOW | RATE | PERIODICITY | SEASONAL | ROOM # | SOURCE TYPES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1EWD1 | HALLWAY | | | FLOW IS NIL | no | FFC | WATER FOUNTAIN |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD1 | BATTERY ROOM | | | FLOW IS NIL | no | 110A | BATTERY ACID |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD2 | UTILITY ROOM | 5 | GPY | 4 DAYS PER WEEK | no | 110 | AIR COMPRESSOR DRAIN |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD2 | UTILITY ROOM | | | FLOW IS NIL | no | 110 | CHILLER DRAIN |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD2 | UTILITY ROOM | | | FLOW IS NIL | no | 110 | BACK FLOW PREVENTER |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD2 | UTILITY ROOM | | | FLOW IS NIL | no | 110 | CONDENSATE PUMP SEAL |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD3 | UTILITY ROOM | 5 | GPY | DAYS PER WEEK | no | 110 | AIR COMPRESSOR |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD3 | UTILITY ROOM | 13000 | GPD | 4 DAYS PER WEEK | no | 110 | VACUUM PUMP COOLING WATER |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD3 | UTILITY ROOM | | | FLOW IS NIL | no | 110 | BACK FLOW PREVENTER |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD4 | BATHROOM | 50 | GPY | 4 DAYS PER WEEK | no | 107A | FLOOR WASHINGS |
| 16 | 430 | 16-430-OPN-01 | 03A060 | 1FD5 | BATHROOM | 50 | GPY | 4 DAYS PER WEEK | no | 108 | FLOOR WASHINGS |
| 16 | 430 | 16-430-OPN-01 | 03A060 | RD1 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-01 | 03A060 | RD10 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-01 | 03A060 | RD9 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-02 | 03S | 1LV1 | BATHROOM | 100 | GPD | 4 DAYS PER WEEK | no | 108 | HAND WASHING |
| 16 | 430 | 16-430-OPN-02 | 03S | 1LV2 | BATHROOM | 100 | GPD | 4 DAYS PER WEEK | no | 107A | HAND WASHING |
| 16 | 430 | 16-430-OPN-02 | 03S | 1SD1 | BATH ROOM | 20 | GPD | 4 DAYS PER WEEK | no | 108 | HAND WASHING |
| 16 | 430 | 16-430-OPN-02 | 03S | 1T1 | BATH ROOM | 50 | GPD | 4 DAYS PER WEEK | no | 108 | SANITARY WASTE |
| 16 | 430 | 16-430-OPN-02 | 03S | 1T2 | BATH ROOM | 50 | GPD | 4 DAYS PER WEEK | no | 107A | SANITARY WASTE |
| 16 | 430 | 16-430-OPN-02 | 03S | 1UR1 | BATH ROOM | 50 | GPD | 4 DAYS PER WEEK | no | 108 | SANITARY WASTE |
| 16 | 430 | 16-430-OPN-02 | 03S | 1WF1 | HALLWAY | 20 | GPD | HIGHER FLOW IN SUMMER | no | FFC | DRINKING WATER |
| 16 | 430 | 16-430-OPN-02 | 03S | 2FD1 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201 | CHILLER OVERFLOW |
| 16 | 430 | 16-430-OPN-02 | 03S | 2FD1 | EQUIPMENT ROOM | 10 | GPY | 4 DAYS PER WEEK | no | 201 | HOT WATER TANK |
| 16 | 430 | 16-430-OPN-02 | 03S | 2FD1 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201 | CHILLER WATER PUMP LEAKAGE |
| 16 | 430 | 16-430-OPN-02 | 03S | RD6 | ROOOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-03 | | 2FD3 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201EC | TEMPERED WATE LEAKAGE |
| 16 | 430 | 16-430-OPN-03 | | 2FD3 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201EC | UTILITY WATER LEAKAGE |
| 16 | 430 | 16-430-OPN-03 | | 2FD4 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201EC | TEMPERED WATER LEAKAGE |
| 16 | 430 | 16-430-OPN-03 | | RD7 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-03 | | RD8 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-04 | | SPD3 | PROCESS BAY | 100 | GPY | 4 DAYS PER WEEK | no | SUMP3 | WET DUST COLLECTOR |
| 16 | 430 | 16-430-OPN-04 | | SPD3 | PROCESS BAY | | | SEE ABOVE | no | SUMP3 | HEATER DRAIN |
| 16 | 430 | 16-430-OPN-04 | | SPD3 | PROCESS BAY | | | SEE ABOVE | no | SUMP3 | HE FLOOR WASHINGS |
| 16 | 430 | 16-430-OPN-05 | 05A071 | SPD2 | PROCESS BAY | 100 | GPY | 4 DAYS PER WEEK | no | SUMP2 | HEATER DRAIN |
| 16 | 430 | 16-430-OPN-05 | 05A071 | SPD2 | PROCESS BAY | | | SEE ABOVE | no | SUMP2 | HE FLOOR WASHING |
| 16 | 430 | 16-430-OPN-05 | 05A071 | SPD2 | PROCESS BAY | | | SEE ABOVE | no | SUMP2 | WET DUST COLLECTOR |
| 16 | 430 | 16-430-OPN-06 | | 1PD2 | PROCESS BAY | | | FLOW IS NIL | no | 5A | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-06 | | 1PD3 | PROCESS BAY | | | FLOW IS NIL | no | 4A | POTABLE & TEMPERED WATER |

REPORT 3

| TA | BLDG | OUTLET PIPING NUMBER | EPA OUTFALL # | DRAIN # | ROOM DESCRIPTION | FLOW | RATE | PERIODICITY | SEASONAL | ROOM # | SOURCE TYPES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 430 | 16-430-OPN-06 | | 1PD4 | PROCESS BAY | | | FLOW IS NIL | no | 2A | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-06 | | 1PD5 | PROCESS BAY | | | FLOW IS NIL | no | PP5 | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-06 | | 1PD6 | PROCESS BAY | | | FLOW IS NIL | no | PP4 | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-06 | | 1PD7 | PROCESS BAY | | | FLOW IS NIL | no | PP2 | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-07 | | 1FD6 | HALLWAY | 25 | GPY | 4 DAYS PER WEEK | no | FFC | FLOOR WASHINGS |
| 16 | 430 | 16-430-OPN-07 | | 1FD7 | HALLWAY | 25 | GPY | 4 DAYS PER WEEK | no | FFC | FLOOR WASHINGS |
| 16 | 430 | 16-430-OPN-07 | | 1FD8 | HALLWAY | 25 | GPY | 4 DAYS PER WEEK | no | FFC | FLOOR WASHINGS |
| 16 | 430 | 16-430-OPN-07 | | 1FD9 | HALLWAY | 25 | GPY | 4 DAYS PER WEEK | no | FFC | FLOOR WASHINGS |
| 16 | 430 | 16-430-OPN-08 | | | FRENCH DRAIN | | | FLOW IS NIL | no | | RAIN |
| 16 | 430 | 16-430-OPN-09 | | 1PD8 | HE PRESS AREA | 5 | GPY | 12 MONTHS PER YEAR | no | B-1 | STEAM CONDENSATE |
| 16 | 430 | 16-430-OPN-09 | | 1PD8 | PROCESS BAY | | | FLOW IS NIL | no | B-1 | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-10 | | | DISCONNECTED PIPE | | | NO FLOW | no | | NONE |
| 16 | 430 | 16-430-OPN-11 | | SPD1 | PROCESS BAY | 100 | GPY | 4 DAYS PER WEEK | no | SUMP1 | HE FLOOR WASHINGS |
| 16 | 430 | 16-430-OPN-11 | | SPD1 | PROCESS BAY | | | SEE ABOVE | no | SUMP1 | WET DUST COLLECTOR |
| 16 | 430 | 16-430-OPN-11 | | SPD1 | PROCESS BAY | | | SEE ABOVE | no | SUMP1 | HEATER DRAIN |
| 16 | 430 | 16-430-OPN-12 | | | STEAM TRAP | | | FLOW IS NIL | no | | STEAM CONDENSATE |
| 16 | 430 | 16-430-OPN-13 | | 2FD5 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201EC | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-13 | | 2FD6 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201EC | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-13 | | 2FD6 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201EC | TEMPERED WATER |
| 16 | 430 | 16-430-OPN-13 | | RD3 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-13 | | RD4 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-13 | | RD5 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-14 | | 1PD1 | EQUPMENT ROOM | | | FLOW IS NIL | no | 110 | POTABLE & TEMPERED WATER |
| 16 | 430 | 16-430-OPN-14 | | 1PD1 | EQUIPMENT ROOM | 25 | GPD | 5 GPM FOR 5 MIN EACH DAY | no | 110 | STEAM CONDENSATE |
| 16 | 430 | 16-430-OPN-14 | | 2FD2 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201 | TEMPERED WATER |
| 16 | 430 | 16-430-OPN-14 | | 2FD2 | EQUIPMENT ROOM | | | FLOW IS NIL | no | 201 | HOT WATER |
| 16 | 430 | 16-430-OPN-14 | | 2FD2 | EQUIPMENT ROOM | 144 | GPD | 1 GAL AT 10 MIN AT 1 GPM | yes | 201 | CHILLER WATER BLOWDOWN |
| 16 | 430 | 16-430-OPN-14 | | RD2 | ROOF | 15000 | GPY | MAINLY SUMMER | no | ROOF | RAIN |
| 16 | 430 | 16-430-OPN-15 | | | FIRE WATER DRAINS | | | 1 OR 2 TIMES PER YEAR | no | | FIRE WATER |
| 16 | 430 | 16-430-OPN-16 | | | FIRE WATER DRAINS | | | 1 OR 2 TIMES PER YEAR | no | | FIRE WATER |
| 16 | 430 | 16-430-OPN-17 | | | FIRE WATER DRAINS | | | 1 OR 2 TIMES PER YEAR | no | | FIRE WATER |
| 16 | 430 | 16-430-OPN-18 | | | FIRE WATER DRAINS | | | 1 OR 2 TIMES PER YEAR | no | | FIRE WATER |
| 16 | 430 | 16-430-OPN-19 | | | VAPOR VENTS | | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-20 | | | DISCONNECTED PIPE | | | NO FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-21 | | | DISCONNECTED PIPE | | | NO FLOW | no | | NONE |
| 16 | 430 | 16-430-OPN-22 | | | VAPOR VENTS | | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-23 | | | VAPOR VENTS | | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-24 | | | DISCONNECTED PIPE | | | NO FLOW | no | | NONE |

