

Wind Monitoring and Dust Suppression Plan

Former ASARCO/Encycle Facility

5500 Up River Road, Corpus Christi,
TX

Asbestos Abatement, Waste Removal,
and Demolition

March 1, 2011



**Wind Monitoring and Dust
Suppression Plan**

Former ASARCO/Encycle
Facility

Asbestos Abatement,
Hazardous Waste Removal,
and Demolition



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Prepared for:
ASARCO – Encycle Facility Asbestos Abatement, Waste
Removal, and Demolition Project
Corpus Christi, Texas



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Contents

1.0 Objective 1

2.0 Background 1

3.0 Potential Sources of Fugitive Dust 1

4.0 Fugitive Dust Control Methods 1

5.0 Monitoring and Records 3

Attachments

Attachment A – Air Monitoring Program

1.0 Objective

This Plan identifies the steps that will be taken to reduce particulate matter emissions (dust) during demolition of existing structures and site infrastructure and includes site specific dust suppression and monitoring requirements. Best management practices (BMPs) are required to be implemented throughout the project. These may include wetting active demolition areas, minimizing or ceasing activity during periods of high wind, sweeping paved areas, covering trucks, etc.

2.0 Background

The Encycle Facility is located at 5500 Up River Road in Corpus Christi, Texas (Site [Figure 1]). The facility was formerly a large hydrometallurgical complex, originally operated by the American Smelting and Refining Company (ASARCO). ASARCO operated the facility as a zinc smelter from 1942 through 1985. Encycle Texas Inc (Encycle) subsequently operated the facility as a metals recycling facility until operations ceased in 2003.

The project requires asbestos abatement, waste removal, and demolition of numerous buildings and associated aboveground piping and ancillary equipment. The Site is comprised of 52 above grade buildings, a 315-foot smoke stack, a water tower, approximately 11 metal silos, cooling towers, numerous aboveground storage tanks, and additional ancillary piping, conduit and equipment. The project will disturb approximately 12 acres including demolition/abatement areas, equipment staging areas, and material storage areas

3.0 Potential Sources of Fugitive Dust

Planned site activities have the potential to generate emissions in the form of fugitive dust during demolition activities. Possible emissions sources include:

- Demolition Activities – Shearing, moving or dismantling of any load supporting structural member, or portion of a building and any related cutting, disjoints, stripping or removal of structural elements is capable of producing fugitive dust.
- Traffic – Movement of equipment and vehicular traffic on paved or unpaved roads and parking lots around the demolition area is capable of creating fugitive dust.
- Material Stockpiles – Stockpiles of demolition materials may create windborne dust emissions.
- Cleanup and Grading – Grading and revegetating of disturbed areas may produce fugitive dust.

4.0 Fugitive Dust Control Methods

Dust control methods will vary based on the activities occurring at the site. Dust control methods are summarized by source below

Demolition Activities - Dust control measures will include water spraying/misting to control dust during demolition activities. In addition no wrecking balls or explosives are permitted to demolish any portion of the buildings, smokestack, or structures to be demolished.

A 10-foot tall heavy duty polyethylene mesh tarp will be installed on the southern side of building or structure undergoing active asbestos abatement, hazardous waste removal, and building demolition activities. The purpose of the tarp is to capture low to mid-level dust generated from equipment, vehicular traffic, and demolition activities.

If the wind direction has a northerly component and if sustained wind speed (averaged over 1-minute) exceeds 15 miles per hour, all building and structure demolition work will cease until sustained wind speed declines to 15 miles per hour or lower.

Bulk load out of loose salvage or waste material will be monitored for fugitive dust emissions. Load out activities may require the material to be pre-wetted or sprayed as loaded to inhibit fugitive dust emissions.

Traffic – Material Track Out - Track-out of loose materials will be controlled using stabilized construction entrances (gravel pads) installed at the primary project access point from Up River Road to prevent tracking of sediment and mud on to public roadways. The gravel pads will be installed according to the specifications provided in the Erosion and Sediment Control provisions of the Storm Water Pollution Prevention Plan (SWP3) for the site. Any visible track-out on a paved public road at any location where vehicles exit the work site must be removed. Removal must be done using brooms, wet sweeping, a vacuum device or a combination of these BMPS as needed.

