University of California

Environmental Restoration Project, MS M992 Los Alamos, New Mexico 87545 505-667-0808/FAX 505-665-4747



U. S. Department of Energy IIII Los Alamos Area Office, MS A316 Environmental Restoration Program Los Alamos, New Mexico 87544 505-667-7203/FAX 505-665-4504

Date: May 29, 1998 Refer to: EM/ER:98-175

Mr. Benito Garcia NMED-HRMB P.O. Box 26110 Santa Fe, NM 87502

SUBJECT: PRS 55-009 ADDENDUM TO NOTICE OF DETERMINATION FOR REQUESTS FOR PERMIT MODIFICATION: UNITS PROPOSED FOR NO FURTHER ACTION, MARCH AND SEPTEMBER 1995

Dear: Mr. Garcia:

The Los Alamos National Laboratory's Environmental Restoration (ER) Project is providing this addendum in response to the commitment made in it's April 30, 1998, letter (reference EM/ER:98-145) regarding clarification and documentation of the current status of Potential Release Site (PRS) 55-009.

This letter contains four attachments that provide a thorough review of the nature of PRS 55-009. Attachment A clarifies the operational history of the PRS as a sanitary sewer monitoring station. Attachment B documents the date when the PRS structure number was changed from TA-55-71 to TA-55-263. Attachment C provides results of interviews of Technical Area (TA) 55 facility personnel who are familiar with the history and functions of PRS 55-009. Attachment D describes the sanitary sewer hookups to the sewer line that would have been the source term for any hazardous waste at this PRS. Please note that security issues over the functions of TA-55 prevent unrestricted public release of the engineering drawings referenced in this document. On request to the ER Project Office, they are available for review at the Laboratory.

The Laboratory believes that the evidence presented with this letter fully supports the recommendation for no further action for PRS 55-009. The attached information substantiates this conclusion in two ways. One, there is no evidence that the site was ever used for the handling, storage, or disposal of any hazardous substances and two, there is no evidence of any mechanism which could lead to a release of any liquid to the environment from the structure itself.



YSWA LANL

If you have any questions or concerns regarding this letter, please contact Roy Michelotti at 665-7444 or Joe Mose at 7-5808.

Sincerely,

And A. Cang

Julie A. Canepa, Program Manager LANL/ER Project

Sincerely

Taylor, Program Manager Theodore J. DOE/LAAO

JC/TT/dm

Enclosure: PRS 55-009 Addendum to Notice of Determination for Requests for Permit Modification: Units Proposed for No Further Action, March and September 1995

Cy (w/ enc.): R. Michelotti, CST-7, MS E525 Tony Trujillo, AL-ERD, MS A906 J. Harry, EES-5, MS M992 J. Mose, LAAO, MS A316 D. Neleigh, EPA, R.6, 6PD-N C. Rodriguez, CIO/ER, MS M992 T. Taylor, LAAO, MS A316 S. Rae, ESH-18, MS K497 J. White, ESH-19, MS K490 S. Dinwiddie, NMED-HRMB M. Leavitt, NMED-GWQB J. Parker, NMED-HRMB G. Saums, NMED-SWQB S. Yanicak, NMED-AIP, MS J993 EM/ER File (CT# C453), MS M992 **RPF, MS M707**

Information Only (w/o enc.): T. Baca, EM, MS J591 A. Dorries, TSA-10, MS M992 T. George, EM/ER, MS M992 T. Longo, DOE-HQ, EM-453 J. Plum, LAAO, MS A316 G. Rael, AL-ERD, MS A906 P. Schumann, ESH-19, MS M992 J. Vozella, LAAO, MS A316 EM/ER File, MS M992

ATTACHMENT A

r.A

DESCRIPTION AND OPERATIONAL HISTORY OF PRS 55-009

1.0 PRS Description

PRS 55-009 is an inactive underground concrete sanitary sewer monitoring station (structure TA-55-263). This PRS is a SWMU listed on the Module VIII HSWA of the Laboratory's hazardous waste facility permit. This PRS is located at the northeast edge of Technical Area (TA) 55 approximately 60 ft northeast of building TA-55-6. TA-55 is located on the west end of Ten Site Mesa between Effluent Canyon (a branch of Mortandad Canyon) to the north and Two Mile Canyon to the south.

