

Class 2 RCRA Permit Modification Application

Facility Upgrades to the Stabilization Unit

Prepared for
Exide Technologies
Canon Hollow Recycling Facility

Hazardous Waste Permit Number MOD030712822

October 2015



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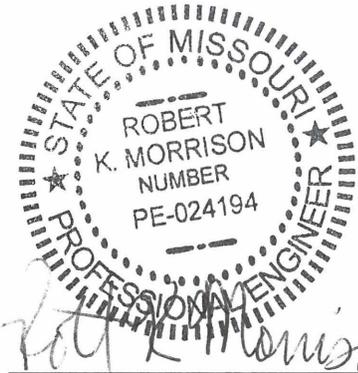
Drawing G-01	Facility Location and Drawing Index
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List of Appendices

Appendix A	Revised Part A Application
Appendix B	Inspection Checklist
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Certifications

I hereby certify that this report except as noted was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Missouri.



Robert K. Morrison
PE #: 24194

October 16, 2015
Date

1.0 Introduction

Exide Technologies owns and operates a secondary lead smelting plant located in Holt County in northwest Missouri. The plant, known as the Canon Hollow Recycling Facility, is located approximately four miles northwest of Forest City, Missouri, just off State Highway 111 (see Drawing G-01). The plant recycles lead-acid storage batteries and other lead-bearing raw material obtained from offsite into new metallic lead pig and block ingots. Some of the raw materials are classified as hazardous wastes and require storage in RCRA permitted units. The recycling process generates a slag residue that is considered a hazardous waste.

All hazardous waste activities at the facility are regulated by the Missouri Department of Natural Resources (MDNR) and the Environmental Protection Agency (EPA). The hazardous waste storage and disposal activities are regulated under Missouri Hazardous Waste Management Facility Permit No. MOD030712822 (the permit) and the recycling activities are regulated under Missouri Hazardous Waste Resource Recovery Certificate RR-0052.

This permit modification application proposes changes to RCRA-regulated units to accommodate the use of larger vehicles to haul slag to the onsite landfill. This Class 2 permit modification proposes the following activities (see Drawing G-02):

1. The relocation, addition, and replacement of some of the processing equipment associated with the RCRA Miscellaneous Subpart X Stabilization Unit, as well as an increase in the processing capacity of the Stabilization Unit.
2. The Stabilization/Staging & Storage Building (RCRA containment building) will be modified to accommodate the new equipment layout. A new silo will extend through the roof of the Stabilization/Staging & Storage Building. The silo will have a sealed roof curb to prevent fugitive emissions and the entry of rainwater. There will also be two penthouses created so that equipment does not protrude through the roof. The penthouses will have the same structural support as the existing roof and will be covered with light gauge metal sheeting.

These proposed Class 2 permit modifications are discussed in detail in Section 2.0, the resulting modifications to the RCRA Part A are described in Section 3.0, and modifications to the inspection forms are discussed in Section 4.0. As stated in Section 5.0, the proposed modifications do not require changes to the existing closure and post-closure plans. Revisions to the opinion of closure cost due to the proposed modification are detailed in Section 6.0, and the associated financial assurance mechanism and liability coverage are discussed in Section 7.0. Documents referenced in this Class 2 permit modification application are listed in Section 8.0.

2.0 Modifications

2.1 Slag Stabilization Equipment

The Stabilization Unit is a RCRA-regulated Miscellaneous Subpart X Unit that is currently permitted to treat 10 short tons per hour of hazardous waste. The Stabilization Unit will be shifted to the east of its current location, parts will be replaced with similar pieces of equipment, and new pieces of equipment will be added (see Drawings G-02, GA1, GA2, and GA3). These modifications will result in an increase in the process capacity to 12.5 short tons per hour.

The current pugmill will be replaced with a 4-yard mixer. The Portland silo #1 and Portland silo #2 will be raised by means of extending the support legs. The following equipment will be relocated and reused:

- slag feed hopper
- crusher feed conveyor
- crusher
- shaker
- slurry feed hopper and screw

The following equipment will be either relocated and reused or replaced with a similar piece of equipment:

- slag return conveyor
- pugmill feed conveyor
- Portland silo #1 discharge screw
- Portland silo #2 discharge screw
- Portland combined feed screw

New equipment includes:

- magnesium oxide silo
- magnesium discharge screw conveyor
- magnesium oxide silo baghouse
- slurry feed screw conveyor
- bucket elevator

- crushed slag storage hopper and weigh hopper
- Portland/magnesium oxide weigh hopper
- mixer
- point source ventilation equipment

These proposed modifications do not substantially change the design specification or management practices in the permit. While modifications to a RCRA-regulated Miscellaneous Subpart X Unit are not specified in 40 CFR 270.42, these are similar to the type of modifications that usually require a Class 2 modification under 40 CFR 270.42.

