

PROCEDURE

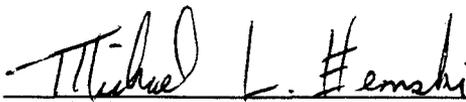
MAIN DECONTAMINATION FACILITY
NORMAL OPERATIONS-FO.17

OPS-PRO.008

Revision 0

Date Effective: 9/18/97

APPROVED:


(Michael L. Bemski, Environmental Restoration)

Page 1 of 33

1. PURPOSE

This procedure details the operational steps necessary to handle and process water generated from equipment decontamination actions at the Main Decontamination Facility (MDF), from actions at the portable decontamination pad and other semi-permanent decontamination stations outside the Protected Area (PA). This procedure also details the operational steps necessary to handle sediments and solids generated by processing environmental liquids at the MDF. Water generated from decon actions conducted at remote locations will be handled and processed, once it is deposited in the sump, as if the water was generated at the MDF. Water typically processed at the MDF also includes groundwater purges.

2. SCOPE

This procedure applies to all Rocky Flats Environmental Technology Site (RFETS) Environmental Restoration Program Division employees and subcontractors.

This procedure addresses the following topics:

- System Startup and Normal Operations
- System Shutdown Procedures

This procedure does not include periodic maintenance inspections and minor maintenance requirements. These requirements are listed in the MDF Operation and Maintenance Manual.

3. OVERVIEW

Effective decontamination procedures are required to minimize the potential for cross-contamination, offsite contamination migration, and personnel exposure from improperly decontaminated equipment. Heavy equipment, environmental materials containers, and environmental liquids may become contaminated when used in a work area characterized as potentially contaminated such as an Individual Hazardous Substance Site (IHSS) or when used in a work area characterized as not potentially contaminated but where field monitoring conducted during field activities indicates the possible presence of contamination. Because contamination is not always easily detectable, it is assumed that equipment used in either of the two preceding ways has been contaminated and will require decontamination. The project Radiological Engineering (RE) representatives will typically make the final disposition decision.

Presently, the MDF exists at Rocky Flats Environmental Technology Site (RFETS), as shown in Appendix 2, Main Decontamination Facility General Location Map. The MDF layout diagram is shown in Appendix 3, Main Decontamination Facility Diagram. Additional equipment-specific decontamination guidance is available in the following procedures:

- 4-SO1-ENV-OPS-FO.03, General Equipment Decontamination
- 4-S02-ENV-OPS-FO.04 Decontamination
- 4-H66-ENV-OPS-FO.05, Handling of Purge and Development Water
- 4-E12-ER-OPS-FO.06, Handling of Personal Protective Equipment
- 5-21000-OPS-FO.07, Handling of Decontamination Water and Wash Water
- 5-21000-OPS-FO.08, Handling of Drilling Fluids and Cuttings
- 4-K55-ENV-OPS-FO.10, Receiving, Labeling, and Handling Environmental Materials Containers

A Decontamination Facility (DF) consists of two functional areas: the equipment decontamination pad, and the environmental liquids management area. The main DF layout is shown in Appendix 3, Main Decontamination Facility Layout.

3.1 Decontamination Facility Equipment

Decontamination facility equipment includes a curtain system, a sump for collection of environmental liquids and sediments, and a pumping system for moving fluids from the sump to the environmental liquids management area. Wet sediments are removed from the sump with a skidsteer or pumped with 3-in. trash pumps into 55 gallon gray drums. The MDF uses a concrete pad capable of supporting large equipment for cleaning. The entrance and exit are sloped and curbed to contain and collect environmental liquids, solids, and sludge generated during cleaning operations. The approaches to the pad are sloped to allow equipment to be driven onto and off of the facility. A sump is located in the pad to collect waste materials. The MDF operation typically uses electric pumps and high pressure steam cleaners for day-to-day activities. Gasoline-powered pumps are available as back-up. A typical pump setup is shown in Appendix 3.

3.2 Environmental Liquids Management Area

The environmental liquids management area consists of building (903B), housing secondarily-contained storage and sedimentation tanks (located north of the decontamination pad building 903A) and a transfer pump, piping and cyclone separators (located at 903A). Environmental liquids collected in the pad sump are typically pumped through two cyclone separators in series. The separators remove larger particulate of the suspended solids remaining in the environmental liquids. The effluent from the cyclone separators flows into the first of three sedimentation tanks set in series. The MDF Sedimentation and Storage Tank systems consist of two parallel systems (Series 100 and 200) which can be used independently of one another.

NOTE: *The convention used throughout this procedure will be X100/X200 which indicates either Series 100 or Series 200. Numbers will be preceded by T-, P- or V- indicating Tank, Pump or Valve. (Ex.: T-101/T-201 indicates either Tank 101 or 201).*

Each system consists of three sedimentation tanks in series and two clean water storage tanks. The three sedimentation tanks are connected in line to provide additional removal of suspended solids. After initial settling has occurred, the environmental liquids are allowed to flow to the subsequent sedimentation tanks by gravity. Transfer of liquids from the final sedimentation tank into clean water storage tanks is accomplished by pumping or by gravity flow. A typical tank set up is shown in Appendix 3.

4. LIMITATIONS AND PRECAUTIONS

- [1] Pre-decontamination surveys must be completed prior to the commencement of decon activities at the MDF unless an exception is approved by the Facility Manager and RE representative.
- [2] Pumping water directly into the sedimentation tank system is limited by flow rate through the sedimentation tanks. High level sensors in tanks T-101/T-201 will stop pump P-301 from transferring liquids from the sump. Pumping may be reduced to batch operations to allow for settling of solids and proper operation of the facility.
- [3] Clean water in sedimentation tank T-103/T-203 must be decanted by gravity or pumped into an appropriate storage tank to reduce suspended solids prior to pumping the MDF sump.
- [4] Water with high sediment content will be settled out in the MDF sump prior to pumping through the cyclone separators into the sedimentation tank system.
- [5] All Sedimentation and Storage Tanks are confined spaces and must have confined space permits for entry.
- [6] Lockout/Tagout controls must be employed where necessary to perform maintenance of equipment and tanks.
- [7] Personnel involved in DF operations require 40-hour OSHA, Radworker II, Waste Generator and other specified training for special operations.

5. PREREQUISITE ACTIONS

5.1 Planning and Coordination

Decontamination Facilities Responsible Manager

- [1] Ensure that all decon personnel are trained in accordance with training designated by ERPD Training and Qualifications group.
- [2] Coordinate and set priorities for all decon facilities operations.
- [3] Ensure that all decon activities are listed in the Plan-of-the-Day (POD).
- [4] Coordinate Plant Trucking for off-loading clean water into a tanker for transfer to the Consolidated Water Treatment Facility (CWTF) or other approved treatment facility 24 hours prior to transfer.
- [5] Coordinate with other subcontractors for MDF use during the weekly contractor's POD.

Decontamination Facilities Supervisor

- [1] Ensure that equipment and personnel are available to accomplish decon activities listed in POD.
- [2] Coordinate with Health and Safety Specialist (HSS) for required surveys and safety support necessary to accomplish decon activities.

- [3] Ensure that the Facility has adequate capacity for water to be accepted at the pad.
- [4] Ensure that all decon personnel and other subcontractors have reviewed and signed off on the MDF Health and Safety Plan (HASP) prior to work at the Facility.
- [5] Schedule the use of rough terrain forklift and skid loaders.
- [6] Ensure that daily facility inspections are performed and recorded in the MDF Logbook.
- [7] Conduct training for Facility decon operations.
- [8] Ensure that MDF equipment is properly maintained and that maintenance activities are tracked.

Decontamination Facilities Lead Operator/Operator

- [1] Perform minor and emergency maintenance on facility equipment, according to manufacturer's specifications.
- [2] Inspect the facility daily, maintain records and logbooks, as instructed.
- [3] Check oil, grease, and fuel levels on MDF equipment as prescribed in the operations and maintenance manual or procedures
- [4] Prepare the MDF equipment for service at the beginning of the shift.
- [5] Winterize non-heated equipment when temperatures will drop below 35 degrees.
- [6] Report any deficiencies of portable equipment, tanks or ancillary equipment to the DFS.

Health and Safety Specialist (HSS)

- [1] Conduct a daily safety briefing covering operations detailed in the POD.
- [2] Conduct radiological surveys, as directed by the Site Radiological Control Manual, and additional surveys as instructed by Radiological Engineering.
- [3] Provide health & safety and radiological coverage to support decon activities.
- [4] Provide instruction for PPE use, if not addressed in the MDF HASP.
- [5] Ensure that an Activity Hazard Analysis (AHA) is prepared and approved for all activities not specifically covered by the Main and Protected Area Decontamination Facilities Health and Safety Plan (HASP) for Operation of Decontamination Facilities.

