

## **PART IV: STORAGE IN TANKS**

### **IV.A. UNIT DESCRIPTION**

The Permittee is allowed to store hazardous waste in tanks following the requirements of 6 CCR 1007-3 Part 264, Subpart J and in the following manner:

- IV.A.1. Contaminated Water Tanks - The Contaminated Water Tanks were constructed and shall be maintained as follows:

The Contaminated Water Tanks are two above ground, dish-bottomed, steel tanks. The tanks are lined with Tenemac Series 104. The minimum shell thicknesses for the tanks are as follows: 1/4 inch for the tank bottom, 5/16 inch from the tank wall in the area of 0 to 7 feet from the bottom, 1/4 inch for the tank wall in the area of 7 to 21 feet from the bottom, and 3/16 inch for the tank wall in the area of 21 to 35 feet from the bottom. The tanks were constructed with an additional 1/8 inch corrosion allowance added to each of the minimum thicknesses. The maximum capacity of the tanks is 250,000 gallons each, for a maximum total capacity of 500,000 gallons. The tanks are located as shown on Figures 1 and 5 of Attachment 1.

- IV.A.2. Operations and Maintenance Accumulation Tanks - The Operations and Maintenance Accumulation Tanks were installed and shall be maintained as follows:

The Operations and Maintenance Accumulation Tanks (“O & M Tanks”) are two underground, fiberglass tanks. The interior shells of the tanks are lined with a chemical resistant vinyl ester to a minimum thickness of 100 mils. The tanks have a minimum shell thickness of 0.22 inch. An additional 0.12 inch corrosion allowance has also been added to the initial thickness of each surface. The maximum capacity of each tank is 4,000 gallons. The tanks are located adjacent to the Operations and Maintenance Buildings.

- IV.A.3. Truck Wash Recycle System - The Truck Wash Recycle System was constructed and shall be maintained as follows:

The Truck Wash Recycle System consists of a pre-engineered metal frame building with an office area, a general storage area, an equipment room, and a wash bay. The Truck Wash Recycle System is shown in Figure 1 of Attachment 1.

- IV.A.3.a. Washbay water is contained in a collection trench which runs down the center of the bay. The epoxy coated concrete floor slopes to the trench drain. The trench drain is lined as follows (top to bottom): 3/4" steel plate liner on sides, 1" steel plate liner on the bottom; compacted sand leak detection layer; an 80-mil geomembrane liner; a 10" concrete subfloor; a compacted clay liner that is a minimum of 3 feet thick at the bottom of the drain. The leak detection system slopes to a vertical riser pipe on the north end of the trench drain. The Permittee is not allowed to store wash water in the trench drain.
- IV.A.3.b. The Truck Wash System consists of two above ground, elevated, conical bottom, fiberglass tanks. The tanks have a minimum shell thickness of 0.18 inch. An additional corrosion allowance has been added to the minimum thickness of each surface. The maximum capacity of each tank is 1,650 gallons, for a total maximum capacity of 3,300 gallons.

## **IV.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION**

### IV.B.1. Specific prohibitions:

- IV.B.1.a. Wastes or wastes and materials which are incompatible shall not be placed in the same tank. Wastes or materials are incompatible if upon or after mixing they generate extreme heat or pressure, cause fire or explosion, cause violent reactions, produce uncontrolled toxic mists, fumes, dusts, or gases, produce uncontrolled flammable fumes or gases, or damage the integrity of the tank.
- IV.B.1.b. Liquid radioactive wastes from off-site shall not be placed in any of the storage tanks.

