BOARD MEETING DATE: September 4, 2015 AGENDA NO. 39

PROPOSAL: Amend Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

SYNOPSIS: The proposed amendment seeks to minimize hexavalent chromium (Cr^{+6}) emissions and risk from cement manufacturing operations and the property after facility closure while streamlining Cr^{+6} ambient monitoring. The proposed amendments will establish the conditions under which monitoring can be reduced or eliminated. In addition, the proposed amendments include a proposed modification to the fence-line ambient Cr^{+6} threshold to reflect changes made by the Office of Environmental Health Hazard Assessment to risk assessment guidelines, as well as proposing minor revisions.

COMMITTEE: Stationary Source, April 17, 2015; Reviewed

RECOMMENDED ACTIONS:
Adopt the attached resolution:
1. Certifying the Final Environmental Assessment for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities; and
2. Amending Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities.

Barry R. Wallerstein, D.Env.
Executive Officer

PF:JW:TG:LP

Background

Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities was adopted in November 2005. The original rule requires cement manufacturing facilities to comply with specific requirements applicable to various operations, as well as materials handling and transport at the facilities. Riverside Cement (RC) in Riverside and California Portland Cement Company (CPCC) in Colton are the two cement manufacturing facilities in the SCAQMD's jurisdiction subject to Rule 1156.

Rule 1156 was amended in March 2009 to further reduce particulate emissions and to address unexpected elevated ambient concentrations of the carcinogen, hexavalent chromium (Cr^{+6}), observed at the Rubidoux station as part of the third Multiple Air Toxics Emissions Study (MATES III) and at monitors adjacent to the facilities. The 2009 rule amendments included the adoption of an ambient Cr^{+6} threshold of 0.70 ng/m^3 (excluding background), based on a 100-in-a-million fence-line cancer risk. The rule amendment also required additional control measures, such as: clinker storage area protection, Cr^{+6} ambient monitoring, and wind monitoring, with contingencies (i.e., clinker enclosure based on Cr^{+6} results and PM10 monitoring in case of elevated concentrations). Under a Board adoption resolution, the need for and frequency of Cr^{+6} ambient monitoring was to be re-evaluated after five (5) years of data collection, and a working group was to be established to develop a Facility Closure Air Quality Plan Option (Facility Closure Plan). Cr^{+6} ambient monitoring results have been reported annually to the Stationary Source Committee beginning in 2011, and bi-annually to the Board beginning in 2012.

The criteria for facility closure and conditions to potentially sunset Cr^{+6} ambient monitoring were discussed with the working group in 2010 and 2011. A draft Facility Closure Plan was developed and presented to the Stationary Source Committee in 2012, but was left as a living document since neither facility was producing clinker at the time, and there was uncertainty regarding future cement manufacturing activities given the economic recession. Currently, neither cement manufacturing facility is producing clinker. The facilities only process clinker or cement material imported from facilities outside the SCAQMD's jurisdiction.

Proposal

The proposed amendments include requirements for current owner(s)/operator(s) of the affected property before and after cement manufacturing facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. The proposal is intended to minimize potential air quality impacts and potential health risk from cement facilities during operations and after closure while streamlining Cr^{+6} ambient monitoring.

Specifically, with a subsequent 12 consecutive months of Cr^{+6} monitoring below the operative fence-line threshold, each facility can reduce the number of monitors to one in the predominantly downwind direction. Also, monitoring must continue after facility closure and until the site is stabilized through either an approved mining reclamation plan or site clean-up/rehabilitation in association with sale of the property. After the site stabilization, and upon subsequent three months of Cr^{+6} monitoring below the operative fence-line threshold, the rule will cease to apply. It should be noted that the owner/operator may submit a site-specific assessment using soil sampling, historic site activity, or other means, identifying areas determined not to be potentially contaminated

by hexavalent chromium contamination. If approved by the Executive Officer, those areas determined not to be potentially contaminated may be excluded from the provisions regarding clean-up/rehabilitation of the property.

In addition, the proposed amendments also include revisions to the Cr^{+6} ambient air monitoring fence-line threshold as a result of the 2015 update to the Office of Environmental Health Hazard Assessment's (OEHHA) risk assessment guidelines, and an update to background concentrations based on MATES IV data.