REPORT 3

| TA | BLDG | OUTLET PIPING NUMBER | EPA OUTFALL # | DRAIN # | ROOM DESCRIPTION | FLOW RATE | PERIODICITY | SEASONAL | ROOM # | SOURCE TYPES |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 430 | 16-430-OPN-25 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-26 | | | DISCONNECTED PIPE | | NO FLOW | no | | NONE |
| 16 | 430 | 16-430-OPN-27 | | | FIRE WATER DRAINS | | 1 OR 2 TIMES PER YEAR | no | | FIRE WATER |
| 16 | 430 | 16-430-OPN-28 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-29 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-30 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-31 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-32 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-33 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-34 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-35 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-36 | | | DISCONNECTED PIPE | | NO FLOW | no | | NONE |
| 16 | 430 | 16-430-OPN-37 | | | DISCONNECTED PIPE | | NO FLOW | no | | NONE |
| 16 | 430 | 16-430-OPN-38 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-39 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |
| 16 | 430 | 16-430-OPN-40 | | | VAPOR VENTS | | NO LIQUID FLOW | no | | NO LIQUID |

Please print or type in the unshaded areas only

EPA I.D. NUMBER: NM0890010515

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
*Consolidated Permits Program*

## I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

| A. OUTFALL NUMBER (list) | B. LATITUDE 1. DEG | 2. MIN | 3. SEC | C. LONGITUDE 1. DEG | 2. MIN | 3. SEC | D. RECEIVING WATER (name) |
|---|---|---|---|---|---|---|---|
| 05A071 | 35 | 50 | 19 | 106 | 20 | 49 | WATER CANYON |

## II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

| 1. OUTFALL NO. | 2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION (list) | b. AVERAGE FLOW (include units) | 3. TREATMENT a. DESCRIPTION | b. LIST CODES FROM TABLE 2C-1 |
|---|---|---|---|---|
| 071 | TA 16-430 | | DISCHARGED TO A MULTI- | 1-U |
| | SUMP 1 (SPD1) | 100 GPY | WEIR SUMP. RESIDUE FROM | |
| | SUMP 2 (SPD2) | 320 GPY | SUMP IS COLLECTED AND | |
| | SUMP 3 (SPD3) | 100 GPY | BURNED. | |
| | TOTAL | 520 GPY | | |

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

[X] YES *(complete the following table)* [ ] NO *(go to Section III)*

| 1. OUTFALL NUMBER *(list)* | 2. OPERATION(s) CONTRIBUTING FLOW *(list)* | 3. FREQUENCY a. DAYS PER WEEK *(specify average)* | 3. FREQUENCY b. MONTHS PER YEAR *(specify average)* | 4. FLOW a. FLOW RATE *(in mgd)* 1. LONG TERM AVERAGE | 4. FLOW a. FLOW RATE *(in mgd)* 2. MAXIMUM DAILY | 4. FLOW b. TOTAL VOLUME *(specify with units)* 1. LONG TERM AVERAGE | 4. FLOW b. TOTAL VOLUME *(specify with units)* 2. MAXIMUM DAILY | 4. FLOW c. DURATION *(in days)* |
|---|---|---|---|---|---|---|---|---|
| 05A071 | FLOOR WASHING-SPD1 | 1 | 2 | 100 | 100 | 12.5 | 12.5 | 1 |
| | FLOOR WASHING-SPD2 | 1 | 2 | 300 | 300 | 37.5 | 37.5 | 1 |
| | DUST COLLECTOR-SPD2 | 1 | 2 | 10 | 10 | 1.2 | 1.2 | 1 |
| | TEMPERED WATER-SPD2 | 1 | 2 | 10 | 10 | 1.2 | 1.2 | 1 |
| | FLOOR WASHINGS-SPD3 | 1 | 2 | 100 | 100 | 12.5 | 12.5 | 1 |
| | | | | GPY | GPY | GAL | GAL | DAY |

## III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

[ ] YES *(complete Item III-B)* [X] NO *(go to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

[ ] YES *(complete Item III-C)* [X] NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

| 1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)* | 2. AFFECTED OUTFALLS *(list outfall numbers)* |
|---|---|---|---|
| NA | | | |

## IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

[ ] YES *(complete the following table)* [X] NO *(go to Item IV-B)*

| 1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC. | 2. AFFECTED OUTFALLS a. NO. | 2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COMPLIANCE DATE a. REQUIRED | 4. FINAL COMPLIANCE DATE b. PROJECTED |
|---|---|---|---|---|---|
| | | | | | |

B. OPTIONAL. You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. [ ] MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

 CONTINUE ON PAGE 3

CONTINUED FROM PAGE 2

EPA I.D. NUMBER (copy from Item 1 of Form 1)
NM0890010515

Form Approved
OMB No. 2040-0086
Approval expires 7-31-85

## V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

| 1. POLLUTANT | 2. SOURCE | 1. POLLUTANT | 2. SOURCE |
|---|---|---|---|
| NONE | | | |

## VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (list all such pollutants below) ☒ NO (go to Item VI-B)

CONTINUED FROM THE FRONT

## VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES *(identify the test(s) and describe their purposes below)* X NO *(go to Section VIII)*

## VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* X NO *(go to Section IX)*

| A. NAME | B. ADDRESS | C. TELEPHONE (area code & no.) | D. POLLUTANTS ANALYZED (list) |
|---|---|---|---|
| NA | | | |

## IX. CERTIFICATION

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

| A. NAME & OFFICIAL TITLE (type or print) | B. PHONE NO. (area code & no.) |
|---|---|
| JERRY L. BELLOWS, DOE AREA MANAGER | 505-667-5105 |
| ALLEN J. TIEDMAN, ASSOC. DIRECTOR FOR OPERATIONS | 505-667-9390 |
| C. SIGNATURE | D. DATE SIGNED |

