

ATTACHMENT 3 PREPAREDNESS AND PREVENTION PLAN

3.0 Abstract

3.0.1 Security Measures

The site is secured as follows:

- a. There is a barrier around the facility that includes a six-foot block wall topped with three strands of barbed wire around the back and sided of the facility. Along the front of the facility there is a six-block wall and two rolling steel gates topped with metal spikes instead of barbed wire. The gates are lockable.
- b. Warning signs are posted at all entrances.
- c. Locks are on all entrances to the warehouse.
- d. Controls for all tank operations are inside the office area.
- e. Site lighting is automatically controlled.

3.0.2 Inspection Procedures

See Appendix E-4 (“Example Inspection Forms”).

3.0.3 Required Equipment

The emergency equipment requirement is met with the following:

- a. Internal communications will be by voice and intercom.
- b. Telephones are available in the office return and fill area, and the warehouse.
- c. Fire extinguishers are available next to three exits in the warehouse.
- d. Water is available from the City of Chandler. There are four fire hydrants located on Frye Road between Beck Avenue and McKemy Avenue, in addition to a hydrant on the northwest corner of Frye Road and Beck Avenue. All of these hydrants are within 1000 feet of the service center and all meet City of Chandler requirements. The average flow rate is 1,200 – 1,400 gallons per minute, with a static pressure of 75 to 85 pounds per square inch gauge. This information is contained in Appendix C-7 (“Water Main, Fire Hydrant, and Storm Sewer Map of Facility”).
- e. The tank used for waste parts washer solvent is marked “HAZARDOUS WASTE.”

3.1 Security Measures

The facility is secured and completely surrounded by a concrete block fence with the exception of the front of the two story office building and the motor vehicle access gates. All access gates and building doors are locked when the facility is unoccupied. The gates can be opened electrically by activating the motor drive with a 9-key security panel, available on both sides of the gate. From the inside of the fence, the gates can be opened with a simple electrical switch or by unlinking the motor drive and manually pushing the gate open.

As required, warning signs stating, "Danger – Unauthorized Personnel Keep Out" that are visible from 25 feet and are posted at all entrances to the facility. In addition, outdoor lighting is provided.

The office / warehouse building is secured with locks on all doors, and warning signs are posted at all entrances to work and waste storage areas. When a gate is opened for vehicle or personnel entrance or exit, it shall be immediately closed after the necessary entrance or exit has taken place. During this opening or if not immediately closed, the person opening the gate, or his / her designee, will be responsible to visually ensure that no unauthorized entrance by persons or animals occurs

The waste parts washer tank is inaccessible in that material cannot be added or removed from it without activating the pump, or unlocking the valve and valve containment box, respectively. The product and used antifreeze tanks are inaccessible in that material cannot be added to or removed from them without unlocking the valve containment box and valves, or activating the pump, respectively. The containment box with valves is located at the tank farm. The controls for the pumps are located inside the office area. The pumps are not activated unless parts washer solvent (product or waste) is being added to or removed from the tanks by Safety-Kleen personnel. The valves and containment box are kept locked when not in use.

In addition, warning signs stating, "Danger – Unauthorized Personnel Keep Out" are posted on the return and fill station. "No Smoking" signs are also posted at the warehouse, return and fill area, and the tank farm.

3.2 Inspection Procedures

The branch (i.e., service center) manager or his designee is responsible for carrying out and documenting the facility inspections in Appendix E-4 ("Example Inspection Forms") and in this section on a daily, weekly, or other basis as required. The term daily basis as used in this text refers to one operating day (excluding weekends and holidays). Each must note any repairs that are needed and assure that they are completed. If facility personnel cannot carry out the repairs, the Technical Services Department at Safety-Kleen's corporate headquarters must be notified for assistance. Repairs will continue to be marked down daily on the Facility Inspection Report until completion. The completion date will be annotated on each Facility Inspection Report dating back to its origination. The inspection logs are maintained as part of the facility's operating log for at least three years.

The regional sales manager is the supervisor of several branch managers in a geographic area. The regional sales manager, or designates must review the Facility Inspection Reports on a quarterly basis to insure that they are properly completed and that any necessary repairs have been effected.

The facility inspection includes the following:

3.2.1 Tank Inspections

At a minimum, each tank is inspected daily. The inspections include checks of the high level alarm and of the volume held in the tank. Sudden deviations in the solvent volumes will be investigated and their causes determined. The inspection of the high level alarm and the volume held in each tank will also prevent overfilling of the tanks. If necessary, repairs must be initiated immediately. Leaking tanks will be removed from service until such time that repairs have been made and certified by a professional engineer, in accordance with 40 CFR 264.196. When the tank used to store spent waste is 85% full; a pickup is scheduled with Safety-Kleen's Corporate Dispatch Department. The material must not exceed 95% of the tank volume at any time. The secondary containment for the tanks must be checked for cracks or other deterioration. Any damage to tanks (such as rust or loose fixtures) or secondary containment must be noted and repairs initiated.