Staff proposes to change the Cr^{+6} fence-line threshold from 0.70 ng/m^3 to 0.20 ng/m^3 (excluding background) effective September 16, 2016. The change from 0.70 ng/m^3 to 0.20 ng/m^3 maintains the 100-in-a-million risk threshold and reflects OEHHA guidelines that account for early-life exposures to air toxics. The rule does not specify the background levels, and previously the background level of 0.16 mg/m^3 was used based on two years of sampling data for the Basin. Staff proposes using Cr^{+6} background levels of 0.062 ng/m^3 and 0.056 ng/m^3 for a 30-day and 90-day rolling average (a 1-in-3 or 1-in-6 sampling schedule), respectively, observed at the Fontana and Rubidoux stations as part of the fourth Multiple Air Toxics Exposure Study (MATES IV). These background concentrations will be used for Rule 1156 compliance purposes. Therefore, the proposed new effective limits would be 0.262 ng/m^3 and 0.256 ng/m^3, respectively. If either of these levels is exceeded, as applicable, the facility must submit a compliance plan to address the fugitive emissions causing the exceedance. If the threshold is exceeded on or after September 5, 2018, it would be a violation of the rule. It should be noted that the compliance plan requirement will not apply to a facility that has an approved Health Risk Assessment or has been required to submit a Health Risk Assessment pursuant to Rule 1402 – Control of Toxic Air Contaminants from Existing Sources.

Key Issues

Staff has worked closely with both cement manufacturing facilities and other stakeholders to resolve issues associated with the proposed amended rule.

RC is opposed to the new Cr^{+6} fence-line ambient air monitoring threshold. They have future plans to increase production and raised a concern that they could have difficulty consistently meeting the lower levels, which could result in premature closing of that operation. From the most recent site visit to Riverside Cement, staff believes that there are opportunities for RC to implement additional precautionary measures to achieve the new standard, such as more frequent application of fugitive dust suppressants and/or better control of fugitive dust from cement bagging operations.

RC believes that monitoring after facility closure is unnecessary and that SCAQMD should rely on the regional monitoring network. However, the regional monitoring network does not monitor localized levels of air toxics. Staff is proposing to require continued monitoring at these facilities until three months after clean-up/rehabilitation

or reclamation is complete. This will help ensure public health protection from hexavalent chromium exposure, a known human carcinogen.

RC has also expressed concern that the proposed criteria for ceasing Cr^{+6} monitoring post-closure is not sufficient. RC has suggested monitoring to continue for 60 days after facility closure, regardless of the clean-up/rehabilitation or reclamation status, unless access to monitoring is not available. Staff believes that monitoring before and during clean-up/rehabilitation is essential given the potential fugitive emissions of Cr^{+6} contaminated soil. Staff is confident that the proposed criteria for ceasing Cr^{+6} ambient air monitoring post-closure is a reasonable and sound approach to minimize potential air quality impacts from the property after cement facility closure without imposing significant burden on the owner(s)/operator(s) and duplicating other agencies' efforts relative to future redevelopment and use of the property.

In addition, in a collaborative effort, staff also conducted co-located monitoring and analyzed split samples with RC to evaluate potential discrepancies in monitoring collection or laboratory results and/or monitoring. No notable differences were found in the lab samples.

Public Process

In addition to the working group meetings in 2011 and 2012, staff also met with representatives of CPCC and RC beginning in January 2015 to solicit comments on the proposed amendment concepts. Comments received were incorporated into the development of the initial proposed amendments.

Staff conducted a working group meeting on April 7, 2015 to present detailed proposed rule amendments. Draft rule language was released to the working group for their review and comment prior to presentation to the Board's Stationary Source Committee meeting on April 17, 2015. Staff conducted a public consultation meeting on April 22, 2015 near one of the cement facilities for ease of community participation to solicit input on the proposed rule amendment.

A public workshop was held June 18, 2015 to seek input on the additional elements added to the proposal since the public consultation meeting. The additional proposal elements included the proposed update to the Cr^{+6} ambient air monitoring fence-line threshold and the implementation schedule, compliance requirements in the event the Cr^{+6} levels are exceeded, and the criteria to validate duplicate PM10 source tests at low concentrations (significantly less than the emission limit of 0.01 grain/dscf). Following the public workshop, staff conducted a site visit to learn more about the current operational status at one facility. Staff also met with both facilities on two occasions in both May and July 2015.

Throughout the rule development process, significant changes were made to the proposed rule to address industry concerns. In response to industry's request, the Public

Hearing was rescheduled to September 2015 to allow additional time for stakeholders to provide comments.

California Environmental Quality Act

SCAQMD staff has reviewed the proposed project pursuant to the California Environmental Quality Act (CEQA) Guidelines §15002 (k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to the California Environmental Quality Act (CEQA). SCAQMD staff has determined that the proposed amendments to Rule 1156 are a discretionary action by a public agency, which has potential for resulting in direct or indirect changes to the environment and, therefore, is considered a "project" as defined by CEQA. SCAQMD staff's review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. Therefore, pursuant to CEQA Guidelines §15252 and 15126.6(f), no alternatives are proposed to avoid or reduce any significant effects because there are no significant adverse impacts, and pursuant to CEQA Guidelines §15126.4(a)(3), mitigation measures are not required for effects not found to be significant. SCAQMD has prepared a draft Environmental Assessment (EA) to address the potential adverse environmental impacts associated with the proposed project which was released for a 30-day public review beginning on July 21 and ending on August 19, 2015. No comments were received on the CEQA document.

