WASTEWATER STREAM CHARACTERIZATION FOR TA 16-460, 461, 462 & 463

at
Los Alamos National Laboratory

ENVIRONMENTAL STUDY

CHARACTERIZATION REPORT #4

15201

ENVIRONMENTAL

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

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ENVIRONMENTAL STUDY

prepared for:
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Los Alamos, New Mexico

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EXECUTIVE SUMMARY

Buildings 460, 461, 462 and 463 in TA-16 were visited to document all drain piping and to make permitting recommendations. The outfall pipes exiting the building are as follows:

1) from 16-460: one unpermitted outfall to daylight, one outfall permitted as 04A157, one outfall permitted as 05A072, four storm water outfalls, one discharge to the sanitary sewer and one drain of condensed water from a building chiller;

2) from 16-461: no discharges;

3) from 16-462: one discharge that has been plugged and

4) from 16-463: no discharges.

Revised Forms 2C are included for the two outfalls that are already permitted (04A157 and 05A072). Flows shown on the forms are estimated from site observations and discussions with users. Analytical data are defined from information obtained from previously sampled outfalls.

Recommendations for repiping are provided to allow 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.

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1.0 INTRODUCTION

On November 7, 1990, Scott Carson and Patrick Binkley of Santa Fe Engineering (SFE) toured building 460 in TA-16 with Raymond Chesbro as an escort. Loren Abercrombie of Engineering and Information Resources (WX-12) supplied a vehicle and conducted the building tour. A follow up visit was made on January 18, 1991 to further document the pipes exiting the building and to visit buildings 461, 462 and 463. 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. 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 schematic 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 Energy (DOE) and the Environmental Protection Agency (EPA) and the Administrative Order (AO) Docket Number VI-91-1329 issued by EPA to the University of California 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. Interviews with site personnel were conducted to assist in wastestream characterization.

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 should 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 1). 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 exiting from the buildings are listed in Appendix 1 in Tables 2 and 3, with an abbreviations list in Table 1. Appendix 2 contains the waste stream characterization database output, listing wastewater source, 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 dye study information. Flow schematics of the drains from each building are attached in Appendix 5 as Figures 2 and 3.

3.0 RECOMMENDATIONS FOR BUILDING 460

This building is a process building. Table 2 is a list of the drains to the building outfalls and Figure 2 is a schematic of the piping. 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 16-460-OPN-1

This outfall to daylight is not permitted and receives drainage from eleven floor drains and three air line traps. Most of the drains to this outfall do not regularly discharge. The exception is 1FD23 which receives water from a number of sources The sources to this outfall are all essentially potable water and include air line traps, back flow preventers and fire water system drains. Repiping of this outfall to the sanitary treatment plant is recommended. The back-up power supply batteries are in the basement near drain 1FD16. To eliminate the chance of battery acid accidently being discharged through this outfall, secondary containment needs to be installed around the batteries. No EPA forms were prepared.

3.2 Outfall 16-460-OPN-2

This outfall to daylight is permitted as 04A157 and receives drainage from nine floor drains in the basement equipment room. The water from the vacuum pumps should be repiped to an HE sump or the pump should be replaced with a type that does not require water. The other sources should be rerouted to the sanitary treatment system. A revised Form 2C for this outfall is included in Appendix 3.

3.3 Outfall 16-460-OPN-3

This outfall to daylight is permitted as 05A072 and receives drainage from cup sinks, a dishwasher, floor drains, sinks, steam cones and a water fountain. The drains come from 16 different rooms. The largest number of drains are in room 101 which is a chemistry lab. Many of the sinks are not used and some of the ones in use receive only once through cooling water. Room 101 has the most potential for chemicals and high explosives (HE) to reach the outfall. Chemicals used in this room include acetone, toluene and methyl ethyl ketone. Standard operating procedures do not allow the draining of chemicals down the drains. The dishwasher in room 105 should be repiped to an HE sump. Floor drains 1FD1, 1FD2, 1FD3, 1FD4, 1FD5, 1FD6, 1FD7, 1FD8, 1FD9, 1FD12, 1FD13, 1FD14, 1FD15, 1FD16, 1FD17 and 1FD18 should be plugged. The drain 1S15 should be repiped so that the flow does not bypass the baffling in the HE sump. The water fountain should be repiped to the sanitary sewer. A Form 2C is attached for this outfall.

3.4 Outfalls 16-460-OPN-4, 16-460-OPN-6, 16-460-OPN-7 and 16-460-OPN-8

These outfalls to daylight receive water from roof drains. No changes are recommended for these outfalls. No EPA forms were prepared.

3.5 Outfall 16-460-OPN-5

This outfall receives drainage from two rest rooms and from a floor drain (BFD22) in the chemical storage room (Room 3). The piping leaves the building and goes to the TA-16 sanitary treatment plant. All of the drains to this outfall are appropriate except for BFD22. Table 4 is an inventory of the chemicals that were stored in this room at the time of the visit. On a subsequent visit, the number of chemicals in the room was

significantly less. The drain in the floor had a temporary plug and should be permanently plugged. No EPA forms were prepared.

3.6 Outfall 16-460-OPN-9

This outfall to daylight receives condensed water from a chiller. This outfall should be included in a Notice of Intent (NOI) to Discharge. No EPA forms were prepared.

4.0 RECOMMENDATIONS FOR BUILDING 461

This building is a passageway connecting buildings 460 and 463 and has no drains. The floors are concrete and are curbed. Any spills would be contained. No changes or permitting are recommended. No EPA forms were prepared.

5.0 RECOMMENDATIONS FOR BUILDING 462

This building is used to store chemicals as shown in Table 5. The drains from this building are shown on Figure 3 and are described in Table 3. The drains were plugged after our visit. No further changes are recommended for this outfall. No EPA forms were prepared.

6.0 RECOMMENDATIONS FOR BUILDING 463

This building is a rest house that has no drains. No changes or permitting are recommended. No EPA forms were prepared.

7.0 CONCLUSION

This document provides the information to characterize buildings 460, 461, 462 and 463 in TA-16. Permit application forms have been completed for the following outfalls (Appendix 3):

Forms 2C:

1. 16-460-OPN-2 (04A157)
2. 16-460-OPN-3 (05A072)

The remaining outfalls do not require permitting, as itemized below:

Miscellaneous:

1. 16-460-OPN-1
2. 16-460-OPN-9
3. 16-462-OPN-1

Discharges of storm water:

1. 16-460-OPN-4
2. 16-460-OPN-6
3. 16-460-OPN-7
4. 16-460-OPN-8

Discharges to sanitary sewer:

1. 16-460-OPN-5

Recommended permitting and corrective actions are outlined in Tables 2 and 3. Corrective actions should be performed as soon as practicable to minimize the chance of unpermitted discharge of pollutants.

TABLE 1
SUMMARY OF ABBREVIATIONS

ABBREVIATION	MEANING
AT	Air Line Trap
CD	Chiller Drain
CP	Cup Sink
DW	Dish Washer
FD	Floor Drain
LV	Lavatory
RD	Roof Drain
S	Sink
SC	Steam Cone
T	Toilet
UR	Urinal
WF	Water Fountain

TABLE 2: TA 16-460 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
16-460-OPN-1	BFD10	Hallway	Route to San Sewer	No
	BFD11	Hallway	Route to San Sewer	
	BFD12	Hallway	Route to San Sewer	
	BFD13	Hallway	Route to San Sewer	
	BFD14	Hallway	Route to San Sewer	
	BFD15	Hallway	Route to San Sewer	
	BFD16	Hallway	Secondary containment	
	BFD18	Hallway	Route to San Sewer	
	BFD19	Hallway	Route to San Sewer	
	BFD20	Hallway	Route to San Sewer	
	BFD23	Hallway	Route to San Sewer	
	BAT1	Hallway	Route to San Sewer	
	BAT2	Hallway	Route to San Sewer	
	BAT3	Hallway	Route to San Sewer	
16-460-OPN-2 04A157	BFD1	Equipment Room	Route to HE sump	Yes
	BFD2	Equipment Room	Route to San Sewer	
	BFD3	Equipment Room	Route to San Sewer	
	BFD4	Equipment Room	Route to San Sewer	
	BFD5	Equipment Room	Route to San Sewer	
	BFD6	Equipment Room	Route to San Sewer	
	BFD7	Equipment Room	Route to San Sewer	
	BFD8	Equipment Room	Route to San Sewer	
	BFD9	Equipment Room	Route to San Sewer	
16-460-OPN-3 05A072	1CP1	GC Room	No change	Yes
	1CP2	GC Room	No change	
	1CP3	GC Room	No change	
	1CP4	GC Room	No change	
	1CP5	GC Room	No change	
	1CP6	Wet Chem Lab	No change	
	1CP7	Wet Chem Lab	No change	
	1CP8	Wet Chem Lab	No change	
	1CP9	Wet Chem Lab	No change	
	1CP10	Drying Room	No change	
	1CP11	Drying Room	No change	
	1CP12	Drying Room	No change	
	1CP13	Glass Storage	No change	
	1CP14	HE Grinding	No change	

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

TABLE 2: TA 16-460 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
16-460-OPN-3 (Cont)	1CP15	Testing	No change	
	1CP16	Testing	No change	
	1CP17	Testing	No change	
	1CP18	Testing	No change	
	1CP19	Testing	No change	
	1CP20	Testing	No change	
	1CP21	Testing	No change	
	1CP22	Testing	No change	
	1CP23	Testing	No change	
	1CP24	Testing	No change	
	1CP25	Testing	No change	
	1CP26	Testing	No change	
	1CP27	Testing	No change	
	1CP28	Testing	No change	
	1CP29	Testing	No change	
	1CP30	Testing	No change	
	1CP31	Testing	No change	
	1CP32	Testing	No change	
	1CP33	Testing	No change	
	1CP34	Testing	No change	
	1CP35	Testing	No change	
	1DW1	Drying Room	Route to HE sump	
	1FD1	GC Room	Plug	
	1FD2	Weight Room	Plug	
	1FD3	Testing	Plug	
	1FD4	Wet Chem Lab	Plug	
	1FD5	Wet Chem Lab	Plug	
	1FD6	Wet Chem Lab	Plug	
	1FD7	Wet Chem Lab	Plug	
	1FD8	Drying Room	Plug	
	1FD9	Glass Storage	Plug	
	1FD10	HE Grinding	No change	
	1FD11	HE Grinding	No change	
	1FD12	Testing	Plug	
	1FD13	Testing	Plug	
	1FD14	Testing	Plug	
	1FD15	Coffee Room	Plug	

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

TABLE 2: TA 16-460 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
16-460-OPN-3 (Cont)	1FD16	Office	Plug	
	1FD17	Testing	Plug	
	1FD18	Testing	Plug	
	1S1	GC Room	No change	
	1S2	Wet Chem Lab	No change	
	1S3	Wet Chem Lab	No change	
	1S4	Wet Chem Lab	No change	
	1S5	Wet Chem Lab	No change	
	1S6	Wet Chem Lab	No change	
	1S7	Wet Chem Lab	No change	
	1S8	Drying Room	No change	
	1S9	Testing	No change	
	1S10	Testing	No change	
	1S11	Testing	No change	
	1S13	Testing	No change	
	1S14	Testing	No change	
	1S15	Testing	Change piping in sump	
	1SC1	Testing	No change	
	1SC2	Testing	No change	
	1SC3	Testing	No change	
	1SC4	Testing	No change	
	1WF1	Hallway	Route to San Sewer	
16-460-OPN-4	RD2	Roof	No change	No
16-460-OPN-5 SANITARY SEWER	BFD17	Men's Rest Room	No change	No
	BFD21	Women's Rest Room	No change	
	BFD22	Chemical Stg Room	Plug	
	1S12	Janitor's Closet	No change	
	BLV1	Men's Rest Room	No change	
	BLV2	Women's Rest Room	No change	
	BT1	Men's Rest Room	No change	
	BT2	Women's Rest Room	No change	
	BT3	Women's Rest Room	No change	
	BUR1	Men's Rest Room	No change	
16-460-OPN-6	RD1	Roof	No change	No
16-460-OPN-7	RD4	Roof	No change	No
16-460-OPN-8	RD3	Roof	No change	No
16-460-OPN-9	1CD1	Chiller Drain	NOI	No

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

TABLE 3: TA 16-462 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
16-462-OPN-1	1FD1	Storage	Plugged	No
	1FD2	Storage	Plugged	
	1FD3	Storage	Plugged	

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

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
1,2 Dimetyhoxyethane
1,2,3-Propanetricarboxylic acid
1,2,4,5-Tetrachlorobenzene
1,2,6-Hexanetriol
1,3-Dibutyl 2-thiourea
1,4 Dichloro 2-nitrobenzene
1,5-Dichloropentane
1,8 Naphthalic anhydride
1-Amino 2-naphthol 4-sulfonic acid
1-Heptanesulfonic acid sodium salt
1-Methyldodecylamine
1-Methylimidazole
1-Nitronaphthalene
1-Nitroso 2-naphthol
1-Pyrrolidine carbidithionic acid ammonium salt
1-Chlorobutane
1-Chloronaphthalene
1-Hexadecanol
2,2'-4,4'-6,6'-Hexanitro diphenyl sulfide
2,2'-Iminodiethanol
2,2,3,3-Tetrafluoro 1,4 butanediol
2,3 Butanedione
2,4,6-Lutidine
2,4-Dihydroxybenzoic Acid
2,4-Dinitro 1-naphthol 7-sulfonic acid
2,4-Dinitroanisole
2,4-Dinitrophenylhydrazine
2,4-Dinitroresorcinol
2,5-Piperazinedione
2,7 Naphthalenediol
2-Amino 4-chloromethyl hydrochloride
2-Amino ethanol
2-Amino pyridine
2-Ethyl 1-hexanol
2-Mercaptobenzothiozole
2-Nitro 2-n-ethyl propane diol-1,3

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
2-Nitroresorcinol
2-Nitroso 1-naphthol
2-Capryl catechol
3,4-Dichloronitrobenzene
3-Aminophthalhydrazine
3-Nitrophthalic anhydride
3-Pentanone
4',5'-Dinitrofluorescein
4,4'-diaminobenzophenone
4,4'-dihydroxydiphenyl
4,4'-Diaminodiphenylamine 2-sulfonic acid
4,4'-Methylenedianiline
4,4'-Oydianiline
4,5 Dihydroxyl 2,7 naphthalene disulfonic acid monosodium salt
4,6-Di-t-butylpyrogallol
4-Capryl resorcinol
4-Nitro o-phenylenediamine
4-Phthalamidobenxene sulfonamide
4-Pyridylpyridinizum dichloride
4-chlororesorcinol
7-Iodo 8-hydroxy quinoline sulfonic acid
8-Hydroxyquinoline
8-Hydroxyquinoline 5-sulfonic acid
Acetamide
Acetophenone
Acetyl chloride
Adipic acid
Aerosol
Agar agar
Allylthiourea
Alpha alpha' dipyridyl
Alpha benzil dioxime
Alpha benzoin oxime
Alpha naphthoflorone
Aluminum
Aluminum acetate

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Aluminum ammonium sulfide
Aluminum cement
Aluminum chloride
Aluminum citrate
Aluminum oxide
Aluminum phosphate
Aluminum sodium sulfate
Aluminum stearate
Ammonium benzoate
Ammonium bicarbonate
Ammonium biflouride
Ammonium bromide
Ammonium carbonate
Ammonium chloride
Ammonium chromate
Ammonium citrate
Ammonium dichromate
Ammonium fluroborate
Ammonium hypophosphate
Ammonium iodide
Ammonium molybdate
Ammonium nitrate
Ammonium oxalate
Ammonium persulfate
Ammonium phosphate
Ammonium sulfate
Ammonium sulfide soln
Ammonium thiocyanate
Amyl formate
Anthracene
Anthragallol
Anthranillic acid
Antimony trichloride
Arsenic pentoxide
Arsenic trioxide
Aurin
Aurin tricarboxylic acid

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Axo oil black
Azelaic acid
Azobenzene
Azoxybenzene
Balsam canada
Barium acetate
Barium chlorate
Barium chloride
Barium dioxide
Barium flouride
Barium hydroxide
Barium nitrate
Barium nitrite
Barium oxide
Barium perchlorate
Barium sulfate
Benzene
Benzene pentacarboxylic acid
Benzene sulfohydroxamec acid
Benzene anhydride
Benzene azo-diphenylamine
Benzene azo-m-cresol
Benzene azo-o-cresol
Benzene azo-resocinol
Benzene sulfonic acid
Benzene sulfonyl chloride
Benzidine
Benzidine 3-sulfonic acid
Benzidine dihydrochloride
Benzilic acid
Benzoic acid
Benzophenone
Benzoyl benzate
Benzoyl chloride
Benzoyl peroxide
Benzyl alcohol
Benzyl ether

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Beta benzoylacrylic acid
Beta naphthol
Beta, beta'-dichloroethyl ether
Bis phenol
Bis-(1H,1H,7H-perfluoro heptyl) D,L-camphorate
Bismuth
Bismuth nitrate
Boileezers
Boric acid
Boric anhydride
Boron
Boron amorphous
Bramanil
Bromine
Bromoform
Brucine sulfate
Cacotheline
Cadmium
Cadmium carbonate
Cadmium iodide
Cadmium oxide
Cadmium sulfate
Caffeine
Calcium acetate
Calcium chloride
Calcium nitrate
Calcium sulfate
Calcium tungstate
Carbazole
Carbolic acid
Carbonate of magnesia
Carminic acid
Castor oil
Catechol
Cesium ammonium sulfate
Cesium chloride
Chlorendic acid