The monitoring station is an underground concrete structure approximately 9 ft wide by 9 ft long by 6 ft deep. A sanitary sewer line that collects sanitary waste from Buildings PF-3 (55-3), PF-4 (55-4), and the Operations Center passes through the monitoring station. The monitoring station was constructed to monitor sanitary effluent in the sewer for radiological contamination. It formerly housed a metal flow-through monitoring cell with radiological instrumentation and associated electrical boxes. The walls of the monitoring station are approximately 4 to 6 in. thick, and the floor is assumed to be of similar thickness. There are no floor drains within the concrete structure. A concrete riser that measures approximately 11 ft wide by 11 ft long encloses the monitoring station. The height of the riser is 8 in. at the southwestern side and increases to 18 in. at the northeastern edge to maintain an approximately level surface across the sloped ground surface and to prevent surface water runoff from entering the concrete vault. This riser supports a corrugated sheet-metal cover with an iron frame. The concrete riser is completely surrounded by asphalt paving.

Access to the monitoring station is gained through two hinged hatch-doors and a built-in metal ladder. Three electrical boxes are mounted on the south wall; electrical service to these units has been disconnected. The flow-through cell is located in the approximate center of the monitoring station. The sanitary sewer influent and effluent lines are constructed of vitrified clay pipe (VCP) and are metal-encased within the monitoring station. Metal flanges provide a straight-line connection to the influent and effluent lines. The two points at which the influent and effluent lines penetrate the concrete monitoring station are sealed with grout. Outside the monitoring station, the buried portions of the influent and effluent VCP lines are not metal-encased. The portions of the VCP lines outside the monitoring station are not part of PRS 55-009.

The sanitary sewer influent line is 6-in.-diameter VCP, gravity-fed, and approximately 250-ft long; it is buried approximately 5 ft underground. The effluent line is also 6-in.-diameter VCP, approximately 4000-ft long. The effluent line drains to the sanitary sewage treatment lagoons at TA-35, located east of TA-55.

The TA-35 treatment lagoons became inactive in 1992 when all sanitary waste lines at TA-35 and TA-55 were rerouted to the Laboratory Solid Waste Treatment Facility at TA-46.

During a presampling inspection conducted in March 1997, the walls and floor of the monitoring pit and the surface of the encased line were observed to be clean, dry, and structurally intact; they showed no evidence of cracking or staining. There was no evidence of leakage observed anywhere in the monitoring station structure.

2.0 Clarification of the SWMU Report

The Laboratory assigns numbers to each structure (e.g., building, sump, septic tank, etc.) located within its boundaries. The SWMU Report identifies PRS 55-009 as structure number TA-55-71 and describes it as "a monitoring sump located northeast of TA-55-6" (LANL 1990, ER ID 7511). During the investigation of PRS 55-009, a different number was posted on the structure, TA-55-263. Except for its structure number, the monitoring station matched the description of the monitoring sump recorded in the SWMU Report as PRS 55-009. A search of the records for assignment of building and structure numbers revealed that on 6/15/92 the structure number was changed from 71 to 263. Attachment B contains the structure description update form showing the structure numbers, dates assigned, and a description.

Another point of clarification in the SWMU Report is the improper nomenclature used in the description of PRS 55-009. The term "monitoring sump" does not accurately describe PRS 55-009. The term "sump" suggests that the structure either contained a drain or served as a reservoir to manage liquids. PRS 55-009 has never contained a drain nor has it served as a reservoir to manage liquids. Structure TA-55-263 consists of a concrete structure constructed to allow safe physical access, in the fashion of a large manhole, to the TA-55 north sanitary sewer line. The structure was used for monitoring purposes and has never managed free liquids. The "sump" terminology used in the SWMU report was perpetuated in the RFI Work Plan for OU 1129 (LANL 1992, 7666) and in subsequent correspondence with NMED.

In summary, PRS 55-009 is actually structure TA-55-263, formerly labeled TA-55-71, and the structure never has nor ever was intended to have operated as a sump.

3.0 PRS 55-009 Operational History

Attachment C contains interviews of current and former TA-55 personnel who have knowledge of structure TA-55-263 and its operational history. All interviewees reported consistently that they were not aware or had never observed any leaks from the sanitary sewer line into the monitoring station at structure TA-55-

263. In addition, ER sampling personnel did not observe any cracks or staining of the concrete walls and floors. The structure was originally designed to allow access to the sewer line for radiological monitoring, but TA-55 personnel report that the equipment never functioned properly for its intended purpose. Hence, in May 1983 the monitoring station was abandoned after spending over \$250K with little success. DOE-ALO concurred with the decision to abandon the station (see memos included with Price interview in Attachment C).