The following measures will be taken during equipment installation/removal to minimize the escape of fugitive emissions and track-out of materials:

- Equipment exiting the containment area during construction activities will be decontaminated in accordance with the measures prescribed in Special Permit Condition II.C.8.c of the Hazardous Waste Management Facility Permit MOD030712822. This entails physically removing hazardous waste visible on vehicle tires inside the containment building prior to equipment egress. Decontamination of equipment also may be accomplished through the utilization of a temporary decontamination station at the exit of the Stabilization/Staging & Storage Building during installation/removal of equipment. This temporary facility will utilize plastic sheeting, tarps, buckets, scrub brushes, and hoses to clean and contain decontamination wash water from equipment exiting the Stabilization/Staging & Storage Building.

2.2 Building Modifications

The Stabilization/Staging & Storage Building will be modified to accommodate the new, taller slag stabilization equipment. A silo will extend through the roof of the Stabilization/Staging & Storage Building. The silo will have a sealed roof curb to prevent fugitive emissions and the entry of rainwater (see Drawing GA4). During construction activities, a temporary structure will be constructed on the roof in the area where the silo will be protruding. Additional temporary measures will include the usage of plastic sheeting, tarps, and framing materials necessary to minimize the exposure of the contents of the building to the elements.

There will also be two penthouses created with the same structural support as the existing roof and will be covered with light gauge metal sheeting (see Drawings GA1, GA3, S1.1, S2.0, S2.1, A1.0, and A2.0). The first penthouse will allow a vertical conveyor to load a hopper and will have approximate dimensions of 38 feet tall, 12 feet 8 inches wide, and 14 feet 6 inches long. The second penthouse will allow the truck-loading hopper to be elevated. This addition will have approximate dimensions of 30 feet tall, 12 feet 8 inches wide, and 22 feet 11 inches long. Plastic sheeting and tarps will be used as necessary to prevent fugitive emissions.

3.0 Changes to RCRA Part A

Federal and State of Missouri regulations establish permitting and notification conditions for hazardous waste. A revised RCRA Part A permit application is included in Appendix A. Modifications include updating the name of the site contact person, additional processing capacity for the Stabilization Unit, and an increase in the hazardous waste storage capacity of the Stabilization/Staging & Storage Building.

4.0 Inspections

Inspection procedures for the RCRA-regulated containment buildings will continue as prescribed in Part 7.0 of Section A of the *RCRA Permit Renewal Application*, Revised October 2008 (Barr, 2008). Example inspection forms are included in Appendix B.

The increased treatment capacity of the Stabilization Unit for the Stabilization/Staging & Storage Building does not require modification of the existing inspection forms for that unit. The existing inspection forms are included in the modification as a reference only.

5.0 Closure and Post-Closure Conditions

The modifications proposed in this Class 2 permit modification do not require changes to the approved closure plan contained in Section I of the *RCRA Permit Renewal Application*, Revised October 2008 (Barr, 2008).

Any Stabilization Unit equipment that is removed from service will be closed in accordance with the standards specified in Section I of the *RCRA Permit Renewal Application*, Revised October 2008 (Barr, 2008). Unnecessary equipment may be cut into manageable pieces to facilitate closure. Any solid materials adhering to the equipment will be scraped off and returned to the process. The equipment will be rinsed over the wheel wash in the Stabilization/Staging & Storage Building until no signs of contamination are present. The equipment will, at a minimum, be triple rinsed. The equipment will be reused at the facility, recycled as scrap metal, or disposed in an offsite solid waste landfill. A closure report verified by a professional engineer licensed in Missouri will be submitted to MDNR within 180 days of closure initiation.

6.0 Opinion of Closure Cost

A revised opinion of closure cost is provided in Appendix C. This revised opinion of closure cost is based on the cost/units approved by MDNR in correspondence dated December 23, 2014, updated for inflation, and includes the cost associated with decontamination of the additional processing equipment and increased building surface area due to the penthouses.

7.0 Financial Assurance Mechanism and Liability Coverage for Closure

A copy of the financial assurance mechanism for RCRA-regulated areas is contained in Appendix D. The option chosen for establishing both financial assurance and liability coverage is a financial guarantee bond. The financial guarantee bond will be updated to include the Appendix C opinion of cost within 60 days of MDNR approval of this modification to the closure plan.

8.0 References

Barr, 2013. *RCRA Permit Modification Application*, February 2013, Revised July 2013, Revised September 2013. Barr Engineering Co., September 2013.

Barr, 2008. *RCRA Permit Renewal Application*, Revised October 2008. Barr Engineering Co., October 2008.

Drawings