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Chlorocyclohexane
Chloroform
Chromium chloride
Chromium sulfate
Chromotropic salt
Chrysodine Y base
Cinchonine
Cis-4-cyclohexene 1,2-dicarboxylic anhydride
Citric acid
Cobalt nitrate
Cobalt sesquioxide
Cobalt sulfate
Cobaltous chloride
Collodion
Coparvic acid
Copper
Coumarin
Cresotinic acid
Cupferron
Cupric acetate
Cupric bromide
Cupric chloride
Cupric oxalate
Cupric phosphate
Cupric sulfate
Cuprous chloride
Cuprous cyanide
Cyanoguanidine
Cyanuric acid
Cyclohexane carboxylic acid
Cyclohexanol
Cyclohexanone
Cyclohexyl phthalate
Dental dam mat'l
Devarda's metal
Di beta naphthylthiocarbazone
Di n-butyl phosphate

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Diacetyl monoxime
Dibutyl amine
Dibutyl phthalate
Dichloramine
Dichloromethane
Dichloromethylsilne
Dichromic acid
Dicyanodiamide
Dicyclohexylamine
Diethyl p-toluidine
Diethyl sebacate
Diethylaniline
Dihydroxyanthraquinone
Dihydroxymaleic acid
Dimethyl sebacate
Dimethyl glycoime sodium salt
Dimethyl sulfoxide
Dimethylamine
Dimethylamine borane
Dioctylphthalate
Diphenyl p,p'-disulfonic Acid
Diphenyldithiocarbazide
Diphenyldithiocarbazone
Diphenylmethane
Dithiooxamide
Dodecylbenzenesulfonic acid
Dulcitol
Epichlorohydrin
Ethyl cellulose
Ethylendiamine tetra acetic acid
Ethylene bromide
Ethylenediamine tetra acetic acid disodium salt
Febling's soln B
Ferric ammonium sulfate
Ferric chloride
Ferric ferroso oxide
Ferric nitrate

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Ferric oxide
Ferrous ammonium sulfate
Ferrous chloride
Ferrous sulfate
Ferrous sulfide
Fluorescein
Formvar
Furfuralacetone
Furfuryl alcohol
Gallic acid
Gallocyanine
Gelatin
Glycine
Guanidine carbonate
Guanidine carbonide
Gum arabic
Hematoxylin
Hexachloroacetone
Hexachloroerdomethylene tetrahydrophthalic anhydride
Hexachloroethane
Hexadecane
Hexahydrophthalic anhydride
Hexamethylenetetramine
Hexyl mercaptan
Hydorquinone
Hydrazobenzene
Hydrobromic acid
Hydroquinone
Hydroxylamine hydrochloride
Indium
Indium droplets
Inositol
Insta gel
Iodine
Iosol blue
Iosol blue 6G

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Iosol orange
Iosol red
Iosol yellow
Itaconic acid
Kaolin
Lactic acid
Lanolin
Lanthanum nitrate
Lanthanum oxide
Lead
Lead acetate
Lead carbonate
Lead dioxide
Lead monoxide
Lead nitrate
Lead oxide
Lead powder
Lead sulfocyanate
Levulinic acid
Lithium alumino silicate
Lithium borate
Lithium borohydrate
Lithium chloride
Lithium chromate
Lithium flouride
Lithium nitrate
Magnesium
Magnesium chloride
Magnesium sulfate
Maleic acid
Maleic anhydride
Manganese
Manganese dioxide
Manganese hypophosphate
Manganese oxalate
Manganese sulfate tetrahydrate
Manganous chloride

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Manganous nitrate soln
Mannitol
Mercuric acetate
Mercuric chloride
Mercuric iodide
Mercuric nitrate
Mercuric sulfide
Mercurous chloride
Mercurous nitrate
Mesityl oxide
Mesitylene
Methyl cellulose
Methyl salicylate
Methylcyclohexane
Methyldiphenylamine
Methylene iodide
Molybdenum
Molybdenum oxide
Molybdenum sesquioxide
Molybdenum trioxide
Molybdic anhydride
Mono butyl phosphate
Mono-n-butyl phosphate
Morin
N,N'-diphenylbenzidine
N,N-diethylformamide
N-hydroxy benzene sulfonamide
N-benzyl 1-methyl dodecuiamine
N-cuproyl gallophenone
N-ethylmorpholine
N-methylanitine
N-methylmorpholine
N-phenyl 2-naphthylamine
Naphthalene
Naphthalene 1-sulfonic acid
(4 azo 5) 8 hydroxyquinoline
Nessler's soln

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Nickel
Nickel ammonium sulfate
Nickel sulfate
Nickelous acetate
Nickelous chloride
Nickelous nitrate
Nigrosin
Nitron
Octoil
Oil black 38226
Oil scarlet 6G
Oil black BT
Oil orange 2311
Oil pink B
Oil red EGN
Oil red GRO
Oil yellow
Oleic acid
Oxalyl chloride
Pentaerythrytol
Pentyl acetate
Pentyl alcohol
Perfluorooctanoic acid
Phenanthraquinone
Phenol
Phenolphthalein
Phenylacetamide
Phenylethylethanolamine
Phenylhydrazine
Phloroglucinol-2H2O
Phosphoric anhydride
Phosphoric molydic acid
Phosphorous pentachloride
Phosphorus pentaoxide
Phosphorus trichloride
Phosphoryl chloride
Phthalic acid

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Phthalyl chloride
Pico fluor
Picrolonic acid
Plasto pink MBS
Polyacrylic anhydride
Potassium acetate
Potassium biiodate
Potassium biphatate
Potassium bisulfate
Potassium bitartrate
Potassium bromate
Potassium bromide
Potassium carbonate
Potassium chloride
Potassium chromate
Potassium citrate
Potassium clorate
Potassium cyanate
Potassium dichromate
Potassium ferricyanide
Potassium ferrocyanide
Potassium flouride
Potassium hydrogen phatate
Potassium hydroxide
Potassium iodide
Potassium nitrate
Potassium oxalate
Potassium perchlorate
Potassium permanganate
Potassium persulfate
Potassium phosphate dibasic
Potassium phosphate monobasic
Potassium phosphate tribasic
Potassium pyrosulfate
Potassium sodium tartrate
Potassium sulfate
Potassium tartrate neutral

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Potassium tetrafluorborate
Potassium thiocyanate
Pyrocatechol
Pyrogallic acid
Pyrogallol
Pyromellitic acid
Pyromellitic dianhydride
Quinalizarin
Quinoline
Quinoline yellow base
Resorcinol
Rhodizonic acid sodium derivative
Roseanitine hydrochloride
Rosin, N.F.
Rubidium iodide
Salicylic acid
Selenium powder
Semicarbazide hydrochloride
Silicon
Silicon chloride
Silver
Silver oxide
Sodiu hypophosphate
Sodium
Sodium aluminate
Sodium ammonium phosphate
Sodium bicarbonate
Sodium bismuthate
Sodium bisulfate
Sodium bisulfite
Sodium bromide
Sodium carbonate
Sodium chlorate
Sodium chloride
Sodium chromate
Sodium citrate
Sodium cyanide

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Sodium dichromate
Sodium ferrocyanide
Sodium flouride
Sodium hydroxide
Sodium iodide
Sodium meta bisulfite
Sodium meta silicate
Sodium methoxide
Sodium nitrate
Sodium nitrite
Sodium nitroferrocyanide
Sodium oleate
Sodium oxalate
Sodium perborate
Sodium phoshpate, monobasic
Sodium phosphate, dibasic
Sodium phosphate, tribasic
Sodium potassium tartrate
Sodium pyrophosphate
Sodium silicofluoride
Sodium sulfite
Sodium tartrate
Sodium tetraborate
Sodium thiocyanate
Sodium thiosulfate
Sodium tungstate
Sodium vanadate
Sodium benzene sulfinate
Sodium dihydroxytartrate osazine
Sodium lauryl sulfate
Sodium methylate
Sorbitol
Stannic chloride
Stannic oxide
Stannous chloride
Staybelite ester
Stearic acid

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Strontium
Strontium carbonate
Strontium hydroxide
Strontium nitrate
Styrene
Succinic acid
Succinic anhydride
Sulfamic acid
Sulfaniamide
Sulfolane
Sulfonic acid
Sulfosalicylic acid
Sulfur
Tannic acid
Terephthalic acid
Tetra-n-butylammonium iodide
Tetrabromofluorescein sodium salt
Tetramethylammonium
Tetramethylene sulfone
Tin
Titanium trichloride
Titanous chloride
Titanous nitrate
Tungsten
Vanadium pentoxide
Wood's alloy
Wood's metal
Xylene
Zinc
Zinc dust
Zinc nitrate
Zinc oxide
Zinc phosphate
Zinc sulfate
Zirconium
Zirconium nitrate
Celite

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
Cinnamyl alcohol
d-Tartaric acid
d-Camphor anhydride
d-Camphorsulfonic acid
dl-Camphor
iso-Cretyl chloride
iso-Phthalic acid
iso-Butyraldehyde
iso-Butyryl chloride
iso-Butylamine
k-Sodium perfluorooctanate
l-Malic acid
m-Amino Phenol
m-Aminobenzoic Acid
m-Benzene disulfonic acid
m-Chloroaniline
m-Dichlorobenzene
m-Dinitrobenzene
m-Dinitrobenzene
m-Dinitrobenzene
m-Nitrobenzaldehyde
m-Nitrobenzeneazoresorcinol
m-Nitrobenzenesulfonic acid
m-Nitrophenol
m-Nitrotoluene
m-Phenetidine
n-Amyl alcohol
n-Amyl acetate
n-Butyric anhydride
n-Butyropyrogallo
n-Decyl alcohol
n-Decylgallophenone
n-Nonylamine
n-Tetradecane
n-Butyryl chloride
n-Capric acid
n-Caproic acid

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
o-Amino phenol
o-Anisidine
o-Chloroaniline
o-Cresol
o-Dianisidine
o-Mercaptobenzoic acid
o-Nitrophenol
o-Phenanthioline
o-Phenetidine
o-Phthalic anhydride
o-Tolidine
p-Amino phenol
p-Aminodiethylaniline
p-Anisidine
p-Bromobenzoic acid
p-Chloroaniline
p-Chlorotoluene
p-Cresol
p-Cumene
p-Dimethylamino benzaldehyde
p-Dinitrobenzene
p-Diphenylamine sulfonic acid barium salt
p-Hydroxy azo benzene
p-Nitroaniline
p-Nitrobenzaldehyde
p-Nitrobenzene azo 1,8-dihydroxynaphthalene 3,6-Disulfonic acid
p-Nitrobenzeneazo alpha naphthol
p-Nitrobenzeneazoresorcinol
p-Nitrobenzenesulfonic acid
p-Nitrobenzenesulfonyl chloride
p-Nitrobenzoic acid
p-Nitrobenzyl bromide
p-Nitrophenol
p-Nitrosodimethylanitine
p-Nitrotoluene
p-Phenetidine

TABLE 4
TA 16-460 CHEMICAL INVENTORY

CHEMICAL NAME
p-Phenylenediamine
p-Terphenyl
p-p'-Biphenol
s-Dephenylcarbazone
s-Di-p-nitrophenylcarbazide
s-Diphenyllcarbazide
t-Butyl alcohol, AR
t-Butyl alcohol, prac
trans-Cinnamic acid

TABLE 5
TA 16-462 CHEMICAL INVENTORY

ROOM 101
Acetone
Diesel fuel #2
Ethanol
Insulating oil
Methyl ethyl ketone
Mineral oil
Toluene
ROOM 102
1,1,2,2-tetrachloroethane
1,2 Dichloroethane
1,4-Dioxane
2,2,4-Trimethylpentane
2,2-Dimethoxypropane
2,2-Dimethylbutane
2-Methoxyethanol
2-Propanol
3-Pentanone
4-Methyl 2-pentanone
Absolute methanol
Acetic acid, glacial
Acetic anhydride
Acetone
Acetonitrile
Acrylonitrile
Aniline
Benzene
Benzyl alcohol
Butanol
Butyl acetate
Butyl ether
Butyrol acetone
Carbon tetrachloride
Chloroform
Creylic acid
Cyclohexanone
Cyclopentane

TABLE 5
TA 16-462 CHEMICAL INVENTORY

ROOM 102 (Cont)
Cyclopentanone
Di-n-butyl amine
Dibutyl phthalate
Dichloromethane
Dimethylforamide
Dioxane
Duo seal pump oil
Ethyl acetate
Ethyl phthalate
Ethyl propionate
Formic acid
Furfuryl alcohol
GE transil transformer oil
Heptane
Hexane
Hydrochloric acid
Hydrochloric acid, .1 N
Isobutanol
Isobutyl acetate
Isopropyl alcohol
Isopropylamine
Linseed oil
Lithium borate
Methanol
Methyl cellulose
Methyl butyl ether
Methyl ethyl ketone
Methyl isobutyl ketone
Methyl cyclohexane
Nitric acid
Nitrobenzene
Octane
Pentane
Pentyl acetate
Petroleum ether
Sodium hydroxide
Sulfur chloride

TABLE 5
TA 16-462 CHEMICAL INVENTORY

ROOM 102 (Cont)
Sulfuric acid
Tetra isopropyl titanate
Tetrachloroethylene
Tetrahydrofuran
Toluene
Vacuum pump oil
m-Cresol
n-Butyl ether
o-Dichlorobenzene
p-Dioxane

REPORT 4

TA	BLDG	OUTLET PIPING NUMBER	EPA OUTFALL #	DRAIN #	ROOM DESCRIPTION	FLOW	RATE	PERIODICITY	SEASONAL	ROOM #	SOURCE TYPES
16	460	16-460-OPN-1		BAT1	HALLWAY	5	GPY		no	BASEMENT	AIR LINE TRAP BLOWDOWN
16	460	16-460-OPN-1		BAT2	HALLWAY	5	GPY		no	BASEMENT	AIR LINE TRAP BLOWDOWN
16	460	16-460-OPN-1		BAT3	HALLWAY	5	GPY		no	BASEMENT	AIR LINE TRAP BLOWDOWN
16	460	16-460-OPN-1		BFD10	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD11	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD12	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	CHILLLED WATER
16	460	16-460-OPN-1		BFD12	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	CONDENSATE
16	460	16-460-OPN-1		BFD12	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD13	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD14	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD15	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD16	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHING
16	460	16-460-OPN-1		BFD18	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD19	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD20	HALLWAY	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-1		BFD23	HALLWAY	10	GPY		no	BASEMENT	STEAM CONDENSATE
16	460	16-460-OPN-2	04A157	BFD01	EQUIPMENT ROOM	13000	GPD	4 DAYS PER WEEK	no	BASEMENT	VAC PUMP COOLING WATER
16	460	16-460-OPN-2	04A157	BFD02	EQUIPMENT ROOM	13000	GPD	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-2	04A157	BFD03	EQUIPMENT ROOM	13000	GPD	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-2	04A157	BFD04	EQUIPMENT ROOM	5	GPY		no	BASEMENT	AIR COMPRESSOR BLOWDOWN
16	460	16-460-OPN-2	04A157	BFD05	EQUIPMENT ROOM	13000	GPD	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-2	04A157	BFD06	EQUIPMENT ROOM	13000	GPD	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-2	04A157	BFD07	EQUIPMENT ROOM	5	GPY	MORE IN SUMMER	yes	BASEMENT	CHILLER CONDENSATE
16	460	16-460-OPN-2	04A157	BFD09	EQUIPMENT ROOM	13000	GPD	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1CP01	GC ROOM	1	GPD	4 DAYS PER WEEK	no	102	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP02	GC ROOM	1	GPD	4 DAYS PER WEEK	no	102	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP03	GC ROOM	1	GPD	4 DAYS PER WEEK	no	102	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP04	GC ROOM	1	GPD	4 DAYS PER WEEK	no	102	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP05	GC ROOM	1	GPD	4 DAYS PER WEEK	no	102	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP06	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP07	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A027	1CP08	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP09	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP10	DRYING ROOM	1	GPD	4 DAYS PER WEEK	no	105	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP11	DRYING ROOM	1	GPD	4 DAYS PER WEEK	no	105	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP12	DRYING ROOM	1	GPD	4 DAYS PER WEEK	no	105	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP13	GLASS STORAGE	1	GPD	4 DAYS PER WEEK	no	106	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP14	HE GRINGING	1	GPD	4 DAYS PER WEEK	no	107	INDUSTRIAL RINSE WATER