4.0 Buildings Served by the North TA-55 Sewer System

There are three TA-55 buildings served by the north TA-55 sewer system which connect upstream of PRS 55-009 (Refer to Figure 4.1). [Please note that security issues over the functions of TA-55 prevent unrestricted public release of the engineering drawings referenced in this document. On request to the ER Project Office, they are available for review at LANL.] The main plutonium facility, PF-4, discharges no industrial wastewater to the sanitary system; only sanitary waste from bathrooms and drinking fountains are discharged to the sanitary system. Interviews of TA-55 employees verify the sources of waste to the sanitary sewer (Attachment C). Building PF-3 is a chemical laboratory and general support facility that historically could have been a source of dilute chemical waste to the sanitary sewer from laboratory sinks and floor drains. A list of common laboratory chemicals used at PF-3 that may have been discharged to the sanitary sewer is presented in Attachment D, a memo to file about sanitary sewer connections and waste sources derived from interviews of key TA-55 personnel. In 1994 to 1995 all chemical laboratory drains and sinks were plugged. Finally, the Operations Center for TA-55 located between buildings PF-3 and PF-4 has a floor drain that may have received water with a trace of oil. Other buildings in TA-55 are served by the north sanitary sewer system, however, these buildings connect downstream of PRS 55-009 (Attachment B).

5.0 Conclusions

PRS 55-009 is a dry, sanitary sewer monitoring station with a 6-in. VCP sanitary sewer line encased in steel running through it. Access to the monitoring station is gained through two hinged hatch-doors and a built-in metal ladder. The structure was originally labeled as TA-55-71, but after 6/15/92 was renamed TA-55-263. It was constructed for the purpose of allowing workers access to radiological monitoring instrumentation installed in the sanitary sewer line. The instrumentation never functioned as originally intended and was abandoned with DOE's concurrence in May 1983.

Inspections of the monitoring station have never revealed any indication of concrete cracks or liquid staining; there is no evidence that the sewer line passing through ever leaked. There are three buildings connected to the sanitary line upstream of PRS 55-009, and PF-3 may have released small quantities of laboratory chemicals prior to plugging of laboratory floor drains and sinks in 1994 to 1995. However, there

is no evidence that indicates any release from the sewer line into the monitoring station, and no evidence that there is any mechanism for liquid release from the monitoring station itself. Therefore, there is no evidence that PRS 55-009 ever contained or released any hazardous material to the environment.

أتغو



Figure 4-1. Connections to the TA-55 north sanitary sewer line upstream of PRS 55-009.

ATTACHMENT B

-

Structure Description Update Form

For

Structures TA-55-71 and TA-55-263

.

| 7/12/95 | 2/95 |
|---------|------|
|---------|------|

| echnical A | Structure | Date Assigned: | Inactive: | Title: | Description: | Location: | Requested b | User: | Project ID NApproved L | Date: |
|------------|-----------|----------------|-----------|--|---|-----------|-------------|-------|------------------------|-------|
| 55 | 248 | 1/16/92 | | ADMIN BUILDING | NEXT TO TA-55-41, SEPARATED BY A HARDENED WALL, WAS CONSIDERED APRT OF TA-41, BUT NMT REQUESTED A SEPARATE # FOR CLARITY | | | | | |
| 55 | 249 | 3/11/92 | | HCL ACID STORAGE BUILDING | 15 X 19, SOUTH OF PF-4, PI#12944, M. SHURTER. | | | | | |
| 55 | 250 | | | CAD TRAILER | 10 X 47, WEST OF 107, PI#16229, SSC#2608, TA-53-426. | | | | | |
| 55 | 261 | 4/16/94 | | UNDERGROUND TANK | FORMERLY TA-55-15, STAN BODENSTEIN. | <u></u> | | | | |
| 55 | 262 | 4/16/92 | | UNDERGROUND TANK | FORMERLY TA-55-16, S. BODENSTEIN. | | | | | |
| -> 55 | 263 | 6/15/92 | | SANITARY SEWER MONITORING STATION | BETWEEN TA-55-107 AND TA-55-190. | | | | | |
| 55 | 264 | | | PERSONNEL ACCESS TO CONTROL CENTER | 1200 XQ. FT., PARKING LOT EAST GUARD STATION | | | | | |
| 55 | 265 | 6/26/92 | | TEMPORARY GUARD STATION | 6 X 6, FOR APPROX 1 YEAR, APPROX. 40' NORTHEAST OF TA-55-48, PER J. MORK. | | | | | |
| 55 | 266 | 3/4/93 | | VACUUM PUMP SHELTER | | | | | | |
| 55 | 267 | | | DIESEL FUEL TANK | 350 GALLON DIESEL FUEL TANK IN CAVE VAULT, EAST OF TA-55-28. | | | | | |
| 55 | 268 | 5/25/94 | | TENSION DOME | 60 X 140, NORTH OF NORTH PARKING LOT (LOWER), PI#15672 | | | | | |
| 55 | 269 | 3 | | TRANSPORTAINER | PER JOHN STANFORD 8' X 12' NW OF TA-55-142, SSC #2874 | | | | | |

