

Attachment B

**MEMORANDUM**

Subject: March 8, 2013 EnergySolutions Revised Request for Modification to Appendix J and K



State of Utah

GARY R. HERBERT  
*Governor*

GREG BELL  
*Lieutenant Governor*

Department of  
Environmental Quality

Amanda Smith  
*Executive Director*

DIVISION OF RADIATION CONTROL  
Rusty Lundberg  
*Director*

**MEMORANDUM**

TO: Phil Goble, Compliance Section Manager

FROM: Charles Bishop and Dean Henderson

DATE: June 19, 2013

SUBJECT: March 8, 2013 EnergySolutions Revised Request for Modification to Appendix J and K.

The disposal of low-level radioactive, and 11e.(2) wastes are regulated by the State of Utah, Department of Environmental Quality, Division of Radiation Control (DRC). As part of their regulatory authority for the EnergySolutions' Clive site, the DRC oversees a Ground Water Quality Discharge Permit, No. 450005, (hereafter Permit) for the Clive site. The Permit is utilized by the DRC pursuant to Utah Administrative Code (UAC) R317-6, Administrative Rules for Ground Water Protection. UAC R317-6 contains performance objectives that are achieved at the Clive facilities through the use of facility specific permit conditions requiring the application of Best Available Technology (BAT). The Permit specifies that BAT be used in the design, construction, and operation of all facilities and they be operated according to "Best Management Practices." BAT provides that the varied facilities are properly constructed and operated, and that there is a definable strategy for the control of contamination with a potential of being discharged directly or indirectly into groundwater to ensure facilities reliance. Therefore, the DRC takes special interest in facilities used for routine waste handling, and in cleaning operations and the technologies used at these various Clive facilities. This level of control is necessary to ensure that any groundwater impact at a facility is minimized. When the impact of a facility is minimized, groundwater quality is protected as much as possible. As a consequence of facilities coming on-line (becoming operational) at different times, and some of the facilities having somewhat unique features, in terms of their potential impact to groundwater, each facility has its own particular suite of performance criteria and inspections to maintain compliance. BAT requirements assure that all waste handling and washing facilities are operated with the goal of the maximum reduction of contamination achievable, and ensures that any new/modified facility meet similar requirements.

The application of BAT, as used at the Clive site, to control potential contamination discharges and impacts is a concept dating back to the original issuing of the Permit and relating to groundwater protection regulations. The BAT Performance Monitoring Plan (Appendix J) and BAT Contingency Plan (Appendix K) of the Permit were originally developed to ensure groundwater protection, and to secure DRC acceptance and, although, modified over the years

they were not reviewed for efficiency, until the EnergySolutions' March 8, 2012 request. Because of apprehension regarding the facilities being a potential source of groundwater contamination, the DRC was, and still is, concerned about protecting the shallow groundwater from degradation, groundwater monitoring, community sensitivity to any groundwater contamination, and institutional risk (lack of credibility) due to public outrage from any contamination; these necessitate a comprehensive effort to prevent contamination from leaving the site boundary. EnergySolutions developed a BAT program that analyzed the potential impacts of each facility, and represents a systematic and clear way to ensured groundwater protection. The implementation of BAT at the Clive site applies to all stages in the life of a facility, from design, through construction, to the different activities that comprise its management, operations, and maintenance; these are strongly influenced by the possible occurrence of contamination. BAT inspections are an integral part of each Clive facility, for controlling potential contamination discharges and impacts, and are maintained by Appendix J and K of the Permit. Each facility with a potential of discharging contaminants into the groundwater at Clive incorporates an understanding of any potential environmental vulnerabilities and technologies, which ensure their ongoing variability and operations. The identification of these technologies and assessments conducted in the design of a new facility insures a common aspect to these varied facilities, they are properly designed, constructed, and equipped. These facilities are not inexpensive to build, but very necessary if groundwater is to be protected. In order to ascertain the applicability of BAT performance criteria and inspections the DRC performed a qualitative review to establish essential operational assessments at a particular facility.

Concrete and asphalt are very durable construction materials and are incorporated into the waste disposal facilities as structural components and barriers to fluid flow and mass transport of contamination/radionuclides, if properly constructed and maintained they provide a long service life. The overall ability of floors or surfaces to resist degradation from use is substantially enhanced by their design details; they are constructed with very thick slabs, mostly of reinforced concrete using water stops, to control the infiltration of water and are only subjected to low water flow velocities. Surface durability is considerable improved, and serviceability greatly prolonged by preventive maintenance, such as weatherproofing. Contamination on a facility floor does not present a significant risk to groundwater during normal activities, such as driving on a surface or loading waste into trucks, because of the generally arid climate. The arid environment characterizing the Clive site is consistent with water not being available to move contamination on a hard surface. However, even if the probability of mobilization of surface contamination by water is low, surface contamination can result in contamination moving into other areas by those operations; thus, contamination on surfaces are adequately controlled to prevent transfer. Suitable industrial maintenance practices at each facility ensure that surface debris is removed so, if present, water can flow freely to the various sumps and troughs. Each surface is inspected regularly to ensure they are receiving suitable maintenance to retain serviceability and ensure surface contamination does not present a significant exposure hazard. EnergySolutions' waste handling and washing operations (BAT inspected facilities) are located for the most part in the eastern and northern areas of the Clive site and are identified in Figure 1 below. The purpose of these facilities are to support operations, and they are not permanent disposal facilities; at closure, decontamination and decommissioning activities will remove the facilities and the area will be surveyed for any contaminated soils, and if any is found they will be removed at that time.

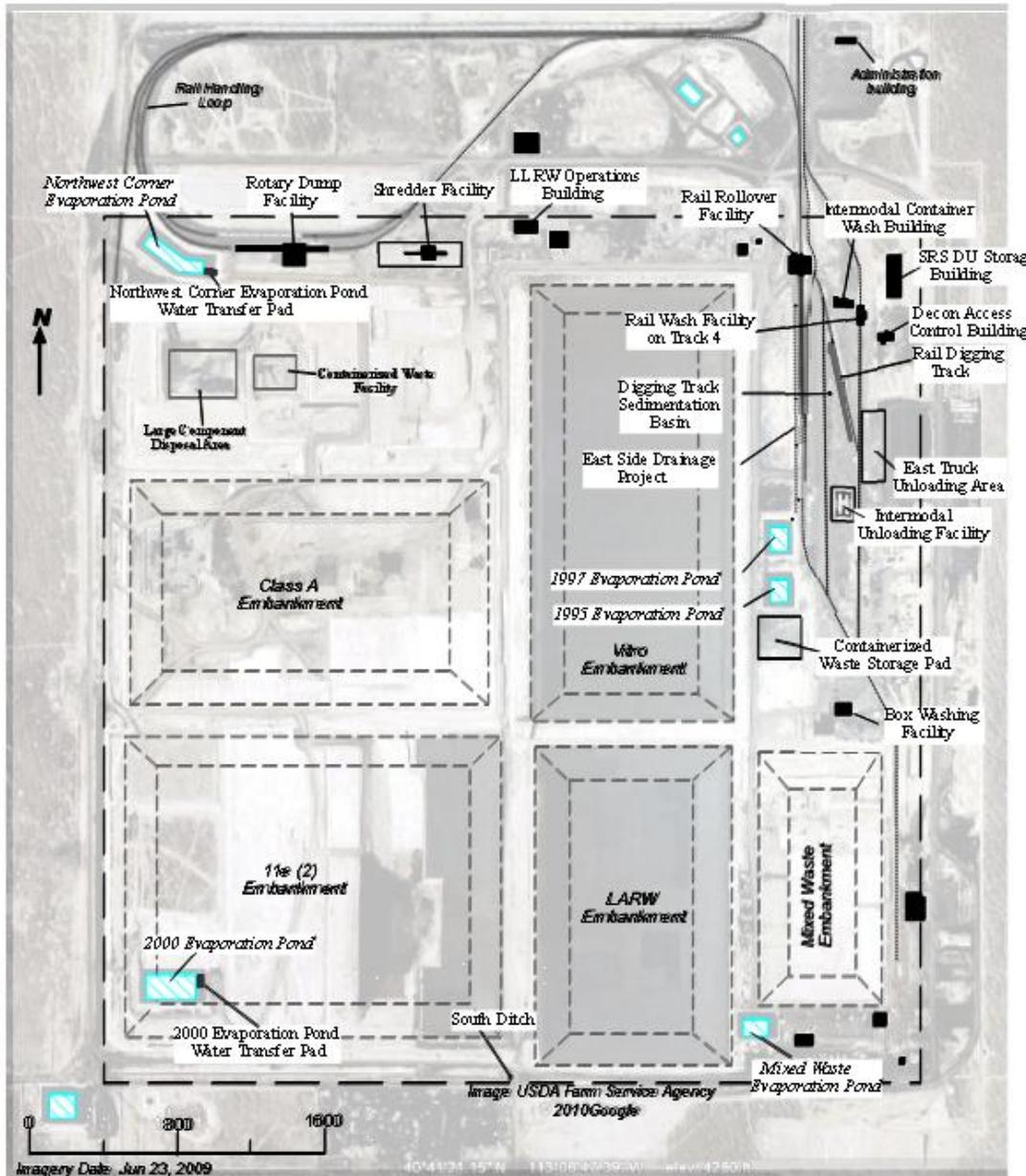


Figure 1. EnergySolutions' BAT inspected facilities

Appendix K was developed to deal with any BAT failures at any facility. Appendix K provides EnergySolutions direction as to what contingency actions are required for maintaining, or regaining compliance with the BAT requirements found in Appendix J.

In a November 8, 2012 letter, EnergySolutions requested approval of proposed changes to Appendix J, and Appendix K of the Permit (EnergySolutions, November 8, 2012). The specific changes to Appendix J were for the removal of some requirements and Table 1, revise BAT inspection frequencies, establishing a precipitation event as a trigger to initiate BAT inspections,

new organizational titles and responsibilities, and edits throughout to improve clarity and reduce redundancy. The specific changes to Appendix K were for the removal of a requirement to construct according to approved design, and new organizational titles and responsibilities. EnergySolutions requested the removal of Table 1 of Appendix J, because it was redundant with the text of Appendix J and provides the potential for the texts to diverge as future changes are made to the Permit and Appendix J. EnergySolutions feels that Table 1 simply re-states requirements found elsewhere in the Permit and Appendix J, without imposing unique points of compliance. They also requested to revise the BAT inspection frequency to weekly, or the inspection being triggered after precipitation events greater than 0.1 inches. The proposed action level of greater than 0.1 inch of precipitation was selected based on site operational history - at precipitation levels below this, stormwater accumulation is typically negligible. EnergySolutions suggested that many years of monitoring at the Clive facility have demonstrated that the majority of BAT failures are directly correlated to storm events; and furthermore, the volumes of waste managed at the facility have dramatically declined from their peak in 2005. EnergySolutions also pointed out that there was regulatory precedent for weekly BAT inspections; other facilities regulated by the DRC have weekly inspections. EnergySolutions updated Appendix J to reflect the revised facility organization submitted to the DRC on October 24, 2012, and proposed to remove the requirement of a professional engineer performing the annual east side drainage pressure test and some quality assurance requirements.

In a November 26, 2012 letter the DRC responded to the EnergySolutions proposal of major changes to the BAT criteria (DRC, November 26, 2012). In their review of the November 8, 2013 EnergySolutions' letter, the DRC indicated that it finds Table 1 useful as a summary of each BAT inspection, and that Table 1 has been in Appendix J for years without causing any consistency problems. The DRC did not find changing all of the BAT daily inspections to weekly appropriate; however, it indicated some inspections could be changed to weekly, and while it's true that a number of BAT failures are associated with large precipitation events at the Clive facility, there are many BAT failures that are not caused by, or associated with precipitation events. The DRC considers the annual pressure test of the East Side Drainage System an important item that should be conducted by a professional engineer; however, the DRC had no problem with EnergySolutions using an in-house professional engineer to conduct the annual test. The DRC consider it inappropriate to reduce Quality Assurance/Quality Control requirements, because inspection form errors still occur, and Quality Assurance/Quality Control is the best way of dealing with them. The DRC determined that the Failure to Construct according to the Approval Design needed to stay in Appendix K. The DRC had no problems with the proposed changes to responsibilities in Appendix J or K.

On March 8, 2013 EnergySolutions resubmitted the proposed modification request for procedures found in Appendix J and K of the Permit (EnergySolutions, March 8, 2013). EnergySolutions incorporated the DRC comment to keep Table 1 and now proposed to modify Table 1, revised some definitions, modified some BAT inspection frequencies, incorporated the new organizational titles and responsibilities, modified some requirements; and provided a mechanism for suspending BAT inspections. In Appendix K, EnergySolutions updated responsibilities to match the new facility organization submitted to the DRC on October 24, 2012. To reduce redundancy within Appendix J, while retaining the useful features of Table 1, EnergySolutions proposed to delete text from the BAT performance monitoring requirement section of Appendix J, where it repeats

points of compliance that are summarized, or will be summarized in Table 1. Text was retained in Appendix J when it provides description of the facility design or extended point of compliance information not suitable for summary in Table 1. The EnergySolutions proposed revised Table 1 states inspection frequency, point of compliance performance criteria, and specifies where each item is documented. EnergySolutions proposal included specified daily storm related, weekly, and monthly inspections in Table 1. They maintained the original proposed organizational titles and responsibilities. EnergySolutions added clarification that an in-house professional engineer can be used to perform the annual pressure test.

After reviewing the March 8, 2013 submitted Appendix J request, and a meeting with EnergySolutions on May 8, 2013, concerning Appendix J, and reviewing an EnergySolutions letter dated May 21, 2013 the DRC review/evaluations are summarized below (EnergySolutions, May 21, 2013). Attachment A, to this document, has the underline/strikeout version of Appendix J, with EnergySolutions and DRC modification. DRC proposed changes to EnergySolutions' March 8, 2013 proposed changes to the text of Appendix J, which are summarized below:

#### Introduction (Part 1):

Change text to read "stormwater management is required by Part I.E.7 of the Permit." to be consistent with the Permit and Appendix J.

Change text of suspended inspection at a facility to read:

"BAT inspections may be suspended at a facility that has been taken out of service for repairs, or due to lack of operational need to use the facility provided there has been no waste handling, or washing/decontamination activity for 48 hours prior to the facility being taken out of service. A "out of service" facility must be secured and inaccessible in such a manner so as to minimize any potential threat to groundwater while out of service. Any facility taken out of service is not permitted for waste storage or management and shall remain in a dry and secure condition while out of service, wherein BAT inspections are no longer applicable. The DRC shall be provided at least 48 hours email notification of the intent to take a facility out of service, and an opportunity to inspect the facility after it has been taken out of service. Additionally, regularly schedule BAT inspections will resume and the DRC will be notified by email when a facility returns to service."

With the volumes of waste managed at the Clive facility dramatically declining, some facilities are not needed all the time. Appendix J will now provide a mechanism to take facilities off line when not needed, or when a facility becomes inoperable (needs extensive repairs), without posing

a danger to the environment or groundwater. Other text removed from the introduction section is redundant with text in the definitions section of Appendix J. Wording changes to the section causes no significant reduction in protection, and the suspended inspection of a facility in this condition will not pose any additional threats to the groundwater.

#### Definitions (Part 2):

Container Storage Compliance, make it read “in accordance with Part I.E.10.a of the Permit,” and add “be managed to prevent the contact of waste with the ground surface and” to now read:

“Container Storage Compliance:

In accordance with Part I.E.10.a of the Permit, containers in storage at facilities other than the Class A West or 11e.(2) disposal cell shall be managed to prevent the contact of waste with the ground surface, and meet the following criteria:

- Closed, strong tight container
- Labeled with generator, waste stream number, and date received
- Stored no more than 365 days before being taken to the disposal cell”

Add to definitions “Daily when stormwater is present inspection,” to read:

“Daily when stormwater is present inspection:

For the purpose of this plan, inspected on days when there is storm water accumulation on site, triggered when there is a precipitation event of 0.1 inched or greater.”

Add to definitions “Dry and Secure,” to read:

“Dry and Secure:

A facility will be dry and secure when all water has been removed from a facility, all operational water access to the facility is denied, and the facility is locked down and cannot be accessed/occupied without the consent of the Manger, Waste Disposal Operations.”

Add to definitions, heading for “Monthly Inspection” to be consistent with the Daily and Weekly headings, to read:

Monthly Inspection:

Monthly BAT inspections as defined in Table 1 and Form 3 are required to be performed once per month, whether the facility is in operation or not.

Add to definition of Surface Integrity Discrepancy “Includes the cleanliness of the pad and” to make it read:

“Surface Integrity Discrepancy:

Includes the cleanliness of the pad and either: 1) a crack in the asphalt or concrete with greater than 1/8 inch separation (width), or 2) any significant deterioration or damage of the pad surface.”

Changes to the definitions section of Appendix J are intended to improve the clarity of the Plan and do not reduce protection, or impose additional environmental impacts.

Responsibilities (Part 3):

In operating a facility like Clive, the lines of responsibility and authority need to be very clear to everyone concerned. In this section responsibilities are defined, providing a clear chain of control.

Organizational titles and responsibilities are updated to reflect the revised facility organization submitted to the DRC on October 24, 2012. The DRC has no comments on proposed changes, and the changes proposed for this section do not affect the protection of the environment or groundwater at the facility.

BAT Performance Monitoring (Part 4):

Remove the word "brief" from the introduction statement, because there is not a more complete or longer BAT description.

Section 4.1 - 1995, 1997, 2000, Northwest Corner, and Mixed Waste Evaporation Ponds

The evaporation ponds are established means to remove excess water in an affordable and environmentally responsible way, without contamination of the ground surface, or groundwater. At the Clive site, wastewater placed in the evaporation ponds is the result of precipitation that falls within the site, and/or wash water from onsite facilities. The evaporation ponds used at the Clive site are lined retention facilities equipped with leak detection and pump-back systems, and are subjected to a number of BAT requirements. All of the Evaporation ponds are designed and constructed in a similar fashion. Inspection activities at these facilities ensure: (1) freeboard compliance, (2) operation of leak detection systems, (3) measurement of leak detection system flow volumes, and (4) fluid heads in leak detection system sumps.

In the text change to "In accordance with Part I.E.16 of the Permit" when referencing the Mixed Waste facilities, and make it read:

"In accordance with Part I.E.16 of the Permit, BAT for Mixed Waste facilities other than the Mixed Waste Evaporation Pond is defined by requirements of the State-issued Part B Permit. Accordingly, the Mixed Waste Evaporation Pond inspection is required only on days that Mixed Waste Facility daily inspections are required under the State-issued Part B Permit."

In Table 1, in BAT description add "and monitoring equipment" to make it read "Leak detection system and monitoring equipment including: leak detection system pump, head pressure transducer, and flow meters"

Certain operations are common to all the evaporation ponds, the proposed changes consolidate compliance related information, but maintain a flow rate for each specific evaporation pond that initiate action. These changes reduce redundancy between Appendix J and Table 1. The operation and maintenance of each pond is preserved and the changes proposed demonstrate

compliance with regulatory requirements, and does not affect the protection of the environment or groundwater.

#### Section 4.2. The 1995/1997 Evaporation Pond Lift Station

The 1995/1997 Evaporation Pond Lift Station transfers wastewater from the IUF Lift Station and Containerized Waste Storage Pad in a controlled environment into either the 1995 or 1997 Evaporation Ponds.

In text add the word Evaporation to Section 4.2 to read “1995/1997 Evaporation Pond Lift Station” to be consistent with Table 1.

In Table 1, In Facility add “Evaporation” to make it read “1995/1997 Evaporation Pond Lift Station”

No significant changes are proposed for the 1995/1997 Evaporation Pond Lift Station. Changes are made to the text for clarity and to reduce redundancy with Table 1. BAT performance monitoring is not reduced in the prevention and minimization of any potential contamination to the ground surface or groundwater.

#### Section 4.3 - 2000 Evaporation Pond Transfer Pad

The 2000 Evaporation Pond Transfer Pad aides in the transfer of wastewater into the 2000 pond without damaging the pond liner. It also allows water trucks to discharge water on a containment surface that provides drainage of water from the transfer pad to a collection sump.

Proposed major changes to the 2000 Evaporation Pond Transfer Pad BAT inspection is the initiation of the inspection by a storm event, and a weekly surface integrity inspection. The 2000 evaporation pond transfer pad is used for stormwater placement in the 2000 pond, associated with stormwater events, so a daily inspection when stormwater is present is reasonable to provide acceptable protection. The containment surface is sloped to prevent standing water, and is a concrete structural and barrier component, and its durability and surface integrity is amenable to weekly inspection. Other changes are for clarity and to reduce redundancy. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

#### Section 4.4 - Northwest Corner Evaporation Pond Transfer Facility

The Northwest Corner Evaporation Pond Transfer Facility aides in the transfer of wastewater into and out of the pond without damaging the pond liner. It also allows trucks to collect and discharge water on a containment surface that slopes towards the pond and a HDPE apron/rub sheet.

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In text add wording to make it read “Northwest Corner Evaporation Pond Transfer Facility” to be consistent with Table 1 and the Permit. Add the words “Corner Evaporation” in the last paragraph to read “The Northwest Corner Evaporation Pond Transfer Facility”

In Table 1, in Facility add “Corner Evaporation” to make it read “Northwest Corner Evaporation Pond Transfer Facility”

No significant changes are proposed for the Northwest Corner Evaporation Pond Transfer Facility; changes are for clarity and to reduce redundancy with Table 1. BAT performance, in that the prevention and minimization of pollution to the ground surface or groundwater, is maintained.

#### Section 4.5 - Rail Rollover Facility

The Rail Rollover Facility was constructed for the Vitro Tailings project in the 1980's. The Rail Rollover facility handles bulk waste that is received by railcar and dumped onto a concrete floor. The waste is transferred by loaders to trucks for disposal in an embankment. A concrete berm diverts stormwater to a concrete trough, settling basin, and collection sump, and stormwater drains from the floor to the collection sump to prevent stormwater from contacting waste. At this facility water is transferred from a collection sump to a manhole near where the Rail Wash Facility on Track 2 was located, it then free drains to the Evaporation Ponds. Inspection activities at this facility ensure: (1) free draining conditions from the berm, through the settling basin, to the sump are being maintained, (2) there is not ponded water within the covered area, (3) the sump pump is operational, (4) all surfaces are free from dirt and debris, and (5) pad integrity.

In text, leave annual inspection discussion to read “The Rollover Facility is taken out of service and inspected annually during the second quarter, to ensure integrity of the asphalt ramps and the concrete surfaces. If discrepancies are noted per the definition listed in this plan, repairs shall be made prior to resuming the use of the facility. The results of the inspection are documented. The inspection findings, any repairs required, and repairs completed are included in the next Semi-annual BAT Monitoring Report.”

In Table 1, in the inspection and maintenance section add Daily - free drainage and change Daily when stormwater present to include an inspection of the sump pump, and also add sump pump to the Weekly inspection.

Proposed major changes to the Rail Rollover facility BAT inspections are the initiation of the BAT inspection when stormwater is present, and a weekly surface integrity inspection. A daily free drainage inspection is maintained for the Rail Rollover facility. The daily inspection when stormwater is present includes the sump water level and sump pump. This is acceptable, because stormwater is the only source of water at the Rail Rollover; water is not used in the operation of the Rail Rollover. Weekly inspection of surface integrity is appropriate because the floor is at a minimum 4000-psi reinforced concrete, 10-inches or greater in thickness with rebar reinforcement, and thus its structural integrity is substantial. Other changes are for clarity and to reduce redundancy. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

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#### Section 4.6 - Containerized Waste Storage Pad

The Containerized Waste Storage Pad is used for the temporary storage of containers and provides for drainage of stormwater to the 1995/1997 Pond Lift Station that feeds the Evaporation Ponds. The facility utilizes gravity flow to provide drainage of stormwater to the lift (pump) station. Inspection activities at this facility are done to ensure: (1) free draining conditions are being maintained on the asphalt pad to the stormwater drainage grate, (2) the water level in the sediment basin is below the grate (accumulated stormwater is not to be maintained in the collection sump for more than 72 hours), (3) the sump pump is operational, (4) that the exposed asphalt surfaces of the pad is free from dirt and debris, (5) pad integrity, and (6) the containers stored at the facility are properly labeled, aisle spacing has been maintained, and lids are sealed.

In Table 1, in BAT description for the Containerized Waste Storage Pad Facility add the word "Minimize" to replace the word "Prevent". In inspection and maintenance section add "cleanliness of pad surface" to the "Daily when stormwater present and Weekly inspections.

Because the Containerized Waste Storage Pad is an exposed facility (not covered), it is not possible to prevent stormwater from contacting waste containers on the pad surface, only to minimize any waste contact. Proposed major changes to the Containerized Waste Storage Pad BAT inspections are a stormwater initiated inspection, and a weekly surface integrity and container inspection. Because no bulk waste handling or storage is done at the Containerized Waste Storage Pad, debris on the asphalt surface is minimal and a daily inspection for cleanliness of the pad surface is not necessary. The proposed daily inspection when stormwater is present includes free drainage, sump water level, and cleanliness of pad surface. This is acceptable, because stormwater is the only source of water at the Containerized Waste Storage Pad; water is not used for Containerized Waste Storage Pad operations. Weekly inspection of surface integrity is appropriate because all waste is maintained in elaborately engineered metal containers (waste does not contact the pad surface), and the pad surface is constructed with reinforced concrete, thus the pad has good structural integrity. Other changes are for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

Note: The LARW Class A and Class A North Cell Collection Lysimeters are removed from Appendix J, and Table 1. This section in Appendix J is out dated, and duplicates requirements found in Appendix C, Construction Quality Assurance Plan for Collection Lysimeter Construction and Operation, Maintenance, and Closure Plans for Collection Lysimeters and Related Approvals, to the Permit. Appendix C maintains BAT performance.

#### Section 4.7 - Intermodal Unloading Facility (IUF)

The Intermodal Unloading Facility is a below grade concrete structure consisting of a facility floor and four bays, where intermodal containers are dumped and the bulk waste is transferred by loaders into trucks for disposal in an embankment. Inspection activities at this facility are done to ensure: (1) free drainage to the sump, (2) operational sump pump, (3) exposed pad is free from dirt and debris, (4) pad integrity, and (5) container compliance.

In Table 1, under facility header, add abbreviation for the Intermodal Unloading Facility "IUF". Under the inspection and maintenance header add cleanliness of pad surface to both daily and weekly inspections. Under documentation add Form 1.

Because the handling of bulk waste occurs at this facility a daily, unloading pad and stormwater drainage pipeline system, free draining condition inspection is maintained. Proposed major changes to the IUF BAT inspections are the initiation of an inspection when stormwater is present, and weekly surface integrity. The proposed daily when stormwater present inspection includes free drainage, sump water level and cleanliness of pad surface. This is acceptable, because stormwater is the only source of water at the IUF; water is not used in IUF operations. Weekly inspection will include surface integrity, container storage compliance, and cleanliness of pad surface; this is appropriate because the floor is at a minimum a 4000-psi reinforced concrete, 12-inches or greater in thickness with rebar reinforcement, and thus its structural integrity is substantial, and containers are engineered metal constructed. Other minor changes are for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

#### Section 4.8 - Intermodal Unloading Facility Lift Station

The Intermodal Unloading Facility Lift Station provides for drainage from the removed Rail Wash Facility on Track No. 2, IUF, Railcar Digging Facility, and Rail Rollover Facility. Inspection activities at this facility are done to ensure the visual alarm is not activated.

