

## **PART B APPLICATION**

**1.0 GENERAL FACILITY DESCRIPTION**  
**40 CFR 270.14(b)(1)/22 CCR 66270.14(b)(1)**

**1.1 Facility Information**

This section provides a general description of the recycling facility as required by federal regulation, 40 Code of Federal Regulations (CFR) 270.14(b)(1), and the equivalent California regulation, 22 California Code of Regulations (CCR) 66270.14(b)(1). The description includes an overview of the physical location, history, and operations performed at the site of the KW Plastics of California (KW California) facility (Facility). The Facility produces reclaimed polypropylene from lead-impacted polypropylene chips generated from lead-acid battery recycling. The reclaimed polypropylene is used to manufacture battery cases and paint pails. The Facility is a treatment and recycling facility, and no transfer, disposal, or storage of hazardous materials is conducted onsite. The Facility does not handle any containers or drums and treats hazardous waste polypropylene to render it non-hazardous.

The Facility is located just north of California State Highway 99 on the northwestern edge of Bakersfield, California. The approximate location of the plant within the state of California is shown on Figure 1: Location Map. Also included is Figure 2: Topographic Vicinity Map, which shows the location of the Facility within the city of Bakersfield; Figure 3: Site Plan, which depicts the plant layout; and Figure 4: Process Plan, which shows the hazardous treatment process layout. The physical and mailing addresses are:

KW Plastics of California, Inc.  
1861 Sunnyside Court  
Bakersfield, California 93308

KW Plastics of California, Inc.  
P.O. Box 80418  
Bakersfield, California 93380

The responsible party for the Facility is:

Mr. N. Kenneth Campbell  
Co-Owner  
KW Plastics of California  
P.O. Box 707  
Troy, Alabama 36081  
Telephone: (334) 566-1563

The Facility is privately owned, and KW California is a privately held corporation. A copy of the partnership documents of the two corporations that own the Facility is provided in Appendix 1. The Facility is not located on Indian Lands.

## **1.2 Contact/Preparer**

The designated contact person who is thoroughly familiar with the Facility is Mr. John Putman. This report was prepared under his direction. His address is:

Mr. John Putman, General Manager  
KW Plastics of California  
1861 Sunnyside Court  
Bakersfield, California 93308  
Telephone: (661) 392-0500

The California Environmental Protection Agency's Department of Toxic Substances Control (DTSC) instructions used to prepare this permit application were the Permit Writer Instructions for Storage and Treatment Facilities (working copy dated January 14, 2001).

Mr. Roy Baggett works with Mr. John Putman and also serves as Training Director for Hazardous Materials Operations. Mr. Baggett is responsible for environmental matters and regulatory affairs for KW California. His address is:

Mr. E. Roy Baggett, Manager of Environmental Affairs  
KW Plastics of California  
P.O. Box 707  
Troy, Alabama 36081  
Telephone: (800) 633-8744

## **1.3 History**

The Bakersfield, California, plant was built in 1986 for the sole purpose of recycling hazardous waste polypropylene chips recovered from battery recycling operations in the western United States. The initial process has been modified somewhat in that the California operation now manufactures paint pails from the reclaimed materials.

The Facility received its United States Environmental Protection Agency (USEPA) Identification Number (CAD982435026) in 1991, after submitting documentation as a generator of hazardous material (non-reclaimable materials). This action was also necessitated by California's regulatory determination that polypropylene chips received for reclamation are hazardous (February 1, 1991).

The initial Hazardous Waste Management Facility Permit application was submitted to the DTSC on November 13, 1993. The Facility's initial Hazardous Waste Management Permit (00-NC-001) was issued on June 28, 1994. A modification to the permit was issued on June 28, 2000, to address an increase in the volume of recycled material. The Facility submitted a Part A and Part B Hazardous Waste Management Facility Permit Renewal Application (Application) on December 22, 2003, and a revised Application on April 14, 2004. After review of the revised Application, the DTSC issued the Facility's current Hazardous Waste Management Permit (04-SAC-08) on July 28, 2004. The Facility submitted a modification on April 28, 2006, for the replacement of the original tank treatment system with a new tank treatment system. An addendum to the modification was submitted on March 21, 2007, for the replacement of the 5,000-gallon polyethylene wastewater treatment tank with two 7,800-gallon polyethylene tanks.

#### **1.4 Process Description**

The basic Facility process is depicted on Figure 5: Process Flow Diagram. The recyclable hazardous waste polypropylene chips are directly introduced into a totally enclosed process by means of a truck lift. The truck lift empties the hazardous waste polypropylene chips from the enclosed semi-trailer into a stainless steel receiving hopper. The hopper has a stainless steel liner and is located on a concrete pad. Secondary containment is provided by concrete berms at the perimeter of the pad. In fact, all treatment portions of the Facility are enclosed in secondary containment, as described in Section 5.5.

After unloading, the trailer is decontaminated on the lift via pressure washing. KW California personnel use a minimum 2,500-pounds per square inch (psi) pressure washer to rinse the trailer from front to back while the trailer is maintained on a slight incline. The wastewater generated during decontamination is collected in the decontamination water collection sump located underneath the receiving hopper. A float-activated, stainless steel pump is used to pump the wastewater from the decontamination water collection sump into the initial float separator (Tank 1).

From the receiving hopper, the hazardous waste polypropylene chips move by a stainless steel auger to a conveyor belt into the float separator tank (Tank 1), a stainless steel tank where the polypropylene chips are initially washed and floated for separation of the chips from debris. After initial washing, an auger system, composed of two augers and a recycling tank, is used to move the chips from Tank 1 to the wash tank (Tank 3). The first auger is attached to the top of Tank 1 and is used to auger the washed chips from the tank to a second auger. The second auger is attached to the bottom of the first auger and is used to auger chips from the first auger to the grinder located above Tank 3. A recycling tank (Tank 2) is located underneath the second auger to collect the water that has adhered to the washed chips and was augered out of Tank 1. The collected water is then pumped from Tank 2, filtered through a hydrosieve, and discharged into Tank 1 as make-up water. A small auger is located within the hydrosieve to remove the materials filtered out of the make-up water. The hydrosieve auger is connected to a main auger that transports the collected material from all the hydrosieve augers to the baler for disposal.

Prior to entering Tank 3, the chips are passed through a grinder for size reduction. After the chips have passed through the grinder, they are discharged into Tank 3 for additional washing and separation. The chips are augered out of Tank 3 and into a spin dryer mounted on top of a recycling tank (Tank 4). As the chips are spun in the spin dryer, the dry chips are discharged through the top of the spin dryer and into the wash

tank (Tank 5). Any water present on the chips is allowed to drain into Tank 4. The collected water in Tank 4 is pumped to the hydrosieve located on Tank 3 for filtering and use as make-up water.

Tank 5 is a wash tank composed of four sections with an agitator located within each section. As the chips pass through the four chambers, the turbulence created by the agitators causes paper or other debris still attached to the chips to separate. After washing, a chip and water slurry is pumped into a second spin dryer mounted on top of a recycling tank (Tank 6). The second spin dryer is operated the same as the first spin dryer with the dry chips being discharged from the spin dryer into the rinse tank (Tank 7) and the collected water being filtered and re-used in Tank 5 as make-up water.

Tank 7 is used to remove remaining paper or other small debris from the chips prior to entering the production process. After rinsing, the chips are augered from Tank 7 into a final spin dryer mounted on top of a recycling tank (Tank 8). After exiting the spin dryer, the chips are transported to a drying tower for additional drying prior to onsite storage or immediate introduction into a melt-extruding system. The water collected in Tank 8 is re-used in Tank 7 as make-up water after filtering.

A 7,800-gallon water recovery tank (Tank 9) intermittently contains water removed from Tanks 1, 3, 5, and 7 during maintenance activities. Wastewater is generated periodically when debris and sludge from Tanks 1, 3, and 7 are removed using the augers located in the bottom of these tanks. Storm water collected within the trailer parking area is also pumped into Tank 9. Wastewater from Tank 9 is treated using a plate filter press. The filter cake, along with the other non-recycled contaminants are baled and placed in temporary storage (less than 90 days) until removal to an approved Class I land disposal facility.

Wastewater from the filter press is pumped to a 7,800-gallon holding tank (Tank 10) prior to sample collection. This water is sampled for lead on a regular basis as

described in Section 4.2. If sampling indicates that lead is present at hazardous concentrations, the water is pumped back to the water recovery tank (Tank 9) for further treatment.

If the wastewater from the filter press is non-hazardous, it is discharged from Tank 10 to the water storage ponds. The water storage ponds are used for temporary storage of make-up water for Tanks 1, 3, 5, and 7. The water storage ponds are constructed of sprayed concrete (gunite) with a fiberglass-reinforced plastic (FRP) lining. The 187-mil thick FRP lining is composed of Owens Corning fiberglass and Hetron 922 resin. The FRP lining was applied by spray application with an exterior finish composed of two coats of black-pigmented polyester gel for ultraviolet light protection. The water storage ponds are located on an elevated concrete pad which prevents storm water run-on from the Facility.

The various process tanks and ancillary equipment are located in the treatment room. The new addition to the treatment room contains Tanks 1 through 8, spin dryers, and ancillary piping with secondary containment provided by concrete walls and curbs. The existing treatment room contains Tank 9, Tank 10, the filter press, the baler, and the drying system. Concrete berms and curbs along the outer walls of the two rooms provide secondary containment for all tanks and process equipment. If a release or spill of wastewater occurs in either area, the wastewater is pumped to Tank 9 for treatment.

