South Coast
Air Quality Management District
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FAXED: MARCH 9, 2006

March 9, 2006

Ms. Cymantha Atkinson
County of Orange
Integrated Waste Management Department
320 North Flower Street, Suite 400
Santa Ana, CA 92703

Dear Ms. Atkinson:

Draft Environmental Impact Report (DEIR) No. 604 for the Frank R. Bowerman Landfill Implementation: January 2006

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated in the Final Environmental Impact Report.

Pursuant to Public Resources Code Section 21092.5, please provide the SCAQMD with written responses to all comments contained herein prior to the certification of the Final Environmental Impact Report. The SCAQMD would be happy to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Charles Blankson, Ph.D., Air Quality Specialist – CEQA Section, at (909) 396-3304 if you have any questions regarding these comments.

Sincerely

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development & Area Sources

Attachment

SS: CB

ORC060124-02
Control Number

Draft Environmental Impact Report (DEIR)
for the Frank R. Bowerman Landfill Implementation

1. **Project Construction Emissions**: It is unclear why the lead agency chose EPA's NONROAD model emission factors to calculate offroad construction equipment emissions since these factors were derived based on non-California diesel fuels. Further, review of the EPA document cited as providing the offroad compression ignition emission factors appears to indicate that the construction equipment emission factors are based on engine model year categories rather than fleet mixes that represent actual fleets that are expected to be used at the project site. The lead agency should identify which specific emission factors are used to calculate construction equipment emissions, explain why the NONROAD model emission factors are appropriate or recalculate construction equipment emissions using CARB's OFFROAD model emission factors, using fleet averages. One last point is that there is a large discrepancy in daily emissions listed for the 17 scrapers compared to those listed for the 33 scrapers in the tables shown in Appendix A of Appendix G of the Draft EIR.

2. **Localized Impacts**: Consistent with the SCAQMD's environmental justice program and policies, the SCAQMD recommends that the lead agency also evaluate localized air quality impacts to nearby sensitive receptors. SCAQMD staff recommends that for this project and for future projects, the lead agency undertake the localized analysis to ensure that all feasible measures are implemented to protect the health of nearby sensitive receptors. The methodology for conducting the localized significance thresholds analysis can be found on the SCAQMD website at: www.aqmd.gov/ceqa/handbook/LST/LST.html.

3. **CO Hotspots:** The Air Quality Analysis in Appendix G states that the CO hotspots analysis was completed according to the CALTRANS Transportation Project-Level Carbon Monoxide Protocol (CO Protocol), Revised December 1997, UCD-ITS-RR-97-21. However, the CO analysis appears to deviate from the CO Protocol. Figure F-3 in Appendix B of the CO Protocol illustrates how dedicated left-turn movements should be represented in CALINE4. The dedicated left-turn link endpoint should be located at the center of the adjacent turn link and extend as far back as the link representing the through movement. The left-turn link end point is located before the intersection and does not extend to the though movement link. The Final EIR should include CALINE4 modeling with left turn links represented correctly.

   The CO Protocol also states that the volume of the through movement should not include the volume of the vehicles turning left, but be included in the left turn link. By analogy, if dedicated right hand links are included, then the right-turn volumes should not be included in the through movement link. The CALINE4 modeling in the Draft EIR follows this guidance for some links for example in the

northbound and southbound links representing the Sand Canyon Avenue and Irvine Boulevard intersection. However in the same run, the total approach volume is included in the east and westbound approach links even though the left and right turn volumes are already represented in dedicated right and left turn links. The Final EIR should include CALINE4 modeling with traffic volumes represented correctly.

The left and right dedicated turn volumes are interchanged in the Sand Canyon Avenue and Trabuco Canyon Road CALINE4 modeling. The eastbound and westbound left turn volumes are switched in the Sand Canyon Avenue and Irvine Boulevard intersection CALINE4 model runs. The CALINE4 model runs should be reviewed and the correct turn volumes should be associated with the correct links in the Final EIR.