• •.

| 7/1 | 2/95 |
|-----|------|
|-----|------|

| echnical A | Structure | Date Assigned: | Inactive: | Title: | Description: | Location: | Requested b | User: | Project ID N | Approved b | Date: |
|------------|-----------|----------------|-----------|-------------------------|---|-----------|-------------|-------|--------------|------------|-------|
| 55 | 60 | 5/22/86 | | SWITCHING STATION | | | | | | | |
| 55 | 61 | · | | SWITCHING STATION | | | | | | | |
| 55 | 62 | | | SWITCHING STATION | | | | | | | |
| 55 | 62 | 3/10/88 | | ELECTRICAL SWITCH | PAD-MOUNTED SWITCH; MANUFACTURED BY ELECTRICAL EQUIPMENT INC; SERIAL #56185-0235. | | | | | | |
| 55 | 63 | 11/7/86 | | TRANSFORMER STATION | ENTRANCE TO TA-55. | | | | | | |
| 55 | 68 | | | MANHOLE (TELEPHONE) | STANHOPE WILL SEND INFO LATER. | | | | | | |
| 55 | 69 | 6/15/81 | | MANHOLE (TELEPHONE) | STANHOPE WILL SEND INFO LATER. | | | | | - | |
| 55 | 70 | | | MANHOLE (ELECTRIC) | | | | | | | |
| -> 55 | 71 | 8/19/75 | | MANHOLE (MONITORING) | NORTHSIDE OF TA-55. | | | | | - | |
| 55 | 72 | 8/19/75 | | MANHOLE (SANITARY) | #1, NOT PUT IN PER M. SMITHOUR IN 1975. | | | | | | |
| 55 | 73 | 8/19/75 | | MANHOLE (SANITARY) | #2. LAB JOB 4498 | | | | | | |
| 55 | 74 | 8/19/75 | | MANHOLE (SANITARY) | #3. LAB JOB 4498 | | | | | | |

ATTACHMENT C

Interviews of TA-55 Personnel Past and Present

M.R. Heineman, NMT-8, 665-7644 W.T. Schueler, NMT-7, 667-1193 R.E. Michel, NMT-8, 665-7644 R.M. Grundemann, NMT-10, 665-0487 G.K. Dunlop, NMT-8, 665-1285 R.L. Price, NMT-4, 667-0553 J.L. Green, NMT-11 (retired), 672-3666

| Proj | ject Name: PRS 55-009 Operational History | Project No.: 10249.0300.050 |
|------|---|---|
| Nan | ne of Person Interviewed: M.R. Heineman | |
| Inte | rviewer: Jere L. Green | Date: May 6, 1998 |
| 1. | Personal Data: | |
| | LANL Group: NMT-8 | |
| | Title: Electrical Engineer | |
| | Length of TA-55 Experience: 14 years | |
| 2. | When did you become aware or involved with activitie station in structure TA-55-263 (formerly 55-71)? | es associated with the monitoring |
| | When: 1993 | |
| | How Long: 5 years | |
| | Nature of Involvement: Very casual; maintained N | Master Equipment List |
| 3. | What do you know regarding the operational history c structure TA-55-263(71)? | of the monitoring station in |
| | Very little | |
| 4. | Did you see or were you aware of any leaks from the vault at structure TA-55-263(71)? | sanitary sewer line into the concrete |
| 5. | What are the inflow sources at TA-55 for Building PF- | 4 sanitary sewer line which runs |
| | through the monitoring station? | |
| | Sanitary fixtures and drinking fountains | |
| 6. | To your knowledge, is the content of the Building PF- waste or is there potential for other contaminants, (e.g | 4 sanitary sewer line strictly sanitary g., hazardous waste)? |
| | Possible, but unlikely; drains are labeled to preclu | ude this |
| | | |

