

ATTACHMENT 4

Boeing letter regarding Fugitive Dust

The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

CERTIFIED MAIL
In reply refer to SHEA-108980

August 17, 2009

Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Su Han

Subject: Fugitive Dust Control Measures
Interim Source Removal Action (ISRA)
California Water Code Section 13304 Order
(NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, Site ID No.
2040109)

Dear Ms. Han,

This letter is in response to your request on August 11, 2009 regarding dust control measures that will be implemented during the Interim Source Removal Action (ISRA) field work. The ISRA Soil Management Plan and the ISRA Health and Safety Plan both state that dust control measures will comply with Ventura County Air Pollution Control District (VCAPCD) Rule 55 "Fugitive Dust". A copy of VCAPCD Rule 55 is attached for your reference.

Rule 55 applies to any operation, disturbed surface area, or man-made condition that is capable of generating fugitive dust, including bulk material handling, earth-moving, construction, demolition, storage piles, unpaved roads, track-out, or off-field agricultural operations.

During the ISRA project, we are doing the following to control dust to comply with Rule 55.

General Requirements

1. Visible dust beyond the property line will be controlled by using water spray/mist to control fugitive dust emissions. This is a very effective method for control visible dust during the job and within the property boundaries. It should be noted that this is a standard practice for the industry and that most of the areas undergoing soil removal activities for the ISRA Program are well within Boeing or NASA property boundaries and are not immediately adjacent to other property owners.
2. Opacity will be controlled to less than 20 percent by using water spray/mists during bulk material handling, earth-moving, construction and demolition activities, and vehicle movement on unpaved roads. Contractors use buffalo water trucks to spray water that will suppress dust prior to the



mentioned activities. Storage piles that will be generated will be covered and anchored with "visqueen" plastic to prevent fugitive dust from occurring. In addition Boeing will contract with an observer certified by the California Air Resources Board or the U.S. EPA to periodically perform compliance audits to ensure this process is adequate.

3. Track-out from trucks onto public roads will be prevented by having outbound trucks that will be exporting bulk material remain on paved roads within Boeing. No soil build-up is generated on the tires of outbound truck. As a result, soil track out is prevented.

Specific Activity Requirement

1. During earth-moving activities visible dust will be minimized by using water spray/mist to control fugitive dust emissions.
2. For bulk material handling facility track-out prevention, Boeing will ensure that trucks that are exporting bulk materials on to public roads do not travel on unpaved roads while on the Boeing site. This will prevent soil from build-up on tires occurring. As a result, track-out from trucks will not occur.
3. During truck hauling, when bulk material (soil) is loaded onto outbound trucks, properly secured tarps to cover the entire surface area of the load, container-type enclosures, or other effective dust prevention control measures will be used.
4. If high winds conditions occur, defined in Rule 55 as on-site wind speeds exceeding 25 miles per hour for at least 5 minutes in an hour, operations will cease.

Should you have any questions, please do not hesitate to contact Ms. Lori Blair at (818) 466-8741.

Sincerely,



Thomas D. Gallacher
Director, Santa Susana Field Laboratory
Environment, Health and Safety

Attachment: VCAPCD Rule 55

Cc: Michael Villegas, VCAPCD
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VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 55 – FUGITIVE DUST

(Adopted 6/10/08)

A. Applicability

The provisions of this rule shall apply to any operation, disturbed surface area, or man-made condition capable of generating fugitive dust, including bulk material handling, earth-moving, construction, demolition, storage piles, unpaved roads, track-out, or off-field agricultural operations.