REPORT 4

TA	BLDG	OUTLET PIPING NUMBER	EPA OUTFALL #	DRAIN #	ROOM DESCRIPTION	FLOW	RATE	PERIODICITY	SEASONAL	ROOM #	SOURCE TYPES
16	460	16-460-OPN-3	05A072	1CP15	TESTING	1	GPD	4 DAYS PER WEEK	no	108	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP16	TESTING	1	GPD	4 DAYS PER WEEK	no	115	INDUSTRIAL RINSE WASTER
16	460	16-460-OPN-3	05A072	1CP17	TESTING	1	GPD	4 DAYS PER WEEK	no	115	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP18	TESTING	1	GPD	4 DAYS PER WEEK	no	115	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP19	TESTING	1	GPD	4 DAYS PER WEEK	no	115	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP20	TESTING	1	GPD	4 DAYS PER WEEK	no	115	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP21	TESTING	1	GPD	4 DAYS PER WEEK	no	114	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP22	TESTING	1	GPD	4 DAYS PER WEEK	no	114	INDUSTRIAL WASTE WATER
16	460	16-460-OPN-3	05A072	1CP23	TESTING	1	GPD	4 DAYS PER WEEK	no	114	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP24	TESTING	1	GPD	4 DAYS PER WEEK	no	114	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP25	TESTING	1	GPD	4 DAYS PER WEEK	no	113	INDUSTRAIL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP26	TESTING	1	GPD	4 DAYS PER WEEK	no	113	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP27	TESTING	1	GPD	4 DAYS PER WEEK	no	113	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP28	TESTING	1	GPD	4 DAYS PER WEEK	no	110	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP29	TESTING	1	GPD	4 DAYS PER WEEK	no	110	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP30	TESTING	1	GPD	4 DAYS PER WEEK	no	110	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP31	TESTING	1	GPD	4 DAYS PER WEEK	no	110	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP32	TESTING	1	GPD	4 DAYS PER WEEK	no	109	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP33	TESTING	1	GPD	4 DAYS PER WEEK	no	109	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1CP34	TESTING	1	GPD	4 DAYS PER WEEK	no	109	INDUSTRIAL RINSE
16	460	16-460-OPN-3	05A072	1CP35	TESTING ROOM	1	GPD	4 DAYS PER WEEK	no	109	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1DW1	DRYING ROOM	1	GPD	4 DAYS PER WEEK	no	105	DISH WASHER FOR GLASSWARE
16	460	16-460-OPN-3	05A072	1FD01	GC ROOM	10	GPY	4 DAYS PER WEEK	no	102	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD02	WEIGHT ROOM	10	GPY	4 DAYS PER WEEK	no	103	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD03	TESTING	10	GPY	4 DAYS PER WEEK	no	104	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD04	WET CHEM LAB	10	GPY	4 DAYS PER WEEK	no	101	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD05	WET CHEM LAB	10	GPY	4 DAYS PER WEEK	no	101	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD06	WET CHEM LAB	10	GPY	4 DAYS PER WEEK	no	101	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD07	WET CHEM LAB	10	GPY	4 DAYS PER WEEK	no	101	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD08	DRYING ROOM	10	GPY	4 DAYS PER WEEK	no	105	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD09	GLASS STORAGE	10	GPY	4 DAYS PER WEEK	no	106	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD10	HE GRINDING	10	GPY	4 DAYS PER WEEK	no	107	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD11	HE GRINDING	10	GPY	4 DAYS PER WEEK	no	108	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD12	TESTING	10	GPY	4 DAYS PER WEEK	no	115	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD13	TESTING	10	GPY	4 DAYS PER WEEK	no	114	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD15	COFFEE ROOM	10	GPY	4 DAYS PER WEEK	no	112	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD16	OFFICE	10	GPY	4 DAYS PER WEEK	no	111	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1FD17	TESTING	10	GPY	4 DAYS PER WEEK	no	110	FLOOR WASHINGS

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TA	BLDG	OUTLET PIPING NUMBER	EPA OUTFALL #	DRAIN #	ROOM DESCRIPTION	FLOW	RATE	PERIODICITY	SEASONAL	ROOM #	SOURCE TYPES
16	460	16-460-OPN-3	05A072	1FD18	TESTING	10	GPY	4 DAYS PER WEEK	no	109	FLOOR WASHINGS
16	460	16-460-OPN-3	05A072	1S01	GC ROOM	1	GPD	4 DAYS PER WEEK	no	102	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S02	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S03	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S04	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S05	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S06	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S07	WET CHEM LAB	1	GPD	4 DAYS PER WEEK	no	101	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S08	DRYING ROOM	1	GPD	4 DAYS PER WEEK	no	105	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S09	TESTING	1	GPD	4 DAYS PER WEEK	no	115	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S10	TESTING	1	GPD	4 DAYS PER WEEK	no	114	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S11	TESTING	1	GPD	4 DAYS PER WEEK	no	113	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S13	TESTING	1	GPD	4 DAYS PER WEEK	no	110	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S14	TESTING	1	GPD	4 DAYS PER WEEK	no	109	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1S15	TESTING	1	GPD	4 DAYS PER WEEK	no	109	INDUSTRIAL RINSE WATER
16	460	16-460-OPN-3	05A072	1SC1	TESTING	1	GPD	4 DAYS PER WEEK	no	115	STEAM CONDENSATE
16	460	16-460-OPN-3	05A072	1SC2	TESTING	1	GPD	4 DAYS PER WEEK	no	115	STEAM CONDENSATE
16	460	16-460-OPN-3	05A072	1SC3	TESTING	1	GPD	4 DAYS PER WEEK	no	114	STEAM CONDENSATE
16	460	16-460-OPN-3	05A072	1SC4	TESTING	1	GPD	4 DAYS PER WEEK	no	113	STEAM CONDENSATE
16	460	16-460-OPN-3	05A072	1WF1	HALLWAY	500	GPD	4 DAYS PER WEEK	no		DRINKING WATER
16	460	16-460-OPN-4		RD2	ROOF	80000	GPY	MOSTLY SUMMER	no	ROOF	RAIN
16	460	16-460-OPN-5		1S12	JANITOR'S CLOSET	10	GPD	4 DAYS PER WEEK	no		MOP WATER
16	460	16-460-OPN-5		BFD17	REST ROOM	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-5		BFD21	REST ROOM	5	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-5		BFD22	CHEMICAL STORAGE	20	GPY	4 DAYS PER WEEK	no	BASEMENT	FLOOR WASHINGS
16	460	16-460-OPN-5		BLV1	REST ROOM	50	GPD	4 DAYS PER WEEK	no	BASEMENT	HAND WASHING
16	460	16-460-OPN-5		BLV2	REST ROOM	50	GPD	4 DAYS PER WEEK	no	BASEMENT	HAND WASHING
16	460	16-460-OPN-5		BT1	REST ROOM	50	GPD	4 DAYS PER WEEK	no	BASEMENT	SANITARY WASTE
16	460	16-460-OPN-5		BT2	REST ROOM	50	GPD	4 DAYS PER WEEK	no	BASEMENT	SANITARY WASTE
16	460	16-460-OPN-5		BT3	REST ROOM	50	GPD	4 DAYS PER WEEK	no	BASEMENT	SANITARY WASTE
16	460	16-460-OPN-5		BUR1	REST ROOM	50	GPD	4 DAYS PER WEEK	no	BASEMENT	SANITARY WASTE
16	460	16-460-OPN-6		RD1	ROOF	80000	GPY	MOSTLY SUMMER	no	ROOF	RAIN
16	460	16-460-OPN-7		RD4	ROOF	60000	GPY	MOSTLY SUMMER	no	ROOF	RAIN
16	460	16-460-OPN-8		RD3	ROOF	80000	GPY	MOSTLY SUMMER	no	ROOF	RAIN
16	460	16-460-OPN-9		1CD1	ATTIC			MORE IN SUMMER	no		CHILLER CONDENSATE
16	461	16-461			PASSAGEWAY				no		NONE
16	462	16-462-OPN-1		1FD1	CHEMICAL STORAGE				no	101	PLUGGED
16	462	16-462-OPN-1		1FD2	CHEMICAL STORAGE				no	102	PLUGGED

REPORT 4

TA	BLDG	OUTLET PIPING NUMBER	EPA OUTFALL #	DRAIN #	ROOM DESCRIPTION	FLOW	RATE	PERIODICITY	SEASONAL	ROOM #	SOURCE TYPES
16	462	16-462-OPN-1		1FD3	CHEMICAL STORAGE				no	102	PLUGGED
16	463	16-463			REST HOUSE				no		NONE

Please print or type in the unshaded areas only

EPA I.D. NUMBER
NM0890010515

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OMB No. 2040-0086
Approval Expires 7-31-87

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)
04A157	35	50	33	106	21	6	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. (list)	2. OPERATION(S) CONTRIBUTING FLOW: a. OPERATION (list)	b. AVERAGE FLOW (include units)	3. TREATMENT: a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
157	~~TA 16-460~~		~~NONE~~		
	~~1. VAC PUMP CLNG WATER~~	~~8640 GPD~~			
	~~2. AIR COMP DRAIN~~	~~5 GPY~~			
	~~3. CONDENSATE~~	~~5 GPY~~			
	~~4. CHILLER CONDENSATE~~	~~5 GPY~~			
	~~5. CHILLED WATER~~	~~5 GPY~~			

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUE ON REVERSE

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?

☐ YES *(complete the following table)* ☒ NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK *(specify average)*	b. MONTHS PER YEAR *(specify average)*	a. FLOW RATE *(in mgd)*		b. TOTAL VOLUME *(specify with units)*		c. DURATION *(in days)*
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

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)* ☒ NO *(to 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)* ☐ 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			2. AFFECTED OUTFALLS *(list outfall numbers)*
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	
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)* ☒ NO *(go to Item IV-B)*

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

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OMB No. 2040-0086
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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 tests 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

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 (Principal Executive Officer or Ranking Elected Official)	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)*

OUTFALL NO. 04A157

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	(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	3. UNITS (specify if blank) a. CONCENTRATION	b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	< 2.0	< 65.4						mg/l	g/d			
b. Chemical Oxygen Demand *(COD)*	< 10.0	< 327.0						mg/l	g/d			
c. Total Organic Carbon *(TOC)*	.59	19.3						mg/l	g/d			
d. Total Suspended Solids *(TSS)*	18.0	588.6						mg/l	g/d			
e. Ammonia *(as N)*	< 0.1	3.3						mg/l	g/d			
f. Flow	VALUE 8640		VALUE		VALUE			gal/day	of non-contact cooling water			
g. Temperature *(winter)*	VALUE 13.9		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE NA		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 8.45	MAXIMUM 8.80	MINIMUM 8.3	MAXIMUM 8.9				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	b. 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
a. Bromide (24959-67-9)		X	< 0.5	< 16.4						mg/l	g/d			
b. Chlorine, Total Residual	X		0.05	1.6						mg/l	g/d			
c. Color	X		7.0							units				
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		.21	6.9						mg/l	g/d			
f. Nitrate-Nitrite *(as N)*	X		.304	9.9						mg/l	g/d			

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. PRESENT	b. 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
g. Nitrogen, Total Organic (as N)		X	< 0.5	< 16.4						mg/l	g/d			
h. Oil and Grease		X	< 1.05	< 16.4						mg/l	g/d			
i. Phosphorus (as P), Total (7723-14-0)	X		.05	1.6						mg/l	g/d			
j. Radioactivity														
(1) Alpha, Total	X		0.1	3.3						pCi/l	nCi/l			
(2) Beta, Total	X		6.6	215.8						pCi/l	nCi/l			
(3) Radium, Total	X													
(4) Radium 226, Total	X		.06	2.0						pCi/l	nCi/l			
k. Sulfate (as SO_4) (14808-79-8)	X		3.16	103.3						mg/l	g/d			
l. Sulfide (as S)		X												
m. Sulfite (as SO_3) (14265-45-3)		X	< .05	< 1.6						mg/l	g/d			
n. Surfactants		X	< .1	< 3.3						mg/l	g/d			
o. Aluminum, Total (7429-90-5)		X	< 0.04	< 1.3						mg/l	g/d			
p. Barium, Total (7440-39-3)	X		0.03	981.1						mg/l	mg/d			
q. Boron, Total (7440-42-8)	X		0.02	654.0						mg/l	mg/d			
r. Cobalt, Total (7440-48-4)		X	< .1	< 3.3						mg/l	g/d			
s. Iron, Total (7439-89-6)	X		0.41	13.4						mg/l	g/d			
t. Magnesium, Total (7439-95-4)	X		2.5	81.8						mg/l	g/d			
u. Molybdenum, Total (7439-98-7)		X	< .02	< 654.0						mg/l	mg/d			
v. Manganese, Total (7439-96-5)	X		.01	327.0						mg/l	mg/d			
w. Tin, Total (7440-31-5)		X	< .050	< 1.6						mg/l	g/d			
x. Titanium, Total (7440-32-6)		X	< .004	< 130.8						mg/l	mg/d			

CONTINUE ON PAGE V-3

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
NM0890010515	04A157

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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	< 1.6						mg/l	g/d			
2M. Arsenic, Total (7440-38-2)		X		.002	65.4						mg/l	mg/d			
3M. Beryllium, Total, 7440-41-7)			X	< .001	< 32.7						mg/l	mg/d			
4M. Cadmium, Total (7440-43-9)			X	< .010	< 327.0						mg/l	mg/d			
5M. Chromium, Total (7440-47-3)		X		.040	1.3						mg/l	g/d			
6M. Copper, Total (7440-50-8)		X		.031	1.0						mg/l	g/d			
7M. Lead, Total (7439-92-1)			X	< .050	< 1.6						mg/l	g/d			
8M. Mercury, Total (7439-97-6)			X	< .0002	< 6.5						mg/l	mg/d			
9M. Nickel, Total (7440-02-0)		X		0.06	2.0						mg/l	g/d			
10M. Selenium, Total (7782-49-2)			X	< .001	< 32.7						mg/l	mg/d			
11M. Silver, Total (7440-22-4)			X	< .010	< 327.0						mg/l	mg/d			
12M. Thallium, Total (7440-28-0)			X	< 0.4	< 13.1						mg/l	g/d			
13M. Zinc, Total (7440-66-6)		X		.043	1.4						mg/l	g/d			
14M. Cyanide, Total (57-12-5)			X	< .01	< 327.0						mg/l	mg/d			
15M. Phenols, Total			X	< .01	< 327.0						mg/l	mg/d			
DIOXIN															
2,3,7,8 Tetra chlorodibenzo P Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TEST INCLUDED	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	< 163.5						mg/l	mg/d			
4V. Bis (*Chloromethyl*) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X	< .005	< 163.5						mg/l	mg/d			
6V. Carbon Tetrachloride (56-23-5)			X	< .005	< 163.5						mg/l	mg/d			
7V. Chlorobenzene (108-90-7)			X	< .005	< 163.5						mg/l	mg/d			
8V. Chlorodibromomethane (124-48-1)			X	< .005	< 163.5						mg/l	mg/d			
9V. Chloroethane (75-00-3)			X	< .010	< 327.0						mg/l	mg/d			
10V. 2-Chloroethylvinyl Ether (110-75-8)			X												
11V. Chloroform (67-66-3)			X	< .005	< 163.5						mg/l	mg/d			
12V. Dichlorobromomethane (75-27-4)			X	< .005	< 163.5						mg/l	mg/d			
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)			X	< .005	< 163.5						mg/l	mg/d			
15V. 1,2-Dichloroethane (107-06-2)			X	< .005	< 163.5						mg/l	mg/d			
16V. 1,1-Dichloroethylene (75-35-4)			X	< .005	< 163.5						mg/l	mg/d			
17V. 1,2-Dichloropropane (78-87-5)			X	< .005	< 163.5						mg/l	mg/d			
18V. 1,3-Dichloropropylene (542-75-6)			X												
19V. Ethylbenzene (100-41-4)			X	< .005	< 163.5						mg/l	mg/d			
20V. Methyl Bromide (74-83-9)			X	< .010	< 327.0						mg/l	mg/d			
21V. Methyl Chloride (74-87-3)			X	< .010	< 327.0						mg/l	mg/d			

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

OUTFALL NUMBER: 04A157

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

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TEST INCLUDE 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	< 163.5						mg/l	mg/d			
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	< .005	< 163.5						mg/l	mg/d			
24V. Tetrachloroethylene (127-18-4)			X	< .005	< 163.5						mg/l	mg/d			
25V. Toluene (108-88-3)			X	< .005	< 163.5						mg/l	mg/d			
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	< .005	< 163.5						mg/l	mg/d			
27V. 1,1,1-Trichloroethane (71-55-6)			X	< .005	< 163.5						mg/l	mg/d			
28V. 1,1,2-Trichloroethane (79-00-5)			X	< .005	< 163.5						mg/l	mg/d			
29V. Trichloroethylene (79-01-6)			X	< .005	< 163.5						mg/l	mg/d			
30V. Trichlorofluoromethane (75-69-4)			X	< .005	< 163.5						mg/l	mg/d			
31V. Vinyl Chloride (75-01-4)			X	< .010	< 327.0						mg/l	mg/d			
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	< .010	< 327.0						mg/l	mg/d			
2A. 2,4-Dichlorophenol (120-83-2)			X	< .010	< 327.0						mg/l	mg/d			
3A. 2,4-Dimethylphenol (105-67-9)			X	< .010	< 327.0						mg/l	mg/d			
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	< .010	< 327.0						mg/l	mg/d			
5A. 2,4-Dinitrophenol (51-28-5)			X	< .010	< 327.0						mg/l	mg/d			
6A. 2-Nitrophenol (88-75-5)			X	< .010	< 327.0						mg/l	mg/d			
7A. 4-Nitrophenol (100-02-7)			X	< .010	< 327.0						mg/l	mg/d			
8A. P-Chloro-M-Cresol (59-50-7)			X	< .010	< 327.0						mg/l	mg/d			
9A. Pentachlorophenol (87-86-5)			X	< .010	< 327.0						mg/l	mg/d			
10A. Phenol (108-95-2)			X	< .010	< 327.0						mg/l	mg/d			
11A. 2,4,6-Trichlorophenol (88-06-2)			X	< .010	< 327.0						mg/l	mg/d			