| Proj | ect Name: PRS 55-009 Operational History | Project No.: 10249.0300.050 | | | | | | |
|------|--|---|--|--|--|--|--|--|
| Nan | ne of Person Interviewed: William T. Schueler | Villiam Schieler | | | | | | |
| Inte | rviewer: Jere L. Green 9 C-S | Date: May 6, 1998 | | | | | | |
| 1. | Personal Data: | | | | | | | |
| | LANL Group: NMT-7 | | | | | | | |
| | Title: Environmental Compliance Engineer | | | | | | | |
| | Length of TA-55 Experience: 6 years | | | | | | | |
| 2. | When did you become aware or involved with activitie station in structure TA-55-263 (formerly 55-71)? | es associated with the monitoring | | | | | | |
| | When: August 1997 | | | | | | | |
| | How Long: 10 months | | | | | | | |
| | Nature of Involvement: Oversight, work planning | | | | | | | |
| 3. | What do you know regarding the operational history of structure TA-55-263(71)? | of the monitoring station in | | | | | | |
| | There have been no known leaks during its operation. No indication of radioactive or chemical contamination. | | | | | | | |
| 4. | Did you see or were you aware of any leaks from the vault at structure TA-55-263(71)? | sanitary sewer line into the concrete | | | | | | |
| | Νο | | | | | | | |
| | | | | | | | | |
| 5. | What are the inflow sources at TA-55 for Building PF- through the monitoring station? | 4 sanitary sewer line which runs | | | | | | |
| | 4 restrooms and water fountains | | | | | | | |
| | | | | | | | | |
| 6. | To your knowledge, is the content of the Building PF- waste or is there potential for other contaminants, (e.g. | 4 sanitary sewer line strictly sanitary g., hazardous waste)? | | | | | | |

| Proj | ect Name: PRS 55-009 Operational History | Project No.: 10249.0300.050 | | | | | |
|------|---|--|--|--|--|--|--|
| Nan | Name of Person Interviewed: Raleigh E. Michel | | | | | | |
| Inte | rviewer: Jere L. Green / BB | Date: May 6, 1998 | | | | | |
| 1. | Personal Data: | | | | | | |
| | LANL Group: NMT-8 | | | | | | |
| | Title: Manager, Master Equipment List | | | | | | |
| | Length of TA-55 Experience: | | | | | | |
| 2. | When did you become aware or involved with activitie station in structure TA-55-263 (formerly 55-71)? | es associated with the monitoring | | | | | |
| | When: April 30, 1998 | | | | | | |
| | How Long: 4 working days | | | | | | |
| | Nature of Involvement: Research of data | | | | | | |
| 3. | What do you know regarding the operational history of structure TA-55-263(71)? | of the monitoring station in | | | | | |
| | Nothing | | | | | | |
| | | | | | | | |
| 4. | Did you see or were you aware of any leaks from the vault at structure TA-55-263(71)? | sanitary sewer line into the concrete | | | | | |
| | No knowledge | | | | | | |
| | | | | | | | |
| 5. | What are the inflow sources at TA-55 for Building PF- through the monitoring station? | 4 sanitary sewer line which runs | | | | | |
| | Our Master Equipment List documents 4 bathroor sanitary sewer sources | ns and drinking fountains as the | | | | | |
| 6. | To your knowledge, is the content of the Building PF- waste or is there potential for other contaminants, (e.g | 4 sanitary sewer line strictly sanitary g., hazardous waste)? | | | | | |
| | I have no knowledge any other waste entering sar | nitary system | | | | | |
| | | | | | | | |

| Proj | ect Name: PRS 55-009 Operational History | Project No.: 10249.0300.050 | | | | | |
|------|--|---|--|--|--|--|--|
| Nan | ne of Person Interviewed: Robert F. Grundemann | low & Jendement 18/18 | | | | | |
| Inte | rviewer: Jere L. Green | Date: May 6, 1998 | | | | | |
| 1. | Personal Data: | | | | | | |
| | LANL Group: NMT-10 | | | | | | |
| | Title: NMT Safety & Health, Team Leader | | | | | | |
| | Length of TA-55 Experience: 4.5 years | | | | | | |
| 2. | When did you become aware or involved with activitie station in structure TA-55-263 (formerly 55-71)? | es associated with the monitoring | | | | | |
| | When: 1995 | | | | | | |
| | How Long: 2.5 years | | | | | | |
| | Nature of Involvement: Coordinated efforts to bo confirm that there was no | re sample holes for the line, to pipeline leakage | | | | | |
| 3. | What do you know regarding the operational history of structure TA-55-263(71)? | of the monitoring station in | | | | | |
| | Not much | | | | | | |
| | | | | | | | |
| 4. | Did you see or were you aware of any leaks from the vault at structure TA-55-263(71)? | sanitary sewer line into the concrete | | | | | |
| | No, I have entered the vault on two separate occasions and no leaks were observed. I did not observe any staining. | | | | | | |
| 5. | What are the inflow sources at TA-55 for Building PF- through the monitoring station? | 4 sanitary sewer line which runs | | | | | |
| | Lavatories, toilets, sinks and water fountains | | | | | | |
| | | | | | | | |
| 6. | To your knowledge, is the content of the Building PF-waste or is there potential for other contaminants, (e.g. | 4 sanitary sewer line strictly sanitary g., hazardous waste)? | | | | | |
| | To my knowledge, the only material entering the s sinks and water fountains. Industrial waste is not fixtures. | ystem is from lavatories, toilets, permitted to enter these lines or | | | | | |