Parts washer tank bottoms cannot be determined in an above ground tank except by inserting a measuring tape or stick from the top. Due to the safety hazards and logistics involved, the sludge depth is estimated and its scheduled removal is based on past experience.

The area immediately surrounding the tanks is inspected, at a minimum, weekly to detect obvious signs of leakage. The secondary containment for tanks must be checked for cracks and deterioration. Any damage to the tanks (such as rust or loose fixtures) or secondary containment must be noted and repairs initiated. The branch manager will enlist the assistance of the Environment, Health, and Safety Department for repairs if he / she cannot carry out the repairs himself / herself.

Inspections are also conducted to comply with Subpart CC requirements. A copy of the Subpart CC Compliance Plan is included with Appendix F-8, ("Subpart CC Compliance Plan").

3.2.2 Solvent Dispensing Equipment

The solvent dispensing hose, connections and valves must be inspected for damage (such as cracks and leaks) and proper functioning. Any solvent in the hoses must be drained after use. The pumps, pipes and fittings must also be checked for damage and proper functioning. Any damage to the solvent dispensing equipment must be noted and repaired. Daily inspections are conducted of the solvent piping, flanges, valves, etc. in accordance with Subpart BB requirements. An equipment configuration plan and equipment inventory checklist, which may be used to conduct the inspections are contained in Appendices E-1 ("Emergency Equipment List"), E-2 ("Emergency Equipment and Sign Map"), E-3 ("Emergency Equipment and Communication Map"), and E-4 ("Example Inspection Forms").

3.2.3 Container Storage Areas

Container storage areas are inspected daily and the number and condition of the containers noted. As required by 40CFR264.175 (b)(3), the total volume of the spent solvent held in the container storage area must not exceed ten times the amount that can be collected in the secondary containment system. However, an additional limit for, flammable liquids, is regulated by NFPA requirements. As required by NFPA (1996)-30, Table 4-4.4.1, no more than 1,375 gallons of flammable liquid may be stored in the warehouse. As required by the 2003 International Fire Code Table 3404.3.6.3(2), flammable material will not be stacked more than 6 ½' high. Additionally, as product and waste are being stored in the same containment area, the product is also limited by the calculated containment displacement capacity.

The contents of any leaking or suspect containers must be placed in a container of adequate integrity. Finally, the containers (i.e., boxes, carboys, pails, etc.) must be properly labeled and marked in accordance with USDOT and Arizona hazardous waste regulations, not limited to 40CFR268.50 requirements. The secondary containment system must be inspected for deterioration or failure. If cracks or leaks are detected, they must be repaired immediately

3.2.4 Route Vehicles

Route vehicles carry safety equipment on board. Such as absorbents, fire extinguisher, eyewash, first aid kit, reflector kits, rubber gloves, plastic aprons, and safety glasses.

3.2.5 Drum Washer Units and Dry Dumpster

The return and fill station must be inspected daily for leaks and sediment buildup. Any leaks must be noted and repaired immediately and excess sediment must be removed from the drum washer unit. The dry trash dumpster must be inspected to ensure that no liquids are being placed in it. Leaking drum washer units will be removed from service until such time that repairs have been made, in accordance with 40 CFR 264.196.

3.2.6 Safety Equipment

The fire extinguishers must be checked to insure that the units are charged and accessible. In addition, the operation of the eyewash must be confirmed and the first-aid kit and absorbents must be inspected for adequate content and accessibility. Information concerning required emergency equipment is found in Appendices E-1 ("Emergency Equipment List"), E-2 ("Emergency Equipment and Sign Map"), E-3 ("Emergency Equipment and Communication Map"), and E-4 ("Example Inspection Forms").

3.2.7 Security

The operation of each gate and lock must be checked daily. In addition, the fence and warning signs must be inspected for deterioration on a weekly basis.

3.2.8 Air Emission Standards

The facility is primarily subject to the air emission standards in 40 CFR §264.1056 (Open-Ended Equipment) and 40 CFR §264.1058 (Heavy Duty Equipment). The following 40 CFR §264.1058 apply:

Each valve, pump, and flange which is associated with the hazardous waste tanks and their ancillary equipment must be marked and listed on the respective “Inspection Log Sheet for Daily Inspection of Storage Tank System” found in Appendix E-4 (“Example Inspection Forms”). A site drawing in Appendix F-9 (“Tank Farm Shelter Plan With Inspection Points Marked”) shows the location and number of all equipment.

