

ATTACHMENT II-3

SITE INSPECTION PLAN

1. OVERVIEW AND GENERAL REQUIREMENTS

- a. Inspections and problems requiring corrective action and documentation shall be completed according to the schedules outlined in this Attachment.
- b. In this Attachment, there are daily, weekly, monthly, and annually scheduled inspections. The inspection schedules are listed below and the applicable inspection requirements are outlined in this Attachment.
 - i. Daily Inspections shall be conducted for the following areas:
 - A. General Facility Inspection. This daily inspection shall be required on days when off-site shipments are received into the Mixed Waste Facility.
 - B. Leachate Collection. This daily inspection shall be required:
 - (1) on days when waste is transferred to, from, or within disposal facility areas.
 - C. Decontamination Tank System Operation. This daily inspection shall be required:
 - (1) on days when waste is transferred to, from, or within the Decontamination Tanks,
 - (2) on days when decontamination activities involving these tanks are conducted.
 - D. Treatment Facility Tank System Operation. This daily inspection shall be required:
 - (1) on days when waste is transferred to, from, or within the Treatment Facility tanks.
 - (2) on days when waste management activities are conducted within the Mixed Waste Treatment Building.

- E. Mixed Waste Operations Building process area. This daily inspection shall be required on days when waste management activities are conducted in this building.
- F. Thermal Desorption System. This daily inspection shall be required:
 - (1) on days when waste is transferred to, from, or within the thermal desorption system.
 - (2) on days when waste is processed within the thermal desorption system.
- G. Evaporation Tank System Operation. This daily inspection shall be required:
 - (1) on days when waste is transferred to, from, or within the Evaporation Tanks.
- H. MW Surface Impoundment. This daily inspection shall be required:
 - (1) on days when leachate is transferred to, from, or within the Surface Impoundment.
- ii. Weekly Inspections shall be conducted for the following areas:
 - A. Perimeter & General Facility
 - B. Container Storage
 - C. Surface Impoundment
- iii. Monthly Inspections shall be conducted for the following areas:
 - A. Safety and Emergency Equipment
- iv. Annual Inspections shall be conducted for the following areas:
 - A. Annual Tank Condition Assessment
 - B. Annual Fire Suppression System
 - C. Groundwater Monitoring Equipment
 - D. Groundwater Monitoring Wells

E. Annual Surface Impoundment Assessment

- c. There are four defined types of observations, any of which may be made during an inspection:
 - i. Problems posing an imminent threat to human health or the environment.
 - ii. Problems posing no imminent threat to human health or the Environment.
 - iii. Notable items.
 - iv. Items found to be in accordance with permit requirements.
- d. The Permittee may make notes of items found to be in accordance with permit requirements. Documentation of such items is not required.

2. SCHEDULE FOR PROBLEM RESOLUTION

- a. Problems that pose an imminent threat to human health or the environment shall be corrected immediately.
- b. Problems that do not pose an imminent threat to human health or the environment shall be corrected within 72 hours of discovery. If a longer period of time is required to correct the problem, the Permittee shall notify the Director prior to the end of the 72-hour period. At the time of notification, the Permittee shall propose a time schedule for correcting the problem.
- c. Notable items shall be documented.

3. RECORDKEEPING

- a. Documentation of required inspections shall be maintained in the site Operating Record for at least three years from the date of the inspection.
- b. Documentation shall include:
 - i. Date of inspection;
 - ii. Time of inspection;
 - iii. Name of the inspector;
 - iv. Notation of observations made; and

- v. Date and nature of any repairs or other remedial actions.