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															
1B. Acenaphthene (83-32-9)			X	< .010	< 327.0						mg/l	mg/d			
2B. Acenaphtylene (208-96-8)			X	< .010	< 327.0						mg/l	mg/d			
3B. Anthracene (120-12-7)			X	< .010	< 327.0						mg/l	mg/d			
4B. Benzidine (92-87-5)			X	< .010	< 327.0						mg/l	mg/d			
5B. Benzo (a) Anthracene (56-55-3)			X	< .010	< 327.0						mg/l	mg/d			
6B. Benzo (a) Pyrene (50-32-8)			X	< .010	< 327.0						mg/l	mg/d			
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	< .010	< 327.0						mg/l	mg/d			
8B. Benzo (ghi) Perylene (191-24-2)			X	< .010	< 327.0						mg/l	mg/d			
9B. Benzo (k) Fluoranthene (207-08-9)			X	< .010	< 327.0						mg/l	mg/d			
10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)			X	< .010	< 327.0						mg/l	mg/d			
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)			X	< .010	< 327.0						mg/l	mg/d			
12B. Bis (2-Chloroiso-propyl) Ether (102-80-1)			X	< .010	< 327.0						mg/l	mg/d			
13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)			X	< .010	< 327.0						mg/l	mg/d			
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)			X	< .010	< 327.0						mg/l	mg/d			
15B. Butyl Benzyl Phthalate (85-68-7)			X	< .010	< 327.0						mg/l	mg/d			
16B. 2-Chloro-naphthalene (91-58-7)			X	< .010	< 327.0						mg/l	mg/d			
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	< .010	< 327.0						mg/l	mg/d			
18B. Chrysene (218-01-9)			X	< .010	< 327.0						mg/l	mg/d			
19B. Dibenzo (a,h) Anthracene (53-70-3)			X	< .010	< 327.0						mg/l	mg/d			
20B. 1,2-Dichloro-benzene (95-50-1)			X	< .010	< 327.0						mg/l	mg/d			
21B. 1,3-Dichloro-benzene (541-73-1)			X	< .010	< 327.0						mg/l	mg/d			

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

OUTFALL NUMBER: 04A157

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 – BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)			X	< .010	< 327.0						mg/l	mg/d			
23B. 3,3'-Dichlorobenzidine (91-94-1)			X	< .010	< 327.0						mg/l	mg/d			
24B. Diethyl Phthalate (84-66-2)			X	< .010	< 327.0						mg/l	mg/d			
25B. Dimethyl Phthalate (131-11-3)			X	< .010	< 327.0						mg/l	mg/d			
26B. Di-N-Butyl Phthalate (84-74-2)			X	< .010	< 327.0						mg/l	mg/d			
27B. 2,4-Dinitrotoluene (121-14-2)			X	< .010	< 327.0						mg/l	mg/d			
28B. 2,6-Dinitrotoluene (606-20-2)			X	< .010	< 327.0						mg/l	mg/d			
29B. Di-N-Octyl Phthalate (117-84-0)			X	< .010	< 327.0						mg/l	mg/d			
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)			X	< .010	< 327.0						mg/l	mg/d			
31B. Fluoranthene (206-44-0)			X	< .010	< 327.0						mg/l	mg/d			
32B. Fluorene (86-73-7)			X	< .010	< 327.0						mg/l	mg/d			
33B. Hexachlorobenzene (118-74-1)			X	< .010	< 327.0						mg/l	mg/d			
34B. Hexachlorobutadiene (87-68-3)			X	< .010	< 327.0						mg/l	mg/d			
35B. Hexachlorocyclopentadiene (77-47-4)			X	< .010	< 327.0						mg/l	mg/d			
36B. Hexachloroethane (67-72-1)			X	< .010	< 327.0						mg/l	mg/d			
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)			X	< .010	< 327.0						mg/l	mg/d			
38B. Isophorone (78-59-1)			X	< .010	< 327.0						mg/l	mg/d			
39B. Naphthalene (91-20-3)			X	< .010	< 327.0						mg/l	mg/d			
40B. Nitrobenzene (98-95-3)			X	< .010	< 327.0						mg/l	mg/d			
41B. N-Nitrosodimethylamine (62-75-9)			X	< .010	< 327.0						mg/l	mg/d			
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	< .010	< 327.0						mg/l	mg/d			

CONTINUED FROM THE FRONT

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
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)			X	< .010	< 327.0						mg/l	mg/d			
44B. Phenanthrene (85-01-8)			X	< .010	< 327.0						mg/l	mg/d			
45B. Pyrene (129-00-0)			X	< .010	< 327.0						mg/l	mg/d			
46B. 1,2,4-Trichlorobenzene (120-82-1)			X	< .010	< 327.0						mg/l	mg/d			
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	< .06	< 2.0						ug/l	mg/d			
2P. α-BHC (319-84-6)			X	< .02	< 654.0						ug/l	ug/d			
3P. β-BHC (319-85-7)			X	< .1	< 3.3						ug/l	mg/d			
4P. γ-BHC (58-89-9)			X	< .03	< 981.1						ug/l	ug/d			
5P. δ-BHC (319-86-8)			X	< .12	< 3.9						ug/l	mg/d			
6P. Chlordane (57-74-9)			X	< .25	< 8.2						ug/l	mg/d			
7P. 4,4'-DDT (50-29-3)			X	< .06	< 2.0						ug/l	mg/d			
8P. 4,4'-DDE (72-55-9)			X	< .08	< 2.6						ug/l	mg/d			
9P. 4,4'-DDD (72-54-8)			X	< .08	< 2.6						ug/l	mg/d			
10P. Dieldrin (60-57-1)			X	< .08	< 2.6						ug/l	mg/d			
11P. α-Endosulfan (115-29-7)			X	< .05	< 1.6						ug/l	mg/d			
12P. β-Endosulfan (115-29-7)			X	< .08	< 2.6						ug/l	mg/d			
13P. Endosulfan Sulfate (1031-07-8)			X	< .09	< 2.9						ug/l	mg/d			
14P. Endrin (72-20-8)			X	< .06	< 2.0						ug/l	mg/d			
15P. Endrin Aldehyde (7421-93-4)			X	< .62	< 20.3						ug/l	mg/d			
16P. Heptachlor (76-44-8)			X	< .03	< 981.1						ug/l	ug/d			

CONTINUE ON PAGE V-9

CONTINUED FROM PAGE V-8

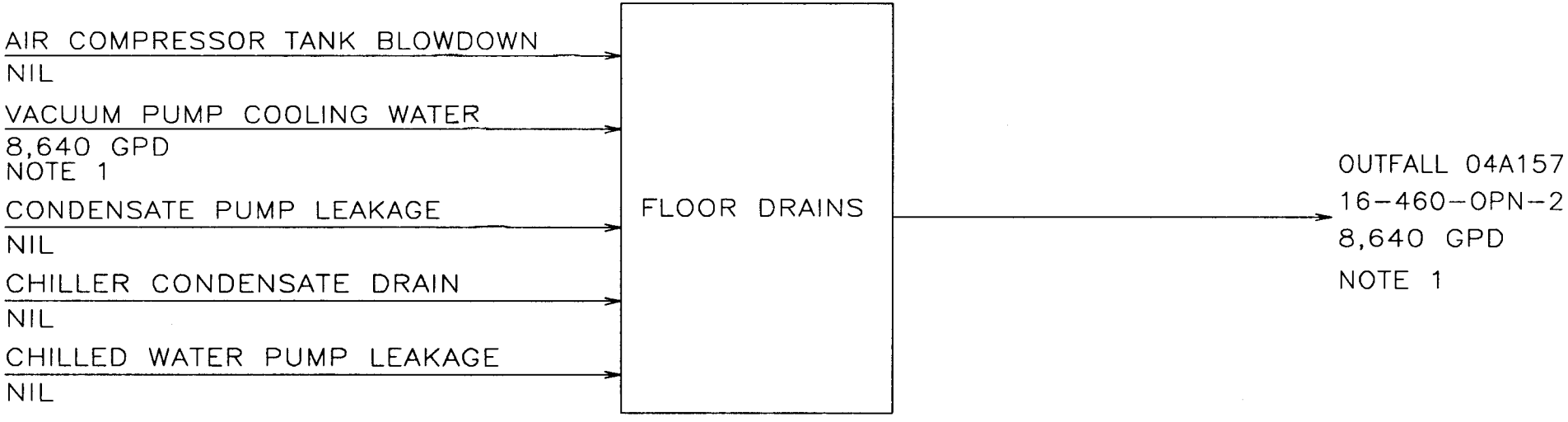
EPA I.D. NUMBER (copy from Item 1 of Form 1): NM0890010515

OUTFALL NUMBER: 04A157

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 (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 – PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X	< .04	< 1.3						ug/l	mg/d			
18P. PCB-1242 (53469-21-9)			X	< .68	< 22.2						ug/l	mg/d			
19P. PCB-1254 (11097-69-1)			X	< .68	< 22.2						ug/l	mg/d			
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X	< .68	< 22.2						ug/l	mg/d			
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X	< 2.5	< 81.8						ug/l	mg/d			

SCHEMATIC OF WATER FLOW
OUTFALL 04A157



NOTES

NOTE 1 – VACUUM PUMP COOLING WATER FOR 2 PUMPS ESTIMATED AT 9 GPM EACH; PUMPS RUN 2–3 DAYS PER WEEK, 8 HOURS PER DAY.

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)
05A072	35	50	33	106	21	6	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. (list)	2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION (list)	b. AVERAGE FLOW (include units)	3. TREATMENT a. DESCRIPTION	LIST CODES FROM TABLE 2C-1	
072	TA 16-460		DISCHARGED TO A MULTI-	1U	
	1. INDUSTRIAL RINSE	200 GPD	WEIR SUMP. RESIDUE IS		
	2. FLOOR WASHING	500 GPY	COLLECTED AND BURNED		
	3. WATER FOUNTAIN	500 GPY			
	4. DISHWASHER	500 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?

☐ YES *(complete the following table)* ☒ NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK *(specify average)*	b. MONTHS PER YEAR *(specify average)*	a. FLOW RATE *(in mgd)*		b. TOTAL VOLUME *(specify with units)*		c. DURATION *(in days)*
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

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)* ☒ NO *(to 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)* ☐ 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			2. AFFECTED OUTFALLS *(list outfall numbers)*
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	
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)* ☒ NO *(go to Item IV-B)*

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

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

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 tests 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

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)* — OUTFALL NO.

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	(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	3. UNITS *(specify if blank)* a. CONCENTRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	3.4	2.6						mg/l	g/d			
b. Chemical Oxygen Demand *(COD)*	32.5	24.6						mg/l	g/d			
c. Total Organic Carbon *(TOC)*	8.8	6.7						mg/l	g/d			
d. Total Suspended Solids *(TSS)*	< 1	< 757.0						mg/l	mg/d			
e. Ammonia *(as N)*	.43	325.5						mg/l	mg/d			
f. Flow	VALUE 200		VALUE		VALUE			gal/day		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	b. 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
a. Bromide (24959-67-9)		X	< .5	< 378.5						mg/l	mg/d			
b. Chlorine, Total Residual	X		.2	151.4						mg/l	mg/d			
c. Color	X		18							units				
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		.32	242.2						mg/l	mg/d			
f. Nitrate-Nitrite *(as N)*	X		.985	745.6						mg/l	mg/d			

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	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)	X		27.4	20.7						mg/l	g/d			
h. Oil and Grease	X		24	18.2						mg/l	g/d			
i. Phosphorus (as P), Total (7723-14-0)	X		.07	53.0						mg/l	mg/d			
j. Radioactivity														
(1) Alpha, Total	X		5	3.8						pCi/l	nCi/d			
(2) Beta, Total	X		3.8	2.9						pCi/l	nCi/d			
(3) Radium, Total	X													
(4) Radium 226, Total	X		.04	30.3						pCi/l	pCi/d			
k. Sulfate (as SO_4) (14808-79-8)	X		6.02	4.6						mg/l	g/d			
l. Sulfide (as S)		X	< .05	< 37.9						mg/l	mg/d			
m. Sulfite (as SO_3) (14265-45-3)		X												
n. Surfactants	X		.36	272.5						mg/l	mg/d			
o. Aluminum, Total (7429-90-5)		X	< .04	< 30.3						mg/l	mg/d			
p. Barium, Total (7440-39-3)	X		.76	575.3						mg/l	mg/d			
q. Boron, Total (7440-42-8)	X		.03	22.7						mg/l	mg/d			
r. Cobalt, Total (7440-48-4)		X	< .1	< 75.7						mg/l	mg/d			
s. Iron, Total (7439-89-6)	X		.28	212.0						mg/l	mg/d			
t. Magnesium, Total (7439-95-4)	X		3	2.3						mg/l	g/d			
u. Molybdenum, Total (7439-98-7)	X		.042	31.8						mg/l	mg/d			
v. Manganese, Total (7439-96-5)	X		.007	5.3						mg/l	mg/d			
w. Tin, Total (7440-31-5)		X	< .050	< 37.9						mg/l	mg/d			
x. Titanium, Total (7440-32-6)		X	< .004	< 3.0						mg/l	mg/d			

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
NM0890010515	05A072

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

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	< 37.9						mg/l	mg/d			
2M. Arsenic, Total (7440-38-2)			X	< .002	< 1.5						mg/l	mg/d			
3M. Beryllium, Total, 7440-41-7)			X	< .001	< 757.0						mg/l	ug/d			
4M. Cadmium, Total (7440-43-9)			X	< .010	< 7.6						mg/l	mg/d			
5M. Chromium, Total (7440-47-3)		X		.071	53.7						mg/l	mg/d			
6M. Copper, Total (7440-50-8)		X		.032	24.2						mg/l	mg/d			
7M. Lead, Total (7439-92-1)			X	< .050	< 37.9						mg/l	mg/d			
8M. Mercury, Total (7439-97-6)		X		.0002	151.4						mg/l	ug/d			
9M. Nickel, Total (7440-02-0)		X		.11	83.3						mg/l	mg/d			
10M. Selenium, Total (7782-49-2)			X	< .001	< 757.0						mg/l	ug/d			
11M. Silver, Total (7440-22-4)			X	< .010	< 7.6						mg/l	mg/d			
12M. Thallium, Total (7440-28-0)			X	< .4	< 302.8						mg/l	mg/d			
13M. Zinc, Total (7440-66-6)		X		.097	73.4						mg/l	mg/d			
14M. Cyanide, Total (57-12-5)		X		.12	90.8						mg/l	mg/d			
15M. Phenols, Total			X	< .01	< 7.6						mg/l	mg/d			
DIOXIN															
2,3,7,8-Tetra chlorodibenzo-P Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

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	< .005	< 3.8										
3V. Benzene (71-43-2)			X								mg/l	mg/d			
4V. Bis (Chloromethyl) Ether (542-88-1)			X	< .005	< 3.8										
5V. Bromoform (75-25-2)			X	< .005	< 3.8						mg/l	mg/d			
6V. Carbon Tetrachloride (56-23-5)			X	< .005	< 3.8						mg/l	mg/d			
7V. Chlorobenzene (108-90-7)			X	< .005	< 3.8						mg/l	mg/d			
8V. Chlorodibromomethane (124-48-1)			X	< .010	< 7.6						mg/l	mg/d			
9V. Chloroethane (75-00-3)			X								mg/l	mg/d			
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	< .005	< 3.8										
11V. Chloroform (67-66-3)			X	< .005	< 3.8						mg/l	mg/d			
12V. Dichlorobromomethane (75-27-4)			X								mg/l	mg/d			
13V. Dichlorodifluoromethane (75-71-8)			X	< .005	< 3.8										
14V. 1,1-Dichloroethane (75-34-3)			X	< .005	< 3.8						mg/l	mg/d			
15V. 1,2-Dichloroethane (107-06-2)			X	< .005	< 3.8						mg/l	mg/d			
16V. 1,1-Dichloroethylene (75-35-4)			X	< .005	< 3.8						mg/l	mg/d			
17V. 1,2-Dichloropropane (78-87-5)			X								mg/l	mg/d			
18V. 1,3-Dichloropropylene (542-75-6)			X	< .005	< 3.8										
19V. Ethylbenzene (100-41-4)			X	< .010	< 7.6						mg/l	mg/d			
20V. Methyl Bromide (74-83-9)			X	< .010	< 7.6						mg/l	mg/d			
21V. Methyl Chloride (74-87-3)											mg/l	mg/d			

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
NM0890010515	0566A072

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	< 3.8						mg/l	mg/d			
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	< .005	< 3.8						mg/l	mg/d			
24V. Tetrachloroethylene (127-18-4)			X	< .005	< 3.8						mg/l	mg/d			
25V. Toluene (108-88-3)			X	< .005	< 3.8						mg/l	mg/d			
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	< .005	< 3.8						mg/l	mg/d			
27V. 1,1,1-Trichloroethane (71-55-6)		X		.006	4.5						mg/l	mg/d			
28V. 1,1,2-Trichloroethane (79-00-5)			X	< .005	< 3.8						mg/l	mg/d			
29V. Trichloroethylene (79-01-6)			X	< .005	< 3.8						mg/l	mg/d			
30V. Trichlorofluoromethane (75-69-4)		X		.0084	6.4						mg/l	mg/d			
31V. Vinyl Chloride (75-01-4)			X	< .010	< 7.6						mg/l	mg/d			
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	< .010	< 7.6						mg/l	mg/d			
2A. 2,4-Dichlorophenol (120-83-2)			X	< .010	< 7.6						mg/l	mg/d			
3A. 2,4-Dimethylphenol (105-67-9)			X	< .010	< 7.6						mg/l	mg/d			
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	< .010	< 7.6						mg/l	mg/d			
5A. 2,4-Dinitrophenol (51-28-5)			X	< .010	< 7.6						mg/l	mg/d			
6A. 2-Nitrophenol (88-75-5)			X	< .010	< 7.6						mg/l	mg/d			
7A. 4-Nitrophenol (100-02-7)			X	< .010	< 7.6						mg/l	mg/d			
8A. P-Chloro-M-Cresol (59-50-7)			X	< .010	< 7.6						mg/l	mg/d			
9A. Pentachlorophenol (87-86-5)			X	< .010	< 7.6						mg/l	mg/d			
10A. Phenol (108-95-2)			X	< .010	< 7.6						mg/l	mg/d			
11A. 2,4,6-Trichlorophenol (88-06-2)			X	< .010	< 7.6						mg/l	mg/d			