In text, add to the facility description "An alarm will activate when the water level within the lift station rises above the lowest level of the inlet pipe." to be more complete.

No significant changes are proposed for the IUF Lift Station, with minor changes for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained.

#### Section 4.9 - LARW Box-Washing Facility

The LARW Box Washing Facility is used in decontamination/cleaning operation of large containers. Waste water is manually transferred to a water truck and hauled for disposal at one of the EnergySolutions evaporation ponds. Inspection activity at the Box Washing Facility ensures: (1) free draining conditions to floor sumps through the wastewater drainage pipeline to concrete holding tanks, (2) operational sump pump, (3) integrity and cleanliness of concrete pad, (4) water level is below  $\frac{3}{4}$  full in holding tank, and (5) the integrity of cap placed over the outlet from the facility. Container storage compliance is already done weekly.

In text, add to the facility description "The cap placed over the outlet from the facility is inspected for integrity." to be more complete.

In Table 1, under inspection and maintenance header change Daily to read “Daily-Sump water level; free drainage; and holding tank water level. Weekly – surface integrity; and pipeline cap.” Under Performance criteria header add tank water level  $\leq \frac{3}{4}$  full. Under documentation header add form 1.

Because the facility uses water in its washing operations, a daily Bat inspection is maintained for the sump and holding tanks water levels, and free drainage of the floor. Proposed major changes to the Box Washing Facility BAT inspections are for a weekly inspection of the surface integrity and pipeline cap. Weekly inspection will include the floor surface integrity, and the pipeline cap; this is acceptable because the floor is a minimum of 4000-psi reinforced concrete, 12-inches or greater in thickness with rebar reinforcement, and thus its structural integrity is substantial; and the cap is steel, welded to the pipe, thus it also has integrity. Other minor changes are for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

#### Section 4.10 - Rail Wash Facility on Track No. 4

The Rail Wash Facility on Track No. 4 is used for washing and decontamination of rail cars. Inspection activities at the Rail Car Wash on Track 4 facility ensures: (1) free draining conditions from the wash pad to floor trench/sump for discharge to the collection tank in the adjacent equipment/mechanics building, (2) operational sump pumps, (3) functional collection tank, (4) integrity of the concrete pad, (5) the concrete pad is free from dirt and debris, and (6) total containment of water.

In text, add to facility description “The rail wash floor is inspected to ensure total containment of water and that there is no direct or indirect discharge to subsurface soils or groundwater. The facility also includes an adjacent equipment/mechanics building that contains the collection tank(s) for the washing operations.” to be more complete.

In Table 1, under inspection and maintenance header add Daily inspection, to read” Daily-Sump water level; free drainage (including concrete trench); and water level in collection

and storage tanks. Weekly – surface integrity, sump pump operational; inspection of collection and storage tanks. Monthly – Alarm”. Under documentation header add form 1.

Because the facility uses water in its washing operations, a daily BAT inspection is maintained for the sump water level, free drainage of the floor, and water levels in the collection tank(s). Proposed major changes to the Box Washing Facility BAT inspections are for a change to a weekly inspection of the floor surface integrity, operation of the sump pump, and inspection of collection and storage tanks. The weekly inspection is appropriate because of the floor’s structural integrity; the daily floor being free draining inspection will provide an indication that the sump pump is operational; and the collection and storage tanks are in a secondary containment area and thus don’t need to be looked at every day. Other minor changes are for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

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### Section 4.11 - Rail Digging Facility

The Rail Digging facility is used for the unloading of bulk waste from rail cars. The waste is unloaded by trackhoe from railcars directly into trucks. Inspection activities at this facility ensures: (1) free drainage conditions exist from the asphalt containment pad to the concrete collection basins, (2) collection basins water levels are not above the level of the grates, (3) settling basin water level is not above the elevation of the outlet pipe, (4) digging facility manhole for any sign of leakage, and (5) concrete area and the asphalt surfaces to ensure that the exposed pad is free from dirt and debris, and pad integrity.

In Table 1, under inspection and maintenance header for the Rail Digging Facility add Daily, to read "Daily - cleanliness of asphalt and concrete surface. Daily when stormwater present – free drainage; sump water level. Weekly – Surface integrity". Under documentation header add form 1.

A daily inspection of the surface for cleanliness is maintained, because of the facility handles bulk waste and the easy that dirt and debris ends up on the asphalt and concrete surfaces of the Rail Digging Facility. Because the facility does not use water in its operations, the daily inspection of the sump water level will occur when stormwater is present; because stormwater is the only source of water at the Rail Digging Facility. Weekly inspection will include surface integrity, and cleanliness of pad surface; this is appropriate because the structural integrity of the various surfaces is substantial. Other minor changes are for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

### Section 4.12 - East Truck Unloading Area

The East Truck Unloading area is used for the unloading of containers from trucks. The facility includes container loading pads, unloading dock with ramp, and unloading area. Containers may be placed temporarily on an asphalt surface before being transferred to the container holding pads.

Inspection activities at this facility ensure: (1) free draining conditions to the collection troughs along the west side of the facility, (2) water levels in the troughs does not exceed  $\frac{3}{4}$  full, (3) all surfaces are free from dirt and debris, (4) pad integrity, and (5) containers stored at the facility are properly labeled, aisle spacing has been maintained, and lids are sealed.

Leave text in last paragraph "Overnight storage is prohibited at the dock and on asphalt surfaces within the facility. Storage and sampling are restricted to the concrete holding pads. Containers may be placed temporarily on the asphalt surface to facilitate transfer. Temporary is defined as the current acceptance date on the Bates Label. Therefore, this prohibits overnight storage."

In Table 1, under inspection and maintenance header for the East Truck Unloading Area and Container Holding Pads Daily when stormwater present - free drainage; collection trough water level. Weekly – Surface integrity; and container storage compliance”.

Overnight storage is prohibited at the dock and on the asphalt surfaces within the East Truck Unloading facility; however this will only be checked once a week.

Proposed major changes to the East Truck Unloading area BAT inspections are for a change to an inspection initiated by storm events, and a weekly inspection of the surface integrity and container storage compliance. Containers are unloaded at the facility, no bulk waste handling occurs, so there is no free debris associated with the operation of the facility. Because the facility does not use water in its operation, a daily inspection when stormwater is present is acceptable, because stormwater is the only source of water. Weekly inspection will include surface integrity, and container compliance; this is appropriate because the structural integrity of the various surfaces is substantial, and the waste is stored in engineered containers that are inspected when they arrive at the site. Other minor changes are for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

#### Section 4.13 - Decontamination Access Control Building

The Decontamination Access Control Building provides access for personnel to the restricted area on the east side of the site. Inspection of the Decontamination Access Control Building ensures: (1) free drainage to the wastewater collection tank from the bootwash, respirator sink, shower, and sink located next to the shower, (2) water level is below the bottom elevation of the inlet pipe, (3) alarm is not currently activated, (4) removal of water from the tank as necessary, and (5) no fluid within the discharge pipe and tank leak detection systems. The visual alarm for water level is inspected during the second week of each month.

Proposed major changes to the Decontamination Access Control Building BAT inspections are for a change to a weekly inspection of the wastewater collection tank, wastewater level in the collection tank, and leak detection system. The daily inspection for free drainage to wastewater collection tank from the bootwash, respirator sink, shower, sink next to the shower, water level below the inlet pipe, and visual alarm is removed. No waste handling operations occur and waste

is not stored at the facility, and the water volumes used at the facility are very small. Staff assigned to this facility would note any BAT failure during operations. The weekly requirement of free drainage to the wastewater collection tank provides for the drainage from the bootwash, sinks, and shower. Other minor changes are to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

#### Section 4.14 - Intermodal Container Wash Building

The Intermodal Container Wash Building is used for decontamination/washing of large trailer containers. The building has a leak detection system for monitoring of fluids that might escape from the wastewater collection sump. Inspections at the Intermodal Container Wash Building ensures: (1) free draining from the floor sumps to the wastewater drainage pipe and to concrete

holding tanks, (2) operation of the sump pump and automatic discharge pump system, (3) integrity of concrete pad, (4) concrete pad is free from dirt and debris, and (5) fluids are not present in leak detection ports.

In Table 1, under inspection and maintenance header for the Intermodal Container Wash Building add a daily inspection, to read "Daily-Sediment basin water level; and free drainage; Weekly – surface integrity; and leak detection system" . Under Performance criteria header add text so it reads "Sump water level below grate; free drainage from bootwashes to troughs, from wash bays to troughs through to the sediment basin; see definition "Surface Integrity Discrepancy"; no fluids in leak detection system". Under documentation header add form 1.

Proposed major changes to the Intermodal Container Wash Building BAT inspections are for a weekly inspection of the surface integrity and leak detection system. A daily inspection for free drainage and the sediment basin water level is maintained, because the facility uses water in its cleaning operations. The weekly inspections for surface integrity and the leak detection system are appropriate because the structural integrity of the various concrete surfaces of the floor, and the leak detection system are substantial. Other minor changes are to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

#### Section 4.15 - Shredder Facility

The Shredder Facility is used for the size-reduction of debris waste prior to disposal. Stormwater drains from the pad surface to catchbasins, then to a manhole (manhole 1) where, if the waste on the pad is not PCB waste, it drains to Rotary Dump facility. If PCB waste is on the pad, stormwater drains from the catch basins to manhole (manhole 1) where the water is moved, using a submersible pump, to water storage tanks located on the Shredder concrete pad. Inspection activities at this facility ensure: (1) free drainage conditions are present over the entire concrete pad to each of the 7 catch basins, (2) the water level in each catch basin is below the grate, (3) the pipeline in Manhole 1 to the water storage tanks is free from leakage, (4) all surfaces are free from

dirt and debris, (5) pad integrity, and (6) if PCB waste is stored on the infeed pad the proper measures must be taken (i.e. facility labeled for PCB Waste, wastewater valve to the Rotary Dump in closed position, and wastewater valve to water storage tanks in the open position).

Add to the statement "Because the 7 catchbasins are located at least 3.5 feet lower in elevation than the top of Manhole 1, used to pump water to the tanks, inspecting each catchbasin also functions as an inspection for functionality of the submersible pump in Manhole 1. When PCB-Containing waste is stored on the Shredder Pad, additional inspection criteria will be followed in accordance with the TSCA Approval for Shredding Polychlorinated Biphenyl (PCB) Wastes." In the second paragraph make it read "This system will be used during the shredding of PCB waste and may be used optionally when the drainage system to the Rotary Dump Facility or Northwest Corner Evaporation Pond is out of service." Leave the annual inspection information.

In Table 1, under inspection and maintenance header for the Shredder Facility add a daily inspection, to “Daily- free drainage; Daily when stormwater present – free drainage; sump water level. Weekly – surface integrity. Annual – Clean entire surface for detailed surface integrity inspection”. Under Performance criteria header add text so it reads “Free drainage to catchbasins; water below grate of sump (7). Shredded material removed from the outfeed pad by the end of shift. See definition surface Integrity Discrepancy”. Under documentation header add form 1.

Proposed major changes to the Shredder Facility BAT inspections are for a change to an inspection initiated by storm events, and a weekly inspection of the surface integrity and container storage compliance. A daily inspection for free drainage of the pad surface to the catchbasins is maintained, but because the facility does not use water in its daily operations, a daily inspection when stormwater is present is appropriate, because stormwater is the only source of water. Water is used in the actual operation of the shredder to reduce heat and dust, but the volume of water used is small, produces no runoff (all of it is absorbed into the waste). Weekly inspection will include surface integrity; this is appropriate because the structural integrity of the pad surfaces is substantial. Other minor changes are for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

#### Section 4.16 - Rotary Dump Facility

The Rotary Dump Facility is used for the thawing, emptying, and washing of railcars. In the emptying (dumping) building bulk waste is dumped onto a concrete floor. The building floor is sloped so that there is no free standing wash water on the floor at the end of operations. Leak detection system ports are located in the building for monitoring of fluids. Inspection activities at the Rotary Dump Facility ensures: (1) free drainage conditions exists from pipes, troughs, or the building floor to the sediment basin, (2) no free standing liquids exist on the building floor at the end of operation, (3) water level in sediment basin is below grate, (4) no fluids in the sediment basin leak transfer piping, (5) integrity of concrete floor, and (6) no leakage from storage tank.

In the text leave the statement “The Rotary Dump Facility is taken out of service and all areas are inspected annually during the second quarter, to ensure integrity of the concrete surfaces. If discrepancies are noted per the definition listed in this plan, repairs shall be made prior to resuming the use of the facility. The results of the inspection are documented. The inspection findings, any repairs required, and repairs completed are included in the next Semi-annual BAT Monitoring Report. “

In Table 1, for the Rotary Dump Facility add to the BAT description that the facility consists of the three buildings, the Thaw, Rotary, and Wash buildings and that its purpose is to prevent stormwater contact with waste and contain contact water within facility. Under inspection and maintenance header for the Thaw building add a daily inspection that reads "Daily - for ponding of water; free drainage to Rotary Building sediment basin." Under documentation header add form 1. Under BAT description heading for the rotary building change to read "Contain contact water within facility". Under inspection and maintenance header add daily inspection to read "Daily - free drainage; sediment basin water level. Weekly - surface integrity; leak detection system. Annual - Clean entire surface for detailed surface integrity inspection (includes Thaw Building and Wash Building concrete surfaces). Under inspection and maintenance header for the Wash Building add daily inspection to read "Daily-free drainage; water in trenches below grates. Weekly – surface integrity (including east curb and seals around stairway footing)" . Under documentation header add form 1.

Because the facility uses water in its washing operations, daily BAT inspection is maintained for the free drainage to the sediment basin, and the sediment basin water level. Weekly inspection will include the floor surface integrity, a daily inspection of the ponding of water; and free drainage to Rotary Dump sediment basin. Weekly inspection will include surface integrity, and cleanliness of floor surface; this is appropriate because the floor structural integrity is substantial, because the floor is a minimum of 4000-psi reinforced concrete, 12-inches or greater in thickness with rebar reinforcement, and thus its structural integrity is substantial. Other minor changes are for clarity and to reduce redundancy with Table 1. BAT performance, in the prevention and minimization of pollution to the ground surface or groundwater, is maintained with the proposed changes.

#### Section 4.17 - East Side Drainage System

The East Side Drainage System consists of two drainage systems: one for wastewater from decontamination facilities, and a second drainage system for storm water from the nearby rail catch basins. The wastewater drainage system obtains its water from the Decontamination Access Control Building, Intermodal Container Wash Building, and the Rail Wash Facility on Track No. 4. The waters from these facilities are kept separate from storm water until discharged into the 1997 Pond. Inspection activities for the East Side Drainage System ensures: (1) free drainage conditions in all piping, (2) inspection of leak detection system in transfer piping, (3) annual pressure testing of transferring pipe, and (4) total containment of wash water making sure there is no discharge to the ground surface or groundwater.

Proposed major change to the East Side Drainage System BAT inspections are for a change from a weekly inspection of the leak detection system to monthly inspection. This is acceptable because the alarms for manhole 1 and 2, and the lift station are checked daily, thus the inspection of the leak detection system is a redundant inspection. Minor changes are for clarity and to reduce redundancy with Table 1. BAT performance monitoring is not reduced in the prevention and minimization of any potential pollution to the ground surface or groundwater by changes to Section 4.17.

#### Section 4.18 - South Ditch

The Vitro drainage ditch culvert replacement (hereafter referred to as the South Ditch) was constructed to reduce a potential source of groundwater seepage. Since the ditch does not entirely free drain, the ditch contains a sump to lift remaining water from the ditch to the Southwest Corner Pond. The pump may be removed from the sump during freezing weather. When the pump is removed, manual water removal will begin when water is discovered to be above the sump grate.

No significant changes are proposed for the South Ditch. Minor changes are for clarity and to reduce redundancy with Table 1. BAT performance monitoring is not reduced in the prevention and minimization of any potential pollution to the ground surface or groundwater by changes to Section 4.18.

#### Section 4.19 - LLRW Operations Building

The LLRW Operations Building is located partly in the restricted area, and houses site personal in the non-restricted part of the building. The building provides access to the restricted area to site personal. Water from the restricted area of the LLRW Operations Building drains to an outside collection tank, south of the building. The collection tank is fitted with a leak detection sensor and an alarm system to indicate water level in the tank.

Proposed major changes to the LLRW Operations Building BAT inspections are for a change to a monthly inspection of free drainage from the laboratory to the collection tank. The weekly inspection for free drainage from the laboratory to the wastewater collection tank is removed. No waste handling operations occur and waste is not stored at the facility, the Waste Operations Manager is required to turn off water access to the LLRW Operations building lab each night (part of a DRC approved corrective action), and the water volumes used at the facility are very small. The associated laboratory alarm status is inspected daily. Additionally, staff assigned to this facility would note any BAT failure during operations. If the corrective action status at the LLRW Operation Building were to change, then the monthly inspection of free drainage from the laboratory would need to be reevaluated. The alarm function is supposed to be done annually, and was incorrectly placed at monthly, this is corrected here. Minor changes are for clarity and to reduce redundancy with Table 1. BAT performance monitoring is not reduced in the prevention and minimization of any potential pollution to the ground surface or groundwater by changes to Section 4.19.

#### Section 4.20 - SRS DU Storage Building

The SRS DU Storage Building is designed to protect SRS DU waste from the elements. The storage building is a steel building on concrete foundation with an asphalt floor. Inspection activities for the SRS DU Storage Building are done to ensure that walls and roof are free from holes. The floor will be inspected for the presence of water and containers for evidence of leaks, corrosion, or deterioration.

Proposed major changes to the SRS DU Storage Building BAT inspections are for a change to a Daily when stormwater present inspection of surface integrity, container storage compliance, and

the presence of water on the floor; and monthly otherwise. The SRS DU Storage Building is only used to store the SRS DU in containers; no active waste handling or any other activities are allowed in the building, and there is no water used at the building. The only potential water that may enter the SRS DU Storage Building is from a storm event, these changes are acceptable. Minor changes are for clarity and to reduce redundancy with Table 1. BAT performance monitoring is not reduced in the prevention and minimization of any potential pollution to the ground surface or groundwater by changes to Section 4.20.

#### Section 4.21 - Evaporation Pond Ancillary Equipment to Facilitate Evaporation

One of the most common methods for disposing of the surplus wastewater is natural evaporation; however, sometimes this process just isn't enough. The ancillary equipment is intended to facilitate additional evaporation at the ponds, and may be employed at any of the ponds. Appendix J places construction requirements for any Ancillary Equipment used at any approved evaporation pond.

No significant changes are proposed for the Evaporation Pond Ancillary Equipment. Minor changes are for clarity and to reduce redundancy with Table 1. BAT performance monitoring is not reduced in the prevention and minimization of any potential pollution to the ground surface or groundwater.

#### 4.22 - Stormwater Management

Precipitation amounts from both rain and snow are minimal at the site; however, low-pressure systems, and summer time convective storms moving across the region do produce measurable amounts of precipitation, so the Clive site is inspected daily for the accumulation of stormwater following a storm event.

Minor changes to Stormwater Management are for clarity, and new titles and responsibilities of personnel. BAT performance monitoring is not reduced in the prevention and minimization of any potential pollution to the ground surface or groundwater.

#### 5 - Equipment Maintenance

Spare pumps and replacement parts are required to be on site at all times for required repairs.

EnergySolutions proposes to remove this requirement because Appendix K provides timeframes for actions to address BAT failures regardless of whether spare parts are on site. The contingency plan does contain timelines for work to be completed, so BAT performance monitoring is not reduced by this change.

#### 5 - Quality Assurance/Quality Control

As with all other components of operations, it is necessary to monitor the effectiveness of the BAT protocols. This is done to verify that the Appendix J requirements are being implemented as required.

Changes to the section are for a monthly assessment of inspection activities by the Manager, Waste Disposal Operations. Minor changes are for clarity. BAT performance monitoring is not reduced in the prevention and minimization of any potential pollution to the ground surface or groundwater by this change.

After reviewing the March 8, 2013 submitted Appendix K request, the DRC review/evaluations are summarized below. Attachment B, to this document, has the underlined/strikeout version of Appendix K, with EnergySolutions proposed changes.

Changes are to responsibilities and management titles, and minor changes for clarity to the text of Appendix K. The DRC concurs with the revisions and has no comments.

## **Conclusion**

Permit conditions specifically require the application of BAT at the Clive site, and BAT is applied at all stages in the lifetime of a facility, starting at the time of design and construction, and continuing through its management, operation, and maintenance; this provides practical assurance during operations that contamination is confined to the operating area of each facility, and that the potential is minimized for contamination of the environment and groundwater. The physical performance for the containment of contamination of each facility is very high, because they are properly designed, constructed, and operated to prevent the release of contamination. BAT inspections are a mechanism for assessment of the validity of the technology incorporated into the individual facilities, that they are performing the way they are suppose to. The DRC recognize the importance of the existing BAT requirements as a means of ensuring that EnergySolutions efforts are properly focused, and also that they need to be getting value for the resources they apply to the various inspections; therefore, Appendix J has been subjected to a review of BAT requirements at the request of EnergySolutions. Although EnergySolutions developed a program that ensured the protection of groundwater, incorporating BAT into the design and construction of each facility, the plan was not efficient and requires EnergySolutions to expended substantial resources to manage facilities. Specifically, Appendix J required some inspection more often than necessary, given the design and construction of the various facilities, to ensure the protection of groundwater. This occurred because EnergySolutions designed the plan to be compliant and does not routinely review the plan's efficiency. The DRC's review of the Appendix J modification request, focused on compliance at each facility to ensure all criteria are maintained, and that each facility conforms to their established procedures, and compliance points. The DRC evaluation indicates that changes to the BAT inspection frequency would result in no loss of groundwater protection, because BAT is used in the design, and construction of the facilities at Clive, preventive maintenance and free drainage is maintained where needed, and maintenance of all floors and surfaces are maintained. Implication of the proposed BAT changes for a given facility could have unexpected consequences that may inevitably threaten groundwater. However, EnergySolutions is still subjected to ongoing oversight and compliance monitoring, and submits a semi-annual monitoring report, required by Part I.H.20 of the Permit, to document compliance with BAT performance standards. The Report provides results, calculations, and evaluations of BAT monitoring data at the various Clive facilities. Any facility covered by BAT inspections or compliance requirements is evaluated with the semi-annual report to determine whether it is

meeting requirements. If appropriate, any condition can be modified to address identified problems related to the BAT protocols from this evaluation. The changing of BAT inspection requirements is a major change and will require public input.

After reviewing the request to revise Appendix K, the DRC review/evaluation of the March 8, 2013 submitted Appendix K indicated the organizational titles and responsibilities are updated to reflect the revised facility organization submitted to the DRC in October 24, 2012.

### **References**

EnergySolutions, October 24, 2012, radioactive Material Licenses UT2300478, Request to amend License and approve revised Appendix I, Organization: Letter to Rusty Lundberg, Director of Utah Division of Radiations Control from Sean McCandless Manager, Compliance and Permitting EnergySolutions.

EnergySolutions, November 8, 2012, Ground Water Quality Discharge Permit No. UGW 450005 – Request for Modification to Appendix J and K: Letter to Rusty Lundberg, Director of Utah Division of Radiations Control from Sean McCandless Manager, Compliance and Permitting EnergySolutions.

DRC, November 26, 2012, BAT Performance Monitoring Plan (Appendix J) and Contingency Plan (Appendix K) Revisions Dated November 8, 2012, Appendix J and K of Ground Water Quality Discharge Permit No. UGW 450005: Letter to Sean McCandless Manager, Compliance and Permitting EnergySolutions from Rusty Lundberg, Director Utah Division of Radiations Control.

EnergySolutions, February 5, 2013, Ground Water Quality Discharge Permit No. UGW 450005 – Revised Request for Modification to Appendix J and K; Response to DRC November 26, 2012 letter: Letter to Rusty Lundberg, Director, Utah Division of Radiations Control from Sean McCandless Manager, Compliance and Permitting EnergySolutions.

EnergySolutions, May 21, 2013, Ground Water Quality Discharge Permit No. UGW 450005 – Revised Request for Modification to Appendix J and K; Response to DRC Memorandum dated 7 May 2013: Letter to Rusty Lundberg, Director, Utah Division of Radiations Control from Vern C. Rogers Environmental Manager, EnergySolutions.

Attachment A  
Appendix J of the Permit

Permit No. UGW450005

APPENDIX J

# Groundwater Quality Discharge Permit BAT Performance Monitoring Plan

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## 1 INTRODUCTION

EnergySolutions, LLC (EnergySolutions) has been granted a Groundwater Quality Discharge Permit, (GWQDP) Permit No. UGW450005 hereinafter called the Permit, by the State of Utah. The Permit specifies the construction, operation, and monitoring requirements for all EnergySolutions facilities that have a potential of discharging pollutants that may move directly or indirectly into groundwater. To cause the maximum reduction of pollutants achievable, the Permit specifies that “Best Available Technology” (BAT) be used in the construction of all facilities and that facilities be operated according to “Best Management Practices”.

The Permit lists individual facilities that have BAT criteria associated with them. This BAT monitoring plan addresses the facilities and their BAT description and performance criteria (Table 1).

The Permit requires that EnergySolutions develop and follow a monitoring, inspection and maintenance plan for permitted facilities. BAT inspections are required to be performed daily for those BAT Compliance Monitoring Points noted on Form 1; weekly for those BAT Compliance Monitoring Points noted on Form 2; and monthly for those BAT Compliance Monitoring Points noted on Form 3. Additional, daily inspections for those BAT Compliance Monitoring Points noted on Form 1a are required after precipitation events of greater than 0.1 inch, until such time that all stormwater accumulation has been removed as required by Part I.E.7 of the Permit; and on Form 1b when managing PCB wastes at the shredder facility. ~~on a daily basis at the site. On weekends or holidays when operational activities are not occurring, the daily BAT inspections can be postponed until the next regular work day. The BAT inspections are required on weekends or holidays if operational activities are taking place.~~

BAT inspections may be suspended at a facility that has been taken out of service for repairs, or due to lack of operational need to use the facility provided there has been no waste handling or washing/decontamination activity for 48 hours prior to the facility being taken out of service. A “out of service” facility must be secured and inaccessible in such a manner as to minimize any potential threat to ground water while out of service. Any facility taken out of service is not permitted for waste storage or management and shall remain in a dry and secure condition, while out of service, wherein BAT inspections are no longer applicable. The DRC shall will be provided at least 48 hours email notification of the intent to take a facility out of service and provided the DRC an opportunity to inspect the facility after it has been taken out of service. Additionally, regularly schedule BAT inspections will resume and DRC will be notified by email when a facility returns to service.

If failure of BAT occurs at any facility, the BAT Contingency Plan located at Appendix K to the GWQDP shall be implemented.

## 2 DEFINITIONS

### **Access Pipe:**

A pipe placed to provide access for the monitoring of leak detection system BAT performance criteria.