Compliance with the standard 40 CFR §264.1058 will be achieved through daily facility inspections and if required, leak detection and repair maintenance. Records of equipment monitored and repaired are maintained on “Inspection Log Sheet for Daily Inspection of Storage Tank System” found in Appendix E-4 (“Example Inspection Forms”).

If a potential leak is discovered (by visual inspection or excessive odor):

- It will be noted on the inspection form. The required inspection log information is contained in 40 CFR §264.1064(d);
- After detection of a potential or actual leak, the pump, valve, or flange must be immediately repaired. Operations must cease until repairs are completed. The regional environmental engineer will be contacted immediately to arrange for equipment to be inspected by a local environmental consultant;
- The piece of equipment must have attached a weatherproof, visible tag that is marked with the equipment ID. Number, date of potential or actual leak, and date of leak confirmation;
- The tag may be removed after a successful repair; and
- The “Leak Detection and Repair Record” found in Appendix E-4 (“Example Inspection Forms”) must be kept on file at the facility in accordance with 40 CFR §264.1064.

Each pressure relief device (except rupture discs) must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that each is:

- In good mechanical condition;
- Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;
- Set to function at the correct pressure; and
- Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.

3.2.9 Site Rainwater Run-On / Run-off System

The site rainwater run-on / run-off system is comprised of the load / unload area sump, underground PVC pipe drains, lined concrete retention basin, galvanized chain-link fence, commercially available rain gauge, Envibro treatment units, and drywells. Because the areas have the remote possibility of containing rainfall that may be contaminated, these areas will be inspected as indicated in “Monthly Inspection Log for the Site Rainwater Run-On / Run-off

System and the Vadose Zone Vapor Monitoring System” found in Appendix E-4 (“Example Inspection Forms”). The underground piping is unable to be inspected; however, due to its down slope, any crack in the piping is not expected to emanate to the soil significant amounts of rainwater.

3.2.10 Site Vadose Zone Vapor Monitoring System

This system, required by “Tank Secondary Containment Leak Detection” (Below) will be inspected and maintained as indicated in “Monthly Inspection Log for the Site Rainwater Run-on/ Run-off System and the Vadose Zone Monitoring System” found in Appendix E-4 (“Example Inspection Forms”).

3.3 Facility Design

The Chandler service center was designed to minimize the possibility of spills or fires and to minimize the effects of any accidents that may occur. Specifications for the storage facilities, secondary containment and other equipment are found in several parts of Appendix E (“Equipment Information”).

3.3.1 Tank Storage

The 12,000-gallon storage tanks are 10’6” in diameter and 18’11-15/16” high. They are constructed of 3/16” thick (1/4” thick in the lower third of the tanks) carbon steel painted a light color to reduce the amount of energy absorbed from sunlight. The minimum shell thickness is 3/16.” The tank shell thickness will be tested annually using an ultrasonic method. The tanks are constructed in accordance with Underwriters Laboratories Standard 142 and they are located more than 20 feet from the property line, in accordance with National Fire Protection buffer zone requirements. All three above ground storage tanks are grounded for protection against lightning and static discharge.

The tank that stores waste parts washer solvent is marked “Hazardous Waste.” The warning sign on the tank is legible from 25 feet.

The secondary containment for the tanks consists of a steel-reinforced concrete slab, sump, and dike wall. The slab is six inches thick and the wall is eight-inch thick steel reinforced concrete. The slab and walls are painted with an epoxy paint and sealant as described in Appendix E-11 (“Product Data Sheet for ICO Guard 51 Epoxy Floor Coating”).

The corrosion rate for the tanks is negligible and the tanks are unlined. No corrosive agents are introduced to the tanks. Water that enters the tank from atmospheric moisture is not allowed to accumulate because solvents, being less dense than water are pumped from the bottom of the tank.

The tank is equipped with an aural (siren) and visual (strobe light) high level alarm system which will alert employees when the tank is approximately 95 percent of permitted capacity (approximately 11,400 gallons). There is an automatic feed cut-off in place, comprised of a

circuit disengaging electrical power to the pump when the high alarm is tripped, to prevent tank overflow.

The specific gravity of the waste parts washer solvent is 0.833 (standard population deviation is .09) and the vapor pressure at 68°F about 2mm Hg. The tanks are atmospheric tanks (not pressurized) and there is no temperature control except the white paint to reduce the amount of energy absorbed from sunlight.