6. INSTRUCTIONS

This section is organized topically rather than sequentially to correspond to the various operational tasks associated with the operation of the Main Decontamination Facility (MDF). This section describes the procedures listed below:

Section 6.1 Transferring Environmental Liquids into the MDF Sump

Section 6.2 Transferring Environmental Liquids into the Sedimentation Tank System

- Section 6.3 Transferring Environmental Liquids from Sedimentation Tanks into Storage Tanks
- Section 6.4 Transferring Environmental Liquids from Storage Tanks into Tankers
- Section 6.5 Transferring Sediments from Sedimentation Tanks
 - Section 6.5.1 Transferring Sediments from Sedimentation Tanks into Drums
 - Section 6.5.2 Transferring Sediments from Sedimentation Tanks into the MDF Sump
 - Section 6.5.3 Transferring Sediments from Sedimentation Tanks into Containers
 - Section 6.5.4 Transferring Sediments from the MDF Sump into Drums

6.1 Transferring Environmental Liquids into the MDF Sump

Decontamination Facilities Lead Operator/Operator

The following steps should be used when processing water which contains significant solids that can be settled out in the MDF sump prior to pumping into the Sedimentation Tank system. This section details the steps necessary to off-load portable containers, tankers and other liquid containment into the MDF sump, located in the concrete decon pad.

NOTE 1: *Decontamination water that accumulates in the Decon Pad sump is to be processed through the Lykos filters and sedimentation tanks whenever the Decon Pad sump has reached a maximum of 90 percent of its capacity, or more frequently as deemed necessary. The following procedures shall be performed when operating the decontamination facility 100 and 200 series collection systems.*

NOTE 2: *Decon water and/or purge water may be transferred directly to the 100 or 200 series sedimentation tanks as determined by the Decon Facility Manager. This determination may be based on levels of radiological or organic contamination of waters accepted or produced at the Decon Facility. Water will normally be routed through the Lykos separator system unless radiological contamination limits this option. Liquids may be segregated in other containers if necessary, to reduce 903B tank contamination potential.*

- [1] Connect a hose to the discharge port on a tanker or other approved tank and run the other hose end to the west end of the sump.
- [2] Ensure that a suction hose for pump P-301 (with a strainer (sunflower)) is placed in the east end of the sump.
- [3] Verify that the control panel (in the control panel shed) is energized by observing the Liquid Level Display.
- [4] **OPEN** tanker vent valve and slowly open tanker discharge valve. Monitor flow into the sump for sump capacity.
- [5] Shut tanker discharge valve before overfilling sump.
- [6] Allow sufficient time for solids in sump to settle prior to pumping water into the Facility.

NOTE 3: *Water transferred into the Facility will be processed through the Lykos separators. Bypassing the separators may be authorized by the Facility Supervisor.*

NOTE 4: *Prior to transferring liquids from the sump to Sediment Tank T-101/T-201, check for adequate capacity in the Tank. Check for liquid level in Sediment Tank T-103/T-203 prior to pumping the sump. If liquid level is higher than the lowest decant port, GO TO Section 6.3 Transferring Environmental Liquids from Sedimentation Tanks into Storage Tanks.*

- [7] Pump decanted liquid from the Sump to Sediment Tank T-101/T-201. (See Section 6.2 Transferring Environmental Liquids into the Sedimentation Tank System).
- [8] Repeat steps 6.1 [4] - [7] until container is empty.

6.2 Transferring Environmental Liquids into the Sedimentation Tank System

Decontamination Facilities Lead Operator/Operator

- [1] Verify that site transformer and control panel board are energized.
- [2] Select a Series of Tanks to process sump water (Series 100 or 200).
- [3] **OPEN** influent valve V-104/V-201 for Sediment Tank T-101/T-201.
- [4] **IF** liquid level in Sediment tank T-103/T-203 is higher than the lowest effluent port,
- [5] **THEN GO TO** Section 6.3, Transferring Environmental Liquids from Sedimentation Tanks into Storage Tanks, before proceeding to the next step.
- [6] To process liquids through the Lykos cyclone separators, open the following valves:
 - V-002, Inlet to separators
 - V-004, Outlet from separators
- [7] Ensure that valve V-003 (separator bypass) is closed.

NOTE 1: *Authorization from the Facility Supervisor must be obtained to bypass the Lykos separators.*

- [8] **IF** by-passing the Lykos separators, **OPEN** valve V-003.
- [9] **CLOSE** the following valves:
 - V-002
 - V-004
- [10] Visually check sediment level in the sedimentation tanks.
- [11] **IF** the sediment level in any of the tanks is greater than two and one-half feet above the bottom of the cone of the tank, **THEN** go to Section 6.5.2 - Transferring Sediments from Sedimentation Tanks to MDF Sump and remove sediments before continuing with the next step.

- [12] **IF** the sediment level is acceptable,
THEN, ensure valve V-104/V-201 (Inlet to first Sedimentation Tank) is open prior to starting Transfer Pump P-301.
- [13] Ensure sediment tank drain valves V-105/V-202, V-106/V-203, and V-107/V-204 are closed.
- [14] Connect flexible hose to Transfer Pump P-301 inlet port and place 1/4 inch sunflower strainer into decontamination pad sump or purge tank.
- [15] Verify that the following valves are CLOSED:
- V-108/V-205, V-109/V-206, V-110/V-207, Top, middle and bottom outlets of third Sedimentation Tank
- V-112/V-216, Inlet to Decant Pumps P-101/P-201
- [16] Prime Transfer Pump P-301 by the following steps:
- [A] **OPEN** valve V-006 (P-301 discharge drain to sump).
 - [B] **CLOSE** valves V-008, V-009 (Lykos separator drains).
 - [C] Turn and hold Hand Switch (HS)101 in the "Hand" mode, until liquids discharge through the influent drain to sump.
 - [D] **CLOSE** V-006 to allow liquids to flow through the separators.
 - [E] **IF** P-301 does not prime within one minute;
THEN release HS-101 to the OFF position
 - [F] Fill P-301 with clean water through the priming port.
 - [G] Repeat steps 6.2[16] [C] - [D] until pumping begins.
- [17] Pump liquids into Sedimentation Tank T-101/T-201 until the transfer is complete or until the liquids in T-101/T-201 have reached the high level sensors, and shut down pump P-301.
- NOTE 2:** *Pump P-301 will not transfer liquids into T-101/T-201 with Hand Switch (HS) 101 in the "Auto" mode unless valve V-104/V-201 is completely open.*
- NOTE 3:** *When the influent liquids reach the T-101/T-201 High Level Liquid Sensor, then P-301 will automatically shut off and the level alarm high (LAH), 101A audible alarm will sound.*
- [18] **IF** the LAH 101A audible alarm sounds after the liquid level has dropped below the sensor level,
THEN reset the audible alarm at the main control panel.
- [19] **CLOSE** V-104/V-201 after decon liquids have been transferred to T-101/T-201.

NOTE 4: *Liquids will gravity feed from the initial sediment tanks, T-101/T-201 into the secondary sediment tanks, T-102/T-202, upon reaching the gravity overflow pipes near the top of T-101/T-201. The High Level Liquid Sensor will sound when the influent liquids are transferred into T-101/T-201 faster than the gravity feed pipes can drain into T-102/T-202 or all of the sediment tanks are at capacity and T-101/T-201 is not able to gravity feed.*

NOTE 5: *In order to increase flows through the Sedimentation Tanks T-101/T-201 and T-103/T-203, a flexhose with valves on both ends may be connected between the bottoms of each tank (T-101 to T-103, T-201 to T-203). This action is typically taken when large quantities of water need to be introduced into the MDF in a short period of time. This is not a typical course of action and must be approved by the MDF Manager prior to commencement.*

6.3 Transferring Environmental Liquids from Sedimentation Tanks into Storage Tanks

Decontamination Facilities Lead Operator/Operator

NOTE 1: *Liquids collected in the sediment tanks will require decanting into the storage tanks periodically prior to transferring additional liquids into the sedimentation tank system. The liquids are transferred by pumps into the storage tank after the technician determines what levels of liquids in T-103/T-203 can be transferred (by visually examining water quality) and which storage tank is appropriate to accept the decanted liquids.*

- [1] Determine which effluent storage tank will accept the sedimentation liquid by checking the liquid level in the effluent storage tanks from the control panel display (HS106). Verify the level by visually noting liquid level from tank volume markings.

NOTE 2: *Sedimentation tank T-103 can be decanted into storage tank T-104 or T-105. Sedimentation tank T-203 can be decanted into storage tank T-204 or T-205.*

- [2] IF the liquid level is greater than 4000 gallons,
THEN check the second available storage tank in that series for available capacity.
- [3] IF the tank liquid level is less than 4000 gallons and the liquids are compatible,
THEN proceed with the decant transfer.
- [4] Sample T-103/T-203 effluent liquids for visual clarity at sediment tank sample ports listed below. The liquids should be clear to slightly cloudy as visually identified by the sampler, prior to transferring liquids into the selected storage tank.

- [A] Sample T-103/T-203 upper effluent port from sample valve V-127/V-223 to determine clarity of the liquids.

NOTE 3: *The liquids sampled during step 4 should be collected in a clear glass or plastic container which can be rinsed out and used over. The liquids collected in the container can be poured back into sediment tank T-103/T-203 or poured into the MDF sump after visual analysis.*

Storage Tank T-103/T-203 has three sample ports which divide the tank into thirds. Sampling will begin at the upper port to determine how much water can be transferred to the storage tanks.