**Allowable leakage rate:**

Volume of fluid allowed to enter into leak detection systems through the upper flexible membrane liner of the evaporation ponds, averaged over a seven-day period. Volumes up to the allowable leakage rate do not constitute a failure of BAT.

**Best Available Technology (BAT):**

The application of design, equipment, work practice, operation standard or combination thereof, at a facility to effect the maximum reduction of a pollutant achievable by available processes and methods taking into account energy, public health, environmental and economic impacts and other costs.

**BAT Compliance Monitoring Points:**

Designated points of inspection, sampling, analysis, and monitoring to confirm compliance with the Permit.

**Bor-o-scope:**

Specialized equipment used to perform ~~annual~~-video inspection of the entire length of the drainage pipe of each collection lysimeter and inspection of other BAT piping as needed.

**BAT Contingency Plan (Appendix K to the GWQDP):**

Plan for regaining and maintaining compliance with Permit limits and for reestablishing compliance with best available technology. This plan will be implemented if any of the BAT Performance Criteria specified in this plan are not met.

**Contact Stormwater:**

Stormwater that has contacted waste, such as storm water within the Disposal Cells, Rail Rollover Facility, Rotary Dump Facility, or Intermodal Unloading Facility (IUF).

**Container Storage Compliance:**

In accordance with Part I.E.10.a of the Permit, containers in storage at facilities other than the Class A West or 11e.(2) disposal cell shall be managed to prevent the contact of waste with the ground surface and meet the following criteria:

- Closed, strong tight container
- Labeled with generator, waste stream number, and date received
- Stored no more than 365 days before being taken to the disposal cell

**Daily Inspection:**

For purposes of this plan, daily inspections are required any day that waste or water management activities occur. The daily inspection is not required on weekends or holidays if water and waste management activities are not being conducted. Waste management activities include shipment receipt, unloading, waste placement, or decontamination facility operation. Daily inspection items are defined on Table 1 and Forms 1, 1a, and 1b.

Daily when stormwater is present inspection:

For the purpose of this plan inspected on days when there is storm water accumulation on site

**Discrepancy relating to Pad Integrity:**

~~Either: 1) a crack in the asphalt or concrete with greater than 1/8 inch separation (width) or 2) any significant deterioration or damage of the pad surface.~~

**Dry and Secure:**

A facility will be dry and secure when all water has been removed from a facility, all operational water access to the facility is denied, and the facility is locked down and cannot be accessed/occupied without the consent of the Manger, Waste Disposal Operations.

**Exposed Pad:**

The surface of pad or concrete surface not covered with containers or process material.

**Freeboard:**

The vertical distance between the spillway elevation of fluid containment system and the water elevation.

**Free Drainage:**

The drainage of water from one designated area to another, including sloped surfaces and pipelines, in such a manner that water is not blocked or dammed by foreign material including sediment, debris, and other items not approved in the design and construction of a facility. Free drainage includes the movement of water aided by mechanical means such as sumps, pipelines, etc. Free drainage shall be maintained at all facilities as addressed in this plan.

**Gravity Flow:**

The free movement of water from a higher elevation to a lower elevation for water transfer to designated areas of the facility.

**Head/pressure transducer:**

An instrument used to detect, measure, and report the water level in a monitoring well or detection sump system.

**Leak Detection System:**

An engineered system designed to detect leaks in a low-permeability liner and capable of collecting and removing fluid present in the leak detection sump.

**Leak Detection Sump:**

A sump constructed between an upper and lower low-permeability liner that provides a collection point for detecting, measuring, and removing fluids that have leaked through the upper liner. When fluid is detected in the sump, it is an indication that the upper liner may be leaking.

**Monthly Inspection:**

Monthly BAT inspections as defined in Table 1 and Form 3 are required to be performed once per month, whether the facility is in operation or not.

**Non-contact Stormwater:**

Stormwater that has not contacted waste that is within the restricted area.

**Pad Integrity:**

The physical integrity of a pad structure including but not limited to: the presence of cracks, ruptures, damaged or porous areas, areas of subsidence or thinning.

**Pump-back system:**

An automatic system that provides for the removal of liquids from the leak detection system and reconveyance of the liquids to the associated evaporation pond.

**Pump controller:**

An instrument that controls the activation and deactivation of the submersible pump.

**Pump-down test:**

A test that determines the accuracy of the leak detection system.

**Submersible pump:**

A pump specially designed and engineered for being submersed in water.

**Surface Integrity Discrepancy:**

Includes the cleanliness of the pad and either: 1) a crack in the asphalt or concrete with greater than 1/8 inch separation (width), or 2) any significant deterioration or damage of the pad surface.

**Transfer Sump:**

A collection sump that is used to pump water from one point to another at the facility.

**Weekly Inspection:**

Weekly BAT inspections as defined in Table 1 and Form 2 are required to be performed once per week, whether the facility is in operation or not.

**Weir:**

A wall located in a settlement basin designed to control water flow to maximize sediment collection in the basin.

**Weir Notch:**

A notch located on a weir that allows water to flow from the settlement basin to an area in which water is collected for pumping.

**3 RESPONSIBILITIES**

The **Quality Assurance Manager (QAM)** or designee is responsible for performing surveillance and/or audit activities to verify implementation and compliance with the requirements of this plan and review of all designated forms as part of the quality assurance review for accuracy and completeness. The QAM is also responsible for providing required verbal notifications to regulatory agencies and the ~~Director of~~ Manager, Compliance and Permitting.

The ~~Director of Mixed Waste Operations and Director of LLRW~~ **Manager, Waste Disposal Operations** (or designees) ~~are-is~~ responsible for maintaining assigned facilities in compliance with BAT requirements of the Clive site at all times. The ~~applicable site director~~ **Manager, Waste Disposal Operations** (or designee) shall immediately notify the QAM when any BAT Failure occurs. ~~At the discretion of the Vice President of Clive, a full-time management position may be designated to act on behalf of both Directors to oversee the daily duties associated with inspecting BAT facilities.~~

The ~~Director of Health Physics (DHP)~~ **Manager, Health Physics and Safety Radiation Safety Officer (RSO)** or designee is responsible for performing evaluations of any existing threat or potential threat to public health and the environment, ~~as necessary, and determining sampling parameters for free liquid if present in the collection lysimeters in cooperation with the Director of Compliance and Permitting.~~

The **Facility Operator or BAT Inspector** performs the routine ~~daily~~ inspections and provides notification to the ~~Director of LLRW~~ **Manager, Waste Disposal Operations** and Quality Assurance Manager, ~~or designates~~ of any BAT non-compliance ~~for the LLRW/He.(2) Facility~~. The Facility Operator or BAT Inspector has the authority to initiate repairs when needed.

~~The Mixed Waste Facility Operator or designee perform the routine daily inspection and provides notification to the Director of Mixed Waste Operations, Quality Assurance Manager, or designates of any BAT non-compliance for the Mixed Waste Facility.~~

The **Site Hydrogeologist** or designee is responsible for performing collection lysimeter measurements and determining compliance.

The ~~Director of~~ **Manager, Compliance and Permitting** or designee is responsible for determining sampling parameters for free liquid if present in the collection lysimeters, reviewing all groundwater sampling data, and ~~performing~~ ~~reviewing of annual~~ video inspection of the lysimeters. The ~~Director of~~ **Manager, Compliance and Permitting** is responsible for providing required written notification to the regulatory agencies.

The ~~Director of~~ **Manager, Engineering and Maintenance** or designee is responsible for scheduling and oversight of pump down testing if required.

~~The Maintenance Manager or designee is responsible;~~ ~~and~~ for performing preventative maintenance on facility equipment in accordance to the manufacturer specifications and guidelines, and ensuring that spare sump pump and replacement parts (including batteries for portable measuring devices, etc.) are on site at all times for required repairs.

#### 4 BAT PERFORMANCE MONITORING

EnergySolutions is responsible for implementing ~~the b~~Best ~~a~~available ~~t~~Technology, summarized in Table 1, ~~(BAT Monitoring and Performance Criteria-Chart)~~, to prevent discharge of fluids from the following facilities to subsurface soils or groundwater. ~~Table 1 provides a brief description of~~

BAT for each facility, inspection requirements and frequency, performance criteria, and where each inspection requirement is documented. Compliance with the performance standard(s) will be evaluated by performing and documenting inspections, performing equipment maintenance and repairs as required, and by implementing corrective actions.

#### 4.1 1995, 1997, 2000, Northwest Corner, and Mixed Waste Evaporation Ponds

~~Freeboard compliance at the 1995 Evaporation Pond is recorded with each daily inspection. The results of the inspection are documented on the LLRW/He.(2) Facility Daily Inspection Form (Attachment 1).~~

~~The 1995 Each Evaporation Pond is equipped with a leak detection and pump-back system that includes the following: Flow meter, pressure transducer, submersible sump pump, process controller/monitor, and discharge line. The leak detection system pumping and monitoring equipment must be inspected daily to ensure continuous operation. Failure of any pumping or monitoring equipment not repaired and made fully operational within 24 hours of discovery is deemed a BAT failure.~~

In accordance with Part I.E.16 of the Permit, BAT for Mixed Waste facilities other than the Mixed Waste Evaporation Pond is defined by requirements of the State-issued Part B Permit.

Accordingly, the Mixed Waste Evaporation Pond inspection is required only on days that Mixed Waste Facility daily inspections are required under the State-issued Part B Permit.

~~Measurement of daily leak detection system flow volume is read from the flow meter and recorded every day operations are being performed. The total change (increase) is recorded and averaged over a seven-day period to determine the calculated daily leakage rate. The weekly calculations are documented on the Evaporation Pond(s) Leak Detection System Volume Weekly Calculation Form, Attachment 2. The maximum allowable daily leakage volume for the 1995 Evaporation Pond is 162 gallons/day. If the calculated leakage rate is above 155 gallons/day a pump down test will be performed. A calculated leakage rate greater than 162 gallons/day is deemed a failure of BAT.~~

~~The leak detection system sump is inspected daily. An inspection of the system and preventative maintenance will be performed annually in accordance with CL EN PR 023 (ENG 2.3), *Annual Evaporation Pond Pump Inspection*. The process controller is read to measure fluid head. The measurement is documented on Attachment 1. The fluid head level is not to exceed a 1-foot level (readout above 1.0) above the lowest point in the lower flexible membrane liner. An exceedance of the 1-foot level is deemed a failure of BAT. Piping that carries water to the pond from the leak detection system is inspected during the second week of each month for signs of leakage by observing the manual removal of water from the system.~~

~~The Facility Operator or BAT Inspector is responsible for performing and documenting inspection results, and calculating the average daily leakage rate on the first working day of the week from any measurements taken over the previous seven calendar days.~~

#### ***4.2—1997 Evaporation Pond***

~~Freeboard compliance at the 1997 Evaporation Pond is recorded with each daily inspection. The results of the inspection are documented on the LLRW/He.(2) Facility Daily Inspection Form (Attachment 1).~~

~~The 1997 Evaporation Pond is equipped with a leak detection pump back system that includes the following: Flow meter, pressure transducer, submersible sump pump, process controller/monitor, and discharge line. The leak detection system pumping and monitoring equipment must be inspected daily to ensure continuous operation. Failure of any pumping or monitoring equipment not repaired and made fully operational within 24 hours of discovery is deemed a BAT failure.~~

~~Measurement of daily leak detection system flow volume is read from the flow meter and recorded every day operations are being performed. The total change (increase) is recorded and averaged over a seven-day period to determine the calculated daily leakage rate. The weekly calculations are documented on the Evaporation Pond(s) Leak Detection System Volume Weekly Calculation Form, Attachment 2. The maximum allowable daily leakage volume for the 1997 Evaporation Pond is 171 gallons/day. If the calculated leakage rate is above 160 gallons/day a pump down test will be performed.~~

~~The leak detection system sump is inspected daily. An inspection of the system and preventative maintenance will be performed annually in accordance with CL EN PR 023 (ENG 2.3), *Annual Evaporation Pond Pump Inspection*. The process controller is read to measure fluid head. The measurement is documented on Attachment 1. The fluid head level is not to exceed a 1-foot level (readout above 1.0) above the lowest point in the lower flexible membrane liner. An exceedance of the 1-foot level is deemed a failure of BAT. Piping that carries water to the pond from the leak detection system is inspected during the second week of each month for signs of leakage by observing the manual removal of water from the system.~~

~~The Facility Operator or BAT Inspector is responsible for performing and documenting inspection results, and calculating the average daily leakage rate on the first working day of the week from any measurements taken over the previous seven calendar days.~~

#### ***4.34.2 1995/1997 Evaporation Pond Lift Station***

The 1995/1997 Evaporation Pond Lift Station is designed and constructed to transfer wastewater from the Intermodal Unloading Facility IUF Lift Station and the Containerized Waste Storage Pad into either the 1995 Evaporation Pond or the 1997 Evaporation Pond.

~~The pond lift station is inspected daily for the activation of the visual alarm. The alarm will activate when the water level within the lift station rises above the lowest level of the inlet pipe. The alarm is inspected during the second week of each month. The inspection results will be recorded on Attachment 1.~~

#### **4.44.3 2000 Evaporation Pond Transfer Pad**

~~Freeboard compliance at the 2000 Evaporation Pond is recorded with each daily inspection. The results of the inspection are documented on the LLRW/11e.(2) Facility Daily Inspection Form (Attachment 1).~~

~~The 2000 Evaporation Pond is equipped with a leak detection pump back system that includes the following: Flow meter, pressure transducer, submersible sump pump, process controller/monitor, and discharge line. The leak detection system pumping and monitoring equipment must be inspected daily to ensure continuous operation. Failure of any pumping or monitoring equipment not repaired and made fully operational within 24 hours of discovery is deemed a BAT failure.~~

~~Measurement of daily leak detection system flow volume is read from the flow meter and recorded every day operations are being performed. The total change (increase) is recorded and averaged over a seven-day period to determine the calculated daily leakage rate. The weekly calculations are documented on the Evaporation Pond(s) Leak Detection System Volume Weekly Calculation Form, Attachment 2. The maximum allowable daily leakage volume for the 2000 Evaporation Pond is 382 gallons/day. If the calculated leakage rate is above 355 gallons/day a pump down test will be performed.~~

~~The leak detection system sump is inspected daily. An inspection of the system and preventative maintenance will be performed annually in accordance with CL EN PR 023 (ENG 2.3), *Annual Evaporation Pond Pump Inspection*. The process controller is read to measure fluid head. The measurement is documented on Attachment 1. The fluid head level is not to exceed a 1-foot level (readout above 1.0) above the lowest point in the lower flexible membrane liner. An exceedance of the 1-foot level is deemed a failure of BAT. Piping that carries water to the pond from the leak detection system is inspected during the second week of each month for signs of leakage by observing the manual removal of water from the system.~~

~~The Facility Operator or BAT Inspector is responsible for performing and documenting inspection results, and calculating the average daily leakage rate on the first working day of the week from any measurements taken over the previous seven calendar days.~~

~~The 2000 Evaporation Pond Transfer Pad is designed and constructed with a gravity flow system to provide free drainage of water from the transfer pad to the collection sump ~~collection area~~. The pad is inspected daily to ensure that free drainage conditions exist to the sump collection area and ensure concrete integrity. The sump collection area is inspected to ensure total containment of water.~~

#### **4.54.4 Northwest Corner Evaporation Corner Evaporation Pond Transfer Facility**

~~Freeboard compliance at the Northwest Corner Evaporation Pond is recorded with each daily inspection. The results of the inspection are documented on the LLRW/11e.(2) Facility Daily Inspection Form (Attachment 1).~~

~~The Northwest Corner Evaporation Pond is equipped with a leak detection pump back system that includes the following: Flow meter, pressure transducer, submersible sump pump, process controller/monitor, and discharge line. The leak detection system pumping and monitoring equipment must be inspected daily to ensure continuous operation. Failure of any pumping or monitoring equipment not repaired and made fully operational within 24 hours of discovery is deemed a BAT failure.~~

~~Measurement of daily leak detection system flow volume is read from the flow meter and recorded every day that operations are being performed. The total change (increase) is recorded and averaged over a seven day period to determine the calculated daily leakage rate. The weekly calculations are documented on the Evaporation Pond(s) Leak Detection System Volume Weekly Calculation Form, Attachment 2. The maximum allowable daily leakage volume for the Northwest Pond is 326 gallons/day. If the calculated leakage rate is above 300 gallons/day a pump down test will be performed. Piping that carries water to the pond from the leak detection system is inspected during the second week of each month for signs of leakage by observing the manual removal of water from the system.~~

~~The Facility Operator or BAT Inspector is responsible for performing and documenting inspection results, and calculating the average daily leakage rate on the first working day of the week from any measurements taken over the previous seven calendar days.~~

~~The Northwest corner Evaporation Pond Transfer Facility was constructed and designed for trucks to collect and discharge water on a containment surface. The concrete pad slopes towards the pond and an HDPE apron/rub sheet attaches to the edge of the concrete pad. The rub sheet extends down the slope of the pond providing for water transfer over rub sheets, thereby, reducing any negative effects on the pond liner. The pad is inspected monthly to ensure concrete integrity and the apron is inspected for any signs of cracks, holes, or tearing.~~

#### ***4.6 — Mixed Waste Evaporation Pond***

~~Freeboard compliance at the Mixed Waste Evaporation Pond is recorded with each daily inspection. The results of the inspection are documented on the Mixed Waste Evaporation Pond Daily Inspection Form (Attachment 3).~~

~~The Mixed Waste Evaporation Pond is equipped with a leak detection pump back system that includes the following: Flow meter, pressure transducer, submersible sump pump, process controller/monitor, and discharge line. The leak detection system pumping and monitoring equipment must be inspected daily to ensure continuous operation. Failure of any pumping or monitoring equipment not repaired and made fully operational within 24 hours of discovery is deemed a BAT failure. Piping that carries water to the pond from the leak detection system is inspected during the second week of each month for signs of leakage by observing the manual removal of water from the system.~~

~~Measurement of daily leak detection system flow volume is read from the flow meter and recorded every day operations are being performed. The total change (increase) is recorded and~~

~~averaged over a seven day period to determine the calculated daily leakage rate. The weekly calculations are documented on the Mixed Waste Evaporation Pond Leak Detection System Volume Weekly Calculation Form, Attachment 5. The maximum allowable daily leakage volume for the Mixed Waste Evaporation Pond is 171 gallons/day. If the calculated leakage rate is above 160 gallons/day a pump down test will be performed.~~

~~The leak detection system sump is inspected daily. An inspection of the system and preventative maintenance will be performed annually in accordance with CL-EN-PR-023 (ENG-2.3), *Annual Evaporation Pond Pump Inspection*. The process controller is read to measure fluid head. The measurement is documented on Attachment 3. The fluid head level is not to exceed a 1-foot level (readout above 1.0) above the lowest point in the lower flexible membrane liner. An exceedance of the 1-foot level is deemed a failure of BAT.~~

~~The Mixed Waste Facility Operator or designee is responsible for performing and documenting inspection results, and calculating the average daily leakage rate on the first working day of the week from any measurements taken over the previous seven calendar days.~~

#### ~~4.7—LARW, Class A, and Class A North Cell Collection Lysimeters~~

~~The LARW, Class A, and Class A North Cell Collection Lysimeters are monitored in accordance with Appendix C, *Specifications and Operation, Maintenance, and Closure Plans for Collection Lysimeters and Related Approvals* by the Site Hydrogeologist for the presence of liquids. An annual video inspection will be performed by the Site Hydrogeologist or designee using a boroscope.~~

~~Monitoring will be performed using an electronic water level probe to measure for free liquids in the lysimeter. Free liquid is not allowed in the standpipe to be less than 12 inches below the intersection of the transfer pipe. Liquids less than 12 inches below the intersection are deemed a failure of BAT. Any liquid present will be purged using a peristaltic pump or dedicated PVC bailer. Free liquid measurements obtained and the time and date of the measurements will be recorded on the Monitoring For Free Liquids Form (Attachment 4).~~

~~It is anticipated that the volume of free liquids in the standpipe will be limited and that if free liquids are present, the available quantities will restrict the chemical and radiological analyses to only a few select constituents. If and when free liquids appear in a collection lysimeter, the characteristics of the waste disposed in the general area will be evaluated and chemical and radiological constituents selected by the DHP and Director of Compliance and Permitting. Selection of analytical parameters will be based on highest mobility and probability of occurrence in the leachate, and the amount of liquid available for sampling.~~

~~NOTE: Lysimeters are not required to be sampled if free liquid is not present in the standpipe.~~

**4.84.5 Rail Rollover Facility**

The Rail Rollover Facility is designed and constructed to aid in the unloading of waste from railcars. The BAT operation standard at the Rail Rollover Facility is to prevent stormwater from contacting waste. The Rail Rollover Facility is equipped with a concrete berm directing water flow to a concrete trough, a settling basin, and a collection sump. The berm has been constructed to channel surface flow of stormwater away from the rollover pit to a trough. Water free drains from the trough through the settling basin and into the sump. Water is transferred from the sump via double piping (pipe in pipe) to the manhole at near the former Rail Wash Facility on Track 2, with further free drainage to the 1995 and 1997 Evaporation Ponds by way of the IUF Lift Station. The piping from the sump to the manhole is sloped so that if a leak should develop in the internal pipe, water will flow back to the sump in the external pipe.

~~The facility is inspected daily to ensure that ponded water does not exist within the covered area of the facility, the sump pump is operational (water level will be maintained below the grate), and free drainage conditions exist from the berm to the trough to the settling basin and sump. The berms, trough, settling basin, and sump shall be cleaned weekly or when sediment levels restrict free drainage. The results of the daily inspection are recorded on Attachment 1. In addition, T~~ the Rollover Facility is taken out of service and inspected annually during the second quarter, to ensure integrity of the asphalt ramps and the concrete surfaces. If discrepancies are noted per the definition listed in this plan, repairs shall be made prior to resuming the use of the facility. The results of the inspection are documented. The inspection findings, any repairs required, and repairs completed are included in the next Semi-annual BAT Monitoring Report.

**4.94.6 Containerized Waste Storage Pad**

The Containerized Waste Storage Pad is designed and constructed with ~~a~~ gravity flow ~~system~~ to providing drainage of stormwater to the 1995/1997 Pond Lift Station.

~~A daily inspection is performed by the Facility Operator or BAT Inspector to ensure free drainage to the sump, that the sump is operational, ensure that the exposed pad is free from dirt and debris, and to ensure pad integrity. Cracks, ruptures, damaged, or porous areas found in the asphalt surface shall be sealed or repaired, and areas of subsidence will be filled and returned to its original design grade within 10 days of discovery. All containers are inspected for leakage, proper storage and labeling. Leakage of waste shall be remediated by immediate container overpack or by proper disposal in the embankment. The inspection results are recorded on Attachment 1.~~

**4.104.7 Intermodal Unloading Facility (IUF)**

The ~~Intermodal Unloading Facility-IUF~~ is designed with ~~a~~ gravity flow ~~system~~ to the IUF Lift Station collection manhole. A sump pump is located within the manhole and pumps to a drain line to the 1995/1997 Pond Lift Station.

~~The Intermodal Unloading Facility is inspected daily by the Facility Operator or BAT Inspector to ensure free drainage to the sump, that the sump pump is operational, to ensure that the exposed pad is free from dirt and debris, and to ensure exposed pad integrity and free draining conditions~~

~~on both the unloading pad and in the stormwater drainage pipeline system. Results of the inspection are recorded on Attachment 1.~~

~~In addition, the The Intermodal Unloading Facility IUF is inspected annually during the second quarter to ensure integrity of the concrete surfaces. The inspection may occur one bay at a time. If discrepancies are noted per the definition listed in this plan, repairs shall be made prior to resuming the use of the affected inspected bay. The results of the bay inspections are documented in an engineer's report. The inspection findings, any repairs required, and repairs completed are included in the Semi-annual BAT Monitoring Report.~~

#### ~~**4.114.8**~~ **Intermodal Unloading Facility Lift Station**

~~The Intermodal Unloading Facility IUF Lift Station is designed and constructed to provide for the drainage of collect wastewater from the Rail Wash Facility on Track No. 2, the Intermodal Unloading Facility IUF, the Railcar Digging Facility, and the Rail Rollover Facility for transfer via gravity flow to the 1995/1997 pond lift station. An alarm will activate when the water level within the lift station rises above the lowest level of the inlet pipe.~~

~~The Intermodal Unloading Facility Lift Station is inspected daily for the activation of the visual alarm. The alarm will activate when the water level within the lift station rises above the lowest level of the inlet pipe. The alarm is inspected during the second week of each month. The inspection results will be recorded on Attachment 1.~~

#### ~~**4.124.9**~~ **LARW Box-Washing Facility**

~~The LARW Box-Washing Facility is designed and constructed to provide free drainage of washwater from the wash pad to the floor sumps and through across the wastewater drainage pipeline to the concrete holding tanks. The former drain line from the facility to the 1995/1997 pond lift station has been capped and the drain line abandoned. The cap placed over the outlet from the facility is inspected for integrity.~~

~~The LARW Box-Washing Facility is inspected daily by the Facility Operator or BAT Inspector to ensure that free drainage conditions exist to the floor sumps through the wastewater drainage pipeline to the concrete holding tanks. The sump area is inspected to ensure that the sump pump is operational. The concrete surface is inspected to ensure that the exposed pad is free from dirt and debris, and to ensure concrete integrity. The holding tanks are inspected to ensure that the water level is maintained at or below three-quarters full. The cap placed over the outlet from the facility is inspected for integrity. The inspection results will be recorded on Attachment 1.~~

#### ~~**4.134.10**~~ **Rail Wash Facility on Track No. 4**

~~The Rail Wash Facility on Track No. 4 is designed and constructed to provide free drainage of washwater from the rail wash floor and concrete trench to the floor sumps and through the piping that discharges to the collection tank(s) of the adjacent equipment/mechanics building. The rail wash floor is inspected to ensure total containment of water and that there is no direct or indirect~~

discharge to subsurface soils or groundwater. The facility also includes an adjacent equipment/mechanics building that contains the collection tank(s) for the washing operations.

~~The Rail Wash Facility on Track No. 4 is inspected daily by the Facility Operator or BAT Inspector to ensure that free drainage conditions exist in the concrete trench and the rail wash pads to the floor sumps for discharging to the collection tank(s) of the adjacent equipment/mechanics building. The sump is inspected to ensure that the sump pump is operational. The collection tank(s) and gray water discharge pump are inspected daily to verify that the system is functioning. The concrete surface is inspected to ensure that the exposed pad is free from dirt and debris, and to ensure concrete integrity. The rail wash pads are inspected to ensure total containment of water and that they do not cause a direct or indirect discharge to subsurface soils or groundwater (overflow). The results of the inspection are recorded on Attachment 1.~~

#### 4.144.11 *Rail Digging Facility*

The Rail Digging Facility located between Track No. 3 and Track No. 4 is designed and constructed to provide free drainage of stormwater from the asphalt containment pad and ramps to three concrete collection basins. Water from the collection basin drains to a settling basin, for a total of 4 sumps requiring inspection. Water continues to drain through piping to the digging facility manhole, continuing on to the ~~Intermodal Unloading Facility-IUF~~ Lift Station. The Rail Digging Facility is designed for ~~the digging of~~ waste from rail cars and ~~placement of waste within transferring it to~~ hauling equipment. No waste storage will occur.