The pumps in the return and fill station pump waste to the waste parts washer solvent tank at a rate of about 60 gallons per minute. The maximum height the waste will reach in the 12,000-gallon tank is 17'6" (95 percent capacity). The expected service life of the tanks is 25 years. The tanks are tested to meet the Underwriters Laboratory Standard 142 by the tank manufacturer, and the listing mark of "UL" appears on each tank.

The return and fill station is a metal structure located in a room constructed of mason walls. The drum washer units are located within the return and fill station and are constructed of sheet metal. The drum washer units are tight-piped to the waste parts washer storage tank and all equipment and piping is above ground. The return and fill station has secondary containment in the form of a sloped concrete floor which is directed to a 22' x 2' x 3' 6" collection trench with containment capacity of 1,150 gallons of liquid. Each drum washer unit can hold a capacity of 162 gallons. Sediment is removed daily yielding about eight gallons sediment per drum washer per day.

3.3.2 Container Storage

The slab and collection trench for the container storage area in the warehouse are made of steel-reinforced concrete. The concrete has been poured so that no cracks or gaps exist between them. The floor is sloped to the trench. Steel grates cover the trench to facilitate the movement of equipment across it. The materials in storage are only incompatible with strong oxidizers and reactive metals, none of which are present in the solvents, containers, base, or sealants.

The parts washer solvent, immersion cleaner, dry cleaning waste, and paint wastes are compatible with the containers in which they are stored. In fact, mineral spirits, a major component of parts washer solvent, is sometimes used as a rust preventative coating for steel. All wastes are stored in USDOT specification containers. All containers containing hazardous waste or product will be palletized when in storage.

3.3.3 Run-On / Run-off

The Chandler service center is designed to minimize the potential of storm water run-on and run-off. The facility is not located in a 100-year floodplain. In the event of a 100-year, 2-hour storm, the facility is designed to retain the storm water on site. (See Appendix C-5 ["Federal Insurance Rate Map Showing Facility"]).

In accordance with City of Chandler planning requirements, an on-site drainage system and retention pond collects storm water. Additionally two "Envibro" treatment units and two drywells discharge storm water according to the requirements outlined below. The drains / basin

/ treatment units / drywells configuration is as shown in Appendix E-36 (“Grading and Drainage Plan”).

The surface drainage system directs storm water to the retention pond. Storm water collected in the pond will be sampled and analyzed for volatile organic compounds and heavy metals (e.g., lead and cadmium). If the storm water meets the water quality standards contained herein, then the water will be treated and discharged into the drywells on-site. If the storm water does not meet the water quality standards contained herein, the water will be transported to an approved off-site facility.

The Permittee shall follow the requirements herein to ensure no “pollutants” related to the handling and storage of waste or product at the facility are discharged from the drainage system, storm water surface impoundments, “envibro” treatment units, or drywells:

- a. These requirements are from the City of Chandler’s Use Permit (Permit Application #Z90-067 contained in Chandler’s Memorandum No. CC-92-077, approved on May 14, 1992 with conditions).
- b. These requirements are also imposed by the ADEQ to ensure that the Aquifer Protection Permit rules contained in ARS Title 49, Article 3 are met. Specifically:
 - (i) The exemption of the drywells pursuant to ARS § 49-241.B.5, that “the drywells are not adding a pollutant”; and
 - (ii) The exemption of a surface impoundment per ARS § 49-250.B.10, “surface impoundments used solely to contain storm water.”

Because the surface impoundment has a small possibility of receiving non-hazardous or hazardous pollutants due to spills not cleaned up fully, ADEQ is also imposing conditions, that, in the event the impoundment does receive these pollutants, it will not discharge it to the environment. These conditions will serve to provide adequate until more stringent conditions can be incorporated, as deemed necessary, pursuant to ARS § 49-241.B.1 and AAC R18-9-105(1). Such measures are not limited to pollutant discharge fees, closure, and remedial considerations.

Note: The waste tank that would primarily affect this impoundment contains waste parts washer solvent (ignitable and toxic characteristic) and no listed wastes. There are two other tanks; one contains product parts washer solvent and the other used antifreeze.

3.3.3.1 Drainage System and Retention Pond

The pond is located in the southwest corner of the property. The lined concrete surface impoundment unit is connected to the on-site storm drain system and is intended for the collection of on-site rainwater.

- The drainage system and retention pond will be inspected as required in Section 3.2.9
- In the event of a spill, the Permittee shall clean up the release completely and handle it in accordance with the “Contingency Plan” and / or other applicable permit conditions, and keep it separate from the storm water run-off collected on-site.