| Proj | ect Name: PRS 55-009 Operational History | Project No.: 10249.0300.050 | | | | |
|-------------------|---|--|--|--|--|--|
| Nan | ne of Person Interviewed: Jerry K. Dunlop 9. 4. | θ. | | | | |
| Inte | rviewer: Jere L. Green | Date: May 11, 1998 | | | | |
| 1. Personal Data: | | | | | | |
| | LANL Group: NMT-8 | | | | | |
| | Title: Operations Center Supervisor | | | | | |
| | Length of TA-55 Experience: 17 years | | | | | |
| 2. | When did you become aware or involved with activitie station in structure TA-55-263 (formerly 55-71)? | es associated with the monitoring | | | | |
| | When: 1982 | | | | | |
| | How Long: 16 years | | | | | |
| | Nature of Involvement: Coordination of maintena | nce activities | | | | |
| 3. | What do you know regarding the operational history of structure TA-55-263(71)? | of the monitoring station in | | | | |
| | This was never a reliable rad monitor because of installation of spray down system was an unsuccus sporadic trouble alarms caused by dirty sensors. | its operating environment. The essful attempt to alleviate all the | | | | |
| 4. | Did you see or were you aware of any leaks from the vault at structure TA-55-263(71)? | sanitary sewer line into the concrete | | | | |
| | I have never seen or been aware of any leaks. | | | | | |
| 5. | What are the inflow sources at TA-55 for Building PF- through the monitoring station? | 4 sanitary sewer line which runs | | | | |
| | PF-4 toilets, drinking fountains, restroom sinks | | | | | |
| | | | | | | |
| 6. | To your knowledge, is the content of the Building PF- waste or is there potential for other contaminants, (e.g | 4 sanitary sewer line strictly sanitary g., hazardous waste)? | | | | |
| | I have no knowledge of anything other than sanita down the line. | ary waste ever being discharged | | | | |
| | | | | | | |
| | | | | | | |

| Pro | ject Name: PRS 55-009 Operational History | Project No.: 10249.0300.050 | | | | | |
|------|---|--|--|--|--|--|--|
| Nar | me of Person Interviewed: Relf L. Price | -Price | | | | | |
| Inte | erviewer: Jere L. Green | Date: May 11, 1998 | | | | | |
| 1. | Personal Data: | | | | | | |
| | LANL Group: NMT-4 | | | | | | |
| | Title: Material Control & Accountability Specialis | st | | | | | |
| | Length of TA-55 Experience: 16 years | ······································ | | | | | |
| 2. | When did you become aware or involved with activitie station in structure TA-55-263 (formerly 55-71)? | es associated with the monitoring | | | | | |
| | When: January 1985 | | | | | | |
| | How Long: Continuous | | | | | | |
| | Nature of Involvement: From a security interest, structures are and there | l need to know what all the purpose. | | | | | |
| 3. | What do you know regarding the operational history of the monitoring station in structure TA-55-263(71)? | | | | | | |
| | I've had described to me for many years that from on to the day it was allowed to be shut off by DOB was a constant problem (nuisance). | n the day the station was turned E-ALO (see attached memos), it | | | | | |
| 4. | Did you see or were you aware of any leaks from the vault at structure TA-55-263(71)? | sanitary sewer line into the concrete | | | | | |
| | No, never! | | | | | | |
| 5. | What are the inflow sources at TA-55 for Building PF through the monitoring station? | -4 sanitary sewer line which runs | | | | | |
| | PF-4 drinking water drains, toilets, and restroom | sinks | | | | | |
| | | | | | | | |
| 6. | To your knowledge, is the content of the Building PF- waste or is there potential for other contaminants, (e. | 4 sanitary sewer line strictly sanitary g., hazardous waste)? | | | | | |
| | Only sanitary waste is allowed in the sanitary sew remind personnel not to place other materials in t | ver line. Training and signs the sanitary line. | | | | | |



Los Alamos, New Mexico 87545

DISTRIBUTION

W. J. Maraman

tim

OATE: May 17, 1983

memorandum

MAIL STOP/TELEPHONE:

G756/7-4563

SYMBOL MST-DO

TO

FROM

SUBJECT Sanitary Sewer Waste Monitoring System at TA-55

In a memo (MST-12-GPO-83-090) from E. L. Christensen to me March 3, 1983, a Proposed Revision to FSAR for TA-55 was attached. In essence it was proposed that the above system be abandoned and we would rely on the sampling by H-7. The reason for this proposal was our inability to achieve a satisfactory monitoring system even after spending over \$250K. More importantly we do not feel that we are compromising safety by abandoning it anyway because of later sampling.

