

**WASTE WATER STREAM
CHARACTERIZATION FOR
TA 53-7, 8, 15, 16, 28, 29, 30, 34, 35,
36, 37, 368, 369, 370, 371, 372, 374,
382, 384, 534, 535, 540, 541, 573, 574,
622, 625, 634, 679, 686, 726, 734, 735,
736, 776, 777, 780, 781, 782, 783, 823,
826, 880, 1031, 1039, 1043, 1120, 1121
AND 1138.**

at

Los Alamos National Laboratory

ENVIRONMENTAL STUDY

CHARACTERIZATION REPORT #33

Los Alamos

ENVIRC

Los A

Los A



15274

DIVISION

oratory

87545

WASTE WATER STREAM
CHARACTERIZATION FOR
TA 53-7, 8, 15, 16, 28, 29, 30, 34,
35, 36, 37, 368, 369, 370, 371, 372,
374, 382, 384, 534, 535, 540, 541,
573, 574, 622, 625, 634, 679, 686,
726, 734, 735, 736, 776, 777, 780,
781, 782, 783, 823, 826, 880, 1031,
1039, 1043, 1120, 1121 AND 1138

ENVIRONMENTAL STUDY

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

under subcontract 9-XG8-2874P-1

by:
Santa Fe Engineering, Ltd.
1429 Second Street
Santa Fe, New Mexico 87504
(505) 988-7438

November, 1992

UPDATED PER EM-8 COMMENTS DECEMBER, 1993.

EXECUTIVE SUMMARY

Buildings 7, 8, 15, 16, 28, 29, 30, 34, 35, 36, 37, 368, 369, 370, 371, 372, 374, 382, 384, 534, 535, 540, 541, 573, 574, 622, 625, 634, 679, 686, 726, 734, 735, 736, 776, 777, 780, 781, 782, 783, 823, 826, 880, 1031, 1039, 1043, 1120, 1121 and 1138 in TA-53 were visited to verify existing drain systems and to characterize existing and potential waste streams. Piping systems exiting the buildings are as follows:

- 1) from 53-7: two outfalls to the sanitary sewer, four outfalls to the site radioactive liquid waste (RLW) system, four vapor vents, two storm water discharges, one unpermitted discharge to daylight and four fire water discharges,
- 2) from 53-8: one outfall to the RLW system,
- 3) from 53-15: one outfall to the sanitary sewer, three fire water discharges and two vapor vents,
- 4) from 53-16: one outfall to the sanitary sewer and one air compressor drain,
- 5) from 53-28: one outfall to the sanitary sewer, one outfall to the RLW system, one storm discharge, four fire water discharges, five air-conditioning condensate discharges, one injection piping and one cooling tower discharge permitted as 03A130,
- 6) from building 53-29: three air-conditioning condensate discharges, one vapor vent and one disconnected pipe,
- 7) from 53-30: one outfall to the sanitary sewer, one outfall to the RLW system, two fire water discharges and four vapor vents,
- 8) from 53-34, 35, 369, 370, 372, 374, 384, 535, 540, 541, 573, 574, 625, 679, 686, 726, 734, 735, 776, 777, 780, 781, 782, 783, 823, 826, 880, 1039, 1043, 1120 and 1138: no drains,
- 9) from 53-36: one disconnected outfall to the RLW system and one air-conditioning condensate discharge,
- 10) from 53-37: one discharge to the sanitary sewer and one water heater pressure relief valve discharge,
- 11) from 53-368: one discharge to the RLW system and one vacuum pump discharge to atmosphere,
- 12) from 53-382: two vacuum pump discharges to atmosphere,

- 13) from 53-534 and 736: these buildings have been removed from the site,
- 14) from 53-622: two outfalls to the sanitary sewer, seven storm water discharges, two fire water drains and one PRV and
- 15) from 53-1031: One storm water discharge.

EPA permitted outfall 03A130 should be deleted. Use of this outfall was discontinued in 1988 and near term future use is not anticipated.

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 is recommended where the potential for discharge of pollutants exists.

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

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	FIELD INVESTIGATION	3
3.0	RECOMMENDATIONS FOR BUILDING 53-7	5
3.1	Outfall 53-7-OPN-1	6
3.2	Outfall 53-7-OPN-2	6
3.3	Outfall 53-7-OPN-3	7
3.4	Outfall 53-7-OPN-4	7
3.5	Outfall 53-7-OPN-5	7
3.6	Outfall 53-7-OPN-6	8
3.7	Outfall 53-7-OPN-7	9
3.8	Outfalls 53-7-OPN-8, 53-7-OPN-9 and 53-7-OPN-10	9
3.9	Outfall 53-7-OPN-11	9
3.10	Outfall 53-7-OPN-12	9
3.11	Outfalls 53-7-OPN-13, 53-7-OPN-14, 53-7-OPN-15 and 53-7-OPN-16	10
3.12	Outfall 53-7-OPN-17	10
4.0	RECOMMENDATIONS FOR BUILDING 53-8	10
5.0	RECOMMENDATIONS FOR BUILDING 53-15	11
5.1	Outfall 53-15-OPN-1	11
5.2	Outfalls 53-15-OPN-2, 53-15-OPN-3 and 53-15-OPN-4	12
5.3	Outfall 53-15-OPN-5	12
5.4	Outfall 53-15-OPN-6	12
6.0	RECOMMENDATIONS FOR BUILDING 53-16	12
6.1	Outfall 53-16-OPN-1	13
6.2	Outfall 53-16-OPN-2	13
7.0	RECOMMENDATIONS FOR BUILDING 53-28	13
7.1	Outfall 53-28-OPN-1	13
7.2	Outfall 53-28-OPN-2	14
7.3	Outfall 53-28-OPN-3	14
7.4	Outfall 53-28-OPN-4	15
7.5	Outfall 53-28-OPN-5	15
7.6	Outfalls 53-28-OPN-6, 53-28-OPN-7, 53-28-OPN-8 and 53-28-OPN-11	16
7.7	Outfalls 53-28-OPN-9, 53-28-OPN-10, 53-28-OPN-12, 53-28-OPN-13 and 53-28-OPN-14	16
8.0	RECOMMENDATIONS FOR BUILDING 53-29	16
8.1	Outfalls 53-29-OPN-1, 53-29-OPN-2 and 53-16-OPN-4	16
8.2	Outfall 53-29-OPN-3	17
8.3	Outfall 53-29-OPN-5	17

9.0	RECOMMENDATIONS FOR BUILDING 53-30	17
9.1	Outfall 53-30-OPN-1	17
9.2	Outfall 53-30-OPN-2	18
9.3	Outfall 53-30-OPN-3	18
9.4	Outfall 53-30-OPN-4	19
9.5	Outfalls 53-30-OPN-5 and 53-30-OPN-6	19
9.6	Outfall 53-30-OPN-7	19
9.7	Outfall 53-30-OPN-8	19
10.0	RECOMMENDATIONS FOR BUILDINGS 53-34, 35, 370, 371, 372, 374, 384, 535, 540, 541, 573, 574, 625, 634, 679, 686, 726, 734, 735, 776, 777, 780, 781, 782, 783, 823, 826, 880, 1039, 1043, 1120 AND 1138	19
11.0	RECOMMENDATIONS FOR BUILDING 53-36	20
11.1	Outfall 53-36-OPN-1	20
11.2	Outfall 53-36-OPN-2	20
12.0	RECOMMENDATIONS FOR BUILDING 53-37	20
12.1	Outfall 53-37-OPN-1	21
12.2	Outfall 53-37-OPN-2	21
13.0	RECOMMENDATIONS FOR BUILDINGS 53-368	21
13.1	Outfall 53-368-OPN-1	21
13.2	Outfall 53-368-OPN-2	22
14.0	RECOMMENDATIONS FOR BUILDING 53-382	22
15.0	RECOMMENDATIONS FOR BUILDINGS 53-534 AND 736	22
16.0	RECOMMENDATIONS FOR BUILDING 53-622	22
16.1	Outfall 53-622-OPN-1	23
16.2	Outfall 53-622-OPN-2	23
16.3	Outfalls 53-622-OPN-3, 53-622-OPN-4, 53-622-OPN-5, 53-622-OPN-6, 53-622-OPN-7 and 53-622-OPN-8	23
16.4	Outfall 53-622-OPN-9	23
16.5	Outfalls 53-622-OPN-10 and 53-622-OPN-12	24
16.6	Outfall 53-622-OPN-11	24
17.0	RECOMMENDATIONS FOR BUILDING 53-1031	24
18.0	CONCLUSION	25

APPENDICES

- APPENDIX 1 - DRAIN SUMMARY TABLES
- APPENDIX 2 - WASTE STREAM CHARACTERIZATION DATABASE
- APPENDIX 3 - EPA FORMS
- APPENDIX 4 - DYE STUDY INFORMATION
- APPENDIX 5 - DRAIN SCHEMATICS

LIST OF TABLES

- 1. TA-53-7 DRAIN SUMMARY
- 2. TA-53-8 DRAIN SUMMARY
- 3. TA-53-15 DRAIN SUMMARY
- 4. TA-53-16 DRAIN SUMMARY
- 5. TA-53-28 DRAIN SUMMARY
- 6. TA-53-29 DRAIN SUMMARY
- 7. TA-53-30 DRAIN SUMMARY
- 8. TA-53-36 DRAIN SUMMARY
- 9. TA-53-37 DRAIN SUMMARY
- 10. TA-53-368/369 DRAIN SUMMARY
- 11. TA-53-382 DRAIN SUMMARY
- 12. TA-53-622 DRAIN SUMMARY
- 13. TA-53-1031 DRAIN SUMMARY
- 14. NON-DRAIN RECOMMENDATIONS
- 15. SUMMARY OF ABBREVIATIONS

LIST OF FIGURES

- 1. TA-53-7 BUILDING DRAIN SCHEMATICS (1,1A,1B & 1C)
- 2. TA-53-8 BUILDING DRAIN SCHEMATIC
- 3. TA-53-15 BUILDING DRAIN SCHEMATIC
- 4. TA-53-16 BUILDING DRAIN SCHEMATIC
- 5. TA-53-28 BUILDING DRAIN SCHEMATIC
- 6. TA-53-29 BUILDING DRAIN SCHEMATIC
- 7. TA-53-30 BUILDING DRAIN SCHEMATIC
- 8. TA-53-36 BUILDING DRAIN SCHEMATIC
- 9. TA-53-37 BUILDING DRAIN SCHEMATIC
- 10. TA-53-368/369 BUILDING DRAIN SCHEMATIC
- 11. TA-53-382 BUILDING DRAIN SCHEMATIC
- 12. TA-53-622 BUILDING DRAIN SCHEMATIC
- 13. TA-53-1031 BUILDING DRAIN SCHEMATIC
- 14. TA-53 KEY MAP

1.0 INTRODUCTION

During February and March, 1992, Stephen C. Diamond, P.E. of Santa Fe Engineering (SFE) toured buildings 7, 8, 15, 16, 28, 29, 30, 34, 35, 36, 37, 368, 369, 370, 371, 372, 374, 382, 384, 534, 535, 540, 541, 573, 574, 622, 625, 634, 679, 686, 726, 734, 735, 736, 776, 777, 780, 781, 782, 823, 826, 880, 1031, 1039, 1043, 1120, 1121 and 1138 in TA-53 with Kandy Frame (MP-5), David Clark (MP-6), Darryl Shadel (MP-5), Joe King (P-17) and Bill Sceviour (Los Alamos Neutron Scattering Center, LANSCE). The purpose of this study is to identify building drain piping, locate outfalls which discharge into the environment and to characterize the wastewater flows and sources existing at the time of the visit. This report will not reflect any subsequent changes in piping or operation. The Waste Stream Characterization Policy of September 10, 1992 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 by verifying drain schematic drawings prepared by SFE for the appropriate buildings (Figures 1 through 13) from drawings provided by Los Alamos National Laboratory (LANL) Facilities Engineering Division (ENG-7). The other buildings were visited to insure that no drains exist in the buildings. The following process was used to define drain piping and characterize the wastewater streams:

1. Laboratory engineering drawings were used to prepare the SFE drain piping schematics. 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 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-92-1306 issued by EPA to the University of California were used for reference;
2. A site visit was performed to verify the SFE drain schematic and to identify potential outfall pipes exiting the buildings. The visit entailed a room by room inspection of wastewater sources and drains. Interviews with site personnel were conducted to assist in waste stream characterization and
3. SFE verified drain piping by dye checking.

2.0 FIELD INVESTIGATION

Pipes exiting each building 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 piping number and the unique number for the pipe. The piping exiting each building will be labeled for easy identification in the future.

Each drain has a unique identification number. Each number consists of three parts. The first part is the floor the drain is located on. The second part has letters that indicate the drain type (abbreviations used are summarized in Table 15). The final part is a unique number for each drain. For example, floor drain numbering on the first floor would start with 1FD1. Roof drains do not have the number identifying the floor location, such as RD1 for Roof Drain 1. The prefix S1 or S2 is used to identify floor levels below the first floor that are not basements. S1 indicates sub level 1 and S2 sub level 2.

The function of each pipe exiting from buildings are listed in Tables 1 through 13 in Appendix 1, with non-drain recommendations in Table 14. Appendix 2 contains the wastestream characterization database output, listing wastewater source, flow rates and periodicity information for each outfall drain. Appendix 3 contains a statement indicating no revised EPA forms are recommended for this report. Appendix 4 provides information about the dye study of building drains. Flow schematics of the drains from each building are attached in Appendix 5 as Figures 1 through 13.

Field investigation of the Radioactive Liquid Waste (RLW) drain system requires special discussion. Buildings investigated in this report that have RLW drain systems

include buildings 7, 8, 28, 30, 36 and 368. As noted in the dye study information table of Appendix 4 and the drain schematics of Appendix 5, the dye testing of the RLW drain systems was limited in scope. Limitation of the RLW dye tests was due to the factors below:

1. Operation of the RLW system holding tanks for both dye sampling and draining to the radioactive lagoon required an ENG-5 person on-site for the entire test. Due to other project demands and limited ENG-5 staff the availability of personnel to operate the RLW tanks was limited to two days,
2. The RLW holding tanks could only be pumped down to a certain point leaving approximately 400 gallons in the tanks. Each subsequent dye test would mix a new dye color with previous colors remaining in the tanks. This limited the number of tests to the known color combinations of the three dye colors used and
3. Some of the contaminated waste drains of the RLW system were inaccessible for dye testing due to heavy equipment or beam shielding located over them.

Because of the above limitations, dye testing was accomplished by testing at least one drain of each lateral leg of the system where feasible. The limited tests, in addition to other field verification of the "as-drawn" conditions of the drain systems, provide sufficient verification to justify presentation of the drain schematics shown in this report.

3.0 RECOMMENDATIONS FOR BUILDING 53-7

Building 53-7 is a meson physics beam line experimental facility that was originally known as the Weapons Neutron Research (WNR) Facility. Building 53-7 is actually comprised of several separate but interconnected structures. These include the Line D tunnel, Target 1, Target 2, the control center and connecting corridors, the Target 1 equipment structure (room 200), the beam tunnel connecting to Target 4 and the old Line E tunnel. It should be noted that the Line E section has been abandoned and the only access sealed. According to the building manager, David Clark of MP-6, the Line E tunnel did have drains which connected to the RLW tanks (MPF-145) south of building 622. However, this RLW line was apparently cut off from the RLW system when building 53-30 was constructed. Although this cannot be verified, the building 53-36 drain which apparently connected to the RLW tanks via the Line E drain, was dye tested with negative results. It is recommended that the operating group verify or certify the termination of this drain connection. Building 53-7 occupies three levels of which two are essentially below grade. In order to understand the drain schematics presented, it should be noted that the room 200 is considered to be level 1, the Line D tunnel, the Target 1 service area, the upper floor of Target 2 and the control center are all one level below room 200 and are designated Sub level 1. The lower floors of Target 1 and Target 2 are two levels below room 200 and are designated as Sub level 2. Table 1 of Appendix 1 provides a summary of drains contributing to all the outfalls. Figures 1, 1A, 1B and 1C of Appendix 5 provides drain system schematics.

3.1 Outfall 53-7-OPN-1

This outfall is the pumped discharge of a contaminated sump pump in the north end of the Line D tunnel. The discharge goes to the RLW holding tanks on the east side of the tunnel adjacent to building 53-3. The only inputs to this sump are the beam line DI water system drains which can be tritiated water. Labeling the sump inlet as a contaminated drain is recommended. The RLW holding tanks pump to the radioactive waste lagoon. No permitting is recommended. No EPA forms have been completed.

3.2 Outfall 53-7-OPN-2

This outfall discharges to the site sanitary sewer system and serves the Target 1 service area sanitary drains. Drains to this outfall originally included floor drains, sinks, a shower and a toilet. All of these fixtures, except one sink, have been removed or disconnected. The drain from the removed shower is still visible but piping from it has been disconnected and plugged below floor. Plugging the shower drain is recommended to avoid any accidental use of this drain. A water heater pressure relief valve (PRV) and a backflow preventer (BFP) drain currently routed to discharge to this disconnected drain should be rerouted to the remaining sink. In room 200, floor drain 1FD1 receives discharge from two BFP's and two hot water drains. Floor drain 1FD2 receives one hot water drain. Floor drain 1FD5 receives two air handler condensate drains. Floor drain 1FD6 receives one hot water drain. Floor drain 1FD7 receives one air handler condensate drain. No permitting is recommended. NO EPA forms have been completed.

3.3 Outfall 53-7-OPN-3

This outfall discharges to the sanitary sewer and serves the LANSCE control room, the mechanical room, the rest rooms, the corridor connecting the control room to Targets 1 and 2 and the Target 2 entrance hall. Drains contributing to this outfall include floor drains, lavatories, a sink, toilets, a urinal and a water fountain. Floor drain S1FD7 in the mechanical room receives discharge from one air handler condensate drain and two treated cooling tower water drains. S1FD9 in the same room receives three air handler condensate drains and has one disconnected pipe. Recommended changes include labeling the floor drains in the equipment room as sanitary sewer drains, labeling the floor drains in the corridor and the mechanical room as sanitary and plugging the floor drains in the Target 2 entrance hall to prevent possible contamination from radioactive solids stored in the hallway. The disconnected pipe to drain S1FD9 should be removed. It is also suggested that the chiller located adjacent to S1FD8 in the mechanical room have secondary containment added. No permitting is recommended. No EPA forms have been prepared.

3.4 Outfall 53-7-OPN-4

This outfall is a storm water outfall to daylight from a French drain from the overburden on the top of the Target 1 service area. No changes or permitting are recommended. No EPA forms have been completed.

3.5 Outfall 53-7-OPN-5

This outfall discharges to the RLW tanks south of building 622 for subsequent discharge to the radioactive waste lagoon. This outfall receives waste from contaminated floor drains in the Line D tunnel, the Target 1 service area

(north side), a stairwell from the LANSCE control room, the ER-1 experimental area (north side), one hub drain in Target Cell 1 and one hub drain in the Target 1 service area. Floor drains S1CFD1 and S1CFD3 in the Line D tunnel receive discharge from DI water system drains only. Floor drain S1CFD4 on the north side of the Target 1 service area received discharge from a heat exchanger equipment drain. This equipment was being removed at the time this report was being prepared. The only recommended change is that the hub drain in the service area (currently capped) be labeled as a radioactive drain. All other drains contributing to this outfall have been previously well marked by the building manager. No permitting is recommended. No EPA forms were prepared.

3.6 Outfall 53-7-OPN-6

This outfall discharges to the RLW holding tanks (MPF-145). Drains contributing to this outfall include contaminated floor drains and one plugged hub drain in the Target Cell 1. The contaminated floor drains are located in the Line D tunnel, the Target 1 service area (south side) and the ER-1 experimental area (south side). Contaminated floor drain S1CFD6 in the Line D tunnel receives discharge from the DI water system. Drain S1CFD7 receives discharge from one BFP, one target moderator chiller drain and two drains from sampling tables. Drain S1CFD8, located in the southeast corner of the Target 1 service area, is situated behind several concrete shields. This drain receives discharge from one BFP and one DI water system drain. No changes or permitting are recommended. No EPA forms have been completed.

3.7 Outfall 53-7-OPN-7

This outfall goes to the RLW holding tanks south of building 622. Drains contributing to this outfall include four contaminated floor drains in the Target 2 lower floor and one in the Line D tunnel. Contaminated floor drain S2CFD10 receives discharge from two exposed drain pipes. The first is the termination point of Outfall 53-368-OPN-1 shown on Figure 10. The second is from the short tunnel connecting Target 2 with Target 4 and would drain DI water should a leak occur. It is recommended that the two exposed drain lines be labeled as to content or origin. No permitting is recommended. No EPA forms have been prepared.

3.8 Outfalls 53-7-OPN-8, 53-7-OPN-9 and 53-7-OPN-10

These three outfalls are vapor vents to atmosphere from P-Division experiments installed in the ER-1 experimental area. No changes or permitting are recommended. No EPA forms have been prepared.

3.9 Outfall 53-7-OPN-11

This outfall is a PVC pipe to atmosphere stubbed through the wall of the Target 1 service area. This pipe is the air discharge from a large vacuum pump located behind a shielding wall in the southeast corner of the Target 1 service area. It is recommended that this pipe be labeled although building personnel indicate that this system may be removed or relocated. No permitting is recommended. No EPA forms have been completed.