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															
1B. Acenaphthene (83-32-9)			X	< .010	< 7.6						mg/l	g/d			
2B. Acenaphtylene (208-96-8)			X	< .010	< 7.6						mg/l	g/d			
3B. Anthracene (120-12-7)			X	< .010	< 7.6						mg/l	g/d			
4B. Benzidine (92-87-5)			X	< .010	< 7.6						mg/l	g/d			
5B. Benzo *(a)* Anthracene (56-55-3)			X	< .010	< 7.6						mg/l	g/d			
6B. Benzo *(a)* Pyrene (50-32-8)			X	< .010	< 7.6						mg/l	g/d			
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	< .010	< 7.6						mg/l	g/d			
8B. Benzo *(ghi)* Perylene (191-24-2)			X	< .010	< 7.6						mg/l	g/d			
9B. Benzo *(k)* Fluoranthene (207-08-9)			X	< .010	< 7.6						mg/l	g/d			
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)			X	< .010	< 7.6						mg/l	g/d			
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)			X	< .010	< 7.6						mg/l	g/d			
12B. Bis *(2-Chloroiso-propyl)* Ether (102-60-1)			X	< .010	< 7.6						mg/l	g/d			
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)			X	< .010	< 7.6						mg/l	g/d			
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)			X	< .010	< 7.6						mg/l	g/d			
15B. Butyl Benzyl Phthalate (85-68-7)			X	< .010	< 7.6						mg/l	g/d			
16B. 2-Chloro-naphthalene (91-58-7)			X	< .010	< 7.6						mg/l	g/d			
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	< .010	< 7.6						mg/l	g/d			
18B. Chrysene (218-01-9)			X	< .010	< 7.6						mg/l	g/d			
19B. Dibenzo *(a,h)* Anthracene (53-70-3)			X	< .010	< 7.6						mg/l	g/d			
20B. 1,2-Dichloro-benzene (95-50-1)			X	< .010	< 7.6						mg/l	g/d			
21B. 1,3-Dichloro-benzene (541-73-1)			X	< .010	< 7.6						mg/l	g/d			

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

OUTFALL NUMBER: 05A072

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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. 1,4-Dichlorobenzene (106-46-7)			X	< .010	< 7.6						mg/l	mg/d			
23B. 3,3'-Dichlorobenzidine (91-94-1)			X	< .010	< 7.6						mg/l	mg/d			
24B. Diethyl Phthalate (84-66-2)			X	< .010	< 7.6						mg/l	mg/d			
25B. Dimethyl Phthalate (131-11-3)			X	< .010	< 7.6						mg/l	mg/d			
26B. Di-N-Butyl Phthalate (84-74-2)			X	< .010	< 7.6						mg/l	mg/d			
27B. 2,4-Dinitrotoluene (121-14-2)			X	< .010	< 7.6						mg/l	mg/d			
28B. 2,6-Dinitrotoluene (606-20-2)			X	< .010	< 7.6						mg/l	mg/d			
29B. Di-N-Octyl Phthalate (117-84-0)			X	< .010	< 7.6						mg/l	mg/d			
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)			X	< .010	< 7.6						mg/l	mg/d			
31B. Fluoranthene (206-44-0)			X	< .010	< 7.6						mg/l	mg/d			
32B. Fluorene (86-73-7)			X	< .010	< 7.6						mg/l	mg/d			
33B. Hexachlorobenzene (118-74-1)			X	< .010	< 7.6						mg/l	mg/d			
34B. Hexachlorobutadiene (87-68-3)			X	< .010	< 7.6						mg/l	mg/d			
35B. Hexachlorocyclopentadiene (77-47-4)			X	< .010	< 7.6						mg/l	mg/d			
36B. Hexachloroethane (67-72-1)			X	< .010	< 7.6						mg/l	mg/d			
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)			X	< .010	< 7.6						mg/l	mg/d			
38B. Isophorone (78-59-1)			X	< .010	< 7.6						mg/l	mg/d			
39B. Naphthalene (91-20-3)			X	< .010	< 7.6						mg/l	mg/d			
40B. Nitrobenzene (98-95-3)			X	< .010	< 7.6						mg/l	mg/d			
41B. N-Nitrosodimethylamine (62-75-9)			X	< .010	< 7.6						mg/l	mg/d			
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	< .010	< 7.6						mg/l	mg/d			

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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	< 7.6						mg/l	mg/d			
44B. Phenanthrene (85-01-8)			X	< .010	< 7.6						mg/l	mg/d			
45B. Pyrene (129-00-0)			X	< .010	< 7.6						mg/l	mg/d			
46B. 1,2,4 - Trichlorobenzene (120-82-1)			X	< .010	< 7.6						mg/l	mg/d			
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	< .06	< 45.4						ug/l	ug/d			
2P. α-BHC (319-84-6)			X	< 1.0	< 757.0						ug/l	ug/d			
3P. β-BHC (319-85-7)			X	< .4	< 302.8						ug/l	ug/d			
4P. γ-BHC (58-89-9)			X	< .12	< 90.8						ug/l	ug/d			
5P. δ-BHC (319-86-8)			X	< .24	< 181.7						ug/l	ug/d			
6P. Chlordane (57-74-9)			X	< .25	< 189.2						ug/l	ug/d			
7P. 4,4'-DDT (50-29-3)			X	< .06	< 45.4						ug/l	ug/d			
8P. 4,4'-DDE (72-55-9)			X	< .08	< 60.6						ug/l	ug/d			
9P. 4,4'-DDD (72-54-8)			X	< .08	< 60.6						ug/l	ug/d			
10P. Dieldrin (60-57-1)			X	< .08	< 60.6						ug/l	ug/d			
11P. α-Endosulfan (115-29-7)			X	< .05	< 37.9						ug/l	ug/d			
12P. β-Endosulfan (115-29-7)			X	< .08	< 60.6						ug/l	ug/d			
13P. Endosulfan Sulfate (1031-07-8)			X	< .09	< 68.1						ug/l	ug/d			
14P. Endrin (72-20-8)			X	< .06	< 45.4						ug/l	ug/d			
15P. Endrin Aldehyde (7421-93-4)			X	< .31	< 234.7						ug/l	ug/d			
16P. Heptachlor (76-44-8)			X	< .15	< 113.6						ug/l	ug/d			

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

OUTFALL NUMBER: 05A072

Form Approved
OMB No. 2040-0086
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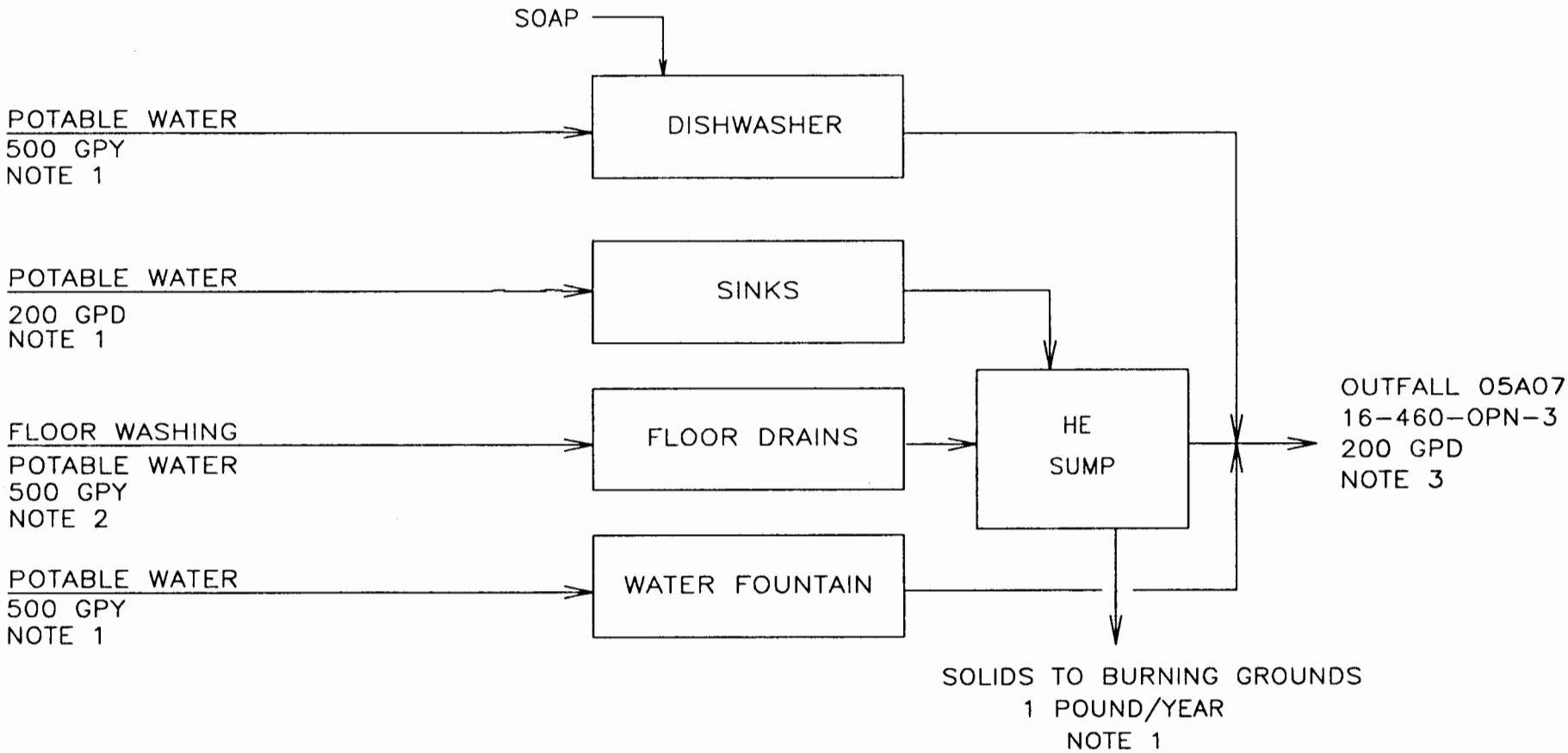
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (optional) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X	< .08	< 60.6						ug/l	ug/d			
18P. PCB-1242 (53469-21-9)			X	< 2.0	< 1.5						ug/l	mg/d			
19P. PCB-1254 (11097-69-1)			X	< 2.0	< 1.5						ug/l	mg/d			
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X	< 2.0	< 1.5						ug/l	mg/d			
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X	< 2.5	< 1.9						ug/l	mg/d			

SCHEMATIC OF WATER FLOW
OUTFALL 05A072



NOTES

NOTE 1 – ESTIMATED FROM DISCUSSION WITH USERS.
SOLVENTS ARE DISPOSED OF SEPARATELY, AS DEFINED BY STANDARD OPERATING PROCED

NOTE 2 – FLOORS OCCASIONALLY WASHED DOWN – ESTIMATED AT 100 GPY.

NOTE 3 – FLOW RATE EXCLUDES ANNUAL LOW FLOW SOURCES ESTIMATED ON AN ANNUAL BASIS.

PART OR CONTROL NUMBER	REVISIONS		
	ISS	CLASS REVIEW	DESCRIPTION
N/A	A	J.H.	DRAWN BY - GARCIA 5-21-91 CHECKER - ABERCROMBIE 6-4-91 ENGINEER - PALMER 5-21-91 APPROVED - BARR 6-4-91

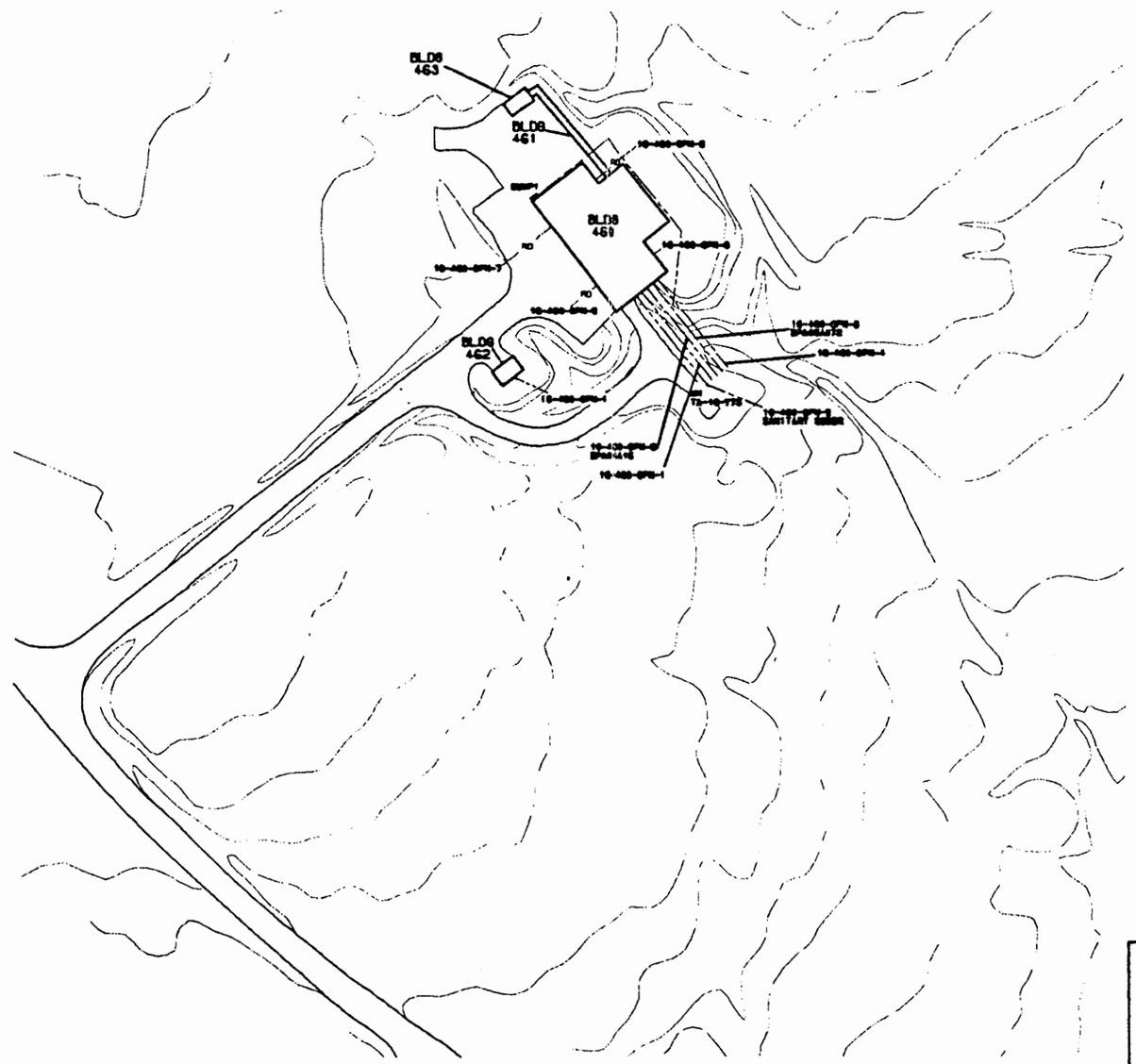
TA-16-460
INDEX SHEET

13Y-192067 SHT 1----SITE DRAINAGE PLAN
13Y-192067 SHT 2----FIRST FLOOR DRAIN PLAN
13Y-192067 SHT 3----FIRST FLOOR SINK DRAIN PLAN
13Y-192067 SHT 4----BASEMENT PLUMBING AND FLOOR DRAIN PLAN
13Y-192067 SHT 5----ROOF DRAIN PLAN
13Y-192067 SHT 6----SOUTHEAST ELEVATION
13Y-192067 SHT 7----POTENTIAL EFFLUENT
13Y-192067 SHT 8----POTENTIAL EFFLUENT
13Y-192067 SHT 9----FIRST FLOOR ELECTRICAL HAZARD
13Y-192067 SHT 10---BASEMENT ELECTRICAL HAZARD
13Y-192067 SHT 11---FIRST FLOOR EVAC PLAN
13Y-192067 SHT 12---BASEMENT EVAC PLAN

PART CODE	LOS ALAMOS NATIONAL LABORATORY	
SHEET 0 / ISSUE A	TITLE (U) TITLE CLASSIFICATION INDEX SHEET TA-16-460	
PART CLASSIFICATION UNCLASSIFIED		
ENGLISH (FT/IN)	DRAWING CLASSIFICATION UNCLASSIFIED	SIZE D / DRAWING NUMBER 13Y-192067
THIRD ANGLE PROJECTION	09-17-91 07:10	FSCM 88516 / SCALE 1/1 / SHEET 0 OF -
	STATUS	ORIGIN LA-ICEMPLUS-V2.03