- [B] IF liquids are not visually acceptable to transfer:
THEN do not transfer liquids from T-103/T-203 unless approved by the facility supervisor.
 - [C] IF liquids are visually acceptable for transfer:
THEN sample T-103/T-203 middle effluent port from sample valve V-128/V-224 to determine clarity of the liquids.
 - [D] IF liquids are not visually acceptable to transfer
THEN open V108/V205 and transfer only to the upper effluent port.
 - [E] IF liquids are visually acceptable to transfer:
THEN sample T-103/T-203 lower port from sample valve V-129/V-225 to determine clarity of the liquids.
 - [F] IF liquids are not visually acceptable to transfer:
THEN open V109/V206 and transfer only to the middle effluent port.
 - [G] IF liquids are visually acceptable
THEN open V-110/V-207 to transfer liquids down to the lower effluent port of tank T-103/T-203.
- [5] Open the appropriate storage tank influent valves as described below, to transfer liquids into the selected storage tank.
- [A] To decant into tank T-104, OPEN the following valves:
 - V-112
 - V-130
 - V-113, and close valve V-114
 - [B] To decant into tank T-105, OPEN the following valves:
 - V-112
 - V-130
 - V-114, and close valve V-113
 - [C] To decant into tank T-204, OPEN the following valves:
 - V-209
 - V-226
 - V-210, and close valve V-211
 - [D] To decant into tank T-205, OPEN the following valves:
 - V-209
 - V-226
 - V-211, and close valve V-210

- [6] Activate pump P-101/P-201 with the appropriate hand switch.
- [7] Monitor the liquid level in tank T-103/T-203 during transfer of liquids.
- [8] Shutoff pump P-101/P-201 when the liquid level reaches 12 feet or other approved liquid height.

NOTE 4: *Pump P-101 or P-201 will automatically turn off when the low level sensor in the sedimentation tank or the high level sensor in the receiving storage tank is activated.*

- [9] **IF** pump P-101 or P-201 has not shut off when selected storage tank is full, **THEN** shut off pump at pump control box.
- [10] **CLOSE** all open valves listed in step 6.3[5] upon transfer completion.
- [11] **CLOSE** series 100 sedimentation tank discharge ports V-108, V-109, and V-110 or 200 series sedimentation tank valves; V-205, V-206 and V-207.

6.4 Transferring Environmental Liquids from Storage Tanks into Tankers

Decontamination Facilities Lead Operator/Operator

NOTE 1: *Effluent contained in the four storage tanks will be transferred to a tanker for transfer to a treatment facility when deemed necessary by the decontamination facility supervisor or when the liquid level reaches 4000 gallons as viewed from the main control panel.*

- [1] Contact Plant Transportation personnel for positioning of an approved tanker on the MDF concrete pad.
- [2] Connect one end of the 2-inch flexible hose to the quick connect valve on the 2-inch effluent discharge line coming from the treatment building.
- [3] Connect the other end of the 2-inch flexible hose to tanker with a 3" hose adapter.
- [4] Verify the position of the following valves based on which tank and tank series is to be transferred to a tanker:
 - [A] To transfer tank T-104, align the valves below accordingly:
 - OPEN valves V-115, V-116, V-118
 - CLOSE valves V-119, V-120
 - [B] To transfer tank T-105, align the valves below accordingly:
 - OPEN valves V-120, V-121, V-123
 - CLOSE valves V-115, V-119

-
- [C] To transfer tank T-204, align the following valves accordingly:
- OPEN valves V-212, V-213, V-214
 - CLOSE valves V-216, V-217
- [D] To transfer tank T-205, align the following valves accordingly:
- OPEN valves V-217, V-218, V-220
 - CLOSE valves V-212, V-216
- [5] Verify that site transformer and control panel are energized.
- [6] Activate the required pumps based on the storage tank liquids to be transferred.
- [A] Pump P-102 to pump tank T-104
 - [B] Pump P-103 to pump tank T-105
 - [C] Pump P-202 to pump tank T-204
 - [D] Pump P-203 to pump tank T-205
- NOTE 2:** *To increase efficiency in transferring effluent from a storage tank to a tanker, a tank can be emptied using both effluent pumps in the respective series as listed above (ex.: pumps P-102 and P-103 can operate simultaneously to empty tank T-104).*
- [8] Verify the positions of the following valves based on the tank and series to be transferred with both pumps.
- [A] To pump tank T-104 with pumps P-102 and P-103, OPEN the following valves:
 - V-115, V-116, V-118, V-119, V-121, V-123, V-131 and V-132CLOSE valve V-120
 - [B] To pump tank T-105 with pumps P-102 and P-103, OPEN the following valves:
 - V-116, V-118, V-119, V-120, V-121, V-123, V-131 and V-132CLOSE valve V-115
 - [C] To pump tank T-204 with pumps P-202 and P-203, OPEN the following valves:
 - V-212, V-213, V-216, V-217, V-218, V-220, V-227 and V-228CLOSE valve V-217
 - [D] To pump tank T-205 with pumps P-202 and P-203, OPEN the following valves:
 - V-213, V-215, V-216, V-217, V-218, V-220, V-227 and V-228CLOSE valve V-212
- [9] Activate the appropriate pumps at the main control panel:
- [A] Pump P-102 is controlled by Handswitch HS104
 - [B] Pump P-103 is controlled by Handswitch HS105
 - [C] Pump P-202 is controlled by Handswitch HS204
 - [D] Pump P-203 is controlled by Handswitch HS205

- [10] Turn handswitches to auto to transfer the liquids until liquids are transferred to the tanker.

NOTE 3: *The effluent liquid pumps listed in step [9], will automatically shutoff in the auto mode if the discharge pressure drops too low.*

- [11] Shut off pumps with the handswitches listed in step 6.4[9] at the main control panel.
- [12] **CLOSE** all of the valves listed *OPEN* in steps 6.4[4] and 6.4[8].
- [13] Disconnect and drain the flexible transfer hose into the decontamination pad sump.

6.5 Transferring Sediments from Sedimentation Tanks

DANGER

A "Confined Space" permit is required for any tank entry for maintenance or other activities. Death or severe injury could result from contact with 110V level sensors located within certain tanks. Lockout/Tagout permit and controls must be in place prior to performing minor, routine or emergency maintenance.

Decontamination Facilities Lead Operator/Operator

NOTE 1: *As decontamination water is processed through the sedimentation tanks, sediment will accumulate in the bottom of the sediment tanks. As part of normal system operations, the sediment accumulated in these tanks will either be discharged to the MDF sump or 55 gallon drums. Lockout/Tagouts are required to enter the sediment and storage tanks to perform maintenance activities. If entry into the tanks with any body part or equipment, then a lockout/tagout is required for removing sediments from the tanks.*

6.5.1 Transferring Sediments from Sedimentation Tanks into Drums

When the volume of sediments requires a drum, the drum may be placed under one sedimentation tank (or additionally under others, as required) and filled. Typically, sediments are transferred to the MDF sump and allowed to decant further, and when the volume of sediments in the MDF sump is sufficient, a drum will be filled. The sediments are contained in gray open-top drums due to process knowledge. Samples for analysis of radiological, metals, or organic compounds shall be collected as directed by the Operations Manager.

To transfer sediments into a drum, perform the following steps:

Decontamination Facilities Lead Operator/Operator

- [1] Ensure that a suitable number of drums have been staged to contain the amount of sediment to be removed from the selected Sedimentation Tank or Tanks.
- [2] Ensure that all associated tools, equipment and paperwork are available for the transfer.
- [3] Position the drum under the selected sedimentation tank with a drum dolly or cart.

-
- [4] Slowly open the sedimentation tank discharge valve to allow flow of solids:
- [A] For tank T-101, OPEN valve V-105
 - [B] For tank T-102, OPEN valve V-106
 - [C] For tank T-103, OPEN valve V-107
 - [D] For tank T-201, OPEN valve V-202
 - [E] For tank T-202, OPEN valve V-203
 - [F] For tank T-203, OPEN valve V-204
- [5] Control flow of solids during discharge by regulating the valve as necessary.
- [6] When the drum is suitably full, close the discharge valve.
- [7] **CLOSE** and label the drum per 4-K55-ENV-OPS-FO10, Receiving, Marking, and Labeling Environmental Material Containers and WO-1027, Non-Radiological Waste Packaging.
- [8] **IF** the sediments are above radiological contamination limits
THEN package the sediments per WO-4034, Radiological Waste Packaging.
- [9] Repeat Steps 6.5.1[3] - 6.5.1[6] until transfer of sediments into drums is complete.