3.10 Outfall 53-7-OPN-12

This outfall is shown on the original plans as a discharge to daylight for three floor drains beneath the raised

computer floor in the LANSCE control room. The drains were visually verified, however, the discharge pipe could not be found. Dye testing of these drains was not performed due to extensive electrical cabling below the computer floor. It is believed that the discharge pipe may have been broken off or crushed during construction of a concrete storm drainage channel on the side of the building. It is recommended that these three drains be permanently plugged. No permitting is recommended. No EPA forms have been prepared.

3.11 Outfalls 53-7-OPN-13, 53-7-OPN-14, 53-7-OPN-15 and 53-7-OPN-16

These outfalls are fire system drains to daylight. These discharges be included in a Notice of Intent (NOI) to Discharge. No changes are recommended. No EPA forms have been prepared.

3.12 Outfall 53-7-OPN-17

This outfall is the discharge to daylight of the building roof drains. No changes or permitting are recommended. No EPA forms have been completed.

4.0 RECOMMENDATIONS FOR BUILDING 53-8

Building 53-8 is the Proton Storage Ring (PSR) located underground directly beneath building 53-28. The PSR is connected to building 53-7 (line D tunnel) by a beam injection tunnel (north side) and a beam extraction tunnel (south side). The PSR has no potable water sources or sanitary sewer drains but is served by the DI water loop and has a series of contaminated waste floor drains connected to the RLW system. Table 2 lists the single outfall to the RLW collection system. Figure 2 shows a schematic of the building drain system. Outfall 53-8-OPN-1 discharges to the

site RLW system through the south RLW holding tanks (MPF-145). Drains contributing to this outfall include twenty contaminated floor drains. Seventeen of these floor drains are at tunnel floor level and have been clearly labeled by the building manager as RLW drains. Three of the drains are located in cable trenches and the building manager is in the process of having these labeled also. Contaminated floor drain S1CFD2 receives discharge from a metal pan attached to the roof of the PSR. This pan collects water seeping through the roof. According to the building manager, prior tests of this seepage has not indicated any contamination. Drain S1CFD5, located in a cable trench, receives piped discharge from the DI water system. No permitting is recommended. No EPA forms have been prepared.

5.0 RECOMMENDATIONS FOR BUILDING 53-15

Building 53-15 is a laboratory facility for LANSCE. The building includes several laboratories, a bay area, two rest rooms and an equipment room. Table 3 provides drain summary information. Figure 3 is a drain schematic for the building.

5.1 Outfall 53-15-OPN-1

This outfall discharges to the sanitary sewer via a lift station located on the north side of the building. Drains contributing to this outfall included toilets, a urinal, lavatories, a water fountain, floor drains, sinks, cup drains and an emergency shower/eye wash drain. Floor drain 1FD1 receives discharge from one water heater PRV and drain. Sink 1SD1 receives discharge from three counter top water filters. Cup drain 1CD4 did receive discharge from a once-through, non-contact cooling unit but this piping is being removed according to the building manager. If this

pipng is not removed, it is recommended that this system be changed to a closed-loop recirculating cooling system. Cup drains 1CD7, 1CD8, 1CD11 and 1CD14 are located inside exhaust hoods. These drains should be disconnected from the sanitary system and repiped to the RLW system or containerized. Sink drain 1SD1 receives discharge from three counter top water filtering devices. Potable water from the sink faucet flows through these filters. Sink 1SD2 has been removed. No changes or permitting are recommended. No EPA forms have been prepared.

5.2 Outfall 53-15-OPN-2, 53-15-OPN-3 and 53-15-OPN-4

These outfalls are fire system drains to daylight. These occasional discharges be included in an NOI. No changes are recommended. No EPA forms have been prepared.

5.3 Outfall 53-15-OPN-5

This outfall is an air compressor tank drain to atmosphere. It is recommended that the discharge be contained to avoid oil discharge to the ground. No permitting is recommended. No EPA forms have been completed.

5.4 Outfall 53-15-OPN-6

This outfall is an exterior connection for helium gas. No changes or permitting are recommended. No EPA forms have been prepared.

6.0 RECOMMENDATIONS FOR BUILDING 53-16

Building 53-16 is a LANSCE machine shop. Table 4 provides a drain summary. Figure 4 is a drain schematic for this building.

6.1 Outfall 53-16-OPN-1

This outfall is a sanitary sewer stub installed during original construction of the building. The stub extends up through the floor at the west end of the building and is currently capped. This stub should be labeled as a sanitary sewer stub. No permitting is recommended. No EPA forms have been completed.

6.2 Outfall 53-16-OPN-2

This outfall is a drain to atmosphere of an air compressor located on the exterior north side of the building. It is recommended that the discharge be contained. No permitting is recommended. No EPA forms have been prepared.

7.0 RECOMMENDATIONS FOR BUILDING 53-28

Building 53-28 is the equipment building for the PSR and is located above grade directly above the ring. This building houses all the ventilation, control and instrumentation systems for the PSR. Table 5 provides a drain summary for all building outfalls. Figure 5 is a schematic of the building drain systems.

7.1 Outfall 53-28-OPN-1

This outfall discharges to the sanitary sewer. Sources to this outfall include floor drains and a sink drain. Floor drains 1FD3, 1FD7, 1FD16, 1FD20 and 1FD23 receive condensate discharge from electronics cabinet humidifiers. Floor drain 1FD6 receives discharge from a BFP and one drinking fountain. Floor drains 1FD8 and 1FD9 receive discharge from three DI water system drains. Drain 1FD10 receives occasional discharge from a water heater and pressure relief valve (PRV). Floor drain 1FD12 receives discharge from one

treated cooling tower water drain, one air handler condensate drain and one air compressor tank drain. It is recommended that the air compressor discharge be contained to eliminate possible oil discharge to the sanitary sewer. Floor drain 1FD24 is located in the cooling tower valve room and receives occasional discharge from two cooling tower circuit drains. The cooling tower chemical treatment system is located adjacent to this drain and should be provided with secondary containment. Floor drains 1FD7, 1FD14, 1FD15, 1FD16 and 1FD17 currently have removable seals covering them to prevent possible contamination from several oil-filled electrical devices located in their vicinity. Protection appears adequate to allow clean-up of any spills and no additional changes are recommended. No permitting is recommended. No EPA forms have been prepared.

7.2 Outfall 53-28-OPN-2

This outfall discharges to the RLW holding tanks behind LANSCE. There is a single contaminated waste drain contributing to this outfall located beneath a contaminated DI water pump. It is recommended that a label indicating the presence of a contaminated waste drain beneath the pump stand be installed. The inaccessible location of this drain precluded dye testing of this drain. The building manager indicated that the drain goes to the RLW tanks. It is recommended that this be verified by the operating group. No permitting is recommended. No EPA forms have been completed.

7.3 Outfall 53-28-OPN-3

This outfall is permitted as 03A130 and originally discharged to a site storm drain drop inlet southwest of building 53-28. This outfall received the treated water blowdown discharge from the PSR cooling tower. This cooling

tower has not been used since 1988 and future use is not anticipated. It is recommended that the existing blowdown drain line be disconnected at the tower and the permit be deleted. Consideration should be given to routing the blowdown line to building 53-28 drain 1FD24 in the cooling tower valve room to allow annual testing of the tower only. In this way, the tower could remain as a back-up cooling tower if ever needed. No permitting is recommended. No EPA forms were prepared.

7.4 Outfall 53-28-OPN-4

This outfall is a roof drain discharge to the same storm drain drop inlet as outfall 53-28-OPN-3. No other flows contribute to this outfall. No changes or permitting are recommended. No EPA forms have been completed.

7.5 Outfall 53-28-OPN-5

This outfall consists of ten capped PVC pipe stubs protruding 2-3 feet above grade, labeled as 53-28-OPN-5A through 53-28-OPN-5J in Figure 5 . These capped stubs are connected to a series of perforated leach lines surrounding the Proton Storage Ring tunnel. These leach lines were installed during original construction of the PSR to allow saturation of the tunnel overburden with a borate solution to enhance the shielding capability of the earthen cover. These lines are not currently used but future use remains a possibility. These stubs should be labeled to avoid accidental use for the wrong purpose. No permitting is recommended. No EPA forms have been prepared.

7.6 Outfalls 53-28-OPN-6, 53-28-OPN-7, 53-28-OPN-8 and 53-28-OPN-11

These outfalls discharge to the ground immediately outside of the building from the fire protection system. Discharge is infrequent and should be included in an NOI. No changes are recommended. No EPA forms have been prepared.

7.7 Outfalls 53-28-OPN-9, 53-28-OPN-10, 53-28-OPN-12, 53-28-OPN-13 and 53-28-OPN-14

These outfalls are the condensate discharge to daylight from space air-conditioning condenser units located outside of the building. These outfalls should be included in an NOI. No changes are recommended. No EPA forms were prepared.

8.0 RECOMMENDATIONS FOR BUILDING 53-29

Building 53-29 is an experimental building operated by P-Division and is located south of Target 4. This building was originally located adjacent to and east of building 53-7 but was relocated to its present location when building 53-30 was constructed. Building 53-29 has a floor sump area which was connected to the sanitary sewer system via a sump pump. This sump pump was deleted when the building was relocated and no connection to the sanitary or RLW systems currently exists. Figure 6 is a schematic of the building.

8.1 Outfalls 53-29-OPN-1, 53-29-OPN-2 and 53-29-OPN-4

These outfalls are the condensate drain to daylight for an air conditioning unit. These outfalls should be included in an NOI. No changes are recommended. No EPA forms have been completed.

8.2 Outfall 53-29-OPN-3

This outfall is an uncapped pipe stub to atmosphere disconnected on the inside of the building. It is recommended that the stub be removed. No permitting is recommended. No EPA forms have been completed.

8.3 Outfall 53-29-OPN-5

This outfall is a vapor vent to atmosphere from a nitrogen PRV located in the equipment shed attached to the building. No changes or permitting are recommended. No EPA forms have been prepared.

9.0 RECOMMENDATIONS FOR BUILDING 53-30

Building 53-30 is a LANSCE experimental facility known as ER-2. The building is a high bay structure housing various beam line experiments. Table 7 is a summary of drains for the building and Figure 7 is a drain schematic for the structure.

9.1 Outfall 53-30-OPN-1

This outfall discharges to the sanitary sewer via the sewage lift station located in the mechanical room. Drains contributing to this outfall include floor sinks and water fountains. All of the floor sinks are located in the mechanical room. Floor sink 1FS1 receives discharge from fire system drains, cooling tower drains, potable water line strainers, one DI water PRV drain and one compressed air cooler drain. Floor sink 1FS2 receives one compressed air filter drain, one air compressor automatic tank drain and one sanitary waste drain from floor drains located in the air handler cabinet on the second story roof of building 53-622. The discharges from the compressed air filter and

the air compressor automatic drain should be contained to prevent oil discharge to the sanitary sewer. The sanitary waste discharge from the air handler cabinet drains (condensate) is a recent modification that appears to have rerouted the condensate drain discharge from the storm drain main line to the sanitary. Labeling of the piping is recommended. Floor sink 1FS3 receives discharge from two boiler drains, two boiler PRV's and two hot water drains. Floor sink 1FS4 receives discharge from three BFP's and one water heater PRV. No permitting is recommended. No EPA forms have been prepared.

9.2 Outfall 53-30-OPN-2

This outfall discharges to the RLW tanks (MFP-145) east of the structure. Drains contributing to this outfall include contaminated floor drains and contaminated sink drains. The contaminated floor drain 1CFD1 is located in the mechanical room and receives discharge from six DI water system drains. This is the only contaminated drain in the mechanical room and should be labeled as RLW to avoid confusion with the four sanitary system drains. Contaminated floor drains 1CFD2 through 1CFD15 are located in the floor trench system and should be labeled as RLW drains. The three contaminated sink drains (north, south and east walls) are standard janitorial type service sinks and appear to be used frequently. It is recommended that these sinks be labeled as part of the RLW system to avoid erroneous use as sanitary sewer fixtures. No permitting is recommended. No EPA forms have been prepared.

9.3 Outfall 53-30-OPN-3

This outfall is a liquid nitrogen tank drain to atmosphere. No changes or permitting are recommended. No EPA forms have been prepared.

9.4 Outfall 53-30-OPN-4

This is a helium gas connection line at the building exterior wall adjacent to the gas cylinder racks. No changes or permitting are recommended. No EPA forms have been prepared.

9.5 Outfalls 53-30-OPN-5 and 53-30-OPN-6

These outfalls are fire suppression system test line drains to daylight. These outfalls should be included in an NOI. No changes are recommended. No EPA forms have been prepared.

9.6 Outfall 53-30-OPN-7

This outfall is a plumbing system vent to atmosphere. No changes or permitting are recommended. No EPA forms have been prepared.

9.7 Outfall 53-30-OPN-8

This is an exterior compressed air connection point. No changes or permitting are recommended. No EPA forms have been completed.

10.0 RECOMMENDATIONS FOR BUILDINGS 53-34, 35, 369, 370, 371, 372, 374, 384, 535, 540, 541, 573, 574, 625, 634, 679, 686, 726, 734, 735, 776, 777, 780, 781, 782, 783, 823, 826, 880, 1039, 1043, 1120 AND 1138

These buildings do not have drains. All of these buildings are either transportainers, portable metal sheds or office/instrument trailers. No changes or permitting are recommended. No EPA forms were completed.

11.0 RECOMMENDATIONS FOR BUILDING 53-36

Building 53-36 is a DI water pump house located south of building 30 and is operated by P-17. The building houses a supply and return cooling tower loop, a plate-type heat exchanger, a large DI circulation pump, piping and DI water treatment bottles. Table 8 is a summary of drains in the building. Figure 8 is a schematic of the drain systems.

11.1 Outfall 53-36-OPN-1

This outfall originally discharged to the RLW system. Review of available plans indicates that this single drain probably connected to an RLW line originating in the abandoned Line E tunnel. This drain was dye tested and water was run into the drain for two hours. Dye did not reach the RLW tanks and was not found in either the sanitary or storm sewers. Conversations with site personnel indicates that this line may have been cut and abandoned during other construction in the vicinity. It is highly recommended that this drain be permanently plugged to eliminate discharge directly to the ground. No permitting is recommended. No EPA forms have been completed.

11.2 Outfall 53-36-OPN-2

This outfall is the condensate drain to daylight from an air conditioning unit adjacent to the building. It is recommended that this discharge be included in an NOI. No changes are recommended. No EPA forms have been prepared.

12.0 RECOMMENDATIONS FOR BUILDING 53-37

This building is the old guard house at the west entrance to the area of building 7, 8 and the LANSCE control room. This structure is not currently in use and water service to the

building has been discontinued. Table 9 is a summary of drains in the building and Figure 9 is a schematic of the drain systems.

12.1 Outfall 53-37-OPN-1

This outfall discharges to the sanitary sewer. Drains contributing to this outfall include one toilet and one lavatory. No changes or permitting are recommended. No EPA forms have been prepared.

12.2 Outfall 53-37-OPN-2

This outfall to daylight is the discharge of a water heater PRV (not currently in use). This outfall should be included in an NOI. No changes are recommended. No EPA forms have been prepared.

13.0 RECOMMENDATIONS FOR BUILDING 53-368

Building 368 is a part of Target 4. It is a metal shed structure located on top of building 53-369 and is the equipment room for the target. Building 369 is a heavy concrete structure and is the actual beam target. There are two outfalls originating in the 368 mechanical room. Table 10 is a summary of the building drains and Figure 10 is a drain schematic.

13.1 Outfall 53-368-OPN-1

This outfall is a RLW line connected to a single contaminated floor drain in building 368. This outfall pipe drops down through 369, exits out the north wall of 369, drops down into the tunnel connecting Target 4 with Target 2, runs exposed in this tunnel and then runs exposed on the lower floor of Target 2 to contaminated drain S2CFD10

(part of 53-7-OPN-7). Since this outfall contributes to the flow of another listed outfall, no recommendations are made for it. Recommendations for 53-7-OPN-7 are in Section 3.7 of this report. No permitting is recommended. No EPA forms have been prepared.

13.2 Outfall 53-368-OPN-2

This outfall to atmosphere is the air discharge from a large vacuum pump located inside of 368. No changes or permitting are recommended. No EPA forms have been prepared.

14.0 RECOMMENDATIONS FOR BUILDING 53-382

Building 53-382 is a metal detector shed adjacent to the Target 4 structure. Table 11 is a building drain summary and Figure 11 is a building drain system schematic. The two outfalls are to the rubber hose air discharges to atmosphere from vacuum pumps located inside the shed. No changes or permitting are recommended. No EPA forms were prepared.

15.0 RECOMMENDATIONS FOR BUILDINGS 53-534 AND 736

These buildings have been removed from the site and sent to salvage according to the building manager. No changes or permitting are recommended. No EPA forms were prepared.

16.0 RECOMMENDATIONS FOR BUILDING 53-622

Building 622 is the LANSCE office/laboratory facility located adjacent to the LANSCE experimental building 53-30. This is a three-story structure consisting primarily of offices but also including meeting rooms, auditorium, laboratory facilities and rest rooms. Table 12 is a summary of the drains in the building. Figure 12 is a multi-floor drain system schematic.

16.1 Outfall 53-622-OPN-1

This outfall flows to the sanitary sewer via the sewer lift station located in the building 53-30 mechanical room. It should be noted that the building 30 mechanical room appears to be part of 53-622. However, it is not and drains in this mechanical room were addressed previously in Section 11.0 of this report. Drains contributing to this outfall include floor drains, floor sinks, lavatories, sink drains, showers, toilets, urinals and water fountains. No changes or permitting are recommended. No EPA forms were prepared.

16.2 Outfall 53-622-OPN-2

This outfall discharges to the storm drainage system south of the building that flows into a drainage channel. Drains contributing to this outfall include deck-drains and roof drains. No changes or permitting are recommended. No EPA forms were prepared.

16.3 Outfalls 53-622-OPN-3, 53-622-OPN-4, 53-622-OPN-5, 53-622-OPN-6, 53-622-OPN-7 and 53-622-OPN-8

These outfalls discharge directly to the ground and are the roof overflow drains. No changes or permitting are recommended. No EPA forms were prepared.

16.4 Outfall 53-622-OPN-9

This outfall discharges to floor sink in the building 30 mechanical room. Drains contributing to this outfall include two floor sinks located in a air handling system cabinet located on the second floor roof of 53-622. Original piping for these two drains, 3FS1 and 3FS2, apparently connected to a roof overflow drain. Recent modifications have rerouted the discharge to the sanitary

sewer. These drains are in an enclosed cabinet and no storm water enters the drains. This discharge is indicated in the building 53-30 section of this report as an input to outflow 53-30-OPN-1. Labeling of this pipe is recommended to avoid future questions as to its origin. No permitting is recommended. No EPA forms were prepared.

16.5 Outfalls 53-622-OPN-10 and 53-622-OPN-12

These outfalls are fire system drains to daylight and should be included in an NOI. No changes are recommended. No EPA forms were prepared.

16.6 Outfall 53-622-OPN-11

This outfall is a vapor vent from a natural gas PRV in the building. No changes or permitting are recommended. No EPA forms were prepared.

17.0 RECOMMENDATIONS FOR BUILDING 53-1031

Building 53-1031 is an oil and waste storage structure located to the south of the LANSCE complex in a locked fenced area. The building is a three-sided metal shed with an open front. The floor of the structure is a poured concrete secondary containment with a single valved discharge point to daylight (Outfall 53-1031-OPN-1). At present, the open front of the structure allows some storm water to enter which must then be drained. According to the LANSCE building manager, the locked valve on the outfall pipe does not always function properly. It is recommended that the outlet valve be replaced with a lockable ball valve and that plastic strip doors be installed on the front to minimize storm water input. No permitting is recommended. No EPA forms were prepared.