4 UNCLASSIFIED 3 UNCLASSIFIED 2 UNCLASSIFIED 1 UNCLASSIFIED

PART OR CONTROL NUMBER	REVISIONS		
	ISS	CLASS REVIEW	DESCRIPTION
N/A	A		DRAWN BY - GARCIA 5-21-91 CHECKER - ABERCROMBIE 6-4-91 ENGINEER - PALMER 5-21-91 APPROVED - BARR 6-4-91

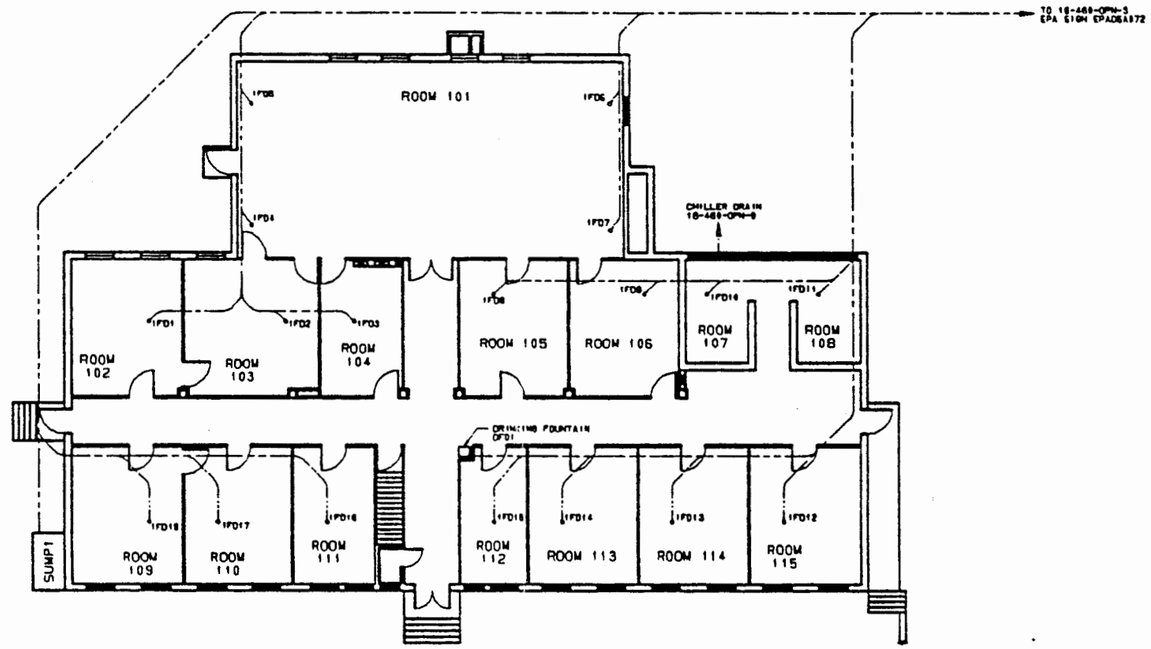


PART CODE	LOS ALAMOS NATIONAL LABORATORY	
SHEET 1 / ISSUE A	TITLE (UNCL) TITLE CLASSIFICATION DRAINAGE PLAN TA-16-460	
PART CLASSIFICATION UNCLASSIFIED		
ENGLISH (FT/IN)	DRAWING CLASSIFICATION UNCLASSIFIED	SIZE D / DRAWING NUMBER 13Y-192067
THIRD ANGLE PROJECTION	09-17-91 07:24	PSCH 88516 SCALE --- SHEET 1 OF -
	STATUS	ORIGIN LA-ICEMPLUS-V2.03

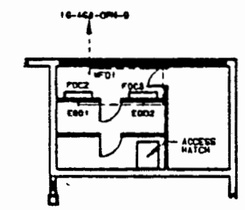
4 UNCLASSIFIED 3 UNCLASSIFIED 2 UNCLASSIFIED 1 UNCLASSIFIED

UNCLASSIFIED

PART OR CONTROL NUMBER	REVISIONS		
	ISS	CLASS REVIEW	DESCRIPTION
N/A	A	J.H.	DRAWN BY - GARCIA 5-21-91 CHECKER - ABERCROMBIE 6-4-91 ENGINEER - PALMER 5-21-91 APPROVED - BARR 6-4-91



FIRST FLOOR
FLOOR DRAINS
SCALE 1/8"=1'



MEZZANINE
OVER ROOMS 107 &108

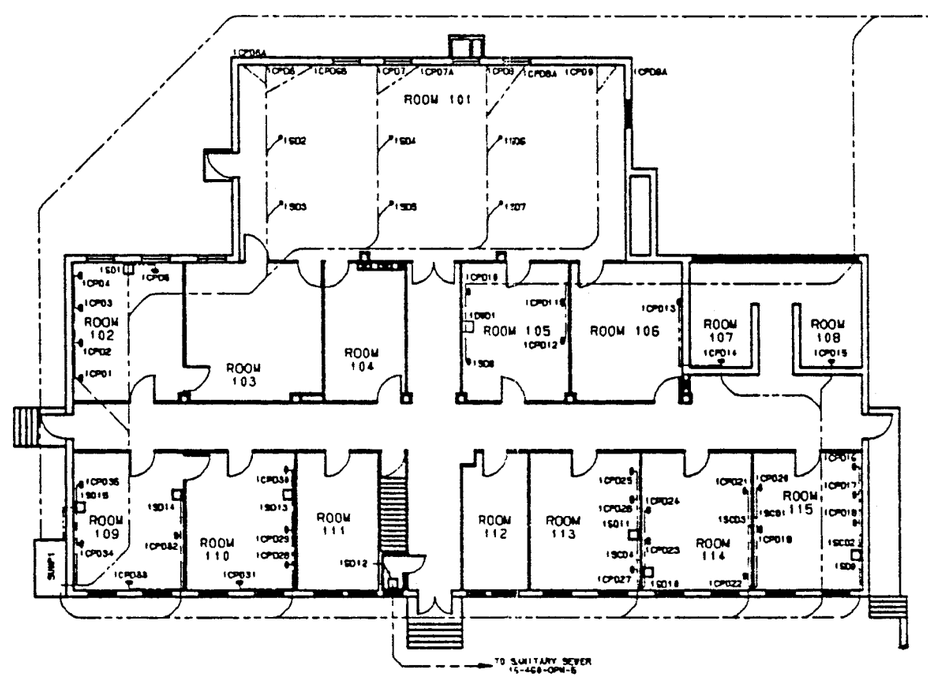
LEGEND

IFD#----------FIRST FLOOR DRAIN #
EQD#----------EQUIPMENT DRAIN #
DFD#----------DRINKING FOUNTAIN DRAIN #
MFD#----------MEZZANINE FLOOR DRAIN #
FOC#----------FILTER(OIL CURTAIN)#

PART CODE	LOS ALAMOS NATIONAL LABORATORY	
SHEET 2 / ISSUE A	TITLE (U) TITLE CLASSIFICATION FLOOR DRAIN PLAN FIRST FLOOR TA-16-460	
PART CLASSIFICATION UNCLASSIFIED		
ENGLISH (FT/IN)	DRAWING CLASSIFICATION UNCLASSIFIED	SIZE D / DRAWING NUMBER 13Y-192067
THIRD ANGLE PROJECTION	09-17-91 07:58	FSCM 88516 SCALE 1/100 SHEET 2 OF -
STATUS		ORIGIN LA-ICEMPLUS-V2.03

UNCLASSIFIED

PART OR CONTROL NUMBER	REVISIONS			
	ISS	CLASS REVIEW	DESCRIPTION	
N/A	A	J.H.	DRAWN BY - GARCIA	5-21-91
			CHECKER - ABERCROMBIE	6-4-91
			ENGINEER - PALMER	5-21-91
			APPROVED - BARR	6-4-91



FIRST FLOOR
SINK DRAINS

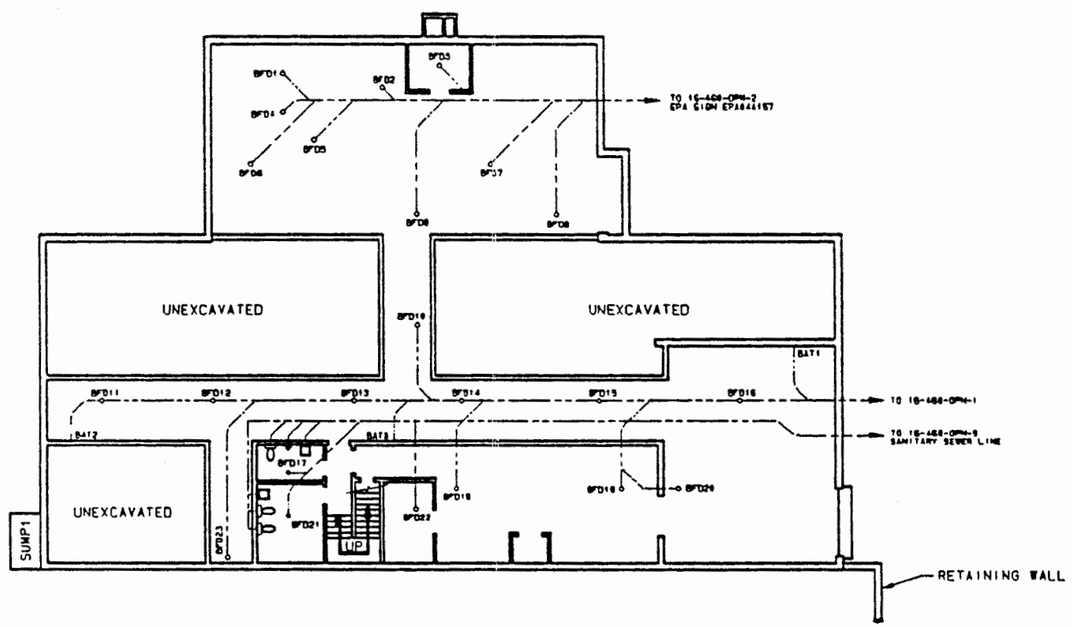
SCALE 1/8" = 1'

LEGEND

1CPD#---------FIRST FLOOR CUP DRAIN #
1SCD#---------FIRST FLOOR STEAM CUP DRAIN #
1SD#----------FIRST FLOOR SINK DRAIN #
1DWD---------FIRST FLOOR DISH WASHER DRAIN #

PART CODE	LOS ALAMOS NATIONAL LABORATORY	
SHEET 3 / ISSUE A	TITLE (U) TITLE CLASSIFICATION SINK DRAIN PLAN FIRST FLOOR TA-16-460	
PART CLASSIFICATION UNCLASSIFIED		
ENGLISH (FT/IN)	DRAWING CLASSIFICATION UNCLASSIFIED	SIZE D / DRAWING NUMBER 13Y-192067
THIRD ANGLE PROJECTION	09-17-91 07:56	FSCM 88516 SCALE --- SHEET 3 OF -
STATUS		ORIGIN LA-ICEMPLUS-V2.03

PART OR CONTROL NUMBER	REVISIONS		
	ISS	CLASS REVIEW	DESCRIPTION
N/A	A	J.H.	DRAWN BY - GARCIA 5-21-91 CHECKER - ABERCROMBIE 6-4-91 ENGINEER - PALMER 5-21-91 APPROVED - BARR 6-4-91



BASEMENT
PLUMBING AND FLOOR DRAINS

SCALE 1/8" = 1'

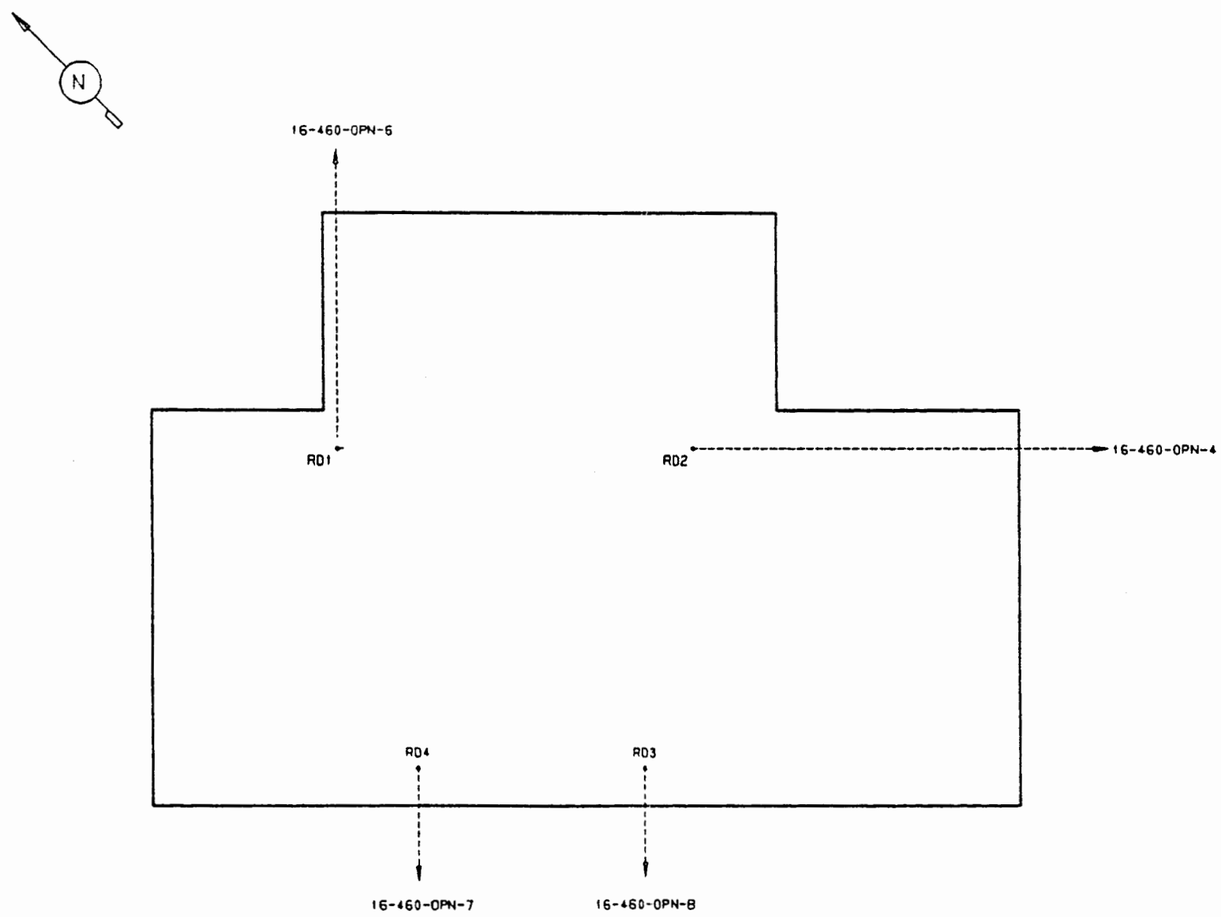
LEGEND

BFD#----------BASEMENT FLOOR DRAIN #
BAT#----------BASEMENT AIR LINE TRAP #

PART CODE	LOS ALAMOS NATIONAL LABORATORY	
SHEET 4 / ISSUE A	TITLE (U) TITLE CLASSIFICATION PLUMBING & FLOOR DRAINS BASEMENT TA-16-460	
PART CLASSIFICATION UNCLASSIFIED		
ENGLISH (FT/IN)	DRAWING CLASSIFICATION UNCLASSIFIED	SIZE D / DRAWING NUMBER 13Y-192067
THIRD ANGLE PROJECTION	09-17-91 08:06	FSCM 88516 SCALE --- SHEET 4 OF -
STATUS		ORIGIN LA-ICEMPLUS-V2.03

4 UNCLASSIFIED | 3 UNCLASSIFIED | 2 UNCLASSIFIED | 1 UNCLASSIFIED

PART OR CONTROL NUMBER	REVISIONS		
	ISS	CLASS REVIEW	DESCRIPTION
N/A	A	J.H.	DRAWN BY - GARCIA 5-21-91 CHECKER - ABERCROMBIE 6-4-91 ENGINEER - PALMER 5-21-91 APPROVED - BARR 6-4-91



ROOF
ROOF DRAINS

SCALE 1/8" = 1"