In the extruding system, plastic resin additives are mixed with the granulated plastic to produce a finished product which varies based on individual customer specifications. The resin-granulated plastic mixture is melted to an approximate temperature of 400 degrees Fahrenheit (°F) and extruded into a pelletized form.

Finished polypropylene pellets are handled in one of two ways at the Facility. The majority of plastic pellets are stored onsite and utilized in the production of various extruded plastic products. The remaining pellets are packaged and distributed to various customers.



Number for hazardous waste polypropylene chips and baled waste is 272. The type of waste handled at the Facility is classified as lead. The maximum quantity of hazardous waste polypropylene chips which could be received at the Facility is 31,207 tons annually with a monthly maximum of 2,600 tons which would generate approximately 624 tons of baled filter cake and reject chips annually.

## **1.8 Written Operating Record**

### **40 CFR 264.73/22 CCR 66264.73**

In compliance with State of California regulations, a written operating record (Record) of various activities is maintained at the Facility. The information listed below is entered into the Record as it becomes available and will be maintained on file until closure of the Facility.

#### **1.8.1 Incoming Waste**

Signed and completed copies of the hazardous waste manifest and shipping papers that detail incoming shipments are included in the Record. These forms give a description, quantity, and date of the hazardous waste polypropylene chip shipments to the Facility.

#### **1.8.2 Location of Waste**

Baled waste is stored within the existing treatment room of the Facility pending disposal. The number of bales stored, generation date, and other pertinent information are recorded on a report that is maintained on file with a copy of the returning hazardous waste manifest. This report and the returning hazardous waste manifest are included in the Record.

#### **1.8.3 Waste Analysis**

Copies of all laboratory data sheets obtained during routine waste analysis sampling are included in the Record as they become available.

#### **1.8.4 Incident Reports**

Any emergency event that triggers implementation of the Contingency Plan will be described on an Incident Report form and included in the Record.

#### **1.8.5 Inspection Reports**

Copies of all environmental, emergency, and safety inspection reports are included in the Record as they become available.

#### **1.8.6 Monitoring, Testing, and Analytical Reports**

Copies of all monitoring, testing, and analytical reports are included in the Record as they become available.

#### **1.8.7 Closure Cost Estimate**

A copy of the Closure Cost Estimate, as detailed in Section 9.0 of this report is included in the Record. Any subsequent revisions to the cost estimates due to changes in the Closure Plan will be included as they become available.

#### **1.8.8 Offsite Disposal**

Copies of the hazardous waste manifest (including description, quantity, and date of shipment), notification and certification letters, and all other applicable information required by California regulations for offsite disposal of the baled hazardous waste will be included in the Record.

### **1.9 Annual Report**

#### **40 CFR 264.75/22 CCR 66264.75**

The Facility will continue to prepare and submit an annual report to the DTSC and the regional water quality control board by March 1st of each year. The annual report is submitted on USEPA Form 8700-13A/B via electronic media to the DTSC. The report covers facility activities during the previous calendar year and includes:

- Identification number, name, and address of the facility

- The calendar year covered by the report
- For offsite facilities, the identification number of each hazardous waste generator from which the facility received hazardous waste during the year
- A description, including any applicable USEPA hazardous waste number, California hazardous waste number, and the quantity of each hazardous waste the facility received during the year
- Method of transfer, treatment, storage, or disposal for each hazardous waste
- Most recent closure undertaken during the year to reduce the volume and toxicity of waste generated
- Certification signed by the owner or operator of the facility or authorized representative
- Environmental monitoring data
- Written certification for waste shipped offsite, whether the waste has a heating value of 3,000 BTUs per pound of waste or less and a volatile organic compound content of one percent or less by weight

### **1.10 Confidentiality Requests and Justifications**

#### **40 CFR 270.12/22 CCR 66270.12**

None of the information contained in the Part A or Part B applications is confidential.

### **1.11 Disclosure Statement Form No. 8430**

Disclosure Statement Form No. 8430 was completed and submitted to the Department of Justice for review during the permit renewal process in 2004. No changes to the ownership of the Facility have occurred since the previous submittal.

## **2.0 REGULATORY STATUS OF THE WASTE MANAGEMENT UNITS AT THE FACILITY**

The materials and units utilized for recycling are subject to RCRA hazardous waste management regulatory requirements and are subject to the hazardous waste management facility permitting requirements addressed by this permit application. The units at the Facility that are subject to hazardous waste management facility permit requirements are the float separator tank (Tank 1), wash tanks (Tank 3 and 5), rinse tank (Tank 7), recycling tanks (Tanks 2, 4, 6, and 8), water recovery tank (Tank 9), holding tank (Tank 10), spin dryers, filter press, storm water collection sump, unloading areas, decontamination water collection sump, and all ancillary piping. These units require a permit because they are used to treat hazardous waste (lead-impacted polypropylene chips, lead-impacted wastewater, and/or lead-impacted non-recyclable material and filter cake). The tanks are located within secondary containment and have been certified by a California-licensed professional engineer as structurally sound.

A detailed description of the tanks and secondary containment is presented in Section 5.0. Further information regarding the tank assessment is presented in Section 5.2. A copy of the structural integrity assessment is provided in Appendix 2.

### **3.0 LOCATION INFORMATION**

#### **3.1 Topographic Map**

##### **40 CFR 270.14(b)(19)/22 CCR 66270.14**

The topographic map requirements are met by several maps in the Figures section of this report. Pertinent maps include the Topographic Vicinity Map (including 1/4-mile and 1-mile offsets) (Figure 2), Site Plan (Figure 3), Groundwater Elevation Map (Figure 6), Depth to Groundwater Map (Figure 7), Kern County Land Use Zoning Map (Figure 8), Wind Rose for Bakersfield, California (Figure 9), Geologic Map (Figure 10), Seismic Fault Map (Figure 11) and Flood Insurance Rate Map (Figure 12). The following information concerning the Facility is shown on one or more of these maps:

- Map scale and date
- 100-year floodplain area
- Surface waters including intermittent streams
- Surrounding land use
- Wind rose
- Map orientation
- Legal boundaries
- Location access controls
- Injection and withdrawal wells, onsite and offsite
- Buildings
- Structures
- Runoff control system
- Access and internal roads
- Flood control or drainage barriers
- Location of hazardous waste management units
- Location of solid waste management units
- Groundwater flow direction and rate
- Groundwater monitoring wells
- Property boundary

### **3.2 Zoning/Surrounding Land Use**

#### **40 CFR 270.14(b)(19)(iv)/22 CCR 66270.14(b)(18)(D)**

Figure 8: Kern County Land Use Zoning Map shows the zoning for the Facility and surrounding properties. The Facility property is zoned M-2 (Medium Industrial), H (Airport Approach Height Combining), and PD (Precise Development Combining). The surrounding properties are zoned and used for industrial purposes with the exception of the Bakersfield Airport located to the east of the Facility. The Facility's legal boundaries are shown on Figure 13: Parcel Map. An oil pipeline borders the southern property boundary of the site.

### **3.3 Wind Rose**

#### **40 CFR 270.14(b)(19)(v)/22 CCR 66270.14(b)(18)(E)**

A Class 7 All Weather Wind Rose diagram for the Bakersfield, California, airport was constructed using data obtained from the National Oceanic and Atmospheric Administration and is provided as Figure 9. The Wind Rose diagram depicts wind direction versus wind speed during all weather conditions at the Bakersfield airport for the years 1993 through 2002. The wind information acquired for the Bakersfield airport is indicative of the wind information at the Facility since the airport is located less than one mile east of the Facility. Based on the diagram, the average prevailing wind speed and direction are 0 to 16 miles per hour from the northwest.

### **3.4 Legal Boundaries**

#### **40 CFR 270.14(b)(19)(vii)/22 CCR 66270.14(b)(18)(G)**

A legal description of the Facility is as follows:

Parcel 3 of Parcel Map 7105, recorded in Book 31 of Parcel Maps at Page 89 in the County Recorder's office, the parcel being in the southeast 1/4 of Section 3, Township 29 south, Range 27, M.D.M., Kern County, California.

### **3.5 Access Control**

#### **40 CFR 270.14(b)(19)(viii)/22 CCR 66270.14(b)(18)(H)**

The hazardous waste operations are enclosed with an 8-foot high, chain-link fence topped by three strands of barbed wire. The chain-link fence has two gates, one on the south side which is locked at all times and an automatic gate on the east side that serves as the main truck entrance.

Entry to the Facility is controlled through gates and lockable doors. Employees are clocked in at a specified entrance when reporting for work. All visitors, vendors, and contractors are required to log in and out in the main complex when entering the Facility.

Signs which are legible from a distance of 25 feet are posted at all fence gates, and several other fence locations around the active portions of the Facility. These signs are visible from all angles of approach and with the text "Danger Hazardous Waste Area - Unauthorized Personnel Keep Out" in both English and Spanish.

### **3.6 Injection/Withdrawal Wells**

#### **40 CFR 270.14(b)(19)(ix)/22 CCR 66270.14(b)(18)(I)**

No injection wells exist at the Facility or within 1,000 feet of the property boundary.

A municipal water well owned by North of the River Municipal Water District is located approximately 1,350 feet northeast of the Facility adjacent to the Kern County Airport property. This well (NOR Well #1) had a reported water depth of 325 feet at well completion. Data relative to NOR Well #1 is provided in Appendix 3.

No groundwater monitoring wells are present at the Facility. In addition, no springs, surface water bodies, drinking water wells, or public supply wells are located onsite.