B. General Requirements – All Fugitive Dust Sources

1. **Visible Dust Beyond the Property Line:** No person shall cause or allow the emissions of fugitive dust from any applicable source such that the dust remains visible beyond the midpoint (width) of a public street or road adjacent to the property line of the emission source or beyond 50 feet from the property line if there is not an adjacent public street or road.
2. **Opacity:** No person shall cause or allow the emissions of fugitive dust from any applicable source such that the dust causes 20 percent opacity or greater during each observation and the total duration of such observations (not necessarily consecutive) is a cumulative 3 minutes or more in any one (1) hour. Only opacity readings from a single source shall be included in the cumulative total used to determine compliance.
3. **Track-Out**
 - a. No person shall allow track-out to extend 25 feet or more in length unless at least one of the following three control measures is utilized:
 - i. **Track-Out Area Improvement:** Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with public paved surface, and extend for a centerline distance of at least 100 feet with an acceptable width to accommodate traffic ingress and egress from the site.
 - ii. **Track-Out Prevention:** Check and clean the undercarriage and wheels on all vehicles before leaving unpaved surface or install a properly functioning and well-maintained track-out control device(s) that prevents track-out of soil onto paved public roads.
 - iii. **Track-Out Removal:** Remove track-out from pavement as soon as possible but no later than one hour after it has been deposited on the paved road. If a street sweeper is used to remove any track-out, only

PM10-efficient street sweepers certified to meet South Coast AQMD Rule 1186 requirements shall be used. The make and model information and certification documentation of any sweeper used shall be made available upon request.

- b. Notwithstanding the preceding, all track-out shall be removed at the conclusion of each workday or evening shift subject to the same condition regarding PM-10 efficient street sweepers as outlined in Subsection B.3.a.iii. The use of blowers for removal of track-out is expressly prohibited under any circumstances.

C. Specific Activity Requirements

1. Earth-Moving: No person shall engage in earth-moving activities in a manner that creates visible dust emissions over 100 feet in length.
2. Bulk Material Handling Facilities Track-Out Prevention: No person shall conduct an active operation with a monthly import or export of 2,150 cubic yards or more of bulk material without utilizing at least one of the following measures at each vehicle egress from the site to a public paved road:
 - a. Install a pad consisting of washed gravel (minimum size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.
 - b. Pave the surface at least 100 feet long and at least 20 feet wide.
 - c. Utilize a wheel shaker/wheel spreading device, also known as a rumble grate, consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and sufficient width to allow all wheels of vehicle traffic to travel over grate to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - d. Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - e. Any other control measure or device that prevents track-out onto public paved roads.
3. Truck Hauling: No person (including facility or site operator) shall load or allow the loading of bulk materials or soil onto outbound trucks unless at least one of the following dust prevention techniques is utilized:

- a. Use properly secured tarps or cargo covering that covers the entire surface area of the load or use a container-type enclosure.
- b. Maintain a minimum of 6 inches of freeboard below the rim of the truck bed where the load touches the sides of the cargo area and insure that the peak of the load does not extend above any part of the upper edge of the cargo area.
- c. Water or otherwise treat the bulk material to minimize loss of material to wind or spillage.
- d. Other effective dust prevention control measures.

D. Exemptions

1. This rule shall not apply to:
 - a. On-field agricultural operations.
 - b. Off-field agricultural operations necessary to minimize adverse effects on agricultural or horticultural commodities caused during officially declared disasters or states of emergency.
 - c. Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.
 - d. Active operations conducted by essential service utilities to provide electricity, natural gas, telecommunication, water or sewer during periods of service outages or emergency disruptions.
 - e. Weed abatement operations provided that:
 - i. Mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil, or
 - ii. Any disking or similar operation where effective dust emission prevention control measures are used.
 - f. Abrasive blasting operations meeting the requirements of Rule 74.1.
 - g. Unpaved service roads having traffic volume of 20 vehicle trips or fewer per day used by one or more public agencies for inspection of infrastructure and not used for construction or maintenance-related activity.