LEGEND

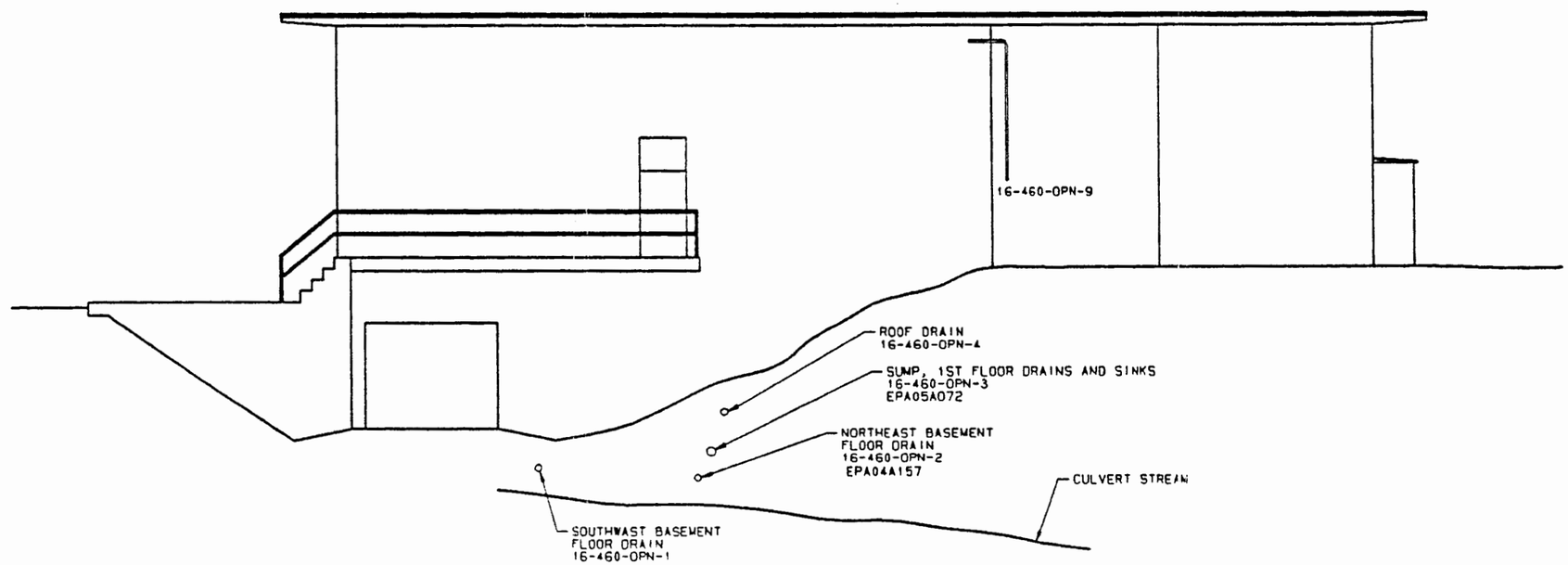
RD#----------ROOF DRAIN #

PART CODE	LOS ALAMOS NATIONAL LABORATORY	
SHEET 5 / ISSUE A	TITLE (U) TITLE CLASSIFICATION ROOF DRAIN PLAN TA-16-460	
PART CLASSIFICATION UNCLASSIFIED		
ENGLISH (FT/IN)	DRAWING CLASSIFICATION UNCLASSIFIED	SIZE D / DRAWING NUMBER 13Y-192067
THIRD ANGLE PROJECTION	90-17-01 08:21	FSCM 08516 SCALE --- SHEET 5 OF -
	STATUS	ORIGIN LA-ICEMPLUS-V2.03

4 UNCLASSIFIED | 3 UNCLASSIFIED | 2 UNCLASSIFIED | 1 UNCLASSIFIED

UNCLASSIFIED

PART OR CONTROL NUMBER	REVISIONS		
	ISS	CLASS REVIEW	DESCRIPTION
N/A	A	JH	DRAWN BY - GARCIA 5-21-91 CHECKER - ABERCROMBIE 6-4-91 ENGINEER - PALMER 5-21-91 APPROVED - BARR 6-4-91



SOUTHEAST ELEVATION

SCALE: 1/4"=1'-0"

PART CODE	LOS ALMOS NATIONAL LABORATORY
SHEET	6
ISSUE	A
PART CLASSIFICATION	UNCLASSIFIED
TITLE	(U) TITLE CLASSIFICATION SOUTHEAST ELEVATION TA-16-460
ENGLISH (FT/IN)	
DRAWING CLASSIFICATION	UNCLASSIFIED
SIZE	D
DRAWING NUMBER	13Y-192067
THIRD ANGLE PROJECTION	
88-11-01 08:28	PSCM 88516 SCALE SHEET 6 OF -
STATUS	ORIGIN LA-ICEMPLUS-V2.03

GEOMETRIC PRECISION XXX.XXXXXXXX

UNCLASSIFIED

LEGEND

H20-C----COOLING WATER
H20-I----INDUSTRIAL
H20-W----WASHWATER
H20-W----WASHWATER WATER
LC-------LABORATORY CHEMICALS
BFD#-----BASEMENT FLOOR DRAIN
1FD#-----FIRST FLOOR DRAIN
1DFD#----FIRST FLOOR DRINKING FOUNTAIN DRAIN
1CPD#----FIRST FLOOR CUP DRAIN
1SD#-----FIRST FLOOR SINK DRAIN
1DWD#----FIRST FLOOR DISHWASHER DRAIN
BAT#-----BASEMENT AIR LINE TRAP

BLDG OUTFALL NO.	BLDG ROOM NO.	DRAIN NO.	POTENTIAL EFFLUENT
16-460-OPN-1	BASEMENT	BFD10	H20-W
16-460-OPN-1	BASEMENT	BFD11	H20-W
16-460-OPN-1	BASEMENT	BFD12	H20-W
16-460-OPN-1	BASEMENT	BFD13	H20-W
16-460-OPN-1	BASEMENT	BFD14	H20-W
16-460-OPN-1	BASEMENT	BFD15	H20-W
16-460-OPN-1	BASEMENT	BFD16	H20-W,BATTERY SULFURIC ACID
16-460-OPN-1	BASEMENT	BFD18	TAPED OVER
16-460-OPN-1	BASEMENT	BFD19	H20-W
16-460-OPN-1	BASEMENT	BFD20	H20-W
16-460-OPN-1	BASEMENT	BFD23	H20-W,STEAM CONDENSATE
16-460-OPN-1	BASEMENT	BAT1	CONDENSATE-AIR
16-460-OPN-1	BASEMENT	BAT2	CONDENSATE-AIR
16-460-OPN-1	BASEMENT	BAT3	CONDENSATE-AIR
16-460-OPN-2	BASEMENT	BFD1	H20-W,H20-I,OIL,HE
16-460-OPN-2	BASEMENT	BFD2	H20-W,H20-I,OIL
16-460-OPN-2	BASEMENT	BFD3	H20-W
16-460-OPN-2	BASEMENT	BFD4	H20-W,H20-I,OIL,HE
16-460-OPN-2	BASEMENT	BFD5	H20-W,OIL,HYD.OIL
16-460-OPN-2	BASEMENT	BFD6	H20-W,OIL
16-460-OPN-2	BASEMENT	BFD7	H20-W,H20-C
16-460-OPN-2	BASEMENT	BFD8	H20-W,OIL
16-460-OPN-2	BASEMENT	BFD9	H20-W,H20-C
16-460-OPN-3	102	1FD1	TAPED (NOT IN USE) H20-W
16-460-OPN-3	103	1FD2	CAPPED (NOT IN USE)
16-460-OPN-3	104	1FD3	CAPPED (NOT IN USE)
16-460-OPN-3	101	1FD4	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1FD5	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1FD6	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1FD7	H20-W,H20-I,LC,HE
16-460-OPN-3	105	1FD8	H20-W,H20-I,LC,HE
16-460-OPN-3	106	1FD9	H20-W,H20-I,LC,HE
16-460-OPN-3	107	1FD10	H20-W,HE
16-460-OPN-3	108	1FD11	H20-W,HE
16-460-OPN-3	115	1FD12	H20-W,H20-I,LC,HE
16-460-OPN-3	114	1FD13	H20-W,H20-I,H20-C,LC
16-460-OPN-3	113	1FD14	H20-W,LC,MERCURY
16-460-OPN-3	112	1FD15	H20-W,H20-I
16-460-OPN-3	111	1FD16	CAPPED (NOT IN USE)
16-460-OPN-3	110	1FD17	CAPPED (NOT IN USE)
16-460-OPN-3	109	1FD18	CAPPED (NOT IN USE)
16-460-OPN-3	CORRIDOR	1DFD1	H20-W
16-460-OPN-3	105	1CPD10	H20-I,LC,HE
16-460-OPN-3	105	1CPD11	H20-I,LC,HE
16-460-OPN-3	105	1CPD12	H20-I,LC,HE
16-460-OPN-3	105	1SD8	H20-I,LC,HE
16-460-OPN-3	109	1SD15	H20-W,H20-I,LC,HE
16-460-OPN-3	105	1DWD1	H20-W,H20-I,LC,HE
THE FOLLOWING 16-460-OPN-3 ENTRIES FILTER THRU A SUMP			
16-460-OPN-3	102	1SD1	H20-W,LC,HE
16-460-OPN-3	101	1SD2	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1SD3	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1SD4	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1SD5	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1SD6	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1SD7	H20-W,H20-I,LC,HE
16-460-OPN-3	115	1SD9	H20-W,H20-I,LC,HE
16-460-OPN-3	114	1SD10	H20-W,LC
16-460-OPN-3	113	1SD11	H20-W,H20-I,LC,HE
16-460-OPN-3	110	1SD13	H20-W,H20-I,LC,HE
16-460-OPN-3	109	1SD14	H20-W,H20-I,LC,HE
16-460-OPN-3	102	1CPD1	(NOT IN USE)
16-460-OPN-3	102	1CPD2	(NOT IN USE)

EPA PERMIT # EPA04A157

EPA PERMIT # EPA05A072

TO SHEET 8

PART OF CONTROL NUMBER	13Y-192067
ISS	A

REVISIONS

DESCRIPTION	
DRAWN BY - GARCIA	5-28-91
CHECKER - ABERCROMBIE	6-4-91
ENGINEER - PALMER	5-28-91
APPROVED - BARR	6-4-91

ENGLISH (FT/IN)

TRACING SCALE 1:1

PART CLASSIFICATION UNCLASSIFIED

DRAWING CLASSIFICATION UNCLASSIFIED

STATUS

PART CODE

SHEET 7

ISSUE A

LOS ALAMOS NATIONAL LABORATORY

TITLE

LANL TITLE CLASSIFICATION UNCLASSIFIED

DRAIN SCHEDULE
TA-16-460

ISS D

DRAWING NUMBER 13Y-192067

PSD 885161 SCALE 1/1 SHEET 7 OF

ORIGIN LA-ICEWPLUS-V2.03

UNCLASSIFIED

PART OR CONTROL NUMBER	CS	CLASS REVIEW	REVISIONS DESCRIPTION
13Y-192067	A		DRAWN BY - GARCIA 5-29-91 CHECKER - ABERCROMBIE 6-4-91 ENGINEER - PALMER 5-29-91 APPROVED - BARR 6-4-91

BLDG. OUTFALL NO.	BLDG ROOM NO.	DRAIN NO.	POTENTIAL EFFLUENT
16-460-OPN-3	102	1CPD3	H20-W,H20-I,LC,HE
16-460-OPN-3	102	1CPD4	(NOT IN USE)
16-460-OPN-3	102	1CPD5	(NOT IN USE)
16-460-OPN-3	101	1CPD6	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1CPD6A	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1CPD6B	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1CPD7	H20-W,H20-I,H20-C
16-460-OPN-3	101	1CPD7A	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1CPD8	(NOT IN USE)
16-460-OPN-3	101	1CPD8A	(NOT IN USE)
16-460-OPN-3	101	1CPD9	H20-W,H20-I,LC,HE
16-460-OPN-3	101	1CPD9A	H20-W,H20-I,LC,HE
16-460-OPN-3	106	1CPD13	H20-W,H20-I,LC,HE
16-460-OPN-3	107	1CPD14	H20-W,H20-I,LC,HE
16-460-OPN-3	108	1CPD15	H20-W,H20-I,LC,HE
16-460-OPN-3	115	1CPD16	H20-W,H20-I,LC,HE
16-460-OPN-3	115	1CPD17	H20-W,H20-I,LC,HE
16-460-OPN-3	115	1CPD18	H20-W,H20-I,LC,HE
16-460-OPN-3	115	1CPD19	H20-W,H20-I,LC,HE
16-460-OPN-3	115	1CPD20	H20-W,H20-I,LC,HE
16-460-OPN-3	114	1CPD21	H20-W,LC
16-460-OPN-3	114	1CPD22	H20-W,LC
16-460-OPN-3	114	1CPD23	H20-W,LC
16-460-OPN-3	114	1CPD24	H20-W,LC
16-460-OPN-3	113	1CPD25	H20-W,H20-I,LC,HE
16-460-OPN-3	113	1CPD26	H20-W,H20-I,LC,HE
16-460-OPN-3	113	1CPD27	H20-W,H20-I,LC,HE
16-460-OPN-3	110	1CPD28	H20-W,H20-I,LC,HE
16-460-OPN-3	110	1CPD29	H20-W,H20-I,LC,HE
16-460-OPN-3	110	1CPD30	H20-W,H20-I,LC,HE
16-460-OPN-3	110	1CPD31	H20-W,H20-I,LC,HE
16-460-OPN-3	109	1CPD32	H20-W,H20-I,LC,HE
16-460-OPN-3	109	1CPD33	H20-W,H20-I,LC,HE
16-460-OPN-3	109	1CPD34	H20-W,H20-I,LC,HE
16-460-OPN-3	109	1CPD35	H20-W,H20-I,LC,HE
16-460-OPN-3	115	1SC01	H20-W,H20-I,LC,HE
16-460-OPN-3	115	1SC02	H20-W,H20-I,LC,HE
16-460-OPN-3	114	1SC03	H20-W,LC
16-460-OPN-3	113	1SC04	H20-W,H20-I,LC,HE
16-460-OPN-4	ROOF	RD2	H20-R
16-460-OPN-5	BASEMENT	1SD12	SANITARY WASTE-CUSTODIAL SINK
16-460-OPN-5	BASEMENT	BLV1	SANITARY WASTE-SINK
16-460-OPN-5	BASEMENT	BLV2	SANITARY WASTE-SINK
16-460-OPN-5	BASEMENT	BT1	SANITARY WASTE-TOILET
16-460-OPN-5	BASEMENT	BT2	SANITARY WASTE-TOILET
16-460-OPN-5	BASEMENT	BT3	SANITARY WASTE-TOILET
16-460-OPN-5	BASEMENT	BFD17	H20-W
16-460-OPN-5	BASEMENT	BFD21	H20-W
16-460-OPN-5	BASEMENT	BFD22	H20-W,LC
16-460-OPN-5	BASEMENT	BUR1	SANITARY WASTE-URINAL
16-460-OPN-6	ROOF	RD1	H20-R
16-460-OPN-7	ROOF	RD4	H20-R
16-460-OPN-8	ROOF	RD3	H20-R
16-460-OPN-9	MEZZANINE	MFD1	H20-I,OIL
16-460-OPN-9	MEZZANINE	EQD1	H20-I,OIL
16-460-OPN-9	MEZZANINE	EQD2	H20-I,OIL

EPA PERMIT #
EPA05A072

TO SHEET 7

LEGEND

H20-I-----INDUSTRIAL WATER
H20-R-----RAIN WATER
H20-W-----(WASH)WASTE WATER
LC-------LABORATORY CHEMICALS
BFD#-----BASEMENT FLOOR DRAIN
1CPD#----FIRST FLOOR CUP DRAIN
1SD#-----FIRST FLOOR SINK DRAIN
1SCD#----FIRST FLOOR STEAM CUP DRAIN
BLV#-----BASEMENT LAVATORY
BT#------BASEMENT TOILET
BUR#-----BASEMENT URINAL

PART CODE: LOS ALAMOS NATIONAL LABORATORY
SHEET B
ISSUE A
PART CLASSIFICATION: UNCLASSIFIED
TITLE (UNC) TITLE CLASSIFICATION: DRAIN SCHEDULE TA-16-460
ENGLISH (FT/IN)
DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE D
DRAWING NUMBER: 13Y-192067
THIRD ANGLE PROJECTION
10-17-91 08:42
FSCM 88516 SCALE 1/1 SHEET 8 OF
STATUS
ORIGIN LA-ICEMPLUS-V2.03

UNCLASSIFIED

PART OR CONTROL NUMBER	REVISIONS			
	ISS	CLASS REVIEW	DESCRIPTION	
N/A	A	J.H.	DRAWN BY - VISEL CHECKER - ENGINEER - PALMER APPROVED -	2-21-91

TA-16-462
INDEX SHEET

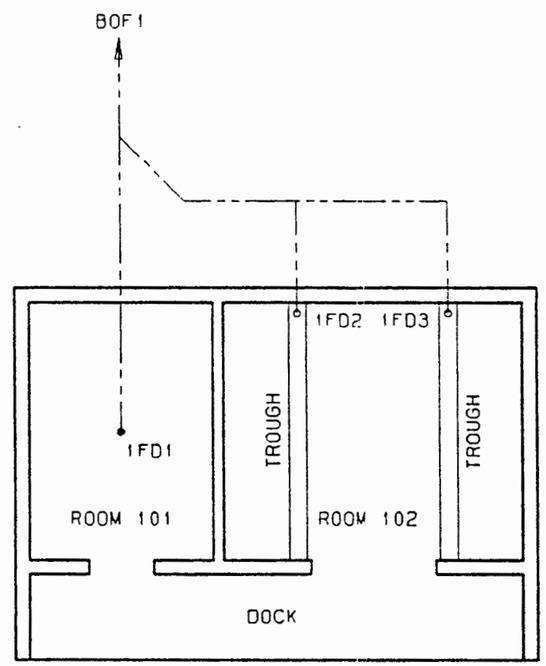
BLDG462 SHT 0----INDEX SHEET
BLDG462 SHT 1----FIRST FLOOR DRAIN PLAN
BLDG462 SHT 2----ROOF DRAIN PLAN
BLDG462 SHT 3----POTENTIAL EFFULENT