6.5.2 Transferring Sediments from Sedimentation Tanks into the MDF Sump

Decontamination Facilities Lead Operator/Operator

- [1] Attach flexible hose, with ball valves on both ends, to sediment tank drain port at the bottom of the specified sedimentation tank and connect the other end to the inlet of the portable pump (P-104 or P-204)
- [2] Attach a second flexible hose, with ball valves on both ends, to the outlet of P-104 or P-204 and connect the other end to the sediment effluent line quick connect, which is located between T-201 and T-202.
- [3] Connect a flexible hose to the Sediment Effluent Discharge port at the Decontamination Pad and position the other end of the hose to allow discharge into the Decontamination Pad Sump.
- [4] To discharge sediments from each tank, open the associated valve as listed below:
- [A] For tank T-101, OPEN valve V-105
 - [B] For tank T-102, OPEN valve V-106
 - [C] For tank T-103, OPEN valve V-107
 - [D] For tank T-201, OPEN valve V-202
 - [E] For tank T-202, OPEN valve V-203
 - [F] For tank T-203, OPEN valve V-204
- [5] Plug in pump P-104 or P-204 to begin the transfer of sediments to the decontamination pad.
- [6] Activate P-104 with handswitch HS103B or P-204 with handswitch HS203B.

- [7] Transfer the sediments into the MDF sump, as required.

NOTE 2: *The 750 gallon sediment tanks effectively hold 625 gallons each due to piping and high level control sensors. Sediment tanks T-101, T-102, T-201 and T-202 cannot be gravity drained lower than 625 gallons except through the bottom drain valve or by pumping liquids through the tank top opening using pump P-104 or P-204 or submersible pumps. If the liquids are pumped out of the sediment tanks T-101/T-201, T-102/T-202 with P-104 or P-204, then the liquids must be transferred through the MDF sump, to sediment tanks T-103/T-203. Liquids to be transferred from sedimentation tank T-103/T-203 should be pumped to storage tank T-104/T-105 or T-204/T-205 using a submersible pump and flex hose discharging into the top of the storage tank. The option of pumping liquids from a sedimentation tank into the MDF sump is also available.*

NOTE 3: *Pump P-104 and Pump P-204 will shut off automatically when the low liquid level alarm in the sedimentation tank is activated.*

- [8] Verify that pump P-104 or P-204 HOA switch is in the OFF position.

- [9] Turn off power to all pumps and de-energize control panel.

- [10] **CLOSE** the following valves:

For tanks T-101, T-102 and T-103: CLOSE V-105, V-106, V-107, V-134, and V-103.

For tanks T-201, T-202 and T-203: CLOSE V-202, V-203, V-204, V-229, and V-103

- [11] **CLOSE** all flexible hose valves and disconnect all of the 2-inch flexible hoses.

- [12] Drain the hoses directly into the MDF sump or into a suitable container for transfer into the sump.

6.5.3 Transfer Sediments from Sedimentation Tanks into Containers

Sediments may be transferred from sedimentation tanks directly into containers including carboys and buckets for disposal or transfer to the MDF sump. When the volume of sediments would not require a drum, sediments may be drained directly from the sedimentation tanks into buckets and transferred to the MDF sump.

To drain sediments into a container (bucket) for transfer to the MDF sump, perform the following steps:

Decontamination Facilities Lead Operator/Operator

- [1] Ensure that the container has sufficient capacity to contain the amount of sediment to be transferred or plan multiple transfers.
- [2] Ensure that the MDF sump has adequate volume to accept sediments to be transferred.
- [3] Position the container under the selected sedimentation tank. Support the container under the discharge piping to allow valve operation and to minimize spillage.

- [4] Slowly open the sedimentation tank discharge valve to allow flow of solids:
 - [A] For tank T-101, OPEN valve V-105
 - [B] For tank T-102, OPEN valve V-106
 - [C] For tank T-103, OPEN valve V-107
 - [D] For tank T-201, OPEN valve V-202
 - [E] For tank T-202, OPEN valve V-203
 - [F] For tank T-203, OPEN valve V-204
- [5] Control flow of solids during discharge by regulating the valve as necessary.
- [6] When container is suitably full, close the discharge valve, cover or close container to minimize spillage and transport to the MDF sump.
- [7] Deposit sediments into the MDF sump for further decant.
- [8] Repeat Steps 6.5.3[3] - 6.5.3[6] until transfer is complete.

6.5.4 Transfer Sediments from MDF Sump into Drums

Once the MDF sump has reached 50% of its capacity, sediments must be removed and packaged into drums for disposal. Follow the waste packaging requirements as listed in Section 6.5.1, steps [7] and [8].

NOTE: *An approved absorbent may be mixed with the sediments in the sump with the Facility Manager's approval. The sediments will be shoveled into the lined drums after the absorbent has been thoroughly mixed with the sediments.*

Decontamination Facilities Lead Operator/Operator

- [1] Calculate the amount of sediment in the MDF sump and the number of drums required to package these sediments.
- [2] Position the drum(s) for convenient loading near the MDF sump.
- [3] Assemble diaphragm transfer pump, suction and discharge hoses.
- [4] Pump sediments from MDF sump to drum.
- [5] Add approved absorbent to the sediments.

7. POST-PERFORMANCE ACTIVITY

Management of all records is consistent with 1-77000-RM-001, Records Management Guidance for Records Sources.

Responsible Manager

- [1] Ensure that the original and one copy, as required, of the following quality assurance records (QA) are transmitted to the ERPD Project File Center (PFC) in accordance with 2-G18-ER-ADM-17.01, Records Capture and Transmittal:

- MDF Log Book
- MDF Activity Log
- MDF Daily Inspection Log
- Qualification/Training Documentation, as required
- Occurrence Reports, as required.

Submission of record copied to the ERPD PFC is in accordance with Administration Record requirements as defined in 2-S65-ER-ADM-17.02, Administrative Record Document Identification and Transmittal.

There are no Non-QA records generated by this procedure.

8. RECORDS

The following documents generated during the performance of this procedure must be controlled as follows:

<u>Document</u>	<u>Record Type</u>	<u>Disposition</u>
Document History File	QA, Non-Permanent	Records Management transmits to RMRS Records Center, where retained for 12 months after procedure is superseded or canceled. RMRS Records Center staff then formally transmits to the Site Records Management organization for long term storage on accordance with the provisions of 1-77000-RM-001, Records Management Guidance for Records Sources.
Draft Versions of Document as Submitted for Review, and Peer Reviews	Non-QA	Records Management retains until procedure is approved, at which time the Draft versions may be discarded.

9. REFERENCES

RF/ER-96-0049 Main and Protected Area Decontamination Facilities, Health & Safety Plan

1-10000-HWR, Hazardous Waste Requirements Manual

1-E36-HSP-6.04, Confined Space Entry Program

1-15320-HSP-2.08, Lockout/Tagout

QA-05.01, Revision 0, Preparation and Control of RMRS Documents

RF/RMRS-97-040, RMRS Training Manual

RM-06.02, Revision 0, Records Identification, Generation, and Transmittal

4-H66-ENV-OPS-FO.05, Handling of Purge and Development Water

4-S02-ENV-OPS-FO.04, Decontamination of Equipment at Decontamination Facilities

5-21000-OPS-FO.1, Air Monitoring and Particulate Control

5-21000-OPS-FO.7, Handling of Decontamination Water and Wash Water

APPENDIX 1-1

MAIN DECONTAMINATION FACILITY
 000 SERIES VALVE LIST

VALVE NUMBER	LOCATION	DESCRIPTION	TYPE	CONTROL LOCATION
V001	P301 EFFLUENT LINE	INFLUENT FROM P301	CHECK VALVE	N/A
V002	UNDER FILTERS	INFLUENT TO LYKOS FILTERS	BALL VALVE	@ VALVE
V003	INFLUENT LINE	INFLUENT BYPASS VALVE	BALL VALVE	@ VALVE
V004	LYKOS FILTER EFFLUENT LINE	INFLUENT FROM LYKOS FILTER	BALL VALVE	@ VALVE
V005	P301 EFFLUENT	EFFLUENT VALVE	BALL VALVE	@ VALVE
V006	INFLUENT DRAIN VALVE	SEDIMENT AND WATER DRAIN	BALL VALVE	@ VALVE
V007	TOP OF PRIMARY LYKOS FILTER	AIR VENT	AIR	N/A
V008	BOTTOM OF PRIMARY FILTER	SEDIMENT AND WATER DRAIN	BALL VALVE	@ VALVE
V009	BOTTOM OF SECONDARY FILTER	SEDIMENT AND WATER DRAIN	BALL VALVE	@ VALVE