4. GENERAL INSPECTION REQUIREMENTS

a. General Facility Inspection -- Daily

- i. Visually check sampling areas, holding areas, unloading areas, treatment areas (when in operation), and storage areas for evidence of spills or leaks.
- ii. If a hazardous waste spill is discovered, implement the requirements of Attachment II-6, *Contingency Plan*.
- iii. Visually check the Mixed Waste Landfill Cell for wind dispersal and dust generation problems.
- iv. Visually check the run-on and run-off berms for general berm integrity including plant growth and rodent burrowing, and for deterioration and erosion. Note rivulet or gullied areas deeper or wider than six inches.
- v. Visually check the Mixed Waste Landfill Cell for presence of precipitation run-off, or ponded liquids from precipitation events, and for general function of the leachate system.
- vi. Visually check physical integrity of the storage area surfaces. Ensure damaged areas are isolated from the rest of the storage area so that liquid accumulation from other areas shall not contact the damaged area.
- vii. If PCB Containers or PCB Items are present in the storage areas,
 - A. visually inspect the PCB Containers and/or PCB Items for structural integrity, proper labeling, and leaks or stains; and
 - B. visually check that leaking/stained or shrink-wrapped PCB Articles (that have not been released from isolation) are isolated from the rest of the storage area so that all liquids accumulated from these items shall be contained separately from other storage area liquid accumulation.

b. Leachate Collection -- Daily

- i. Using a measuring or pumping device, visually check the tertiary leachate collection system for the presence of leachate and, if present, whether the leachate depth exceeds one foot.

- NOTE: During partial closure operations, leachate inspections need only be made bi-weekly.
- ii. Visually check leachate pipes, caps and locks, for deterioration.
- c. Treatment Facility Tank System Operation -- Daily
- i. Visually check the treatment building tank areas including all above-ground portions of the tank and surrounding areas for evidence of leaks.
 - ii. Visually check (and manually measure, when necessary) levels in all of the treatment building tanks for required freeboard.
 - iii. Visually check secondary containment vault porthole for evidence of leaks, corrosion, cracks and deterioration.
 - iv. Visually check exposed tank welds, seams, and fixtures for corrosion.
 - v. Visually check motors, belts, hoses, fluids, grease packs, overflow equipment, waste and reagent feed systems, on/off and other control mechanisms on all process equipment, including miscellaneous units, to see if they appear to be in working order or are properly managed to protect human health and the environment.
 - vi. Visually check the floor sump to ensure that the liquids are being removed and not allowed to accumulate.
- d. Decontamination Tank System Operation -- Daily
- i. Visually check the Decontamination Tank areas including all above-ground portions of the tank and surrounding areas for evidence of leaks.
 - ii. Visually check the Decontamination Tank's exposed surface areas for corrosion.
 - iii. Visually check the Decontamination Tank secondary containment vault for evidence of leaks, corrosion, cracks and deterioration.
 - iv. Visually check the Decontamination Tank's exterior welds, seams, coating, and fixtures for corrosion.
- e. Mixed Waste Operations Building process area -- Daily

- i. Visually check the floor surface for coating integrity, cracks in the concrete, or any other concerns.
 - ii. Visually check motors, belts, hoses, fluids, grease packs, overfill equipment, waste and reagent feed systems, on/off and other control mechanisms on all process equipment, including miscellaneous units, to see if they appear to be in working order or are managed to protect human health and the environment.
 - iii. Visually check the floor sump to ensure that the liquids are being removed and not allowed to accumulate.
- f. Thermal Desorption System -- Daily
- i. Visually check the floor surface of the Mixed Waste Storage Building for integrity and cracks in the concrete, or any other concerns.
 - ii. Visually check the thermal desorption system skids for liquid accumulation.
 - iii. Visually check the thermal desorption system tanks for evidence of leaks, damage, or corrosion.
 - iv. Check the amount of nitrogen in reserve to assure that at least 1,200 cubic feet is present.
 - v. Visually check all motors, gears, feed and discharge systems, and control mechanisms to see if they appear in working order.
- g. Evaporation Tank System Operation -- Daily
- i. Visually check the Evaporation Tank areas including all above-ground portions of the tank and surrounding areas for evidence of leaks.
 - ii. Visually check the Evaporation Tanks' exposed surface areas for corrosion, cracks, and deterioration.
 - iii. Visually check the Evaporation Tank secondary containment vault for leaks, corrosion, cracks and deterioration.
 - iv. Visually check the Evaporation Tanks' exterior welds, seams, coating and fixtures for evidence of corrosion.

