APPENDIX C –DUST MINIMIZATION PLAN

Mt. Diablo Resource Recovery Park

Dust Minimization Plan

Dust Generation and Control Considerations

The generation and control of dust emissions at the Mt. Diablo Resource Recovery Park (MDRRP) are given serious consideration due to their potential impacts on the health and safety of employees, site visitors, and the local community at large. In the absence of mitigation, construction and operational activities may result in significant quantities of dust, and as a result, local visibility and PM_{10} concentrations may be adversely affected by site operations, and on a more temporary and intermittent basis during construction.

Environmental conditions at the site must be considered in the control of dust and its potential impacts. High winds (greater than 10 miles per hour) occur regularly at the site, according to historical data from the adjacent POSCO/US Steel facility records (see attached wind rose).

Current Dust Control Practices

The current dust control at the Mt. Diablo Resource Recovery Park (MDRRP) is the deployment of 2 dedicated street sweepers and a water truck to minimize dust generation. All loads must be tarped and the speed limits is 15 miles per hour to limit dust generation.

Construction Activities

Construction-related dust emissions would be short-term, but may still cause adverse effects on air quality. Construction activities included site preparation, earthmoving, and general construction. Site preparation includes activities such as general land clearing and grubbing. Earthmoving activities include cut-and-fill operations, soil compaction, and grading. General construction includes adding improvements such as roadway surfaces, structures, and facilities. Dust generation from such activities may be released during the construction of specific aspects of the MDRRP project.

Mitigation Measures

MDRRP shall ensure that contractors implement a fugitive dust control program. This program shall include, but not limited to the following:

- Water or a stabilizing agent shall be applied to exposed surfaces in sufficient quantity to prevent generation of dust plumes.
- Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday.

- All haul trucks hauling soil, sand, and other loose materials shall maintain at least six inches of freeboard in accordance with California Vehicle Code Section 23114.
- All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
- Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
- Operations on unpaved surfaces shall be suspended when winds exceed 25 miles per hour.
- On-site stock piles shall be covered or watered at least twice per day, except when precipitation events or ambient weather conditions provide sufficient moisture to mitigate wind erosion.

Operational Activities

Operations with the potential for dust generation are undertaken daily at the MDRRP, both indoors and outdoors at the facility. The indoor and outdoor activities are discussed below separately, with mitigation measures provided accordingly for each area of operations.

Indoor Operations:

Dust generating activities occur both within the Recycling Center and Transfer Processing Facility buildings at the MDRRP.

The Recycling Center is largely enclosed, with truck access occurring from within the enclosed portion of the building, and has limited influence from outdoor weather conditions. At the Recycling Center the potential for dust generation lies largely in the unloading and materials handling of the mixed recyclables – materials including paper, plastic, metal, and glass, which characteristically generate minimal dust – which are processed within the building.

The Transfer Processing Facility building is enclosed, although truck access through the western and northern sides allow for the ingress and egress of collection, self-haul, and transfer trailer vehicles which use the facility. Exposure to outdoor weather is limited through the use of roll-up doors which can be closed to minimize wind impacts – and dust generation – within the building. Transfer Station activities include loading, unloading, processing, handling, and limited recovery of a wide variety of solid waste and recyclable resources, including municipal solid waste (MSW), yard waste, food waste, wood, metals, cardboard, bulky household goods and appliances, and tires. The operators maintain a load checking program intended to remove hazardous materials from the residential and commercial waste streams they receive.

Mitigation Measures

- All access roads and tipping areas to be paved in asphalt concrete or concrete.

- A misting system is installed in the tipping and MSW transfer areas of the Transfer Station building to control dust and minimize odors.
- A misting system is to be located over the proposed food waste processing area to minimize odors and control dust.