### IV.B.2. Contaminated Water Tanks

- IV.B.2.a. The following wastes are approved for storage in the Contaminated Water Tanks;
- Leachate collected from Leachate Collection Systems

- Liquids collected from Leak Detection Systems
- Liquids collected from the Permanent Sumps
- Contaminated rainwater from a Secure Cell
- Contaminated water from the Truck Wash Recycle Tanks, the Operations Accumulation Tank, and/or the Maintenance Accumulation Tank
- Aqueous materials generated from fire or spill response actions
- Aqueous materials collected from the floor trenches/sumps in the Container Management Building A or unloading areas
- Aqueous materials generated from the on-site Wastewater Treatment System
- Accumulated water from ground water monitor well purging and sampling activities
- Wash water from wastewater treatment and treatment process area
- Aqueous materials collected from the 90 day storage areas
- Aqueous materials generated from on-site decontamination activities during operational and closure periods

IV.B.2.b. The Permittee shall not store waste or other materials in the tanks which after mixing, have a specific gravity greater than 1.2.

IV.B.2.c. The Permittee shall not place ignitable or reactive wastes into the Contaminated Water Tanks.

IV.B.2.d. The Permittee shall not place any waste in the Contaminated Water Tanks which has an average volatile organic concentration at the point of waste origination of greater than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in 6 CCR 1007-3 §264.1083(a).

#### IV.B.3. Operations and Maintenance Accumulation Tanks

IV.B.3.a. In the Operations Accumulation Tank, the Permittee is allowed to store dilute concentrations of wastewaters generated from the washing and cleaning of laboratory

equipment and glassware and over spills from sampling. Waste samples or laboratory reagents shall not be disposed of in the tank.

IV.B.3.b. In the Maintenance Accumulation Tank, the Permittee is allowed to store dilute concentrations of waste generated on-site from the maintenance, servicing and cleaning of on-site or off-site vehicles.

IV.B.3.c. The Permittee shall not store ignitable or reactive wastes in the Accumulation Tanks.

IV.B.3.d. The Permittee shall not place any waste in the Accumulation Tanks which has an average volatile organic concentration at the point of waste origination of greater than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in 6 CCR 1007-3 §264.1083(a).

#### IV.B.4. Truck Wash Recycle Tanks

IV.B.4.a. The Permittee is allowed to store dilute concentrations of wastewater generated from the cleaning and washing of those vehicles which are to go off-site.

IV.B.4.b. The Permittee shall not store ignitable or reactive wastes in the Truck Wash Recycle Tanks.

IV.B.4.c. The Permittee shall not place any waste in the Truck Wash Recycle Tanks which has an average volatile organic concentration at the point of waste origination of greater than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in 6 CCR 1007-3 and §264.1083(a).

### IV.C. SECONDARY CONTAINMENT

IV.C.1. The Permittee shall operate the secondary containment system for each tank and/or tank system in accordance with 6 CCR 1007-3 §264.193 and the terms and conditions of this Permit.

- IV.C.2. The concrete containment systems underlying the Contaminated Water Tanks and the Truck Wash Recycle Tanks shall be sufficiently impervious to contain leaks, spills, and accumulated precipitation until detected and removed. In addition the Permittee shall maintain a chemical resistant impervious coating on the concrete of the secondary containment, and repair any detected cracks according to the requirements in Permit Attachment 3.
- IV.C.3. The uncovered secondary containment systems for the Contaminated Water Tanks shall be maintained to allow sufficient capacity to contain at least the volume of one tank plus the 25-year, 24-hour storm event. In order to meet this requirement, the secondary containment for the Contaminated Water Tanks shall be maintained at 296,640 gallons.
- IV.C.4. The covered containment system for the Truck Wash Recycle Tanks shall be maintained to allow sufficient capacity to contain the capacity of the largest tank or 10% of the volume stored in the tank system, whichever is greater. The secondary containment for the Truck Wash Recycle Tanks shall be maintained at 3554 gallons.
- IV.C.5. The outer shell of the double-walled Operations and Maintenance Accumulation Tanks shall be maintained to contain leaks, spills, and allow accumulated liquids to be detected and removed.
- IV.C.6. The Permittee shall comply with the requirements of 6 CCR 1007-3 §264.193 for ancillary equipment of all tank systems.
- IV.C.7. All spills or leaks at the permitted tank storage units must be cleaned up within the same shift in which they are detected. Any removed material from the collection systems must be characterized, and if hazardous waste, managed appropriately (i.e. recycled, stored, treated or disposed of according to this Permit, or shipped off-site to a designated hazardous waste facility).