- v. Visually check (and manually measure, when necessary) levels in all of the Evaporation Tanks for required freeboard.
- vi. Visually inspect the Evaporation Tanks' alarm equipment to see if it is present and properly positioned.
- h. MW Surface Impoundment – Daily
 - i. Visually observe the Surface Impoundment water level to evaluate freeboard compliance.
 - ii. Check operational status of leak detection system pump, pump controller, head/pressure transducer, and flow meter equipment.
 - iii. Measure daily leak detection system flow volume.
 - iv. Calculate an average daily leakage volume across a consecutive 7-day period.
 - v. Measure daily leak detection system head, determining the maximum head limit to be measured by the approved head/pressure transducer construction.
 - vi. Compare the daily measured head against the maximum head limit for the Surface Impoundment.
 - vii. Conduct a pump test of the Surface Impoundment's leak detection sump within 5 days of discovery that the average daily leak detection system flow volume exceeds the authorized limit of 120 gallons/day.
- i. MW Surface Impoundment – Weekly and following storm events
 - i. Check Surface Impoundment for deterioration, malfunctions, or exceedance of freeboard requirements.
 - ii. Note sudden drops in impoundment contents.
 - iii. Note severe erosion or other signs of deterioration of berms.
- j. Perimeter & General Facility -- Weekly
 - i. Visually and/or manually check fences, gates, facility entrance doors, locks and other site security devices for presence of gaps, down poles, erosion, vandalism or damage to the fence fabric, fence posts, gates, etc. Note any breaks, deterioration or damage.

- ii. Visually check warning signs and "No Smoking" signs for their presence, visibility, and legibility.
- iii. Visually check access roads and intra-facility roads for spills, deterioration and erosion.
- iv. Perform a visual and audio check of the function of the external communication system (telephone) for proper operation.
- v. Perform a visual, manual and audio checks of the function of overfill detection equipment on the Evaporation Tanks and the Gray Water Tank.
- vi. Visually check (and manually measure, when necessary) the depth of sludge in each Evaporation Tank.
- vii. Disposed MACRO Waste Form Inspection.
 - A. Enter the Mixed Waste Landfill Cell and inspect the exposed surfaces of all macroencapsulated wastes that are visible using the acceptance criteria for macroencapsulation set forth in Attachment II-1-5, *Macroencapsulation Plan*.
 - B. Within seven calendar days of containerization, containers shall be placed into container storage and made subject to the container storage requirements. Such items shall be reprocessed or repaired as appropriate to meet the MACRO acceptance criteria before subsequent disposal.
 - C. Additional time to containerize the waste or resume container management of the waste shall be allowed if approved orally or in writing by the Director or representative prior to the expiration of the specified time periods.
 - D. MACRO Capsules that do not meet the acceptance criteria shall be removed from the Mixed Waste Landfill Cell, labeled, dated, and placed in secondary containment within 24 hours of discovery. The corrective action requirements for repairs of MACRO Capsules in Attachment II-1-5, *Macroencapsulation Plan*, shall be followed.
- k. Container Management Areas-- Weekly
 - i. Visually inspect containers for evidence of leaks.

- ii. Visually inspect containers for holes, corrosion and deterioration.
 - iii. Visually inspect containers to ensure that they are closed.
 - iv. Visually check and measure if necessary the minimum required aisle space of two and one-half feet between rows of containers.
 - v. Visually check to ensure that containers are stacked less than five items high and less than ten feet high.
 - vi. Visually check that all containers are on pallets or have runners.
 - vii. Check to ensure that incompatible wastes are properly segregated and separated by a minimum of 10 feet.
 - viii. Verify that spill control and clean-up equipment are available, including shovels, overpack containers or extra containers, and solidification materials.
 - ix. Visually check the container labels to ensure they are present, legible and contain the required information.
 - x. Visually check the integrity of all portable containment devices in use.
1. Safety and Emergency Equipment -- Monthly
- i. Visually inspect personal protection inventory for general adequacy, condition and expiration dates including gloves, boots, coveralls, hard hats, goggles, and respiratory protection equipment.
 - ii. Visually inspect fire extinguishers for presence of inspection tags, expiration dates and adequate pressure.
 - iii. Test internal and external communication systems for proper operation.
 - iv. Perform a visual, audio and manual check of the evacuation alarm systems for proper function.
 - v. Visually inspect first aid stations for adequate inventory.
 - vi. Visually check water level in firewater storage tanks.