APPENDIX 1-2

MAIN DECONTAMINATION FACILITY
 100 SERIES VALVE LIST

VALVE NUMBER	LOCATION	DESCRIPTION	TYPE	CONTROL LOCATION
V101	105-PA CEILING	INFLUENT BACK FLOW PREVENTER	CHECK VALVE	@ VALVE
V102	103-PA CEILING	EFFLUENT BACK FLOW PREVENTER	CHECK VALVE	@ VALVE
V103	BETWEEN T201 & T202	EFFLUENT SEDIMENT INLET VALVE	BALL VALVE	@ VALVE
V104	NORTH WALL & T101	T101 INFLUENT VALVE	BALL VALVE	@ VALVE
V105	T101 BOTTOM DRAIN	T101 SEDIMENT DRAIN	BALL VALVE	@ VALVE
V106	T102 BOTTOM DRAIN	T102 SEDIMENT DRAIN	BALL VALVE	@ VALVE
V107	T103 BOTTOM DRAIN	T103 SEDIMENT DRAIN	BALL VALVE	@ VALVE
V108	T103 EAST END EFFLUENT	T103 HIGH LEVEL DRAIN	BALL VALVE	@ VALVE
V109	T103 EAST END EFFLUENT	T103 MID-LEVEL DRAIN	BALL VALVE	@ VALVE
V110	T103 EAST END EFFLUENT	T103 LOW-LEVEL DRAIN	BALL VALVE	@ VALVE
V111	P101 EFFLUENT LINE	T104/105 INFLUENT BACK FLOW PREVENTOR	BALL VALVE	@ VALVE
V112	P 101 INFLUENT LINE	T104/105 INFLUENT SHUTOFF	MOTORIZED BALL VALVE	MAIN PANEL W/MANUAL OVERRIDE
V113	T104 INFLUENT LINE	T104 INFLUENT SHUTOFF	BALL VALVE	@ VALVE
V114	T105 INFLUENT LINE	T105 INFLUENT SHUTOFF	CHECK VALVE	@ VALVE
V115	T104 BOTTOM	T104 EFFLUENT SHUTOFF	MOTORIZED BALL VALVE	MAIN PANEL
V116	P102 INFLUENT LINE	P102 INFLUENT SHUTOFF	MOTORIZED BALL VALVE	MAIN PANEL W/MAIN PNL
V117	P102 EFFLUENT LINE	T104 EFFLUENT PUMP SHUTOFF	MOTORIZED BALL VALVE	MAIN PANEL W/MAIN PNL
V118	P102 EFFLUENT LINE	102PA LINE SHUTOFF	BALL VALVE	@ VALVE
V119	T104/105 CONNECT LINE	T104/105 CONNECTOR	MOTORIZED BALL VALVE	MAIN PANEL
V120	BOTTOM T105	T105 EFFLUENT SHUTOFF	MOTORIZED BALL VALVE	MAIN PANEL
V121	104PA	T105 / P103 CONNECTOR	AIR RELIEF VALVE	@ VALVE
V122	P103 EFFLUENT LINE	P103 EFFLUENT BACKFLOW PREVENTER	CHECK VALVE	NONE
V123	P103 EFFLUENT LINE	P103 EFFLUENT SHUTOFF	BALL VALVE	@ VALVE

APPENDIX 1-2 (continued)

MAIN DECONTAMINATION FACILITY
 100 SERIES VALVE LIST

VALVE	LOCATION	DESCRIPTION	TYPE	CONTROL LOCATION
V124	T101 INFLUENT LINE	AIR RELIEF OVERFLOW	AIR RELIEF VALVE	@ VALVE
V125	EFFLUENT LINE FROM 903B TO 903A	AIR RELIEF OVERFLOW	AIR RELIEF VALVE	@ VALVE
V126	PUMP 104	PRESSURE INDICATOR 102	BALL VALVE	@ VALVE
V127	104A-PA EFFLUENT LINE	UPPER T103 SAMPLE PORT	BALL VALVE	@ VALVE
V128	104B-PA EFFLUENT LINE	MID T103 SAMPLE PORT	BALL VALVE	@ VALVE
V129	104C-PA EFFLUENT LINE	LOWER T103 SAMPLE PORT	BALL VALVE	@ VALVE
V130	T104/105 INFLUENT LINE	PRESSURE INDICATOR 102	BALL VALVE	@ VALVE
V131	P102 EFFLUENT LINE	PRESSURE INDICATOR 104	BALL VALVE	@ VALVE
V132	P103 EFFLUENT LINE	PRESSURE INDICATOR 105	BALL VALVE	@ VALVE
V133	106PA EFFLUENT LINE	AIR RELEASE OVERFLOW	BALL VALVE	@ VALVE
V134	P104 DISCHARGE PORT	P104 EFFLUENT LINE	BALL VALVE	@ VALVE

APPENDIX 1-3

MAIN DECONTAMINATION FACILITY
 200 SERIES VALVE LIST

VALVE NUMBER	LOCATION	DESCRIPTION	TYPE	CONTROL LOCATION
V201	T201 INFLUENT	INFLUENT VALVE	BALL VALVE	@ VALVE
V202	T201 BOTTOM	T201 SED DRAIN	BALL VALVE	@ VALVE
V203	T202 BOTTOM	T202 SED DRAIN	BALL VALVE	@ VALVE
V204	T203 BOTTOM	T203 SED DRAIN	BALL VALVE	@ VALVE
V205	T203 EASTEND EFFLUENT	T203 HIGH LEVEL DRAIN	BALL VALVE	@ VALVE
V206	T203 EASTEND EFFLUENT	T203 MID LEVEL DRAIN	BALL VALVE	@ VALVE
V207	T203 EASTEND EFFLUENT	T203 LOW LEVEL DRAIN	BALL VALVE	@ VALVE
V208	TOP OF P201	P201 EFFLUENT	CHECK VALVE	@ VALVE
V209	TOP OF P201	P201 EFFLUENT	BALL VALVE	@ VALVE
V210	SOUTHWALL	T204 INFLUENT	BALL VALVE	@ VALVE
V211	SOUTHWALL	T205 INFLUENT	BALL VALVE	@ VALVE
V212	T204 BOTTOM	T204 EFFLUENT	MOTORIZED BALL VALVE	MAIN PANEL W / MANUAL OVERRIDE
V213	T204 BOTTOM	P202 INFLUENT	BALL VALVE	@ VALVE
V214	P202 EFFLUENT LINE	P202 EFFLUENT	CHECK VALVE	@ VALVE
V215	BASE OF T204	P202 SHUTOFF	BALL VALVE	@ VALVE
V216	BASE OF T204 & T205	T204/205 EFFLUENT	MOTORIZED BALL VALVE	MAIN PANEL W / MANUAL OVERRIDE
V217	T205 BOTTOM	T205 EFFLUENT	MOTORIZED BALL VALVE	MAIN PANEL W / MANUAL OVERRIDE
V218	T205 BOTTOM	P203 INFLUENT	BALL VALVE	@ VALVE
V219	T205 BOTTOM	P203 EFFLUENT BACKFLOW	CHECK VALVE	@ VALVE
V220	T205 BOTTOM	P203EFFLUENT SHUTOFF	BALL VALVE	@ VALVE
V221	206PA	T201 AIR RELEASE	RELIEF VALVE	@ VALVE
V222	PUMP 204	PRESSURE INDICATOR 204	BALL VALVE	@ VALVE
V223	T203 UPPER EFFLUENT LINE	UPPER T203 SAMPLE PORT	BALL VALVE	@ VALVE
V224	MID T203 EFFLUENT LINE	MID T203 SAMPLE PORT	BALL VALVE	@ VALVE
V225	T203 LOWER EFFLUENT LINE	LOWER T203 SAMPLE PORT	BALL VALVE	@ VALVE
V226	P201 EFFLUENT LINE	PRESSURE INDICATOR 202	BALL VALVE	@ VALVE
V227	P202 EFFLUENT LINE	PRESSURE INDICATOR 203	BALL VALVE	@ VALVE
V228	P203 EFFLUENT LINE	PRESSURE INDICATOR	BALL VALVE	@ VALVE
V229	P204 DISCHARGE LINE	P204 EFFL VALVE	BALL VALVE	@ VALVE