### **3.7 Storm Water Runoff**

The majority of the storm water runoff from the site flows to an adjacent drainage basin via overland flow, drainage swales, and storm sewer piping. The collected storm water is drained to the municipal storm sewer via a 24-inch concrete pipe. Storm water collected within the trailer parking area is pumped to the water recovery tank (Tank 9) as a precautionary measure.

### **3.8 Hydrogeologic Information**

The Facility is situated in the San Joaquin Valley, which lies between the California Coast Ranges and the Sierra Nevada Mountains in the Great Central Valley of California. The San Joaquin Valley is a structural trough up to 200-miles long and 70-miles wide filled with up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the surrounding mountains, respectively. Continental deposits shed from the surrounding mountains form an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. This depositional axis is slightly below and to the west of the series of rivers, lakes, sloughs, and marshes that mark the current and historic axis of surface drainage in the San Joaquin Valley. Generally, the valley floor is featureless, except for low hills which reflect local anticlinal structures.

The Facility is located in the San Joaquin Basin Hydrologic Study Area (HSA), which comprises approximately two-thirds of the southern portion of the Great Central Valley of California. Twenty-six groundwater basins have been identified in the HSA. The Facility is located in the Kern County Basin, which is regulated by the Kern County Water Agency and serviced by North of the River Municipal Water District.

The Facility is underlain by the Kern County Alluvial Fan, a huge fan-shaped wedge of sand and gravel on the east side of the valley that forms where the Kern River exits the Sierra Nevada foothills. The geology beneath the Facility is shown on Figure 10: Geologic Map. The alluvial fan is composed of 250 feet of Pleistocene-age lenticular deposits of clay, silt, sand, and gravel that are loosely consolidated to cemented and

are exposed mainly at the subbasin margins. The unit is moderately to highly permeable and yields large quantities of water to wells. This sedimentary unit is often indistinguishable from the underlying Tulare and Kern River Formations and, together with the underlying formations, forms the principal aquifer body in the Kern County Groundwater subbasin.

The Tulare and Kern River Formations, which form the principal aquifer body in the Kern County Groundwater subbasin, represents a west/east facies change in the subbasin. The Tulare Formation contains up to 2,200 feet of interbedded, oxidized to reduced sands and gypsiferous clays and gravels derived predominantly from Coast Range sources. Within the Tulare Formation is the Corcoran Clay Member, a confining layer within the subbasin which is present at depths ranging from 300 to 650 feet below the surface. The Kern River Formation includes 500 to 2,000 feet of poorly sorted, lenticular deposits of clay, silt, sand, and gravel derived from the Sierra Nevada Mountains. Both the Tulare and Kern River Formations are moderately to highly permeable and yield moderate to large quantities of water to wells.

The Kern County Water Agency estimated the total water in storage to be 40,000,000 acre-feet and dewatered storage to be 10,000,000 acre-feet. Groundwater maps prepared by the California Department of Water Resources, San Joaquin District depicting the uppermost aquifer at the Facility are provided as Figure 6 and Figure 7. As shown on Figure 6: Groundwater Elevation Map, groundwater at the facility flows northwest and is approximately 255 feet above mean sea level, as measured in Spring 2001. Groundwater at the facility is approximately 130 feet below the ground surface as shown on Figure 7: Depth to Groundwater Map, which was generated from Spring 2000 water level data.

### 3.9 Seismic Considerations

**40 CFR 270.14(b)(11)(i)&(ii), 264.18(a), 264 APPENDIX VI/22 CCR 66270.14(b)(11)(A), 66264.18(a), 66264 APPENDIX VI**

The Facility is not located within 3,000 feet of a Holocene Fault. Based on data provided by two maps, the nearest active fault is the Kern Front Fault which lies approximately two miles to the northeast. The map consulted in determining this was the *Fault Map of California*, provided by the California Division of Mines and Geology, 1975. The relationship of the Facility to the Kern Front Fault is shown on Figure 11: Seismic Fault Map.

The Facility was designed by Simpson Van Curen, Inc., of Bakersfield, California, in accordance with California structural design specifications and can withstand a maximum credible earthquake. The new tank system was assessed for seismic integrity by Creative Products, of Bakersfield, California, in January 2006. The structural integrity report, concluding that the new tank system can withstand the loads of a seismic event, is included in Appendix 2.

### 3.10 Floodplain Considerations

**40 CFR 270.14(b)(11)(iii)-(iv), 264.18(b)/22 CCR 66270.14(b)(11)(C)-(D), 66264.18(b)**

Figure 12 of this application is the Flood Insurance Rate Map, Panel 750 of 2075, for Kern County, California. This map confirms that the Facility does not lie within the 100-year floodplain. The Facility is located within Zone B which is an area between the limits of the 100-year flood and the 500-year flood. Therefore, the requirements of 40 CFR 270.14(b)(11)(iv) are not applicable to the Facility.

### 3.11 Traffic Patterns

**40 CFR 270.14(b)(10)/22 CCR 66270.14(b)(10)**

Permanent access to the Facility is provided by Pegasus Road and Sunnyside Court. There are two entrances from Sunnyside Court to the Facility. The Kern County Traffic Engineering Division performs annual traffic counts to analyze the effectiveness of the

Kern County road system. The traffic volume for selected roads is reported as Annual Average Daily Traffic (AADT). AADT is defined as the total number of vehicles in both directions, passing a point during the year, divided by 365 days. The AADT for Pegasus Drive, as measured in 2002, is as follows:

- South of 7<sup>th</sup> Standard Road: 6,050 vehicles
- North of Norris Road: 4,200 vehicles

The types of vehicles associated with the Facility include passenger cars/trucks, single unit trucks, and semi-trailers. Access roads and parking areas are paved with either concrete or asphalt. Geotechnical information related to the Facility can be found in Appendix 4, which includes a final soils report provided by Golden Valley Testing, Inc., through Simpson Van Curan, Inc.

A separate drawing depicting the ingress and egress of hazardous waste material into and out of the Facility is provided in Figure 14: Ingress/Egress Diagram. Trucks containing hazardous waste polypropylene chips enter the property from the northeast entrance, unload at the truck lift, and leave by the same route. Each truck entering the Facility contains approximately 40,000 pounds of hazardous waste polypropylene chips. Each truck leaving the Facility contains approximately twenty-two 1,350-pound bales (approximately 29,700 pounds) of waste.

## **4.0 WASTE CHARACTERISTICS**

**40 CFR 270.14(b)(2), 264.13(a)/22 CCR 66270.14(b)(2), 66264.13(a)**

This section presents chemical and physical data on the hazardous waste managed at the Facility as required by federal regulations.

### **4.1 Waste Identification and General Information**

The Facility recycles the hazardous waste polypropylene chips recovered from offsite battery recycling operations. The hazardous waste polypropylene chips are received at the Facility in the stainless steel receiving hopper. The chips move via a stainless steel auger to a conveyor belt and into the treatment system. The clean chips from the granulator system are dried in a spin dryer and a rotating dryer. The polypropylene chips are then sent either to the onsite storage silos or directly to the extruder for production. The waste materials from the three separation processes are baled. The wastewater from the washing process is contained in the water recovery tank (Tank 9). Wastewater from Tank 9 is pumped through the filter press and later into the holding tank (Tank 10). Samples of the water from Tank 10 are collected and based on the results the wash water is either discharged to the water storage ponds for future use as make-up water or pumped to Tank 9 for retreatment. The filter cake from the filter press operation is baled, along with other non-recyclable materials, and the bales are sent offsite for land disposal. The treatment and recycling process is described in more detail in Section 1.4.

The hazardous waste polypropylene chips received from offsite and the baled non-recyclable materials and filtercake generated onsite contain elevated levels of lead and are considered hazardous waste based on the characteristic of toxicity and by DTSC designation. As defined in 40 CFR 261.24 (and 22 CCR 66261.24), a solid waste is considered hazardous due to toxicity if the extract from a representative sample of the waste contains any listed contaminants at concentrations equal to or exceeding the regulatory level. Lead is listed in the regulation with a USEPA Hazardous Waste Code of D008 and a maximum Toxicity Characteristic Leaching Procedure (TCLP)

concentration of 5.0 mg/l. The California Hazardous Waste Number for the hazardous waste polypropylene chips and baled waste is 272. The waste does not exhibit characteristics of ignitability, corrosivity, or reactivity. The following information on the health and environmental affects of lead was taken from *Dangerous Properties of Industrial Materials*, Seventh Edition, Sax and Lewis, 1989, and *Hawley's Condensed Chemical Dictionary*, Fourteenth Edition, Richard J. Lewis, Sr., 2001.

#### Human Health Effects of Lead

- Poison by ingestion
- Moderately toxic by intraperitoneal route
- Suspected carcinogen of the lungs and kidneys
- Major organ systems affected—nervous system, blood system, and kidneys
- Larger amounts of lead are necessary to cause toxic effects by ingestion than inhalation

#### Environmental Effects of Lead

- More easily dissolved in water at low pH
- Flammable in the form of dust when exposed to heat or flame
- Moderately explosive in the form of dust when exposed to heat or flame
- Can react vigorously with oxidizing materials
- When heated to decomposition, it emits highly toxic fumes of lead
- Melting point: 327.4 degrees Celsius (°C), boiling point: 1755 °C, density: 11.35 grams/milliliter, and vapor pressure: 1 millimeter of Hg at 973 °C

The Material Safety Data Sheet for soft lead is included in Appendix 5.