The Draft EIR only included a CO hotspots analysis using vehicle volumes for 2030, since 2030 was closer to 2023 than 2010, and emission factors for 2030 was developed using a fleet ranging from 2000 to 2030. While the vehicle volume assumption for vehicle traffic may be appropriate, the emission factor assumptions are not appropriate. The default vehicle range in EMFAC2002 for a 2030 fleet include vehicle model years 2030 to 1985, it is not clear why the default was not used. In addition, the emission factor for the 2023 vehicle fleet should have been used. The default vehicle fleet for 2023 in EMFAC2002 ranges from 1987 to 2023. The lead agency is advised to use the default vehicle fleet or a more conservative fleet, unless it can be demonstrated that a less conservative vehicle fleet is valid and included as a mitigation measure. The Final EIR should include CO hotspots modeling with default 2023 fleet emission factors.

The Draft EIR does not describe how intersections were chosen for CO hotspots modeling. The Final EIR should include a description on how intersections were chosen for CO hotspots modeling. The SCAQMD recommends a CO hotspots modeling analysis for any intersection rated D or worse where the proposed project increases the volume to capacity ratio by two percent. Similarly, a change in LOS from C to D caused by the proposed project also warrants a CO hotspots analysis. The selected methodology should follow the CO Protocol.

4. **Heath Risk Assessment:** The flares were represented as a single point source in the air dispersion model. Since ISCST3 and computers that can model the flares as individual point sources are available, SCAQMD discourages the merging of flares into a single point source. The Final EIR should include an HRA where the flares are represented as separate point sources as well as adequate documentation.

An effective of 2.46 meters was estimated for the flares, but a diameter of 0.75 meter was used in the HARP. The effective diameter of each flare should be used for the Final EIR.

Toxic air contaminants from landfill gas are evaluated in the HRA from the flares and fugitive sources. No discussion is provided on toxic air contaminants from combustion byproducts of the flares. Only the toxic air contaminants from the pre-combusted landfill gas are discussed. The Final EIR should include a discussion of toxic air contaminants from combustion byproducts of the flares.

5. **SCAQMD Greenwaste Management Rule:** In discussing the federal, state and district rules that the proposed project will be subject to on pages 4-12 to 4-23 of the DEIR, the lead agency fails to mention that greenwaste chipping and grinding operation is subject to SCAQMD Rule 1133.1 – Chipping and Grinding Activities. Please include a discussion of this rule if it is relevant to the proposed project and its impacts in the Final EIR.

6. **Mitigating Operational NO_X Emissions:** Though the proposed project's operational NO_X and PM10 emissions exceed the significance thresholds, none of the mitigation measures described on pages 5.6-33 and 5.6-34 of the DEIR deals with these emissions. SCAQMD staff recommends the following mitigation measures for consideration by the lead agency where feasible:

- For all equipment, such as loaders, dozers, and other service equipment including front loaders, the lead agency should require the use of alternative clean fuel such as compressed natural gas-powered equipment with oxidation catalysts instead of diesel-powered engines. However, where diesel equipment has to be used because there are no practical alternatives, use oxidation catalysts and low-sulfur diesel as defined in SCAQMD Rule 431.2, i.e., diesel with sulfur content of 15 ppm by weight or less. The low-sulfur diesel has the potential to reduce NO_X emissions by 50 percent.
- Require the use of aqueous or emulsified diesel fuel for all equipment. Aqueous diesel formulations have received interim verification by the CARB and show a reduction of 16 percent in NO_X and 60 percent from diesel exhaust. Information on commercial availability of these products can be obtained at the following websites: www.arb.ca.gov/fuels/ddiesel/altdiesel/altdiesel.html, www.lubrizol.co/PuriNox/markets_distributors.asp, www.cleanfuelstech.com/Customers/Customers.htm.
- Require the use of newer, lower-emitting trucks from companies and cities that will be dumping materials at the site.
- Require trucks to be offloaded promptly to prevent trucks idling for longer than five minutes in compliance with state law.
- Require landfill management to train employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks within the facility.
- Require landfill management to establish specific truck routes between the center and the nearest freeway.
- Place signs at the exits of the landfill that indicate which way to turn and the specific truck route to take to get to the freeway.

- Require landfill management to provide flyers and pamphlets for truck drivers informing truck drivers of the health effects of diesel particulate and the importance of being a good neighbor.
- Require landfill management to conduct periodic community meetings informing neighbors of steps being taken to reduce and/or eliminate diesel particulate emissions at the station.
- Install a weather monitoring station to monitor temperature, humidity, wind speed and wind direction.
- Implement a community outreach program to include a publicly displayed sign with contact information for odor complaints, a log for all odor complaints received, an employee to coordinate odor complaint response, and a protocol for handling odor complaints.