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: NM0890010515

*Form Approved. OMB No. 2040-0086 Approval expires 7-31-88*

**V. INTAKE AND EFFLUENT CHARACTERISTICS** *(continued from page 3 of Form 2-C)* [redacted] OUTFALL NO. 05A071

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

| 1. POLLUTANT | 2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | a. MAXIMUM DAILY VALUE (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | b. MAXIMUM 30 DAY VALUE (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (2) MASS | d. NO. OF ANALYSES | 3. UNITS (specify if blank) a. CONCENTRATION | 3. UNITS b. MASS | 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | 4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS | 4. INTAKE b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Biochemical Oxygen Demand *(BOD)* | 3.4 | 6.7 | | | | | | mg/l | g/y | | | |
| b. Chemical Oxygen Demand *(COD)* | 32.5 | 64.0 | | | | | | mg/l | g/y | | | |
| c. Total Organic Carbon *(TOC)* | 8.8 | 17.3 | | | | | | mg/l | g/y | | | |
| d. Total Suspended Solids *(TSS)* | < 1 | < 2.0 | | | | | | mg/l | g/y | | | |
| e. Ammonia *(as N)* | .43 | 846.3 | | | | | | mg/l | mg/y | | | |
| f. Flow | VALUE 520 | | VALUE | | VALUE | | | gal/yr | | VALUE | | |
| g. Temperature *(winter)* | VALUE 18.2 | | VALUE | | VALUE | | | °C | | VALUE | | |
| h. Temperature *(summer)* | VALUE | | VALUE | | VALUE | | | °C | | VALUE | | |
| i. pH | MINIMUM 7.16 | MAXIMUM 9.0 | MINIMUM | MAXIMUM | | | | STANDARD UNITS | | | | |

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NO. *(if available)* | 2. MARK 'X' a. BELIEVED PRESENT | 2. MARK 'X' b. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | a. MAXIMUM DAILY VALUE (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | b. MAXIMUM 30 DAY VALUE (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | 4. UNITS b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | 5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS | 5. INTAKE b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Bromide (24959-67-9) | | X | < .5 | < 984.1 | | | | | | mg/l | mg/y | | | |
| b. Chlorine, Total Residual | X | | .2 | 393.6 | | | | | | mg/l | mg/y | | | |
| c. Color | X | | 18 | | | | | | | units | | | | |
| d. Fecal Coliform | | X | | | | | | | | | | | | |
| e. Fluoride (16984-48-8) | X | | .32 | 629.8 | | | | | | mg/l | mg/y | | | |
| f. Nitrate-Nitrite *(as N)* | X | | .985 | 1.9 | | | | | | mg/l | g/y | | | |



CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

| 1. POLLUTANT AND CAS NO. (If available) | 2. MARK 'X' a. BELIEVED PRESENT | 2. MARK 'X' b. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | a. MAXIMUM DAILY VALUE (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | b. MAXIMUM 30 DAY VALUE (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | 4. UNITS b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. Nitrogen, Total Organic (as N) | X | | 27.4 | 53.9 | | | | | | mg/l | g/y | | | |
| h. Oil and Grease | X | | 24 | 47.2 | | | | | | mg/l | g/y | | | |
| i. Phosphorus (as P), Total (7723-14-0) | X | | .07 | 137.8 | | | | | | mg/l | mg/y | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | X | | 5 | 9.8 | | | | | | pCi/l | nCi/y | | | |
| (2) Beta, Total | X | | 3.8 | 7.5 | | | | | | pCi/l | nCi/y | | | |
| (3) Radium, Total | X | | | | | | | | | | | | | |
| (4) Radium 226, Total | X | | .04 | 78.7 | | | | | | pCi/l | pCi/y | | | |
| k. Sulfate (as $SO_4$) (14808-79-8) | X | | 6.02 | 11.8 | | | | | | mg/l | g/y | | | |
| l. Sulfide (as S) | | X | < .05 | < 98.4 | | | | | | mg/l | mg/y | | | |
| m. Sulfite (as $SO_3$) (14265-45-3) | | X | | | | | | | | | | | | |
| n. Surfactants | X | | .36 | 708.6 | | | | | | mg/l | mg/y | | | |
| o. Aluminum, Total (7429-90-5) | | X | < .04 | < 78.7 | | | | | | mg/l | mg/y | | | |
| p. Barium, Total (7440-39-3) | X | | .76 | 1.5 | | | | | | mg/l | g/y | | | |
| q. Boron, Total (7440-42-8) | X | | .03 | 59.0 | | | | | | mg/l | mg/y | | | |
| r. Cobalt, Total (7440-48-4) | | X | < .1 | < 196.8 | | | | | | mg/l | mg/y | | | |
| s. Iron, Total (7439-89-6) | X | | .28 | 551.1 | | | | | | mg/l | mg/y | | | |
| t. Magnesium, Total (7439-95-4) | X | | 3 | 5.9 | | | | | | mg/l | g/y | | | |
| u. Molybdenum, Total (7439-98-7) | X | | .042 | 82.7 | | | | | | mg/l | mg/y | | | |
| v. Manganese, Total (7439-96-5) | X | | .007 | 13.8 | | | | | | mg/l | mg/y | | | |
| w. Tin, Total (7440-31-5) | | X | < .050 | < 98.4 | | | | | | mg/l | mg/y | | | |
| x. Titanium, Total (7440-32-6) | | X | < .004 | < 7.9 | | | | | | mg/l | mg/y | | | |



CONTINUE ON PAGE V-3

| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|---|---|
| NM0890010515 | 05A071 |

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE (1) CONCENTRATION | a. MAXIMUM DAILY VALUE (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | b. MAXIMUM 30 DAY VALUE (if available) (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (if available) (2) MASS | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | a. LONG TERM AVERAGE VALUE (2) MASS | b. NO. OF ANALYSES |
| **METALS, CYANIDE, AND TOTAL PHENOLS** | | | | | | | | | | | | | | | |
| 1M. Antimony, Total (7440-36-0) | | | X | < .050 | < 98.4 | | | | | | mg/l | mg/y | | | |
| 2M. Arsenic, Total (7440-38-2) | | | X | < .002 | < 3.9 | | | | | | mg/l | mg/y | | | |
| 3M. Beryllium, Total, 7440-41-7) | | | X | < .001 | < 2.0 | | | | | | mg/l | mg/y | | | |
| 4M. Cadmium, Total (7440-43-9) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 5M. Chromium, Total (7440-47-3) | | X | | .071 | 139.7 | | | | | | mg/l | mg/y | | | |
| 6M. Copper, Total (7440-50-8) | | X | | .032 | 63.0 | | | | | | mg/l | mg/y | | | |
| 7M. Lead, Total (7439-92-1) | | | X | < .050 | < 98.4 | | | | | | mg/l | mg/y | | | |
| 8M. Mercury, Total (7439-97-6) | | X | | .0002 | 393.6 | | | | | | mg/l | ug/y | | | |
| 9M. Nickel, Total (7440-02-0) | | X | | .11 | 216.5 | | | | | | mg/l | mg/y | | | |
| 10M. Selenium, Total (7782-49-2) | | | X | < .001 | < 2.0 | | | | | | mg/l | mg/y | | | |
| 11M. Silver, Total (7440-22-4) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 12M. Thallium, Total (7440-28-0) | | | X | < .4 | < 787.3 | | | | | | mg/l | mg/y | | | |
| 13M. Zinc, Total (7440-66-6) | | X | | .097 | 190.9 | | | | | | mg/l | mg/y | | | |
| 14M. Cyanide, Total (57-12-5) | | X | | .12 | 236.2 | | | | | | mg/l | mg/y | | | |
| 15M. Phenols, Total | | | X | < .01 | < 19.7 | | | | | | mg/l | mg/y | | | |
| **DIOXIN** | | | | | | | | | | | | | | | |
| 2,3,7,8-Tetra chlorodibenzo-P Dioxin (1764-01-6) | | | X | DESCRIBE RESULTS | | | | | | | | | | | |