Traffic – Dust Emissions From Equipment and Vehicular Traffic on Driving Surfaces - All project vehicles will enter the construction site through gravel pads that will be located at the primary construction entrance roadway. Traffic will follow marked traffic routes to and from the designated work area(s). No off-road travel is permitted unless approved by project management. Project personnel are to obey posted speed limits to prevent wind turbulence and associated dust generated at higher vehicle and equipment velocities.

Traffic – Off-Site Transport - All vehicles that are used to transport solid bulk material and that have the potential to cause visible emissions from the load will either be equipped or provided with a tarp cover. Prior to exiting the site, vehicles will be checked to ensure that they are tarped and to remove any excess material on exterior surfaces of the cargo compartment. All off-site haul trucks will access the sites via paved access roads and established gravel pads. Site personnel will be stationed at the primary project access point to monitor inflow/outflow to and from the site as necessary and will be responsible for inspecting all vehicles entering and exiting the site.

Material Stockpiles - Fugitive dust emissions from soil storage piles will be controlled by using a temporary cover, water, and/or wind breaks.

Visible Dust Crossing the Property Boundary - In the event visual dust from demolition activities is observed crossing the property boundary; the following procedures will be followed to ensure adequate mitigation measures are in place to address the dust:

1. The specific source of the emissions will be immediately shut down and a more aggressive application of the existing mitigation measures will be directed.
2. Once the mitigation measures have been applied, the source of emissions will resume and observations will be conducted to verify that the mitigation measures were successful.

Windblown Visible Dust During Inactive Periods - The standards in this section apply on weekends and holidays or any other times when no equipment and personnel are performing work activities on site. In the event of observations on windblown visible dust plumes from soils originating on the project site, mitigation measures will be directed within less than 1 hour of making the observation. Mitigation measures will be implemented until the visible dust plumes originating from the project site are minimized or eliminated. Any observations of visible dust originating from the project site during inactive periods will be reported to the on-site Construction Manager.

5.0 Monitoring and Records

Wind and dust monitoring protocols are summarized below. A detailed synopsis of each monitoring protocol and the associated sampling procedures are included in the *Air Monitoring Program* developed by Arcadis and included as Attachment A herein.

- Wind direction and wind speed will be recorded prior to the start of work each day and on intervals not to exceed 4 hours during active asbestos abatement, hazardous waste removal, and building and structure demolition. Monitoring locations will initially be established based on prevailing winds but will be checked daily and adjusted if necessary to maintain the upwind and downwind locations. Monitoring will be conducted at the project boundary both up and downwind of the work zone.
- During demolition activities, real time particulate air monitoring will be conducted at the site perimeter. Wind Roses for Corpus Christi, Texas (1984-1992) show prevailing wind on the site is from the southeast towards the northwest. Monitoring locations will initially be established based on these prevailing winds but will be checked daily and adjusted if necessary to maintain the upwind and downwind locations.

Monitoring will be conducted at the project boundary both up and downwind of the work zone. Real-time particulate dust monitors (DataRAM PDM-1000 or equivalent) will be placed in three locations at the site, one upwind and two downwind. Real-time particulate air monitoring will be conducted at least four times daily at approximate 2-hour intervals during each day of asbestos abatement, hazardous waste removal, and building demolition activities. If particulate concentrations downwind of the demolition area are higher than the observed range of upwind

concentrations then additional dust abatement activities or controls will be implemented to reduce the concentrations within the range of upwind readings.

- Air samples will be collected from the perimeter of the facility for laboratory analysis of metals during building demolition activities. Air samples will be collected by the Owner’s representative near the property boundary upwind and downwind of the facility prior to the initiation of demolition activities and at least twice monthly during active demolition.

Records of monitoring activities and sampling results will be maintained at the on-site project office trailer. The table presented below summarizes information concerning the wind and dust monitoring team at this facility. These team members are responsible for maintenance and revisions of the plan.

Wind Monitoring and Dust Prevention Team

Employee Name	Employee Title	Designated SWP3 Responsibility
Mike Bazan	Project Safety Officer	Senior management authority; provide corporate support to ensure availability of necessary resources to maintain compliance with the this plan
Craig Illuasky	Project Manager	Qualified Individual; review and modify the plan to keep it current; ensure record keeping.
Brady Armes or designated representative	Project QA/QC Officer	Overall plan implementation on a daily basis; conduct periodic site inspections; collect samples; monitor site conditions; conduct visual examinations of air quality.