3.3.3.2. The rain water collected in the basin will be measured

The volume of the storm water shall be measured at the time it goes into the retention pond on site and when it is released into the drywells. A form will be used to track all storm water generated on site. This will quantify the amount of water discharged and how much is sent out as wastewater.

A rain gauge (gives height) multiplied by the area of surface receiving rainfall (parking and transportation surfaces only; roof run-off goes off site) shall give volume. The date / time of the rainfall and measurement, the qualified person taking the data, the gauge type and calibration date if applicable, and the measured gauge height, surface area, and final calculated volume will be recorded. The rain gauge shall be a commercially available gauge installed at the top of the galvanized fence next to the retention basin.

3.3.3.3. Sampling of rainwater

The rain water collected in the basin will be sampled as follows:

- a. Sampling and testing shall be performed prior to treatment / discharge or disposal. The sampling will be performed within 24 hours after the initial rainfall has stopped. Note that the City of Chandler Code requires all retention areas to be drained within a 36-hour period for purposes of vector control.
 - (i) Metals shall be sampled and analyzed for only one rain event per year unless there is substantial cause for metals increase (e.g., major spill or fire on the property).
 - (ii) Non-metals shall be sampled / analyzed for after every rainfall. If additional rainfall has entered the basin after the samples were taken, the new volume must be recorded and re-sampling done. If the rainfall has not stopped and it is necessary to remove rainfall from the impoundment, allowances (e.g., temporary transfer to a tanker truck) can be made as verbally approved by the ADEQ.
- b. Water samples will be taken from the retention pond using a 30-inch long coliwasa or glass tube by a person trained in collecting laboratory samples, placed in an approved container with any necessary preservatives obtained from the laboratory. Necessary quality control samples shall also be taken or used.
- c. The analytical methods used shall be Method 601/8010 and Method 602/8020 (modified for mineral spirits) for non-metals, and appropriate metal methods (primarily lead and cadmium). These methods shall be from the USEPA SW-846 or the Standard Methods for the Examination of Water and Wastewater (current edition).
- d. Based upon the following criteria for constituents tested for (constituents in the waste or product at the facility), Safety-Kleen will decide if the rainwater is to be transported off-site or disposed of on-site:
- e. Safety-Kleen shall immediately notify ADEQ if any storm water is found to contain “pollutants” as defined by ARS § 49.201.23 (e.g., chemicals, petroleum products) related to the handling and storage of waste or product at the facility. Neither the impoundment nor the Envibro treatment system has been permitted pursuant to ARS 49.241.B or 49 – 922.B (as a TSD unit).
- f. Safety-Kleen will not discharge storm water into the drywell(s) when the storm water contains constituent(s) analyzed for that is:

- (i) Above established baseline background levels. Existing aquifer background sample data will be used to establish a baseline level for discharges.
- (ii) For constituents with no established baseline background level: above the more stringent of the EPA Primary or Secondary Drinking Water Standards or action levels, or the ADEQ Aquifer Water Quality Standards (most current).
- (iii) Any listed constituents in, or when characteristic hazardous waste exists as, the storm water.

3.3.3.4. Rainwater Management Following its Collection In the Basin

If not transported to an approved disposal facility, the rainwater collected in the basin shall be pumped through the Envibro absorption / filtration system

The Envibro system – Maxwell is considered the best available demonstrated control technology (BADCAT) to ensure the greatest degree of discharge reduction for drywell operations as of February 9, 1993. The design and maintenance requirements are contained in Appendix E-38 (“Envibro Drainage System Data Sheet”). The application of the system is specifically for organics, not for metals, and not all organics are included.

3.3.3.5 ADEQ Notifications after treatment of rainwater

After treatment, the water may then drain into the drywells for percolation into the vadose zone. Prior to such drainage, however, the Permittee shall ensure:

- a. A fee has been paid for the registration of the drywells. The two drywells were registered on January 22, 1993 as numbers 07-007347-09 thru 007348. If no pollutants are discharged into the drywell, then no annual fee, or permit, is required.
- b. Inform the ADEQ Plan Review and Permits Section and the Hazardous Waste Permits Unit in writing if any change of activities at the site will result in a revision of the drywell registration information provided to ADEQ, per Appendix E-39 (“ADEQ Interoffice Memo Re: Safety-Kleen Dry Well Installation DW 93-0130”).
- c. Such changes are not limited to:
 - (i) Property owner (lessor) or facility owner (lessee);
 - (ii) Area drained by the drywell(s);
 - (iii) Nature of business
 - (iv) Construction and location criteria given in Appendix E-39, (“ADEQ Interoffice Memo Re: Safety-Kleen Dry Well Installation DW 93-0130”).
 - (v) Well operation status; and
 - (vi) Fluids received other than storm water.