CONTINUE ON REVERSE

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GC/MS FRACTION – VOLATILE COMPOUNDS** | | | | | | | | | | | | | | | |
| 1V. Acrolein (107-02-8) | | | X | | | | | | | | | | | | |
| 2V. Acrylonitrile (107-13-1) | | | X | | | | | | | | | | | | |
| 3V. Benzene (71-43-2) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 4V. Bis (Chloromethyl) Ether (542-88-1) | | | X | | | | | | | | | | | | |
| 5V. Bromoform (75-25-2) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 6V. Carbon Tetrachloride (56-23-5) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 7V. Chlorobenzene (108-90-7) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 8V. Chlorodibromomethane (124-48-1) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 9V. Chloroethane (75-00-3) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 10V. 2-Chloroethylvinyl Ether (110-75-8) | | | X | | | | | | | | | | | | |
| 11V. Chloroform (67-66-3) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 12V. Dichlorobromomethane (75-27-4) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 13V. Dichlorodifluoromethane (75-71-8) | | | X | | | | | | | | | | | | |
| 14V. 1,1-Dichloroethane (75-34-3) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 15V. 1,2-Dichloroethane (107-06-2) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 16V. 1,1-Dichloroethylene (75-35-4) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 17V. 1,2-Dichloropropane (78-87-5) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 18V. 1,3-Dichloropropylene (542-75-6) | | | X | | | | | | | | | | | | |
| 19V. Ethylbenzene (100-41-4) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 20V. Methyl Bromide (74-83-9) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 21V. Methyl Chloride (74-87-3) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |


CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|---|---|
| NM0890010515 | 05A071 |

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GC/MS FRACTION – VOLATILE COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 22V. Methylene Chloride (75-09-2) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 23V. 1,1,2,2-Tetrachloroethane – (79-34-5) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 24V. Tetrachloroethylene (127-18-4) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 25V. Toluene (108-88-3) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 26V. 1,2-Trans-Dichloroethylene (156-60-5) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 27V. 1,1,1-Trichloroethane (71-55-6) | | X | | .006 | 11.8 | | | | | | mg/l | mg/y | | | |
| 28V. 1,1,2-Trichloroethane (79-00-5) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 29V. Trichloroethylene (79-01-6) | | | X | < .005 | < 9.8 | | | | | | mg/l | mg/y | | | |
| 30V. Trichlorofluoromethane (75-69-4) | | X | | .0084 | 16.5 | | | | | | mg/l | mg/y | | | |
| 31V. Vinyl Chloride (75-01-4) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| **GC/MS FRACTION – ACID COMPOUNDS** | | | | | | | | | | | | | | | |
| 1A. 2-Chlorophenol (95-57-8) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 2A. 2,4-Dichlorophenol (120-83-2) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 3A. 2,4-Dimethylphenol (105-67-9) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 4A. 4,6-Dinitro-O-Cresol (534-52-1) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 5A. 2,4-Dinitrophenol (51-28-5) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 6A. 2-Nitrophenol (88-75-5) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 7A. 4-Nitrophenol (100-02-7) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 8A. P-Chloro-M-Cresol (59-50-7) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 9A. Pentachlorophenol (87-86-5) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 10A. Phenol (108-95-2) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 11A. 2,4,6-Trichlorophenol (88-06-2) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |

CONTINUED FROM PAGE V-6

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 22B. 1,3-Dichlorobenzene (106-46-7) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 23B. 3,3'-Dichlorobenzidine (91-94-1) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 24B. Diethyl Phthalate (84-66-2) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 25B. Dimethyl Phthalate (131-11-3) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 26B. Di-N-Butyl Phthalate (84-74-2) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 27B. 2,4-Dinitrotoluene (121-14-2) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 28B. 2,6-Dinitrotoluene (606-20-2) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 29B. Di-N-Octyl Phthalate (117-84-0) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 31B. Fluoranthene (206-44-0) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 32B. Fluorene (86-73-7) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 33B. Hexachlorobenzene (118-74-1) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 34B. Hexachlorobutadiene (87-68-3) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 35B. Hexachlorocyclopentadiene (77-47-4) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 36B. Hexachloroethane (67-72-1) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 38B. Isophorone (78-59-1) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 39B. Naphthalene (91-20-3) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 40B. Nitrobenzene (98-95-3) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 41B. N-Nitrosodimethylamine (62-75-9) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 42B. N-Nitrosodi-N-Propylamine (621-64-7) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | (2) MASS | d. NO OF ANALYSES | 4. UNITS a. CONCENTRATION | b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 43B. N-Nitrosodiphenylamine (86-30-6) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 44B. Phenanthrene (85-01-8) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 45B. Pyrene (129-00-0) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| 46B. 1,2,4-Trichlorobenzene (120-82-1) | | | X | < .010 | < 19.7 | | | | | | mg/l | mg/y | | | |
| **GC/MS FRACTION -- PESTICIDES** | | | | | | | | | | | | | | | |
| 1P. Aldrin (309-00-2) | | | X | < .06 | < 118.1 | | | | | | ug/l | ug/y | | | |
| 2P. α-BHC (319-84-6) | | | X | < 1.0 | < 2.0 | | | | | | ug/l | mg/y | | | |
| 3P. β-BHC (319-85-7) | | | X | < .4 | < 787.3 | | | | | | ug/l | ug/y | | | |
| 4P. γ-BHC (58-89-9) | | | X | < .12 | < 236.2 | | | | | | ug/l | ug/y | | | |
| 5P. δ-BHC (319-86-8) | | | X | < .24 | < 472.4 | | | | | | ug/l | ug/y | | | |
| 6P. Chlordane (57-74-9) | | | X | < .25 | < 492.1 | | | | | | ug/l | ug/y | | | |
| 7P. 4,4'-DDT (50-29-3) | | | X | < .06 | < 118.1 | | | | | | ug/l | ug/y | | | |
| 8P. 4,4'-DDE (72-55-9) | | | X | < .08 | < 157.5 | | | | | | ug/l | ug/y | | | |
| 9P. 4,4'-DDD (72-54-8) | | | X | < .08 | < 157.5 | | | | | | ug/l | ug/y | | | |
| 10P. Dieldrin (60-57-1) | | | X | < .08 | < 157.5 | | | | | | ug/l | ug/y | | | |
| 11P. α-Endosulfan (115-29-7) | | | X | < .05 | < 98.4 | | | | | | ug/l | ug/y | | | |
| 12P. β-Endosulfan (115-29-7) | | | X | < .08 | < 157.5 | | | | | | ug/l | ug/y | | | |
| 13P. Endosulfan Sulfate (1031-07-8) | | | X | < .09 | < 177.1 | | | | | | ug/l | ug/y | | | |
| 14P. Endrin (72-20-8) | | | X | < .06 | < 118.1 | | | | | | ug/l | ug/y | | | |
| 15P. Endrin Aldehyde (7421-93-4) | | | X | < .31 | < 610.1 | | | | | | ug/l | ug/y | | | |
| 16P. Heptachlor (76-44-8) | | | X | < .15 | < 295.2 | | | | | | ug/l | ug/y | | | |