- h. Motion picture, television, or video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the APCO must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.
 - i. Temporary earth coverings of public paved roadways where such coverings are approved by a local government agency for protection of the roadway, and where such roadway is closed to through traffic and visible roadway dust is removed within one day following cessation of activities.
 - j. Any paved road unless it has track-out or any publicly-owned unpaved road.
 - k. Demolition operations using blasting explosives, which have been permitted by the California Division of Industrial Safety.
 - l. The disturbance (i.e., disking, ripping, or scraping) of spreading ground lands in preparation for percolative groundwater recharge. Spreading ground lands are ponds, a system of ponds, or basins into which surface water is introduced for the purpose of allowing or enhancing the infiltration of water into underlying aquifers.
2. Frequently Traveled Private Unpaved Road Conditional Exemption: The requirements in Subsections B.1 (Visible Dust Beyond the Property Line) and B.2 (Opacity) shall not apply to fugitive dust from frequently traveled (more than 20 vehicles per day passing in either direction) unpaved private roads if the operator has covered them with a low silt content material such as recycled road base or gravel to a minimum of four inches; or has implemented all of the following control measures:
- a. Control Speed: Control speed to 15 miles per hour or less on unpaved roads through worker notification, signage, and any other necessary means.
 - b. Restrict Access: Restrict access to private unpaved roads currently used by the public either through signage or physical access restrictions.
 - c. Road Treatments: Treat unpaved and uncovered frequently traveled roads with water, mulch, or a non-toxic chemical dust suppressant that complies with all applicable air and water quality government standards. If treated, roads shall be treated in a manner that will avoid the sticking of mud to tires that will be carried onto paved public roads.
3. Lightly Traveled Unpaved Private Road Conditional Exemption: The requirements in Subsections B.1 (Visible Dust Beyond the Property Line) and B.2 (Opacity) shall not

apply to fugitive dust from lightly traveled unpaved private roads if the operator has implemented both of the following control measures:

- a. **Control Speed:** Control speed to 15 miles per hour or less on unpaved roads through worker notification, signage, and any other necessary means.
 - b. **Restrict Access:** Restrict access to private unpaved roads currently used by the public either through signage or physical access restrictions.
4. **Storage Pile Conditional Exemption:** The requirements in Subsections B.1 (Visible Dust Beyond the Property Line) and B.2 (Opacity) shall not apply to fugitive dust from storage piles if the operator has implemented at least one of the following control measures:
- a. **Wind Sheltering:** Enclose material in a three or four sided barrier equal to the height of the material.
 - b. **Watering:** Apply water at a sufficient quantity and frequency to prevent wind driven dust.
 - c. **Chemical Stabilization:** Apply a non-toxic dust suppressant that complies with all applicable air and water quality government standards at a sufficient quantity and frequency to prevent wind driven dust.
 - d. **Covering:** Install and anchor tarps, plastic, or other material to prevent wind driven dust.
5. **High Wind Exemption:** The requirements in Subsections B.1 (Visible Dust Beyond the Property Line), B.2 (Opacity), and C.1 (Earth-Moving) shall not apply to fugitive dust when on-site wind speed exceeds 25 miles per hour (mph) for at least 5 minutes in any one hour period as measured by an anemometer with a minimum resolution of 1.0 mph provided:
- a. Applicable control measures outlined in Table 1 have been implemented, and
 - b. Daily records of specific dust control measures have been maintained.
6. **Track-out Exemption:** The provisions of Subsection B.3 (Track-Out) shall not apply to on-road vehicles (trucks and passenger vehicles) associated with agricultural operations that have caused track-out due to excessively muddy conditions resulting from rainfall.

E. Recordkeeping Requirements

1. Bulk Material Handling Records: Any operator handling bulk materials and having an APCD Permit to Operate shall keep a monthly log, available upon request, containing or referencing the following information:
 - a. Operator name, location of operation, and dates of operation.
 - b. Amount (in yards) of bulk material imported or exported per month.
 - c. Diagram or map of all egress sites to a public paved road and description of corresponding track-out control measure, if required by this rule.

2. Frequently Traveled Unpaved Road Exemption Records: Any operator or owner of a private unpaved road claiming exemption from the requirements in Subsection B.1 (Visible Dust Beyond the Property Line) and Subsection B.2 (Opacity) shall keep the following records:
 - a. Operator name, location of operation, dates when road is open to travel.
 - b. List and diagram of unpaved private roads that have more than 20 vehicle trips per day with corresponding method and description of fugitive dust control. If an unpaved private road is being treated, then describe the method used to control speed and restrict access.