After these assurances are made, then:

- d. The volume of rainwater at the time when it is released into the drywells shall be measured. The method and record keeping procedures shall be commensurate to those in 3.3.3.2, above (e.g., a calibrated flow volume indicator instead of a rain gauge). The purpose shall ensure that the volume to the drywell(s) shall be differentiated from the volume transported off-site.
- e. When permanently taking the drywell services out of service, the Permittee shall follow Appendix E-39 (“ADEQ Interoffice Memo Re: Safety-Kleen Dry Well

Installation DW 93-0130”) and EPA Region 9 “Guidelines for Closure of Shallow Disposal Wells” (1992) or equivalent.

3.3.3.6 Reporting and Records Retention

Besides the immediate reporting requirements in Section 3.3.3.5 above, the final results (amount of rainfall, lab results, disposition, etc.) will be forwarded on a form to ADEQ (copy to the City of Chandler Public Works) within 15 calendar days of final disposition of the storm / waste water.

Retention of the rainfall discharge forms, filed reports and manner of disposition shall be maintained on-site for a period of two years and in corporate files for the life of the facility.

3.3.4 Tank Secondary Containment Leak Detection

The 40 CFR 264.193(c)(3) 24-hour “tank leak detection system” that is used at the facility is composed of the following. No other leak detection systems, such as a leak detection sensor in the return and fill station trench or a sloped closed gap between dual layers under the secondary containment of the above ground storage tanks or the return and fill station.

1. Weekly checks of daily balances by computer as described in Section 1.2.2 above;
2. Daily tank secondary containment inspections (except weekends and holidays¹) as described in Section 3.2, above;
3. Daily tank gauge readings (except weekends and holidays¹) with major discrepancies noted, as described in Section 3.2;
4. Two vadose zone monitoring probes. Safety-Kleen constantly monitors the soils between the Safety-Kleen capped facility surface and the underlying groundwater, estimated to be at a depth of 120 feet. The method for continuous monitoring shall be that of two vadose zone monitoring wells with hydrocarbon vapor sensing probes as described in Appendix E-41 (“Vadose Zone Monitoring Well Design”). The wells are located southeast of the tank farm as this is the direction of groundwater flow. Since the wells do not reach groundwater and the wells are not at least 100 feet deep, Arizona Department of Water Resources (ADWR) requires no registration for these wells.

If the system indicates vapor gas detection, the alarm will stay on until the operating day when it is reset. ADEQ shall be immediately notified if the probes detect constituents larger than background.

The sensor and alarm system shall be maintained and tested by a qualified employee as required by the inspection form “Monthly Inspection Log for the Site Rainwater Run-on/Run-off System and Vadose Zone Vapor Monitoring System” in Appendix E-4 (“Example Inspection Forms”). A set of records of such shall be kept on-site as part of the operating record. In addition Permittee operates a KW-240 “In-Situ” Leak Detection System. A copy of the Installation & Operation Manual for this system is included by reference in the ADEQ Hazardous Waste permit— see Appendix E-43 (In-Situ Leak Detection System KW-240 Installation and Operation Manual”).

¹ The weekend and holiday exceptions above are what triggers the requirement for vadose monitoring well probes according to AHWMA. Additionally, the City of Chandler also requires this vadose zone monitoring.

3.4 Plant Operations--Potential Spill and Fire Sources and Control Procedures

Employees must perform their duties in the safest, most efficient manner possible and the service center has been equipped to facilitate these activities. Containers will be moved using a handcart or placed on pallets and moved using a forklift or pallet jack. A hoist will be available at the facility to assist in the lifting of heavy items. Upon arrival at the service center, containers of spent solvent must immediately be added to the storage tank or placed in the container storage area. The dock at the return and fill station is raised and trucks back up to the station to allow ease of transfer of containers. The station was installed with absorbing bumpers and separate from the drum washer units such that when a truck bumps it, the platform containment floor structure and drum washer units are damaged or made loose. Containers of solvent may only be opened to add or remove material and must be sealed at all other times. Below are descriptions of situations which can result in accidents, and the precautions taken to prevent their occurrences

3.4.1 Potential Minor Spill Sources

The following is a list of activities that have the potential for a minor (one that can be remediated without assistance from a clean up contractor) spill incident:

- a. Pouring of containerized solvent into the dumpster – As the USDOT specification containers are poured into the dumpster, the potential for spills exist. The containers are manually emptied by carefully pouring the spent parts washer solvent into the drum washer unit. The employee constantly monitors the level of solvent in the drum washer unit to prevent overfilling. Employee training emphasizes the importance of taking care in emptying the drums to prevent spilling. The return and fill station is underlain by concrete slab and integral collection trench. The return and fill station will be inspected daily. If a small spill occurs, it will be removed using sorbents and / or using the wet / dry vacuum. If a larger spill occurs, the pump will be used removing waste via the collection trench piping to the waste storage tank influent piping.
- b. Filling of containers with solvent product – A low-pressure hose with an automatic shut-off valve, similar to those used at automotive service stations, is used to fill the containers with solvent. Leaking fittings, a damaged hose or carelessness could lead to the discharge of solvent outside of the container. Manual emergency shut-off valves have been made convenient on each hose, should the equipment not function properly. In addition, employee training emphasizes the importance of inspection, maintenance and reporting of conditions with pollution incident potential.
- c. Moving of containers – When a container is moved, a potential exists for it to tip over. To minimize the potential for spillage of solvent, all containers must be maintained in an upright position and remain tightly covered while in storage or in transit. USDOT specification containers are available as over-pack containers, if necessary.
- d. Delivery truck transfers – The cargo should be secured in the route vehicle with straps or equivalent equipment before transport. Individual containers of solvent can tip over or be dropped when being moved on or off a delivery truck so transfers will be made

using a handcart and a hoist, if necessary. If a spill does occur the amount of solvent in the containers is normally a quantity that can be collected with absorbent material or pads.

3.4.2 Potential Major Spill Sources

The following activities have the potential for a major (one for which remedial action will require assistance) pollution incident:

- a. Overfilling of storage tanks – Storage tanks for both products and spent materials tanks can be overfilled with a resulting discharge of solvent. A high level alarm and daily checks of tank volumes will prevent this type of incident.
- b. Leaking pipelines – The pipelines and other equipment present a potential for leaks and resultant pollution. Regular inspection of this equipment and the solvent inventory will detect any leaks.
- c. Improper Operation of Open-Ended Valves Or Lines – Open-ended valves or lines are equipped and operated in accordance with 40 CFR §264.1056 to prevent possible major or minor leaks, air emissions, or fire hazards. These requirements which are not limited to the waste tank effluent piping and the return and fill station drain piping include the following:
 - (i) Each open-ended valve or line is equipped with a cap, blind flange, plug, or second valve. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line.
 - (ii) Each open-ended valve or line equipped with a second valve will be operated in a manner such that the valve on the waste stream end is closed before the second valve is closed.
 - (iii) When a double block and bleed system is used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but will comply with section 3.4.2(c)(1)
- d. Rupture of the Tank(s) or Drum Washer Unit(s) – In the unlikely event of a rupture of one of the above ground storage tanks or drum washer units, the secondary containment with the displacement included can hold sufficiently the volume of the largest tank as required by 40 CFR § 264.193(e)(1). In fact, a combined spill of both drum washer units would not exceed the return and fill station containment. However, if the release from one of the 12,000-gallon aboveground storage tanks damaged the second aboveground storage tank, the combined spill would exceed the aboveground storage tank secondary containment capacity.

3.4.3 Potential Fire Sources

The following is a list of fire prevention and minimization measures:

- a. All wastes and products are kept away from ignition sources – Personnel must confine smoking and open flames to remote areas (e.g., the office or locker room). The parts washer solvent handling area, paint waste shelter and the aboveground

storage tanks are separated from the warehouse building area to minimize the potential for a fire to spread or injury to personnel to occur.

- b. Ignitable wastes are handled so that they do not:
 - (i) Become subject to extreme heat or pressure, fire or explosion, or a violent reaction – The parts washer solvent waste is stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources or subject to violent reactions. The tanks are vented and containers kept at room temperature to minimize the potential for pressure build up. An automatic overhead fire control system is installed in the warehouse.
 - (ii) Produce uncontrolled toxic mists, fumes, dusts or gases in quantities sufficient to threaten human health – The vapor pressure of parts washer solvent is low (2 mm Hg at 68 degrees F) and it is reactive with strong oxidizers only. The vapor pressure of the paint waste is 185 mm Hg at 68°F. the containers are kept tightly closed at all times. Toxic mists, fumes, dusts or gases will not form in quantities sufficient to threaten human health since strong oxidizers are not handled at this facility and the solvent vaporization will be minimal under normal working conditions.
 - (iii) Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion – See “a” above and “c” below.
 - (iv) Damage the structural integrity of the Safety-Kleen facility – The parts washer solvent will not cause deterioration of the tank, containers, or other structural components of the facility. Other wastes will not cause deterioration of the containers in which they are stored.
- c. Adequate aisle space is maintained to allow the unobstructed movement of personnel, fire protection equipment, and decontamination equipment to any area of the facility operation in an emergency. (See section 7 “Management of Containers” for more information.)
- d. "No Smoking" signs are posted in areas where solvents are handled or stored.
- e. Fire extinguishers must be checked, at a minimum, once per month and tested by the fire extinguisher company once per year.
- f. Anti-Static and Non-Sparking Tools and Equipment
 - (i) All lines used in the filling operation are grounded / antistatic lines.
 - (ii) The station platform and drum washer units are constructed of steel, a sparking material. However, due to the ventilation in the area, it is unlikely that the air concentrations would be high enough to allow a spark from an item being dropped, to cause a “flash” at normal ambient temperatures.
 - (iii) The solvent tank effluent pipe outlet and product tank piping inlet metal box and capping is spark-proof.
 - (iv) All electrical equipment (including the warehouse fan, internal drum washer mechanisms, and return and fill station pumps are Class 1 electrical rated, and
 - (v) All tools in the warehouse, return and fill station, and tank farm are spark-proof.