APPENDIX 1-4

MAIN DECONTAMINATION FACILITY
 ALARM/INDICATOR LIST

INDICATOR NUMBER	SENSOR LOCATION	DESCRIPTION	TYPE	DISPLAY LOCATION
PI 102	PWF 105PA	LINE PRESSURE	PRESSURE	@ GAUGE
LAH101A	T101	HIGHLEVEL	LEVEL SWITCH	MAIN PANEL
LAH101B	T201	HIGH LEVEL	LEVEL SWITCH	MAIN PANEL
LAH102A	T104	HIGH LEVEL	FLOAT SWITCH	MAIN PANEL & P101 CONTROL PANEL
LAH102B	T105	HIGH LEVEL	FLOAT SWITCH	MAIN PANEL & P101 CONTROL PANEL
LAH107	SUMP	LEAK DETECT	LEVEL SWITCH	MAIN PANEL
LE106A	T104	LIQUID LEVEL	CONTINUOUS LEVEL	MAIN PANEL
LE106B	T105	LIQUID LEVEL	CONTINUOUS LEVEL	MAIN PANEL
LE106C	T204	LIQUID LEVEL	CONTINUOUS LEVEL	MAIN PANEL
LE106D	T205	LIQUID LEVEL	CONTINUOUS LEVEL	MAIN PANEL
LAH202A	T204	HIGH LEVEL	CONTINUOUS LEVEL	MAIN & P201 CNTR PANEL
LAH202B	T205	HIGH LEVEL	CONTINUOUS LEVEL	MAIN & P201 CNTR PANEL
LSH 101A /LSL103A	T101	HIGH/LOW LEVEL	LEVEL SWITCH	N/A
LSL 103B	T102	HIGH/LOW LEVEL	LEVEL SWITCH	N/A
LSL 103C	T103	HIGH/LOW LEVEL	LEVEL SWITCH	N/A
LSH 103B /LSL203A	T201	HIGH/LOW LEVEL	LEVEL SWITCH	N/A
LSL 203B	T202	HIGH/LOW LEVEL	LEVEL SWITCH	N/A
LSL203C	T203	HIGH/LOW LEVEL	LEVEL SWITCH	N/A
P301 DISC	P301 DISCHARGE	PRESSURE GAUGE	ASHCROFT 0-160 PSI	@ SENSOR
P201	P201 DISCHARGE	PRESSURE GAUGE	ASHCROFT 0-160 PSI	@ SENSOR
P202	P202 DISCHARGE	PRESSURE GAUGE	ASHCROFT 0-160 PSI	@ SENSOR
P203	P203 DISCHARGE	PRESSURE GAUGE	ASHCROFT 0-160 PSI	@ SENSOR
P101	P101 DISCHARGE	PRESSURE GAUGE	ASHCROFT 0-160 PSI	@ SENSOR
P103	P103 DISCHARGE	PRESSURE GAUGE	ASHCROFT 0-160 PSI	@ SENSOR
P104	P104 DISCHARGE	PRESSURE GAUGE	ASHCROFT 0-160 PSI	@ SENSOR
P204	P204 DISCHARGE	PRESSURE GAUGE	ASHCROFT 0-160 PSI	@ SENSOR

APPENDIX 1-5

MAIN DECONTAMINATION FACILITY
 CONTROL SWITCH LIST

EQUIPMENT CONTROLLED	SWITCH LOCATION	SWITCH TYPE	DISPLAY LOCATION
PUMP201	P201 CNTRL PANEL	H/O/A	N/A
PUMP101	P101 CNTRL PANEL	H/O/A	N/A
PUMP201	P201 DISCHARGE	FLOW DISCHARGE	N/A
PUMP 301	MAIN PANEL	H/O/A	MAIN PANEL
PUMP104	MAIN PANEL	START/STOP	N/A
PUMP 102	MAIN PANEL	H/O/A	N/A
PUMP103	MAIN PANEL	H/O/A	N/A
LIQUID LEVEL DISPLAY	MAIN PANEL	HAND (4 WAY)	MAIN PANEL
VALVE115	MAIN PANEL	OPEN/CLOSE	MAIN PANEL
VALVE119	MAIN PANEL	OPEN/CLOSE	MAIN PANEL
VALVE120	MAIN PANEL	OPEN/CLOSE	MAIN PANEL
PUMP 204	MAIN PANEL	START/STOP	N/A
PUMP 202	MAIN PANEL	H/O/A	N/A
PUMP 203	MAIN PANEL	H/O/A	N/A
PUMP201	P201 SOUTH WALL	DISCONNECT	N/A
PUMP201	P201 SOUTH WALL	RESET	N/A
PUMP101	P101 NORTH	DISCHARGE	N/A
PUMP202	P202 SOUTH WALL	DISCHARGE	N/A
PUMP202	P202 SOUTH WALL	RESET	N/A
PUMP203	P203 SOUTH WALL	DISCHARGE	N/A
PUMP203	P203 SOUTH WALL	RESET	N/A
PUMP202	P202 DISCHARGE	PRESSURE SWITCH	N/A
PUMP203	P203 DISCHARGE	PRESSURE SWITCH	N/A

APPENDIX 1-6

MAIN DECONTAMINATION FACILITY
 PUMP LIST

PUMP NUMBER	LOCATION	FUNCTION OF PUMP	DESCRIPTION	PUMP TYPE	CONTROL LOCATION
P101	BOTTOM T104	T103 EFFLUENT TRANSFER	20 GPM CENTRIFUGAL	.25HP/5A	P101 CONTROL PANEL
P102	BOTTOM T104	T104 EFFLUENT TRANSFER	80 GPM CENTRIFUGAL	2 HP / 23A	MAIN PANEL HS-104
P103	BOTTOM T105	T105 EFFLUENT TRANSFER	80 GPM CENTRIFUGAL	2 HP / 23A	MAIN PANEL HS-105
P104	PORTABLE	T101-T105 LIQUID DECANT	20 GPM AIR DIAPHRAGM	1 HP / 20 A	MAIN PANEL HS-103B
P201	BOTTOM T204	T203 EFFLUENT TRANSFER	20 GPM CENTRIFUGAL	.25 HP / 5A	P201 CONTROL PANEL
P202	BOTTOM T204	T204 EFFLUENT TRANSFER	80 GPM CENTRIFUGAL	2 HP / 23	MAIN PANEL HS-204
P203	BOTTOM T205	T205 EFFLUENT TRANSFER	80 GPM CENTRIFUGAL	2 HP / 23A	MAIN PANEL HS-205
P204	PORTABLE	T201-T205 LIQUID DECANT	20 GPM AIR DIAPHRAGM	1 HP / 20 A	MAIN PANEL HS-203B
P301	UNDER LYKOS FILTER	SUMP AND PURGE WATER INFLUENT TRANSFER TO T101 OR T201	20 GPM CENTRIFUGAL	1 HP / 20A	MAIN PANEL

APPENDIX 1-7

MAIN DECONTAMINATION FACILITY
TANK LIST

TANK NUMBER	LOCATION	FUNCTION OF TANK	DESCRIPTION
T101	903B NORTHWALL	DECON WATER SEDIMENT TANK 1	750 GALLON POLY CONE BOTTOM
T102	903B NORTHWALL	DECON WATER SEDIMENT TANK 2	750 GALLON CONE BOTTOM
T103	903B NORTHWALL	DECON WATER SEDIMENT TANK 3	750 GALLON POLY CONE BOTTOM
T104	903B NORTHWALL	DECON WATER STORAGE TANK	4400 GALLON POLY STORAGE
T105	903B NORTHWALL	DECON WATER STORAGE TANK	4400 GALLON POLY STORAGE
T201	903B SOUTHWALL	DECON WATER SEDIMENT TANK 1	750 GALLON POLY CONE BOTTOM
T202	903B SOUTHWALL	DECON WATER SEDIMENT TANK 2	750 GALLON POLY CONE BOTTOM
T203	903B SOUTHWALL	DECON WATER SEDIMENT TANK 3	750 GALLON POLY CONE BOTTOM
T204	903B SOUTHWALL	DECON WATER STORAGE TANK	4400 GALLON POLY STORAGE
T205	903B SOUTHWALL	DECON WATER STORAGE TANK	4400 GALLON POLY STORAGE