The hazardous waste polypropylene chips received by KW California for recycling are generated by California suppliers. The facility can receive at most 31,207 tons of polypropylene chips annually with a monthly maximum of 2,600 tons. Approximately 624 tons of baled filter cake and other non-recyclable materials are generated annually.

The results of the chemical and physical analyses of the incoming polypropylene chips and baled hazardous waste generated at the facility are included in Appendix 6.

## 4.2 Waste Analysis Plan

**40 CFR 270.14(b)(3), 264.13(b)-(c)/22 CCR 66270.14(b)(3), 66264.13(b)-(c)**

Pursuant to the regulations cited above, this Section provides the details of the Facility's written Waste Analysis Plan used to comply with requirements for characterization of the onsite hazardous waste.

### 4.2.1 Parameters and Rationale

**40 CFR 270.14(b)(3), 264.13(b)(1)/22 CCR 66270.14(b)(3), 66264.13(b)(1)**

Table 4-1 identifies the parameters and analytical test methods for which the wastes are tested.

TABLE 4-1 WASTE ANALYSIS PARAMETERS AND TESTING				
Stream	Parameter	Analytical Test Methods <sup>1</sup>	Action Limit	Practical Quantification Limit
Incoming Polypropylene Chips	TCLP lead	1311 <sup>2</sup> , 6010B <sup>3</sup>	NA	0.5 mg/l
Baled waste material (filtercake and reject chips)	TCLP lead	1311, 6010B	NA	0.5 mg/l
Clean polypropylene chips (prior to kiln/spin dryer operation)	TCLP lead	1311, 6010B	5.0 mg/l	0.5 mg/l
Holdng Tank (Tank 10)	Total lead	Laboratory analysis with semi-annual independent laboratory confirmation (6010B)	5.0 mg/l	0.5 mg/l
Water Storage Ponds	Total lead	6010B	5.0 mg/l	0.5 mg/l

Notes: 1 - SW-846, *Test Methods for Evaluating Solid Waste*, April 1998, Fifth Revision  
 2 - Method 1311 - Toxicity Characteristics Leaching Procedure (TCLP)  
 3 - Method 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry  
 NA – Not Applicable

The waste polypropylene chips recycled at the Facility are generated from lead-acid battery recycling operations and contain lead at hazardous concentrations. Therefore,

lead was selected as the parameter for waste characterization analysis. For the three solid waste streams, TCLP-lead was selected for waste determination purposes. Total lead was selected for the two liquid waste streams, since for a liquid waste the total concentration equals the TCLP concentration for waste determination purposes.

The action limit listed in Table 4-1 for the 7,800-gallon holding tank (Tank 10) water is based on the USEPA maximum TCLP concentration of 5.0 mg/l for lead. If the holding tank water has a total lead concentration less than 5.0 mg/l, the water is discharged into the water storage ponds for reuse in the process. If the holding tank water has a lead concentration greater than or equal to 5.0 mg/l, the water is pumped back into the water recovery tank (Tank 9) for further treatment.

#### 4.2.2 Test Methods

**40 CFR 270.14(b)(3), 264.13(b)(2)/22 CCR 66270.14(b)(3), 66264.13(b)(2)**

SW-846 Methods 1311 and 6010B were selected because the methods are USEPA-approved test methods for the detection of lead in solid and liquid matrices at the practical quantitation limits listed in Table 4-1.

#### 4.2.3 Sampling Methods

**40 CFR 270.14(b)(3), 264.13(b)(3)/22 CCR 66270.14(b)(3), 66264.13(b)(3)**

The sampling methods used for collecting representative samples of the waste are summarized in Table 4-2. The sampling locations are described in Table 4-2 and shown on Figure 4: Process Plan.

<b>TABLE 4-2 WASTE ANALYSIS SAMPLING METHODS AND FREQUENCY</b>					
<b>Stream</b>	<b>Sampling Location</b>	<b>Sampling Method</b>	<b>Protective Gear</b>	<b>Frequency</b>	<b>Sampling Device</b>
Polypropylene Chips	Hopper	Random Grab Sample	Rubber Gloves Half-faced Filter Goggles	Annually	Long handle sampler
Baled Waste Material	Offsite Disposal Facility	Random Grab Sample	Rubber Gloves Half-faced Filter Goggles	Annually	Stainless steel scoop

TABLE 4-2 WASTE ANALYSIS SAMPLING METHODS AND FREQUENCY					
Stream	Sampling Location	Sampling Method	Protective Gear	Frequency	Sampling Device
Polypropylene Chips	Prior to Kiln/Spin Dryer Operation	Random Grab Sample	Rubber Gloves Half-faced Filter Goggles	Monthly	Stainless steel scoop
Holding Tank (Tank 10)	Inlet to Water Storage Ponds	Random Grab Sample	Rubber Gloves Half-faced Filter Goggles	Prior to emptying sampling tank  Semi-annual independent laboratory confirmation	Sample Container  Sample Container
Water Storage Ponds	Outfall from Holding Tank (Tank 10)	Random Grab Sample	Rubber Gloves Half-faced Filter Goggles	Annually	Sample Container

Random grab samples will be collected to obtain representative samples of the five waste streams. The characteristics of the waste will be sufficiently defined by random grab sampling due to the relatively homogenous nature of the waste streams. The samples will be collected following the guidelines for obtaining representative samples for accurate and precise analytical results as outlined in *Test Methods for Evaluating Solid Waste, Volume II: Field Manual Physical/Chemical Methods*, USEPA, Fifth Revision, dated April 1998.

The storage requirements for the samples are outlined in Table 4-3.

TABLE 4-3 REQUIREMENTS FOR SAMPLE CONTAINERS, PRESERVATION PROCEDURES, AND MAXIMUM SAMPLE HOLDING TIMES			
Matrix	Container	Preservation	Maximum Holding Times
Waste (TCLP Lead)	8-ounce glass jar with Teflon <sup>®</sup> -lined cap	Cool, 4°C	180 days to extraction 180 days to analysis
Water (Total Lead)	250-milliliter polyethylene bottle with polyethylene-lined closure	Cool, 4°C 50% Nitric Acid, pH < 2	6 months

Sampling of the hazardous waste polypropylene chips and water is conducted by Facility personnel. These samples are sent to the Severn Trent Laboratories, Inc., (STL) facility, located in Pensacola, Florida, for analysis. The Statement of Qualifications,

which includes the current Environmental Laboratory Certification number from the State of California, from STL is included in Appendix 7. Baled waste is also sampled and analyzed by Chemical Waste Management, Inc., personnel at the Kettleman Hills disposal facility in Kings County, California. Analytical results from the sampling of the baled waste are maintained at the Facility.

#### **4.2.4 Frequency of Analysis**

**40 CFR 270.14(b)(3), 264.13(b)(4)/22 CCR 66270.14(b)(3), 66264.13(b)(4)**

Table 4-2 identifies the frequency of analysis for the hazardous waste material. In addition to the analyses described in Section 4.2.2, an annual analysis of the hazardous waste polypropylene chip samples, collected from each of the generator's shipments, will be conducted for re-characterization of the waste. The samples for re-characterization will be collected by Facility personnel following the procedures described in Section 4.2.3. The Facility will conduct a re-sampling of the hazardous waste polypropylene chips if there is reason to believe that the process or operation generating the waste has changed. However, because the Facility receives only one type of waste, the hazardous waste polypropylene chips, from only two major generators, there is a very low potential for the character of the waste received at or generated by the Facility to change.

If re-characterization indicates the waste is incompatible with the process, the waste will not be accepted for shipment, or if it is already onsite, it will be returned to the generator.

#### **4.2.5 Additional Requirements for Wastes Generated Offsite**

**40 CFR 270.14(b)(3), 264.13(b)(5), 264.13(c), and 264.73(b)/22 CCR 66270.14(b)(3), 66264.13(b)(5), 66264.13(c), and 66264.73(b)**

The generators of the hazardous waste polypropylene chips provide information on the batteries and the battery-breaking process. In addition to the generator's information, all incoming shipments of hazardous waste polypropylene chips are inspected by

trained Facility personnel prior to and during unloading operations. If any foreign or excessive lead-bearing materials are observed during unloading operations, Facility personnel are authorized to reject the hazardous waste polypropylene chips. The manifest is also reviewed to determine whether the received waste and quantities are correct. Additional manifest procedures are described in Section 4.3. An example California Uniform Hazardous Waste Manifest is included in Appendix 8.

#### **4.2.6 Quality Assurance/Quality Control Procedures**

The waste analysis data will be collected to determine whether the waste is hazardous based on the characteristic of toxicity from lead. The trained Facility sampling personnel and STL analytical personnel will conduct the sampling and analysis following the quality assurance/quality control procedures (QA/QC) described in the sampling and test methods in SW-846.

Sample identification and chain-of-custody will be maintained for a waste analysis event through the following chain-of-custody procedures and documentation:

- Sample labels, which prevent misidentification of samples
- Custody seals to preserve the integrity of the sample from the time it is collected until it is opened in the laboratory
- Field logbook to record information about the sample collection
- Chain-of-custody record to establish the documentation necessary to trace sample possession from the time of collection to laboratory analysis; the chain of custody form also serves as a sample analysis request sheet
- Laboratory logbook and analysis notebooks, which are maintained at the laboratory to record all pertinent information about the sample

The purpose of these procedures is to ensure that the quantity of the sample is maintained during its collection, transportation, storage and analysis. All chain-of-custody requirements comply with standard operating procedures recommended in USEPA sample handling protocol.