Outdoor Operations:

Dust generating activities occur throughout – and in multiple outdoor operational areas at the MDRRP. In addition to onsite traffic, the facility includes a construction and demolition debris (C&D) processing area, organic materials processing area, and a biomass energy production facility. Traffic at the facility is controlled and confined to roadways, operations areas, and parking areas which are paved in concrete or asphalt concrete and constitute the majority of the site. The C&D processing area consists of a concrete operations pad and asphalt access roads. The organics processing occurs on compacted gravel and the biomass energy production facility will be constructed on a concrete pad, but will be surrounded by a compacted gravel storage area.

At the C&D processing area, the potential for dust generation lies largely in the unloading and materials handling of the C&D debris – materials including wood, metals, cardboard, carpet, plastic, concrete, and other inert materials, which characteristically generate moderate to substantial dust – which are loaded with heavy equipment and processed on a mechanized sorting platform, by both manual and technological means.

At the organic materials processing area, the potential for dust generation lies largely in the unloading and materials handling of the organic materials – consisting of wood and yard waste, which characteristically generate minimal to moderate dust – which are loaded with heavy equipment and processed with screening and/or grinding equipment. While the yard waste generally possesses high moisture content and little dust generation potential, wood waste processing is often a significant source of dust.

The biomass energy plant operations area will present dust generation potential both in the storage and loading of wood chips into the system, as well as the management of the residual ash (or biochar). The majority of wood chips will be transferred from the adjacent organic materials processing area, with up to a seven-day supply of fuel stockpiled. Residual ash/biochar will be stockpiled or containerized for up to 15 days and transferred offsite.

Mitigation Measures

Traffic and General Site Operations:
Incoming and outgoing traffic generate dust. The following mitigation measures are in place as part of the facility operations Dust Minimization Plan:

- All access roads and tipping areas to be paved in asphalt concrete or concrete.

- All haul trucks hauling loose materials shall maintain at least six inches of freeboard in accordance with California Vehicle Code Section 23114.
- All haul trucks hauling loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
- Traffic speeds on paved or unpaved roads shall be limited to 15 miles per hour.
- The facility will employ the frequent use of a regenerative street sweeper to remove fugitive dust sources from paved operational areas.
- The facility will employ the frequent use of water trucks for dust control in traffic areas.
- Site supervisors and employees monitor wind levels, inspecting for dust migration, and take appropriate action to mitigate dust generation whether it involves the application of water or potential suspension of specific activities.
- Driver orientation and training program - coupled with an awareness and enforcement program for facility users – will be employed by the facility management in the implementation of the Dust Minimization Plan.
- Employee training will also include information that one or more of the following may indicate that dust levels are excessive:
    - safety hazards due to obscured visibility; or
    - irritation of the eyes; or
    - hampered breathing;
    - migration of dust from off-site sources.

C&D Processing, Organics Material Processing, and Biomass Energy Plant Areas:

- Grinding equipment is equipped with water spray nozzles to reduce dust generation when in operation.
- Watering of C&D, wood, or yard waste is done to control dust as the material is being unloaded onto the tipping area or prior to loading onto infeed conveyor to sorting platform, or screening and grinding equipment. The watering may be done using water trucks or handheld hoses. Employees may water the materials as it is unloaded from delivery vehicles and/or loaded into transfer trailers. The materials are not sprayed so much as to generate runoff.
- Transfer and processing operations for C&D or organic materials may be suspended during periods of high winds where conventional methods (described herein) are unsuccessful and preventing dust migration.
- MDRRP will not exceed on-site storage time limits for any materials beyond those specified in state and local air quality and solid waste regulations. These storage limitations are designed to address, in part, odor and dust nuisances.

- Regular watering of the debris stockpiles will be conducted to control dust. The material will absorb much of the water, and will not be watered to a level that will produce run-off.
- Regular watering of the compacted gravel operations areas in the Organics Processing and Biomass Energy operations areas must be monitored carefully.
- MDRRP will comply with the requirements of the Bay Area Air Quality Management District.
- MDRRP will investigate and respond to all concerns regarding dust or other concerns.