APPENDIX 1-8

MAIN DECONTAMINATION FACILITY
 PANEL SCHEDULES

PANEL LP-1-903-1

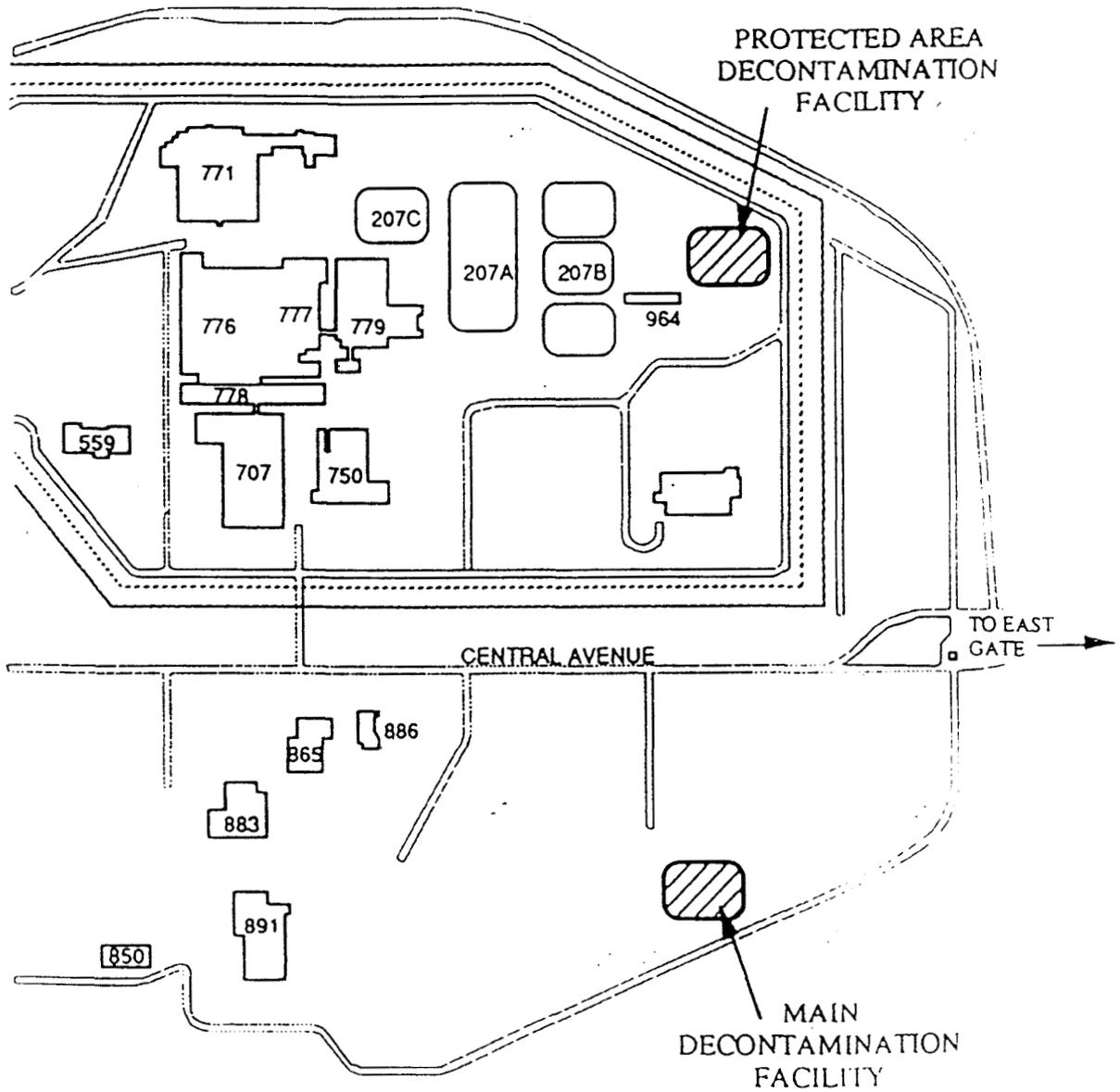
CIRCUIT	FUNCTION	CIRCUIT	FUNCTION
1, 3	OUTDOOR BUILDING LIGHTS	2	TANK BUILDING LIGHTS
5	PHOTOELECTRIC CELL	4	DECON PAD LIGHTS
7, 9	WEST SPACE HEATERS	6	SPACE
11	CONTROL SHED LIGHTS, RECEP	8	GENERAL PURPOSE RECEP
13	SPACE	10	SPACE
15	P101, 201 CONTROL PANELS	12	MAIN CONTROL PANEL
17	PUMP P101	14	PUMP P301 ENCL HEATER
19, 21	HOTSY SHED SUBPANEL	16	SPACE
23	SPACE	18, 20	PUMP P102
25	SPACE	22, 24	PUMP P103
27	SPACE	26, 28	PUMP P104 POWER
29	SPACE	30	NORTH CONTROL DEVICES
31	SPACE	32	SPACE
33	SPACE	34	EMERGENCY EXIT LIGHTS
35	SPACE	36	SPACE
37	SPACE	38	SPACE
39	SPACE	40	SPACE
41	SPACE	42	SPACE

PANEL LP-1-903-2

CIRCUIT	FUNCTION	CIRCUIT	FUNCTION
1, 3	PUMP P301	2, 4	HEALTH AND SAFETY SHED
5	SOUTH CONTROL DEVICES	6	ALARM & BEACON
7, 9	SPACE	8	SPACE
11	EXHAUST FAN	10	SPACE
13	SPACE	12	SPACE
15	SPACE	14,16	EAST SPACE HEATERS
17	SPACE	18	SPACE
19	PUMP P201	20, 22	PUMP P202
21, 23	PUMP P204 RECEPTACLE	24, 26	PUMP P203
25	SPACE	28	SPACE
27	SPACE	30	SPACE
29	SPACE	32	SPACE
31	SPACE	34	SPACE
33	SPACE	36	EMERGENCY EXIT LIGHTS
35	SPACE	38	SPACE
37	SPACE	40	SPACE
39	SPACE	42	SPACE
41	SPACE	42	SPACE