#### **IV.D. INTEGRITY ASSESSMENTS**

- IV.D.1. Potential corrosion and deterioration of the Contaminated Water Tanks shall be monitored using coupons. The coupons consist of 1/4 inch ASTM 283-C carbon steel, coated with the same material and the same thickness as the tank interior. A minimum of five coupons are placed in each tank at levels of 1 foot, 8.75 feet, 16.5 feet, 24.25 feet, and 32 feet from the bottom of the tank. The coupons will be inspected as required by Permit Attachment 3, Inspection Plan.

- IV.D.2. Potential deterioration of the Operations and Maintenance Accumulation Tanks shall be monitored using coupons. The coupons consist of 0.34 inch fiberglass coated with the same coating as the tank shell to a thickness of approximately 100 mil. A minimum of two coupons are placed in each tank at levels of 1 foot and 4 feet from the bottom of the tank. The coupons will be inspected as required by Permit Attachment 3, Inspection Plan.
- IV.D.3. If any tank's minimum measured coupon thickness is below the required tank wall thickness design value (i.e., corrosion allowance equals zero) specified for that tank, it shall be considered unfit for use, and removed from service immediately, in accordance with Permit Condition IV.D.4.
- IV.D.4. If a tank system or component is found to be unfit for use as a result of the integrity assessment or any inspection, the Permittee shall comply with Permit Condition IV.F. of this Permit and notify the Department, in accordance with Permit Condition IV.H. of this Permit.

#### **IV.E. OPERATING REQUIREMENTS**

IV.E.1. The Permittee shall not place hazardous wastes in any tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail.

##### **IV.E.2. Contaminated Water Tanks**

- IV.E.2.a. The Contaminated Water Tanks are equipped and maintained with a high level indicator that will automatically shut off the feed to the tank when a liquid level is reached within a six inch interval at 32 feet 10 inches. The high level switch shall also activate a local audible alarm when the high level is reached.
- IV.E.2.b. Level indicators on the sides of the tanks will indicate the current status of each tank.
- IV.E.2.c. Pumps will be used to transfer the wastes to or from any of the tanks. All valves will remain in the closed position unless waste transfers are taking place.

- IV.E.2.d. The quantity of each hazardous waste contained in each of the Contaminated Water Tanks will be maintained in the Operating Record.

#### IV.E.3. Operations and Maintenance Accumulation Tanks

- IV.E.3.a. The Accumulation Tanks will inspected daily for a high level condition. The high level shall be set at 90% capacity or less. The daily tank levels will be recorded on the Inspection Plan Operational Day Inspection Checklist.
- IV.E.3.b. Pumps or a Vacuum Truck (VAC truck) will be used to transfer the wastes from either of the tanks. All valves will remain in the closed position unless waste transfers are taking place.
- IV.E.3.c. Tthe quantity of each hazardous waste contained in the Operations and Maintenance Accumulation Tanks will be maintained in the Operating Record.

#### IV.E.4. Truck Wash Recycle System

- IV.E.4.a. The Permittee shall operate the Truck Wash Recycle System as described in Attachment 9.
- IV.E.4.b. The Truck Wash Recycle Tanks and the Collection Trench are equipped and shall be maintained with float operated switches to shutoff makeup water if the water level is too high and shut down the truck wash equipment if the water level is too low. The high level switch will also activate a local audible and visible alarm when the high level is reached.
- IV.E.4.c. Pumps will be used to transfer the wash water to or from the tanks or the collection trench. All valves will remain closed unless transfers are taking place.
- IV.E.4.d. The Operating Record shall document the type and quantity of hazardous waste contained in the Truck Wash Recycle System.

IV.E.5. The Permittee shall prevent spills and overflows from any tank or containment system.