#### **4.2.7 Waste Analysis Plan Review**

The Waste Analysis Plan for the Facility will be reviewed annually to determine whether the procedures and frequencies for sampling and analysis are consistent with plan objectives.

#### **4.3 Manifest System**

**40 CFR 264.71, 264.72/22 CCR 66264.71, 66264.72**

Operational procedures at the Facility include the use of a manifest system to track shipments of hazardous materials. The Facility, in compliance with California regulations, requires all incoming and outgoing shipments of hazardous waste materials to be accompanied by a standard California Uniform Hazardous Waste Manifest.

##### **4.3.1 Manifest Procedures for Incoming Hazardous Wastes**

The operational procedures for manifesting of incoming shipments of hazardous waste polypropylene chips to the Facility are as follows:

- The manifest is signed and dated immediately upon receipt at the Facility by the employee assigned to the receiving/unloading area.
- The shipment is inspected and any significant discrepancies are noted on each copy of the manifest.
- The transporter's copy of the signed manifest is given to the hazardous waste hauler.
- Within 30 days of delivery, a signed copy of the manifest is submitted to the generator.
- An additional signed copy is submitted within 30 days to the DTSC.
- A copy of the manifest form is retained at the Facility for a minimum of three years from the date of delivery.

The employee assigned to the receiving/unloading area is initially responsible for ensuring that accompanying manifests are completed properly. The manifests are then

forwarded to the hazardous materials records keeper for secondary completeness checks. The hazardous materials records keeper is responsible for ensuring that the manifests are properly filed and submitted to the generator and the DTSC within thirty days.

#### **4.3.2 Manifest Procedures for Outgoing Hazardous Wastes**

The operational procedures for the manifest of outgoing shipments of hazardous waste polypropylene chips to the Facility are as follows:

- The generator and waste section of the California Uniform Hazardous Waste Manifest is completed. The employee assigned to the loading/unloading area and the initial transporter sign and date the manifest prior to shipment.
- Prior to leaving the Facility, the Facility's employee will check the transporter's driver's license. The transporter must have a Class A, B, or C commercial driver's license with a hazardous materials endorsement, indicated on the license with either an "H" or an "X".
- The Facility employee will check to see if the transporter has a working two-way communication device, such as a two-way radio or cellular phone.
- The Facility's employee will ensure that the cargo area doors of the transporting vehicle are locked prior to leaving the site.
- Within 30 days of shipment, a copy of each manifest, signed by both KW California and the transporter, is submitted to the DTSC.
- Two copies of each manifest form are retained at the Facility for a minimum of three years from the date of delivery.

#### **4.3.3 Manifest Discrepancies**

##### **40 CFR 264.72/22 CCR 66264.72**

Manifest discrepancies are differences between the quantities or type of hazardous waste designated on the manifest or shipping paper and the quantity or type of hazardous waste the Facility actually receives. A 10 percent difference in the quantity

by weight of hazardous waste shipped and quantity of hazardous waste received is considered a significant discrepancy.

All incoming shipments of hazardous waste polypropylene chips are evaluated for manifest discrepancies upon arrival at the Facility by an employee familiar with the type and amount of the shipments. In order to ensure that a difference greater than 10 percent, by weight, does not occur, the incoming trucks are weighed on the truck scale prior to unloading and after unloading to determine the weight of the shipment. The Facility employee also visually inspects the shipment during unloading to verify that the shipment contains only the type of hazardous waste (polypropylene chips) that the Facility is permitted to receive. If discrepancies in the manifest are discovered, they are immediately reported to the Plant Manager.

The Plant Manager will subsequently contact the hazardous waste supplier by telephone and attempt to reconcile any discrepancies. If the discrepancies are not resolved within fifteen days after receiving the hazardous waste, the Facility will submit a report to the DTSC detailing the discrepancies, the attempts to reconcile the discrepancies, and a copy of the manifest or shipping papers at issue. The Plant Manager will mail the report to the following address:

Complaint Coordinator  
Department of Toxic Substances Control  
Statewide Compliance Division  
Northern California Branch  
8800 Cal Center Drive  
Sacramento, California 95826-3268

#### **4.3.4 Unmanifested Waste Report**

##### **40 CFR 270.14(b)(19), 264.76/22 CCR 66264.76**

The Facility does not make it common practice to accept unmanifested shipments of hazardous waste. However, if an unmanifested shipment is received, the Plant Manager will prepare and submit a letter report to the DTSC within fifteen days after

receiving the waste. The report will be designated "Unmanifested Waste Report" and will include the following information:

- The identification number, name, and address of the receiving facility
- The date the hazardous waste was received
- The identification number, name, and address of the generator and transporter
- A description and the quantity of each unmanifested waste received
- The method of transfer, treatment, storage, or disposal for each hazardous waste
- The certification signed by an authorized representative of the facility
- A brief explanation of why the waste was unmanifested, if known

## 5.0 UNIT PROCESS INFORMATION

40 CFR 270.14(b)(1), 270.16, 264.191-194/22 CCR 66270.14(b)(1), 66270.16, 66264.191-196

### 5.1 Tank System Information

Pursuant to the regulations listed above, this Section provides detailed information on the design and operation procedures for the active units/processes which are subject to hazardous waste management facility permitting requirements. As described in Section 2.0, the units subject to these requirements are the float separator tank (Tank 1), wash tank (Tank 3), wash tank (Tank 5), rinse tank (Tank 7), recycling tanks (Tanks 2, 4, 6, and 8), water recovery tank (Tank 9), holding tank (Tank 10), spin dryers, filter press, decontamination water collection sump, storm water collection sump, unloading area, and all ancillary piping.

#### 5.1.1 Float Separator Tank (Tank 1)

This tank primarily contains water to separate the plastic chips from the waste and debris. The tank has an operational capacity of 5,500 gallons and a maximum capacity of 6,697 gallons. The tank is 8 feet wide, 20 feet long, and has a maximum depth of 7.4 feet. The tank walls and bottom are constructed of 0.25-inch, 316 stainless steel plates. The tank has the following specifications:

- Design Specifications: Reference Appendix 2
- Pressure Rating: Open top (atmospheric)
- Structural Supports: Reference Appendix 2
- Age of Tank: < 1 year
- Operating Temperature: Ambient 50 to 100 degrees Fahrenheit (°F)
- Location: Reference Figure 4: Process Plan
- Construction Materials: Reference Appendix 2
- Corrosion Resistance: Corrosion resistant stainless steel used on wetted surfaces
- Foundation Specifications: Reference Appendix 2

- Date in Service: 2007
- Expected Life: 25 years
- Cathodic Protection: Not required (aboveground)
- Previous Use: None
- National Fire Prevention Association (NFPA) Protective Distances: Not Applicable
- Certified Tank Drawings: Reference Appendix 2
- Vapor Pressure of Stored Waste: 14.7 pounds per square inch (psi) at 213 °F

### 5.1.2 Wash Tank (Tank 3)

This tank primarily contains water to wash the plastic chips exiting the grinder to remove waste and debris. The tank has an operational capacity of 5,500 gallons and a maximum capacity of 6,697 gallons. The tank is 8 feet wide, 20 feet long, and has a maximum depth of 7.4 feet. The tank walls and bottom are constructed of 0.25-inch, 316 stainless steel plates. The tank has the following specifications:

- Design Specifications: Reference Appendix 2
- Pressure Rating: Open top (atmospheric)
- Structural Supports: Reference Appendix 2
- Age of Tank: < 1 year
- Operating Temperature: Ambient 50 to 100 °F
- Location: Reference Figure 4: Process Plan
- Construction Materials: Reference Appendix 2
- Corrosion Resistance: Corrosion resistant stainless steel used on wetted surfaces
- Foundation Specifications: Reference Appendix 2
- Date in Service: 2007
- Expected Life: 25 years
- Cathodic Protection: Not required (aboveground)
- Previous Use: None
- NFPA Protective Distances: Not Applicable

- Certified Tank Drawings: Reference Appendix 2
- Vapor Pressure of Stored Waste: 14.7 psi at 213 °F

### 5.1.3 Wash Tank (Tank 5)

This tank primarily contains water to wash the plastic chips by agitation to remove any paper or debris attached to the chips. The tank has an operational capacity of 4,309 gallons and a maximum capacity of 5,386 gallons. The tank is 12 feet wide, 12 feet long, and has a maximum depth of 5 feet. The tank walls and top are constructed of 0.5-inch, A36 carbon steel plate. The tank bottom is constructed of 0.375-inch, A36 carbon steel plate. The tank has the following specifications:

- Design Specifications: Reference Appendix 2
- Pressure Rating: Open top (atmospheric)
- Structural Supports: Reference Appendix 2
- Age of Tank: < 1 year
- Operating Temperature: Ambient 50 to 100 °F
- Location: Reference Figure 4: Process Plan
- Construction Materials: Reference Appendix 2
- Corrosion Resistance: Carbon steel is acceptable for a water pH at 8 or above
- Foundation Specifications: Reference Appendix 2
- Date in Service: 2007
- Expected Life: 25 years
- Cathodic Protection: Not required (aboveground)
- Previous Use: None
- NFPA Protective Distances: Not Applicable
- Certified Tank Drawings: Reference Appendix 2
- Vapor Pressure of Stored Waste: 14.7 psi at 213 °F

#### 5.1.4 Rinse Tank (Tank 7)

This tank primarily contains water to rinse the plastic chips to remove any fine particles remaining on the chips. The tank has an operational capacity of 5,500 gallons and a maximum capacity of 6,697 gallons. The tank is 8 feet wide, 20 feet long, and has a maximum depth of 7.4 feet. The tank walls and bottom are constructed of 0.25-inch, A36 carbon steel plates. The tank has the following specifications:

- Design Specifications: Reference Appendix 2
- Pressure Rating: Open top (atmospheric)
- Structural Supports: Reference Appendix 2
- Age of Tank: < 1 year
- Operating Temperature: Ambient 50 to 100 °F
- Location: Reference Figure 4: Process Plan
- Construction Materials: Reference Appendix 2
- Corrosion Resistance: Carbon steel is acceptable for a water pH at 8 or above
- Foundation Specifications: Reference Appendix 2
- Date in Service: 2007
- Expected Life: 25 years
- Cathodic Protection: Not required (aboveground)
- Previous Use: None
- NFPA Protective Distances: Not Applicable
- Certified Tank Drawings: Reference Appendix 2
- Vapor Pressure of Stored Waste: 14.7 psi at 213 °F

#### 5.1.5 Recycling Tanks (Tanks 2, 4, 6, and 8)

These tanks are used to contain the wastewater removed from the chips prior to entering the next process tank. Tank 2 is 4 feet wide, 4 feet long, and 2.3 feet deep with an operational capacity of 159 gallons and a maximum capacity of 280 gallons. Tank 4 is 4 feet wide, 5.9 feet long, and 2.0 feet deep with an operational capacity of 177 gallons and a maximum capacity of 360 gallons. Tank 6 is 4 feet wide, 5.9 feet

long, and 3 feet deep with an operational capacity of 353 gallons and a maximum capacity of 540 gallons. Tank 8 is 4 feet wide, 5.9 feet long, and 2.0 feet deep with an operational capacity of 177 gallons and a maximum capacity of 360 gallons. The walls and bottoms for each tank are constructed of 0.25-inch, A36 carbon steel plates. The four tanks have the following specifications:

- Design Specifications: Reference Appendix 2
- Pressure Rating: Open top (atmospheric)
- Structural Supports: Reference Appendix 2
- Age of Tank: < 1 year
- Operating Temperature: Ambient 50 to 100 °F
- Location: Reference Figure 4: Process Plan
- Construction Materials: Reference Appendix 2
- Corrosion Resistance: Carbon steel is acceptable for a water pH at 8 or above
- Foundation Specifications: Reference Appendix 2
- Date in Service: 2007
- Expected Life: 25 years
- Cathodic Protection: Not required (aboveground)
- Previous Use: None
- NFPA Protective Distances: Not Applicable
- Certified Tank Drawings: Reference Appendix 2
- Vapor Pressure of Stored Waste: 14.7 psi at 213 °F

#### **5.1.6 Water Recovery Tank (Tank 9)**

This tank contains primarily water, has a capacity of 7,800 gallons, and is a 10 feet diameter by 14.7 feet high polyethylene structure. The wastewater is held in this tank prior to discharge to the plate filter press. The tank has the following specifications:

- Design Specifications: Reference Appendix 2

- Pressure Rating: Open top (atmospheric)
- Structural Supports: Reference Appendix 2
- Age of Tank: <1 year
- Operating Temperature: Ambient 50 to 100 °F
- Location: Reference Figure 4: Process Plan
- Construction Materials: Reference Appendix 2
- Corrosion Resistance: Corrosion resistant polyethylene
- Foundation Specifications: Reference Appendix 2
- Date in Service: 2007
- Expected Life: 25 years
- Cathodic Protection: Not required (aboveground)
- Previous Use: None
- NFPA Protective Distances: Not Applicable
- Certified Tank Drawings: Reference Appendix 2
- Vapor Pressure of Stored Waste: 14.7 psi at 213 °F

### 5.1.7 Holding Tank (Tank 10)

This tank contains primarily water, has a capacity of 7,800 gallons, and is a 10 feet diameter by 14.7 feet high polyethylene structure. The wastewater is held in this tank for sample collection prior to discharge to the water recovery ponds or Tank 9. The tank has the following specifications:

- Design Specifications: Reference Appendix 2
- Pressure Rating: Open top (atmospheric)
- Structural Supports: Reference Appendix 2
- Age of Tank: <1 year
- Operating Temperature: Ambient 50 to 100 °F
- Location: Reference Figure 4: Process Plan
- Construction Materials: Reference Appendix 2
- Corrosion Resistance: Corrosion resistant polyethylene

- Foundation Specifications: Reference Appendix 2
- Date in Service: 2007
- Expected Life: 25 years
- Cathodic Protection: Not required (aboveground)
- Previous Use: None
- NFPA Protective Distances: Not Applicable
- Certified Tank Drawings: Reference Appendix 2
- Vapor Pressure of Stored Waste: 14.7 psi at 213 °F

## 5.2 Tank Assessment

A structural integrity assessment was performed on the existing and new treatment system tanks by Creative Products, located in Bakersfield, California. The tank assessment determined that the tanks were/will be structurally stable and constructed of materials compatible with materials contained. A copy of the structural integrity assessment is provided in Appendix 2. The assessment is valid for five years and expires on August 1, 2012, at which time a new structural integrity assessment will be performed.

## 5.3 Installation Assessment

Prior to operation of the new treatment system, an installation assessment will be performed to ensure that the new treatment system has been properly installed. The assessment will be performed by Creative Products and will document the construction of the secondary containment, installation of the tanks, and installation of the ancillary piping. Inspections will be conducted throughout the installation and will focus on the detection of the following:

- weld breaks
- punctures
- scrapes of protective coatings
- cracks

- corrosion
- other structural damage or inadequate construction/installation

All discrepancies will be repaired prior to the operation of the new treatment system. An installation assessment report will be submitted to the DTSC documenting the inspections and engineering certification.

#### **5.4 pH Adjustment System**

The pH adjustment system is an automated system composed of three pH probes and a solution tank with metering pump. The three pH probes are located at the mid-section of the float separator tank (Tank 1), the front of the wash tank (Tank 3), and the front of the rinse tank (Tank 7). The agitator tank is a 250-gallon stainless steel tank that is used to prepare a sodium hydroxide solution used to neutralize the sulfuric acid present on the waste polypropylene chips. Each batch of solution is prepared by mixing 25-gallons of caustic soda with water in the solution tank. Once the solution is prepared, it is added to Tank 1 by a metering pump based on the pH level of the tank.

The pH probe located in Tank 1 is used to measure the pH of the system and to control the addition of caustic soda solution. The treatment system has been designed to operate within a target pH range of 8 to 10 pH units. The metering pump is connected to the Tank 1 probe and has been calibrated to start adding solution if the pH of Tank 1 drops below 7.5 and to stop adding solution if the pH of Tank 1 exceeds 9. The probes in Tank 3 and Tank 7 are used to confirm that the pH remains in the target range. In the event that the pH measurements for Tank 3 and Tank 7 fall below 8, caustic soda ash is added directly to the tank by KW California personnel. The pH probes are calibrated on a weekly basis by KW California personnel.

## 5.5 Secondary Containment

40 CFR 270.16(g), 264.193/22 CCR 66270.16(g), 66264.193

### 5.5.1 Existing Treatment Room

The existing hazardous waste processing area within the Facility contains the water recovery tank (Tank 9), holding tank (Tank 10), filter press, and baled waste storage area. Secondary containment for these units consists of a concrete curb enclosing the area. The location of the curb is shown on Figure 4: Process Plan. The containment curb is a minimum eight inches wide and at minimum eight inches above the finished floor. The curb has a minimum strength of 4,000 psi and is constructed with expansion joints at the curb corners and at 20-foot intervals between corners. The expansion joints are 0.5-inch wide and made of pre-molded, non-bituminous joint filler. A detail of the curbing is shown on Figure 4: Process Plan.

The secondary containment curb for the existing treatment room has a capacity of 9,447 gallons. This volume exceeds both 10 percent of the aggregate volume of all tanks (4,243 gallons) and 100 percent of the volume of the largest tank (7,800 gallons). Any waste material spilled within the secondary containment area is collected and pumped to the water recovery tank (Tank 9) for treatment. Run-on and run-off from the containment area are prevented by the concrete curb. The secondary containment area, along with the units, is inspected daily for cracks, leaks, damage, or deterioration in accordance with the inspection schedule in Section 6.2.

The secondary containment area floor is concrete, which is compatible with the lead waste and has an impermeable coating. The secondary containment floor is sloped to drain into a drainage trough which discharges into a collection sump. The drainage trough is concrete and measures 17-inches wide at the top and 12-inches wide at the bottom. A 2.5-inch wide lip is present along the upper perimeter to secure the cast iron grate covers. The trough runs east to west in both the treatment room and extruder room as shown on Figure 3: Site Plan. The portion of the trough located in the treatment room and three feet of the trough in the extruder room are lined with 18-

gauge stainless steel along the bottom and sides. A stainless steel gate is present in the drainage trough at the wall separating the recycling room from the extruder room. The trough is six inches deep at the western end and sixteen inches deep at the eastern end, which empties into the collection sump.

The collection sump is concrete and measures 48-inches wide, 48-inches long, and 48-inches deep. A four-inch lip is constructed along the upper perimeter to secure the cast iron grate cover. The collection sump is lined with 18-gauge stainless steel along the bottom and sides. Any water collected within the sump is pumped into the water recovery tank (Tank 9) for treatment.