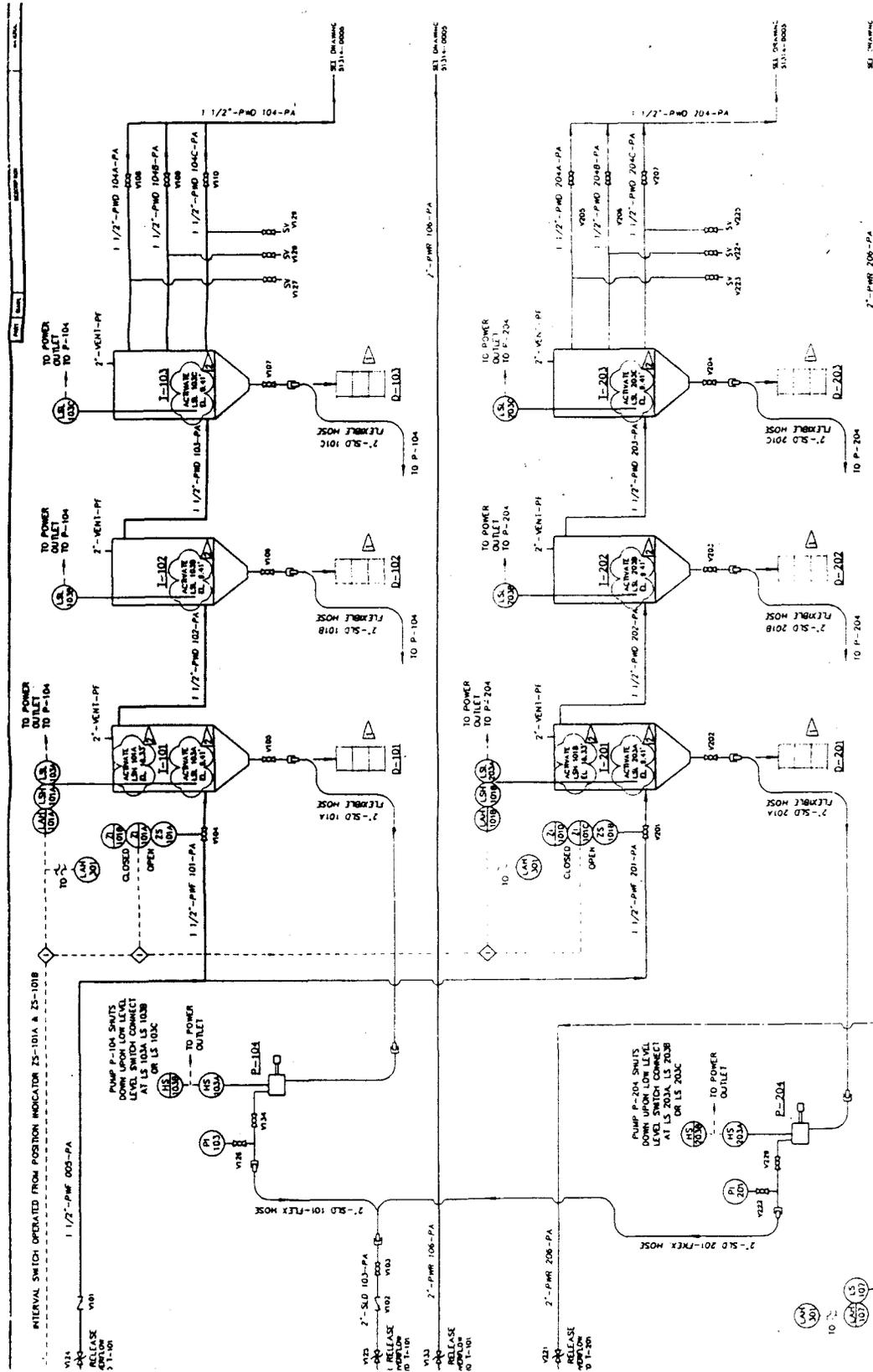
APPENDIX 2

MAIN DECONTAMINATION FACILITY
GENERAL LOCATION MAP



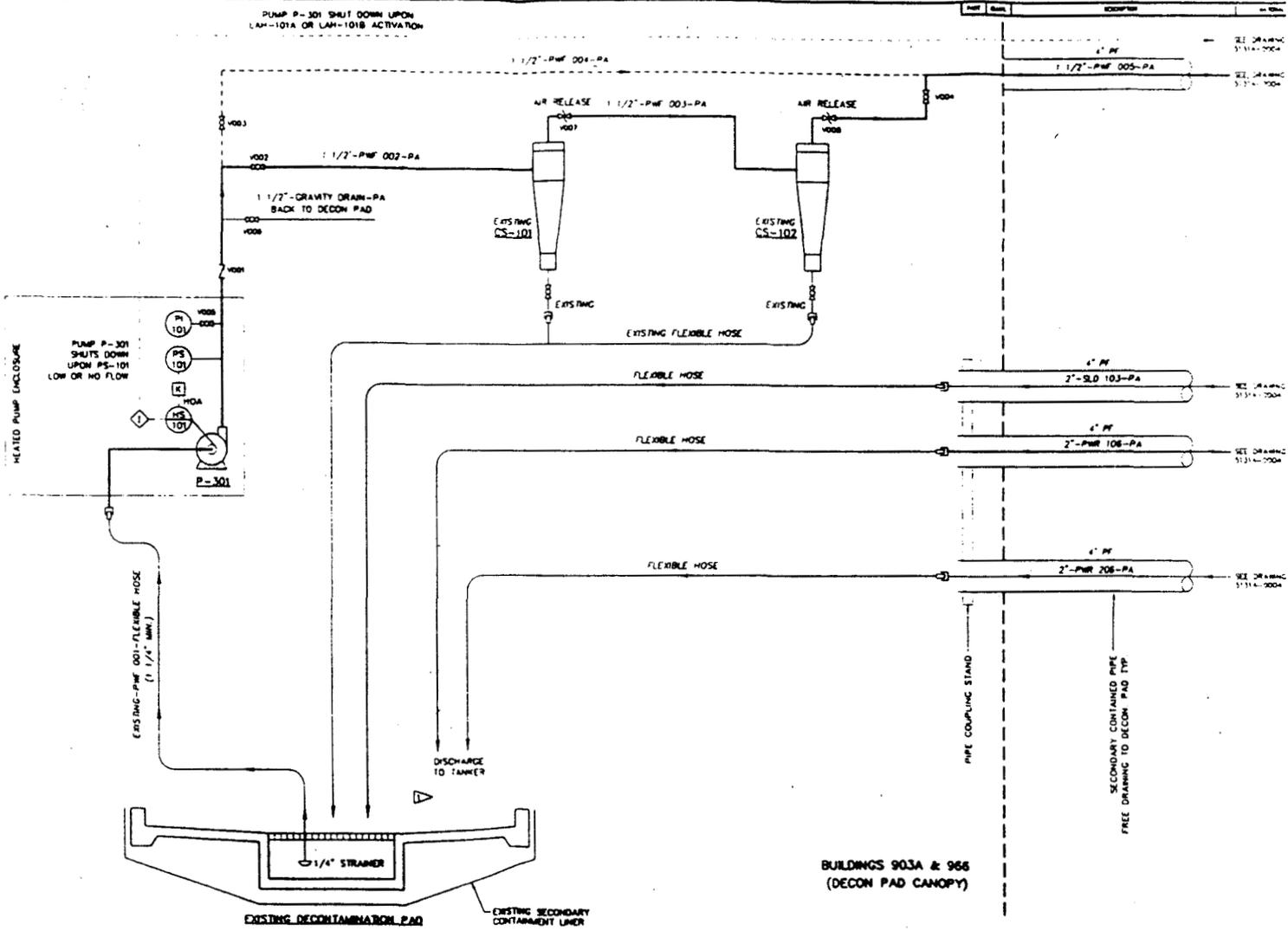
APPENDIX 3

MAIN DECONTAMINATION FACILITY
 BUILDING 903B SEDIMENTATION SYSTEM DIAGRAM



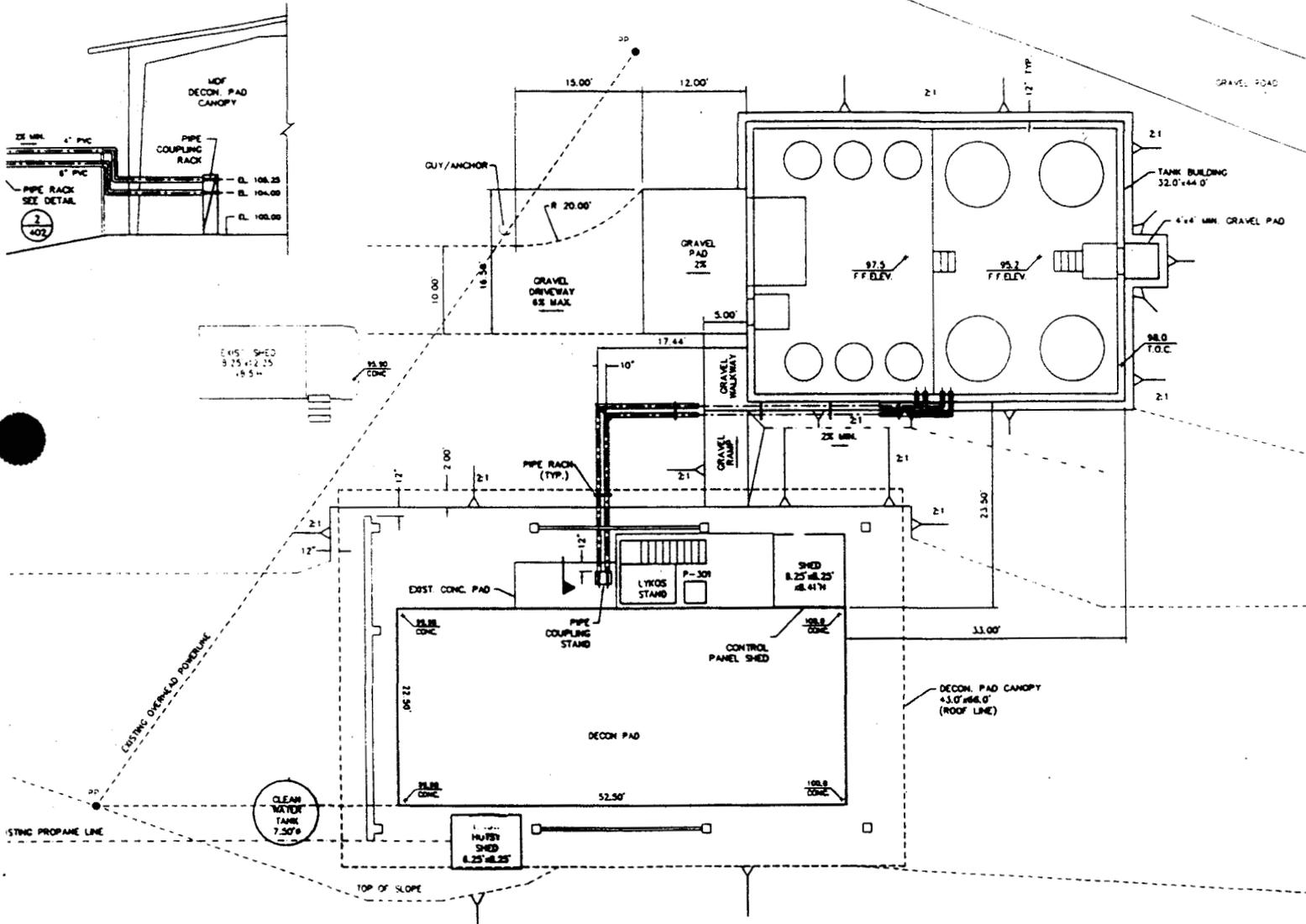
APPENDIX 4

MAIN DECONTAMINATION FACILITY
 BUILDING 903A SYSTEM DIAGRAM



APPENDIX 6

MAIN DECONTAMINATION FACILITY
DIAGRAM



INDEX

<u>Section</u>	<u>Page</u>
TITLE PAGE.....	1
1. PURPOSE.....	1
2. SCOPE.....	1
3. OVERVIEW.....	1
3.1 Decontamination Facility Equipment.....	2
3.2 Environmental Liquids Management Area.....	2
4. LIMITATIONS AND PRECAUTIONS.....	3
5. PREREQUISITE ACTIONS.....	3
5.1 Planning and Coordination.....	3
6. INSTRUCTIONS.....	4
6.1 Transferring Environmental Liquids into the MDF Sump.....	5
6.2 Transferring Environmental Liquids into the Sedimentation Tank System.....	6
6.3 Transferring Environmental Liquids from Sedimentation Tanks into Storage Tanks.....	8
6.4 Transferring Environmental Liquids from Storage Tanks into Tankers.....	10
6.5 Transferring Sediments from Sedimentation Tanks.....	12
6.5.1 Transferring Sediments from Sedimentation Tanks into Drums.....	12
6.5.2 Transferring Sediments from Sedimentation Tanks into the MDF Sump.....	13
6.5.3 Transferring Sediments from Sedimentation Tanks to Containers.....	14
6.5.4 Transferring Sediments from the MDF Sump into Drums.....	15
7. POST-PERFORMANCE ACTIVITY.....	15
8. RECORDS.....	16
9. REFERENCES.....	16
<u>Appendixes</u>	
Appendix 1-1, 000 Series Valve List.....	18
Appendix 1-2, 100 Series Valve List.....	19
Appendix 1-3, 200 Series Valve List.....	21
Appendix 1-4, Alarm/Indicator List.....	22
Appendix 1-5, Control Switch List.....	23
Appendix 1-6, Pump List.....	24
Appendix 1-7, Tank List.....	25
Appendix 1-8, Electrical Panel Schedule.....	26
Appendix 2, Main Decontamination Facility General Location Map.....	27
Appendix 3, Main Decontamination Facility Diagram.....	28
Appendix 4, Inspection Checklist Form FO.17A.....	29
Appendix 5, Building 903B Storage Tank System Diagram.....	30
Appendix 6, Main Decontamination Facility Diagram.....	31
Appendix 7, Main Decontamination Facility Inspection Checklist.....	32