18.0 CONCLUSION

This document provides the information to characterize buildings 7, 8, 15, 16, 18, 29, 30, 35, 36, 37, 368, 369, 370, 371, 372, 374, 382, 384, 534, 535, 540, 541, 573, 574, 622, 625, 634, 679, 686, 726, 734, 735, 736, 776, 777, 780, 781, 782, 783, 823, 826, 880, 1031, 1039, 1043, 1120, 1121 and 1138 at TA-53. None of the outfalls associated with the buildings listed above require permitting. The outfalls from the buildings are listed below:

Buildings removed from site (salvaged):

1. 53-534
2. 53-736

Buildings without drains:

- | | | | |
|-------------|-------------|-------------|-------------|
| 1. 53-34 | 2. 53-35 | 3. 53-369 | 4. 53-370 |
| 5. 53-371 | 6. 53-372 | 7. 53-374 | 8. 53-384 |
| 9. 53-535 | 10. 53-540 | 11. 53-541 | 12. 53-573 |
| 13. 53-574 | 14. 53-625 | 15. 53-634 | 16. 53-679 |
| 17. 53-686 | 18. 53-726 | 19. 53-734 | 20. 53-735 |
| 21. 53-776 | 22. 53-777 | 23. 53-780 | 24. 53-781 |
| 25. 53-782 | 26. 53-783 | 27. 53-823 | 28. 53-826 |
| 29. 53-880 | 30. 53-1039 | 31. 53-1043 | 32. 53-1120 |
| 33. 53-1138 | | | |

Outfalls recommended for deletion:

1. 53-28-OPN-3 (03A130)

Discharges to the sanitary sewer:

- | | | |
|----------------|-----------------|-----------------|
| 1. 53-7-OPN-2 | 2. 53-7-OPN-3 | 3. 53-15-OPN-1 |
| 4. 53-16-OPN-1 | 5. 53-28-OPN-1 | 6. 53-30-OPN-1 |
| 7. 53-37-OPN-1 | 8. 53-622-OPN-1 | 9. 53-622-OPN-9 |

Discharges to the TA-53 radioactive liquid waste system:

- | | | |
|----------------|----------------|-----------------|
| 1. 53-7-OPN-1 | 2. 53-7-OPN-5 | 3. 53-7-OPN-6 |
| 4. 53-7-OPN-7 | 5. 53-8-OPN-1 | 6. 53-28-OPN-2 |
| 7. 53-30-OPN-2 | 8. 53-36-OPN-1 | 9. 53-368-OPN-1 |

Discharges of storm water:

- | | | |
|------------------|-------------------|-----------------|
| 1. 53-7-OPN-4 | 2. 53-7-OPN-17 | 3. 53-28-OPN-4 |
| 4. 53-622-OPN-2 | 5. 53-622-OPN-3 | 6. 53-622-OPN-4 |
| 7. 53-622-OPN-5 | 8. 53-622-OPN-6 | 9. 53-622-OPN-7 |
| 10. 53-622-OPN-8 | 11. 53-1031-OPN-1 | |

Discharges of fire water:

- | | | |
|-----------------|-------------------|-------------------|
| 1. 53-7-OPN-13 | 2. 53-7-OPN-14 | 3. 53-7-OPN-15 |
| 4. 53-7-OPN-16 | 5. 53-15-OPN-2 | 6. 53-15-OPN-3 |
| 7. 53-15-OPN-4 | 8. 53-28-OPN-6 | 9. 53-28-OPN-7 |
| 10. 53-28-OPN-8 | 11. 53-28-OPN-11 | 12. 53-30-OPN-5 |
| 13. 53-30-OPN-6 | 14. 53-622-OPN-10 | 15. 53-622-OPN-12 |

Discharges from air-conditioning equipment:

- | | | |
|----------------|-----------------|-----------------|
| 1. 53-28-OPN-9 | 2. 53-28-OPN-10 | 3. 53-28-OPN-12 |
| 4. 53-29-OPN-1 | 5. 53-29-OPN-2 | 6. 53-29-OPN-4 |
| 7. 53-36-OPN-2 | | |

Discharges from air compressors:

- | | |
|----------------|----------------|
| 1. 53-15-OPN-5 | 2. 53-16-OPN-2 |
|----------------|----------------|

Discharges to atmosphere from vacuum pumps:

- | | | |
|-----------------|-----------------|-----------------|
| 1. 53-7-OPN-11 | 2. 53-386-OPN-2 | 3. 53-382-OPN-1 |
| 4. 53-382-OPN-2 | | |

Vapor vents:

- | | | |
|----------------|----------------|----------------|
| 1. 53-7-OPN-8 | 2. 53-7-OPN-9 | 3. 53-7-OPN-10 |
| 4. 53-29-OPN-5 | 5. 53-30-OPN-7 | |

Miscellaneous discharges:

- | | | |
|----------------|----------------|----------------|
| 1. 53-7-OPN-12 | 2. 53-15-OPN-6 | 3. 53-28-OPN-5 |
| 4. 53-29-OPN-3 | 5. 53-30-OPN-3 | 6. 53-30-OPN-4 |
| 7. 53-30-OPN-8 | | |

Discharges from pressure relief valves:

- | | |
|----------------|------------------|
| 1. 53-37-OPN-2 | 2. 53-622-OPN-11 |
|----------------|------------------|

Recommended permitting and corrective actions are outlined in Tables 1-14. Corrective actions should be performed as soon as practicable to minimize the chance of unpermitted discharge of pollutants.

TABLE 1 : TA 53-7 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-7-OPN-1 RLW	S1CSP1	D BEAM LINE	100	LABEL SUMP	NO
53-7-OPN-2 SAN SEWER	S1FD13	TGT 1 SERVICE	119	REMOVED	NO
	S1FD14	TGT 1 SERVICE	119	REMOVED	
	S1SD2	TGT 1 SERVICE	119	NO CHANGE	
	S1SD3	TGT 1 SERVICE	119	REMOVED	
	S1SD4	TGT 1 SERVICE	119	REMOVED	
	S1SH1	TGT 1 SERVICE	119	PLUG DRAIN	
	S1TL3	TGT 1 SERVICE	119	REMOVED	
	1FD1	EQUIP ROOM	200	LABEL SS	
	1FD2	EQUIP ROOM	200	LABEL SS	
	1FD3	EQUIP ROOM	200	LABEL SS	
	1FD4	EQUIP ROOM	200	LABEL SS	
	1FD5	EQUIP ROOM	200	LABEL SS	
	1FD6	EQUIP ROOM	200	LABEL SS	
	1FD7	EQUIP ROOM	200	LABEL SS	
53-7-OPN-3 SAN SEWER	S1FD4	CONTROL RM	101	NO CHANGE	NO
	S1FD5	CORRIDOR	114	LABEL	
	S1FD6	CORRIDOR	114	LABEL	
	S1FD7	MECH ROOM	113	LABEL	
	S1FD8	MECH ROOM	113	LABEL	
	S1FD9	MECH ROOM	113	LABEL	
	S1FD10	CORRIDOR	115	PLUG DRAIN	
	S1FD11	CORRIDOR	115	PLUG DRAIN	
	S1FD12	CORRIDOR	115	PLUG DRAIN	
	S1LV1	RESTROOM	108	NO CHANGE	
	S1LV2	RESTROOM	110	NO CHANGE	
	S1SD1	JANITOR CLOSET	109	NO CHANGE	
	S1TL1	RESTROOM	108	NO CHANGE	
	S1TL2	RESTROOM	110	NO CHANGE	
	S1UR1	RESTROOM	110	NO CHANGE	
S1WF1	CONTROL RM	101	NO CHANGE		
53-7-OPN-4	N/A	FRENCH DRAIN	ROOF	NO CHANGE	NO
53-7-OPN-5 RLW	S1CFD1	D TUNNEL	117	NO CHANGE	NO
	S1CFD2	D TUNNEL	117	NO CHANGE	
	S1CFD3	D TUNNEL	117	NO CHANGE	
	S1CFD4	TGT 1 SERVICE	119	NO CHANGE	
	S1CFD5	TGT 1 SERVICE	119	NO CHANGE	
	S1HD1	TGT 1 SERVICE	119	LABEL AS RAD	

TABLE 1 : TA 53-7 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-7-OPN-5 RLW (CONTIN)	S2CFD1	ER-1 STAIRWELL	20	NO CHANGE	NO
	S2CFD2	ER-1 EXPER	24	NO CHANGE	
	S2CFD3	ER-1 EXPER	24	NO CHANGE	
	S2CFD4	ER-1 EXPER	24	NO CHANGE	
	S2CFD5	ER-1 EXPER	24	NO CHANGE	
	S2HD1	TGT CELL 1	118	PLUGGED	
53-7-OPN-6 RLW	S1CFD6	D TUNNEL	117	NO CHANGE	NO
	S1CFD7	TGT 1 SERVICE	119	NO CHANGE	
	S1CFD8	TGT 1 SERVICE	119	NO CHANGE	
	S2CFD6	ER-1 EXPER	24	NO CHANGE	
	S2CFD7	ER-1 EXPER	24	NO CHANGE	
	S2CFD8	ER-1 EXPER	24	NO CHANGE	
	S2CFD9	ER-1 EXPER	24	NO CHANGE	
	S2HD2	TGT CELL 1	118	PLUGGED	
53-7-OPN-7 RLW	S1CFD9	D TUNNEL	117	LABEL	NO
	S2CFD10	LOWER BLUE RM	22	LABEL	
	S2CFD11	LOWER BLUE RM	22	LABEL	
	S2CFD12	LOWER BLUE RM	22	LABEL	
	S2CFD13	LOWER BLUE RM	22	LABEL	
53-7-OPN-8	N/A	ER-1 EXPER	24	NO CHANGE	NO
53-7-OPN-9	N/A	ER-1 EXPER	24	NO CHANGE	NO
53-7-OPN-10	N/A	ER-1 EXPER	24	NO CHANGE	NO
53-7-OPN-11	N/A	TGT 1 SERVICE	119	NO CHANGE	NO
53-7-OPN-12	N/A	CONTROL RM	101	PLUG	NO
53-7-OPN-13	N/A	EQUIP RM	200	NOI	NO
53-7-OPN-14	N/A	EQUIP RM	200	NOI	NO
53-7-OPN-15	N/A	EQUIP RM	200	NOI	NO
53-7-OPN-16	N/A	EQUIP RM	200	NOI	NO
53-7-OPN-17	N/A	ROOF DRAINS	200	NO CHANGE	NO

TABLE 2 : TA 53-8 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-8-OPN-1 RLW	1CFD1	PROTON RING	N/A	LABEL DRAIN	NO
	1CFD2	PROTON RING	N/A	NO CHANGE	
	1CFD3	PROTON RING	N/A	NO CHANGE	
	1CFD4	PROTON RING	N/A	NO CHANGE	
	1CFD5	PROTON RING	N/A	LABEL DRAIN	
	1CFD6	PROTON RING	N/A	NO CHANGE	
	1CFD7	PROTON RING	N/A	NO CHANGE	
	1CFD8	PROTON RING	N/A	NO CHANGE	
	1CFD9	PROTON RING	N/A	NO CHANGE	
	1CFD10	PROTON RING	N/A	NO CHANGE	
	1CFD11	PROTON RING	N/A	NO CHANGE	
	1CFD12	PROTON RING	N/A	NO CHANGE	
	1CFD13	PROTON RING	N/A	NO CHANGE	
	1CFD14	PROTON RING	N/A	LABEL DRAIN	
	1CFD15	PROTON RING	N/A	NO CHANGE	
	1CFD16	PROTON RING	N/A	NO CHANGE	
	1CFD17	PROTON RING	N/A	NO CHANGE	
	1CFD18	PROTON RING	N/A	NO CHANGE	
	1CFD19	PROTON RING	N/A	NO CHANGE	
	1CFD20	PROTON RING	N/A	NO CHANGE	

TABLE 3 : TA 53-15 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-15-OPN-1 SAN SEWER	1CD1	MAT'L LAB	105	NO CHANGE	NO
	1CD2	MAT'L LAB	105	NO CHANGE	
	1CD3	MAT'L LAB	105	NO CHANGE	
	1CD4	MAT'L LAB	105	RECIRCULATE	
	1CD5	CHEM LAB	103	NO CHANGE	
	1CD6	CHEM LAB	103	NO CHANGE	
	1CD7	CHEM LAB	103	REPIPE TO RLW	
	1CD8	CHEM LAB	103	REPIPE TO RLW	
	1CD9	CHEM LAB	103	NO CHANGE	
	1CD10	CHEM LAB	103	NO CHANGE	
	1CD11	CHEM LAB	103	REPIPE TO RLW	
	1CD12	CHEM LAB	103	NO CHANGE	
	1CD13	CHEM LAB	103	NO CHANGE	
	1CD14	CHEM LAB	103	REPIPE TO RLW	
	1EW1	CHEM LAB	103	NO CHANGE	
	1FD1	MECH ROOM	106	NO CHANGE	
	1LV1	RESTROOM	102	NO CHANGE	
	1LV2	RESTROOM	104	NO CHANGE	
	1SD1	USER'S LAB	107	NO CHANGE	
	1SD2	ASSEMBLY AREA	100	REMOVED	
	1SD3	MAT'L LAB	105	NO CHANGE	
	1SD4	CHEM LAB	103	NO CHANGE	
	1SD5	CHEM LAB	103	NO CHANGE	
	1SD6	JANITOR CLOSET	109	NO CHANGE	
	1TL1	RESTROOM	102	NO CHANGE	
	1TL2	RESTROOM	104	NO CHANGE	
	1UR1	RESTROOM	102	NO CHANGE	
	1WF1	ASSEMBLY AREA	100	NO CHANGE	
53-15-OPN-2	N/A	FIRE TEST	N/A	NOI	NO
53-15-OPN-3	N/A	FIRE DRAIN	N/A	NOI	NO
53-15-OPN-4	N/A	FIRE TEST	N/A	NOI	NO
53-15-OPN-5	N/A	AIR COMP DRAIN	N/A	CONTAINERIZE	NO
53-15-OPN-6	N/A	HELIUM CONN	N/A	NO CHANGE	NO

TABLE 4 : TA 53-16 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-16-OPN-1 SAN SEWER	STUB	MACH SHOP	N/A	LABEL	NO
53-16-OPN-2	N/A	AIR COMP	EXT.	CONTAINERIZE	NO

TABLE 5 : TA 53-28 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-28-OPN-1 SAN SEWER	1FD1	PSR EQUIP BLDG	N/A	NO CHANGE	NO
	1FD2	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD3	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD4	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD5	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD6	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD7	PSR EQUIP BLDG	N/A	TEMP SEAL	
	1FD8	MECH RM	N/A	NO CHANGE	
	1FD9	MECH RM	N/A	NO CHANGE	
	1FD10	MECH RM	N/A	NO CHANGE	
	1FD11	MECH RM	N/A	NO CHANGE	
	1FD12	MECH RM	N/A	CONTAIN	
	1FD13	MECH RM	N/A	NO CHANGE	
	1FD14	PSR EQUIP BLDG	N/A	TEMP SEAL	
	1FD15	PSR EQUIP BLDG	N/A	TEMP SEAL	
	1FD16	PSR EQUIP BLDG	N/A	TEMP SEAL	
	1FD17	PSR EQUIP BLDG	N/A	TEMP SEAL	
	1FD18	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD19	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD20	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD21	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD22	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD23	PSR EQUIP BLDG	N/A	NO CHANGE	
	1FD24	CT VALVE RM	N/A	NO CHANGE	
	2FD1	EQUIP MEZZANINE	N/A	NO CHANGE	
1SD1	MECH RM	N/A	NO CHANGE		
53-28-OPN-2 RLW	1CFD1	RAD DI	N/A	LABEL/VERIFY	NO
53-28-OPN-3 03A130	N/A	COOLING TOWER	N/A	REPIPE/DELETE	NO
53-28-OPN-4	N/A	ROOF DRAIN	N/A	NO CHANGE	NO
53-28-OPN-5 INJECT BORATE SOLUTION INTO OVER- BURDEN	A	PSR LEACH LINE	N/A	LABEL PIPE	NO
	B	PSR LEACH LINE	N/A	LABEL PIPE	
	C	PSR LEACH LINE	N/A	LABEL PIPE	
	D	PSR LEACH LINE	N/A	LABEL PIPE	
	E	PSR LEACH LINE	N/A	LABEL PIPE	
	F	PSR LEACH LINE	N/A	LABEL PIPE	
	G	PSR LEACH LINE	N/A	LABEL PIPE	
	H	PSR LEACH LINE	N/A	LABEL PIPE	
	I	PSR LEACH LINE	N/A	LABEL PIPE	
	J	PSR LEACH LINE	N/A	LABEL PIPE	

TABLE 5 : TA 53-28 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-28-OPN-6	N/A	FIRE DRAIN	N/A	NOI	NO
53-28-OPN-7	N/A	FIRE DRAIN	N/A	NOI	NO
53-28-OPN-8	N/A	FIRE GONG DRAIN	N/A	NOI	NO
53-28-OPN-9	N/A	A/C COND	N/A	NOI	NO
53-28-OPN-10	N/A	A/C COND	N/A	NOI	NO
53-28-OPN-11	N/A	FIRE TEST	N/A	NOI	NO
53-28-OPN-12	N/A	A/C COND	N/A	NOI	NO
53-28-OPN-13	N/A	A/C CONDENSATE	N/A	NOI	NO
53-28-OPN-14	N/A	A/C CONDENSATE	N/A	NOI	NO

TABLE 6 : TA 53-29 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-29-OPN-1	N/A	EXT A/C UNIT	N/A	NOI	NO
53-29-OPN-2	N/A	BEAM EXPER	101	NOI	NO
53-29-OPN-3	VENT	BEAM EXPER	101	REMOVE	NO
53-29-OPN-4	N/A	EXT A/C UNIT	N/A	NOI	NO
53-29-OPN-5	VENT	TGT EQUIP RM	N/A	NO CHANGE	NO

TABLE 7 : TA 53-30 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-30-OPN-1 SAN SEWER	1FS1	MECH ROOM	101	NO CHANGE	NO
	1FS2	MECH ROOM	101	CONTAIN	
	1FS3	MECH ROOM	101	NO CHANGE	
	1FS4	MECH ROOM	101	NO CHANGE	
	1WF1	LANSCE EXPER	ER-2	NO CHANGE	
	1WF2	LANSCE EXPER	ER-2	NO CHANGE	
	1WF3	LANSCE EXPER	ER-2	NO CHANGE	
53-30-OPN-2 RLW	1CFD1	MECH ROOM	101	LABEL DRAIN	NO
	1CFD2	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD3	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD4	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD5	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD6	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD7	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD8	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD9	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD10	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD11	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD12	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD13	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD14	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CFD15	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CSD1	LANSCE EXPER	ER-2	LABEL DRAIN	
	1CSD2	LANSCE EXPER	ER-2	LABEL DRAIN	
1CSD3	LANSCE EXPER	ER-2	LABEL DRAIN		

TABLE 7 : TA 53-30 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-30-OPN-3	N/A	LIQ N2 CONN	N/A	NO CHANGE	NO
53-30-OPN-4	N/A	HELIUM CONN	N/A	NO CHANGE	NO
53-30-OPN-5	N/A	FIRE TEST	N/A	NOI	NO
53-30-OPN-6	N/A	FIRE TEST	N/A	NOI	NO
53-30-OPN-7	N/A	PLB VENT	N/A	NO CHANGE	NO
53-30-OPN-8	N/A	COMP AIR	N/A	NO CHANGE	NO

TABLE 8 : TA 53-36 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-36-OPN-1 RLW	1CFD1	DI PUMP RM	N/A	PLUG DRAIN	NO
53-36-OPN-2	N/A	A/C COND	N/A	NOI	NO

TABLE 9 : TA 53-37 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-37-OPN-1	1LV1	RESTROOM	N/A	NO CHANGE	NO
SAN SEWER	1TL1	RESTROOM	N/A	NO CHANGE	
53-37-OPN-2	WH	CLOSET	N/A	NOI	NO

TABLE 10 : TA 53-368 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-368-OPN-1 RLW	1CFD1	TGT 4 EQUIP RM	N/A	LABEL DRAIN	NO
53-368-OPN-2	N/A	TGT 4 EQUIP RM	N/A	VAC PUMP AIR	NO

TABLE 11 : TA 53-382 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-382-OPN-1	N/A	DETECTOR SHED	N/A	VAC PUMP AIR	NO
53-382-OPN-2	N/A	DETECTOR SHED	N/A	VAC PUMP AIR	NO

TABLE 12 : TA 53-622 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-622-OPN-1 SAN SEWER	1FD1	RESTROOM	144	NO CHANGE	NO
	1FD2	RESTROOM	142	NO CHANGE	
	1FS1	COMPUTER LAB	103	NO CHANGE	
	1LV1	RESTROOM	144	NO CHANGE	
	1LV2	RESTROOM	142	NO CHANGE	
	1SD1	JANITOR CLOSET	150	NO CHANGE	
	1SD2	CYRO LAB	106	NO CHANGE	
	1SD3	EXP. SETUP LAB	108	NO CHANGE	
	1SD4	MECHANICAL LAB	116	NO CHANGE	
	1SH1	RESTROOM	144	NO CHANGE	
	1TL1	RESTROOM	144	NO CHANGE	
	1TL2	RESTROOM	142	NO CHANGE	
	1TL3	RESTROOM	142	NO CHANGE	
	1UR1	RESTROOM	144	NO CHANGE	
	1WF1	CORRIDOR	100	NO CHANGE	
	2FD1	RESTROOM	244	NO CHANGE	
	2FD2	RESTROOM	242	NO CHANGE	
	2LV1	RESTROOM	244	NO CHANGE	
	2LV2	RESTROOM	244	NO CHANGE	
	2LV3	RESTROOM	242	NO CHANGE	
	2LV4	RESTROOM	242	NO CHANGE	
	2SD1	JANITOR CLOSET	250	NO CHANGE	
	2SD2	COFFEE BAR	227	NO CHANGE	
	2TL1	RESTROOM	244	NO CHANGE	
	2TL2	RESTROOM	244	NO CHANGE	
	2TL3	RESTROOM	242	NO CHANGE	
	2TL4	RESTROOM	242	NO CHANGE	
	2TL5	RESTROOM	242	NO CHANGE	
	2UR1	RESTROOM	244	NO CHANGE	
	2UR2	RESTROOM	244	NO CHANGE	
	2UR3	RESTROOM	244	NO CHANGE	
	2WF1	CORRIDOR	223	NO CHANGE	
	3FD1	RESTROOM	344	NO CHANGE	
	3FD2	RESTROOM	342	NO CHANGE	
	3LV1	RESTROOM	344	NO CHANGE	
	3LV2	RESTROOM	342	NO CHANGE	
	3SD1	JANITOR CLOSET	350	NO CHANGE	
	3SD2	COFFEE BAR	340	NO CHANGE	
	3SD3	REPRO ROOM	317	NO CHANGE	
	3SH1	RESTROOM	344	NO CHANGE	

TABLE 12 : TA 53-622 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-62-OPN-1 SAN SEWER	3TL1	RESTROOM	344	NO CHANGE	NO
	3TL2	RESTROOM	344	NO CHANGE	
	3TL3	RESTROOM	342	NO CHANGE	
	3UR1	RESTROOM	342	NO CHANGE	
	3WF1	CORRIDOR	326	NO CHANGE	
53-622-OPN-2 STORM	2DD1	DECK DRAIN	EXTER.	NO CHANGE	NO
	2DD2	DECK DRAIN	EXTER.	NO CHANGE	
	2DD3	DECK DRAIN	EXTER.	NO CHANGE	
	2DD4	DECK DRAIN	EXTER.	NO CHANGE	
	2DD5	DECK DRAIN	EXTER.	NO CHANGE	
	3DD1	DECK DRAIN	EXTER.	NO CHANGE	
	3DD2	DECK DRAIN	EXTER.	NO CHANGE	
	3DD3	DECK DRAIN	EXTER.	NO CHANGE	
	3DD4	DECK DRAIN	EXTER.	NO CHANGE	
	RD1	ROOF DRAIN	EXTER.	NO CHANGE	
	RD3	ROOF DRAIN	EXTER.	NO CHANGE	
	RD4	ROOF DRAIN	EXTER.	NO CHANGE	
	RD6	ROOF DRAIN	EXTER.	NO CHANGE	
	RD8	ROOF DRAIN	EXTER.	NO CHANGE	
	RD10	ROOF DRAIN	EXTER.	NO CHANGE	
	RD12	ROOF DRAIN	EXTER.	NO CHANGE	
	RD14	ROOF DRAIN	EXTER.	NO CHANGE	
RD15	ROOF DRAIN	EXTER.	NO CHANGE		
RD16	ROOF DRAIN	EXTER.	NO CHANGE		
53-622-OPN-3 STORM	RD17	ROOF OVERFLOW	EXTER.	NO CHANGE	NO
	RD18	ROOF OVERFLOW	EXTER.	NO CHANGE	
53-622-OPN-4	RD13	ROOF OVERFLOW	EXTER.	NO CHANGE	NO
53-622-OPN-5	RD11	ROOF OVERFLOW	EXTER.	NO CHANGE	NO
53-622-OPN-6	RD9	ROOF OVERFLOW	EXTER.	NO CHANGE	NO
53-622-OPN-7	RD7	ROOF OVERFLOW	EXTER.	NO CHANGE	NO
53-622-OPN-8	RD5	ROOF OVERFLOW	EXTER.	NO CHANGE	NO
53-622-OPN-9 SAN SEWER	3FS1	MECH EQUIP	PENT.	LABEL PIPE	NO
	3FS2	MECH EQUIP	PENT.	LABEL PIPE	
53-622-OPN-10	N/A	FIRE DRAIN	EXTER.	NOI	NO
53-622-OPN-11	N/A	GAS PRV VENT	EXTER.	NO CHANGE	NO
53-622-OPN-12	N/A	FIRE TEST	N/A	NOI	NO

TABLE 13: TA 53-1031 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-1031-OPN-1 DAYLIGHT	N/A	OIL/WASTE STOR.	N/A	CHG/LABEL VALVE	NO

TABLE 14: NON-DRAIN RECOMMENDATIONS

TA #	BLDG. #	ROOM/AREA	RECOMMENDATION
53	ALL	ALL S.S. DRAINS	POST "NO CHEM. DN THIS DRAIN" SIGN
53	ALL	ALL RLW DRAINS	POST "RAD. WASTE DRAIN" SIGN
53	36	LINE "E" TUNNEL	VERIFY OR CERTIFY DRAIN TERMIN.