### **5.5.2 Addition to Treatment Room**

The new hazardous waste processing area within the Facility contains the float separator tank (Tank 1), wash tank (Tank 3), wash tank (Tank 5), rinse tank (Tank 7), and recycling tanks (Tanks 2, 4, 6, and 8). Secondary containment for these units consists of concrete walls and curbing along the room's perimeter, except where the room joins the existing treatment room. The locations of the wall and curbing are shown on Figure 4: Process Plan. The containment wall is constructed of reinforced concrete with a height of 36 inches and a width of 6 inches. The containment curbing is constructed of reinforced concrete with a minimum height of 8 inches and a width of 6 inches. The concrete has a minimum strength of 4,000 psi and is constructed with plastic water stops along all joints. No wall separates the addition to the treatment room from the existing treatment room.

The floor of the new treatment room is concrete, which is compatible with the lead waste and has an impermeable coating. The floor has a 0.5% slope which is sloped to drain into a collection sump. The collection sump is concrete and measures 48-inches wide, 48-inches long, and 48-inches deep. A four-inch lip is constructed along the upper perimeter to secure the cast iron grate cover. The collection sump is lined with Number 18 gauge stainless steel plate along the bottom and sides. Any water collected within the sump is pumped into the water recovery tank (Tank 9) for treatment.

Waste material spilled will flow to a secondary containment sump with a capacity of 480 gallons, located in the new treatment room. If more than 480 gallons are spilled, the water will flow into the existing treatment room and be contained within its secondary containment curbing. The existing treatment room's secondary containment capacity is 9,447 gallons which exceeds 10 percent of the aggregate volume of all tanks (4,243 gallons) and 100 percent of the largest tank in the new treatment room (6,697 gallons). Water collected in the secondary containment area is collected and pumped to the water recovery tank (Tank 9) for treatment. Run-on and run-off from the containment area are prevented by the concrete walls and curbing. The secondary containment area, along with the units, is inspected daily for cracks, leaks, damage, or deterioration in accordance with the inspection schedule in Section 6.2.

## **5.6 Controls and Practices to Prevent Spills and Overflows**

**40 CFR 270.16(i), 264.194(a)-(b), 264.195/22 CCR 66270.16(i), 66264.194(a)-(b), 66264.195**

Once the hazardous waste polypropylene chips are delivered to the Facility, the trailer containing the chips is unloaded into a stainless steel hopper. The chips within the hopper are then conveyed to the float separator tank (Tank 1) using a stainless steel auger and conveyor belt. The auger and conveyor belt systems are constructed with stainless steel side guards to prevent spillage.

As described in Section 1.3, the polypropylene chips are repeatedly washed to render the chips non-hazardous. To prevent a spill or overflow of chips from the process units, a 12-inch freeboard is maintained between the floating chips and the top of the tanks. In addition, float switches are in place at the Facility to prevent overfilling. Tanks 3, 5, and 7 are equipped with float switches constructed using a ball within a steel tube that is mounted within each tank. The ball is connected to a controller for the pump that delivers make-up water into each tank from the water recovery ponds. Based on preset levels, the float switch will activate the pump when the water level drops too low and deactivates the pump when the water level exceeds the high mark.

In the event of a pump malfunction and hazardous polypropylene chips spill from the process units, the process units are located within a secondary containment system. As described in Section 5.5, the total secondary containment capacity for the treatment room (both the existing and the new addition) have a capacity of 12,670 gallons. This volume exceeds 10 percent of the aggregate volume of all tanks (4,243 gallons), and 100 percent of the volume of the largest tank (7,800 gallons). Any spilled chips will either wash into the secondary containment sump or remain on the floor until Facility employees can return the chips to the treatment process.

## **6.0 PROCEDURES TO PREVENT HAZARDS**

**40 CFR 270.14(b)(4), 264.14/22 CCR 66270.14(b)(4), 66264.14**

### **6.1 Security Procedures and Equipment**

In addition to the general security provisions of fencing, gates, and trained personnel, several other features contribute to the safety and security of the Facility. Ample lighting is provided throughout the Facility, and supervisors are equipped with hand-held, two-way radios to immediately report problems. A base station for the communication system is located in the main office complex. An internal telephone system (with telephones throughout the plant facility) is provided. The same telephone system is used for communications outside the plant.

#### **6.1.1 Twenty-Four Hour Surveillance System**

**40 CFR 270.14(b)(4), 264.14/22 CCR 66270.14(b)(4), 66264.14(b)(1)**

Security at the Facility is maintained by a staff of trained Facility personnel and shift supervisors. It is the security staff's responsibility to monitor entry and exit from the plant and provide security within the Facility.

#### **6.1.2 Barriers**

**40 CFR 270.14(b)(4), 264.14/22 CCR 66270.14(b)(4), 66264.14(b)(2)(A)**

The perimeter of the Facility is enclosed with an 8-foot high, chain-link fence topped by three strands of barbed wire. The chain-link fence has two gates, one on the south side which is locked at all times, and one that is automatic and serves as the main truck entrance. The automatic gate is attended by trained Facility personnel. The gate is locked when the facility is not in operation. The locked doors and gates prohibit unauthorized entry by humans or animals.

#### **6.1.3 Means to Control Entry**

**40 CFR 270.14(b)(4), 264.14/22 CCR 66270.14(b)(4), 66264.14(b)(2)(B)**

Entry to the Facility is controlled through lockable gates and doors. Employees gain entry to the Facility at a specified entrance when reporting for work. All visitors, vendors, and contractors are required to log in and log out in the main office complex

when entering the Facility. All gates and doors are locked when the Facility is not in operation.

#### 6.1.4 Warning Signs

**40 CFR 270.14(b)(4), 264.14/22 CCR 66270.14(b)(4), 66264.14(c)**

Warning signs are displayed at each entrance to the Facility and on the perimeter fence of the Facility, where trespassers could enter. These signs are legible from a distance of 25 feet with dimensions of 15-inches long by 11-inches high and are visible from all angles of approach. These signs exhibit the text "Danger Hazardous Waste Area - Unauthorized Personnel Keep Out" in English and Spanish, and are also posted at the boundary of the hazardous waste management area. No access roads are open to the public.

#### 6.2 Inspection Schedule

**40 CFR 270.14(b)(5), 264.15/22 CCR 66270.14(b)(5), 66264.15**

To minimize the potential for malfunctions, operating errors, deterioration, and discharges which may lead to releases of hazardous wastes to the environment or cause a threat to human health, the regulations require the development and implementation of a written inspection schedule. Table 6-1 is an inspection schedule for all monitoring devices, safety and emergency equipment, security devices, and operating and structural equipment at the Facility which protect against such incidents.

TABLE 6-1 HAZARDOUS WASTE FACILITY INSPECTION SCHEDULE		
ITEM/AREA	FREQUENCY	INSPECT FOR
MONITORING EQUIPMENT Sampling Equipment	Quarterly	Location; availability; contamination; breakage; malfunctions
SAFETY AND EMERGENCY EQUIPMENT Communications (telephones)	Quarterly	Access; operation
Fire Extinguishers	Monthly	Location; access; operation; chemical level
Medical Kits	Monthly	Location; access; inventory; instruction
Emergency showers and eyewash stations	Monthly	Access; operations; location

TABLE 6-1 HAZARDOUS WASTE FACILITY INSPECTION SCHEDULE		
ITEM/AREA	FREQUENCY	INSPECT FOR
Signs (barriers for unsafe areas)	Semi-annually, as needed	Location; visibility; structural support
Respirators	Weekly	Operation; location; access
Alarm Systems (two-way radios)	Weekly	Operation
Decontamination Equipment	Weekly	Location; access; operation; maintenance
Protective Clothing	Weekly	Inventory; access; location
Eye Protection	Monthly	Location; inventory; access
Empty Drums	Monthly	Location; access
Portable Lights	Monthly	Operation; location
Safety Harness	Monthly	Location
Rubber Insulating Gloves	Monthly	Inventory; location; access
Water Hose	Monthly	Location; access
Particulate Filter Mask	Monthly	Inventory; location
SECURITY DEVICES/SYSTEMS Lighting (fixed and portable)	Quarterly (as needed)	Operation; controls; maintenance; inventory; power source
Fence/Barriers	Quarterly (as needed)	Deterioration; damage; test locks
OPERATING AND STRUCTURAL EQUIPMENT Water Storage Ponds	Weekly and after storm events	Evidence of damage/deterioration
	Daily	Freeboard level
Tanks	Annually	Interior for corrosion, cracks, wall thinning
	Daily	Evidence of damage/deterioration
Bale Storage Area	Weekly	Evidence of damage/deterioration

### 6.2.1 Types of Problems

**40 CFR 270.14(b)(5), 264.15(b)(3)/22 CCR 66270.14(b)(5), 66264.15(b)(3)**

The types of problems typically associated with the items and areas to be inspected are listed in Table 6-1.

## **6.2.2 Frequency of Inspections**

**40 CFR 270.14(b)(5), 264.15(b)(4)/22 CCR 66270.14(b)(5), 66264.15(b)(4)**

The frequency of inspection for each item in Table 6-1 is based on the potential rate of equipment deterioration and the probability of an environmental or human health incident if the problem is not detected between inspections.

## **6.2.3 Schedule of Remedial Action**

**40 CFR 270.14(b)(5), 264.15(c)/22 CCR 66270.14(b)(5), 66264.15(c)**

Any malfunctions, operating error, deterioration, or discharge discovered during an inspection and noted on an inspection log will be corrected on a schedule that prevents the problem from becoming an environmental or health hazard. Immediate action will be taken when such a hazard is imminent or has already occurred.