~~The Rail Digging Facility is inspected daily by the Facility Operator or BAT Inspector to ensure that free drainage conditions exist from the asphalt containment pad to the concrete collection basins. The collection basins are inspected to ensure that water levels are not above the level of the grates and the settling basin is inspected to ensure that the water level is not above the elevation of the outlet pipe. The digging facility manhole located on the west side of track 2 directly west of the Rail Digging Facility settling basin will be inspected for any sign of leakage. The concrete area and the asphalt surfaces are inspected to ensure that the exposed pad is free from dirt and debris, and to ensure pad integrity. The results of the inspection are recorded on Attachment 1.~~

#### 4.154.12 *East Truck Unloading Area*

The East Truck Unloading Area includes the Container Holding Pads, Unloading Dock with Ramp and Unloading Area asphalt surfaces. The facility is designed with ~~a~~ gravity flow ~~system~~ to direct stormwater accumulated on the asphalt surfaces away from the concrete container holding pads. The concrete container holding pads are designed with ~~a~~ gravity flow ~~system~~ to direct water that accumulates on the concrete surface to collection troughs.

~~The Container Holding Pads are inspected daily to ensure gravity flow to the collection troughs, ensure that water level in the troughs does not exceed three quarters full, ensure that exposed surfaces of the container holding pads are free from dirt and debris, and ensure structural integrity of container holding pad, curb, and trough exposed surfaces.~~ Overnight storage is prohibited at the dock and on asphalt surfaces within the facility. Storage and sampling are restricted to the

concrete holding pads. Containers may be placed temporarily on the asphalt surface to facilitate transfer. Temporary is defined as the current acceptance date on the Bates Label. Therefore, this prohibits overnight storage.

#### **4.164.13 Decontamination Access Control Building**

The Decontamination Access Control Building is designed and constructed to provide personnel access to the Restricted Area. The design provides for free drainage from the facility to the wastewater collection tank buried outside the southwest corner of the building.

~~The facility is inspected daily to ensure free drainage to the wastewater collection tank from the bootwash, respirator sink, shower, and sink located next to the shower, to ensure that the water remains at a level below the bottom elevation of the inlet pipe, ensure that visual alarm is not currently activated, ensure automatic removal of water from the tank as necessary, and ensure that there is no fluid within the discharge pipe and tank leak detection systems. The visual alarm for water level is inspected during the second week of each month.~~

#### **4.174.14 Intermodal Container Wash Building**

The Intermodal Container Wash Building is used for the decontamination of containers. It was designed with a leak detection system and constructed in order to provide for the free drainage of washwater from the bootwash, and washbays to the sediment basin.

~~The Intermodal Container Wash Building is inspected daily to ensure the free drainage of water from the bootwashes to the trough, from the wash bays through troughs to a sediment basin, and to ensure that the water level in the sediment basin remains below the weir grate and that the automatic discharge pump system is operational. The leak detection ports are inspected daily for the presence of fluids. The exposed concrete surfaces are inspected daily to ensure surface integrity. The results of the inspection are recorded on Attachment 1.~~

#### **4.184.15 Shredder Facility**

The Shredder Facility is used to size-reduce debris wastes prior to disposal. It is designed to provide free drainage to seven catchbasins, which then drain to the sump in the Rotary Dump Facility before being pumped into the Northwest Corner Evaporation Pond. Because the 7 catchbasins are located at least 3.5 feet lower in elevation than the top of Manhole 1, used to pump water to the tanks, inspecting each catchbasin also functions as an inspection for functionality of the submersible pump in Manhole 1. When PCB-Containing waste is stored on the Shredder Pad, additional inspection criteria will be followed in accordance with the TSCA Approval for Shredding Polychlorinated Biphenyl (PCB) Wastes.

An alternate wastewater management system provides for the removal of water from manhole 1 via the use of a submersible pump and pipeline to water storage tanks located on the concrete pad. This system will be used during the shredding of PCB waste ~~and~~ may be used optionally when the drainage system to the Rotary Dump Facility or Northwest Corner Evaporation Pond is out of service. When in use, the alternate wastewater management system and associated valves will be

inspected to ensure that the associated valves are in the proper position, the pipeline is not leaking, and the high water level alarms are not activated.

~~The facility is inspected daily to ensure free drainage of water from the shredder facility to the catchbasins. In addition the water level within each catchbasin is inspected to ensure water is below the grate. Because the catchbasins are all located at least 3.5 feet lower in elevation than the top of Manhole 1, inspecting each catchbasin also functions as an inspection for functionality of the submersible pump in Manhole 1. The exposed concrete surfaces are inspected daily to ensure integrity. The results of the inspection are recorded on Attachment 1. When PCB-Containing waste is stored on the Shredder Pad, additional inspection criteria will be followed in accordance with the TSCA Approval for Shredding Polychlorinated Biphenyl (PCB) Wastes. The Facility Operator will inspect the facility prior to the end of shift to ensure that all outfeed material has been removed from the outfeed pad. The results of the inspection are recorded on Attachment 1.~~

The Shredder Facility is taken out of service and inspected annually during the second quarter, to ensure integrity of the concrete surfaces and to ensure that system valves are operating as designed. If discrepancies are noted per the definition listed in this plan, repairs shall be made prior to resuming the use of the facility. The results of the inspection are documented. The inspection findings, any repairs required, and repairs completed are included in the Semi-annual BAT Monitoring Report. Additional reporting may be required in accordance with the TSCA Approval for Shredding Polychlorinated Biphenyl (PCB) Wastes.

#### **4.19.16 Rotary Dump Facility**

The Rotary Dump Facility is designed and constructed for the thawing, emptying, and washing of railcars. It includes 4 sub-facilities. The Rotary Dump Facility is taken out of service and all areas are inspected annually during the second quarter, to ensure integrity of the concrete surfaces. If discrepancies are noted per the definition listed in this plan, repairs shall be made prior to resuming the use of the facility. The results of the inspection are documented. The inspection findings, any repairs required, and repairs completed are included in the next Semi-annual BAT Monitoring Report.

##### **4.19.14.16.1 Thaw Building**

The railcars enter the Thaw Building where wall and floor heaters provide heat as necessary to thaw the material for dumping. The rail in the thaw building is underlain with a flexible membrane liner covered with a granular surface. If any liquid is generated, the liquid drains into the granular surface, and is captured by the flexible membrane liner. The liquid then gravity drains via perforated pipe installed above the flexible membrane liner to a collection pipe. The collection pipe located under the granular surface is covered with geotextile material to prevent intrusion from material that may block the pipe. The wastewater free drains via a four-inch PVC pipe that discharges to the ~~W~~est side of the Rotary Building floor. The pipe from the Thaw Building is located one foot off of the Rotary Building floor.

~~The concrete surface at the east end of the Thaw Building is inspected to ensure concrete integrity. The granular surface area is inspected daily for ponding of water to ensure free drainage to the Rotary Building Floor. The drainage pipe from the Thaw Building is inspected to ensure that no blockage exists. The results of the inspection are recorded on Attachment 1.~~

#### **4.19.24.16.2 Rotary Building**

The Rotary Building is designed for the dumping of waste from railcars onto the Rotary Building Floor. While dumping is in process, water cannons may be used to remove excess material from the railcar. ~~It is anticipated that the water used by the water cannons will be absorbed into the dumped material and provide required dust suppression to reduce fugitive emissions.~~ The Rotary Building floor is sloped for free drainage of wastewater to the sediment basin. ~~Daily, upon completion of active waste management activities, an inspection is performed to ensure that no freestanding liquids exist on the building floor. Results of this inspection are recorded on Attachment 7.~~ Wastewater within the sediment basin is pumped via the use of a submersible pump and pipeline to the Northwest Corner Evaporation Pond or wastewater storage tanks at the Alternate Wastewater Management Area.

Routing of wastewater at the facility is controlled by locking valves. When the valve in the pipeline to the pond is in the “Closed” position and the valve in the pipeline to the tanks is in the “Open” position, the wastewater is transferred to the Alternate Wastewater Management Area. Notification to the ~~Executive Secretary Director~~ is required. When the locking valve in the pipeline to the tanks is in the “Closed” position and the valve in the pipeline to the pond is in the “Open” position, the wastewater is pumped to the Northwest Corner Evaporation Pond. The pipeline to the Northwest Corner Evaporation Pond is dual walled from the point where it exits the building to the discharge point in the pond.

~~The rotary building is inspected daily for active waste management. If active waste management is not being performed, the facility floor is inspected for the presence of free standing liquid that may indicate lack of free drainage to the sediment basin. The leak detection system ports at the sediment basin are inspected for the presence of fluids. The water level within the sediment basin is inspected to ensure that the water level is maintained at or below the grate. The leak detection system, for the dual pipeline to the pond, is located in the southwest corner of the pit and is inspected by opening a valve to determine if water is present in the containment space between the pipes. The valve is closed when the inspection is completed. The results of the inspection are recorded on Attachments 1 and 7.~~

#### **4.19.34.16.3 Wash Building**

The Wash Building is designed for the decontamination of railcars. Non-contaminated water is provided via four 2,500 gallon water storage tanks. Water used in the decontamination process gravity drains via two trenches to a drain pipe. Water from the drain pipe gravity drains to the sediment tank located on the floor of the rotary dump building. The sediment tank is designed with an overflow that drains from the sediment tank onto the Rotary Building floor surface to the sediment basin. Water within the sediment tank supplies the water cannons within the Rotary Building.

~~The wash building is inspected daily to ensure that the water free drains to the trenches and that the water level within the trenches remains below the grates. The concrete surface is inspected for integrity including all trenches and curbing at the east end of the building and surface seals around the stairway footing. The results of the inspection are recorded on Attachment 1.~~

#### **4.19.4.16.4 Alternate Wastewater Management Area**

The wastewater from the sediment basin is transferred via submersible pump and pipeline to two wastewater storage tanks or to the Northwest Corner Evaporation Pond. A locking valve in the pipeline to the Alternate Wastewater Management Area (tanks) is opened and a locking valve in the pipeline to the pond is closed when the tanks are placed in service. Notification to the ~~Executive Secretary~~ Director is provided when the Alternate Wastewater Management Area is placed in service. Each tank is equipped with a float switch that triggers activation of a visual alarm when the water level reaches two feet from the top of the tank. The pipeline transfers wastewater to both tanks. Reuse of the wastewater from these storage tanks at the wash building is prohibited. The tanks are located on a concrete surface.

~~The Alternate Wastewater Management Area is inspected daily when in use indicated by the valve in the "Open" position, or marked N/A on the Daily Inspection Form when not in use. The facility is inspected daily when in service to ensure concrete surface integrity and maintenance of free drainage to the rotary building floor. The tanks are inspected for signs of leakage and to ensure that the visual alarms have not been activated. All valves and piping associated with the wastewater storage tanks are maintained to prevent wastewater from escaping the concrete surface. The results of the inspection are recorded on Attachment 1.~~

~~The Rotary Dump Facility will be taken out of service and inspected annually during the second quarter to ensure integrity of the ramps and the concrete surfaces. If discrepancies are noted per the definition listed in this plan, repairs (if required) shall be made prior to resuming the use of the facility. The results of the inspection are documented. The annual inspection findings, any repairs required, and repairs completed will be included in the Semi-annual BAT Monitoring Report.~~

#### **4.204.17 East Side Drainage System**

The East Side Drainage System is comprised of two separate drainage systems; one for wastewater from decontamination facilities, and one for stormwater. ~~The two drainage systems are designed to prohibit commingling, until released into the 1997 Pond.~~ A process flow diagram of the system is provided as Figure 1.

The wastewater system is designed as follows: ~~The~~ wastewater is pumped from the Decontamination Access Control Building, the Intermodal Container Wash Building, and the Rail Wash Facility on Track No. 4 within a dual walled pipe system to the 1997 Pond.

The Decontamination Access Control Building Tank, Intermodal Container Wash Building, and the Rail Wash Facility on Track No. 4 are each equipped with shut-off (isolation) valves. These valves when closed will isolate the respective facilities thereby preventing the flow of additional wastewater via the pipelines to the 1997 Pond. This allows for the isolation of facilities and, upon

notification to the DRC, manual removal of wastewater for continued operation if a BAT failure or maintenance outage exists at another facility connected to the drainage system or during scheduled maintenance or inspection of the drainage system.

#### **4.20.14.17.1 Decontamination Access Control Building Wastewater Flow and Monitoring**

Wastewater from the Decontamination Access Control Building drains to a double-walled collection tank outside of the building. A moisture leak detection sensor is located between the walls (annular) of the tank to detect moisture or leakage from the primary wall of the tank. A strobe alarm is located on the outside of the building adjacent to the tank that is activated by the sensor in the tank annular space. A second leak detection sensor is located within the containment pipe to detect a leak in the carrier pipe, which also activates the strobe alarm mounted on the outside of the building adjacent to the tank. A high water level float alarm set so as to maintain the water level in the tank below the level of the inlet pipe activates strobe alarms located inside the building above the boot wash and the respirator wash sink. An isolation valve (P1-V01) is located at the collection tank of the Decontamination Access Control Building. This isolation valve when closed will prevent additional wastewater from transfer to the Rail Wash Facility on Track No. 4.

#### **4.20.24.17.2 Rail Wash Facility on Track No. 4 Wastewater Flow and Monitoring**

Wastewater is pumped from the collection tank at the Decontamination Access Control Building to the Rail Wash Facility on Track No. 4 through a dual wall pipe designated as Pipeline No.1. The inside pipe of the dual wall system is designated as the carrier pipe and the outer pipe is designated as the containment pipe. Pipeline No. 1 discharges into the wash water collection tank at the Rail Wash Facility on Track No. 4. Wastewater from the Rail Wash Facility on Track No. 4 collection tank is pumped through a dual wall pipe (Pipeline No. 2) to Manhole No. 1. An isolation valve (P2-V01), is located at the collection tank at the Rail Wash Facility on Track No. 4. This isolation valve when closed will prevent additional wastewater transfer via Pipeline No. 2 to Manhole 1.

#### **4.20.34.17.3 Intermodal Container Wash Building Wastewater Flow and Monitoring**

Wastewater from the Intermodal Container Wash Building sump is pumped to Manhole No. 1 through a dual wall pipeline designated pipeline No. 3 where it connects (via manifold) with Pipeline No. 4. An isolation valve (P3-V01) is located at the sedimentation sump in the Intermodal Container Wash Building. This isolation valve will prevent additional wastewater from transfer via Pipeline No. 3 to Manhole No. 1 when closed.

#### **4.20.44.17.4 Manhole No. 1 Wastewater Flow and Monitoring**

Manhole No. 1 is a dry manhole (receives no storm or wastewater) that provides access to a manifold system connecting pipelines No. 2, 3, and 4. Manhole No. 1 is located in close proximity to the Rail Wash Facility on Track No. 2 near the SW corner of the building. Within Manhole 1, dual wall pipelines No. 2 and No. 3 are joined with a manifold and exit the manhole as dual wall Pipeline No. 4. routed to the 1997 Pond. Check valves prevent water from backflowing into Pipelines No. 2 and No. 3. Wastewater flows from Manhole No. 1 to Manhole No. 2 via Pipeline No. 4 then to the 1997 Pond via the dual wall pipe designated as Pipeline No. 4a. A leak detection sensor and drip leg (2 total) is installed in each containment pipe of Pipelines No. 2 and No. 3 at Manhole No. 1 to detect leakage from the carrier pipes. The sensors activate a strobe

alarm mounted to the exterior of the adjacent [Track 4](#) Rail Wash Building. In addition, a sight canister is installed on each drip leg to collect any water, for visual detection, that may flow from the drip leg.

#### **4.20.54.17.5 Manhole No. 2 Wastewater Flow and Monitoring**

Pipeline 4 carries wastewater to Manhole 2 located north of the 1997 Pond. Pipeline 5 carries stormwater from the stormwater collection/transfer sump to Manhole No. 2. Pipelines No. 4a and No. 5a carry wastewater and stormwater from Manhole 2 to the 1997 Pond. The carrier pipelines pass through Manhole 2, keeping Manhole 2 dry and the water streams separate. A leak detection sensor and drip leg (4 total) is installed in each containment pipe of Pipelines No. 4, No. 4a, No. 5 and No. 5a at Manhole No. 2 to detect leakage from the carrier pipes. The sensors activate a strobe alarm mounted on a post adjacent to Manhole 2. In addition, a sight canister is installed on each drip leg to collect any water, for visual detection, that may flow from the drip leg.

#### **4.20.64.17.6 Stormwater Lift Sump Flow and Monitoring**

Stormwater is collected by the catchbasins located south of the Intermodal Container Wash Building, north and south of the [Intermodal Unloading Facility IUF](#), and between Tracks 2 and 3 and routed to the stormwater lift sump. The collected water is pumped from the sump and routed to the 1997 Pond through Pipeline No. 5.

A high water level float alarm is installed in the stormwater lift sump to indicate high water conditions within the sump due to system failure. The alarm activates a strobe alarm mounted to a post adjacent to the sump. If the high water level alarm is activated at the stormwater lift sump, ponding will occur at the catchbasins before water will overtop the stormwater lift sump.

~~The alarm is inspected during the second week of each month.~~

#### ~~Stormwater Drainage System Daily Inspections~~

~~The East Side drainage system is inspected daily to ensure the free drainage of stormwater from the area south of the Intermodal Container Wash Building, the areas north and south of the Intermodal Unloading Facility and the area between Tracks No's 2 and 3 to the stormwater lift sump and the 1997 Pond. In addition, a daily inspection is performed for the activation of strobe alarms for indication of water within the carrier pipe of the dual wall pipelines at Manholes 1 and 2 and the gray water tank at the Decon Access Control Building. A daily inspection is also performed of the high water level alarm at the Lift Station. The results of the inspection are recorded on Attachment 1.~~

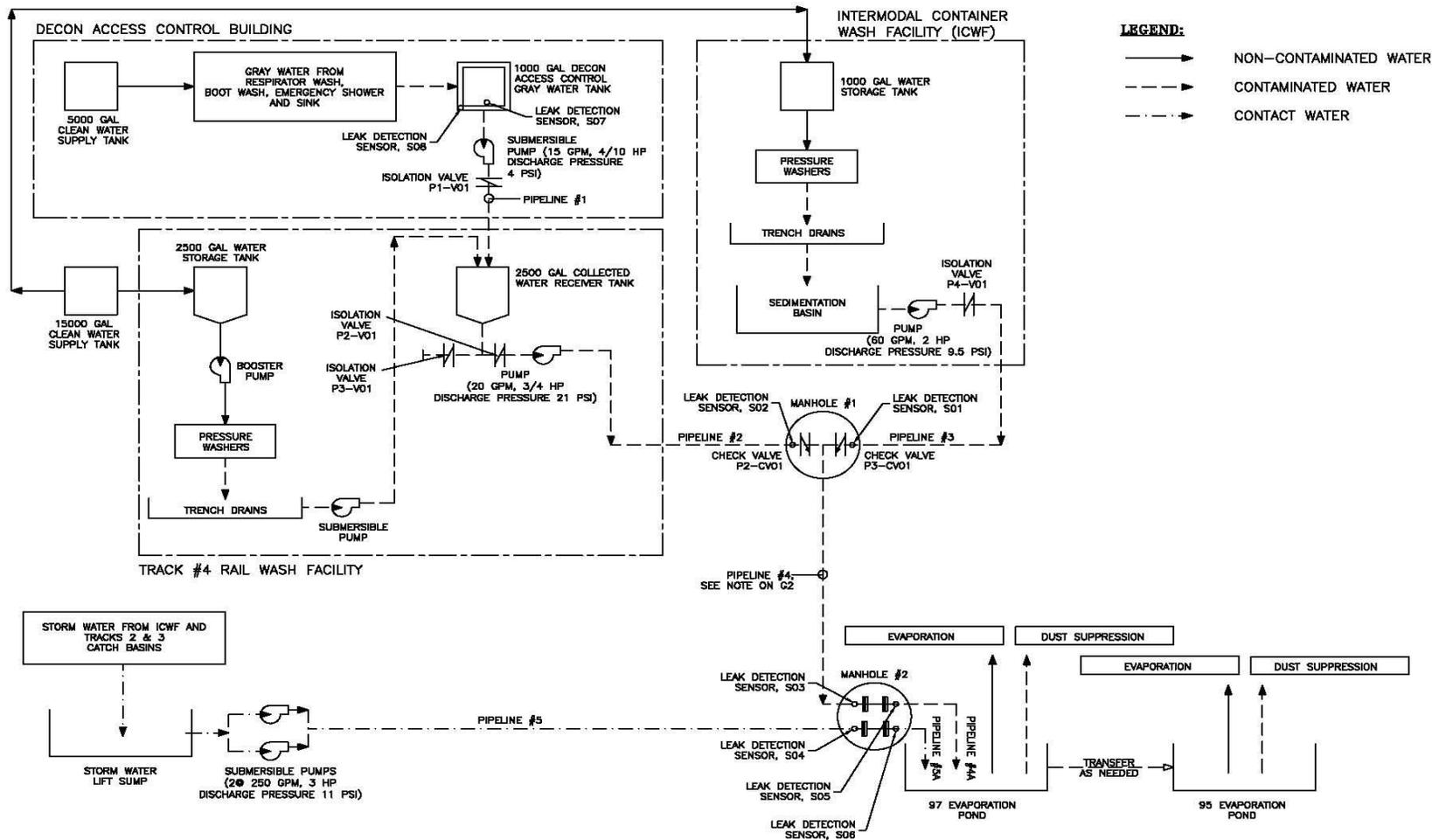
#### ~~Weekly Drip Leg Inspections~~

~~The drip leg collection sight canisters located within Manholes 1 and 2 and the Decon Access Control Building gray water tank will be visually inspected weekly for the presence of water. The results of the inspection are recorded on Attachment 1.~~

#### **4.20.7 Annual Pipe Pressure Testing**

~~All carrier pipes (Pipelines No. 1, No. 2, No. 3, No. 4, No. 4a, No. 5 and No. 5a) within the East Side Drainage System will be pressure tested annually during the third quarter of the calendar year to ensure integrity. The Time Pressure Drop method described in ASTM F1417 shall be used to determine the test criteria. In addition, the leak detection probes (8 total) will also be inspected and tested annually at the same time as the pipe pressure testing. The testing shall be conducted under the direction of a certified Professional Engineer qualified to perform pipe integrity testing.~~

~~Notification of shut down of the system for testing purposes will be provided at least 48 hours prior to the Executive Secretary/Director. A written report including certified test results will be submitted as part of the Semi-annual BAT Monitoring Report maintained in the operating record.~~



**EAST SIDE FLOW DIAGRAM**

**FIGURE 1 – EAST SIDE FLOW DIAGRAM**



#### **4.17.6.1 Annual Pipe Pressure Testing**

All carrier pipes (Pipelines No. 1, No. 2, No. 3, No. 4, No. 4a, No. 5 and No. 5a) within the East Side Drainage System will be pressure tested annually during the third quarter of the calendar year to ensure integrity. The Time-Pressure Drop method described in ASTM F1417 shall be used to determine the test criteria. In addition, the leak detection probes (8 total) will also be inspected and tested annually at the same time as the pipe pressure testing. The testing shall be conducted under the direction of a certified Professional Engineer qualified to perform pipe integrity testing. Notification of shut down of the system for testing purposes will be provided at least 48 hours prior to the Director. A written report including test results will be maintained in the operating record.

#### **4.18 South Ditch**

The Vitro drainage ditch culvert replacement (hereafter referred to as the South Ditch) was constructed to reduce a potential source of groundwater mounding near well GW-60. Since the ditch does not entirely free drain, the ditch contains a sump to lift remaining water from the ditch to the Southwest Corner Pond. The Southwest Corner Pond is a non-contact water collection and storage pond outside the restricted area and is not subject to the Ground Water Quality Discharge Permit. The pump may be removed from the sump during freezing weather. When the pump is removed, manual water removal will begin within the same working day after water is discovered to be above the sump grate.

~~*The Vitro drainage ditch culvert replacement (hereafter referred to as the South Ditch) was constructed to reduce a potential source of groundwater mounding near well GW-60. Since the ditch does not entirely free drain, the ditch contains a sump to lift remaining water from the ditch to the Southwest Corner Pond. The Southwest Corner Pond is a non-contact water collection and storage pond outside the restricted area and is not subject to the Ground Water Quality Discharge Permit. The pump will be removed from the sump during freezing weather. When the pump is removed, manual water removal will occur within the same working day after water is discovered to be above the sump grate.*~~ The South Ditch will be inspected when storm water has accumulated on site. Storm water accumulation is recorded on Attachment 1 as a general inspection item. The strobes, pump, and sump grate will be inspected during the second week of each month. Results will be recorded on Attachment 1.

#### **4.214.19 LLRW Operations Building**

Wastewater from the restricted area of the LLRW Operations Building drains to a 2,500 gallon double-walled collection tank outside of the building. A moisture leak detection sensor is located at the bottom of the tank between the walls (annular space) of the tank to detect moisture or leakage from the primary wall of the tank. A strobe alarm ~~is~~ located

adjacent to the tank is activated by the sensor in the tank annular space. A high level float alarm (orange strobe) is set to indicate when the tank is three-quarters full (approximately 625 gallons remaining capacity). A high-high-level float alarm (red strobe) is set just below the maximum capacity of the tank (approximately 125 gallons remaining capacity). ~~The LLRW Operations Building visual alarms will be inspected daily for activation. Weekly inspections of the~~The bootwash and sample prep room floor drains ~~will be performed to ensure free drainage. These~~ are the lowest elevation floor drains in the building, and therefore will provide the earliest indication if the tank is overfilled. ~~Results will be recorded on Attachment 1. An annual inspection of the alarms (high level, high-high level, and moisture sensor) will be performed within the third quarter. A written report including test results will be submitted as part of the Semi-annual BAT Monitoring Report.~~

#### **4.224.20 SRS DU Storage Building**

The SRS DU Storage Building is designed to protect SRS DU waste from the elements. The storage building is a steel building on concrete foundation with an asphalt floor. ~~The building will be inspected weekly to ensure that walls and roof are free from holes. The floor will be inspected for the presence of water. The containers will be inspected for evidence of leaks, corrosion, or deterioration. The results of the inspection are recorded on Attachment 6.~~

#### **4.234.21 Evaporation Pond Ancillary Equipment to Facilitate Evaporation**

Ancillary equipment intended to facilitate evaporation at all Evaporation Ponds ~~is~~ will be constructed of UV resistant, PVC piping that is set a minimum of 2 feet from the top of berm. The inlet pipe is located over a rub sheet to protect the liner. Water is conveyed to the piping and fed back into the pond. ~~The ancillary equipment is inspected daily to ensure that the system is working as designed, no liner damage is present, and no spillage of water has occurred from within secondary containment.~~

24 hours prior to use of ancillary equipment at an approved evaporation pond, verbal or email notification will be provided to DRC in order to provide opportunity for inspection.