This proposal was verbally accepted today in a telecon with John Schinkle of ALO.

WJM:jz

Distribution E. L. Christensen, MST-12, MS E501 J. L. Green, MST-11, MS E505 D. R. Harbur, MST-13, MS E511 J. Aragon, HSE-D0, MS P228 R. Schmidt, HSE-3, MS G754 L. C. Borduin, HSE-7, MS E518 File



memorandum

Robert L. Desjardin, E-8, MS E505 Raymond P. Wagner, MST-12, MS E501 DATE: May 24, 1983

MAIL STOP/TELEPHONE: E501/7-1324

SYMBOL: MST-12-PS-83-060

SUBJECT SANITARY WASTE MONITOR

Please discontinue the use and maintenance of the TA-55 Sanitary Waste Monitor. I was told by Milt Haas that ALO and Bill Maraman approve this action.

The parts from the Sanitary Waste Monitor can be used as needed to continue maintenance of the industrial waste monitor.

RPW:bmm

Distribution: E. L. Christensen, MST-12, MS E501 M. Haas, MST-12, MS E501 C. W. Bjorklund, MST-11, MS E505 C. L. Foxx, MST-12, MS E501 A. L. Martinez, MST-12, MS E501 C. A. Smith, MST-12, MS E501 File

| Pro | ject Name: PRS 55-009 Operational History | Project No.: 10249.0300.050 | | | | | | |
|------|---|--|--|--|--|--|--|--|
| Nar | ne of Person Interviewed: Jere L. Green | 5/13/40 | | | | | | |
| Inte | rviewer: John R. Stetson the Mallel | Date: May 13, 1998 | | | | | | |
| 1. | Personal Data: | | | | | | | |
| | LANL Group: Retired from LANL; current employ | ver: SAIC | | | | | | |
| | Title: Former TA-55 Site Manager (1978-1982) | | | | | | | |
| | Length of TA-55 Experience: 19 years | | | | | | | |
| 2. | When did you become aware or involved with activitie station in structure TA-55-263 (formerly 55-71)? * | es associated with the monitoring | | | | | | |
| | I was CMB-11/MST-11/NMT-11 Alternate Group Leader (1975-1979), Group Leader (1979-1988), and TA-55 Site Manager (1978-1982). I was responsible for the final commissioning of TA-55 and was familiar with the installation of the PF-4 sanitary sewer line and the associated monitoring station located in structure TA-55-263(71) and as Site Manager was responsible for its operation until 1982. In the following years, I was involved in TA-55 operations and nominally remained aware of any activities associated with the structure | | | | | | | |
| | * There appear to be two structure numbers for the concrete pit and monitoring station of concern. The original number was TA-55-71 and the current designation is TA-55-263. | | | | | | | |
| | | | | | | | | |
| | Nature of Involvement: Site Manager responsible station until 1982 | e for operation of the monitoring | | | | | | |
| 3. | What do you know regarding the operational history of structure TA-55-263(71)? | of the monitoring station in | | | | | | |
| | The PF-4 sanitary sewer line and associated mon was installed during the original construction of 1 with the monitor were a major problem from the s continual and chronic. Secondary sampling off s active emissions were occurring. The massive nu voided the usefulness of the monitor; therefore, in with the Albuquerque Operations Office to aband waste stream continued to flow into the lagoons b | itoring station in TA-55-263(71) TA-55. The counters associated start, in that false alarms were ite demonstrated that no radio- umber of false alarms essentially n 1983 an agreement was reached on the monitoring function. The pehind TA-35 until 1993 when the | | | | | | |

Sanitary Waste System Consolidation Treatment Plant came on-line. It is my understanding that a new and much more reliable radioactive monitor has recently been installed, but not in TA-55-263(71). To my knowledge, there has never been any indication of a radioactive emission from the line during TA-55 operations.

4 Did you see or were you aware of any leaks from the sanitary sewer line into the concrete vault at structure TA-55-263(71)?

To my knowledge, neither maintenance personnel nor the technicians investigating the false alarms during the time the original monitoring device was active have ever reported any indication that the sanitary sewer line ever leaked into the vault.

5. What are the inflow sources at TA-55 for Building PF-4 sanitary sewer line which runs through the monitoring station?

The inflow sources in PF-4 consist of four lavatories, including commodes, urinals and sinks, and several water fountains on the first floor.