IV.E.6. The Permittee shall clearly label each hazardous waste storage tank with a description of its contents, as required by 6 CCR 1007-3 §268.50(a)(2)(ii). This description shall include the words “Hazardous Waste” and appropriate NFPA or UFC label if flammable.

#### **IV.F. RESPONSE TO LEAKS OR SPILLS**

In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit for use, the Permittee shall remove the system from service immediately and complete the following actions:

IV.F.1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release. [6 CCR 1007-3 §264.196(a)]

IV.F.2. Remove waste and accumulated precipitation from the system within 24 hours of the detection of the leak to prevent further release, and to allow inspection and repair of the system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall notify the Department and demonstrate that the longer time period is required. The collected material must be managed in accordance with Permit Condition IV.C.7. [6 CCR 1007-3 §264.196(b)]

IV.F.3. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak or spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water. [6 CCR 1007-3 §264.196(c)]

IV.F.4. The Permittee shall close that system in accordance with the Closure Plan, Permit Attachment 6, unless the following actions are taken:

IV.F.4.a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make necessary repairs to fully restore the integrity of the system before returning the tank system to service.

IV.F.4.b. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service.

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- IV.F.4.c. For a release to the environment caused by a leak from a portion of the tank system that does not have secondary containment, and can be visually inspected, the Permittee shall repair the tank system before returning it to service.
- IV.F.4.d. If the Permittee replaces a component of the tank system to eliminate the leak, that component must satisfy the requirement for new tank systems or components in 6 CCR 1007-3, §264.192 and §264.193. [6 CCR 1007-3 §264.196(e)]
- IV.F.5. If the Permittee has repaired a tank system in accordance with Permit Condition IV.F.4., and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary or secondary containment vessel), the tank system must not be returned to service unless the Permittee has obtained a certification by an independent, qualified, Colorado Registered Professional Engineer in accordance with §264.12(d), that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be submitted to the Department within seven days after returning the tank system to use. [6 CCR 1007-3 §264.196(f)]

#### **IV.G. INSPECTION SCHEDULES AND PROCEDURES**

- IV.G.1. The Permittee shall inspect the tank systems, in accordance with the Inspection Plan and Schedules, Permit Attachment 3, and shall complete the items in IV.G.2. and IV.G.3. as part of the inspections. [ 6 CCR 1007-3 §264.195(a)]
- IV.G.2. The Permittee shall inspect the overfill controls (e.g. level indicators, high level alarms), in accordance with Permit Attachment 3.
- IV.G.3. The Permittee shall conduct ultrasonic testing of each tank in accordance with procedures specified in Permit Attachment 3 and at a frequency indicated from the coupon testing specified in Permit Attachment 3.
- IV.G.4. The Permittee shall conduct an internal tank inspection in accordance with procedures specified in Permit Attachment 3 and at a frequency indicated by the ultrasonic testing specified in Permit Attachment 3.
- IV.G.5. The Permittee shall inspect the following components of the tank system at least once each operating day:

- IV.G.5.a. Aboveground portions of the tank system to detect corrosion or release of waste;
- IV.G.5.b. Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges) to ensure that the tank system is being operated according to its design;
- IV.G.5.c. Construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation). [6 CCR 1007-3 §264.195(b)]
- IV.G.6. The Permittee shall document compliance with Permit Conditions IV.G.2. and IV.G.3. and place this documentation in the Operating Record for the facility. [6 CCR 1007-3 §264.195(d)]

#### **IV.H. RECORD KEEPING AND REPORTING**

- IV.H.1. The Permittee shall report to the Director, within 24 hours of detection, when a leak or spill occurs from the tank system or secondary containment system to the environment. A leak or spill of one pound or less of hazardous waste, that is immediately contained and cleaned-up need not be reported. Releases that are contained within a secondary containment system and removed need not be reported. If the Permittee has reported a release pursuant to 40 CFR Part 302, that report will satisfy the requirements of Permit Condition IV.H.1. [6 CCR 1007-3 §264.195(d)]
- IV.H.2. Within 30 days of detecting a release to the environment from the tank system or secondary containment system, the Permittee shall report the following information to the Department:
- Likely route of migration of the release
  - Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);
  - Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be impossible to meet this time period, the Permittee should provide the Department with a