- g. Ventilation – The building’s return and fill station and warehouse are part of a covered structure that is well ventilated to prevent temperatures inside from reaching 105°F, the flash point of most of the parts washer solvent. Additionally, the warehouse has an intrinsically fan in the east wall, louvered passive ventilation and three ventilation coolers (all capable of working in an ignitable atmosphere). Finally, the return and fill station large roll-up doors remain open during return and fill operations.
- h. Drum Washer Unit – The drum washer unit cannot be in operation unless the unit lid is open. In the unlikely event of a fire within the drum washer unit, there is a heat activated mechanical device inside the unit that would allow the lid to fall closed, extinguishing the fire.

3.4.4 Tank Evaluation and Repair Plan

The wastes and used antifreeze stored in the tanks at this facility are compatible with the carbon steel structure; in fact, mineral spirits is often used as a light hydrocarbon coating to prevent rusting of metal parts.

If minor corrosion is noted, it will be removed and repaired. If corrosion is significant and localized, the tank will be immediately removed from service and repaired (i.e., a patch welded over the corroded area). Should the corrosion of the vessel be extensive or if the tank is found to be leaking, the vessel will be immediately taken out of service and replaced. In the case of a tank that leaks outside of the dike, the facility's contingency plan will be initiated to insure the removal of any contaminated soil.

3.4.5 External Factors

The design of the installation is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are inaccessible to non-Safety-Kleen personnel and the pump switches are located inside. Also, the container storage areas are in buildings that are inaccessible to unauthorized personnel.

- a. Vandalism - Only extreme vandalism would result in a solvent spill or fire. Responses to spills and fires are described in the contingency plan.
- b. Strikes - A strike would not result in a solvent spill or fire.
- c. Power failure - A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity (e.g. filling or emptying tanks or containers) will cease. However, the electrically powered gates could be manually opened by unlinking the motor drive located inside the fenced-in area, allowing emergency exit from the facility.
- d. Flooding - The site elevation is above the projected 100-year flood plain; therefore, a 100-year flood will not affect the facility.
- e. Storms or Cold Weather - The solvent return and fill station and container storage areas are roofed to eliminate the possibility of precipitation run-on. No opportunity is foreseen to affect the facility with snow, cold weather or storm water.

3.5 Internal and External Communications and Alarm Systems

Internal communication within the building and the solvent return/fill area is accomplished by voice and a loudspeaker paging system. Telephones will be used to report a spill or a fire and to summon assistance from local and state emergency response agencies. Branch managers have emergency phone numbers of local and state emergency response teams posted by each phone located in the sales office. Included in these phone numbers is the 24-hour telephone number that can be used to contact Safety-Kleen Emergency Response Coordinators.

3.6 Subpart CC Inspections

Safety-Kleen has developed a Subpart CC Compliance Plan that details procedures to achieve compliance with Subpart CC requirements. The plan includes provisions for an annual visual tank inspection of the waste solvent storage tank and vent system, as well as container inspections upon arrival at the facility and proper container management. A copy of the Subpart CC Compliance Plan is included in Appendix F-8 (“Subpart CC Compliance Plan”).

3.7 Subpart BB Compliance

Safety-Kleen complies with Subpart BB requirements by inspecting the process piping and equipment. Each valve, joint, flange, pressure relief device, pump, etc. is inspected to insure the equipment is not leaking and is functioning properly. Open-ended pipes are capped when not in use. An example diagram of the facility’s piping and equipment is contained in Appendix F-9 (“Tank Farm Shelter Plan with Inspection Points Marked”). Process equipment is also included on the facility’s daily inspection record.