3. Storage Pile Exemption Records: Any owner or operator of a storage pile claiming the exemption from the requirements in Subsection B.1 (Visible Dust Beyond the Property Line) and Subsection B.2 (Opacity) shall keep the following records:
 - a. Operator name, location of operation, dates of operation
 - b. Description of control measure used to minimize fugitive dust including amount of material applied and frequency of application if watering or chemical suppressants are used.

4. High Wind Exemption Records: Any operator claiming the high wind exemption in Subsection D.5 shall keep daily records of specific dust control actions taken.

5. Track-Out Area Exemption Records: Any operator claiming an exemption from track-out area requirements in Subsection B.3.a shall keep the following records:
 - a. Operator name, location of operation, and dates of operations.
 - b. Description of control measure used in the improvement of the track-out area or control measure used to prevent track-out.

6. Dust Suppressant Records: Any person using dust suppressants shall keep the following records: Description of dust control measure; Location and extent of coverage; Date, amount, and frequency of application of dust suppressant; and Manufacturer's dust suppressant product information sheets.
7. Any recordkeeping required by this rule shall be made available to APCD compliance personnel upon request. Records shall be retained for a minimum of two years.

F. Test Methods

Compliance with the opacity limit in Subsection B.2 shall be determined using EPA Method 9 with the following modifications:

1. Position: Stand at least 16.5 feet from the plume(s) with the sun oriented in the 140° sector to your back. If feasible, make opacity observations so your line of sight is approximately perpendicular to the direction of plume travel. To the extent possible, position yourself to make opacity observations using a contrasting background.
2. Field Records: Note the following on a record sheet:
 - a. Description and location of activity generating emissions, and method of control used, if any.
 - b. Observer's name, certification data, and affiliation, and a sketch of the observer's position relative to the dust generating activity and the sun, including estimated distances and direction to the plume.
 - c. Time that reading began, approximate wind speed and direction, description of the sky condition (presence and color of clouds), color of the plume, and type of background.
3. Observations: For each reading, make the observation at the highest opacity in the dust plume starting at an elevation line 5 feet above the emission source. Do not look continuously at the source, but make momentary observations once every 15 seconds. Record each observation to the nearest 5 percent. Each reading represents a 15 second period. If multiple plumes exist, do not include more than one plume in the line of sight at one time.
4. Compliance Determination: If the observer records twelve (12) readings of 20 percent or greater during a one-hour period, the source is not in compliance and observations may stop. The 20 percent or greater opacity readings are not required to be consecutive.

5. Only observers certified by the California Air Resources Board, or the U.S. Environmental Protection Agency may determine compliance with opacity limits.

G. Violations

Failure to comply with any provision of this rule is a violation of this rule.

H. Definitions

1. "Active Operation": Any source capable of generating fugitive dust, including, but not limited to, bulk material handling, earth-moving activities, construction or demolition activities, or vehicular movement on unpaved surfaces.
2. "Bulk Material": Sand, gravel, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
3. "Construction/Demolition Activities": Any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition, or improvement of property, including, but not limited to, grading, excavating, loading, crushing, cutting, planing, or ground breaking.
4. "Disturbed Surface Area": This means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
 - a. Been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
 - b. Been paved or otherwise covered by a permanent structure.
5. "Earth-Moving Activities": This means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading and unloading of dirt, adding to or removing from open storage piles, landfill operations, mining operations, and weed abatement operations.
6. "Frequently-Traveled Unpaved Private Road": For the purpose of defining the conditional exemption in Subsection D.2 , any private unpaved road where the count of vehicles traveling in either direction on the road exceeds 20 in any 24 hour period.
7. "Fugitive Dust": Any solid particulate matter that becomes airborne, other than emitted from an exhaust stack, directly or indirectly as a result of the activities of any person(s).