Any proposed change in a test design or construction of ancillary equipment at an evaporation pond must adhere to the following BAT principles:

- Equipment that conveys contact wastewater (such as pumps, pipe, hoses, etc.) and is not located directly on the pond liner shall be placed inside a watertight secondary containment system that drains into the pond.
- Equipment that is placed onto or over the pond liner shall be placed so that the integrity of the pond liner is protected; i.e., placed on rub sheets or otherwise arranged to minimize the potential for the pond liner to be damaged.
- Spillage of contact wastewater outside of the pond or secondary containment or damage to the pond liner shall be responded to in accordance with the BAT Contingency Plan.

4.244.22 *Stormwater Management*

The Clive facility is inspected daily for the accumulation of stormwater. Water management personnel collect and transfer stormwater from within the restricted area to the evaporation ponds. Collected stormwater and water contained within the evaporation ponds may also be used for minimal engineering and dust control purposes at the Class A ~~and Class A North West~~ embankments and for dust suppression activities at the Shredder Facility. The management of stormwater at the facility shall occur according to the following requirements:

Stormwater runoff at the Class A, ~~Class A North, West~~ and 11e.(2) Disposal Cells which has contacted the waste (i.e. contact stormwater), shall be contained. The priority schedule listed below shall be followed for removal of stormwater that falls inside the restricted area. This includes runoff from waste disposed in excavated, below grade areas of the Disposal Cells.

Within 24 hours of discovery of any accumulation of contact stormwater, removal of said wastewater shall commence. Wastewater removal shall occur in accordance with the priority list below.

- 1) Contact stormwater inside the footprint of the Class A, ~~Class A North, West~~ and 11e.(2) Disposal Cells
- 2) Contact stormwater at the Rail Rollover and Rotary Dump Facility
- 3) Contact stormwater at the ~~Intermodal Unloading Facility IUF~~
- 4) Contact wastewater at any facility (e.g. BAT Failures, facility maintenance, etc.)
- 5) Non-contact stormwater within the restricted area

If water removal equipment is not effective for use at higher priority water accumulation areas, said equipment may be used at the next lower priority location where it will be effective provided that higher priority collection is not interrupted. This is defined as a bypass of priority collection (e.g., if water removal equipment cannot navigate the terrain in the embankments, it can be used to remove water from a priority two location, if necessary; or if a pump is not usable to transfer water at a priority one location and cannot be used at a priority two location, it can be used at the priority three location, or the next lower priority, where it will be effective).

If conditions improve so that water removal equipment can now access or be used at the previous higher priority inaccessible area, the water removal equipment will return to the high priority area immediately.

Within 24 hours the ~~Director of LLRW Operations Manager, Compliance and Permitting~~ or designee shall provide notification and justification to the ~~Executive Secretary Director~~ whenever equipment bypasses a higher priority for use at a lower priority location.

Approval must be obtained from the Executive Secretary-Director to interrupt (stop) collection from a higher priority location for the purpose of collecting water from a lower priority location.

If stormwater removal at a lower priority location interrupts listed higher priority collection without required approvals, contingency actions shall be performed in accordance with the BAT Contingency Plan.

## ~~5~~ **EQUIPMENT MAINTENANCE**

~~Equipment corrective and preventative maintenance is performed, as needed. Spare sump pumps and replacement parts (including batteries for portable measuring devices, etc.) are on site at all times for required repairs.~~

## ~~6~~ **5 QUALITY ASSURANCE/QUALITY CONTROL**

The Quality Assurance Manager or designee will conduct surveillance activities to ensure the requirements of the BAT Performance Monitoring Plan have been implemented, as required. Surveillance activities will be performed in accordance with the currently approved Quality Assurance Program Document. The Quality Assurance Manager or designee will also ~~perform~~ ~~reviews of~~ inspection forms for accuracy and completeness.

The ~~applicable site director~~ Manager, Waste Disposal Operations or designee will conduct a ~~biweekly (once every two weeks)~~ monthly assessment of the ~~BAT Performance Monitoring Plan~~ daily and weekly inspections to ensure inspection activities are performed in accordance with this plan. ~~Biweekly a~~ Assessments will be conducted in accordance with currently approved procedures. The applicable site director or designee will also perform reviews of inspection forms for accuracy and completeness.

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**TABLE 1**  
BAT MONITORING AND PERFORMANCE CRITERIA

<b>FACILITY</b>	<b>BAT DESCRIPTION</b>	<b>INSPECTION AND MAINTENANCE</b>	<b>PERFORMANCE CRITERIA</b>	<b><u>DOCUMENTATION</u></b>
1995, 1997, 2000, Northwest Corner, and Mixed Waste Evaporation Ponds	<del>Visual monitoring of freeboard requirement of 24 inches. Freeboard between pond water level and spillway elevation, measured vertically</del>	<del>Daily inspection of freeboard compliance. Daily – visual inspection</del>	<del>Freeboard level maintained at a minimum of 24 inches of freeboard.</del>	<del>Form 1 (Form 4 for MW Pond)</del>
	Leak detection system <u>and monitoring equipment</u> including <del>the following</del> : leak detection system pump, head pressure transducer, and flow meters	<u>Daily – Record water flow meter reading daily.</u> <u>Daily – Record fluid head reading from pressure transducer.</u> <u>Weekly – Calculation of seven-day average flow rate.</u>	<del>Not to exceed a seven-day average flow rate of 162 gallons/day</del> <u>Pressure transducer ≤ 1.0 foot.</u> <u>Flow rate initial action levels for each evaporation Pond:</u> <u>1995 Pond – 155 gal/day</u> <u>1997 Pond – 160 gal/day</u> <u>2000 Pond – 355 gal/day</u> <u>NW Pond – 300 gal/day</u> <u>MW Pond – 160 gal/day</u>	<u>Form 1 (Form 4 for MW Pond)</u> <u>Form 2</u>
	Leak detection system <u>pump</u>	<del>Measurement of fluid head using pressure transducer.</del> <u>Annual – inspection and maintenance of instrumentation.</u>	<u>Procedure CL-EN-PR-023, Annual Evaporation Pond Pump Inspection</u> <u>Fluid head not to exceed a 1-foot level above the lowest point in the lower flexible membrane liner</u>	<u>Procedure CL-EN-PR-023, Form 1</u> <u>Annual Report form CL-EN-PR-023 F1</u>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
	<u>Pump functionality and return piping from leak detection system to pond integrity</u>	Monthly – <del>inspection of</del> piping from leak detection system to pond through the manual removal of water.	<u>Pump operational; nNo leakage from piping designed to pump water from the leak detection system back to the pond</u>	<u>Form 3</u>
<u>1995/1997 Evaporation Pond Lift Station</u>	<u>Water level within the lift station</u>	<u>Daily – Inspect for visual alarm activation.</u> <u>Monthly – Confirm alarm function</u>	<u>Water level not to exceed the lowest level of the inlet pipe (set point for alarm)</u> <u>Alarm trips manually</u>	<u>Form 1</u> <u>Form 3</u>
<u>2000 Evaporation Pond Water Transfer Pad</u>	<u>Gravity flow from the pad to the collection sump.</u>	<u>Daily when stormwater present – free drainage; sump water level</u> <u>Weekly – Surface integrity</u>	<u>Free drainage; water below grate of sump</u> <u>See definition “Surface Integrity Discrepancy”</u>	<u>Form 1a</u> <u>Form 2</u>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
<del>Pond Lift Station</del>	<del>Visual alarm to monitor water level within the lift station</del>	<del>Daily inspection for the activation of the visual alarm. Monthly alarm inspection.</del>	<del>Water level not to exceed the lowest level of the inlet pipe</del>	<del>Form 1 Form 3</del>
2000 Evaporation Pond Water Transfer Pad, Containment Trough, Ramps, and Spillway	Gravity Flow system from the pad to the sump collection area.	<del>Weekly (or daily when stormwater present). Daily inspection of drainage system, and concrete integrity.</del>	<del>Existence of free drainage conditions and maintenance of concrete integrity</del>	<del>Form 1a Form 2</del>
Northwest <u>Corner Evaporation Pond Transfer Facility</u>	Concrete pad with HDPE <del>a</del> Apron for <del>the water</del> transfer and collection <del>of water at the pond.</del>	<del>Monthly – Surface integrity; inspection of pad apron for signs of cracks, tears, or holes. Monthly inspection of concrete pad to ensure integrity.</del>	No holes, cracks, or tears at the seam between the concrete apron and HDPE liner. <del>;</del> See definition “Surface Integrity Discrepancy” maintenance of concrete integrity.	Form 3
LARW Cell Collection Lysimeters	Annual video log; monitoring for the presence of fluids in accordance with Appendix C of the GWQDP.	<del>Annual video log performed; semi-annual monitoring for free drainage and presence of fluid; if fluids are present they are measured and analyzed.</del>	<del>Completion of annual video log; existence of free drainage conditions</del>	

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
<p><del>East Truck Unloading Area and Container Holding Pads.</del></p>	<p><del>The Container Holding Pads, are inspected daily to ensure gravity flow to the collection troughs, ensure that water level in each trough does not exceed three quarters full, ensure that exposed container holding pad areas are free from dirt and debris, and ensure structural integrity of the exposed surfaces of the container holding pads, curbing, and troughs.</del></p>	<p><del>When in use, wDaily eekly (or daily if stormwater present) inspection to ensure free drainage to collection troughs from container holding pads; cleanliness of concrete surfaces (dirt, debris, etc.), and inspection of container holding pad surface integrity.</del></p>	<p><del>Free drainage to collection troughs from the container holding pads; water level within troughs less than ¾ full; maintenance of container holding pad surface integrity.</del></p>	<p><del>Form 1a Form 2</del></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Rail Rollover Facility	<u>Minimize stormwater contact with waste</u> <del>Free drainage from the berm to the trough through the settling basin and into the sump; prevention of ponded water.</del>	<u>Daily- free drainage;</u> <u>Daily when stormwater present – free drainage; sump water level; sump pump;</u> <u>Weekly – Surface integrity, sump pump;</u> <u>Annual – Clean entire surface for detailed surface integrity inspection</u> <del>When in use, weekly (or daily if stormwater present) inspection of facility to ensure free drainage from the berm to the trough through the settling basin and into the sump; sump pump operation; no ponding of water within the covered area; cleaning of berm and trough, settling basin, and sump; annual inspection of asphalt surfaces, concrete berm, trough, and bay.</del>	<u>Free drainage; no ponding of water within covered area; water below grate of sump; sump pump operational; repair of concrete and asphalt surfaces</u> <u>See definitions “Free Drainage”, and “Surface Integrity Discrepancy”</u> <del>Free drainage from the berm to the trough, through the settling basin and into the sump and sump pump operation; water level below grate; repair concrete and asphalt surfaces during annual inspection</del>	<u>Form 1</u> <u>Form 1a</u> <u>Form 2</u> <u>Engineer’s report of annual inspection</u> <del>Form 1a</del> <del>Form 2</del>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Containerized Waste Storage Pad	<p><del>Gravity flow system to provide drainage of water to the Pond Lift Station.</del>  <u>Minimize Prevent stormwater from contacting waste</u></p>	<p><del>Daily when stormwater present – free drainage; sump water level; cleanliness of pad surface</del>  <u>Weekly – Surface integrity; container storage compliance cleanliness of pad surface</u>  <del>When in use, wDaily eekly (or daily if stormwater present)</del>  <u>inspection of drainage system; physical condition of containers on pad, cleanliness of pad surface (dirt, debris, etc.), and pad integrity.</u></p>	<p><u>Free drainage; water below grate of sump</u>  <u>See definitions “Surface Integrity Discrepancy” and “Container Storage Compliance”</u>  <del>Existence of free drainage conditions and proper condition of containers on pad and maintenance of pad integrity</del></p>	<p><u>Form 1a</u>  <u>Form 2</u></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Intermodal Unloading Facility (IUF)	<p><del>Drainage system on the unloading pad to a sump and in the stormwater drainage pipeline system</del>                      Minimize stormwater contact with waste</p>	<p>Daily - <u>free draining conditions for unloading pad and stormwater drainage pipeline system. Daily when stormwater present – free drainage; sump water level, and cleanliness of pad surface</u>                      Weekly – <u>Surface integrity; container storage compliance, and cleanliness of pad surface</u>                      Annual – <u>Clean entire surface for detailed surface integrity inspection (see section 4.7)</u>  <del>When in use, weekly (or daily if storm water present)</del>                      Daily <del>inspection of drainage to sump; level within sump; cleanliness of pad surface (dirt, debris, etc.), and pad integrity;</del>                      annual <del>inspection of concrete surfaces</del></p>	<p><u>Free drainage; water below grate of sump</u>                      See definitions “<u>Surface Integrity Discrepancy</u>” and “<u>Container Storage Compliance</u>”  <del>Free drainage to sump; level within sump; maintenance of pad integrity</del></p>	<p><u>Form 1</u>  <u>Form 1a</u>  <u>Form 2</u>  <u>Engineer’s report of annual inspection</u></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
<p><del>Intermodal Unloading Facility</del> IUF Lift Station</p>	<p><del>Contain contact water within facility</del> <del>Free drainage of wastewater from the Intermodal Unloading Facility, Rail Wash Facility on Track No. 2, and Rail Rollover Facility; pumped to the pond lift station</del></p>	<p><del>Daily – Inspect for visual alarm activation.</del> <del>Monthly – Alarm function</del> <del>When in use, weekly (or daily if storm water present)</del> <del>Daily inspection for activation of visual alarm;</del> <del>Monthly alarm inspection.</del></p>	<p><del>Water level not to exceed the lowest level of the inlet pipe (set point for alarm)</del> <del>Alarm trips manually</del> <del>Free drainage to Intermodal Unloading Facility Lift Station; level of water within lift station</del></p>	<p><del>Form 1</del> <del>Form 3</del> <del>Form 1a</del> <del>Form 2</del> <del>Form 3</del></p>
<p>LARW Box Washing Facility</p>	<p><del>Free drainage at floor sumps and wastewater drainage pipeline that discharges to the concrete holding tanks; water level in concrete holding tanks not to exceed three-quarters full.</del> <del>Contain contact water within facility</del></p>	<p><del>Daily-Weekly – Sump water level; free drainage; holding tank water level.;</del> <del>Weekly – surface integrity; pipeline cap; holding tank water level</del> <del>When in use, weekly (or daily if storm water present)</del> <del>Daily inspection to ensure free drainage at floor sumps and wastewater drainage pipeline to the concrete holding tanks; sump operation; inspection of water level in the concrete holding tanks; cleanliness of pad surface (dirt, debris, etc.); and inspection of concrete integrity.</del></p>	<p><del>Sump water level below grate; free drainage; tank water level ≤ ¾ full; see definition “Surface Integrity Discrepancy”; pipeline cap intact; tank water level ≤ ¾ full</del> <del>Maintenance of concrete integrity; free drainage; water level in concrete holding tanks not to exceed three-quarters full</del></p>	<p><del>Form 1</del> <del>Form 1a</del> <del>Form 2</del></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Rail Wash Facility on Track No. 4	<u>Contain contact water within facility</u> <del>Free drainage at floor sumps and concrete trench that discharges to the collection tank(s) located within the adjacent equipment/mechanics building</del>	<del>Daily-Weekly</del> — <u>Sump water level; free drainage (including concrete trench); and water level in collection and storage tanks.</u> <del>Weekly</del> – <u>surface integrity, sump pump operational; inspection of collection and storage tanks.</u> <u>Monthly – Alarm function</u> <del>When in use, w</del> <u>Daily eekly inspection to ensure free drainage at floor sumps through piping and concrete trench; sump pump operation; inspection of collection and storage tanks; cleanliness of concrete surface (dirt, debris, etc.), and inspection of concrete integrity.</u> <del>When in use, m</del> <u>Monthly alarm inspection.</u>	<u>Sump water level below grate; free drainage; see definition “Surface Integrity Discrepancy”</u> <del>Maintenance of concrete integrity; free drainage to sump; maintenance of closed loop system</del> <u>Alarm trips manually</u>	<u>Form 1</u> <u>Form 2</u> <u>Form 3</u>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Rail Digging Facility	<u>Minimize stormwater contact with waste</u> <del>Free drainage to collection basins to digging facility manhole</del>	<u>Daily- cleanliness of asphalt and concrete surface. Daily when stormwater present – free drainage; sump water level.</u> <u>Weekly – Surface integrity</u> <del>When in use, w</del> <u>Daily eekly inspection to ensure free drainage to collection basins to digging facility manhole; cleanliness of asphalt and concrete surfaces (dirt, debris, etc.), and inspection of asphalt and concrete integrity.</u>	<u>Free drainage; water below grate of sump (4)</u> <u>See definition “Surface Integrity Discrepancy”</u> <del>Maintenance of asphalt and concrete integrity, free drainage to collection basins and digging facility manhole.</del>	<u>Form 1</u> <u>Form 1a</u> <u>Form 2</u>
<u>East Truck Unloading Area and Container Holding Pads</u>	<u>Minimize Prevent stormwater from contacting waste</u>	<u>Daily when stormwater present – free drainage; collection trough water level</u> <u>Weekly – Surface integrity; container storage compliance</u>	<u>Free drainage; water level ≤ ¾ full</u> <u>See definitions “Surface Integrity Discrepancy” and “Container Storage Compliance”</u>	<u>Form 1a</u> <u>Form 2</u>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Decontamination Access Control Building	<p><u>Contain contact water within facility</u>  <del>Free drainage from the bootwash, respirator sink, shower, and the sink next to shower, to the wastewater collection tank buried outside the southwest corner of the building; leak detection system.</del></p>	<p><del>Weekly</del> <u>When in use, m</u>  <del>Daily onthly inspection to ensure</del>  <del>f</del>Free drainage to the wastewater collection tank; level of wastewater <del>with</del>in the tank <del>below the bottom of the inlet pipe;</del> and presence of fluids in the leak detection system <u>check.</u> <del>When in use, monthly</del> Weekly inspection of sight canisters for presence of water. <del>When in use, m</del>  <u>MM</u>Monthly <u>a</u> Alarm inspection <u>function.</u></p>	<p><u>Free drainage; water level not to exceed the lowest level of the inlet pipe (set point for alarm); no fluid in drip leg</u> <u>7 Alarm trips manually</u>  <del>Maintenance of free drainage to the wastewater collection tank; maintenance of water level within the tank below the inlet pipe; absence of fluids within the leak detection system.</del></p>	<p><u>Form 2</u>  <u>Form 3</u></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Intermodal Container Wash Building	<u>Contain contact water within facility</u> <del>Free drainage from the bootwashes, to the troughs; free drainage from the wash bays to the troughs through to the sediment basin; water level within sediment basin below the grate; leak detection system;</del>	<del>Daily-Weekly—Sediment basin water level; free drainage; Weekly – surface integrity; leak detection system</del> <u>When in use, w</u> <del>Daily eekly inspection of leak detection ports for presenece of fluids; ensure free drainage from bootwashes to troughs; ensure free drainage from washbays to troughs through to the sediment basin; level of wastewater within the sediment basin below the grate; exposed concrete surface integrity.</del>	<u>Sump water level below grate; free drainage from bootwashes to troughs, from washbays to troughs through to the sediment basin; see definition “Surface Integrity Discrepancy”; no fluids in leak detection system</u> <del>Maintenance of free drainage from bootwashes to troughs, from washbays to troughs through to the sediment basin; maintenance of water level in sediment basin below the grate; absence of fluids within the leak detection system; concrete surface integrity.</del>	<u>Form 1</u> <u>Form 2</u> <del>Form 2</del>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
<u>Shredder Facility</u>	<u>Minimize stormwater contact with waste</u>	<u>Daily- free drainage. Daily when stormwater present – free drainage; sump water level; water level of catchbasins</u> <u>Weekly – surface integrity</u> <u>Annual – Clean entire surface for detailed surface integrity inspection</u>	<u>Free drainage to catchbasins; water below grate of sump (7)</u> <u>Maintenance of free drainage from shredder facility to catchbasins through to Manhole 1; ensure exposed concrete surface integrity</u>  <u>Shredded material removed from the outfeed pad by the end of shift.</u>  <u>Repair of concrete surfaces of the facility and automatic valve functionality during annual inspection.</u>  <u>See definition “Surface Integrity Discrepancy”</u>	<u>Form 1</u> <u>Form 1a</u> <u>Form 2</u> <u>Engineer’s report of annual inspection</u>
<u>Shredder Facility Alternate Wastewater Management System</u>	<u>Minimize stormwater contact with waste</u>	<u>Daily when in use – free drainage; pipeline integrity; high water level alarm; surface integrity</u> <u>Monthly – Alarm function</u>	<u>Free drainage; water below grate of sump (7); pipeline not leaking; high level alarm off; see definition “Surface Integrity Discrepancy”</u> <u>Alarm trips manually</u>	<u>Form 1b</u> <u>Form 3</u>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
<del>Shredder Facility</del>	<p><del>Free drainage from the shredder facility to the seven catchbasins through to Manhole 1; drainage through valve to the Rotary Dump Facility Sediment Basin; maintenance of concrete surface integrity.</del></p> <p><del>Shredded material removed from the outfeed pad at the end of shift.</del></p>	<p><del>When in use, wDaily eekly inspection for free drainage of water to the catchbasins; level of water within the catchbasins below the grate; ensure free drainage from shredder facility to the manholes; and inspection of exposed concrete surface integrity;</del></p> <p><del>Additional inspection performed to ensure that shredded material is removed from the outfeed pad by the end of the shift.</del></p> <p><del>Annual inspection of concrete surfaces and automatic operation of the valve to the Rotary Dump Facility.</del></p>	<p><del>Maintenance of free drainage from shredder facility to catchbasins through to Manhole 1; ensure exposed concrete surface integrity</del></p> <p><del>Shredded material removed from the outfeed pad by the end of shift.</del></p> <p><del>Repair of concrete surfaces of the facility and automatic valve functionality during annual inspection.</del></p> <p><del>Maintenance of free drainage from shredder facility to Manhole 1; maintenance of pipeline integrity from Manhole 1 to the water storage tanks; maintenance of high water level within water storage tanks.</del></p>	<p><del>Form 2</del></p> <p><del>Annual Report</del></p>
Alternate Wastewater Management System (Used for PCB Waste or optionally for other waste types)	<p>Free drainage from the shredder facility to the seven catchbasins through to Manhole 1; maintenance of pipeline integrity from Manhole 1 to water storage tanks; maintenance of high water level alarm within water storage tanks; maintenance of concrete surface integrity.</p>	<p><u>When processing PCBs,</u>  <del>d</del>Daily inspection for free drainage of water to the catchbasins; level of water within the catchbasins below the grate; ensure free drainage from shredder facility to the manholes; inspection of pipeline from Manhole 1 to the water storage tanks; inspection for activation of high water level alarm within the water storage tanks; and inspection</p>	<p>Maintenance of free drainage from shredder facility to Manhole 1; ensure exposed concrete surface integrity</p> <p>Shredded material removed from the outfeed pad by the end of shift.</p> <p>Repair of concrete surfaces of the facility and automatic valve functionality during annual inspection.</p> <p>Maintenance of free drainage from shredder facility to Manhole 1; maintenance of pipeline integrity from Manhole 1 to the water storage tanks; maintenance of high water level within water storage tanks.</p>	<p>Form 1b</p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Rotary Dump Facility = Thaw Building	<p><u>Minimize stormwater contact with waste and contain contact water within all facilities. Consists of the Thaw, Rotary, and Wash buildings.</u></p> <p><u>Free drainage to rotary building floor; maintenance of concrete surface integrity. Contain contact water within facility</u></p>	<p><u>When in use, weekly Daily inspection for free drainage of water to the rotary building floor (no ponding of water on the granular floor surface, pipe outlet into rotary building free of debris; inspect exposed concrete surfaces to ensure integrity; performance of annual inspection Weekly – free drainage (within Thaw Building and at discharge pipe); surface integrity</u></p>	<p><u>Free drainage; discharge pipe not blocked; see definition “Surface Integrity</u></p> <p><u>Maintenance of free drainage from thaw building to rotary building floor; ensure exposed concrete surface integrity</u></p>	<p><u>Form 2</u></p> <p><u>Annual Report</u></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Rotary Dump Facility – Rotary Building	<p><del>Contain contact water within facility</del>  <del>Minimize stormwater contact with waste</del></p> <p>Free drainage to sediment basin; maintenance of water level within sediment basin below the grate; leak detection systems; maintenance of concrete surface integrity</p>	<p><del>Daily when stormwater present – free drainage; sediment basin water level</del>                      Weekly – surface integrity; leak detection system                      Annual – Clean entire surface for detailed surface integrity inspection (includes Thaw Building and Wash Building concrete surfaces)</p> <p><del>When in use, weekly</del>Daily inspection for free drainage of water to the sediment basin; level of water within the sediment basin below the grate; inspect for the presence of fluids within the leak detection system ports at the sediment basin; inspect for the presence of water within the leak detection system for the pipeline from the Rotary Building to the Northwest Corner Evaporation Pond; inspect exposed concrete surfaces to ensure integrity; performance of annual inspection</p>	<p><del>Free drainage; water below grate of sediment basin</del>                      See definition “Surface Integrity Discrepancy”; no fluids in leak detection system</p> <p>Maintenance of free drainage from rotary building floor to sediment basin; maintenance of water level below the grate of the sediment basin; absence of fluids within the leak detection system ports at the sediment basin; absence of water within the leak detection system for the pipeline from the Rotary Building to the Northwest Corner Evaporation Pond;; maintenance of exposed concrete surface integrity</p>	<p><del>Form 1a</del>  <del>Form 2</del>  <del>Engineer’s report of annual inspection</del></p> <p><del>Form 2</del></p> <p><u>Annual Report</u></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
Rotary Dump Facility =  Wash Building	<p><u>Contain contact water within facility</u></p> <p><del>Free drainage from floor to trenches and from trenches to sediment tank; maintenance of water level below the collection trench grates</del></p>	<p><del>Daily-Weekly—free drainage; water in trenches below grates. Weekly – surface integrity (including east curb and seals around stairway footing)</del></p> <p><u>When in use, weekly Daily inspection for free drainage of water to the trenches and from trenches to the sediment tank; level of water level within the trenches below the grates; inspect exposed concrete surfaces and surface seals around stairway footing to ensure integrity; performance of annual inspection (this includes curbing at east end of the building).</u></p>	<p><del>Free drainage; see definition “Surface Integrity</del></p> <p><del>Maintenance of free drainage from the wash building to the sediment tank; level of water level within the trenches below the grates; maintenance of exposed concrete surface integrity and surface seals around stairway footing</del></p>	<p><del>Form 1 Form 2</del></p> <p><u>Form 2</u></p> <p><u>Annual Report</u></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
<p>Rotary Dump Facility = Alternate Wastewater Management Area (When in service with locked valve in the "Open" position)</p>	<p><u>Contain contact water within facility</u>  High water level alarm activation at wastewater storage tanks; pipeline from sediment basin to wastewater storage tanks free from leaks; no ponding of water on the concrete surface</p>	<p><u>When in use, Daily inspection for leakage in the pipeline from sediment basin to wastewater storage tanks; activation of visual alarms at wastewater storage tanks</u> <u>Weekly – free drainage; pipeline integrity; high water level alarm; surface integrity</u> <u>Monthly – Alarm function</u>  <u>When in use, weekly Daily inspection for leakage in the pipeline from sediment basin to wastewater storage tanks; activation of visual alarms at wastewater storage tanks; inspect concrete surface for ponding of water; inspect exposed concrete surfaces to ensure integrity. When in use, mMonthly alarm inspection; performance of annual inspection</u></p>	<p><u>Free drainage;; pipeline not leaking; high level alarm off; see definition "Surface Integrity Discrepancy"</u> <u>Alarm trips manually</u>  <u>Notification provided to Executive Secretary when placed in service; Maintenance of pipeline from the sediment basin to the wastewater storage tanks; water level within the tanks; maintenance of drainage from concrete surface to rotary building floor; maintenance of exposed concrete surface integrity</u></p>	<p><u>Form 1</u> <u>Form 24b</u> <u>Form 3</u>  <u>Form 2</u> <u>Form 3</u></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
East Side Drainage System Stormwater Drainage	<del>Contain contact water within system</del> Free drainage of stormwater from the catchbasins south of the Intermodal Container Wash Facility, north and south of the Intermodal Unloading Facility and between Tracks 2 and 3 to the 1997 Pond; maintenance of integrity of the dual-walled pipe system Pipelines 5 and 5a; <del>maintenance of Lift Station.</del>	<del>Daily inspection of stormwater catchbasins for free drainage of stormwater; inspection for activation of visual alarms at Lift Station and Manhole 2. Weekly visual inspection for the presence of fluid within the drip leg sight canisters of Manhole 2. Monthly alarm inspection. Annual certification of carrier pipeline during third quarter.</del> <del>Daily – Manhole 1, 2, and stormwater lift station alarms</del> <u>Weekly – Leak detection system check</u> <u>Monthly – Leak detection system check ; Alarm function</u> <u>Annual – Pressure test</u>	<del>Maintenance of free drainage of stormwater from catchbasins to the 1997 Pond; integrity of dual-walled pipe system.</del> <del>Alarms off</del> <u>No fluid in drip legs 1-2 (manhole 1) or 3-6 (manhole 2)</u> <u>Alarm trips manually</u> <u>See section 4.17.7</u>	<u>Form 1</u> <u>Form 2</u> <u>Form 3</u> <u>Engineer’s report of annual inspection</u> <u>Annual Report</u>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
<p><del>East Side Drainage System Gray Water Drainage</del></p>	<p><del>Drainage of wastewater from the Rail Wash Facility on Track No. 4, Decontamination/Access Building, and Intermodal Container Wash Building; integrity of dual walled Pipelines 1, 2, and 3 to Manhole 1; integrity of dual walled Pipelines 4 and 4a from Manhole 1 to Manhole 2 to the 1997 Pond</del></p>	<p><del>Daily inspection for activation of visual alarms at Manholes 1 and 2. Weekly visual inspection for presence of fluid within the drip leg sight canisters of Manholes 1 and 2. Monthly alarm inspection. Annual certification of carrier pipelines and leak detection probes during the third quarter.</del></p>	<p><del>Maintenance of drainage of wastewater from the Rail Wash Facility on Track No. 4, Decontamination/Access Building, and Intermodal Container Wash Building; integrity of dual walled pipelines to the 1997 Pond and leak detection systems.</del></p>	<p><del><a href="#">Form 1</a> <a href="#">Form 2</a> <a href="#">Form 3</a> <a href="#">Annual Report</a></del></p>
<p>South Ditch</p>	<p><del>Free drainage of non-contact storm water to the Southwest Corner Pond during higher flows of storm water runoff. Pump assisted drainage or manual removal after runoff has slowed or during lower volumes of runoff. Pump may be removed during freezing weather. <u>Reduce a potential source of groundwater recharge via timely transfer of water to Southwest Corner Pond</u></del></p>	<p><del><u>Daily when stormwater present – pump operating</u> <u>Monthly – Alarm function</u> Inspected, on days when there is storm water accumulation on site for activation of strobes indicating water accumulation and pump operation (except when the pump has been removed). Monthly co-inspection of strobes, pump, and debris that could impede drainage into the sump.</del></p>	<p><del>Maintenance of storm water drainage. Pump system removing water as designed or manual removal during freezing weather when pump has been removed. <u>Pump operates while water in sump or manual removal</u> <u>Alarm trips manually</u></del></p>	<p><del><a href="#">Form 1a</a> <a href="#">Form 3</a></del></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
LLRW Operations Building	<p><u>Contain contact water within facility</u>  <del>Waste water from the restricted area of the building gravity flows to the wastewater tank buried to the south side of the building. The collection tank is dual walled tank with a leak detection system.</del></p>	<p><u>Daily – Alarm status</u>  <del>Weekly – Free drainage to the wastewater collection tank</del>  <u>Monthly – Free drainage to the wastewater collection tank;</u>  <u>Annual - Alarm function</u>  <del>Daily inspection of the water level within the wastewater collection tank as indicated by condition of the high and high-high level alarms; presence of fluids in the leak detection system as indicated by the alarm; weekly inspection of bootwash and emergency shower in the sample prep room to ensure free drainage; and annual inspection of the high and high-high level alarms and the leak detection system sensor and alarm to verify function.</del></p>	<p><u>Alarms off</u>  <u>Bootwash and sample prep room floor drains free drain</u>  <u>Alarm trips manually</u>  <u>Maintenance of water level within the wastewater collection tank below the inlet pipe, as indicated by the high-high level alarm; absence of fluids within the leak detection system, as indicated by the moisture sensor/alarm.</u></p>	<p><u>Form 1</u>  <u>Form 2</u>  <u>Form 3</u><del>Form 4</del>  <u>Form 2</u>  <u>Engineer’s report of annual inspection</u>  <u>Annual Report</u></p>