**TABLE 15
SUMMARY OF
ABBREVIATIONS**

ABBREVIATION	MEANING
A/C	AIR COND UNIT
A/H	AIR HANDLER
B	(PREFIX) FOR BASEMENT
BFP	BACKFLOW PREVENTER
C	(PREFIX) CONTAMINATION
CD	CUP DRAIN
DD	DECK DRAIN
EW	EYE WASH
FD	FLOOR DRAIN
FS	FLOOR SINK
LV	LAVATORY
MH	MANHOLE
NOI	NOTICE OF INTENT
PRV	PRESS RELIEF VALVE
(R)	RISER (UP/DOWN)
RD	ROOF DRAIN
RLW	RAD LIQ WASTE
SD	SINK DRAIN
SH	NON-EMER SHOWER
SP	SUMP PUMP
SS	SANITARY SEWER
TL	TOILET
UR	URINAL
WF	WATER FOUNTAIN
WH	WATER HEATER

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	RATE	FLOW GPD	PERIODICITY WHEN DI SYS RUNNING	SEASONAL	SOURCE TYPES
53	7	53-7-OPN-01	RLW TANK	S1CSP01	100	LINE D TUNNEL	40			No	DI WATER SYSTEM
53	7	53-7-OPN-02	09S/SWSC	1FD01	200	EQUIPMENT ROOM			FLOW IS NIL	No	BFPS & HWS/HWR DRAIN
53	7	53-7-OPN-02	09S/SWSC	1FD02	200	EQUIPMENT ROOM			FLOW IS NIL	No	ONE HWS DRAIN
53	7	53-7-OPN-02	09S/SWSC	1FD03	200	EQUIPMENT ROOM			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-02	09S/SWSC	1FD04	200	EQUIPMENT ROOM			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-02	09S/SWSC	1FD05	200	EQUIPMENT ROOM			FLOW IS NIL	No	A/H CONDENSATE DRAINS
53	7	53-7-OPN-02	09S/SWSC	1FD06	200	EQUIPMENT ROOM			FLOW IS NIL	No	HWS DRAIN
53	7	53-7-OPN-02	09S/SWSC	1FD07	200	EQUIPMENT ROOM			FLOW IS NIL	No	A/H CONDENSATE DRAIN
53	7	53-7-OPN-02	09S/SWSC	S1FD13	119	TGT #1 SERVICE AREA			NO FLOW	No	REMOVED
53	7	53-7-OPN-02	09S/SWSC	S1FD14	119	TGT #1 SERVICE AREA			NO FLOW	No	REMOVED
53	7	53-7-OPN-02	09S/SWSC	S1SD02	119	TGT #1 SERVICE AREA			5 DAYS PER WEEK	No	HAND WASH
53	7	53-7-OPN-02	09S/SWSC	S1SD03	119	TGT #1 SERVICE AREA			NO FLOW	No	REMOVED
53	7	53-7-OPN-02	09S/SWSC	S1SD04	119	TGT #1 SERVICE AREA			NO FLOW	No	REMOVED
53	7	53-7-OPN-02	09S/SWSC	S1SH01	119	TGT #1 SERVICE AREA			NO FLOW	No	REMOVED
53	7	53-7-OPN-02	09S/SWSC	S1TL03	119	TGT #1 SERVICE AREA			NO FLOW	No	REMOVED
53	7	53-7-OPN-03	09S/SWSC	S1FD04	101	LCR CONTROL ROOM			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-03	09S/SWSC	S1FD05	114	CORRIDOR			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-03	09S/SWSC	S1FD06	114	CORRIDOR			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-03	09S/SWSC	S1FD07	113	LCR MECHANICAL ROOM			7 DAYS PER WEEK	No	COOLING TOWER SYSTEM DRAINS
53	7	53-7-OPN-03	09S/SWSC	S1FD08	113	LCR MECHANICAL ROOM			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-03	09S/SWSC	S1FD09	113	LCR MECHANICAL ROOM			FLOW IS NIL	No	A/H CONDENSATE DRAINS
53	7	53-7-OPN-03	09S/SWSC	S1FD10	115	BLUE ROOM CORRIDOR			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-03	09S/SWSC	S1FD11	115	BLUE ROOM CORRIDOR			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-03	09S/SWSC	S1FD12	115	BLUE ROOM CORRIDOR			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-03	09S/SWSC	S1LV01	108	LCR RESTROOM			5 DAYS PER WEEK	No	HANDWASH
53	7	53-7-OPN-03	09S/SWSC	S1LV02	110	LCR RESTROOM			5 DAYS PER WEEK	No	HANDWASH
53	7	53-7-OPN-03	09S/SWSC	S1SD01	109	LCR JANITOR CLOSET			5 DAYS PER WEEK	No	GENERAL CLEANING
53	7	53-7-OPN-03	09S/SWSC	S1TL01	108	LCR RESTROOM			5 DAYS PER WEEK	No	TOILET
53	7	53-7-OPN-03	09S/SWSC	S1TL02	110	LCR RESTROOM			5 DAYS PER WEEK	No	TOILET
53	7	53-7-OPN-03	09S/SWSC	S1UR01	110	LCR RESTROOM			5 DAYS PER WEEK	No	URINAL
53	7	53-7-OPN-03	09S/SWSC	S1WF01	101	LCR CONTROL ROOM			NO FLOW	No	NO DIRECT SOURCES
53	7	53-7-OPN-04	DAYLIGHT	N/A	ROOF	ROOF FRENCH DRAIN			STORMS	Yes	STORM WATER
53	7	53-7-OPN-05	RLW TANK	S1CFD01	117	LINE D TUNNEL			FLOW IS NIL	No	DI WATER SYSTEM DRAIN

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	7	53-7-OPN-05	RLW TANK	S1CFD02	117	LINE D TUNNEL			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-05	RLW TANK	S1CFD03	117	LINE D TUNNEL			FLOW IS NIL		No	DI WATER SYSTEM DRAIN
53	7	53-7-OPN-05	RLW TANK	S1CFD04	119	TGT # 1 SERVICE AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-05	RLW TANK	S1CFD05	119	TGT # 1 SERVICE AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-05	RLW TANK	S1HD01	119	TGT # 1 SERVICE AREA			NO FLOW		No	CAPPED
53	7	53-7-OPN-05	RLW TANK	S2CFD01	20	ER-1 STAIRWELL			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-05	RLW TANK	S2CFD02	24	ER-1 EXPERIMENTAL AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-05	RLW TANK	S2CFD03	24	ER-1 EXPERIMENTAL AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-05	RLW TANK	S2CFD04	24	ER-1 EXPERIMENTAL AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-05	RLW TANK	S2CFD05	24	ER-1 EXPERIMENTAL AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-05	RLW TANK	S2HD01	118	TGT CELL # 1			NO FLOW		No	PLUGGED
53	7	53-7-OPN-06	RLW TANK	S1CFD06	117	LINE D TUNNEL			FLOW IS NIL		No	DI WATER SYSTEM DRAIN
53	7	53-7-OPN-06	RLW TANK	S1CFD07	119	TGT # 1 SERVICE AREA			FLOW IS NIL		No	TGT MODERATOR CHILLER
53	7	53-7-OPN-06	RLW TANK	S1CFD07	119	TGT # 1 SERVICE AREA			FLOW IS NIL		No	BFP & SAMPLING DR
53	7	53-7-OPN-06	RLW TANK	S1CFD08	119	TGT # 1 SERVICE AREA			FLOW IS NIL		No	BFP & DI WATER DR
53	7	53-7-OPN-06	RLW TANK	S2CFD06	24	ER-1 EXPERIMENTAL AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-06	RLW TANK	S2CFD07	24	ER-1 EXPERIMENTAL AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-06	RLW TANK	S2CFD08	24	ER-1 EXPERIMENTAL AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-06	RLW TANK	S2CFD09	24	ER-1 EXPERIMENTAL AREA			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-06	RLW TANK	S2HD02	118	TGT CELL # 1			NO FLOW		No	PLUGGED
53	7	53-7-OPN-07	RLW TANK	S1CFD09	117	LINE D TUNNEL			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-07	RLW TANK	S2CFD10	22	TGT # 2 (BLUE ROOM)			FLOW IS NIL		No	DISCH FROM 53-368-OPN-1
53	7	53-7-OPN-07	RLW TANK	S2CFD10	22	TGT # 2 (BLUE ROOM)			FLOW IS NIL		No	TGT #4 TUNNEL DRAIN
53	7	53-7-OPN-07	RLW TANK	S2CFD11	22	TGT # 2 (BLUE ROOM)			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-07	RLW TANK	S2CFD12	22	TGT # 2 (BLUE ROOM)			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-07	RLW TANK	S2CFD13	22	TGT # 2 (BLUE ROOM)			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-08	ATMOSPHERE	N/A	24	ER-1 EXPERIMENTAL AREA			NO LIQUIDS		No	VAPOR VENT
53	7	53-7-OPN-09	ATMOSPHERE	N/A	24	ER-1 EXPERIMENTAL AREA			NO LIQUIDS		No	VAPOR VENT
53	7	53-7-OPN-10	ATMOSPHERE	N/A	24	ER-1 EXPERIMENTAL AREA			NO LIQUIDS		No	VAPOR VENT
53	7	53-7-OPN-11	ATMOSPHERE	N/A	119	TGT # 1 SERVICE AREA			NO LIQUIDS		No	VAC PUMP AIR DISCHARGE
53	7	53-7-OPN-12	DAYLIGHT	S1FD01	101	LCR CONTROL ROOM			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-12	DAYLIGHT	S1FD02	101	LCR CONTROL ROOM			NO FLOW		No	NO DIRECT SOURCES
53	7	53-7-OPN-12	DAYLIGHT	S1FD03	101	LCR CONTROL ROOM			NO FLOW		No	NO DIRECT SOURCES

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	7	53-7-OPN-13	DAYLIGHT	N/A	200	EQUIPMENT ROOM				ANNUAL TESTING	No	FIRE SPRINKLER SYSTEM
53	7	53-7-OPN-14	DAYLIGHT	N/A	200	EQUIPMENT ROOM				ANNUAL TESTING	No	FIRE SPRINKLER SYSTEM
53	7	53-7-OPN-15	DAYLIGHT	N/A	200	EQUIPMENT ROOM				ANNUAL TESTING	No	FIRE SPRINKLER SYSTEM
53	7	53-7-OPN-16	DAYLIGHT	N/A	200	EQUIPMENT ROOM				ANNUAL TESTING	No	FIRE SPRINKLER SYSTEM
53	7	53-7-OPN-17	DAYLIGHT	N/A	200	EQUIPMENT ROOM				MOSTLY SUMMER	Yes	STORM WATER
53	8	53-8-OPN-1	RLW	1CFD01		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD02		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD03		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD04		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD06		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD07		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD08		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD09		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD10		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD11		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD12		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD13		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD14		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD15		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD16		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD17		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD18		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD19		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	8	53-8-OPN-1	RLW	1CFD20		PROTON STORAGE RING				FLOW IS NIL	No	DI WATER SYSTEM
53	15	53-15-OPN-1	09S/SWSC	1CD01	105	MATERIALS LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD02	105	MATERIALS LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD03	105	MATERIALS LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD04	105	MATERIALS LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD04	105	MATERIALS LAB				5 DAYS PER WEEK	No	NON CONTACT COOLING WATER
53	15	53-15-OPN-1	09S/SWSC	1CD05	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD06	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD07	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD08	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	FLOW	RATE	PERIODICITY		SOURCE TYPES
											SEASONAL	
53	15	53-15-OPN-1	09S/SWSC	1CD09	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD10	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD11	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD12	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD13	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1CD14	103	CHEMICAL LAB				5 DAYS PER WEEK	No	POTABLE WATER FAUCET
53	15	53-15-OPN-1	09S/SWSC	1EW01	103	CHEMICAL LAB				EMERGENCY USE	No	EMER EYE WASH/SHOWER
53	15	53-15-OPN-1	09S/SWSC	1FD01	106	MECHANICAL ROOM				FLOW IS NIL	No	WATER HEATER PRV & DRAIN
53	15	53-15-OPN-1	09S/SWSC	1LV01	102	RESTROOM				5 DAYS PER WEEK	No	HANDWASH
53	15	53-15-OPN-1	09S/SWSC	1LV02	104	RESTROOM				5 DAYS PER WEEK	No	HANDWASH
53	15	53-15-OPN-1	09S/SWSC	1SD01	107	USER'S LAB				5 DAYS PER WEEK	No	COUNTERTOP WATER FILTER
53	15	53-15-OPN-1	09S/SWSC	1SD02	100	ASSEMBLY AREA				NO FLOW	No	REMOVED
53	15	53-15-OPN-1	09S/SWSC	1SD03	105	MATERIALS LAB				5 DAYS PER WEEK	No	CLEAN UP
53	15	53-15-OPN-1	09S/SWSC	1SD04	103	CHEMICAL LAB				5 DAYS PER WEEK	No	CLEAN UP
53	15	53-15-OPN-1	09S/SWSC	1SD05	103	CHEMICAL LAB				5 DAYS PER WEEK	No	CLEAN UP
53	15	53-15-OPN-1	09S/SWSC	1SD06	109	JANITORS CLOSET				5 DAYS PER WEEK	No	GENERAL CLEANING
53	15	53-15-OPN-1	09S/SWSC	1TL01	102	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	15	53-15-OPN-1	09S/SWSC	1TL02	104	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	15	53-15-OPN-1	09S/SWSC	1UR01	102	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	15	53-15-OPN-1	09S/SWSC	1WF01	100	ASSEMBLY AREA				5 DAYS PER WEEK	No	POTABLE WATER
53	15	53-15-OPN-2	DAYLIGHT	N/A	106	MECHANICAL ROOM				ANNUAL TESTING	No	FIRE SPRINKLER SYSTEM
53	15	53-15-OPN-3	DAYLIGHT	N/A	106	MECHANICAL ROOM				ANNUAL TESTING	No	FIRE SPRINKLER SYSTEM
53	15	53-15-OPN-4	DAYLIGHT	N/A	107	USER'S LAB				ANNUAL TESTING	No	FIRE SPRINKLER SYSTEM
53	15	53-15-OPN-5	DAYLIGHT	N/A		BLDG EXTERIOR				7 DAYS PER WEEK	No	AIR COMPRESSOR TANK DRAIN
53	15	53-15-OPN-6	ATMOSPHERE	N/A		BLDG EXTERIOR				NO LIQUIDS	No	HELIUM GAS CONNECTION
53	16	53-16-OPN-1	09S/SWSC	N/A		MACHINE SHOP				NO FLOW	No	CAPPED STUB
53	16	53-16-OPN-2	ATMOSPHERE	N/A		BLDG EXTERIOR				7 DAYS PER WEEK	No	AIR COMPRESSOR TANK DRAIN
53	28	53-28-OPN-01	09S/SWSC	1FD01		PSR EQUIPMENT BLDG				NO FLOW	No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD02		PSR EQUIPMENT BLDG				NO FLOW	No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD03		PSR EQUIPMENT BLDG				FLOW IS NIL	No	ELECTRONICS CAB CONDENSATE
53	28	53-28-OPN-01	09S/SWSC	1FD04		PSR EQUIPMENT BLDG				NO FLOW	No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD05		PSR EQUIPMENT BLDG				NO FLOW	No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD06		PSR EQUIPMENT BLDG				FLOW IS NIL	No	BFP & WATER FTN DRN

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	28	53-28-OPN-01	09S/SWSC	1FD07		PSR EQUIPMENT BLDG			NO FLOW		No	ELECTRONICS CAB CONDENSATE
53	28	53-28-OPN-01	09S/SWSC	1FD08		MECHANICAL ROOM			FLOW IS NIL		No	DI WATER SYSTEM DRAIN
53	28	53-28-OPN-01	09S/SWSC	1FD09		MECHANICAL ROOM			FLOW IS NIL		No	DI WATER SYSTEM DRAIN
53	28	53-28-OPN-01	09S/SWSC	1FD10		MECHANICAL ROOM			5 DAYS PER WEEK		No	WTR HTR DRAIN & PRV
53	28	53-28-OPN-01	09S/SWSC	1FD11		MECHANICAL ROOMLDG			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD12		MECHANICAL ROOM			7 DAYS PER WEEK		No	COOLING TOWER WATER DRAIN
53	28	53-28-OPN-01	09S/SWSC	1FD12		MECHANICAL ROOM			FLOW IS NIL		No	AIR COMP TANK DRAIN
53	28	53-28-OPN-01	09S/SWSC	1FD12		MECHANICAL ROOM			FLOW IS NIL		No	A/H CONDENSATE DRAIN
53	28	53-28-OPN-01	09S/SWSC	1FD13		MECHANICAL ROOM			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD14		PSR EQUIPMENT BLDG			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD15		PSR EQUIPMENT BLDG			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD16		PSR EQUIPMENT BLDG			FLOW IS NIL		No	ELECTRONICS CAB CONDENSATE
53	28	53-28-OPN-01	09S/SWSC	1FD17		PSR EQUIPMENT BLDG			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD18		PSR EQUIPMENT BLDG			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD19		PSR EQUIPMENT BLDG			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD20		PSR EQUIPMENT BLDG			FLOW IS NIL		No	ELECTRONICS CAB CONDENSATE
53	28	53-28-OPN-01	09S/SWSC	1FD21		PSR EQUIPMENT BLDG			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD22		PSR EQUIPMENT BLDG			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-01	09S/SWSC	1FD23		PSR EQUIPMENT BLDG			FLOW IS NIL		No	ELECTRONICS CAB CONDENSATE
53	28	53-28-OPN-01	09S/SWSC	1FD24		PSR EQUIPMENT BLDG			7 DAYS PER WEEK		No	COOLING TWR DRAINS
53	28	53-28-OPN-01	09S/SWSC	1SD01		MECHANICAL ROOM			5 DAYS PER WEEK		No	GENERAL CLEANING
53	28	53-28-OPN-01	09S/SWSC	2FD01		EQUIPMENT MEZZANINE			NO FLOW		No	NO DIRECT SOURCES
53	28	53-28-OPN-02	RLW TANK	1CFD01		PSR EQUIPMENT BLDG			5 DAYS PER WEEK		No	RAD DI WATER SYSTEM
53	28	53-28-OPN-03	03A130	N/A		PSR COOLING TWR BLOWDOWN			7 DAYS PER WEEK		No	TREATED TWR WATER BD
53	28	53-28-OPN-04	DAYLIGHT	N/A		ROOF DRAIN			DURING STORMS		Yes	STORM WATER
53	28	53-28-OPN-05	DAYLIGHT	N/A		BLDG EXTERIOR			NO USED		No	LEACH LINE INLET STUBS
53	28	53-28-OPN-06	DAYLIGHT	N/A		PSR EQUIPMENT BLDG			ANNUAL TESTING		No	FIRE SPRINKLER SYSTEM
53	28	53-28-OPN-07	DAYLIGHT	N/A		PSR EQUIPMENT BLDG			ANNUAL TESTING		No	FIRE SPRINKLER SYSTEM
53	28	53-28-OPN-08	DAYLIGHT	N/A		PSR EQUIPMENT BLDG			ANNUAL TESTING		No	FIRE SPRINKLER SYSTEM
53	28	53-28-OPN-09	DAYLIGHT	N/A		BLDG EXTERIOR			FLOW IS NIL		No	A/C SYSTEM CONDENSATE
53	28	53-28-OPN-10	DAYLIGHT	N/A		BLDG EXTERIOR			FLOW IS NIL		No	A/C SYSTEM CONDENSATE
53	28	53-28-OPN-11	DAYLIGHT	N/A		PSR EQUIPMENT BLDG			ANNUAL TESTING		No	FIRE SPRINKLER SYSTEM
53	28	53-28-OPN-12	DAYLIGHT	N/A		BLDG EXTERIOR			FLOW IS NIL		No	A/C SYSTEM CONDENSATE