8. "Lightly-Traveled Unpaved Private Road": For the purpose of defining the conditional exemption in Subsection D.3, any private unpaved road where the count of vehicles traveling in either direction on the road is 20 or less in any 24 hour period.
9. "Off-field Agricultural Operations": Any activities excluding those considered by this rule to be on-field agricultural operations.
10. "On-field Agricultural Operations": Activities, excluding travel on field access roads, conducted solely for the purpose of preparing land for the growing of agricultural or horticultural commodities, tree fruits, or raising of fowl or animals, such as:
 - a. Brush or timber clearing, grubbing, scraping, ground excavation, land leveling, grading, turning under stalks, disking or tilling.
 - b. Drying, pre-cleaning, handling, or storing of agricultural commodity material on the field where it was harvested.
 - c. Handling of fowl, or animal feed materials at sites where animals or fowl are raised.
 - d. Disturbing of cultivated land as a result of fallowing, seeding, planting, plowing, disking, fertilizing the soil, cultivating, irrigating, controlling weeds, thinning, heating, pruning, fumigating, spraying, dusting, or harvesting.
11. "Paved Road": A public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials including, but not limited to, asphalt paving or concrete. For this purpose of this rule, roads covered with recycled road base or gravel are not considered to be paved.
12. "PM-10 Efficient Street Sweeper": Any street sweeper certified by the South Coast AQMD to meet their Particulate Matter (10 microns and less) capture efficiency criteria outlined in SCAQMD Rule 1186 Appendix A.
13. "Source": A source includes all activities and operations that are located on contiguous property under common ownership or control, and includes associated facility-access and haul roads.
14. "Stabilized Surface": Any surface that has been treated, worked, or modified to increase soil stability in order to limit fugitive dust emissions. Methods used to stabilize surface include but are not limited to the following: watering, dust palliatives, vegetation, aggregates, and paving.
15. "Storage Pile": Any accumulation of bulk material or soil, which attains a height of three feet or more and a total surface area of 150 or more square feet.

16. "Track-Out": Any material that adheres to and agglomerates on the exterior surface or tires of motor vehicles, haul trucks, or mobile equipment that have been released onto a named, numbered, or lettered public paved road and can be removed by a PM-10 efficient street sweeper under normal operating conditions.

I. Compliance Schedule:

The requirements of this rule shall become effective on October 8, 2008.

J. Compliance Status

Compliance with this rule shall not guarantee that a person will be in compliance with any other district rule or state regulation, including but not limited to, Rule 50 (Opacity), Rule 51 (Nuisance), Health and Safety Code Section 41700 (Nuisance), or Health and Safety Code Section 41701 (Opacity).

Table 1
Control Measures Needed to Qualify for High Wind Exemption in Subsection D.5

FUGITIVE DUST SOURCE CATEGORGY	CONTROL MEASURES
Earth-Moving	1. Cease all active operations; OR 2. Apply water to soil not more than 15 minutes prior to earth-moving activities.
Disturbed Surface Area	1. On the last day of active operations prior to any Sunday, 1-day holiday, or any other period when active operations will not occur for at least four consecutive days, apply water with a mixture of chemical stabilizer diluted to not less than 5 percent by volume of the chemical stabilizer or to chemical stabilizer manufacturer specifications; OR 2. Apply chemical stabilizers at least 30 minutes prior to the wind event; OR 3. Apply water to all unstabilized disturbed areas at least every 4 hours during the wind event. If there is any evidence of wind-driven dust, water frequency is increased until wind-driven dust is minimized; OR 4. Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter.
Unpaved Roads	1. Apply chemical stabilizers prior to allowing traffic; OR 2. Apply water at least twice per hour during active operations; OR 3. Stop all vehicular traffic.
Open Storage Piles	1. Apply water at least twice per hour during the wind event; OR 2. Install temporary coverings.

ATTACHMENT 5

**Revised Storm Water Pollution and Prevention Plan
(provided in separate binder)**