FACILITY	BAT DESCRIPTION	INSPECTION AND MAINTENANCE	PERFORMANCE CRITERIA	<u>DOCUMENTATION</u>
SRS DU Storage Building	<del>Prevent stormwater from contacting wasteBuilding and Asphalt floor designed to contain leakage.</del>	<del>Daily when stormwater presentWeekly – Surface integrity; container storage compliance; check for presence of water. Monthly – Surface integrity; container storage compliance, check for presence of waterWhen in use, wWeekly inspection of the exposed floor integrity; walls and roof for presence of holes; presence of water within the building; and that containers show no evidence of leaks, corrosion, or deterioration.</del>	<del>See definitions “Surface Integrity Discrepancy” and “Container Storage Compliance”; remove any water observedMaintenance of building and floor surface to contain potential leakage and protect containers from the elements.</del>	<del>Form 1a Form 3 Form 2Form 2</del>
<del>6.1</del> <b>Evaporation Pond Ancillary Equipment to Facilitate Evaporation</b>  <u>5.1</u>	<del>Equipment conveying contact wastewater (such as pumps, pipe, hoses, etc.) into the pond. Contain contact water within the pond</del>	<del>Daily inspection of the equipment to ensure that pond liner integrity is maintained (i.e. hoses on rub sheets, etc.); and no spillage outside of secondary contained areas. Daily – pond liner integrity; system containment</del>	Maintenance of pond liner integrity and prevention of spillage outside of pond or secondary containment.	<u>Form 1</u>







Attachment B  
Appendix K of the Permit

Permit No. UGW450005

APPENDIX K

Groundwater Quality Discharge Permit BAT Contingency Plan

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## 1 INTRODUCTION

EnergySolutions, LLC (EnergySolutions) has been granted a Groundwater Quality Discharge Permit, (GWQDP) Permit No. UGW450005 hereinafter called the Permit by the State of Utah. The Permit specifies the construction, operation, and monitoring requirements for all facilities at the Clive site that have a potential of discharging pollutants that may move directly or indirectly into groundwater. To cause the maximum reduction of pollutants achievable, the Permit specifies that “Best Available Technology” (BAT) be used in the construction of all facilities and that facilities be operated according to “Best Management Practices”. To demonstrate compliance with BAT requirements and performance standards, EnergySolutions shall implement a BAT Performance Monitoring Plan in accordance with the Permit. In the event of a BAT failure at any facility, the following Contingency Plan will be implemented.

This Contingency Plan provides direction to EnergySolutions personnel as to contingency actions required for maintaining or regaining compliance with the GWQDP BAT requirements. The timely execution of contingency and corrective actions outlined in this Contingency Plan will provide EnergySolutions with the basis to exercise the Affirmative Defense provision in the Permit and thereby avoid noncompliance status and potential enforcement action.

## 2 DEFINITIONS

**Contingency Action:**

Actions performed to eliminate an existing threat or potential threat to human health and/or the environment and regain compliance with BAT as defined in the Permit.

**Corrective Action:**

Actions required for regaining or maintaining compliance with all licenses and permits.

**Discharge:**

The release of a pollutant directly or indirectly into subsurface waters of the state.

**Best Available Technology:**

The application of design, equipment, work practice, operation standard, or combination thereof, at a facility to effect the maximum reduction of a pollutant achievable by available processes and methods taking into account energy, public health, environmental and economic impacts and other costs.

**Contingency Plan:**

A plan for regaining and maintaining compliance with the permit limits and for reestablishing best available technology as defined in the Permit.

**Discrepancy in Pad Integrity:**

Either: 1) a crack in the asphalt or concrete with greater than 1/8 inch separation (width) or 2) any significant deterioration or damage of the pad surface.

**3 RESPONSIBILITIES**

Responsibilities are provided in the BAT Performance Monitoring Plan.

~~The **Director of Mixed Waste Operations and Director of LLRW Operations** (or designees) are responsible for maintaining assigned facilities in compliance with BAT requirements of the Clive site at all times. The applicable site director (or designee) shall immediately notify the QAM when any BAT Failure occurs.~~

~~The **Quality Assurance Manager (QAM)** or designee is responsible for providing verbal notifications required under the GWQDP, and the performance of surveillance and/or audit activities to verify implementation and compliance with the requirements of this plan. The QAM may provide verbal notification to the regulatory agencies, and will also review corrective actions proposed to ensure compliance with all licenses and permits.~~

~~The **Director of Compliance and Permitting** or designee in cooperation with the Corporate Radiation Safety Officer or designee is responsible for the determination of sample analytical priorities from fluid collected at collection lysimeters and providing verbal and written notification of any non-compliance for the Clive Facility.~~

~~The **Director of Health Physics (DHP)** or designee in cooperation with the Director of Compliance and Permitting or designee is responsible for the determination of sample analytical priorities from fluid collected at collection lysimeters.~~

~~The **Document Control Manager** or designee is responsible for filing all associated documentation of this plan in the site operating record.~~

~~The **Director of Engineering** or designee is responsible for conducting the pump down test for the leak detection system of the Evaporation Ponds if necessary and conducting all corrective actions regarding pond systems.~~

~~The **BAT Inspector** or designee is responsible for performing routine daily inspections and providing notification to the Applicable Site Director or designee of any non-compliance.~~

~~The **Facility Operator** is responsible for maintaining BAT compliance at all times and providing notification to the Applicable Site Director or designee of any non-compliance. The responsibilities listed for this position include Facility Operators performing operations at the Mixed Waste Facility.~~

~~The **Maintenance Manager** or designee is responsible for performing preventative maintenance on facility equipment in accordance to the manufacturer specifications and guidelines, and ensuring that spare sump pump and replacement parts (including batteries for portable measuring devices, etc.) are on site at all times for required repairs.~~

## 4 CONTINGENCY PLAN

EnergySolutions is responsible for implementing the contingency plan for any identified failure of BAT in accordance with the BAT Performance Monitoring Plan. The contingency actions required for failures of BAT are listed below by facility.

### 4.1 All Evaporation Ponds:

#### 4.1.1 Evaporation Pond Freeboard Level at Three Feet

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~

~~1.~~

#### 4.1.2 Evaporation Pond Freeboard Exceedance:

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee.~~
2. The Manager, Waste Disposal Operations will immediately direct the removal of water from the pond via pumping until the minimum freeboard level is obtained, if approved water storage capacity is available. Water from the evaporation pond with a freeboard exceedance may be stored in another approved evaporation pond.
- ~~2.3.~~ The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
- ~~3.4.~~ The QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
- ~~4.5.~~ The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
- ~~5.6.~~ The Applicable Site Director or designee will immediately authorize and direct the removal of water from the pond via pumping until the minimum freeboard level is obtained. Water from the evaporation pond with a freeboard exceedance may be stored in another approved evaporation pond.

#### 4.1.3 Leakage of Pipeline from Leak Detection System to Evaporation Pond

#### 4.1.3

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The pipeline will be repaired.
4. If the pipeline cannot be repaired ~~or repaired~~ within the same working day, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
5. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### 4.1.4 Average Leakage Rate at Initial Action Level:

The initial action levels for each pond are listed below:

Evaporation Pond	Initial Action Level for Average Leakage Rate (in gallons)
1995 Evaporation Pond	155
1997 Evaporation Pond	160
2000 Evaporation Pond	355
Northwest Corner Evaporation Pond	300
Mixed Waste Evaporation Pond	160

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the Director of Engineering or designee~~Manager, Engineering and Maintenance~~.
4. Within five days the Manager, Engineering and Maintenance~~Engineering Department~~ will perform a pump down test to determine the accuracy of the flow meter.
  - a. The pump down test will entail the collection of water into a container with a known capacity as it is discharged from the Leak Detection System pump pipeline.
  - b. The water in the container will be measured and compared with the Leak Detection System meter to determine the system accuracy.
  - c. A report will be prepared ~~by the Director of Engineering or designee~~ and submitted to the DRC presenting the accuracy of the pump system.

#### 4.1.5 Average Leakage Rate Exceedance:-

The allowable average leakage rate for each pond is listed below:

Evaporation Pond	Allowable Average Leakage Rate (in gallons)
1995 Evaporation Pond	162
1997 Evaporation Pond	171
2000 Evaporation Pond	382
Northwest Corner Evaporation Pond	326
Mixed Waste Evaporation Pond	171

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.
3. The QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
4. The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification and a proposed corrective action plan and schedule to the DRC within seven calendar days of discovery.
- ~~5. EnergySolutions shall secure a corrective action schedule from the Executive Secretary to execute the appropriate contingency actions:~~
- ~~6.5.~~ A calculation from the monitored leakage rate will be evaluated by the engineering department Manager, Engineering and Maintenance -to determine the probable size and location of the leak(s). This calculation will assess if the defect can be identified by performing a visual inspection.
  - a. If the defect can be identified by visual inspection, the water level will be reduced to a level designated by the Director of Engineering Manager, Engineering and Maintenance to bring the average leakage volume below the allowable rate. Water may be placed in an approved evaporation pond.
  - b. If the leak(s) are determined too small for visual inspection, a leak location survey will be performed. EnergySolutions will include a Leak Survey Report with the HDPE Liner Repair Report detailing how the survey was conducted and provide the survey results, including the number and location of all leaks.
- ~~7.6.~~ Defects in the liner will be repaired in accordance with the corrective action plan and schedule.
- ~~8.7.~~ EnergySolutions shall submit for DRC approval an HDPE Liner Repair Report certified by a Utah Licensed Professional Engineer certifying all liner repair and testing procedures and quality assurance activities and documentation were performed in accordance with the corrective action plan and schedule. The report shall also include an estimate of the total volume of liquids released from the pond to the subsurface.

#### 4.1.6 Fluid Head Level Exceedance (1 Foot Level Above the Lowest Point in the Lower Flexible Membrane Liner):

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees.~~
3. The QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
4. The pump and process controller will be checked for proper activation within 24 hours and adjusted or replaced if necessary.
- 4.5. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
- 4.0 ~~The pump and process controller will be checked for proper activation and adjusted or replaced within 24 hours if necessary.~~

#### 4.2 1995/1997 Evaporation Pond Lift Station:

##### 4.2.1 Water Level Above the Lowest Level of the Inlet Pipe (Visual Alarm Activated):

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The IUF, Rail Wash Facility on Track No. 2, Containerized Waste Storage Pad, Rail Digging Facility, and Rail Rollover Facility will be placed out of service.
3. The sump will be inspected to see if functioning properly.
4. If the sump pump requires repair or replacement it will occur within the same working day.
5. An inspection of the drainage system will occur to determine if blockage is present.
6. If blockage is present it will be removed to restore free drainage.
7. When free drainage is restored, the facilities may be placed back in service.
8. If blockage cannot be removed or is not removed within the same working day, the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will provide notification to the Director of Manager, Compliance and Permitting and the QAM ~~or designee.~~
9. The QAM or Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
10. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### 4.3 2000 Evaporation Pond Water Transfer Pad

#### 4.3.1 Lack of Free Drainage:

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director of designee~~ will notify the QAM and ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.
3. Water management activities at the transfer pad will cease.
4. An inspection of the drainage system will occur to determine if blockage is present.
5. If blockage is present it will be removed to restore free drainage.
6. When free drainage is restored, water management activities may resume.
7. If free drainage is not restored within the same working day, the Manager, Waste Disposal Operations ~~Applicable Site Director~~ will notify the QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.
8. The ~~Director of~~ Manager, Compliance and Permitting or QAM ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
9. The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### 4.3.2 Water Level in Sump Above Grate

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director of designee~~ will notify the QAM and ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.
3. Water management activities at the 2000 Evaporation Pond will cease.
4. Water will be removed from the sump.
5. When water is removed from the sump, water management activities may resume.
6. If water is not removed within the same working day, the Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~.
7. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and the ~~Director of~~ Manager, Compliance and Permitting.
8. The QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
9. The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### 4.3.3 Discrepancy in Exposed Concrete Integrity:

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.

2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and the ~~Director of Manager, Compliance and Permitting or designees~~.
3. The Facility Operator or BAT Inspector will cease water management activities at the transfer pad.
4. The ~~Manager, Waste Disposal Operations Applicable Site Director~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
5. Repairs will be completed within 10 working days of discovery or the ~~Applicable Site Director will provide the Director of Manager, Compliance and Permitting or designee will submit~~ just cause ~~for submittal~~ in writing to the ~~Executive Secretary Director~~.
6. Upon completion of repairs, water management activities may resume.
7. If repairs are not performed within 10 working days of discovery and just cause has not been provided to the ~~Executive Secretary Director~~, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
8. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.4 Northwest Corner Evaporation Pond Transfer Facility:**

##### **4.4.1 Tear, gap, or hole found between concrete apron and HDPE liner:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and the ~~Director of Manger, Compliance and Permitting or designees~~.
3. The Facility Operator or BAT Inspector will cease water management activities at the transfer facility.
4. The ~~Manager, Waste Disposal Operations Applicable Site Director~~ will schedule repairs to the exposed pad within 7 days after receiving notification.
5. Repairs will be completed within 30 working days of discovery or ~~the Applicable Site Director will provide the Director of Manager, Compliance and Permitting or designee will submit~~ just cause ~~for submittal~~ in writing to the ~~Executive Secretary Director~~.
6. Upon completion of repairs, water management activities may resume.
7. If repairs are not performed within 30 working days of discovery and just cause has not been provided to the ~~Executive Secretary Director~~, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.

8. The ~~Director of Manager, Compliance and Permitting~~ or designee will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.4.2 Discrepancy in Exposed Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and the ~~Director of Manager, Compliance and Permitting~~ or designees.
3. The Facility Operator or BAT Inspector will cease water management activities at the transfer facility.
4. The Manager, Waste Disposal Operations ~~Applicable Site Director~~ will schedule repairs to the pad within 7 days after receiving notification.
5. Repairs will be completed within 10 working days of discovery or the ~~Applicable Site Director will provide the~~ Director of Manager, Compliance and Permitting ~~or designee will submit~~ just cause ~~for submittal~~ in writing to the ~~Executive Secretary~~ Director.
6. Upon completion of repairs, water management activities may resume.
7. If repairs are not performed within 10 working days of discovery and just cause has not been provided to the ~~Executive Secretary~~ Director, the QAM or the ~~Director of Manager, Compliance and Permitting~~ or designee will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
8. The ~~Director of Manager, Compliance and Permitting~~ or designee will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### ~~4.5 LARW, Class A, and Class A North Cell Collection Lysimeters:~~

##### ~~4.5.1 Free Liquid is Greater Than 12 Inches Below the Intersection of the Transfer Pipe:~~

- ~~1. Free liquid present will be purged for sampling~~
- ~~2. Analytical Parameters to be tested will be prioritized by the CRSO, Director of Compliance and Permitting, and the Staff Hydrogeologist. Parameters chosen are dependent on the volume of liquid in the lysimeter taking into account the priority list provided in Appendix C of the GWQDP.~~
- ~~3. Analytical results will be reviewed and submitted to the DRC within 14 calendar days of receipt.~~

#### **~~4.5.2 Free Liquid Less Than 12 Inches Below the Intersection of the Transfer Pipe:~~**

- ~~1. The Site Hydrogeologist or designee will notify the Director of Compliance and Permitting, Applicable Site Director or designee, and QAM.~~
- ~~2. The QAM or the Director of Compliance and Permitting or designee will provide verbal notification to the DRC within 24 hours of identification.~~
- ~~3. The Director of Compliance and Permitting or designee will provide written notification to the DRC within seven calendar days of discovery.~~
- ~~4. Free liquid will be purged for sampling.~~
- ~~5. Analytical Parameters to be tested will be prioritized by the CRSO, Director of Compliance and Permitting, and the Staff Hydrogeologist. Parameters chosen are dependent on the volume of liquid in the lysimeter taking into account the priority list provided in Appendix C of the GWQDP.~~
- ~~6. Analytical results will be reviewed and submitted to the DRC within 14 calendar days of receipt.~~

#### **4.6.4.5 Rail Rollover Facility:**

##### **4.6.14.5.1 Lack of Free Drainage from the Berm, Through the Trough, to the Settling Basin, and Continuing to the Sump:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and the Director of Manager, Compliance and Permitting~~or designees.~~
3. Waste management activities at the facility will cease (waste may be removed from the facility in order to maintain compliance with the Radioactive Material License).
4. An inspection of the drainage system (berm, trough, settling basin to sump) will occur to determine if blockage is present.
5. If blockage is present it will be removed to restore free drainage.
6. When free drainage is restored, waste management activities may resume at the facility.
7. If free drainage is not restored within the same working day, the QAM or the Director of Manager, Compliance and Permitting~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The Director of Manager, Compliance and Permitting~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

##### **4.6.24.5.2 Water Level in Sump Above Grate:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~

2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and the ~~Director of Manager, Compliance and Permitting or designees~~.
3. Waste management activities will cease (waste may be removed from the facility).
4. The sump pump will be inspected to see if functioning properly.
5. If the sump pump requires repair, replacement, or blockage removal it will occur within the same working day.
6. When sump pump has been repaired, etc., waste management activities may resume at the facility.
7. If the sump pump is not repaired, replaced, or blockage removed within the same working day, the ~~Facility Operator or BAT Inspector will notify the Applicable Site Director or designee. The~~ QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.6.34.5.3 Ponded Water Within the Covered Area of the Facility**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. Waste ~~M~~management activities at the facility will cease (waste may be removed from the facility in order to maintain compliance with the Radioactive Material License).
4. Removal of water shall occur in accordance with priorities as listed in Part I.E.7.(c) of the Permit

#### **4.74.6 Containerized Waste Storage Pad:**

##### **4.7.14.6.1 Water Above the Sump Grate:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. Waste management activities at the facility will cease (waste may be removed from the facility in order to maintain compliance with the Radioactive Material License).
4. An inspection of the drainage system will occur to determine if blockage is present.
5. If blockage is present it will be removed to restore free drainage.

6. When free drainage is restored, waste management activities may resume at the facility.
7. If free drainage is not restored within the same working day, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designees~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.7.24.6.2 Discrepancy in Exposed Storage Pad Integrity:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ immediately.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The Facility Operator or BAT Inspector will arrange for the removal of items stored within the area of the major discrepancy.
4. The Facility Operator or BAT Inspector will mark the area with a sign or painted markings.
5. No storage will occur in the marked area until repairs are complete.
6. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
7. Repairs will be completed within 10 working days of discovery or the ~~Director of Manager~~, Compliance and Permitting will provide just cause in writing to the ~~Executive Secretary Director~~.
8. If repairs are not performed within 10 working days of discovery and just cause has not been provided to the ~~Executive Secretary Director~~, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
9. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.7.34.6.3 Improper Labeling or Storage of Waste:**

1. The Facility Operator or BAT Inspector will rectify and document within the same working day.

#### **4.8.4.7 East Truck Unloading Area:**

##### **4.8.14.7.1 Troughs More Than Three Quarters Full:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~.

2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. Waste Management activities at the facility will cease (waste may be removed from the facility in order to maintain compliance with the ~~Permittee's~~ Radioactive Material License).
4. If blockage is present it will be removed to restore drainage.
5. When free drainage is restored, waste management activities may resume at the facility.
6. If free drainage is not restored within the same working day, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
7. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide notification to the DRC within seven calendar days of discovery.

#### **4.8.24.7.2 Discrepancy in Exposed Surface Integrity:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ immediately.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The Facility Operator or BAT Inspector will arrange for the removal of items stored within the area of the discrepancy.
4. The Facility Operator or BAT Inspector will mark the area with a sign or painted markings.
5. No waste management will occur in the marked area until repairs are complete.
6. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will schedule repairs to the exposed surface within 48 hours after receiving notification.
- ~~7. Repairs will be completed within 10 working days of discovery or the Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
- ~~8.7. The Director of Manager, Compliance and Permitting or designee will provide just cause in writing to the Executive Secretary Director.~~
- ~~9.8. If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the Director of Manager, Compliance and Permitting or designee will provide verbal notification to the DRC within 24 hours of identification that repairs were not performed.~~
- ~~10.9. The Director of Manager, Compliance and Permitting or designee will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.~~

#### **4.8.34.7.3 Containers Without Current Date on Bates Label on Asphalt Surfaces:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. Waste management activities at the facility will cease (waste may be removed from the facility in order to maintain compliance with the Permittee's Radioactive Material License).
4. The container(s) will be removed from the asphalt surface
5. When the container(s) have been removed, waste management activities may resume at the facility.
6. The QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
7. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.8.44.7.4 Improper Labeling or Storage of Waste on Concrete Holding Pads:**

1. The Facility Operator or BAT Inspector will rectify and document within the same working day.

#### **4.9.4 Intermodal Unloading Facility:**

##### **4.9.14.8.1 Water Above the Sump Grate:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. Waste management activities at the facility will cease (waste may be removed from the facility in order to maintain compliance with the Permittee's Radioactive Material License).
4. An inspection of the drainage system will occur to determine if blockage is present.
5. If blockage is present it will be removed to restore free drainage.
6. When free drainage is restored, waste management activities may resume at the facility.
7. If free drainage is not restored within the same working day, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

**4.9.24.8.2 Discrepancy in Exposed Pad Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designee~~.
3. The Facility Operator or BAT Inspector will arrange for the removal of items stored within the area of the major discrepancy.
4. The Facility Operator or BAT Inspector will mark the area with a sign or painted markings.
5. No storage will occur in the marked area until repairs are complete.
6. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
- ~~7.~~ Repairs will be completed within 10 working days of discovery or the Applicable Site Director or designee~~designee~~ will provide just cause in writing to the Director of Compliance and Permitting.
- ~~8.7.~~ The Director of Manager, Compliance and Permitting ~~or designee~~ will provide just cause in writing to the Executive Secretary~~Director~~.
- ~~9.8.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary~~Director~~, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~10.9.~~ The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

**4.9.34.8.3 Improper Labeling or Storage of Waste:**

1. The Facility Operator or BAT Inspector will rectify and document within the same working day.

**4.10.9 Intermodal Unloading Facility Lift Station****4.10.14.9.1 Water Level Above the Lowest Level of the Inlet Pipe (Visual Alarm Activated):**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.