CONTINUE ON PAGE V-

ONTINUED FROM PAGE V-8

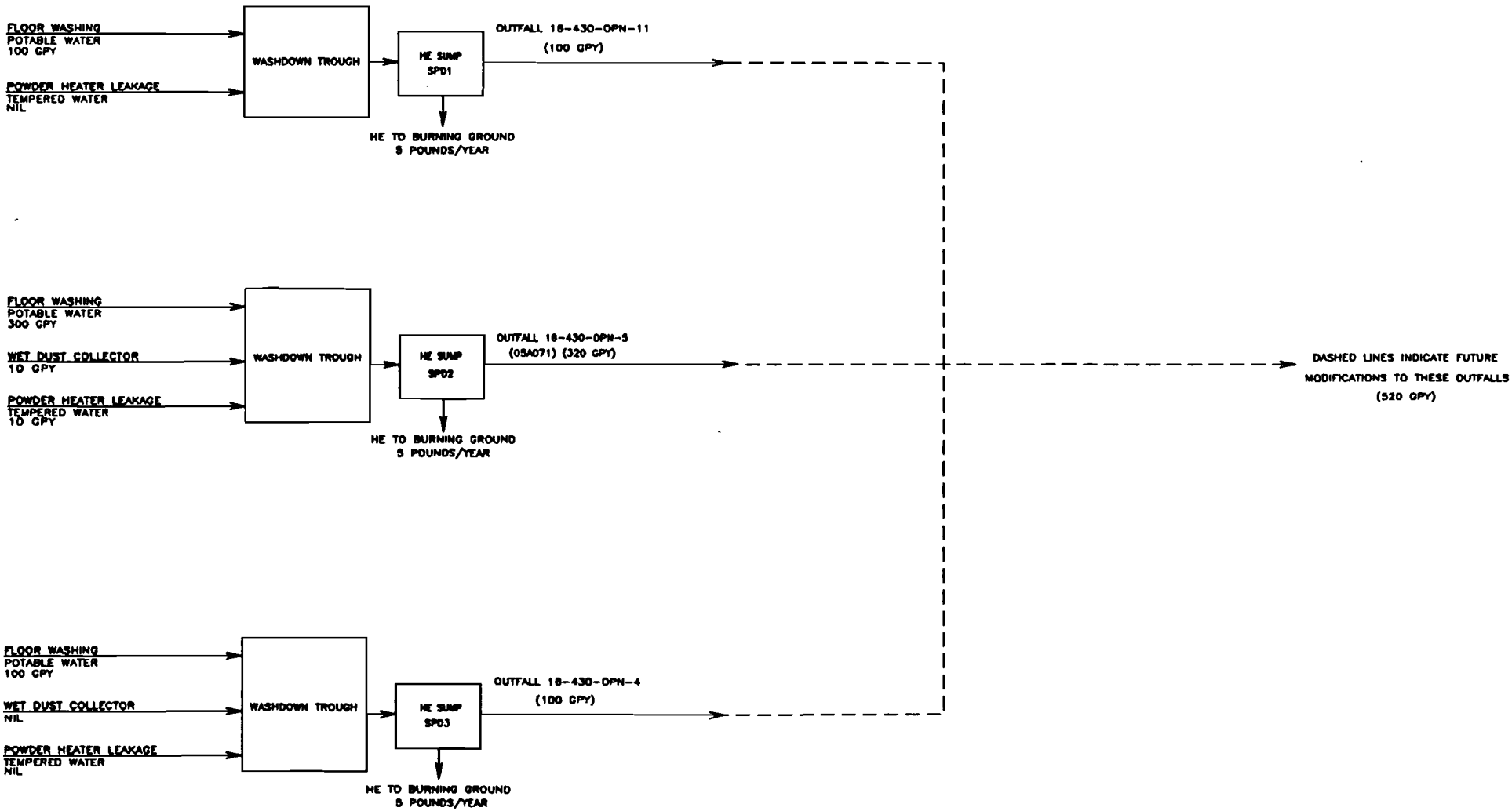
| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|---|---|
| NM0890010515 | 05A071 |

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C/MS FRACTION — PESTICIDES** *(continued)* | | | | | | | | | | | | | | | |
| 7P. Heptachlor epoxide (1024-57-3) | | | X | < .08 | < 157.5 | | | | | | ug/l | ug/y | | | |
| 8P. PCB-1242 (53469-21-9) | | | X | < 2.0 | < 3.9 | | | | | | ug/l | mg/y | | | |
| 9P. PCB-1254 (11097-69-1) | | | X | < 2.0 | < 3.9 | | | | | | ug/l | mg/y | | | |
| 0P. PCB-1221 (11104-28-2) | | | X | | | | | | | | | | | | |
| 1P. PCB-1232 (11141-16-5) | | | X | | | | | | | | | | | | |
| 2P. PCB-1248 (12672-29-6) | | | X | | | | | | | | | | | | |
| 3P. PCB-1260 (11096-82-5) | | | X | < 2.0 | < 3.9 | | | | | | ug/l | mg/y | | | |
| 4P. PCB-1016 (12674-11-2) | | | X | | | | | | | | | | | | |
| 5P. Toxaphene (8001-35-2) | | | X | < 2.5 | < 4.9 | | | | | | ug/l | mg/y | | | |

# SCHEMATIC OF WATER FLOW

## OUTFALL 05A071



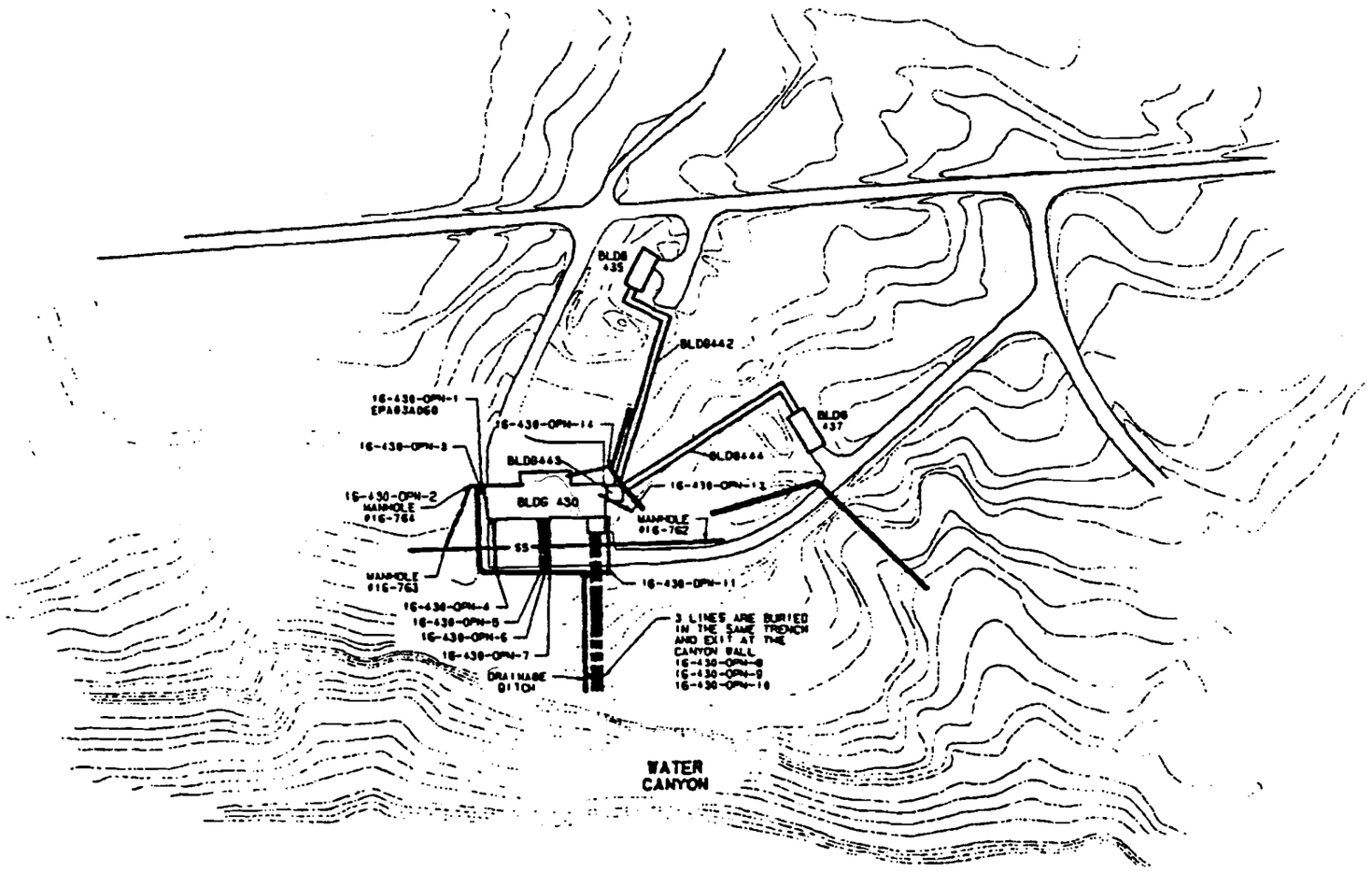
DYE STUDY REPORT FOR BUILDINGS
16-430
COMPILED BY ENGINEERING AND INFORMATION RESOURCES (WX-12)

