

DUST CONTROL PLAN
for
Response Actions
at
Class 2 Non-Hazardous Waste Landfill
Exide Technologies, Inc.
Frisco, Texas

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1. Descriptive Literature on Dust Boss Misting Equipment
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1.0 INTRODUCTION

The purpose of the dust control and air monitoring plans are to identify the measures that will be taken to minimize and monitor emissions associated with remediation activities at Exide Technologies' Class 2 Landfill (Site). Specifically, this Dust Control Plan outlines the requirements and methods for minimizing dust generation during planned slag excavation and treatment activities. This plan works in conjunction with the Air Monitoring Plan which describes the air monitoring activities that will be performed during the work.

The purpose of this plan is to identify the steps that will be taken to reduce particulate emissions during implementation of the *Response Action Work Plan*, and includes site specific air monitoring criteria and dust suppression procedures. Best management practices (BMPs) will be implemented throughout the project. BMPs will include wetting active remediation areas, minimizing or ceasing activity during periods of high wind (greater than 20 miles per hour), sweeping or wetting paved areas, wetting unpaved areas, application of dust suppressant materials as well as covering stockpiles. The *Dust Control Plan* provides specific information about the generation and control of dust emissions during excavation, milling, stockpiling, stabilization, back filling and associated activities during the implementation of the *Response Action Work Plan*. This plan is to be used in conjunction with the *Site Safety and Health Plan*, the *Perimeter Air Monitoring Plan*, and the *Waste Stabilization Plan* developed for the remedial activities. The following sections detail potential dust sources and dust control means and methods.

1.1 Project Overview

The overall project consists of the retreatment of approximately 4,000 cubic yards of slag that does not meet the universal treatment standard. As described in the *Response Action Work Plan*, the objective of the proposed response action is to remove discrete areas of waste containing concentrations of lead and/or cadmium that exceed the Universal Treatment Standard (UTS), re-treat the excavated material until laboratory analysis indicates regulatory compliance (below the UTS), redeposit it in the cells, and collect confirmation samples of the in-place treated slag to ensure that excavation has removed all wastes that exceed the UTS and no land ban or hazardous wastes remain in the cells. Excavated material will be re-treated in containers within the boundaries of the active landfill. Dust control is a high priority during the project.

1.2 Wind Monitoring and Dust Prevention Team

These Contractor points of contact have the authority to implement additional dust control provisions and stop work provisions based on the air monitoring program described herein. These team members are also responsible for maintenance and revisions of the plan.

Employee Name	Employee Title	Designated Air Monitoring Program Responsibility
Rusty Wood or Doug Cox	Project Manager, RSI	Onsite project manager responsible to insure Dust Control and Air Monitoring Plans are followed by all project team members.
John Gillman II	Air Monitoring Technician, RSI	Responsible for wind speed and direction monitoring and data recordation; and setup, calibration, maintenance, monitoring, and data recordation for the E-BAM portable particulate monitors. Also responsible for collecting air samples as described in the Perimeter Air Monitoring Plan.
John Gillman	Principal in Charge, RSI	Senior management authority; provide corporate support to ensure availability of necessary resources to maintain compliance with this plan.
Dan Roth	Director of Corporate Health and Safety, RSI	Qualified Individual; review and modify the plan to keep it current; ensure record keeping; ensure air monitoring program action level and stop work level requirements are implemented.

2.0 DUST CONTROL

Dust control is a high priority during remediation activities. During all materials handling activities, one or more large area misters (e.g., Dust Boss DB 60 with oscillation or equivalent equipment) will be utilized as an airborne dust wet suppression system to ensure full, overlapping coverage of active work areas, mitigating fugitive emissions. The airborne dust wet suppression system resembles a snow making machine and can cover a large area (approximately ½-acre per machine) with a fine mist of water, effectively controlling dust. Descriptive literature on the Dust Boss DB 60 is included in Attachment 1. In addition, water trucks with a spray bar and spray hose(s) will be used to wet work areas prior to beginning work and as a supplemental dust control mechanism during the activities. Only potable water will be used for dust control purposes.

Proactive controls will be instituted to reduce the amount of dust generation during site activities, including enforcement of low speed limits for vehicular traffic and the application of water to access/haul roads.