3. The IUF, Rail Wash Facility on Track No. 2, Rail Digging Facility and Rail Rollover Facility will be placed out of service.
4. The sump will be inspected to see if functioning properly.
5. If the sump pump requires repair or replacement it will occur within the same working day.
6. An inspection of the drainage system will occur to determine if blockage is present.
7. If blockage is present it will be removed to restore free drainage.
8. When free drainage is restored, the facilities may be placed back in service.
9. If blockage cannot be removed or is not removed within the same working day, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
10. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.11.10 LARW Box Washing Facility:**

##### **4.11.14.10.1 Lack of Free Drainage to the Sump Continuing to the Concrete Holding Tanks:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. The drainage system will be inspected for blockage.
5. The sump pump will be inspected to see if functioning properly.
6. If the sump pump requires repair or replacement it will occur within the same working day.
7. If blockage is present within the drainage system, it will be removed within the same working day.
8. When drainage is restored via blockage removal or sump pump repair, the facility may be placed back in service.
9. If blockage cannot be removed or is not removed within the same working day, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
10. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

##### **4.11.24.10.2 Pipeline Cap from the Building Not Intact:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.

2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. Water will be removed from the sump.
5. Evaluate whether there has been a discharge from the facility. If so, implement the Emergency Response Plan.
6. The cap will be replaced.
7. When cap is replaced, the facility may be placed back in service.
8. If cap cannot be replaced within the same working day, the QAM or the ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
9. The ~~Director of Manager,~~ Compliance and Permitting ~~or designees~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.11.34.10.3 Discrepancy in Exposed Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee immediately~~.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees~~.
3. The ~~Applicable Site Director or designee~~ will schedule repairs within 48 hours after receiving notification.
4. ~~Repairs will be completed within 10 working days of discovery or the Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting.~~
- 5.4. ~~The Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide just cause in writing to the ~~Executive Secretary~~ Director.
- 6.5. ~~If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary~~ Director, the QAM or the ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- 7.6. ~~The Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.11.44.10.4 Water Level in the Holding Tanks Greater Than Three Quarters (3/4)**

##### **Full:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee immediately~~.

2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The facility will be placed out of service.
4. The water will be removed
5. Upon completion of water removal, the facility may be placed back in service.
6. If water cannot be removed, or is not removed within the same working day, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
7. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.12.11 Rail Wash Facility on Track No. 4:**

##### **4.12.14.11.1 Lack of Free Drainage to the Wash Bay Sump Pump Continuing to the Collection Tank(s) Within the Adjacent Equipment/Mechanics Building:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations applicable site director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The facility will be placed out of service.
4. The sump pump will be inspected to see if functioning properly.
5. If the sump pump requires repair or replacement it will occur within the same working day.
6. An inspection of the drainage system, including the concrete trench in the rail wash building will occur to determine if blockage is present.
7. If blockage is present it will be removed to restore free drainage.
8. When free drainage is restored, the facility may be placed back in service.
9. If blockage cannot be removed or is not removed within same working day, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
10. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

##### **4.12.24.11.2 Failure of Gray Water Transfer System from the Collection Tank(s) to the 1997 Pond:**

1. ~~The Facility Operator or BAT inspector will N~~notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and Director of Compliance and Permitting ~~or designees~~.
3. Place the facility out of service.

4. Inspect the gray water transfer system (pump and piping) to see if it is operating correctly.
5. Perform repairs or replacement of the pump if necessary within the same working day.
6. Inspect the piping system, including Manholes 1 and 2 if needed to identify damage or leakage.
7. If the gray water transfer system cannot be repaired within same working day, the QAM or the ~~Director of Manager, Compliance and Permitting~~ or designee will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager, Compliance and Permitting~~ or designee will provide written notification to the DRC within seven calendar days of discovery.

#### **4.12.34.11.3 Discrepancy in Exposed Pad Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting~~ or designees.
3. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
- ~~4. Repairs will be completed within 10 working days of discovery or the Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
4. ~~The Director of Manager, Compliance and Permitting~~ or designee will provide just cause in writing to the Executive Secretary~~Director~~.
5. If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary~~Director~~, the QAM or the ~~Director of Manager, Compliance and Permitting~~ or designee will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
6. The ~~Director of Manager, Compliance and Permitting~~ or designee will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.13.4.12 Rail Digging Facility:**

##### **4.13.14.12.1 Lack of Free Drainage of Water to the Collection Basins to the Sediment Basin:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~

2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The facility will be placed out of service.
4. An inspection of the drainage system will occur to determine if blockage is present.
5. If blockage is present it will be removed to restore free drainage.
6. When free drainage is restored, the facility may be placed back in service.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.13.24.12.2 Water Level in the Collection Basins Above the Elevation of the Outlet Pipe Grate:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The facility will be placed out of service.
4. The outlet pipe will be inspected for blockage.
5. If blockage is present it will be removed to restore free flowing condition.
6. When free drainage is restored, the facility may be placed back in service.
7. If blockage cannot be removed, or is not removed within the same working day, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.13.34.12.3 Water Level in the Sediment Basin Above the Elevation of the Outlet Pipe:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designee~~.
3. The facility will be placed out of service.
4. The outlet pipe will be inspected for blockage.
5. If blockage is present it will be removed to restore free flowing condition.
6. When free drainage is restored, the facility may be placed back in service.

7. If blockage cannot be removed, or is not removed within the same working day, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.13.44.12.4 Leakage of Stormwater Detected at the Digging Facility Manhole:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately~~.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The facility will be placed out of service.
4. When repairs are completed, the facility may be placed back in service.
5. If repairs cannot be made within the same working day, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
6. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.13.54.12.5 Discrepancy in Exposed Asphalt Pad and Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately~~.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
- ~~4.~~ Repairs will be completed within 10 working days of discovery or the ~~Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
- ~~5.4.~~ ~~The Director of Manager, Compliance and Permitting or designee~~ will provide just cause in writing to the ~~Executive Secretary~~Director.
- ~~6.5.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the ~~Executive Secretary~~Director, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~7.6.~~ The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

**4.14.13 Decontamination Access Control Building:****4.14.14.13.1 Lack of Free Drainage to the Wastewater Collection Tank:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The bootwash, respirator sink, shower, and sink next to shower will be placed out of service.
4. An inspection will occur to determine if blockage is present.
5. If blockage is present it will be removed to restore free drainage.
6. When free drainage is restored, the bootwash, respirator sink, and sink next to shower may be placed back in service.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

**4.14.24.13.2 Visual Alarms Located Inside the Building at the Bootwash and Respirator Sink Activated:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Facility Manager to schedule the manual removal of water from the collection tank~~.
2. If water is not removed from the collection tank within the same working day, the bootwash, respirator sink, shower, and sink next to shower will be placed out of service.
3. Upon completion of water removal, the out of service designation will be removed from the bootwash, respirator sink, shower, and sink next to shower.

**4.14.34.13.3 Water Level in the Wastewater Collection Tank Not Below the Bottom Elevation of the Inlet Pipe:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The bootwash, respirator sink, shower, and sink next to shower will be placed out of service.
4. Water will be removed from the tank.

5. Upon completion of water removal, the out of service designation will be removed from the bootwash, respirator sink, shower, and sink next to shower.
6. If water is not removed, within the same working day, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
7. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.14.44.13.4 Presence of Fluids in Leak Detection System:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The bootwash, respirator sink, shower, and sink next to shower will be placed out of service
4. The QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
5. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
6. Fluid will be collected from the leak detection system.
7. Gamma Spectroscopy analysis will be performed on fluid collected to determine if radiological contamination has occurred.
8. A written report including remediation plans if necessary will be submitted to the DRC.

#### **4.154.14 *Intermodal Container Wash Building:***

##### **4.15.14.14.1 Water Level in the Sediment Basin Sump At or Above the Weir Grate:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately~~.
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. Water will be removed from the sump.
5. If water is not removed, within the same working day, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
6. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

**4.15.24.14.2 Lack of Free Drainage from the Bootwash to the Troughs:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. An inspection of the drainage system will occur to determine if blockage is present.
5. If blockage is present it will be removed to restore free drainage.
6. When free drainage is restored, the facility may be placed back in service.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

**4.15.34.14.3 Lack of Free Drainage Through the Troughs to the Sediment Basin:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. An inspection of the drainage system will occur to determine if blockage is present.
5. If blockage is present it will be removed to restore free drainage.
6. When free drainage is restored, the facility may be placed back in service.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

**4.15.44.14.4 Presence of Fluids in Leak Detection System:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The facility will be taken out of service.

4. The QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
5. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
6. Fluid will be collected from the leak detection system.
7. Gamma Spectroscopy analysis will be performed on fluid collected to determine if radiological contamination has occurred.
8. A written report including remediation plans if necessary will be submitted to the DRC.

#### **4.15.54.14.5 Discrepancy in Exposed Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director ~~or designee immediately~~.
2. The Manager, Waste Disposal Operations Applicable Site Director ~~or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The affected bay(s) will be placed out of service.
4. The Manager, Waste Disposal Operations Applicable Site Director will schedule repairs to the exposed pad within 48 hours after receiving notification.
- ~~5.~~ Repairs will be completed within 10 working days of discovery or the ~~Applicable Site Director will provide just cause to the Director of Compliance and Permitting or designee.~~
- ~~6.5.~~ The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide just cause in writing to the Executive Secretary Director.
- ~~7.6.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~8.7.~~ The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.164.15 *Shredder Facility:***

##### **4.16.14.15.1 Lack of Free Drainage from Concrete Surface to Catchbasins:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director ~~or designee immediately~~.
2. The Manager, Waste Disposal Operations Applicable Site Director ~~or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. Place the facility out of service.

4. Perform an inspection of the drainage system to determine if blockage is present. Water will be removed from the sump.
5. If blockage is present, remove blockage.
6. Place facility back in service when free drainage is restored.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.16.24.15.2 Presence of Leakage from Manhole 1 Pipeline to Water Storage Tanks:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees~~.
3. Place the facility out of service.
4. Inspect the pipeline to determine source of leak.
5. Repair the pipeline.
6. If repairs cannot be completed within the same work day that the leak was discovered, the QAM or the ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
7. The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.16.34.15.3 High Water Level Alarms Activated at the Water Storage Tank(s):**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees~~.
3. Place the facility out of service.
4. The Manager, Waste Disposal Operations ~~will Facility Operator or BAT Inspector will notify the Facility Manager or designee to~~ schedule the manual removal of water from the storage tank.
5. If the water is not removed below the high water level within the same working day that the alarm was activated, the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees~~.
6. The QAM or the ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.

7. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
8. Upon completion of water removal below the high water level, the facility may be placed back in service.

#### **4.16.44.15.4 Valve to Alternate Wastewater Management System in Closed Position when Managing PCB Waste:**

1. The Facility Operator or BAT Inspection will notify the ~~Manager, Waste Disposal Operations~~ Applicable Site Director or designee immediately.
2. The ~~Manager, Waste Disposal Operations~~ Applicable Site Director or designee will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. Valve to the Rotary Dump Facility will be checked to ensure that it is in the closed position. If this valve is in the "open" position, the actions of 4.16.5, below, will be implemented.
5. The ~~Manager, Waste Disposal Operations~~ Applicable Site Director or designee, together with the ~~Director of Manager~~, Compliance and Permitting, will assess the situation and open the valve to the alternate wastewater management system prior to placing the system back in service.

#### **4.16.54.15.5 Valve to Rotary Dump Facility in Open Position when Managing PCB Waste:**

1. The Facility Operator or BAT Inspection will notify the ~~Manager, Waste Disposal Operations~~ Applicable Site Director or designee immediately.
2. The ~~Manager, Waste Disposal Operations~~ Applicable Site Director or designee will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will determine necessary sampling activities.

#### **4.16.64.15.6 Facility Not Labeled for PCBs as Required:**

1. The Facility Operator or BAT Inspection will notify the ~~Manager, Waste Disposal Operations~~ Applicable Site Director or designee immediately.
2. The ~~Manager, Waste Disposal Operations~~ Applicable Site Director or designee will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. The Facility Operator or BAT Inspector will ensure proper labeling of facility.
5. The facility will be placed back in service.

**4.16.74.15.7 Water Storage Tank Not Labeled as PCBs as Required:**

1. The Facility Operator or BAT Inspection will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting~~or designees~~.
3. The facility will be placed out of service.
4. The Facility Operator or BAT Inspector will ensure the tank is properly labeled.
5. The facility will be placed back in service.

**4.16.84.15.8 Discrepancy in Exposed Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
- ~~3.~~ Repairs will be completed within 10 working days of discovery or the Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting~~or designee~~.
- ~~4.3.~~ The Director Manager, of Compliance and Permitting ~~or designee~~ will provide just cause in writing to the Executive Secretary Director.
- ~~5.4.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~6.5.~~ The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

**4.16.94.15.9 Shredded Material Remaining on the Outfeed Pad at End of Shift:**

1. The Facility Operator will cease operation of the Shredder Facility.
2. The Facility Operator will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ QAM immediately.
3. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting~~or designees~~.
4. The Facility Operator will ensure that the material is no longer susceptible to wind dispersal as follows:
  - a. Containerize shredded material; or
  - b. Cover with a nominal 6" inches of soil or soil-like waste material; or

- c. Cover with a commercial fixative to prevent wind dispersal and leachate generation, applied in accordance with the manufacturer's instructions.
5. The QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that shredded material was not removed by the end of shift.
6. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that material was not removed from the outfeed pad by the end of the shift.
7. The Shredder Facility may not continue operation until the shredded material is removed.

#### **4.17.4.16 Rotary Dump Facility**

##### **4.17.4.16.1 Thaw Building:**

##### **4.17.1.14.16.1.1 Discrepancy in Exposed Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director ~~or designee immediately~~.
2. The Manager, Waste Disposal Operations Applicable Site Director ~~or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The Manager, Waste Disposal Operations Applicable Site Director will schedule repairs to the exposed pad within 48 hours after receiving notification.
4. ~~Repairs will be completed within 10 working days of discovery or the Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
5. ~~4. The Director of Manager~~, Compliance and Permitting will provide just cause in writing to the ~~Executive Secretary~~ Director.
6. ~~5. If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary~~ Director, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
7. ~~6. The Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

##### **4.17.1.24.16.1.2 Ponding of Water on the Granular Floor Surface of the Thaw Building:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director ~~or designee immediately~~.

2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of~~ Manager, Compliance and Permitting.
3. Place the facility out of service.
4. Perform an inspection of the drainage system to determine if blockage is present.
5. If blockage is present, remove blockage.
6. Place facility back in service when drainage is restored.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.17.1.34.16.1.3 Blockage of Pipe from Thaw Building to Rotary Floor:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee immediately~~.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.
3. Place the facility out of service.
4. Remove blockage.
5. Place the facility back in service when drainage is restored.
6. If blockage cannot be removed or is not removed within the same working day, the QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
7. The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.17.24.16.2 Wash Building:**

##### **4.17.2.14.16.2.1 Discrepancy in Exposed Concrete Integrity of the curbing at the east end of the wash building:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee immediately~~.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.
3. An absorbent material will be placed along the curbing to deter water flow past the curb.

4. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
- ~~5.~~ Repairs will be completed within 10 working days of discovery or the ~~Applicable Site Director will provide just cause to the Director of Compliance and Permitting.~~
- ~~6.5.~~ ~~The Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide just cause in writing to the ~~Executive Secretary~~ Director.
- ~~7.6.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the ~~Executive Secretary~~ Director, the QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~8.7.~~ The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.17.2.24.16.2.2 Discrepancy in Exposed Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of ~~Manager, Compliance and Permitting~~ ~~or designees~~.
3. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
- ~~4.~~ Repairs will be completed within 10 working days of discovery or the ~~Applicable Site Director will provide just cause to the Director of Compliance and Permitting.~~
- ~~5.4.~~ ~~The Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide just cause in writing to the ~~Executive Secretary~~ Director.
- ~~6.5.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the ~~Executive Secretary~~ Director, the QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~7.6.~~ The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.17.2.34.16.2.3 Integrity Breach at Surface Seal Around Footing**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.

2. The Facility Operator or BAT Inspector will place the Wash Building out of service.
3. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees.~~
4. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will schedule repairs to the surface seals within 48 hours after receiving notification.
- ~~5.~~ Repairs will be completed within 10 working days of discovery or the ~~Applicable Site Director will provide just cause to the Director of Compliance and Permitting.~~
- ~~6.5.~~ The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide just cause in writing to the ~~Executive Secretary~~ Director.
- ~~7.6.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the ~~Executive Secretary~~ Director, the QAM or the ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~8.7.~~ The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.17.2.4.16.2.4 Water Level Above Grates Within the Wash Building:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately.~~
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees.~~
3. The facility will be placed out of service.
4. Perform an inspection of the drainage system to determine if blockage is present.
5. If blockage is present, remove blockage.
6. Place facility back in service when drainage is restored.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.17.2.5.16.2.5 Lack of Free Drainage from the Floor to the Trench:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations Applicable Site Director or designee immediately.~~

2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The facility will be placed out of service.
4. Perform an inspection to determine if blockage is present.
5. If blockage is present, remove blockage.
6. Place facility back in service when drainage is restored.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.17.34.16.3 Rotary Building**

##### **4.17.3.14.16.3.1 Discrepancy in Exposed Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees~~.
3. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
4. ~~Repairs will be completed within 10 working days of discovery or the Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
5. ~~4. The Director of Manager, Compliance and Permitting or designee will provide just cause in writing to the Executive Secretary Director.~~
6. ~~5. If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the Director of Manager, Compliance and Permitting or designee will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.~~
7. ~~6. The Director of Manager, Compliance and Permitting or designee will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.~~

##### **4.17.3.24.16.3.2 Lack of Free Drainage from Rotary Dump Floor to Sediment Basin (When waste management activities are not occurring):**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.

2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.
3. Place the facility out of service.
4. Perform an inspection of the drainage system to determine if blockage is present.
5. If blockage is present, remove blockage.
6. Place facility back in service when free drainage is restored.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.17.3.34.16.3.3 Water Level Above the Grate in the Sediment Basin:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee immediately~~.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.
3. Waste management activities at the facility will cease (waste may be removed from the facility).
4. The submersible pump will be inspected to see if functioning properly.
5. If the submersible pump requires repair or replacement, it will occur within the same working day.
6. The pipeline from the submersible pump to the northwest corner evaporation pond will be inspected for blockage.
7. If blockage is present within the pipeline it will be removed.
8. When blockage of pipeline is removed and/or pump repair or replacement has been completed, the facility may be placed back in service.
9. If blockage cannot be removed and/or pump repair/replacement cannot be completed, or is not completed within the same working day, the QAM or the ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
10. The ~~Director of~~ Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.17.3.44.16.3.4 Presence of Fluids in Sediment Basin Leak Detection System:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee immediately~~.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of~~ Manager, Compliance and Permitting ~~or designees~~.

3. The facility will be taken out of service.
4. The QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
5. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
6. Fluid will be collected from the leak detection system.
7. Gamma Spectroscopy analysis will be performed on fluid collected to determine if radiological contamination has occurred.
8. A written report including remediation plans if necessary will be submitted to the DRC.

#### **4.17.3.5 4.16.3.5 Presence of Fluids in Leak Detection System for the Pipeline from Rotary Building to the Northwest Corner Evaporation Pond:**

1. The Facility Operator or BAT Inspector will return the observation valve to the closed position.
2. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately~~.
3. The Manager, Waste Disposal Operations~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
4. The facility will be taken out of service.
5. The Facility Operator or BAT Inspector will close and lock the valve between the sediment basin and the Northwest Corner Evaporation Pond.
6. The Manager, Waste Disposal Operations~~Applicable Site Director~~ will ~~notify provide notification~~ to the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~, of the desire to operate the facility using the Alternate Wastewater Management Area.
7. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC.
8. Upon completion of DRC notification to use the Alternate Wastewater Management System, the Rotary Dump Facility may be placed in service.
9. The QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that fluids were present within the leak detection system.
10. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
11. Fluid will be collected from the leak detection system.
12. Gamma Spectroscopy analysis will be performed on fluid collected to determine if radiological contamination has occurred.
13. A written report including remediation plans if necessary will be submitted to the DRC.

#### **4.17.4 4.16.4 Alternate Wastewater Management Area (When Placed in Service and Locking Valve is in the “Open” Position)**

**4.17.4.14.16.4.1 Presence of Leakage from Sediment Basin Pipeline to Water Storage Tanks:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director or Designee immediately.
2. The Manager, Waste Disposal Operations Applicable Site Director or designee will notify the QAM and Director of Manager, Compliance and Permitting or designees.
3. Place the facility out of service.
4. Inspect the pipeline to determine origin of leak.
5. Repair the pipeline.
6. Place facility back in service when repairs are complete.
7. If repairs cannot be repaired within the same work day, the QAM or the Director of Manager, Compliance and Permitting or designee will provide verbal notification to the DRC within 24 hours of identification.
8. The Director of Manager, Compliance and Permitting or designee will provide written notification to the DRC within seven calendar days of discovery.

**4.17.4.24.16.4.2 Visual Alarm at One or Both Storage Tanks:**

1. The Rotary Dump Facility will be placed out of service
2. The Facility Operator or BAT Inspector will notify the Facility Manager to schedule the Perform manual removal of water from the collection tank.
3. If the water is not removed within the same working day, the Facility Manager Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director or designee.
4. The Manager, Waste Disposal Operations Applicable Site Director or designee will notify the QAM and Director of Manager, Compliance and Permitting or designees.
5. The QAM or the Director of Manager, Compliance and Permitting or designee will provide verbal notification to the DRC within 24 hours of identification.
6. The Director of Manager, Compliance and Permitting or designee will provide written notification to the DRC within seven calendar days of discovery.
7. Upon completion of water removal, the facility may be placed back in service.

**4.17.4.34.16.4.3 Ponding of Water on the Concrete Surface at the Alternate Wastewater Management Area:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director or designee immediately.
2. The Manager, Waste Disposal Operations Applicable Site Director or designee will notify the QAM and Director of Manager, Compliance and Permitting or designees.
3. Place the facility out of service.
4. Inspect the drainage system to determine if blockage is present.

5. If blockage is present, remove blockage.
6. Place facility back in service when drainage is restored.
7. If blockage cannot be removed or is not removed within the same working day, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
8. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.17.4.4.16.4.4 Discrepancy in Exposed Concrete Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees.~~
3. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will schedule repairs to the exposed pad within 48 hours after receiving notification.
- ~~4.~~ Repairs will be completed within 10 working days of discovery or the ~~Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
- ~~5.~~ ~~4.~~ The ~~Director of Manager, Compliance and Permitting or designee~~ will provide just cause in writing to the Executive Secretary~~Director.~~
- ~~6.~~ ~~5.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary~~Director~~, the QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~7.~~ ~~6.~~ The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.18.1.17 East Side Drainage System:**

#### **4.18.1.14.17.1 Stormwater Management System:**

#### **4.18.1.14.17.1.1 Catchbasin Water Level Above Outlet Pipe:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees.~~
3. Inspect the drainage system to determine why it is not free-draining.