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	29	53-29-OPN-1	DAYLIGHT	N/A		BLDG EXTERIOR			FLOW IS NIL		No	A/C SYSTEM CONDENSATE
53	29	53-29-OPN-2	DAYLIGHT	N/A	101	BEAM EXPR AREA			FLOW IS NIL		No	A/C SYSTEM CONDENSATE
53	29	53-29-OPN-3	ATMOSPHERE	N/A	101	BEAM EXPR AREA			NO FLOW		No	OLD PIPE STUB
53	29	53-29-OPN-4	DAYLIGHT	N/A		BLDG EXTERIOR			FLOW IS NIL		No	A/C SYSTEM CONDENSATE
53	29	53-29-OPN-5	ATMOSPHERE	N/A		TGT EQUIP ROOM			NO LIQUIDS		No	NITROGEN VAPOR PRV VENT
53	30	53-30-OPN-1	09S/SWSC	1FS01	101	MECHANICAL ROOM			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-1	09S/SWSC	1FS02	101	MECHANICAL ROOM			7 DAYS PER WEEK		No	COMP AIR FILTER DRAIN
53	30	53-30-OPN-1	09S/SWSC	1FS02	101	MECHANICAL ROOM			5 DAYS PER WEEK		No	DISCH FROM 53-622-OPN-9
53	30	53-30-OPN-1	09S/SWSC	1FS02	101	MECHANICAL ROOM			7 DAYS PER WEEK		No	COMP AIR TANK DRAIN
53	30	53-30-OPN-1	09S/SWSC	1FS02	101	MECHANICAL ROOM			5 DAYS PER WEEK		No	DISCH FROM 53-622-OPN-9
53	30	53-30-OPN-1	09S/SWSC	1FS03	101	MECHANICAL ROOM			FLOW IS NIL		No	BOILER DRAINS & PRV'S
53	30	53-30-OPN-1	09S/SWSC	1FS03	101	MECHANICAL ROOM			5 DAYS PER WEEK		No	HWS SYSTEM DRAINS
53	30	53-30-OPN-1	09S/SWSC	1FS04	101	MECHANICAL ROOM			FLOW IS NIL		No	BFP'S & WTR HTR P
53	30	53-30-OPN-1	09S/SWSC	1WF01	ER-2	LANSCE EXPR AREA			5 DAYS PER WEEK		No	POTABLE WATER
53	30	53-30-OPN-1	09S/SWSC	1WF02	ER-2	LANSCE EXPR AREA			5 DAYS PER WEEK		No	POTABLE WATER
53	30	53-30-OPN-1	09S/SWSC	1WF03	ER-2	LANSCE EXPR AREA			5 DAYS PER WEEK		No	POTABLE WATER
53	30	53-30-OPN-2	RLW TANK	1CFD02	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD03	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD04	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD05	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD06	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD07	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD08	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD09	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD10	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD11	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD12	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD13	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD14	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CFD15	ER-2	LANSCE EXPR AREA			NO FLOW		No	NO DIRECT SOURCES
53	30	53-30-OPN-2	RLW TANK	1CSD01	ER-2	LANSCE EXPR AREA			5 DAYS PER WEEK		No	CLEAN UP
53	30	53-30-OPN-2	RLW TANK	1CSD02	ER-2	LANSCE EXPR AREA			5 DAYS PER WEEK		No	CLEAN UP
53	30	53-30-OPN-2	RLW TANK	1CSD03	ER-2	LANSCE EXPR AREA			5 DAYS PER WEEL		No	CLEAN UP

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	30	53-30-OPN-3	ATMOSPHERE	N/A		BLDG EXTERIOR			NO LIQUIDS		No	LIQ NITROGEN TANK DRAIN
53	30	53-30-OPN-4	ATMOSPHERE	N/A	ER-2	LANSCE EXPER AREA			NO LIQUIDS		No	HELIUM GAS CONNECTION
53	30	53-30-OPN-5	DAYLIGHT	N/A	ER-2	LANSCE EXPER AREA			ANNUAL TESTING		No	FIRE SPRINKLER SYSTEM
53	30	53-30-OPN-6	DAYLIGHT	N/A	ER-2	LANSCE EXPER AREA			ANNUAL TESTING		No	FIRE SPRINKLER SYSTEM
53	30	53-30-OPN-7	ATMOSPHERE	N/A	ER-2	LANSCE EXPER AREA			NO LIQUIDS		No	PLB SYSTEM AIR VENT
53	30	53-30-OPN-8	ATMOSPHERE	N/A	ER-2	LANSCE EXPER AREA			NO LIQUIDS		No	COMP AIR CONNECTION
53	34	53-34	ND	N/A		SERVICE BUILDING			NO FLOW		No	NONE
53	35	53-35	ND	N/A		DETECTOR SHED			NO FLOW		No	NONE
53	36	53-36-OPN-1	UNKNOWN	1CFD01		P-DIV DI PUMP/HT EXCH RM			FLOW IS NIL		No	DI WATER DRAIN/COOL TWR D
53	36	53-36-OPN-2	DAYLIGHT	N/A		BLDG EXTERIOR			FLOW IS NIL		No	A/C UNIT CONDENSATE
53	37	53-37-OPN-1	09S/SWSC	1LV01		GUARD BLDG RESTROOM			5 DAYS PER WEEK		No	HAND WASH
53	37	53-37-OPN-1	09S/SWSC	1TL01		GUARD BLDG RESTROOM			5 DAYS PER WEEK		No	TOILET
53	37	53-37-OPN-2	DAYLIGHT	N/A		GUARD BLDG RESTROOM			FLOW IS NIL		No	WTR HTR PRV
53	368	53-368-OPN-1	RLW	1CFD01		TGT 4 EQUIP ROOM			FLOW IS NIL		No	DI WATER SYSTEM DRAIN
53	368	53-368-OPN-2	ATMOSPHERE	N/A		TGT 4 EQUIP ROOM			NO LIQUIDS		No	VAC PUMP AIR DISCH
53	370	53-370	ND	N/A		DETECTOR SHED			NO FLOW		No	NONE
53	371	53-371	ND	N/A		DETECTOR SHED			NO FLOW		No	NONE
53	372	53-372	ND	N/A		STORAGE SHED			NO FLOW		No	NONE
53	374	53-374	ND	N/A		METAL SHED			NO FLOW		No	NONE
53	382	53-382-OPN-1	ATMOSPHERE	N/A		DETECTOR SHED			NO LIQUIDS		No	VAC PUMP AIR DISCH
53	382	53-382-OPN-2	ATMOSPHERE	N/A		DETECTOR SHED			NO LIQUIDS		No	VAC PUMP AIR DISCH
53	384	53-384	ND	N/A		METAL SHED			NO FLOW		No	NONE
53	534	53-534	ND	N/A		STORAGE TRAILER			NO FLOW		No	REMOVED
53	535	53-535	ND	N/A		STORAGE TRAILER			NO FLOW		No	NONE
53	540	53-540	ND	N/A		LAB/OFFICE TRAILER			NO FLOW		No	NONE
53	541	53-541	ND	N/A		LAB/OFFICE TRAILER			NO FLOW		No	NONE
53	573	53-573	ND	N/A		OFFICE TRAILER			NO FLOW		No	NONE
53	574	53-574	ND	N/A		TRAILER			NO FLOW		No	NONE
53	622	53-622-OPN-01	09S/SWSC	1FD01	144	RESTROOM			5 DAYS PER WEEK		No	FLOOR WASHINGS
53	622	53-622-OPN-01	09S/SWSC	1FD02	142	RESTROOM			5 DAYS PER WEEK		No	FLOOR WASHINGS
53	622	53-622-OPN-01	09S/SWSC	1FS01	103	LABORATORY			5 DAYS PER WEEK		No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	1LV01	144	RESTROOM			5 DAYS PER WEEK		No	HAND WASH
53	622	53-622-OPN-01	09S/SWSC	1LV02	142	RESTROOM			5 DAYS PER WEEK		No	HAND WASH

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	622	53-622-OPN-01	09S/SWSC	1SD01	150	JANITORIAL				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	1SD02	106	LABORATORY				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	1SD03	108	LABORATORY				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	1SD04	116	LABORATORY				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	1SHO1	144	RESTROOM				5 DAYS PER WEEK	No	NON-EMER SHOWER
53	622	53-622-OPN-01	09S/SWSC	1TLO1	144	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	1TLO2	142	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	1TLO3	142	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	1URO1	144	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	622	53-622-OPN-01	09S/SWSC	1WF01	100	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	622	53-622-OPN-01	09S/SWSC	2FD01	244	RESTROOM				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	2FD02	242	RESTROOM				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	2LV01	244	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	622	53-622-OPN-01	09S/SWSC	2LV02	244	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	622	53-622-OPN-01	09S/SWSC	2LV03	242	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	622	53-622-OPN-01	09S/SWSC	2LV04	242	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	622	53-622-OPN-01	09S/SWSC	2SD01	250	JANITORIAL				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	2SD02	227	COFFEE BAR				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	2TL01	244	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	2TL02	244	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	2TL03	242	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	2TL04	242	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	2TL05	242	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	2URO1	244	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	622	53-622-OPN-01	09S/SWSC	2URO2	244	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	622	53-622-OPN-01	09S/SWSC	2URO3	244	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	622	53-622-OPN-01	09S/SWSC	2WF01	223	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	622	53-622-OPN-01	09S/SWSC	3FD01	344	RESTROOM				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	3FD02	342	RESTROOM				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	3LV01	344	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	622	53-622-OPN-01	09S/SWSC	3LV02	342	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	622	53-622-OPN-01	09S/SWSC	3SD01	350	JANITORIAL				5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	3SD02	340	COFFEE BAR				5 DAYS PER WEEK	No	GENERAL CLEANING

REPORT #

33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM	DESCRIPTION	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	622	53-622-OPN-01	09S/SWSC	3SD03	344		REPRO ROOM			5 DAYS PER WEEK	No	GENERAL CLEANING
53	622	53-622-OPN-01	09S/SWSC	3SH01	344		RESTROOM			5 DAYS PER WEEK	No	NON-EMER SHOWER
53	622	53-622-OPN-01	09S/SWSC	3TL01	344		RESTROOM			5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	3TL02	344		RESTROOM			5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	3TL03	342		RESTROOM			5 DAYS PER WEEK	No	TOILET
53	622	53-622-OPN-01	09S/SWSC	3UR01	342		RESTROOM			5 DAYS PER WEEK	No	URINAL
53	622	53-622-OPN-01	09S/SWSC	3WF01	326		CORRIDOR			5 DAYS PER WEEK	No	WATER FOUNTAIN
53	622	53-622-OPN-02	DAYLIGHT	2DD01			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	2DD02			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	2DD03			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	2DD04			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	2DD05			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	3DD01			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	3DD02			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	3DD03			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	3DD04			EXTERIOR DECK			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RD10			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RD12			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RD14			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RD16			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RDO1			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RDO3			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RDO4			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RDO6			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-02	DAYLIGHT	RDO8			BLDG ROOF			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-03	DAYLIGHT	RD17			BLDG ROOF (OVERFLOW)			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-03	DAYLIGHT	RD18			BLDG ROOF (OVERFLOW)			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-04	DAYLIGHT	RD13			BLDG ROOF (OVERFLOW)			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-05	DAYLIGHT	RD11			BLDG ROOF (OVERFLOW)			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-06	DAYLIGHT	RD09			BLDG ROOF (OVERFLOW)			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-07	DAYLIGHT	RD07			BLDG ROOF (OVERFLOW)			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-08	DAYLIGHT	RD05			BLDG ROOF (OVERFLOW)			DURING STORMS	Yes	STORM WATER
53	622	53-622-OPN-09	09S/SWSC	3FS01			EXTERIOR A/H CABINET			FLOW IS NIL	No	A/H CABINET DRAINS

REPORT #

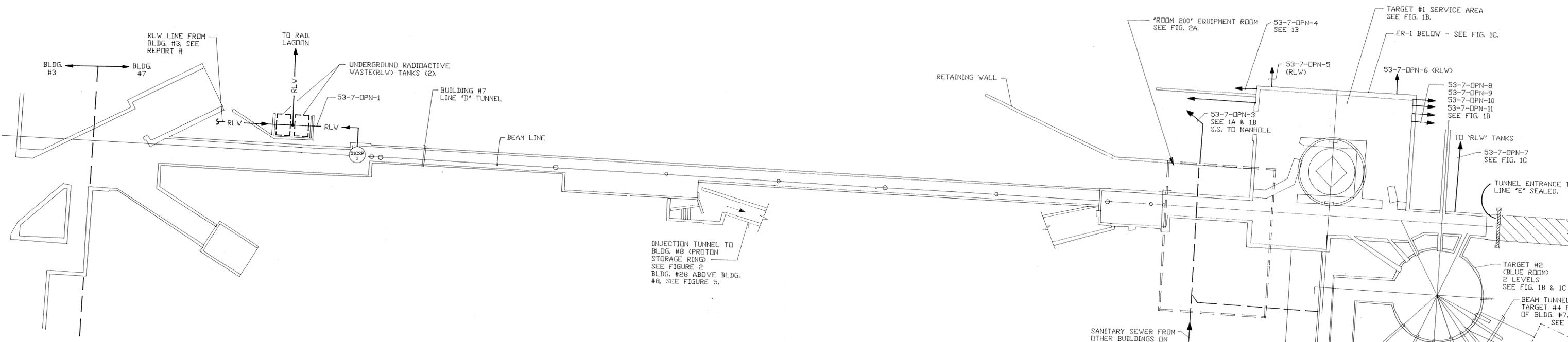
33

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	622	53-622-OPN-09	09S/SWSC	3FS02		EXTERIOR A/H CABINET			FLOW IS NIL		No	A/H CABINET DRAINS
53	622	53-622-OPN-10	DAYLIGHT	N/A		MECHANICAL ROOM			ANNUAL TESTING		No	FIRE SPRINKLER SYSTEM
53	622	53-622-OPN-11	DAYLIGHT	N/A		MECHANICAL ROOM			NO LIQUIDS		No	GAS PRV VAPOR VENT
53	622	53-622-OPN-12	DAYLIGHT	N/A		MECHANICAL ROOM			ANNUAL TESTING		No	FIRE SPRINKLER SYSTEM
53	625	53-625	ND	N/A		STORAGE SHED			NO FLOW		No	NONE
53	634	53-634	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	679	53-679	ND	N/A		METAL SHED			NO FLOW		No	NONE
53	686	53-686	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	726	53-726	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	734	53-734	ND	N/A		STORAGE SHED			NO FLOW		No	NONE
53	735	53-735	ND	N/A		STORAGE SHED			NO FLOW		No	NONE
53	736	53-736	N/A	N/A		STORAGE SHED			NO FLOW		No	REMOVED
53	776	53-776	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	777	53-777	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	780	53-780	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	781	53-781	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	782	53-782	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	783	53-783	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	823	53-823	ND	N/A		WNR BLDG 7			NO FLOW		No	NONE
53	826	53-826	ND	N/A		METAL SHED			NO FLOW		No	NONE
53	880	53-880	ND	N/A		SEMI-TRAILER			NO FLOW		No	NONE
53	1031	53-1031-OPN-1	DAYLIGHT	N/A		OIL/WASTE STORAGE BLDG			MANUAL DRAIN		No	SPILLS/POSS STORM WTR
53	1039	53-1039	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	1120	53-1120	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE
53	1138	53-1138	ND	N/A		TRANSPORTAINER			NO FLOW		No	NONE

NO EPA FORMS WERE PREPARED.

DYE STUDY INFORMATION

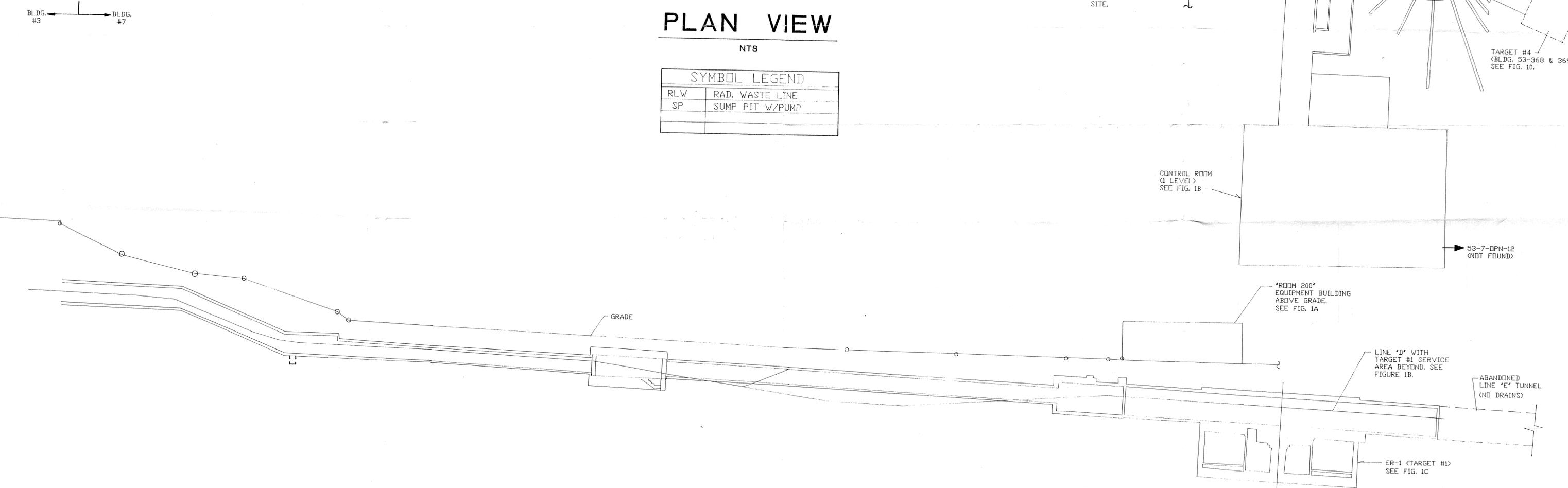
BUILDING NUMBER	DRAIN NUMBER	DID DYE REACH EXPECTED	COMMENTS
53-7	S1SD2	YES	NONE
53-7	1FD2	YES	NONE
53-7	S1FD6	YES	NONE
53-7	S1FD7	YES	NONE
53-7	S1FD10	YES	NONE
53-7	S1UR1	YES	NONE
53-7	S1CFD5	YES	NONE
53-7	S1CFD6	YES	NONE
53-7	S2CFD10	YES	NONE
53-8	S1CFD10	YES	NONE
53-15	1CD4	YES	NONE
53-15	1CD5	YES	NONE
53-15	1CD13	YES	NONE
53-15	1LV1	YES	NONE
53-15	1SD1	YES	NONE
53-15	1SD3	YES	NONE
53-15	1SD4	YES	NONE
53-15	1TL1	YES	NONE
53-28	1FD3	YES	NONE
53-28	1FD6	YES	NONE
53-28	1FD13	YES	NONE
53-28	1FD24	YES	NONE
53-28	1SD1	YES	NONE
53-30	1FS1	YES	NONE
53-30	1FS2	YES	NONE
53-30	1WF3	YES	NONE
53-30	1CSD1	YES	NONE
53-30	1CSD3	YES	NONE
53-36	1CFD1	NO	PIPE DISCONNECTED
53-368	1CFD1	YES (VISUAL)	PIPE EXPOSED(RLW)
53-622	1LV1	YES	NONE
53-622	1SD4	YES	NONE
53-622	2SD2	YES	NONE
53-622	2TL2	YES	NONE
53-622	3SD2	YES	NONE
53-622	3SD3	YES	NONE
53-622	3TL1	YES	NONE