6. To your knowledge, is the content of the Building PF-4 sanitary sewer line strictly sanitary waste or is there potential for other contaminants, (e.g., hazardous waste)?

TA-55 operational regulations forbid the disposal of materials other than sanitary waste and fluids such as water or soapy water in the sanitary sewer connections. There is no mechanism at TA-55 to physically sample the PF-4 sanitary sewer effluents, but in my opinion, the potential presence of any other hazardous materials is very remote.

ATTACHMENT D

Sanitary Sewer Connections to TA-55 North Sewer Line

| | Memo |) = |
|----------|--|--------|
| то: | File | |
| FROM: | Jere L. Green John John | |
| DATE: | March 5, 1998 | |
| SUBJECT: | Sanitary Sewer Connections to TA-55 North Sewer Line | |

Note: The following information is based on my own recollections and on conversations with Ron Holmes, NMT-8; Jerry Dunlop, NMT-8; and William Schueler, NMT-7.

Introduction: I have identified the buildings in TA-55 that are connected to the north sanitary sewer line. Buildings, PF-4, PF-3, and the Operations Center for TA-55 are connected to the sewer upstream of the monitoring station, Structure TA-55-263, which is also called PRS 55-009. Buildings, PF-6, PF-7, and PF-42 discharge to the sanitary sewer downstream of Structure TA-55-263. The waste sources in each building were identified through interviews and review of building drawings.

Building PF-4: Building PF-4 is the main plutonium facility at TA-55. No industrial wastewater is discharged to the sanitary sewer. Four restrooms and two drinking water fountains feed the building's sanitary sewer line, which exits through the north wall of PF-4 and runs through Structure TA-55-263.

Building PF-3: Building PF-3 at TA-55 is a non-radioactive chemical laboratory and general support facility used to support process activities in PF-4. In addition to normal sanitary waste streams from showers, rest rooms, janitor's sinks, etc., the building contained laboratory floor drains, sink drains from fume hoods, and bench top sink drains, all of which discharged to the sanitary sewer. During the design and preliminary operations, ES&H hazard identification and the regulatory environment were significantly less stringent than today. During early operations, limited quantities of various chemicals may have been disposed through sinks into the sanitary sewer.

A partial list of chemicals regularly used in the laboratory is presented below:

<u>Acids</u> nitric acid sulfuric acid hydrochloric acid hydrofluoric acid oxalic acid

Memo



- <u>Caustics</u> Sodium hydroxide Potassium hydroxide Calcium hydroxide
- Chlorinated hydrocarbons
- Various alcohols and ketones
- <u>Various oxidizing and reducing agents</u> hydroxylamine sulfamic acid hydrogen peroxide
- <u>Various inorganic salts</u> sodium chloride/nitrate potassium chloride/nitrate calcium chloride/nitrate

The early effluents were what would be expected from a typical light industrial laboratory. Later, stricter limits were placed on disposal such that only trace quantities of any chemicals may have been introduced into the bench top sinks from washing and rinsing of laboratory glassware. Over the years, several of the original laboratories were converted to non-laboratory functions. In 1994 to 1995, the remaining laboratory floor drains and sink drains in the fume hoods were plugged as a result of the Waste Water Stream Characterization Study requirements.

Operations Center for TA-55: The Operations Center is located between PF-3 and PF-4 and contains a small equipment room which has an active floor drain. The line from that drain exits the building and is connected to the sewer line between the connections for PF-4 and PF-3.

Utility Building (PF-6): The Utility Building contains the chillers and chilled water heat exchangers for the site and miscellaneous mechanical and electrical equipment. Floor drains in the building are connected to the sanitary sewer. The effluent is principally water possibly containing traces of oil. A cooling tower associated with the chillers is located outside of the building. Blowdown water from the tower containing water treatment chemicals is directed into the storm drain which is an NPDES permitted outfall into the canyon.

Generator Building (PF-8): PF-8 contains the diesel emergency generator and the air compressors for the site. The floor drains in PF-8 originally were piped under the road and security fence and daylighted into the canyon to the north. These drains were plugged in 1994 to 1995.



Process Support Building (PF-42): PF-42 currently contains offices and a craft shop area. When originally constructed, it was to be used as a laser and chemical support facility, but the chemistry function was never used to any significant extent. Today the office area generates only standard sanitary waste streams which are routed from the building to a lift station north of the building.

Calcium Grinding Building (PF-7): PF-7 is a small building in which metallic calcium is prepared for use in PF-4 to reduce plutonium compounds to metal. A bench top sink drains into a line that runs to the lift station near PF-42. The output from the lift station runs down the northern side of the site and attaches to the sanitary sewer line immediately downstream of Structure TA-55-263.