PART CODE	LOS ALAMOS NATIONAL LABORATORY
SHEET 0 / ISSUE A	TITLE (U) TITLE CLASSIFICATION: INDEX SHEET TA-16-462
PART CLASSIFICATION	UNCLASSIFIED
ENGLISH (FT/IN)	DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE	D
DRAWING NUMBER	BLDG462
THIRD ANGLE PROJECTION	
09-20-91 10:59	PSCH 88516 SCALE 1/1 SHEET 0 OF -
STATUS	ORIGIN LA-ICEMPLUS-V2.03

UNCLASSIFIED

UNCLASSIFIED

PART OR CONTROL NUMBER	REVISIONS		
	ISS	CLASS REVIEW	DESCRIPTION
X	A		DRAWN BY VISEL 2-25-91 CHECKER - ENGINEER - APPROVED -



FIRST FLOOR
FLOOR DRAINS

SCALE 1/4" = 1'

PART CODE	
SHEET 1	TITLE (UNCL TITLE CLASSIFICATION) FLOOR DRAIN PLAN FIRST FLOOR TA-16-462
ISSUE A	
PART CLASSIFICATION UNCLASSIFIED	
ENGLISH (FT/IN)	DRAWING CLASSIFICATION UNCLASSIFIED; SIZE C; DRAWING NUMBER BLDG462
THIRD ANGLE PROJECTION	09-26-91 11:12; FSCM 88516; SCALE ---; SHEET 1 OF ---
	STATUS; ORIGIN LA-ICEMPLUS-V2.03

GEOMETRIC PRECISION XXX.XXXXXXXX

UNCLASSIFIED

DYE STUDY REPORT FOR BUILDINGS
16-460, 16-461, 16-462, 16-463
COMPILED BY ENGINEERING AND INFORMATION RESOURCES (WX-12)

BUILDING 460--Dye studied from June 26-July 15, 1990

DRAIN No	DRAIN LOCATION	END OF PIPE
1FD4	RM 101	16-460-OPN-3 EPA outfall 05A072
1FD9	RM 106	16-460-OPN-3 EPA outfall 05A072
1FD10	RM 107	16-460-OPN-3 EPA outfall 05A072
1FD11	RM 108	16-460-OPN-3 EPA outfall 05A072
1FD15	RM 112	16-460-OPN-3 EPA outfall 05A072
1FD14	RM 113	16-460-OPN-3 EPA outfall 05A072
1FD13	RM 114	16-460-OPN-3 EPA outfall 05A072
BFD1	RM 6 Basement	16-460-OPN-1 EPA outfall 04A167
BFD2	RM 6 Basement	16-460-OPN-1 EPA outfall 04A167
BFD3	RM 6 Basement	16-460-OPN-1 EPA outfall 04A167
BFD5	RM 6 Basement	16-460-OPN-1 EPA outfall 04A167
BFD11	Basement Corr.	16-460-OPN-1
BFD14	Basement Corr.	16-460-OPN-1
BFD16	Basement Corr.	16-460-OPN-1
BFD20	Basement Corr.	16-460-OPN-1
BFD18	RM 2 Basement	16-460-OPN-1
BFD22	RM 3 Basement	sanitary sewer
BFD21	RM 4 Basement	sanitary sewer
BFD17	RM 5 Basement	sanitary sewer
BFD23	Basement Corr.	16-460-OPN-1
MFD1	Mezzanine	16-460-OPN-9
RD1	Roof Drain	16-460-OPN-6
RD2	Roof Drain	16-460-OPN-4
RD3	Roof Drain	16-460-OPN-8
RD4	Roof Drain	16-460-OPN-7

The following are sinks which were dye tested

1SD4 RM 101-through sump to 16-460-OPN-2 EPA outfall 05A072

The remaining sinks in the room were not verified since the piping interconnection were visible from the basement.

1SD1 RM 102-through sump to 16-460-OPN-2 EPA outfall 05A072
1CPD17 RM 107-through sump to 16-460-OPN-2 EPA outfall 05A072
1CPD18 RM 108-through sump to 16-460-OPN-2 EPA outfall 05A072
1SD9 RM 115-through sump to 16-460-OPN-2 EPA outfall 05A072
1SD11 RM 113-through sump to 16-460-OPN-2 EPA outfall 05A072
1SD15 RM 109-by-passes sump to 16-460-OPN-2 EPA outfall 05A072

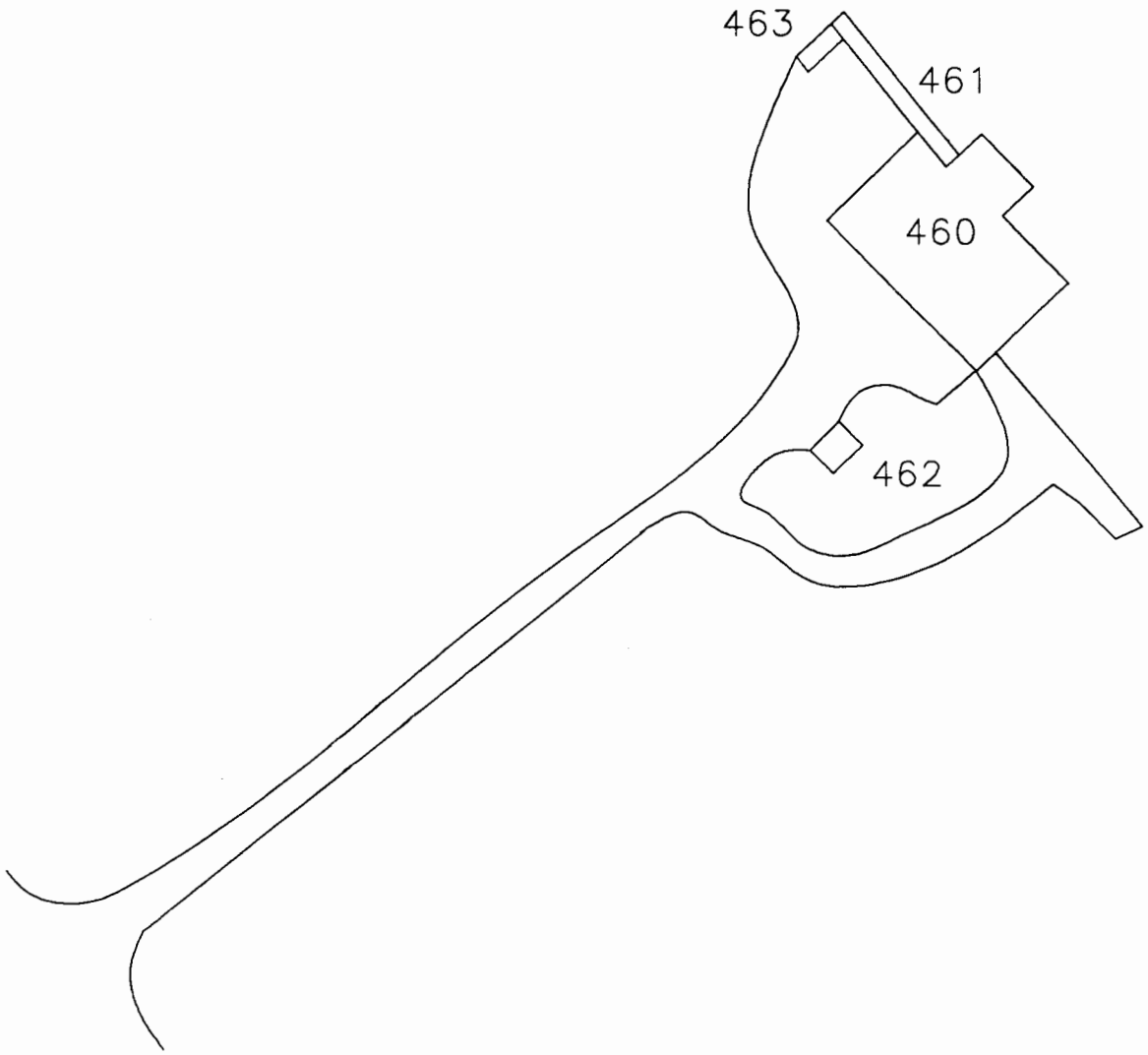
RD7	Roof Drain	16-430-OPN-3
RD8	Roof Drain	16-430-OPN-3
RD9	Roof Drain	16-430-OPN-1
RD10	Roof Drain	16-430-OPN-1

BUILDING 461--Passageway with no drains

BUILDING 462--Dye studied from June 26-July 15, 1990

DRAIN No	DRAIN LOCATION	END OF PIPE
1FD1	RM 101	16-461-OPN-1 Visually located end of pi
1FD2	RM 102	16-461-OPN-1 Visually located end of pi
1FD3	RM 103	16-461-OPN-1 Visually located end of pi

BUILDING 463--Resthouse with no drains



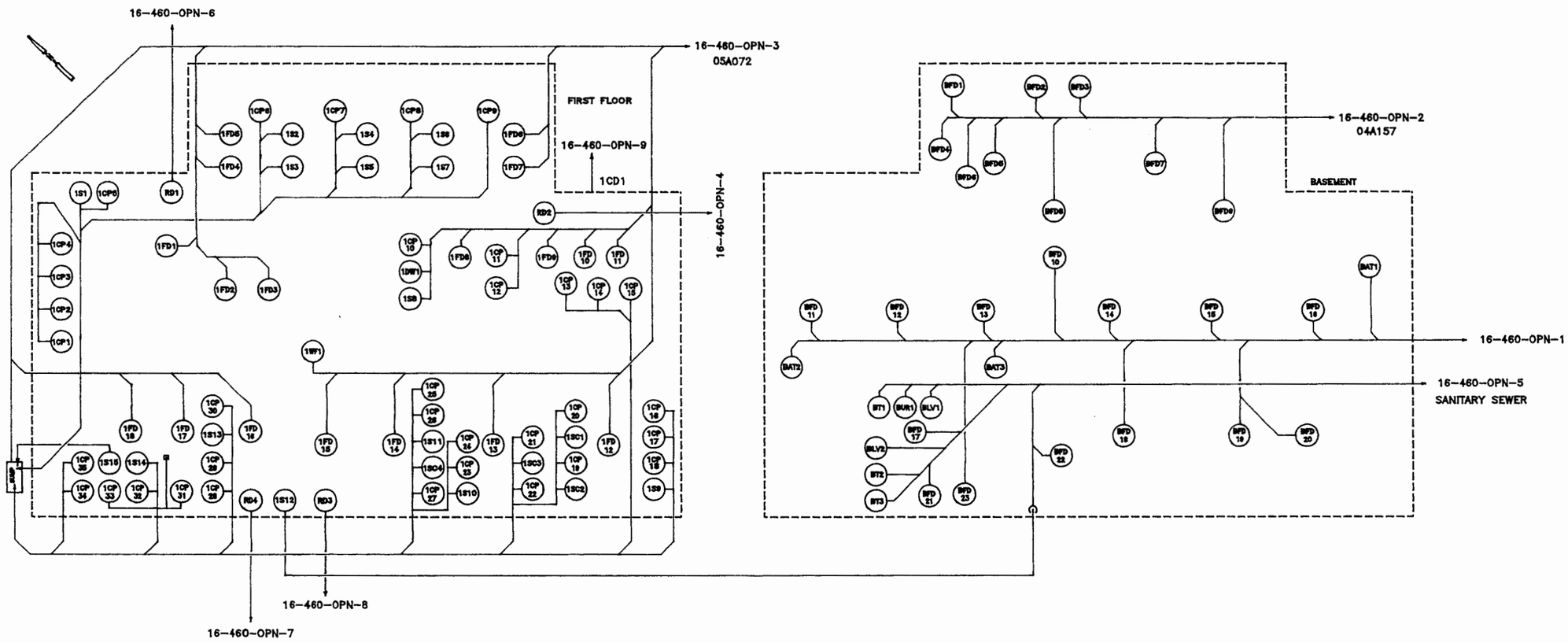
SANTA FE ENGINEERING, LTD.		
TA 16-460 AREA PLOT PLAN	DRAWN	PEB
	DESIGN	PEB
	CHECKED	LBA
	DATE	4/30/92

SUBMITTED	RECOMMENDED	APPROVED

Los Alamos	Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET	OF

CLASSIFICATION	REVIEWER	DATE

REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-4	FIGURE 1	

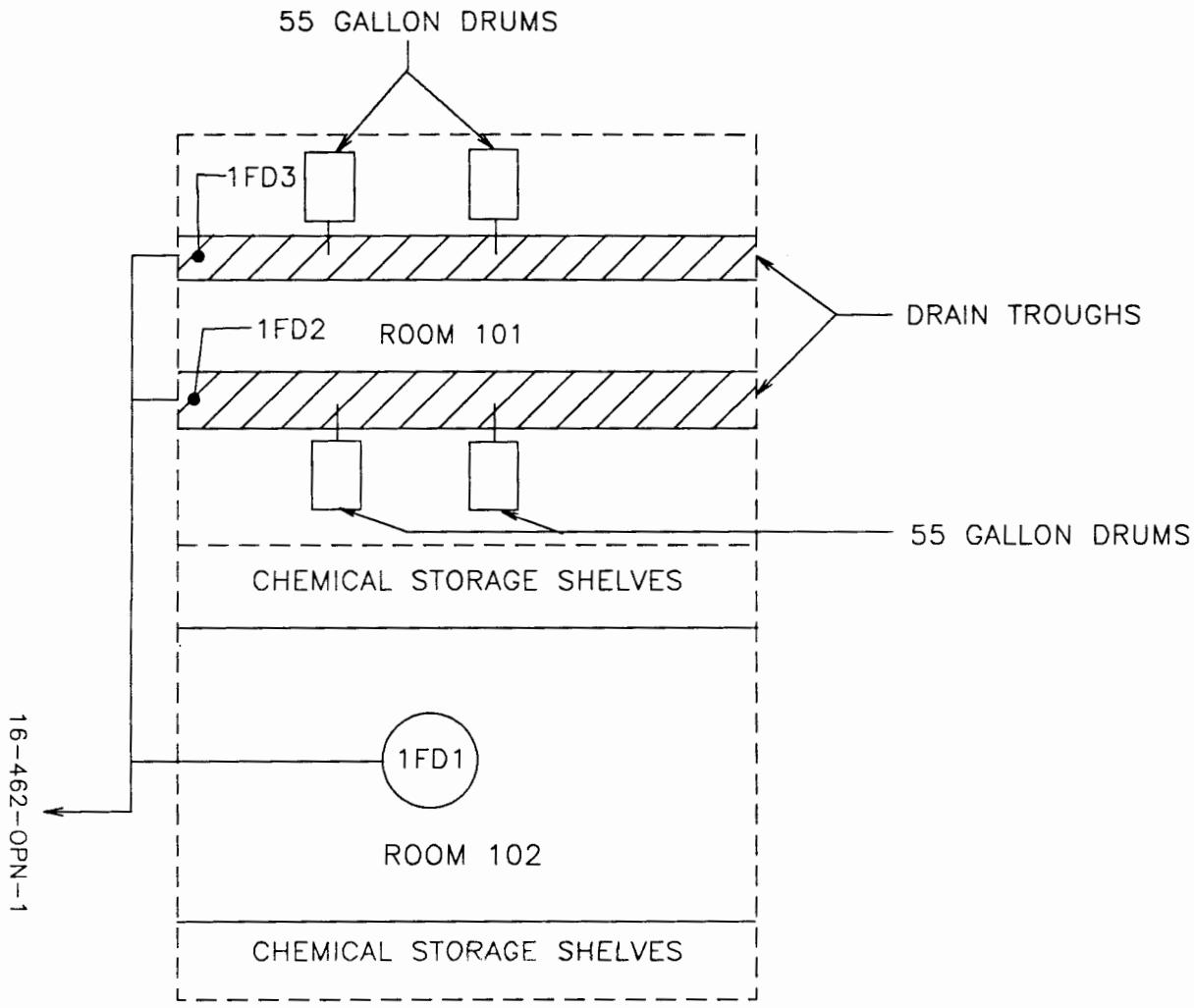


LEGEND:
BAT – BASEMENT AIR LINE TRAP
CD – CHILLER DRAIN
CP – CUP SINK
DW – DISHWASHER
FD – FLOOR DRAIN
LV – LAVATORY
RD – ROOF DRAIN
S – SINK
SC – STEAM CONE
T – TOILET
UR – URINAL
WF – WATER FOUNTAIN

NOTES:
NOTE 1 – PIPING LAYOUT FROM DRAWINGS:
ENG-C16301,16302, 16313-16326,
ENG-C16274,16275,16278,
ENG-C44456 (2 SHTS),
ENG-C43858 (SHTS 3,4 & 8)
ENG-C41514

NOTE 2 – PIPING LAYOUT FROM DRAWINGS, AS NOTED, WX-12 DYE STUDY VERIFICATION, AND SITE INSPECTION.

SANTA FE ENGINEERING, LTD.		
TA 16-460 BUILDING DRAIN SCHEMATIC	DRAWN	MSC
	DESIGN	MSC
	CHECKED	PEB
	DATE	5/1/92
SUBMITTED	RECOMMENDED	APPROVED
Los Alamos	Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET / OF
CLASSIFICATION	REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO. / REV.
REQUESTING GROUP	11056-4	FIGURE 2



NOTES:

NOTE 1 – PIPING LAYOUT FROM SITE INSPECTION

SANTA FE ENGINEERING, LTD.			PEB
TA 16-462 BUILDING DRAIN SCHEMATIC	DRAWN	PEB	
	DESIGN	LBA	
	CHECKED		
		5/1/92	
	DATE		
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos — Los Alamos National Laboratory, Los Alamos, New Mexico 87545	SHEET	OF	
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-4	FIGURE 3	