PLAN VIEW

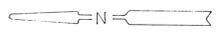
NTS

SYMBOL LEGEND	
RLW	RAD. WASTE LINE
SP	SUMP PIT W/PUMP



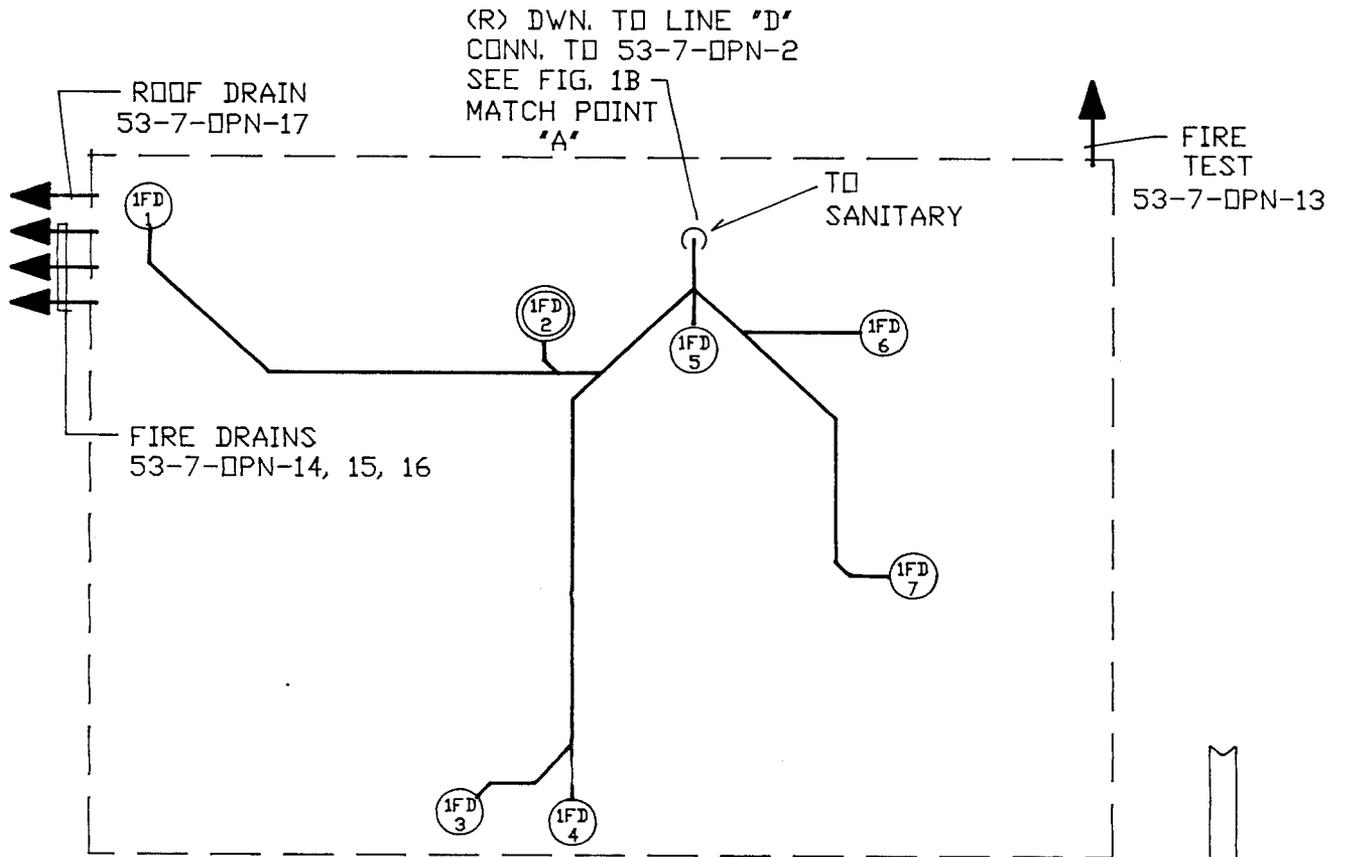
PROFILE VIEW

NTS



15274-A

SANTA FE ENGINEERING, LTD.			
TA 53-7		DRAWN	M.E.W.
DRAIN SCHEMATIC		DESIGN	S.C.D.
		CHECKED	L.B.A.
		RELEASED	
		DATE	6-10-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory	SHEET 1 OF 1
Los Alamos, New Mexico 87545			
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
EM-8	11056-33	FIGURE 1	



NOTE: THIS STRUCTURE IS LOCATED ABOVE GRADE OVER TARGET #1 SERVICE AREA), SEE FIGURE 1.

- 1FD1: (2) BFP'S
(2) HWS/HWR DRAINS
- 1FD2: (1) HWS
- 1FD5: (2) A/H COND.
- 1FD7: (1) A/H COND.

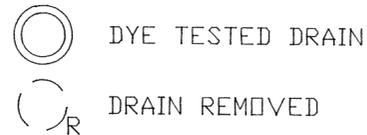
SYMBOL LEGEND	
FD	FLOOR DRAIN
○	DYE TESTED DRAIN

○ DYE TESTED DRAIN



SANTA FE ENGINEERING, LTD.											
BLDG. #7 EQUIP. RM. 200 DRAIN SCHEMATIC			<table border="1"> <tr><td>DRAWN</td><td>M.E.W.</td></tr> <tr><td>DESIGN</td><td>S.C.D.</td></tr> <tr><td>CHECKED</td><td>L.B.A.</td></tr> <tr><td>DATE</td><td>6-10-92</td></tr> </table>	DRAWN	M.E.W.	DESIGN	S.C.D.	CHECKED	L.B.A.	DATE	6-10-92
DRAWN	M.E.W.										
DESIGN	S.C.D.										
CHECKED	L.B.A.										
DATE	6-10-92										
SUBMITTED	RECOMMENDED	APPROVED									
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET 1 OF 1								
CLASSIFICATION	REVIEWER	DATE									
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.								
REQUESTING GROUP EM-8	11056-33	FIGURE 1A									

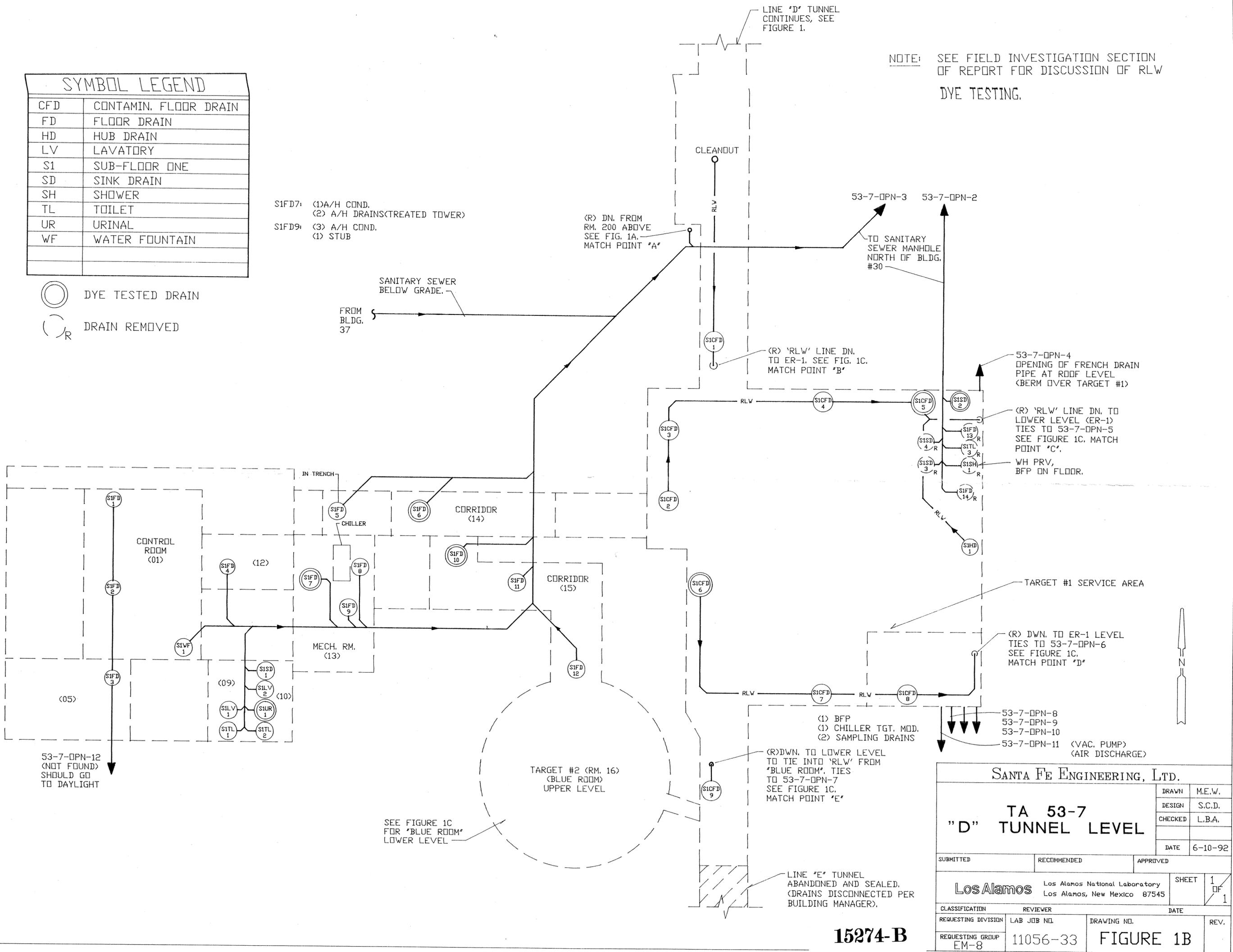
SYMBOL LEGEND	
CFD	CONTAMIN. FLOOR DRAIN
FD	FLOOR DRAIN
HD	HUB DRAIN
LV	LAVATORY
S1	SUB-FLOOR ONE
SD	SINK DRAIN
SH	SHOWER
TL	TOILET
UR	URINAL
WF	WATER FOUNTAIN



S1FD7: (1) A/H COND.
(2) A/H DRAINS (TREATED TOWER)

S1FD9: (3) A/H COND.
(1) STUB

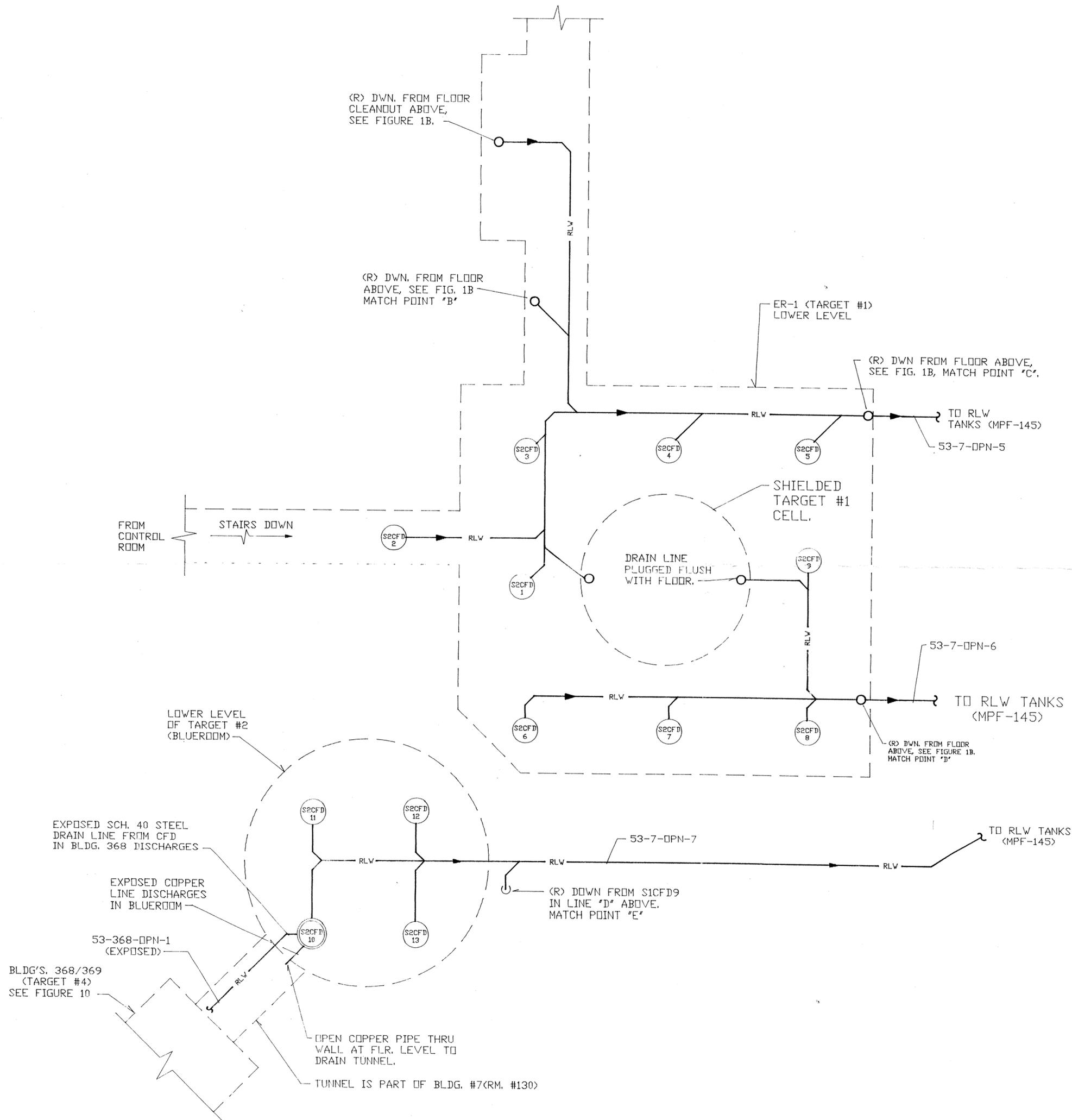
NOTE: SEE FIELD INVESTIGATION SECTION OF REPORT FOR DISCUSSION OF RLW DYE TESTING.



15274-B

SANTA FE ENGINEERING, LTD.			
"D" TA 53-7 TUNNEL LEVEL		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	L.B.A.
		DATE	6-10-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET 1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-33	FIGURE 1B	

NOTE: SEE FIELD INVESTIGATION SECTION OF REPORT FOR DISCUSSION OF RLW DYE TESTING.



SYMBOL LEGEND	
CFD	CONTAMIN. FLOOR DRAIN
RLW	RAD. WASTE LINE
(R)	PIPE RISER
S	SUB LEVEL

○ DYE TESTED DRAIN

15274-C

SANTA FE ENGINEERING, LTD.			
TA 53-7 DRAIN SCHEMATIC		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	L.B.A.
		DATE	5-10-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET 1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-33	FIGURE 1C	

TO RAD. WASTE TANKS
AT REAR OF 622(LANSCE) (MPF-145)
53-8-OPN-1

NOTE: SEE FIELD INVESTIGATION SECTION
OF REPORT FOR DISCUSSION OF RLW
DYE TESTING.

BLDG. 7 - TUNNEL 'D' SEE FIGURE 1

BLDG. #7

BLDG. #8

(INJECTION TUNNEL)

(EXTRACTION TUNNEL)

MTL. PAN ATTACHED
TO CLG. TO CATCH
INFILTRATING WATER.

(R) DWN. FROM BLDG. 28
SEE FIGURE 5
MATCH POINT 'F'

NOTE:
THERE ARE NO SANITARY DRAINS
IN BUILDING #8.

PROTON STORAGE RING (PSR)

NOTE:
1. THIS SCHEMATIC DRAWING WAS
DERIVED FROM L.A.N.L. DRAWINGS
C-4835, C-4836, C-4837, C-4838,
C-4839, C-4840, AND SITE VISIT.

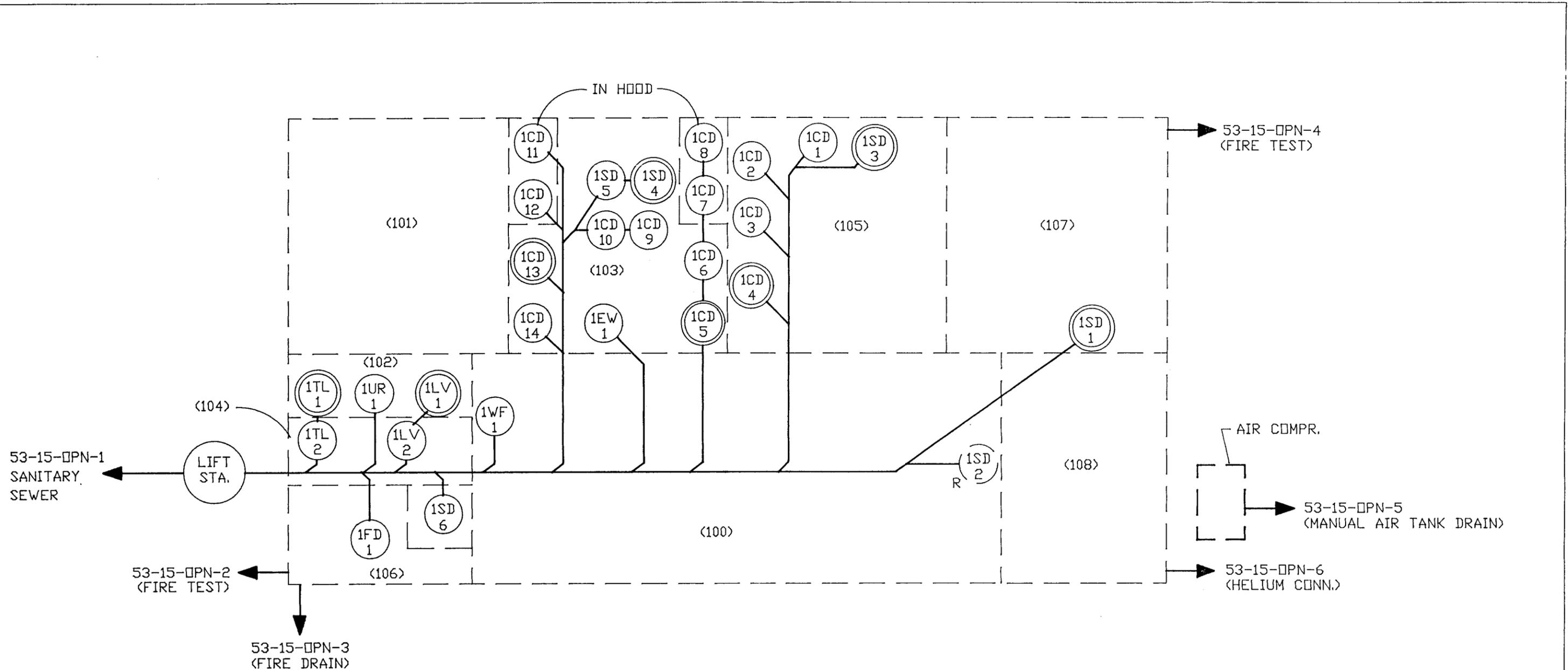
SYMBOL LEGEND	
CFD	CONTAMINATED FLOOR DRAIN
RLW	RAD. WASTE LINE

○ DYE TESTED DRAIN

CONTAMINATED WASTE PLAN

15274-D

SANTA FE ENGINEERING, LTD.			
TA 53-8 DRAIN SCHEMATIC		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	L.B.A.
		DATE	6-10-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET 1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-33	FIGURE 2	

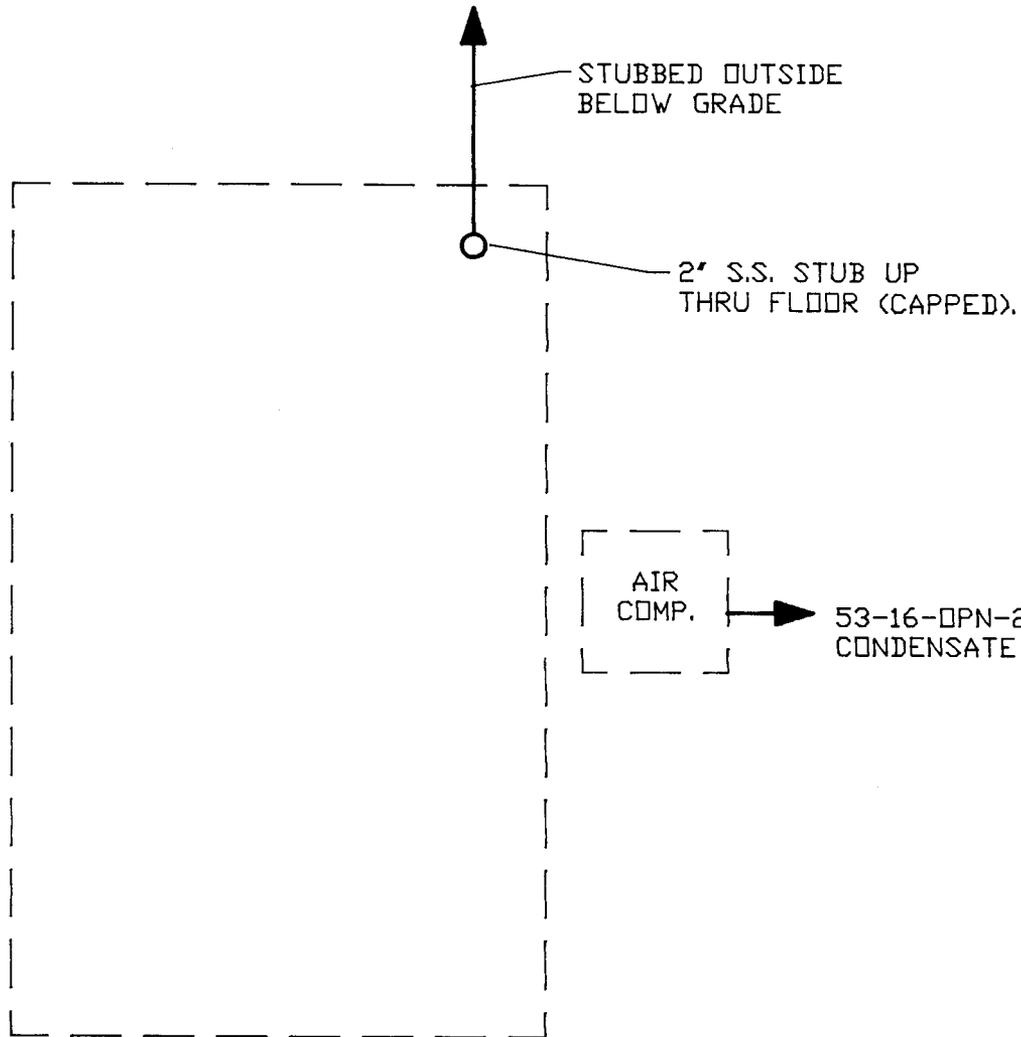


SYMBOL LEGEND	
CD	CUP DRAIN
EW	EMER. EYE WASH/SHOW.
LV	LAVATORY
SD	SINK DRAIN
TL	TOILET
UR	URINAL
WF	WATER FOUNTAIN


 DYE TESTED DRAIN

SANTA FE ENGINEERING, LTD.			
TA 53-15 DRAIN SCHEMATIC		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	L.B.A.
		DATE	6-10-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	
CLASSIFICATION	REVIEWER	DATE	SHEET 1 OF 1
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-33	FIGURE 3	

53-16-OPN-1 (SANITARY)



SANTA FE ENGINEERING, LTD.