BUILDING 430--Dye studied from June 25-July 15, 1990

| DRAIN No | DRAIN LOCATION | END OF PIPE |
|---|---|---|
| 1FD1 | RM 110A | 16-430-OPN-1 EPA outfall 04A060 |
| 1FD2 | RM 110 | 16-430-OPN-1 EPA outfall 04A060 |
| 1FD3 | RM 105 | 16-430-OPN-1 EPA outfall 04A060 |
| 1FD4 | RM 107A | 16-430-OPN-1 EPA outfall 04A060 |
| 1FD5 | RM 108 | 16-430-OPN-1 EPA outfall 04A060 |
| 1FD6 | First Floor Corr. | 16-430-OPN-7 |
| 1FD7 | First Floor Corr. | 16-430-OPN-7 |
| 1FD8 | First Floor Corr. | 16-430-OPN-7 |
| 1FD9 | First Floor Corr. | 16-430-OPN-7 |
| 1PD1 | RM 110 | 16-430-OPN-14 |
| 1PD2 | RM 5A | 16-430-OPN-6 |
| 1PD3 | RM 4A | 16-430-OPN-6 |
| 1PD4 | RM 2A | 16-430-OPN-6 |
| 1PD5 | Bay 5 | 16-430-OPN-6 |
| 1PD6 | Bay 4 | 16-430-OPN-6 |
| 1PD7 | Bay 2 | 16-430-OPN-6 |
| 1PD8 | Bay 1 Basement | 16-430-OPN-9 |
| SPD1 | Sump #1 | 16-430-OPN-11 |
| SPD2 | Sump #2 | 16-430-OPN-5 |
| SPD3 | Sump #3 | 16-430-OPN-4 |
| 2FD1 | RM 201 | sanitary sewer |
| 2FD2 | RM 201 | 16-430-OPN-14 |
| 2FD3 | RM 201 Eq. Cor. | 16-430-OPN-3 |
| 2FD4 | RM 201 Eq. Cor. | 16-430-OPN-3 |
| 2FD5 | RM 201 Eq. Cor. | 16-430-OPN-13 |
| 2FD6 | RM 201 Eq. Cor. | 16-430-OPN-13 |
| RD1 | Roof Drain | 16-430-OPN-1 |
| RD2 | Roof Drain | 16-430-OPN-14 |
| RD3 | Roof Drain | 16-430-OPN-13 |
| RD4 | Roof Drain | 16-430-OPN-13 |
| RD5 | Roof Drain | 16-430-OPN-13 |
| RD6 | Roof Drain | 16-430-OPN-3 |
| RD7 | Roof Drain | 16-430-OPN-3 |
| RD8 | Roof Drain | 16-430-OPN-3 |
| RD9 | Roof Drain | 16-430-OPN-1 |
| RD10 | Roof Drain | 16-430-OPN-1 |

4 UNCLASSIFIED | 3 UNCLASSIFIED | 2 UNCLASSIFIED | 1 UNCLASSIFIED

| PART OR CONTROL NUMBER | REVISIONS | | |
|---|---|---|---|
| | ISS | CLASS REVIEW | DESCRIPTION |
| N/A | A | LS | DRAWN BY - GARCIA 6-17-91<br>CHECKER - ABERCROMBIE<br>ENGINEER - PALMER 6-17-91<br>APPROVED - BARR 6-17-91 |




LEGEND

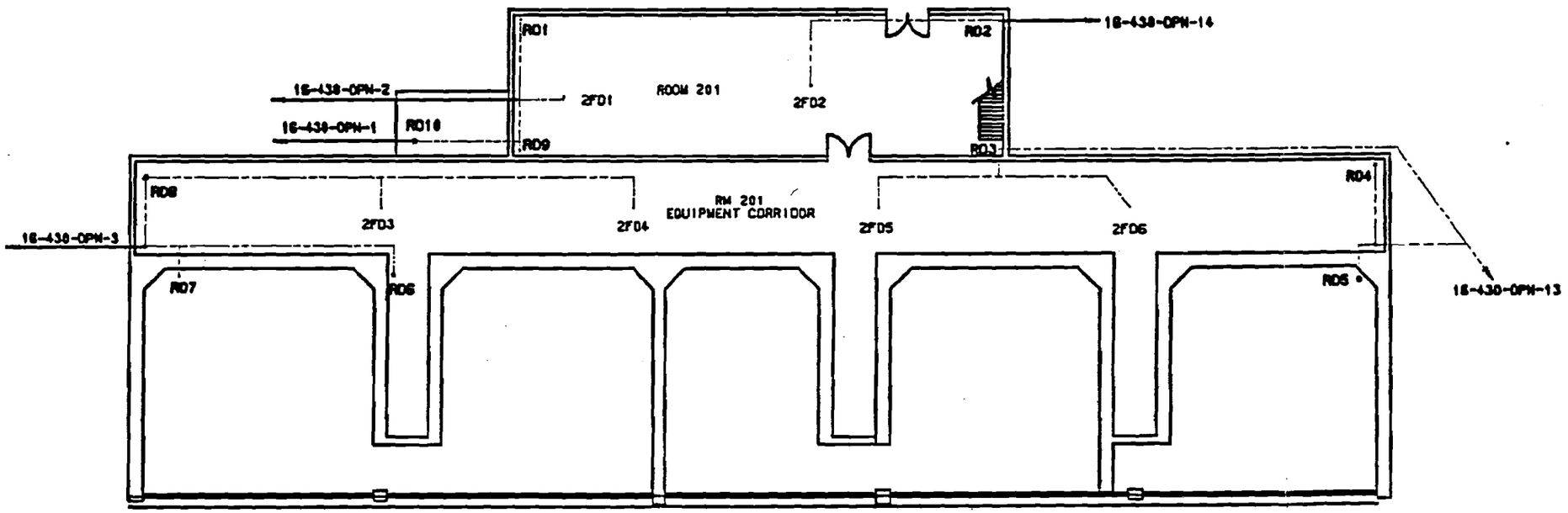
DRAIN LINE

DITCH LINE

SEWER LINE

| | | |
|---|---|---|
| | PART CODE: LOS ALAMOS NATIONAL LABORATORY | |
| | SHEET 1 / ISSUE A | TITLE (U) TITLE CLASSIFICATION<br>DRAINAGE PLAN<br>TA-16-430 |
| | PART CLASSIFICATION: UNCLASSIFIED | |
| ENGLISH (FT/IN) | DRAWING CLASSIFICATION: UNCLASSIFIED | SIZE 0 / DRAWING NUMBER 13Y-192071 |

| PART OR CONTROL NUMBER | REVISIONS | | |
|---|---|---|---|
| | ISS | CLASS REVIEW | DESCRIPTION |
| N/A | A | LS | DRAWN BY - GARCIA 6-17-91<br>CHECKER - ABERCROMBIE<br>ENGINEER - PALMER 6-17-91<br>APPROVED - BARR 6-17-91 |