- vii. Visually and manually inspect external condition of and operation of safety showers to verify adequate water supply, pressure and flow.
 - viii. Visually and manually inspect external condition of and operation of eye wash stations and operate to verify adequate water flow.
 - ix. Visually and manually check the emergency lights for proper function.
 - x. Visually check the gate valves in the pump house to ensure that they are open, pressure gauges indicate that the system is pressurized, and the system's "on" button is illuminated.
 - xi. Visually check to ensure that a current copy of Attachment II-6, *Contingency Plan*, is posted or placed near each wired-in facility telephone.
- m. Tank Condition Assessment -- Yearly (At least once during each calendar year an inspection shall be conducted that is at least four months later than the inspection for the previous calendar year).
- i. The inspection shall be performed by an independent Utah-registered professional engineer.
 - ii. The tank shall be emptied and documented in the Operating Record.
 - iii. The internal surface area of the tank shall be inspected for leaks and corrosion, erosion, cracks, and pitting.
 - iv. The wall thickness shall be assessed using an ultrasonic sensor or another such device which measures wall thickness to ensure that sufficient wall thickness remains for containment as determined by the independent Utah-registered professional engineer.
- (**Note:** All applicable OSHA requirements shall be met when entering a tank.)
- n. Fire Suppression System Assessment -- Yearly (At least once during each calendar year an inspection shall be conducted that is at least four months later than the inspection for the previous calendar year). The inspector shall ensure that an independent certified or qualified fire system inspector performed the test and that the following items have been completed:

- i. Pump flow is checked and measured for adequate flow in accordance with applicable building codes.
 - ii. Gauges are checked for proper function and accuracy.
- o. Groundwater Monitoring Equipment Yearly (At least once during each calendar year an inspection shall be conducted that is at least four months later than the inspection for the previous calendar year). The inspector shall ensure that the inspection was performed and that the following items have been completed:
- i. Dedicated pumps shall be checked for general integrity. (This may be performed during the annual measurement of well bottoms as outlined in Condition VI.E.2.g of Module VI, *Groundwater Monitoring*.)
- p. Groundwater Monitoring Wells – Yearly (At least once during each calendar year an inspection shall be conducted that is at least four months later than the inspection for the previous calendar year).
- i. Visually inspect groundwater monitoring wells and aprons for cracks, corrosion, damage and degradation.
 - ii. Visually inspect groundwater monitoring wells and aprons for frost heave, vandalism, and structural integrity problems.
 - iii. Visually and manually inspect well for security and for the presence and integrity of the lock.
- q. MW Surface Impoundment – Yearly (At least once during each calendar year an inspection shall be conducted that is at least four months later than the inspection for the previous calendar year). The inspector shall ensure that the inspection was performed and that the following items have been completed:
- i. Collect water quality samples from fluids stored in the approved Surface Impoundment.
 - ii. Analyze said water samples for all ground water quality protection level parameters defined in Condition I.F.5.c.2 of the Groundwater Quality Discharge Permit (UGW450005).
 - iii. Remove the submersible pump from the leak detection system of the Surface Impoundment and check both the winding resistance and insulation resistance. If either the winding resistance or insulation resistance is outside of the manufacturer specifications,

the pump will be replaced and/or repaired with a pump that satisfies all manufacturer specifications within 24 hours. Within 30 days of completing the annual pump inspection, a bor-o-scope video inspection shall be performed to ensure the pump was correctly reinstalled.

- r. Treatment Facility Cleaning Inspection. After a waste stream has been treated at the Treatment Facility and before a subsequent waste stream is to be treated, the Facility is to be inspected following the required clean-up.
 - i. The inspector shall perform this inspection visually, inspecting the treatment area floors and each tank system to ensure that wastes, residues and materials from the treatment activity of the previous waste stream have been removed.
 - ii. Because this inspection applies to the treatment of wastes, the inspector may document completion of this inspection in the Operating Record for the Treatment Facility.

(Note: This requirement may be daily or more or less often as required for treatment operations.)

END OF ATTACHMENT II-3