TA 53-16
DRAIN SCHEMATIC

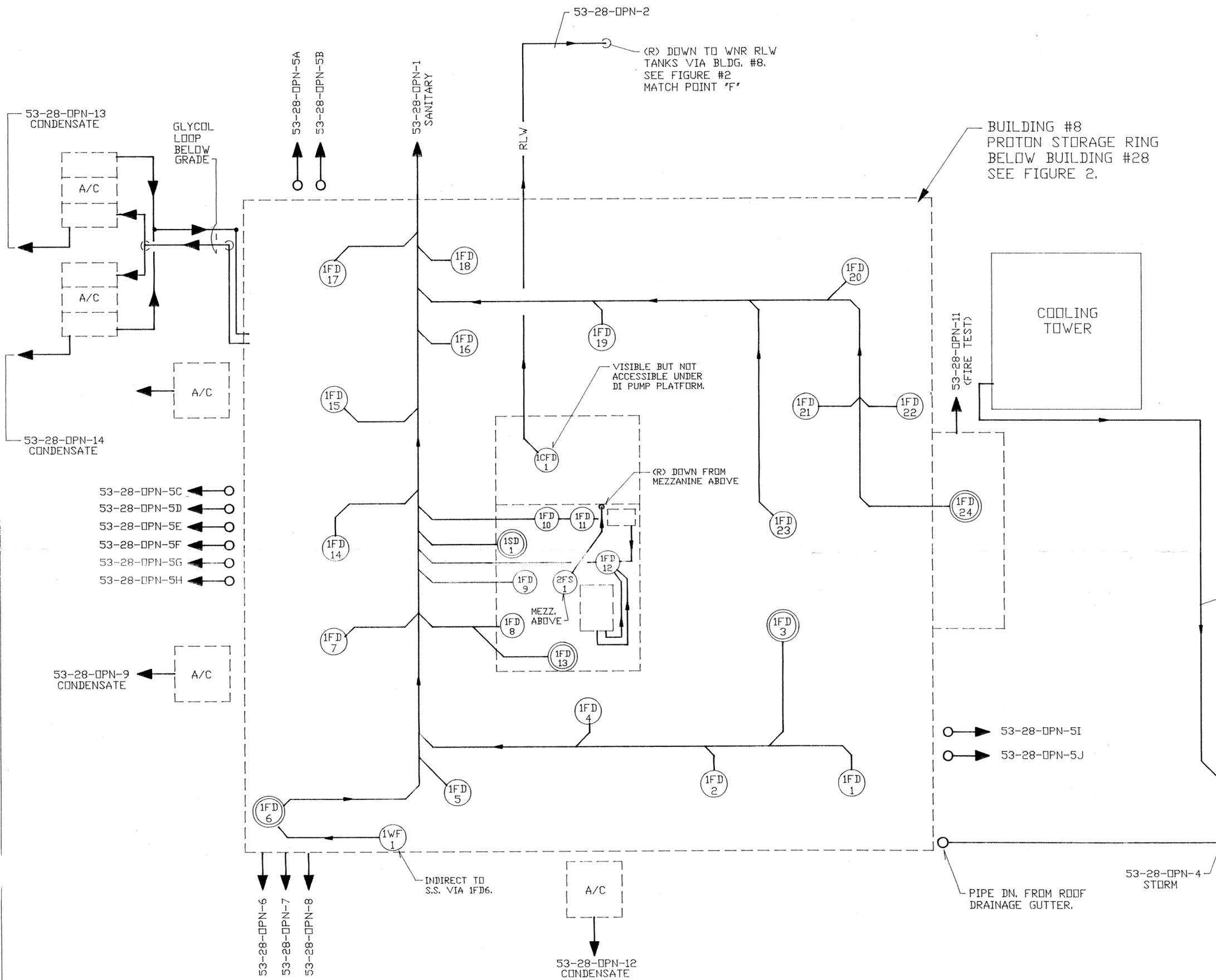
DRAWN	M.E.W.
DESIGN	S.C.D.
CHECKED	L.B.A.
DATE	6-10-92

SUBMITTED	RECOMMENDED	APPROVED
-----------	-------------	----------

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

SHEET 1 OF 1

CLASSIFICATION	REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.
REQUESTING GROUP	11056-33	FIGURE 4
EM-8		REV.



SYMBOL LEGEND	
CFS	CONTAMIN. FLOOR DRAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
RLW	RAD. WASTE LINE

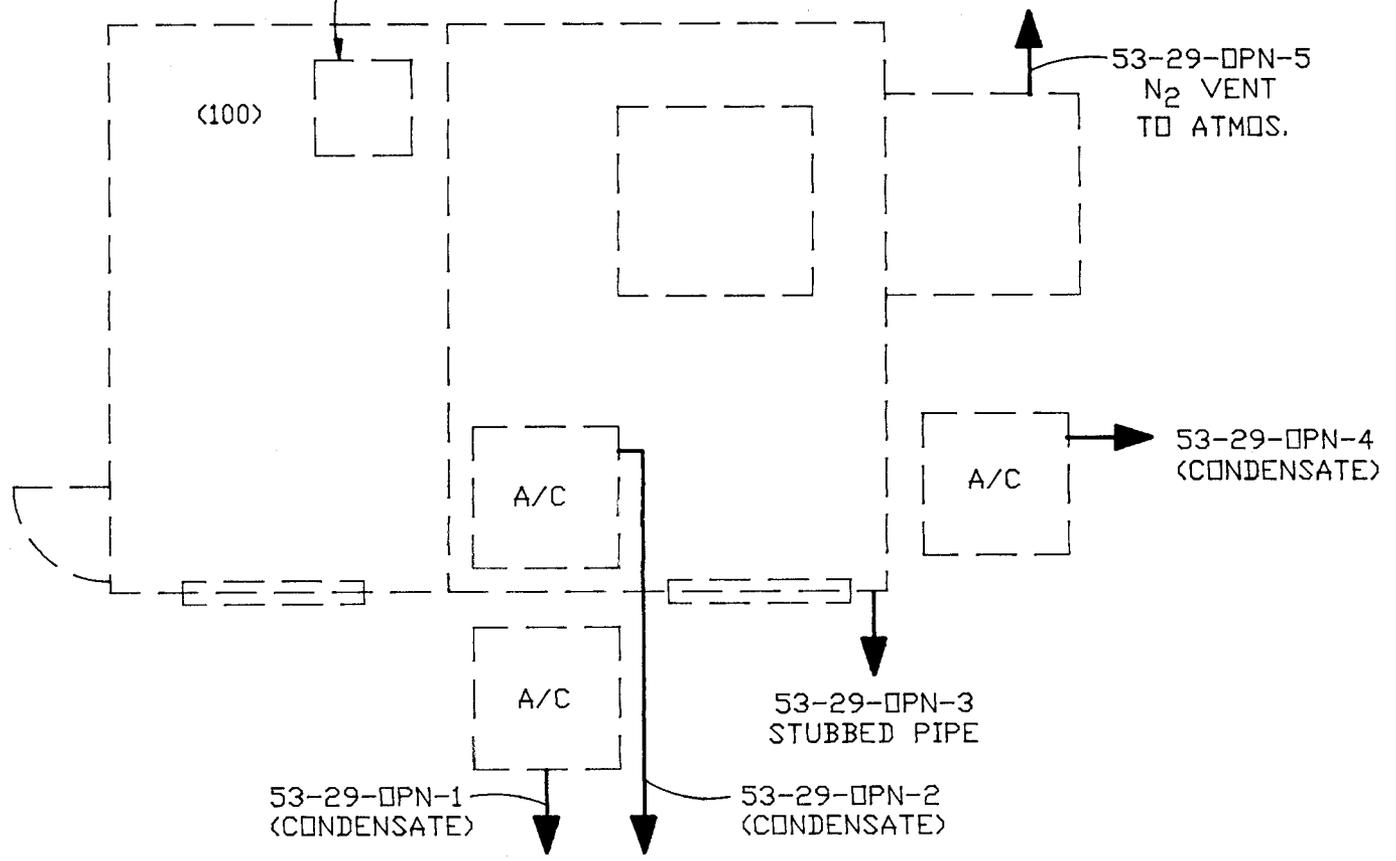
○ DYE TESTED DRAIN

NOTE:
1. THIS DRAIN SCHEMATIC WAS DERIVED FROM L.A.N.L. DRAWINGS AND SITE VISITS.

15274-E

SANTA FE ENGINEERING, LTD.			
TA 53-28 DRAIN SCHEMATIC		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	P.E.B.
		DATE	6-10-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET 1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP FM-8	11056-33	FIGURE 5	

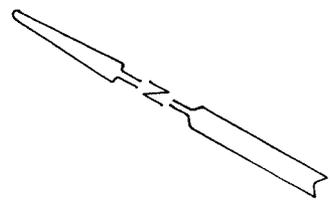
OLD RESTROOM & SUMP PUMP LOCATION. DISCONNECTED WHEN BLDG. WAS MOVED. NO SANITARY CONNECTIONS.



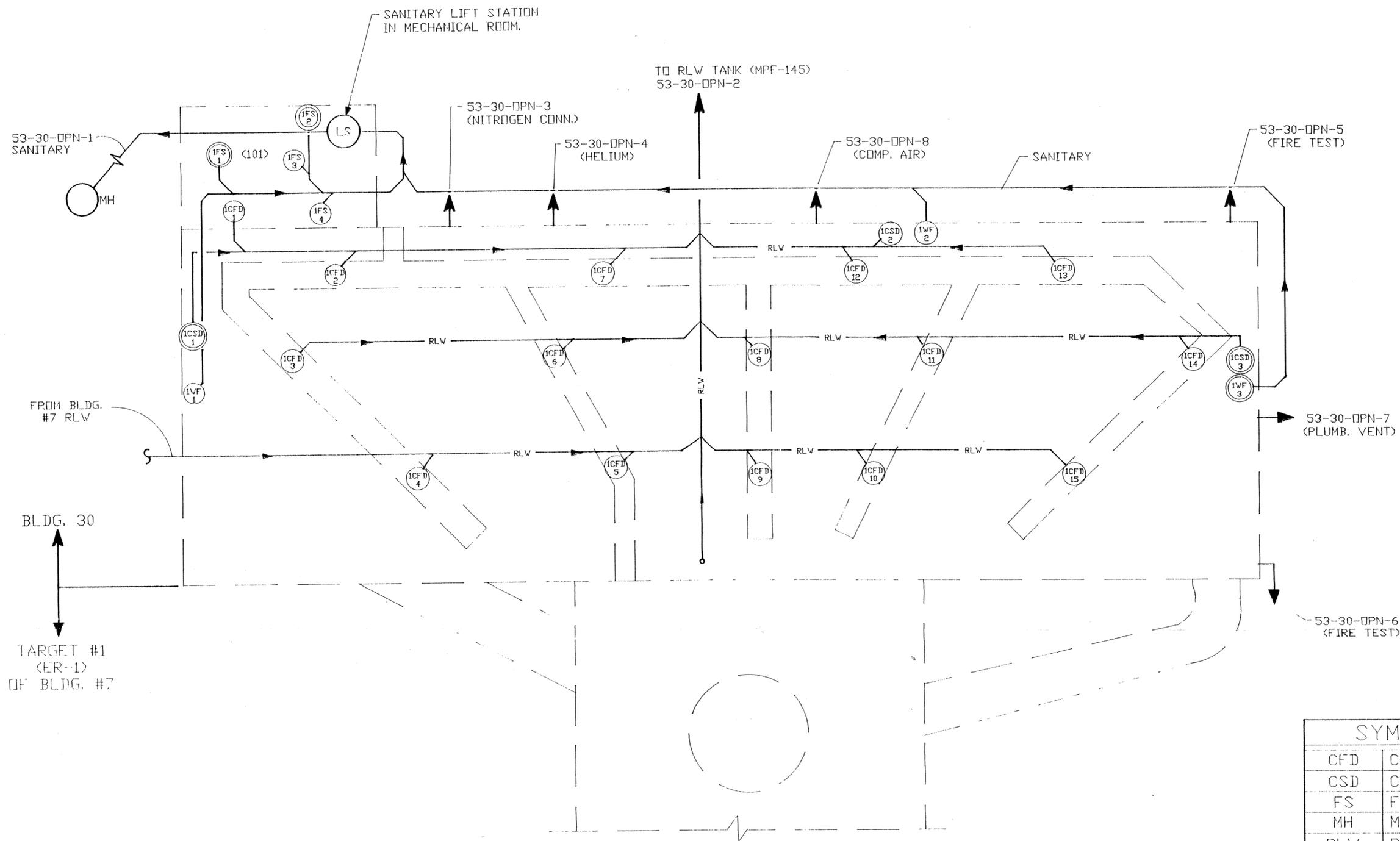
SYMBOL LEGEND	
A/C	AIR CONDITIONER UNIT

NOTE:

1. THIS DRAIN SCHEMATIC WAS DERIVED FROM SITE VISITS.



SANTA FE ENGINEERING, LTD.			
TA53-29 DRAIN SCHEMATIC		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	P.E.B.
		DATE	6-10-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	
CLASSIFICATION	REVIEWER	DATE	SHEET 1 OF 1
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-33	FIGURE 6	

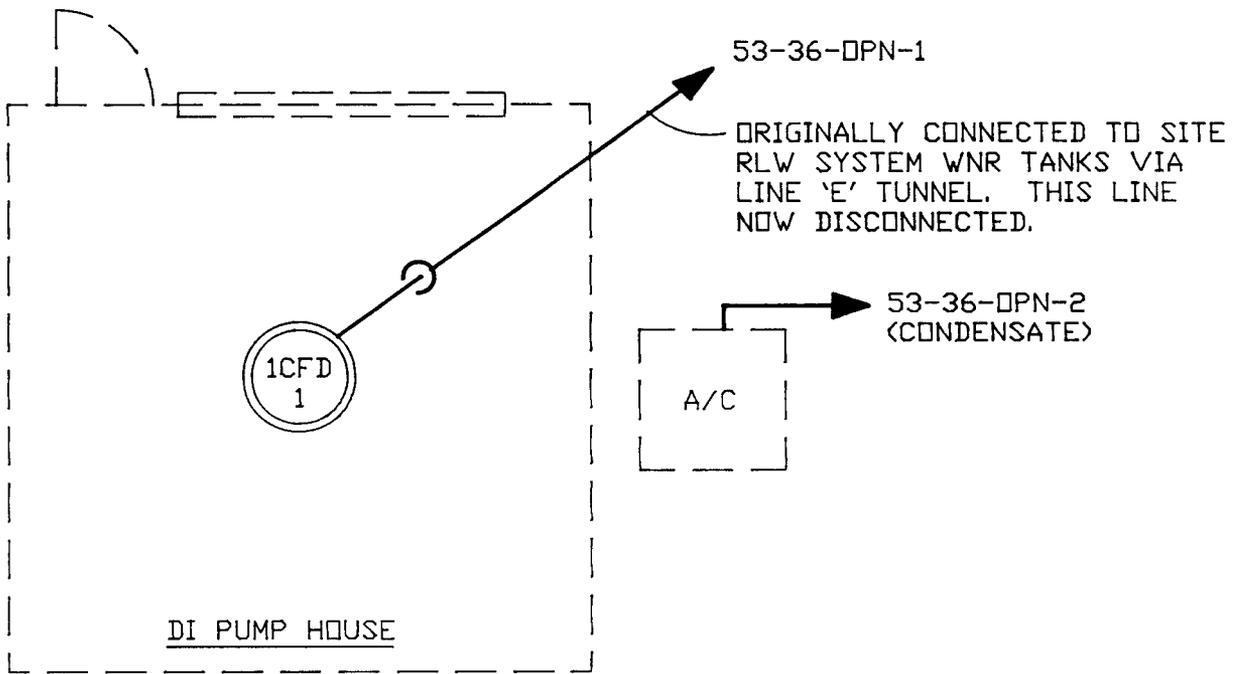


SYMBOL LEGEND	
CFD	CONTAMINATED FLOOR DRAIN
CSD	CONTAMINATED SINK DRAIN
FS	FLOOR SINK
MH	MANHOLE
RLW	RAD. WASTE LINE
WF	WATER FOUNTAIN
LS	LIFT STATION

○ DYE TESTED DRAIN

SANTA FE ENGINEERING, LTD.			
TA 53-30 DRAIN SCHEMATIC		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	L.B.A.
		DATE	6-10-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET 1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-33	FIGURE 7	

15274-F



SYMBOL LEGEND	
A/C	AIR CONDITIONER UNIT
CFD	CONTAMINAT. FLOOR DRAIN

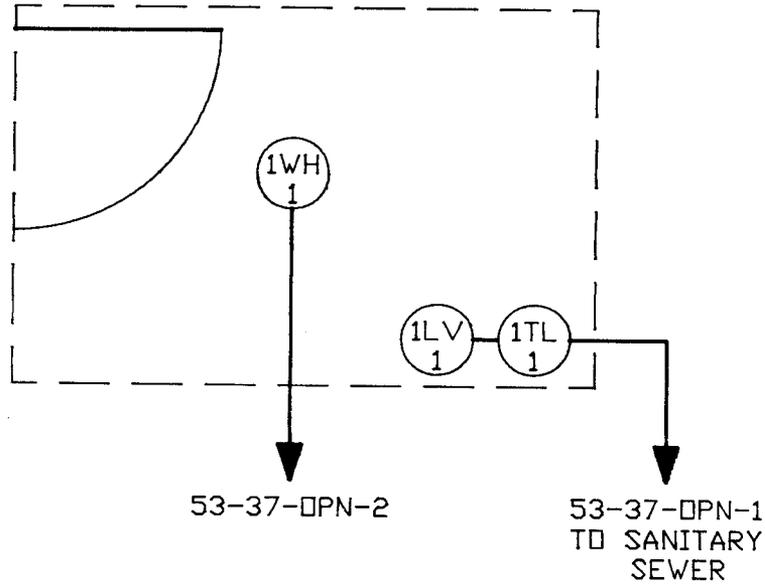
NOTE:

1. THIS DRAIN SCHEMATIC WAS DERIVED FROM SITE VISITS.



SANTA FE ENGINEERING, LTD.			
TA53-36 DRAIN SCHEMATIC	DRAWN	M.E.W.	
	DESIGN	S.C.D.	
	CHECKED	P.E.B.	
	DATE	6-10-92	
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET 1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-33	FIGURE 8	

GUARD STATION



NOTE:

GUARD STATION IS NOT USED.
WATER SUPPLY IS SHUT OFF.

SYMBOL LEGEND

LV	LAVATORY
TL	TOILET
WH	WATER HEATER

SANTA FE ENGINEERING, LTD.

**TA 53-37
DRAIN SCHEMATIC**

DRAWN	M.E.W.
DESIGN	S.C.D.
CHECKED	L.B.A.
DATE	6-10-92

SUBMITTED	RECOMMENDED	APPROVED
-----------	-------------	----------

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

SHEET 1 OF 1

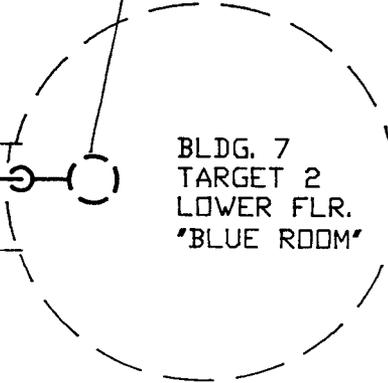
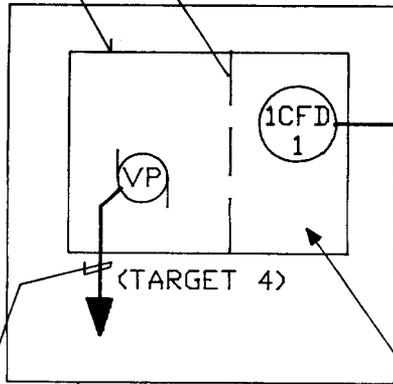
CLASSIFICATION	REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.
REQUESTING GROUP	11056-33	FIGURE 9
EM-8		REV.