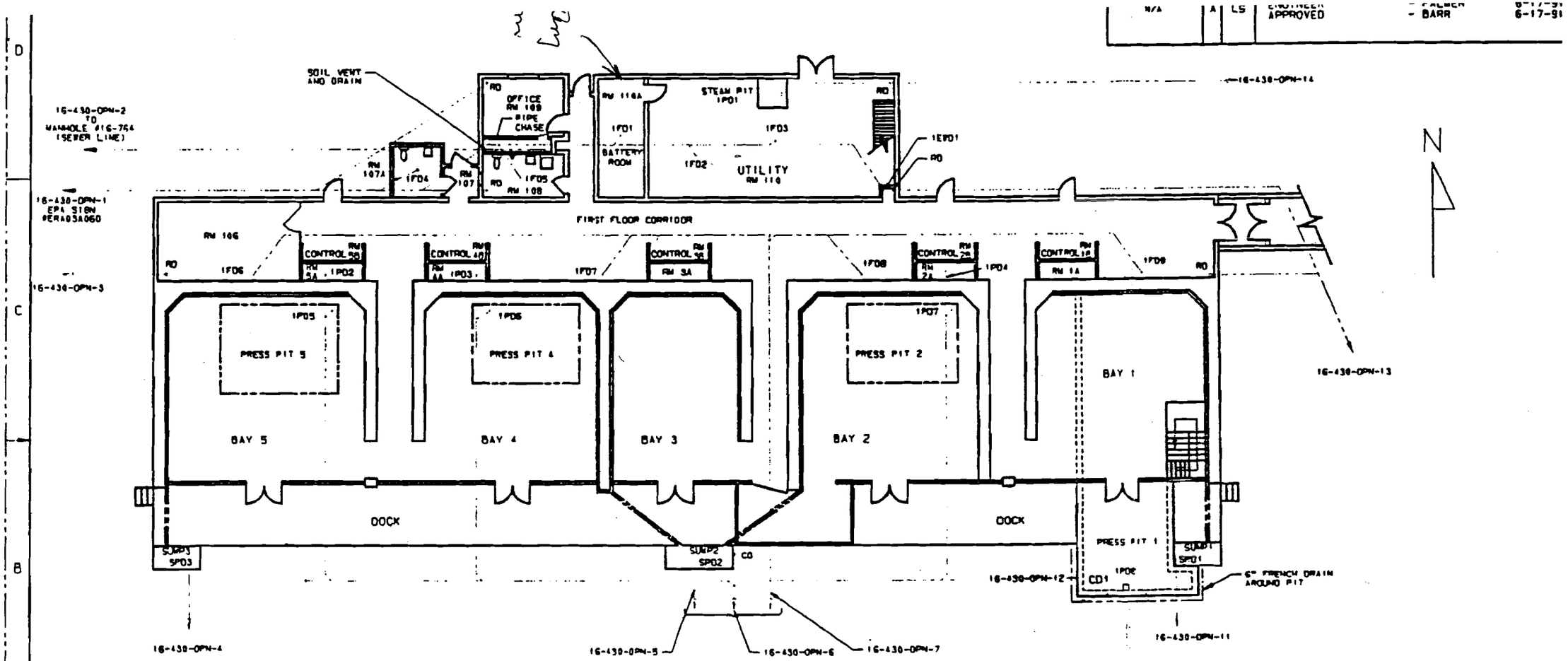



# SECOND FLOOR

LEGEND

2FD#------SECOND FLOOR DRAIN
RD--------RAIN DRAIN

| | | |
|---|---|---|
| PART CODE | LOS ALAMOS NATIONAL LABORATORY | |
| SHEET 3 / ISSUE A | TITLE (U) TITLE CLASSIFICATION<br>SECOND FLOOR<br>PLUMBING AND DRAIN PLAN<br>TA-16-430 | |
| PART CLASSIFICATION UNCLASSIFIED | | |
| ENGLISH | DRAWING CLASSIFICATION UNCLASSIFIED | SIZE D / DRAWING NUMBER 13Y-192071 |
| THIRD ANGLE PROJECTION | 06-28-91 08:16 | FSCM 88516 / SCALE / SHEET 3 OF - |
| | STATUS | ORIGIN LA-ICEMPLUS-V2.03 |




FIRST FLOOR PLAN

SCALE: 1/8"=1'

LEGEND

1FD#----------FIRST FLOOR DRAIN
1PD#----------PIT DRAIN
SPD#----------SUMP DRAIN
1EWD1----------FIRST FLOOR EYE WASH DRAIN
RD----------ROOF DRAIN
CO----------CONDENSATE DRAIN
OPN----------OUTFALL PIPE #

| | | | |
|---|---|---|---|
| N/A | A | LS | ENGINEER APPROVED — BARR — 6-17-91 |

PART CODE: LOS ALAMOS NATIONAL LABORATORY

SHEET 2 | ISSUE A

TITLE: (U) TITLE CLASSIFICATION
FIRST FLOOR PLUMBING AND DRAIN PLAN TA-16-430

PART CLASSIFICATION: UNCLASSIFIED

ENGLISH (FT/IN)

DRAWING CLASSIFICATION: UNCLASSIFIED

DATE: 0

DRAWING NUMBER: 13Y-192071

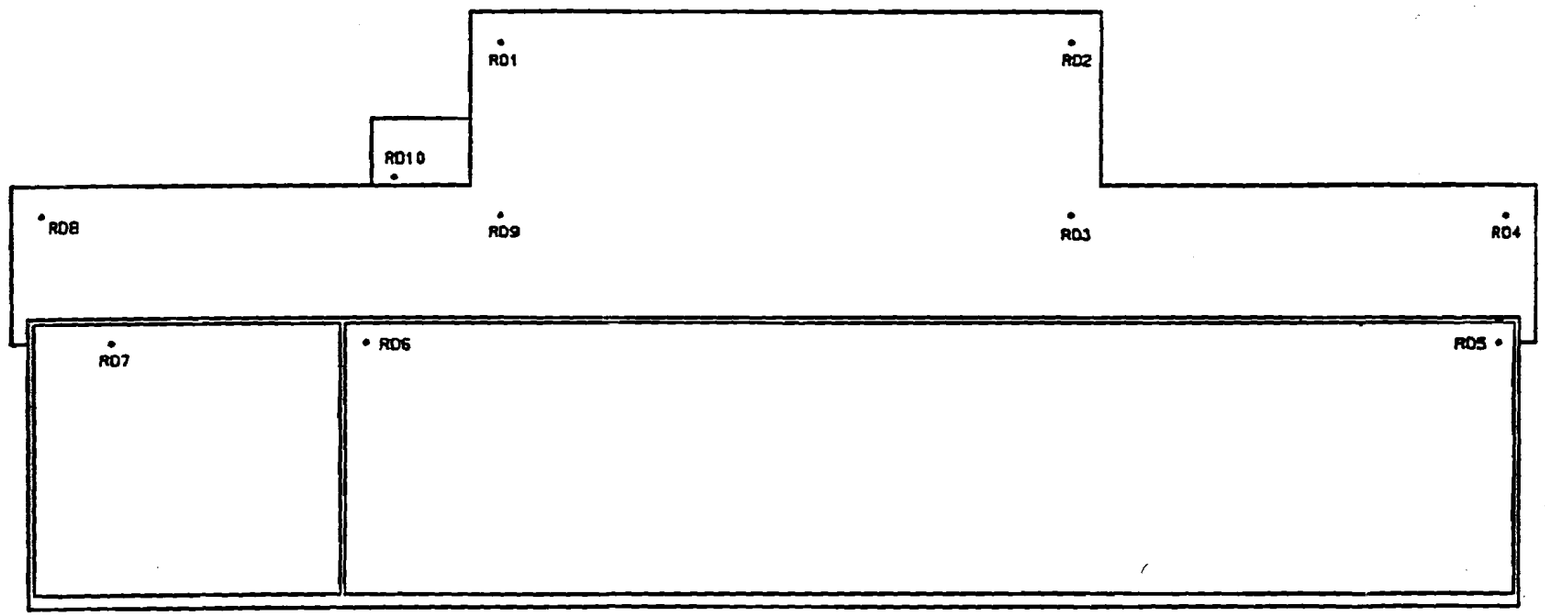
THIRD ANGLE PROJECTION

08-28-91 00:04 | PSCM 88516 | SCALE NOTED | SHEET 2 OF

STATUS | ORIGIN LA-ICEMPLUS-V2.03

4 UNCLASSIFIED | 3 UNCLASSIFIED | 2 UNCLASSIFIED | 1 UNCLASSIFIE

| PART OR CONTROL NUMBER | REVISIONS | | |
|---|---|---|---|
| | ISS | CLASS REVIEW | DESCRIPTION |
| N/A | A | LS | DRAWN BY - GARCIA 6-18-91<br>CHECKER - ABERCROMBIE<br>ENGINEER - PALMER 6-18-91<br>APPROVED - BARR 6-18-91 |