4. Complete repairs as needed to restore free drainage within the same working day.
5. If free drainage is not restored within the same work day, the QAM or the ~~Director of Manager, Compliance and Permitting~~ or ~~designee~~ will provide verbal notification to the DRC within 24 hours of identification.
6. The ~~Director of Manager, Compliance and Permitting~~ or ~~designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.18.1.24.17.1.2 Lift Sump Alarm Activated:**

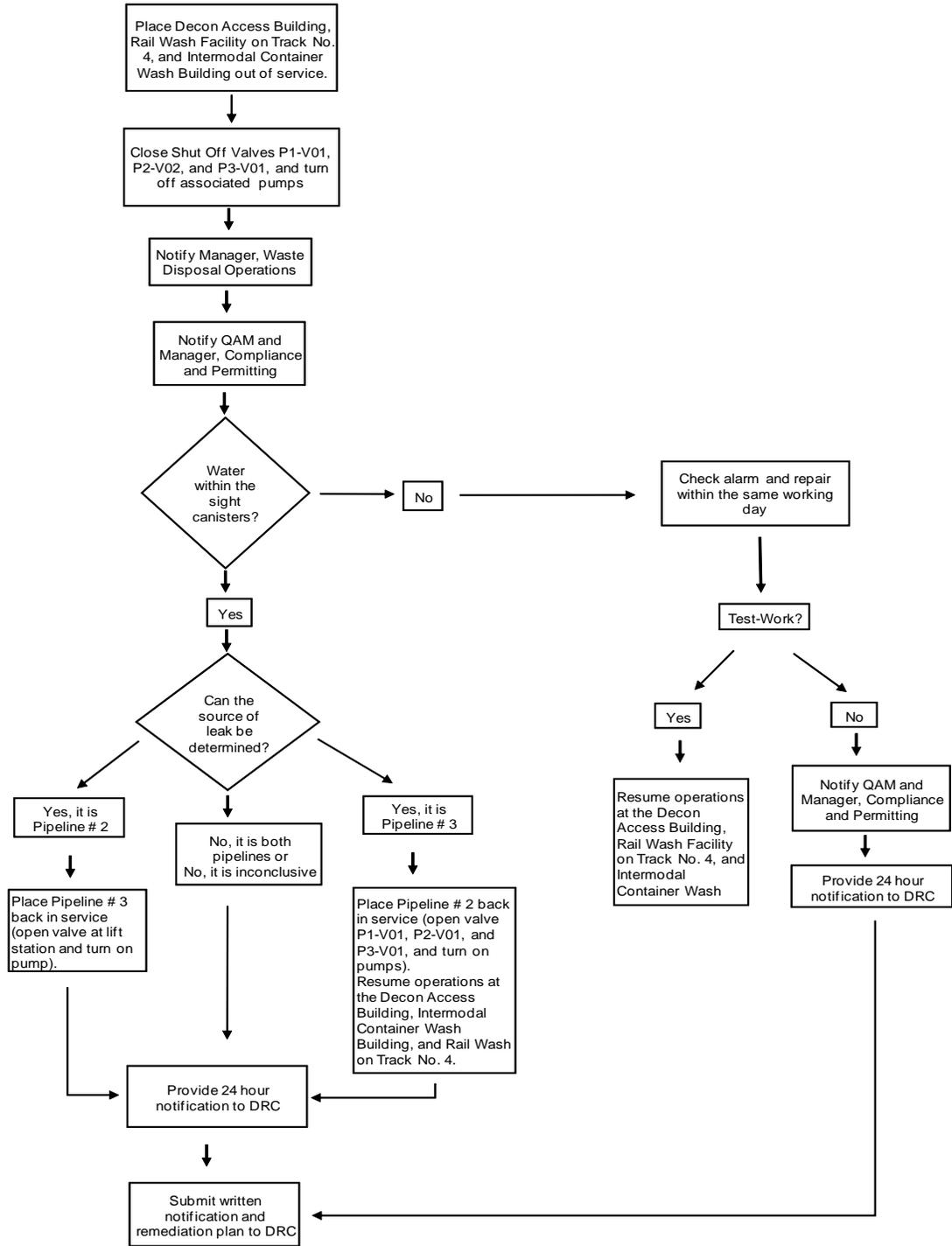
1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director~~ or ~~designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Applicable Site Director~~ or ~~designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting~~ or ~~designees~~.
3. Inspect the alarm system to determine if functioning properly.
4. Inspect the sump pump(s) to determine if functioning properly.
5. If the sump pump(s) requires repair or replacement it will occur within the same working day.
6. If sump pump(s) cannot be repaired or replaced on the same working day of discovery, the QAM or the ~~Director of Manager, Compliance and Permitting~~ or ~~designee~~ will provide verbal notification to the DRC within 24 hours of identification.
7. The ~~Director of Manager, Compliance and Permitting~~ or ~~designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.18.24.17.2 East Side Drainage System Gray Water:**

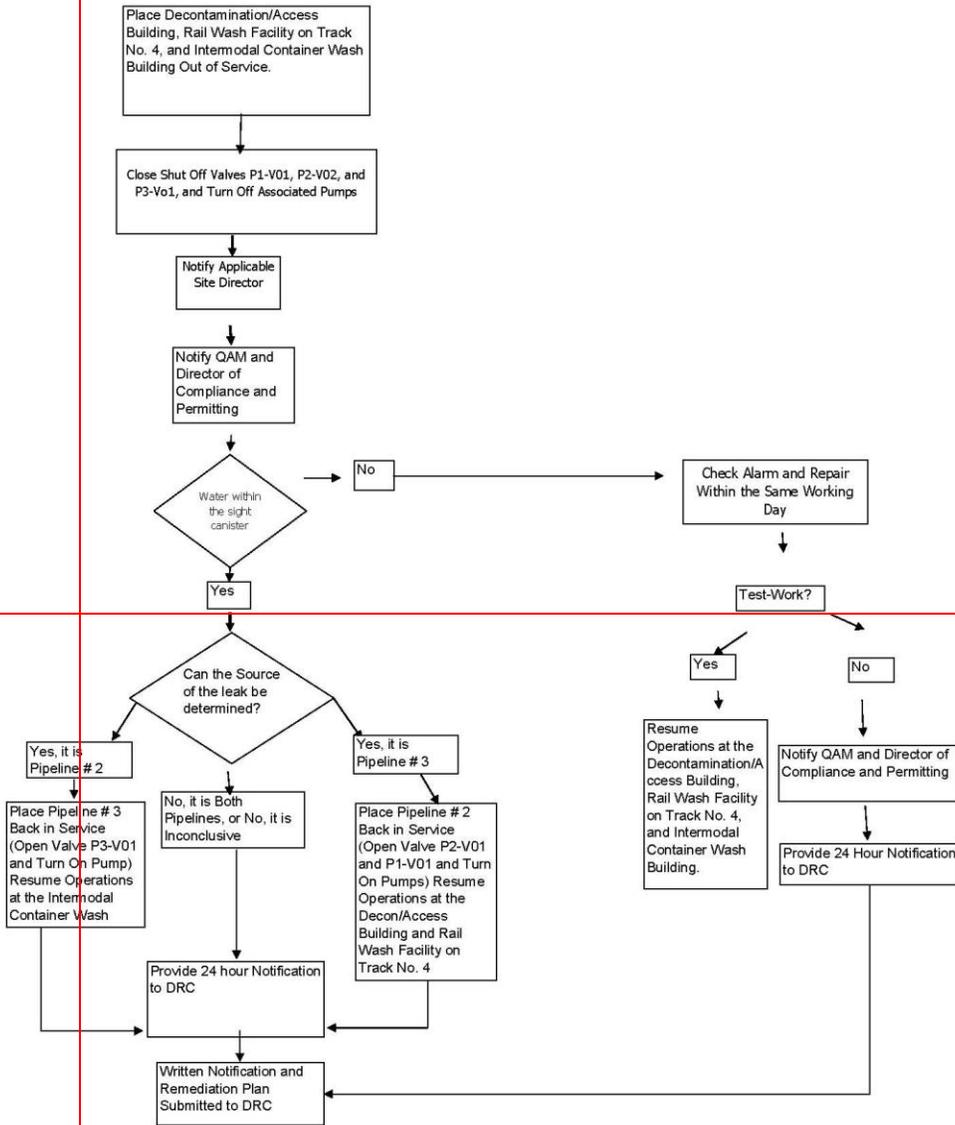
##### **4.18.2.1 Visual Alarm Activated at Manhole 1 (See Figure 1 of inspection form):**

1. Perform Contingency Actions in accordance with the following Flow Chart.

### Alarm Activated at Manhole 1



**Alarm Activated at Manhole 1**

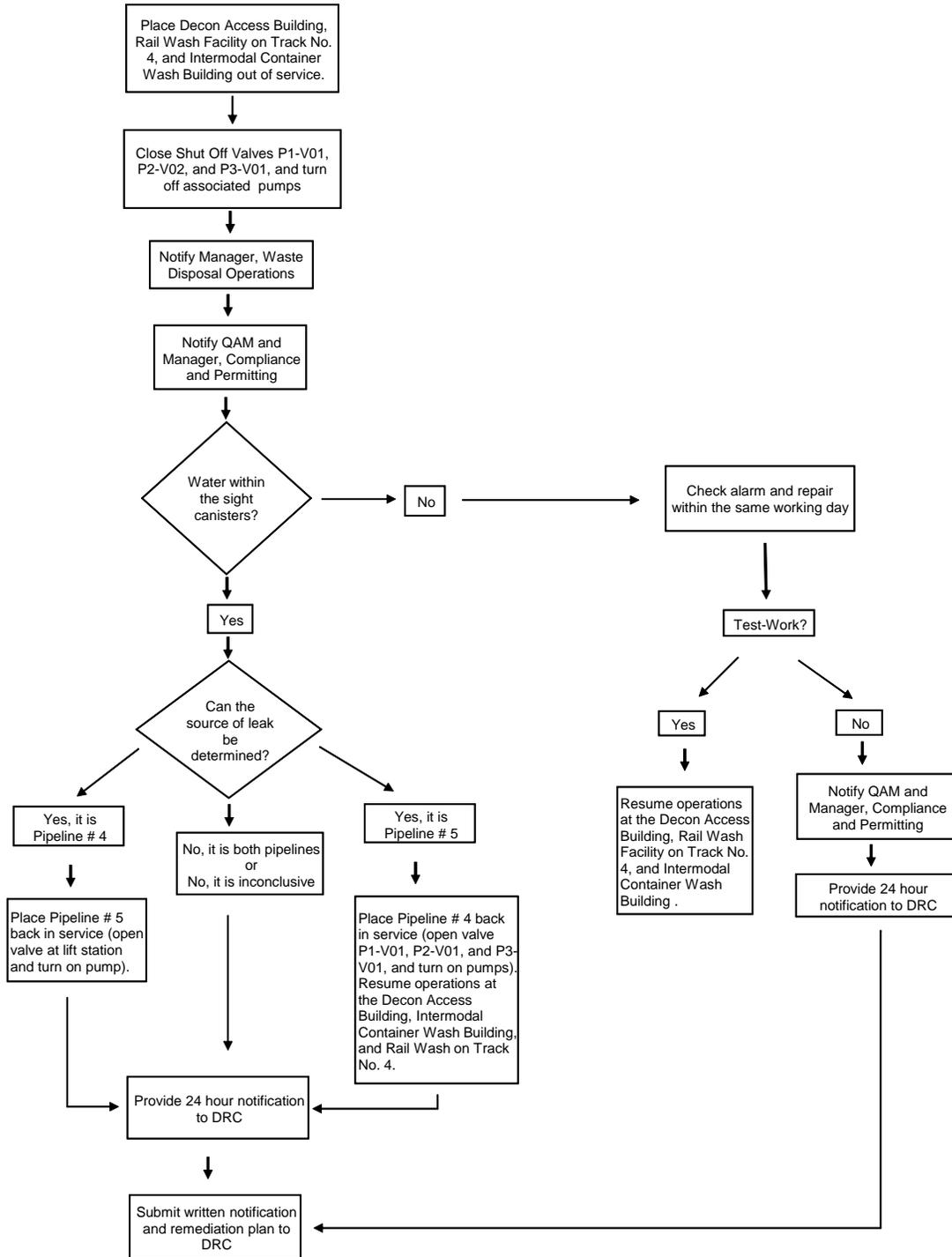


Revised January 21, 2008

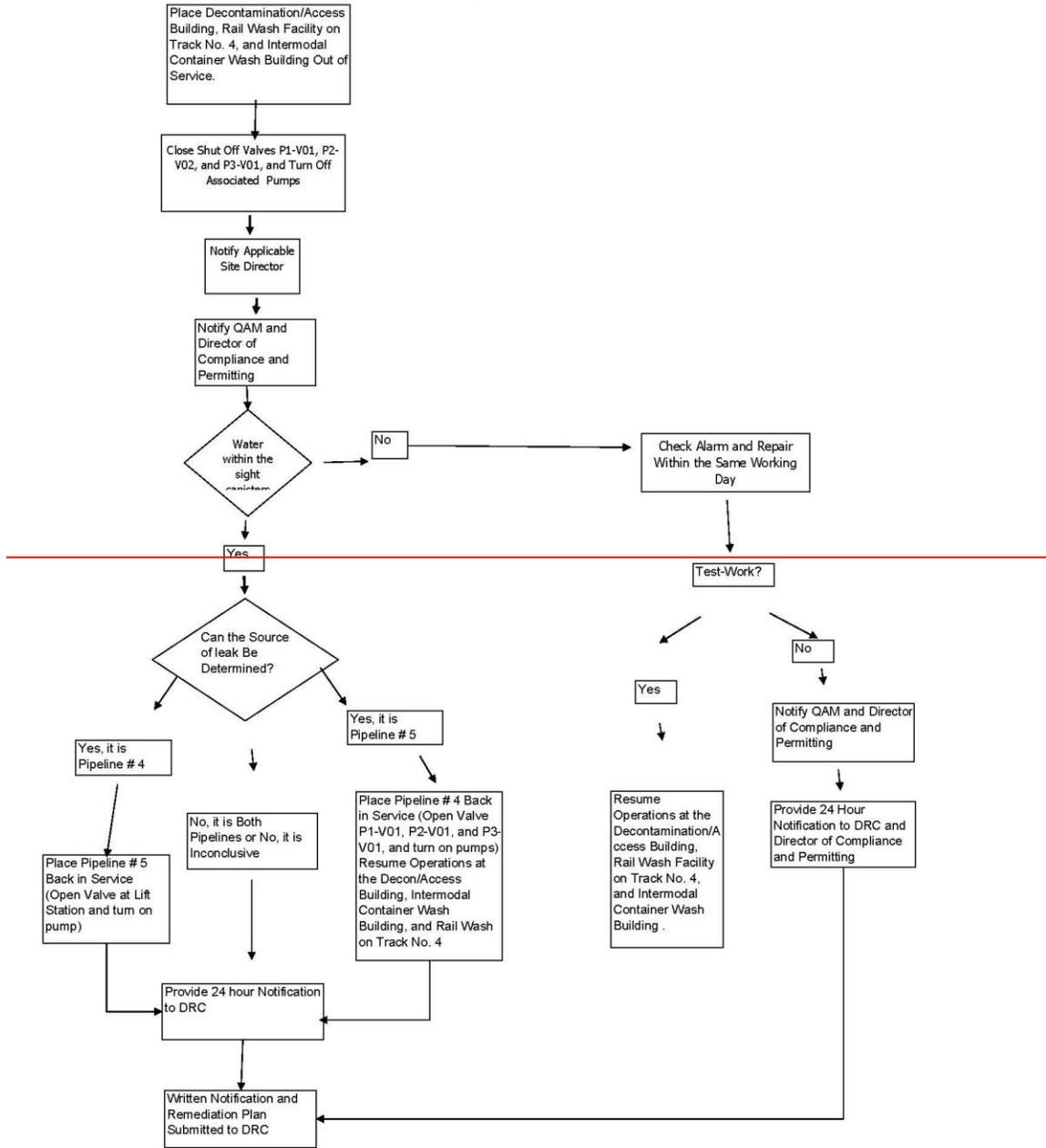
**4.18.2.24.17.2.1 Visual Alarm Activated at Manhole 2 (See Figure 1 of inspection form):**

1. Perform Contingency Actions in accordance with following Flow Chart.

### Alarm Activated at Manhole 2



**Alarm Activated at Manhole 2**



Revised January 21, 2008

**4.18.2.3 Failure of the carrier pipe:**

1. ~~The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~ Upon discovery the ~~Applicable Site Director or designee will be notified immediately.~~
2. The affected shut-off valves will be closed, and associated pumps to affected facilities will be placed out of service.
3. The ~~Manager, Waste Disposal Operations~~ ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting and ~~Director of Manager,~~ Engineering ~~and Maintenance,~~ or ~~designee.~~
4. The QAM or the ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of confirmation and provide notification of manual water removal from affected facilities.
5. The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
6. The ~~Director of Manager,~~ Engineering ~~and Maintenance~~ will schedule testing of the containment pipe(s).
7. The containment pipe(s) will be tested based on the ASTM-F1417 method.
8. Upon completion of containment pipe testing, findings will be documented and a report submitted to the DRC within 30 calendar days. The report will include any completed or scheduled remediation.
9. Once remediation efforts have been completed, verification of the containment pipe repairs and remediation will be performed under the direction of and certified by a certified ~~Independent~~ Professional Engineer.
10. The facility will be placed back into service.

**4.18 South Ditch****4.19****4.19.14.18.1 Pump system not functioning as designed: green light not activated when pump is present and operating:**

1. The Facility Operator or BAT Inspector will notify the ~~Manager, Waste Disposal Operations~~ ~~Applicable Site Director or designee~~ immediately.
2. The ~~Manager, Waste Disposal Operations~~ ~~Applicable Site Director or designee~~ will notify the QAM, ~~Director of Manager,~~ Engineering ~~and Maintenance,~~ and ~~Director of Manager,~~ Compliance and Permitting ~~or designees.~~
3. The ~~Director of Manager,~~ Engineering ~~and Maintenance~~ ~~or designee~~ will schedule repairs within 48 hours after receiving notification.
4. ~~Repairs will be completed within 14 calendar days of discovery or the Director of Engineering or designee will provide just cause to the Director of Compliance and Permitting or designee.~~

- ~~5.4. The Director of Manager, Compliance and Permitting or designee will provide just cause in writing to the Executive Secretary Director.~~
5. If repairs are not performed within 14 calendar days of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the Director of Manager, Compliance and Permitting or designee will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
6. The Manager, Compliance and Permitting will provide written notification to the DRC within seven calendar days of discovery.

**4.19.24.18.2 Pump system not functioning as designed (pump is present but not operating with or without activation of green light):**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director or designee immediately.
2. The Manager, Waste Disposal Operations Applicable Site Director or designee will notify the QAM, Director of Manager, Engineering and Maintenance, and Director of Manager, Compliance and Permitting or designees.
3. Manual removal of water will begin within the same working day.
4. The Director of Manager, Engineering and Maintenance or designee will schedule repairs of the pump system within 48 hours after receiving notification.
- ~~5. Repairs will be completed within 14 calendar days of discovery or the Director of Engineering or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
- ~~6.5. The Director of Manager, Compliance and Permitting or designee will provide just cause in writing to the Executive Secretary Director.~~
6. If repairs are not performed within 14 calendar days of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the Director of Manager, Compliance and Permitting or designee will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
7. The Manager, Compliance and Permitting will provide written notification to the DRC within seven calendar days of discovery.
- 7.

**4.19.34.18.3 Pump system not functioning as designed (blue light not activated when water is above the sump grate):**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director or designee immediately.
2. The Manager, Waste Disposal Operations Applicable Site Director or designee will notify the QAM, Director of Manager, Engineering and

Maintenance, and Director of Manager, Compliance and Permitting ~~or designees~~.

3. The Director of Manager, Engineering and Maintenance or designee will schedule repairs within 48 hours after receiving notification.
4. ~~Repairs will be completed within 14 calendar days of discovery or the Director of Engineering or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
- 5.4. ~~The Director of Manager, Compliance and Permitting or designee~~ will provide just cause in writing to the Executive Secretary Director.
- 6.5. If repairs are not performed within 14 calendar days of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- 7.6. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

**4.19.44.18.4 Grate less than 75% clear of debris (determined during monthly pump and indicator light inspection):**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director or designee immediately.
2. ~~The Facility Operator or BAT Inspector will notify individuals to remove debris from the grate.~~
3. ~~Debris removal will be completed within 48 hours of discovery or the Director of Engineering or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
- 4.2. ~~The Director of Manager, Compliance and Permitting or designee~~ will provide just cause in writing to the Executive Secretary Director.
- 5.3. If debris removal is not performed within 48 hours of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the debris removal was not performed.
- 6.4. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that the removal was not performed.

**4.19.54.18.5 Manual water removal (only required when pump is not operating or has been removed during freezing weather) not initiated the same day as identification:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director or designee immediately.
2. The Manager, Waste Disposal Operations Facility Operator or BAT Inspector will ~~notify individuals to begin schedule~~ manual water removal.

3. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees~~.
4. The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
5. The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### 4.19 *LLRW Operations Building*

#### ~~4.20~~

#### ~~4.20.14.19.1~~ **High water level alarm (orange strobe) activated at the wastewater collection tank:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~Facility Operator or BAT Inspector~~ will ~~notify the Facility Manager or designee to~~ schedule the manual removal of water from the storage tank.
3. If the water is not removed below the high water level by the end of the following workday after discovery, the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~.
4. The QAM or the ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
5. The ~~Director of Manager,~~ Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### ~~4.20.24.19.2~~ **High-high-level alarm (red strobe) activated at the wastewater collection tank:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager,~~ Compliance and Permitting ~~or designees~~.
3. Place the wastewater generating systems (restricted area of the building) out of service.
4. The Manager, Waste Disposal Operations ~~will Facility Operator or BAT Inspector will notify the Facility Manager or designee to~~ schedule the manual removal of water from the wastewater collection tank.
5. If the water is not removed below the high water level within the same working day of discovery, the Manager, Waste Disposal Operations

~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees.~~

6. The QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
7. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
8. Upon completion of water removal below the high water level, the facility may be placed back in service.

#### **4.20.34.19.3 Presence of fluids in the leak detection system**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM, ~~Director of Manager, Compliance and Permitting, and Director of Manager, Engineering and Maintenance or designees.~~
3. The wastewater generating systems (restricted area of the building) will be placed out of service.
4. The ~~Director of Manager, Engineering and Maintenance, or designee,~~ will determine the cause of the alarm and schedule repairs as needed.
5. The QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
6. If repairs to the inner (primary) tank are required, the tank shall be re-certified by an independent PE before being placed back into service.
7. If the sensor is determined to be faulty, the facility may be placed back into service once it is repaired or replaced and tested.
8. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.214.20 SRS DU Storage Building**

##### **4.21.14.20.1 Discrepancy in Exposed Asphalt Integrity:**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees.~~
3. The Manager, Waste Disposal Operations ~~Applicable Site Director~~ will schedule repairs to the exposed asphalt surface within 48 hours after receiving notification.
4. Repairs will be completed within 10 working days of discovery or the ~~Manager, Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting or designee.~~
5. ~~4.~~ The ~~Director of~~ Compliance and Permitting will provide just cause in writing to the ~~Executive Secretary~~Director.

6.5. If repairs are not performed within 10 working days of discovery and just cause has not been provided to the ~~Executive Secretary~~ Director, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.

7.6. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

#### **4.21.24.20.2 Evidence of container leakage, corrosion, or deterioration**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations ~~applicable Site Director or designee~~ will notify the QAM and the ~~Director of Manager~~, Compliance and Permitting, ~~or designees~~.
3. An inspection will be performed to determine corrective actions as needed i.e. overpack of containers.
4. Corrective actions shall be completed and documented within the same working day.
5. If corrective actions cannot be completed within the same working day, the QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
6. If corrective actions cannot be completed with the same working day, the ~~Director of Manager~~, Compliance and Permitting will provide written notification to the DRC within seven calendar days of discovery.

#### **4.21.34.20.3 Presence of water on the asphalt surface**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ immediately.
2. The Manager, Waste Disposal Operations will schedule ~~Facility Operator or BAT Inspector~~ will notify individuals for water removal.
3. The Manager, Waste Disposal Operations ~~applicable Site Director or designee~~ will notify the QAM, ~~Director of Manager~~, Compliance and Permitting, and ~~Director of Manager~~, Engineering ~~and Maintenance~~ ~~or designees~~.
4. An inspection will be performed to determine the source of the water and schedule repairs as needed.
5. The QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of identification.
6. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

#### **4.224.21 *Evaporation Pond Ancillary Equipment to Facilitate Evaporation***

#### **4.22.14.21.1 Contact wastewater spill outside of the pond and secondary containment:**

1. The Facility Operator or BAT Inspector will implement the Emergency Response Plan. Implementation automatically notifies the Manager, Waste Disposal Operations, QAM, and Manager, Compliance and Permitting.
- ~~2. The Facility Operator or BAT Inspector will notify the Applicable Site Director or designee immediately.~~
- ~~3. The Applicable Site Director or designee will notify the QAM and Director of Compliance and Permitting or designees.~~
- ~~4.2.~~ The spill will be cleaned up in accordance with the Emergency Response Plan. Initial (24-hour) and followup (7-day) reports will be made to the Executive Secretary Director in accordance with that plan.
- ~~5.3.~~ The ancillary equipment will be taken out of service until the cause of the spill has been determined and repaired.
- ~~6.4.~~ Once the ancillary equipment has been repaired, 24 hour notification shall be provided to the Executive Secretary Director prior to placing the system back into service.

#### **4.22.24.21.2 Damage to the evaporation pond liner:**

1. The ancillary equipment will be taken out of service immediately.
2. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations Applicable Site Director or designee immediately.
3. The Manager, Waste Disposal Operations Applicable Site Director or designee will notify the QAM and Director of Manager, Compliance and Permitting or designees.
4. The Manager, Waste Disposal Operations Applicable Site Director will schedule repairs to the pond liner within 48 hours after receiving notification.
5. Once the pond liner has been repaired 24 hour notification shall be provided to the Executive Secretary Director prior to placing the system back into service.
- ~~6.~~ Repairs will be completed within 10 working days of discovery or the Applicable Site Director or designee will provide just cause to the Director of Compliance and Permitting or designee.
- ~~7.6.~~ The Director of Manager, Compliance and Permitting will provide just cause in writing to the Executive Secretary Director.
- ~~8.7.~~ If repairs are not performed within 10 working days of discovery and just cause has not been provided to the Executive Secretary Director, the QAM or the Director of Manager, Compliance and Permitting or designee will provide verbal notification to the DRC within 24 hours of identification that the repairs were not performed.
- ~~9.8.~~ The Director of Manager, Compliance and Permitting or designee will provide written notification to the DRC within seven calendar days of identification that repairs were not performed.

## **4.23.4.22 Contingency Actions for Qualitative BAT Performance Standards**

### **4.23.14.22.1 Failure to complete inspections as required**

1. The Facility Operator or BAT Inspector will notify the Manager, Waste Disposal Operations~~Applicable Site Director or designee immediately.~~
2. The Facility Operator or BAT Inspector will perform missed inspection.
3. The Manager, Waste Disposal Operations ~~applicable Site Director or designee~~ will notify the QAM and Manager, , Director of Compliance and Permitting ~~or designees.~~
4. The QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of confirmation.
5. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.

### **4.23.24.22.2 Failure to Comply with Waste Disposal Location Requirements:**

1. ~~Upon discovery the Applicable Site Director or designee will be notified immediately. Notify the Manager, Waste Disposal Operations.~~
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designee.~~
3. The QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of confirmation.
4. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification to the DRC within seven calendar days of discovery.
5. The waste will be removed from the location and disposed of in the correct location.
6. Follow up sampling will be performed to ensure that all waste material placed incorrectly has been completely removed and a report containing sample analytical results will be submitted for DRC approval. Upon approval, waste placement within the sampled area may resume.

### **4.23.34.22.3 Disposal of Unauthorized Wastes:**

1. ~~Upon discovery the Applicable Site Director or designee will be notified immediately. Notify the Manager, Waste Disposal Operations.~~
2. The Manager, Waste Disposal Operations ~~Applicable Site Director or designee~~ will notify the QAM and Director of Manager, Compliance and Permitting ~~or designees.~~
3. The QAM or the Director of Manager, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC.
4. The Director of Manager, Compliance and Permitting ~~or designee~~ will provide written notification in accordance with the Permittee's Radioactive Material License.

**4.23.44.22.4 Failure to Construct as Per Approval Designated in I.E.3:**

1. Upon discovery the Applicable Site Director or designee will be notified immediately.
2. The Applicable Site Director or designee will notify the QAM and Director of Compliance and Permitting or designees.
3. The QAM or the Director of Compliance and Permitting or designee will provide verbal notification to the DRC.
4. The Director of Compliance and Permitting or designee will provide written notification in accordance with the Permittee's Radioactive Material License.

**4.23.54.22.5 Failure to Complete a Portion of the Disposal Cell Within the Applicable Open Cell Time Limit:**

1. ~~Upon discovery the Applicable Site Director or designee will be notified immediately. Notify the Manager, Waste Disposal Operations~~
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designees~~.
3. The QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of discovery.
4. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification and proposed corrective actions to the DRC within seven calendar days of discovery.

**4.23.64.22.6 Failure to Comply with General Stormwater Management Requirements and Performance Criteria:**

1. ~~Upon discovery the Applicable Site Director or designee will be notified immediately. Notify the Manager, Waste Disposal Operations.~~
2. The ~~Manager, Waste Disposal Operations Applicable Site Director or designee~~ will notify the QAM and ~~Director of Manager~~, Compliance and Permitting ~~or designee~~.
3. The QAM or the ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide verbal notification to the DRC within 24 hours of discovery.
4. The ~~Director of Manager~~, Compliance and Permitting ~~or designee~~ will provide written notification and proposed corrective actions to the DRC within seven calendar days of discovery.

**4.23.74.22.7 Failure to Comply with 11e.(2) Waste Management and Storage Requirements:**

1. ~~Upon discovery the Applicable Site Director or designee will be notified immediately. Notify the Manager, Waste Disposal Operations.~~

2. The ~~Manager, Waste Disposal Operations Applicable Site Director of designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of discovery.
4. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification and proposed corrective actions to the DRC within seven calendar days of discovery.

#### **~~4.23-84.22.8~~ Failure to Comply with LLRW Waste Management Requirements:**

1. ~~Upon discovery the Applicable Site Director or designee will be notified immediately. Notify the Manager, Waste Disposal Operations.~~
2. The ~~Manager, Waste Disposal Operations Applicable Site Director of designee~~ will notify the QAM and ~~Director of Manager, Compliance and Permitting or designees~~.
3. The QAM or the ~~Director of Manager, Compliance and Permitting or designee~~ will provide verbal notification to the DRC within 24 hours of discovery.
4. The ~~Director of Manager, Compliance and Permitting or designee~~ will provide written notification and proposed corrective actions to the DRC within seven calendar days of discovery.