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schedule of when the results will be available. This schedule must be provided before the required 30-day submittal period expires;

- Proximity of down gradient drinking water, surface water, and populated areas; and
- Description of response actions taken or planned. [6 CCR 1007-3 §264.195(d)(3)]

- IV.H.3. The Permittee shall submit to the Department all certifications of major repairs to correct leaks within seven days from returning the tank system to use. [6 CCR 1007-3 §264.196(f)]
- IV.H.4. The Permittee shall obtain, and keep on file at the facility the written statements by those persons required to certify the design and installation of the new tank systems. [6 CCR 1007-3 §264.192(f)]
- IV.H.5. The Permittee shall keep on file at the facility the written integrity assessment of each permitted tank or tank system. [6 CCR 1007-3 §264.191(a)]
- IV.H.6. The Permittee shall maintain at the facility a record of the integrity test results conducted in accordance with Permit Condition IV.D.
- IV.H.7. The Permittee shall place the results of all waste analyses and trial tests, and any other documentation showing compliance with the requirements of Permit Conditions IV.K.1. and IV.K.2., and 6 CCR 1007-3, §264.17(b) and §264.199 in the facility operating record.

#### **IV.I. CLOSURE**

At closure of the tank systems identified in Permit Condition IV.A., the Permittee shall comply with 6 CCR 1007-3 §264.197 and follow the procedures specified in the Closure Plan, Permit Attachment 6.

#### **IV.J. SPECIAL PROVISIONS FOR IGNITABLE OR REACTIVE WASTES**

- IV.J.1. The Permittee shall not place ignitable or reactive waste in the tank system or in the secondary containment system, unless the procedures specified in the Waste Analysis Plan, Permit Attachment 2 and the procedures below are followed.
- IV.J.2. Flammable or reactive wastes will be clearly marked as such and will be separated and protected from sources of ignition or reaction, such as open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g. from heat-producing chemical reactions), and radiant heat. Smoking, hot surfaces, and open flames are prohibited in any area where flammable waste are managed and “No Smoking” signs must be displayed conspicuously in such areas. [6 CCR 1007-3 §264.198(a)]
- IV.J.3. The Permittee shall comply, at a minimum, with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in Tables 2-1 through 2-6 of the National Fire Protection Association’s “NFPA 30-Flammable and Combustibles Liquids Code”, or in accordance with the applicable local fire code, whichever is more stringent. [6 CCR 1007-3 §264.198(b)]

#### **IV.K. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTES**

- IV.K.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same tank system or same secondary containment system, except as discussed elsewhere in this Permit. The Permittee shall identify potentially incompatible waste mixtures using the methods specified in the Waste Analysis Plan, Permit Attachment 2. [6 CCR 1007-3 §264.199(a)]
- IV.K.2. The Permittee shall not place hazardous waste in a tank system that previously held an incompatible waste or material, unless the tank system has been decontaminated. [6 CCR 1007-3 §264.199(b)]

#### **IV.L. AIR EMISSION STANDARDS**

The Permittee shall shall control air pollutant emissions from each Tank in accordance with standards specified in 6 CCR 1007-3 §264.1084 and §264.1087.