368 - METAL EQUIP.
SHED ON TOP OF
#369

CONNECTING BEAM TUNNEL
IS PART OF BLDG.
NO. 7

DISCHARGES INTO 'S2CFD10'
IN TARGET #2 (BLDG. 7).
SEE FIG. 1C
TO RLW

SECONDARY
CONTAINMENT



BLDG. 7
TARGET 2
LOWER FLR.
'BLUE ROOM'

53-368-OPN-1
(RUNS EXPOSED)

BLDG. #369 BELOW
(CONCRETE)

EQUIPMENT AREA

53-368-OPN-2
VAC. PUMP AIR DISCHARGE

SYMBOL LEGEND

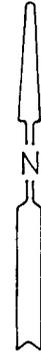
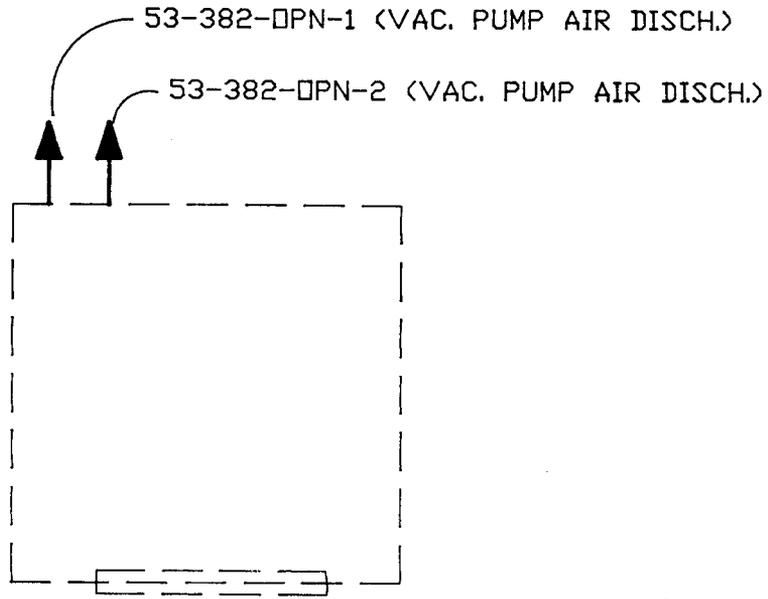
CFD	CONTAMINATED FLR. DRAIN
VP	VACUUM PUMP

SANTA FE ENGINEERING, LTD.

**TA 53-368/369
DRAIN SCHEMATIC**

DRAWN	M.E.W.
DESIGN	S.C.D.
CHECKED	L.B.A.
RELEASED	
DATE	6-10-92

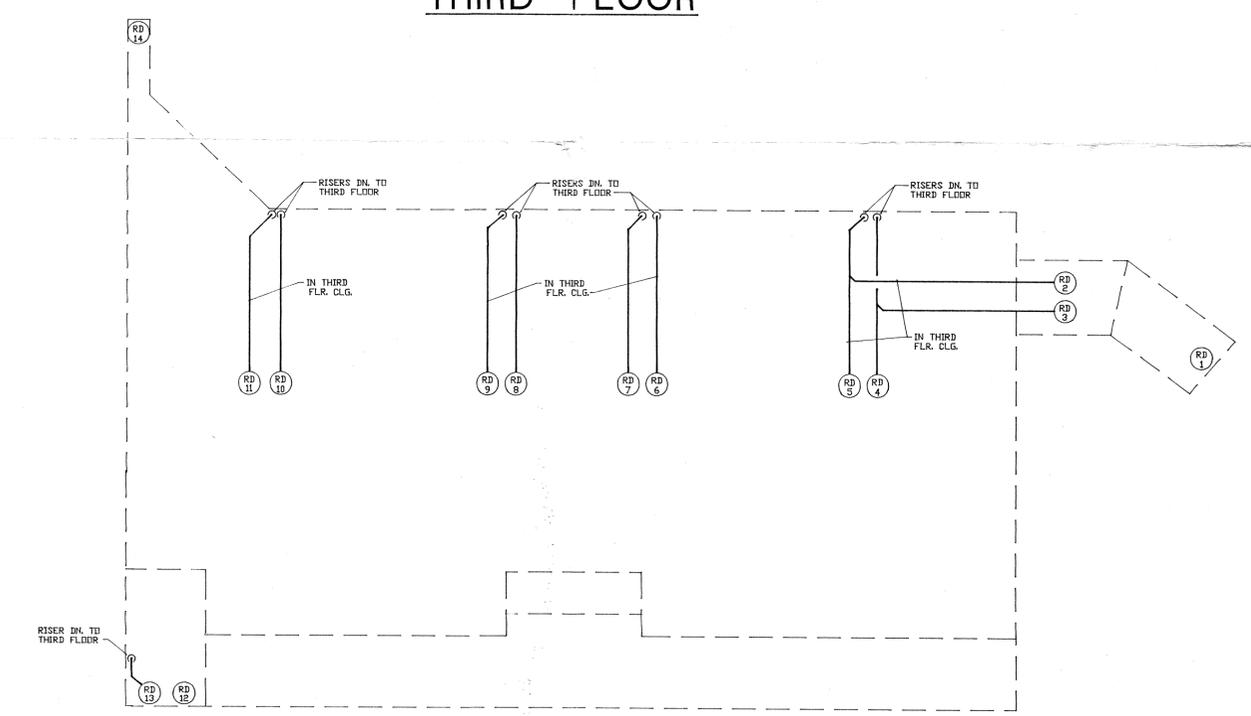
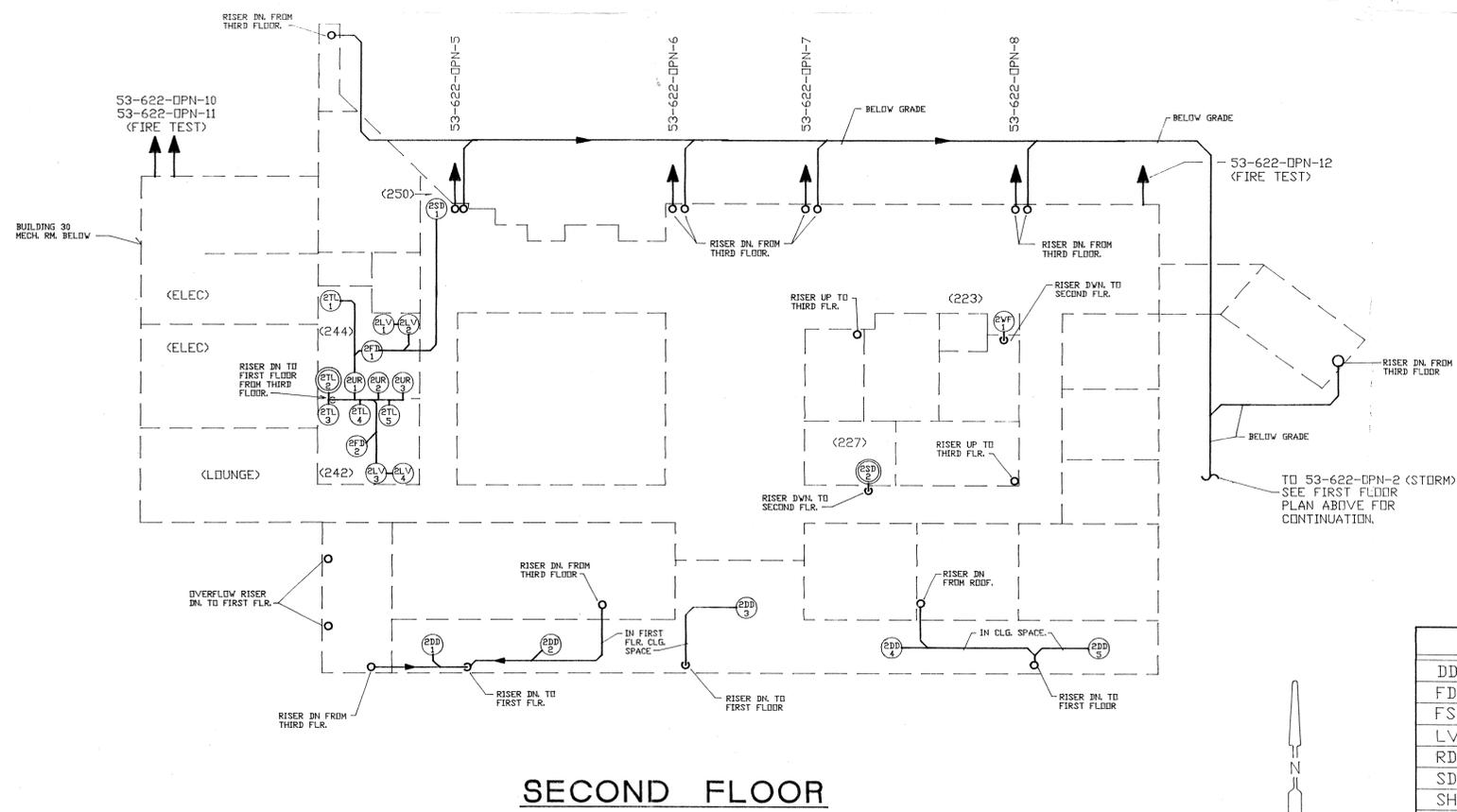
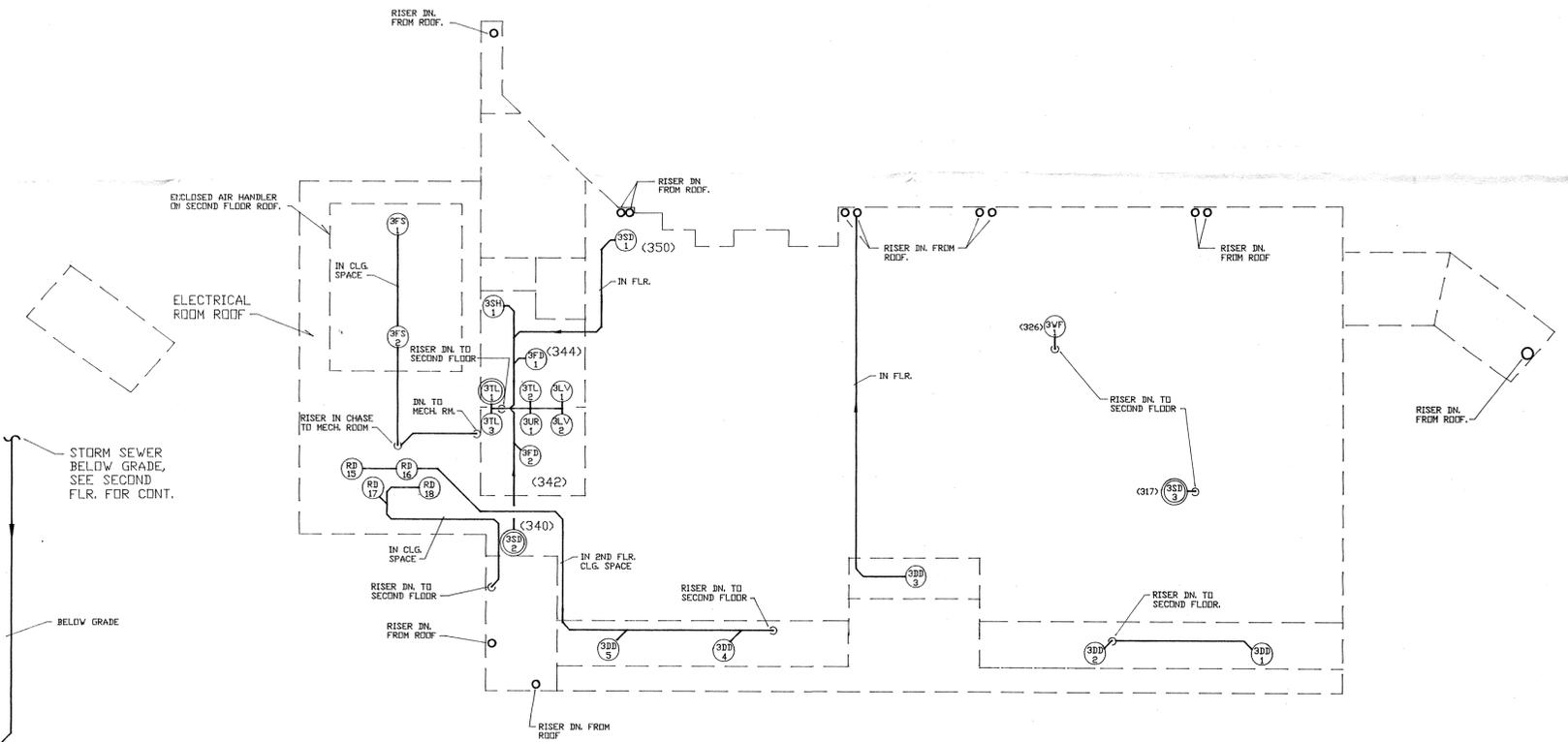
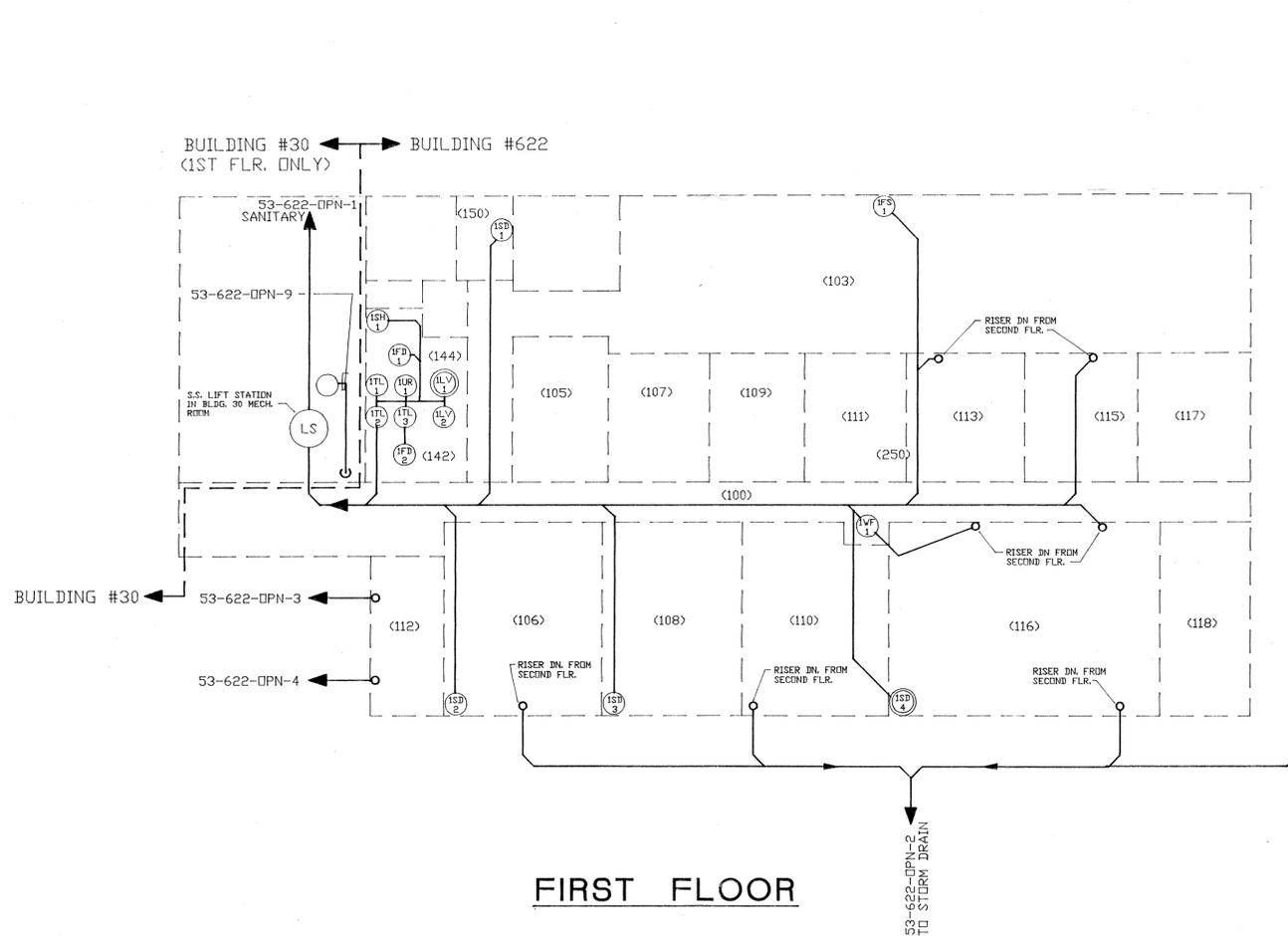
SUBMITTED		RECOMMENDED		APPROVED	
Los Alamos			Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET 1 OF 1
CLASSIFICATION		REVIEWER		DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.		REV.	
REQUESTING GROUP EM-8	11056-33	FIGURE 10			



NOTE:

1. THIS DRAIN SCHEMATIC WAS DERIVED FROM SITE VISITS.

SANTA FE ENGINEERING, LTD.											
TA53-382 DRAIN SCHEMATIC			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="font-size: x-small;">DRAWN</td><td>M.E.W.</td></tr> <tr><td style="font-size: x-small;">DESIGN</td><td>S.C.D.</td></tr> <tr><td style="font-size: x-small;">CHECKED</td><td>P.E.B.</td></tr> <tr><td style="font-size: x-small;">DATE</td><td>6-10-92</td></tr> </table>	DRAWN	M.E.W.	DESIGN	S.C.D.	CHECKED	P.E.B.	DATE	6-10-92
DRAWN	M.E.W.										
DESIGN	S.C.D.										
CHECKED	P.E.B.										
DATE	6-10-92										
SUBMITTED	RECOMMENDED	APPROVED									
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: x-small;">SHEET</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="font-size: x-small;">OF</td> <td style="text-align: center;">1</td> </tr> </table>	SHEET	1	OF	1				
SHEET	1										
OF	1										
CLASSIFICATION	REVIEWER	DATE									
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.								
REQUESTING GROUP EM-8	11056-33	FIGURE 11									



SYMBOL LEGEND

DD	DECK DRAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
LV	LAVATORY
RD	ROOF DRAIN
SD	SINK DRAIN
SH	SHOWER
TL	TOILET
UR	URINAL
WF	WATER FOUNTAIN
LS	LIFT STATION

○ DYE TESTED DRAIN

NOTE:
1. THIS BUILDING DRAIN SCHEMATIC WAS DERIVED FROM L.A.N.L. DRAWINGS; C-45419 AND SITE VISIT.

15274-G

SANTA FE ENGINEERING, LTD.

TA 53-622
DRAIN SCHEMATIC

DATE 6-10-92

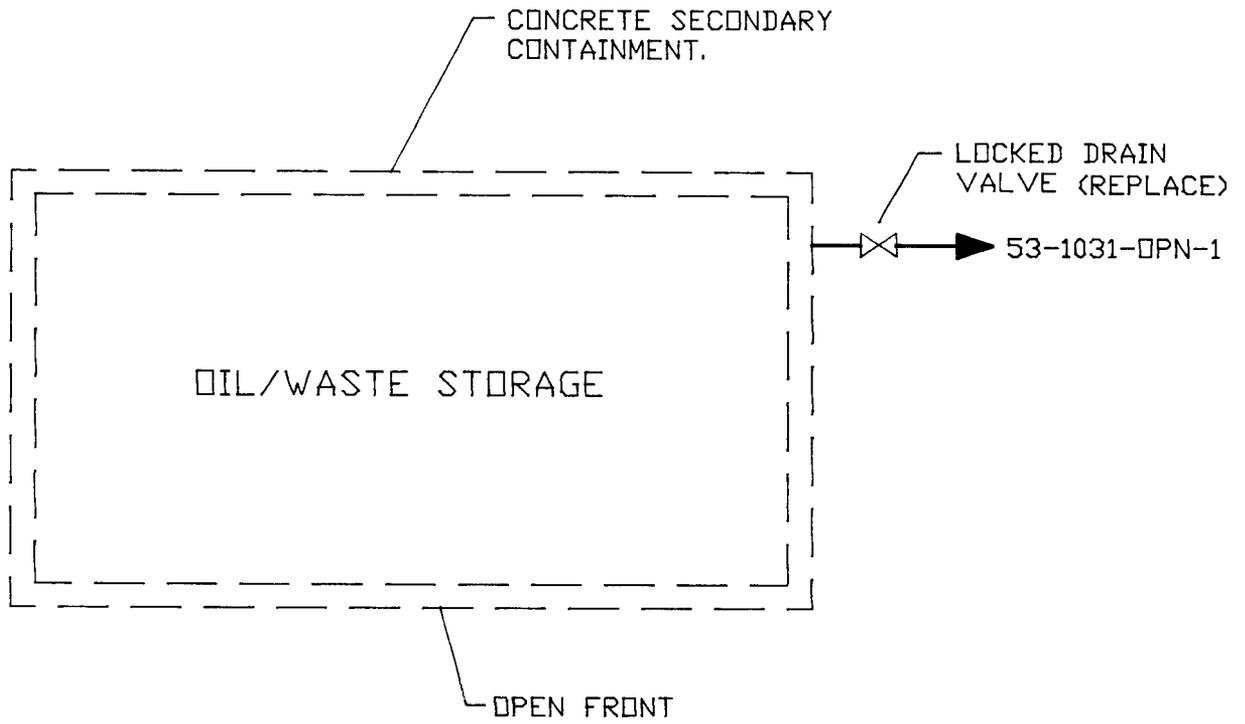
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

CLASSIFICATION REQUESTING DIVISION LAB JOB NO. DRAWING NO. DATE

REVIEWER

SHEET 1 OF 1

FIGURE 12



SANTA FE ENGINEERING, LTD.			
TA 53-1031 DRAIN SCHEMATIC	DRAWN	M.E.W.	
	DESIGN	S.C.D.	
	CHECKED	L.B.A.	
	RELEASED		
	DATE	6-10-92	
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545			SHEET 1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-33	FIGURE 13	