## **6.2.4 Inspection Log**

**40 CFR 270.14(b)(5), 264.15(d)/22 CCR 66270.14(b)(5), 66264.15(d)**

The inspection log forms, provided in Appendix 9, will be reproduced and used to conduct the inspection and record all observations, repairs, and remedial actions. An inspection log is maintained for each calendar year in a three-ring binder. The inspection log binder is kept, along with the inspection schedule, in the Plant Manager's Office. The logs will be kept for a minimum of three years from the date of the inspection and will include the following information:

- Date of inspection
- Time of inspection
- Name of inspector
- Observations made
- Date of any repairs or remedial actions
- Nature of any repairs or remedial actions

## **6.2.5 Tank Inspections**

**40 CFR 270.14(b)(5), 264.195/22 CCR 66270.14(b)(5), 66264.195(a)**

The Facility operates several tanks in their hazardous waste treatment process. These tanks are inspected on a daily basis for the following:

- Aboveground tanks are inspected for potential overtopping, corrosion, or releases.
- Data gathered from monitoring and leak detection equipment is reviewed.
- Tank overfilling prevention system is reviewed.
- The area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, is inspected to detect corrosion, erosion, or signs of release.

The tanks are emptied annually for inspection of the tank interiors for corrosion, cracks, and wall thinning which may lead to a release. This inspection is conducted by Facility personnel trained in confined space entry, if necessary. All inspections are documented in the inspection log outlined in Section 6.2.4.

## **6.2.6 Additional Item Inspections**

**40 CFR 270.14(b)(5), 264.602/22 CCR 66270.14(b)(5), 66264.602**

### **6.2.6.1 Water Storage Ponds**

The water storage ponds will be inspected daily for freeboard level. The water storage ponds will also be inspected weekly and after storm events to detect any of the following:

- Deterioration, malfunction, or improper operation of the overtopping control system
- Sudden drops in the storage ponds water levels
- Severe erosion or other signs of deterioration in dikes or other containment devices

### **6.2.6.2 Baled Waste Storage Area**

The baled waste storage area will be inspected on a weekly basis for the following items:

- Run-on/run-off protection system to ensure that no damage or deterioration has occurred and to ensure that the baled waste is not contacting storm water run-on/run-off
- Concrete floor for any evidence of damage or deterioration such as cracks or other imperfections

### **6.3 Preparedness and Prevention Requirements**

**40 CFR 270.14(b)(6)/22 CCR 66270.14(b)(6)**

#### **6.3.1 Equipment Requirements**

**40 CFR 270.14(b), 264.32/22 CCR 66270.14(b), 66264.32**

##### **6.3.1.1 Internal Communications**

**40 CFR 270.14(b), 264.32(a)/22 CCR 66270.14(b), 66264.32(a)**

Guards and shift supervisors are equipped with hand-held, two-way radios to immediately report problems. A base station for the communication system is located in the main office. An internal telephone system (with telephones throughout the Facility) is provided.

##### **6.3.1.2 External Communications**

**40 CFR 270.14(b), 264.32(b)/22 CCR 66270.14(b), 66264.32(b)**

The Facility is equipped with a telephone system capable of summoning emergency assistance from the local police department, fire department, and state or local emergency response team.

##### **6.3.1.3 Emergency Equipment**

**40 CFR 270.14(b), 264.32(c)/22 CCR 66270.14(b), 66264.32(c)**

The Facility maintains portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment onsite for use during an emergency. A

table listing the Facility's safety and emergency equipment is provided in Section 7.4. Fire extinguisher locations are provided on Figure 15: Emergency Equipment Locations.

#### **6.3.1.4 Water and Fire Control**

**40 CFR 270.14(b), 264.32(d)/22 CCR 66270.14(b), 66264.32(d)**

An adequate supply (volume and pressure) of water is available for fighting fires, cleaning equipment, and dust control. The granulator room, the location of all hazardous waste operations, contains a humidifying system for dust control. Water to the Facility is provided by the North of the River Municipal Water District. The water supply is protected with backflow devices located at the Facility intake to the public water supply.

#### **6.3.1.5 Testing and Maintenance of Equipment**

**40 CFR 270.14(b), 264.33/22 CCR 66270.14(b), 66264.33**

The safety and emergency equipment is routinely tested and maintenance of the equipment is performed to assure proper operation of the equipment during an emergency. The inspection schedule for testing safety and emergency equipment is provided in Section 6.2.

#### **6.3.1.6 Access to Communications or Alarm System**

**40 CFR 270.14(b), 264.34/22 CCR 66270.14(b), 66264.34**

Shift supervisors and selected personnel are equipped with two-way, hand-held radios. Telephones are available throughout the operating areas of the Facility, providing all personnel involved in hazardous waste operations with immediate access to emergency communication equipment.

#### **6.3.2 Aisle Space Requirements**

**40 CFR 270.14(b), 264.35/22 CCR 66270.14(b), 66264.35**

Good housekeeping practices and the Facility layout provide sufficient aisle space for the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the Facility in an emergency.

### **6.3.3 State/Local Emergency Agencies Coordination**

**40 CFR 270.14(b), 264.37/22 CCR 66270.14(b), 66264.37**

Notification letters were submitted to the Kern County Sheriff's Department, Kern County Fire Department, and the Bakersfield Memorial Hospital to prepare the emergency workers for the hazards which may be present in the event of an emergency at the Facility. Copies of the submitted letters are included in Appendix 10.

### **6.3.4 Preventive Procedures, Structures, and Equipment**

#### **6.3.4.1 Loading/Unloading Operations**

**40 CFR 270.14(b)(8)(i)/22 CCR 66270.14(b)(8)(A)**

All Facility employees authorized to operate tractors, forklifts, trucks, or other heavy equipment involved in the loading and unloading of hazardous waste are required to undergo an equipment operator's safety training course in accordance with 29 CFR 1910.178(1). This course was developed by the National Safety Council. In addition, all loading/unloading operations are monitored daily by the Plant Safety Director to ensure they are done in a safe and proper manner.

Trucks transporting the hazardous waste polypropylene chips to the facility are backed onto the truck dumper. The truck is secured on the truck dumper with steel cables to prevent movement during dumping and unloading. The truck dumper hydraulically raises and dumps the chips into a stainless steel hopper equipped with secondary containment.

Process hazardous waste is baled and stored in a designated area within the treatment room for less than 90 days, pending shipment to an offsite disposal facility. This storage area is designated by warning signs which indicate that hazardous waste is stored at this location. The hazardous waste storage procedures are included as part of the plant personnel training program to ensure that hazardous waste is properly stored.

#### **6.3.4.2 Personnel Exposure Prevention**

The Facility training program educates plant personnel on the type of hazardous waste stored at the Facility, the location of the treatment/storage of the waste, and the proper protective equipment required to protect employees. The Facility also provides the necessary respiratory protection, protective clothing, etc., to ensure that these exposure prevention measures are effective. Employees are medically monitored, as described in Section 8.4. The Facility process does not create any potentially hazardous gases, mists, or vapors.

#### **6.3.4.3 Decontamination and Wash Water Collection**

After trucks dump the hazardous waste polypropylene chips into the stainless steel hopper, the truck trailers are washed prior to leaving the Facility. Any contaminated equipment is also decontaminated, as necessary.

All wash water used in truck washing operations is collected and processed within the closed loop recycling system. This wash water is used as "make-up" water to compensate for evaporative losses (reference Section 1.3). Occasionally, trucks are temporarily parked in a designated concrete paved area either prior to unloading or after being unloaded and washed. This parking area is surrounded by concrete curbing that directs drainage to a sump, from where it is pumped to the water recovery tank (Tank 10) for treatment.

#### **6.3.4.4 Runoff Prevention**

##### **40 CFR 270.14(b)(8)(ii)/22 CCR 66270.14(b)(8)(B)**

Since all hazardous waste recycling operations are conducted within an enclosed building, all runoff from Facility operations, and potential leaks or spills, are contained within the Facility. Any runoff from hazardous waste storage areas is directed to sumps which are pumped to the water recovery tank (Tank 9) for treatment. This containment system ensures that spills or leaks can be collected and retained until detected and removed. The concrete drainage trough, concrete sump, and sloped floors promote

drainage and prevent contact between hazardous waste and standing liquids. The drainage system is illustrated graphically on Figure 4: Process Plan.

#### **6.3.4.5 Water Supplies**

##### **40 CFR 270.14(b)(8)(iii)/22 CCR 66270.14(b)(8)(C)**

Prevention of water supply contamination is accomplished by preventing the discharge or runoff of contaminated water to the environment. The wash water used for decontamination is contained in a closed loop system with a sealed concrete floor and water collection sump to prevent the migration of liquid.

#### **6.3.4.6 Equipment and Power Failures**

##### **40 CFR 270.14(b)(8)(iv)/22 CCR 66270.14(b)(8)(D)**

In the event of a power failure, all production and associated waste generation stops since power is required for the production process. Short term power outages have occurred since the Facility began operation; but none have resulted in impact to hazardous waste management activities. Since there is no discharge of process wastewater from the closed loop system, a power outage would not result in a discharge from this system.

#### **6.3.4.7 Personal Protection Equipment**

##### **40 CFR 270.14(b)(8)(v)/22 CCR 66270.14(b)(8)(E)**

The Facility is subject to the provisions of 29 CFR 1910.1025 (United States Department of Labor, Occupational Safety and Health Act (OSHA) Standard for Occupational Exposure to Lead), as well as other provisions of 29 CFR 1910. Details related to types of personal protection equipment used at the Facility are outlined in Section 7.4.