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IV.L.1. A tank is exempt from the standards specified in Permit Condition IV.L.3. and 6 CCR 1007-3 §264.1084 and §264.1087 provided that the tank is one of the following:

- IV.L.1.a. A tank for which all hazardous waste entering the tank has an average volatile organic (VO) concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in Permit Condition IV.L.2. The Permittee shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for each tank. The initial review shall be conducted within 30 days of the effective date of this Permit. The reviews shall be documented in the Operating Record.
- IV.L.1.b. A tank for which the organic content of all hazardous waste entering the tank has been reduced by an organic destruction method or removal process that achieves any one of the conditions contained in 6 CCR 1007-3 §264.1082(c)(2).
- IV.L.1.c. A tank for which all hazardous waste placed in the tank either:
- IV.L.1.c.i) Meets the numerical concentration limits for organic constituents, applicable to the hazardous waste, as specified in 6 CCR 1007-3 Part 268 - Land Disposal Restrictions under Table “Treatment Standards for Hazardous Waste” in §268.40; or
  - IV.L.1.c.ii) Has been treated by the treatment technology established by EPA for the waste in 6 CCR 1007-3 §268.42(a), or treated by an equivalent method of treatment approved by EPA in 6 CCR 1007-3 §268.42(b).
- IV.L.1.d. The Director may at any time perform or request that the Permittee perform a waste determination for a hazardous waste managed in a tank exempted from using air emission controls following the provisions of 6 CCR 1007-3 §264.1082(d).

#### IV.L.2. Waste Determination Procedures

IV.L.2.a. Waste determination procedures to determine average volatile organic (VO) concentration at the point of waste generation:

IV.L.2.a.i) The Permittee shall determine the average VO concentration at the point of waste origination for each waste placed in a tank exempted under the provisions of 6 CCR 1007-3 §264.1082(c)(1) from using air emission controls in accordance with standards specified in 6 CCR 1007-3 §264.1082 through §264.1086 as applicable to each the tank.

IV.L.2.a.ii) The average VO concentration of a hazardous waste at the point of waste origination may be determined in accordance with the procedures specified in 6 CCR 1007-3 §265.1084(a)(2) through (a)(4).

IV.L.2.b. Waste determination for treated waste:

IV.L.2.b.i) The Permittee shall perform the applicable waste determination for each treated waste placed in a tank exempted under the provisions of 6 CCR 1007-3 §264.1082(c)(2) from using air emission controls in accordance with standards specified in 6 CCR 1007-3 §264.1082 through §264.1086 as applicable to each tank.

IV.L.2.b.ii) The average VO concentration of a treated hazardous waste may be determined in accordance with the procedures specified in 6 CCR 1007-3 §265.1084(b)(2) through (b)(9).

IV.L.2.c. The procedure for determining no detectable organic emissions for the purpose of complying with this section of the Permit shall be conducted in accordance with the procedures specified in 6 CCR 1007-3 §265.1084(d).

IV.L.3. The Permittee shall control air emissions from each of the Tanks in accordance with the applicable provisions of 6 CCR 1007-3 §264.1082, §264.1084 and §264.1087.

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- IV.L.3.a. The Permittee shall control air emissions in accordance with the Tank Level 1 controls and shall maintain the following management activities:
- IV.L.3.a.i) The maximum organic vapor pressure limit for the tank is 76.6 kPa.
  - IV.L.3.a.ii) The hazardous waste in the tank is not heated by the Permittee to a temperature that is greater than the temperature at which the maximum organic vapor pressure of hazardous waste is determined for the purpose of complying with Permit Condition IV.L.3.a.i).
  - IV.L.3.a.iii) The hazardous waste in the tank is not treated by the Permittee using a waste stabilization process, as defined by 6 CCR 1007-3 §265.1081.
- IV.L.3.b. The Permittee, using Tank Level 1 controls, shall meet the following requirements:
- IV.L.3.b.i) The Permittee shall determine the maximum organic vapor pressure for each hazardous waste to be managed in each tank, before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in 6 CCR 1007-3 §264.1083(c). Thereafter, the Permittee shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level equal to or greater than the maximum organic vapor pressure specified in Permit Condition IV.L.3.a.i).
  - IV.L.3.b.ii) The tank shall be equipped and maintained with a fixed roof design meeting the following requirements:
    - IV.L.3.b.ii.aa) The fixed roof, which is an integral part of the tank, forms a continuous barrier over the entire surface area of the hazardous waste in the tank.
    - IV.L.3.b.ii.bb) The fixed roof shall be maintained such that there are no visible cracks, holes, gaps, or other open

spaces between the roof section joints or between the roof edge and the tank wall.