If enhanced dust suppression is required by ambient conditions, emulsifiers or surfactants may be added to improve the “wettability” of water sprays, and paper mulch mixed with a tackifier may be used on slag stockpiles. Section 3.0 describes the additional dust control measures to be used. Information on the surfactants and paper mulch materials is provided in Attachment 2.

If the sustained wind speed (the wind speed obtained by averaging the measured values over a one minute period) exceeds 20 miles per hour, it is a “high wind condition.” When there is a high wind condition, all waste-disturbing activities must cease until the sustained wind speed declines to 20 miles per hour or lower for at least 15 consecutive minutes. Non-dust producing activities (equipment maintenance, etc.) may still be conducted during these periods.

2.1 Training of Personnel

RSI will implement a dust control training program for all Site personnel. This training program will review the potential sources of dust, individual responsibilities, and actions for controlling dust as described in this plan. The training will emphasize the importance of dust control to the overall success of the remediation activities and familiarize Site personnel with the air monitoring requirements and appropriate dust control procedures that must be adhered to in accordance with this plan.

2.2 Inspection and Maintenance

Dust suppression equipment will be inspected at least once a week and properly maintained. RSI will maintain records of the weekly inspections.

3.0 POTENTIAL DUST GENERATION ACTIVITIES AND PROPOSED CONTROLS

Site remediation activities will have the potential to generate emissions in the form of fugitive dust. Dust control methods will vary based on the activities occurring at the site. Dust control methods are summarized by source below. Table 3-1 describes the activities to be conducted during the remedial activities which have the potential to generate dust and the respective dust control measures.

Table 3-1 Potential Dust Generation Activities and Proposed Control	
Activity	Proposed Controls
General Dust Suppression – All Activities	Use of airborne dust wet suppression system during operating hours for all material handling activities and otherwise as needed. Water spray/mist to wet work areas prior to beginning work and as a supplemental system. Adjust the excavation rate. Suspend work under high wind conditions until sustained wind speed is below 20 mph for at least 15 consecutive minutes.
Truck Traffic	Wetting unpaved and paved haul roads prior to the start of activities each morning and during working hours.
Excavation	Use of airborne dust wet suppression system. Water spray/mist to wet work areas prior to beginning work and as a supplemental system. Adjust the excavation rate. Suspend work under high wind conditions.
Slag Milling	Use of airborne dust wet suppression system. Installation and use of water spray/mist equipment on the milling equipment. Water spray/mist the milling and excavation areas prior to beginning work and as a supplemental system.
Stabilization Reagent Unloading	Use of super sacks eliminates dust issue.
Stabilization Reagent Placement	Use of super sacks with bottom opening minimizes risk of dust issues. Use of airborne dust wet suppression system for additional protection.
Slag Stabilization	Use of airborne dust wet suppression system.
Stabilized Slag Stockpiling	Use of airborne dust wet suppression system. Water spray/mist work area prior to beginning work and as a supplemental system.. Cover stockpiles at the end of each day and when not in active use.
Stabilized Slag Loading, Hauling and Placement	Use of airborne dust wet suppression system. Water spray/mist work area prior to beginning work and as a supplemental system.
Stabilized Waste Placement	Use of airborne dust wet suppression system. Water spray/mist the work area prior to and as a supplemental system.

3.1 Dust Suppression Measures

3.1.1 Particulate Take Action Levels

If the thirty-minute (30-minute) average PM₁₀ concentration from the downwind monitors exceeds the applicable Take Action Level set forth in Table 1 of the *Perimeter Air Monitoring Plan*, RSI will immediately implement increased dust suppression activities. These increased dust suppression adjustment activities may include, but are not limited to the following:

- Increased wetting/misting of work area
- Adding surfactant to the water used for dust control
- Applying temporary cover (paper mulch with tackifier) to areas not being actively worked
- Adjusting the rate/speed and/or quantity of equipment in the work area
- Covering active stockpiles with plastic sheeting during high wind

3.1.2 Particulate Stop Work Levels

If the one-hour (60-minute) average or thirty-minute (30-minute) average PM₁₀ concentration from the downwind monitors exceeds the applicable Stop Work Level set forth in Table 1 of the *Perimeter Air Monitoring Plan*, RSI will immediately stop all waste-disturbing work. During the work stoppage period (minimum 15 minutes), RSI must make dust suppression adjustments to reduce airborne particulate matter concentrations below the Take Action Level concentration for particulate. The dust suppression adjustment activities may include, but are not limited to the following:

- Increased wetting/misting of work area
- Adding surfactant to the water used for dust control
- Applying temporary cover (paper mulch with tackifier) to areas not being actively worked
- Adjusting the rate/speed and/or quantity of equipment in the work area
- Covering active stockpiles with plastic sheeting or tarps during high wind
- Stopping specific dust-generating activities until wind directions and/or wind speeds are more conducive to reduced dust levels
- Mobilize additional dust suppression equipment and initiate its use

3.1.3 Visible Dust

If visible dust is present in the active work zone, increased wetting of the area using water trucks and spray misters will be implemented. If visible dust is observed leaving the active work zone, work will stop until additional dust control measures are implemented. These additional dust control measures may include:

- Increased wetting/misting of work area
- Adding surfactant to the water used for dust control
- Adjusting the rate/speed and/or quantity of equipment in the work area.

3.2 On-Site Transportation

All employee vehicles will enter the Site from the east or north construction entrances and employees will park in the designated parking area on the east side of the facility. No private vehicles will be allowed into the Site.

Vehicle travel on unpaved access roads will be limited to 10 miles per hour. Project personnel are required to obey posted speed limits to prevent wind turbulence and associated dust generated at higher vehicle and equipment velocities. Off road travel on unimproved roads will be limited to construction equipment, support vehicles and material delivery trucks.

Unpaved and paved roads will be wetted using a water truck prior to the start of activities each morning and during working hours, as appropriate to minimize dust formation without creating runoff or tracking issues.

3.3 Slag Milling

A milling machine mounted on an excavator will be used to remove approximately 450 cubic yards of slag greater than two feet below the existing surface. Proactive controls for dust mitigation during milling and excavation activities include operation of the onboard dust control system, operation of the airborne dust suppression system, as well as directly applying water spray to the milling and excavation areas prior to work beginning and as a supplemental system. Information on the milling equipment is included in the *Waste Stabilization Plan*.

3.4 Stabilization Reagent Unloading

The stabilization reagent that will be utilized in the remediation activities, Free Flow 100®, will be delivered to the Site in 2,000-pound bulk bags. The use of the super sacks will eliminate dust issues associated with the unloading process.

3.5 Stabilization Reagent Spreading

The bulk bags are equipped with lifting straps and a bottom opening discharge chute. The bags will be lifted with a front end loader and transported to the container requiring stabilization. The bag will be lowered so that the discharge chute is just above the material to be treated. The chute will then be opened and the reagent applied to the containerized material. The dust generated during this activity is expected to be minimal and will be controlled by the airborne dust wet suppression system.

3.6 Slag Treatment

The treatment reagent will be mixed with the slag in containers utilizing a hydraulic excavator. The airborne dust wet suppression system will be operated during mixing.

3.7 Retreated Slag Stockpiling

Some of the material to be stockpiled in accordance with the *Waste Stabilization Plan* will require loading into an off-road haul truck for transport to the stockpile area. Controls for dust mitigation during loading and stockpiling include operation of the airborne dust wet suppression system and a water spray/mist from a water truck prior to work beginning and as a supplemental system. During the remediation activities (i.e. prior to acceptable results from confirmation sampling following re-treatment), the height of stockpiles will be kept to a minimum (≤ 8 feet), and the stockpiles will have a maximum volume of 50 cubic yards each and a maximum lateral extent of 25 feet by 25 feet. Following remediation activities, confirmed Class 2 material will be consolidated in no higher than 8 foot stockpiles until placed back in the landfill. Each stockpile will be covered with poly sheeting and weighted down by sandbags at the end of each day and when the stockpile is not in active use. For materials stored in containers, each container will be equipped with a tarp to cover the material pending analysis or backfilling into the landfill after treatment.

3.8 Retreated Slag Loading, Hauling and Placement

Controls for dust mitigation during slag loading, hauling and placement of the retreated slag will include operation of the airborne dust wet suppression system. In addition, a water mist/spray hose from a water truck will be used to wet material that is not already moist prior to work beginning and as a supplemental system during loading, hauling and placement to control dust.

4.0 POINTS OF CONTACT

Concerns regarding activities conducted at the Exide Technologies Frisco Recycling Center should be addressed to the following points of contact:

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