ROOF DRAIN PLAN

LEGEND

• RD--------RAIN DRAIN

| | | |
|---|---|---|
| PART CODE | LOS ALAMOS NATIONAL LABORATORY | |
| SHEET 4 / ISSUE A | TITLE (U) TITLE CLASSIFICATION<br>ROOF DRAIN PLAN<br>TA-16-430 | |
| PART CLASSIFICATION UNCLASSIFIED | | |
| ENGLISH (FT/IN) | DRAWING CLASSIFICATION UNCLASSIFIED | SIZE D / DRAWING NUMBER 13Y-192071 |

| BLDG OUTFALL NO | BLDG ROOM NO | DRAIN NO | POTENTIAL EFFLUENT |
|---|---|---|---|
| 16-430-OPN-1 | 110A | 1F01 | BATTERY SULFURIC ACID, WASH DOWN WATER |
| 16-430-OPN-1 | 110 | 1F02 | AIR COMP. WATER BLOW DOWN-MOIST; PC-1 & PC-2 CONDENSATE PUMP SHAFT SEAL LEAK DRAIN-DRY; TEMPERED WATER; RAC FLOOR CHILLER WATER OVERFLOW SEWR-11-WET; SEA RAC WATER BACKFLOW PREVENTER OVERFLOW-DRY |
| 16-430-OPN-1 | 110 | 1F03 | TCA-1 AIR COMPRESSOR TANK BLOWDOWN-MOIST; TVS-1 FROM PV1 VACUUM PUMP WATER SEAL DRAIN |
| 16-430-OPN-1 | 107A | 1F04 | WASH DOWN WATER |
| 16-430-OPN-1 | 106 | 1F05 | WASH DOWN WATER |
| 16-430-OPN-1 | ROOF | RD9 | RAIN WATER |
| 16-430-OPN-1 | ROOF | RD10 | RAIN WATER |
| 16-430-OPN-1 | FFC | 1EV01 | INDUSTRIAL WATER |
| 16-430-OPN-1 | ROOF | RD1 | RAIN WATER |
| | | | |
| 16-430-OPN-2 MH-16-754 | 107A | T/S | SANITARY WASTE-TOILET SINK |
| 16-430-OPN-2 MH-16-754 | 106 | T/S/U | SANITARY WASTE-TOILETS,SINKS & URINALS |
| 16-430-OPN-2 MH-16-754 | 201 | 2F01 | BLDG CHILLER WATER OVERFLOW-WET (CHEMICAL FEED, COLITEAM, DC FORMULA 327-1) UNUSED 2" DRAIN LINE-DRY; SMALL CHILLER WATER DRAIN-DRY .MAT'L SEAL LEAK DRAIN-DRY SE/ |
| | | | |
| 16-430-OPN-3 | 201EC | 2F06 | TEMPERED WATER AIR BLEED, 2 EA-MOIST; PTV-5 TEMPERED WATER PUMPSHAFT SEAL DRAIN UTILITY WATER POTENTIAL; SAE 6 FREEZER COMPRESSOR, SMALL |
| 16-430-OPN-3 | 201EC | 2F04 | PTV-3 & 4 TEMPERED WATER PUMP SHAFT SEAL DRAIN SAY 4 REFRIGERATOR COMPRESSOR, SMALL |
| 16-430-OPN-3 | ROOF | RD8 | RAIN WATER |
| 16-430-OPN-3 | ROOF | RD7 | RAIN WATER |
| | | | |
| 16-430-OPN-4 | SUMP3 | SF03 | HIGH EXPLOSIVES, NOCK HE |
| | | | |
| 16-430-OPN-5 | SUMP2 | SF02 | HIGH EXPLOSIVES, NOCK HE |
| | | | |
| 16-430-OPN-6 | 5A | 1F02 | HYD OIL |
| 16-430-OPN-6 | 4A | 1F03 | HYD OIL |
| 16-430-OPN-6 | 2A | 1F04 | HYD OIL |
| 16-430-OPN-6 | PP5 | 1F05 | HYD OIL |
| 16-430-OPN-6 | PP4 | 1F03 | HYD OIL |
| 16-430-OPN-6 | PP2 | 1F07 | HYD OIL |
| | | | |
| 16-430-OPN-7 | FFC | 1F06 | WASH DOWN WATER |
| 16-430-OPN-7 | FFC | 1F07 | WASH DOWN WATER |
| 16-430-OPN-7 | FFC | 1F06 | WASH DOWN WATER |
| 16-430-OPN-7 | FFC | 1F08 | WASH DOWN WATER |
| | | | |
| 16-430-OPN-8 | 9-1 | FRENCH DRAIN | DRAINS WATER |
| | | | |
| 16-430-OPN-9 | 9-1 | 1F08 | HYD OIL, CONDENSATE, WASH DOWN WATER |
| | | | |
| 16-430-OPN-10 | 9-1 | 1F01 | DRIAN LINE HAS BEEN DISCONNECTED |
| | | | |
| 16-430-OPN-11 | SUMP1 | SF01 | HIGH EXPLOSIVES, NOCK HE |
| | | | |
| 16-430-OPN-12 | 9-1 | CD1 | CONDENSATED DISCHARGE |
| | | | |
| 16-430-OPN-13 | 201EC | 2F05 | SAY 2 REFRIGERATOR COMPRESSOR, SMALL UTILITY WATER POTENTIAL |
| 16-430-OPN-13 | 201ED | 2F08 | PTV-2 TEMPERED WATER PUMP, TEMPERED WATER AIR BLEED & EA-; PTV- TEMPERED WATER PUMP; SAY 1 REFRIGERATOR UNIT; GARDOX HYDRAULIC PUMPS & INTENSIFIER-CHEM-COOL #1; UTILITY WATER POTENTIAL |
| 16-430-OPN-13 | ROOF | RD5 | RAIN WATER |
| 16-430-OPN-13 | ROOF | RD4 | RAIN WATER |
| 16-430-OPN-13 | ROOF | RD6 | RAIN WATER |
| | | | |
| 16-430-OPN-14 | 201 | 2F02 | TEMPERED WATER; CHILLER WATER DRAIN-PERIODIC-WET; TEN-1 TEMPERED WATER MAKEUP TANK-DRY; PTV-1 & 2 TEMPERED WATER PUMP SHAFT SEAL LEAK DRAIN-DRY PTV-6 & 7 TEMPERED WATER PUMP SHAFT SEAL LEAK DRAIN-DRY |
| 16-430-OPN-14 | 110 | 1F01 | SPRINKLER WATER; PORTABLE WATER, STEAM, CONDENSATE-DRY STEAM VENT CONDENSATE-DRY |
| 16-430-OPN-14 | ROOF | RD2 | RAIN WATER |

16-430-OPN-1
EPA03A060

TO SANITARY SEWER SYSTEM

--LEGEND--

PP4 PRESS PIP
FFC FIRST FLOOR CORRIDOR
RAC RAC EQUIPMENT CORRIDOR
2F04 2ND FLOOR DRAIN
RD1 ROOF DRAIN
1F01 FIRST FLOOR SYSTEMS DRAIN
T/S/U TOILETS & SINKS & URINALS
RD4 ROOF DRAIN
CD1 CONDENSATE DRAIN
OUTFALL PIPE #

| REVISIONS | | | |
|---|---|---|---|
| ISS | CLASS INITIALS | DESCRIPTION | |
| A | LS | DRAWN BY - GARCIA | 6-18-90 |
| | | CHECKER - ABERCROMBIE | |
| | | ENGINEER - PALMER | 6-18-91 |
| | | APPROVED - BARR | 6-18-91 |

PART OR CONTROL NUMBER N/A

UNCLASSIFIED

LOS ALAMOS NATIONAL LABORATORY

(U) TITLE CLASSIFICATION

TITLE DRAIN SCHEDULE TA-16-430

SIZE D

DRAWING NUMBER 13Y-192071

SHEET 5

ISSUE A

PART CLASSIFICATION UNCLASSIFIED

DRAWING CLASSIFICATION UNCLASSIFIED

ENGLISH (FT/IN)