IV.L.3.b.ii.cc) Each opening in the roof and any manifold system associated with the fixed roof is connected by a closed vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and it shall be operating whenever hazardous waste is managed in the tank, except as provided below:

IV.L.3.b.ii.cc.1. During periods when it necessary to provide access to the tank for performing the activities of Permit Condition IV.L.3.b.ii.cc.2., venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the Permittee shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

IV.L.3.b.ii.cc.2. During periods of routine inspection, maintenance, or other activities needed for normal operations, or for removal of accumulated sludge or other residues from the bottom of the tank.

IV.L.3.c. Whenever a hazardous waste is in a tank, the fixed roof shall be intact and each closure device secured in the closed position except as follows:

IV.L.3.c.i) Opening of the closure device is allowed at the following times:

- IV.L.3.c.i.aa) To provide access to the tank for performing routine inspection, maintenance or other activities needed for normal operations. Following completion of the activity, the Permittee shall promptly secure the closure device in the closed position.
- IV.L.3.c.i.bb) To remove accumulated sludge or other residues from the bottom of the tank.
- IV.L.3.c.ii) Opening of the pressure relief device which vents to the atmosphere following filtration through activated carbon, is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device is designed to operate with no detectable organic emissions when the device is in the secured closed position. The settings at which the device opens shall be as established in Permit Condition IV.E.2.c.
- IV.L.3.c.iii) Opening of a safety device, as defined in 6 CCR 1007-3 §265.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.
- IV.L.3.d. The Permittee shall inspect the air emission control equipment in accordance with the following requirements:
  - IV.L.3.d.i) The fixed roof and its closure devices shall be visually inspected by the Permittee, as specified in Permit Attachment 3, Inspection Plan, to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - IV.L.3.d.ii) The permittee shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank accepts hazardous waste. Thereafter, the Permittee shall perform the inspections at least once every year

except under the special conditions provided for in Permit Condition IV.L.6.

IV.L.3.d.iii) In the event a defect is detected, the Permittee shall repair the defect in accordance with the requirements of Permit Condition IV.L.5.

IV.L.4. The Permittee shall transfer hazardous waste to a Tank in accordance with the following requirements:

IV.L.4.a. Transfer of hazardous waste, except as provided in Permit Condition IV.L.4.b., to the tank from another Tank shall be conducted using continuous hard piping or another closed vent system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this Permit Condition, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR Part 63, Subpart RR - National Emission Standards for Individual Drain Systems.

IV.L.4.b. The requirement of Permit Condition IV.L.4.a. do not apply when transferring a hazardous waste to the tank under any of the following conditions:

IV.L.4.b.i) The hazardous waste meets the average VO concentrations specified in Permit Condition IV.L.1.a. at the point of origination.

IV.L.4.b.ii) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements of Permit Condition IV.L.1.b.

IV.L.5. The Permittee shall repair each defect detected during an inspection performed in accordance with the requirements of IV.L.3.d. as follows:

IV.L.5.a. The Permittee shall make first efforts at repair of the defect no later than 5 calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in Permit Condition IV.L.5.b.

IV.L.5.b. Repair of a defect may be delayed beyond 45 calendar days if the Permittee determines that repair of the defect requires emptying or

temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the Permittee shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

IV.L.6. Following the initial inspection and monitoring of the cover as required by the Permit Condition IV.L., subsequent inspection and monitoring may be performed at intervals longer than 1 year under the following special conditions:

- IV.L.6.a. In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions then the Permittee may designate a cover as an “Unsafe to inspect and monitor cover” and comply with all of the following requirements:
- IV.L.6.b. Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.
- IV.L.6.c. Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in Permit Condition IV.L. as frequently as practicable during those times when a worker can safely access the cover.