Socioeconomic Analysis

The socioeconomic assessment was released with and is contained within the staff report as a part of the 30-day availability of documents. PAR 1156 would, among other amendments, establish a more stringent fence-line Cr^{+6} ambient monitoring threshold, effective September 5, 2016. The amendments would also reduce the required monitoring effort (i.e., number of monitors) by the affected facilities, provided that monitors consistently demonstrate ambient concentrations below the threshold as specified in the proposed amendments.

For ongoing cement manufacturing operations at a facility, continued compliance with the fence-line threshold for 12 months post adoption would allow the facility to reduce the number of ambient monitors to one in the principally downwind area. The ability to reduce the number of monitoring stations after meeting all criteria would potentially result in cost savings estimated at $112,500 per year for one facility and $30,500 per year for the other.

It is possible that one of the two affected facilities may not be able to consistently comply with the more stringent fence-line Cr+6 ambient monitoring threshold of 0.20 ng/m3 without implementing additional control measures. This facility may need to submit a compliance plan, increase housekeeping measures, implement additional dust stabilization, and worst case, install control equipment. As previously noted, a compliance plan would not be necessary if the facility had previously approved or is currently required to submit a Health Risk Assessment pursuant to Rule 1402.

Depending on the risks estimated in the Health Risk Assessment, the facility may need to develop and implement a Risk Reduction Plan. The actions taken are likely similar under a compliance plan or a Risk Reduction Plan.

Compliance costs associated with compliance plan submission, if applicable, would include a one-time cost of $1,925, which includes filing and plan evaluation fees. Under a compliance plan or Risk Reduction Plan, the potential cost of purchasing additional chemical stabilizers would be approximately $243,000 annually based on the potential need of two additional applications per year to approximately 50 acres, cumulatively, of facility property. In addition, the construction of one additional steel partitioning wall within an existing building near a cement packaging operation may be necessary to contain dust within the building, as well as four PVC curtain doors to prevent dust from exiting the building. The capital cost of the partition and PVC curtains would approximately be $172,000 and $14,700, respectively. (Note: the partition is a worst case assumption as the facility may be able to achieve the necessary reductions through less costly compliance options, such as additional housekeeping measures, etc.)

Relative to the minor amendments regarding duplicate source tests, there is a potential cost savings in that unnecessary duplicate source testing will be avoided in the future while accomplishing the same goal as the current requirement.

When the annual compliance cost is less than one million dollars, the Regional Economic Impact Model (REMI) is not used to analyze impacts on jobs and other socioeconomic impacts because the impact results would be very small and would fall within the noise of the model.

Implementation and Resource Impact
Existing SCAQMD resources will be sufficient to implement the proposed amendments with minimal impact on the budget.

Attachments
A. Summary of Proposed Amendments
B. Rule Development Process
C. Key Contacts
D. Resolution
E. Rule Language
F. Staff Report
G. Environmental Assessment

ATTACHMENT A

Summary of Proposed Amendments to Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

The following summarizes the key proposed amendments to Rule 1156:

- Rule purpose and applicability are updated to clarify applicability of the rule after facility closure;
- Criteria for facility closure relative to cement manufacturing operation: activities must be completely ceased (i.e., blending silo, kiln, clinker cooler, and clinker grinding/milling) and related permits must be surrendered or have expired and are no longer reinstatable;
- Condition for reducing Cr^{+6} ambient monitoring stations at existing cement facilities:
  - Approval for reduced number of monitoring stations (minimum of one) may be obtained upon subsequent 12 consecutive months of demonstrating less than Cr^{+6} threshold (0.70 ng/m^3 and/or 0.20 ng/m^3, excluding background, depending on the compliance date) after date of rule amendment;
  - Reversion to the most recently approved compliance monitoring plan within 14 calendar days of being notified by the SCAQMD of confirmed exceedances of the applicable threshold, considering wind and other relevant data;
- Effective September 5, 2016, ambient Cr^{+6} concentrations from a 30-day or 90-day rolling average at each monitoring station shall not exceed 0.20 ng/m^3 (excluding background). Prior to this date, the previous Cr^{+6} threshold of 0.70 ng/m^3 (excluding background) remains in effect;
- Within 60 days from notification of a confirmed exceedance of 0.20 ng/m^3 (excluding background) that occurs prior to September 5, 2018, but after September 5, 2016, a compliance plan with detailed descriptions of all feasible mitigations measures must be submitted for approval in addition to the appropriate fees. Failure to obtain an approved compliance plan is a violation of Rule 1156;
- The compliance plan requirement will not apply to owner/operator who has an approved, or has been required to submit, a Health Risk Assessment under Rule 1402 – Control of Toxic Air Contaminants for Existing Sources;
- A confirmed Cr^{+6} exceedance of 0.20 ng/m^3 (excluding background) that occurs on or after September 5, 2018 will be a violation of the rule;
- Criteria to validate duplicate source tests:
  - PM10 concentrations of both samples must be below 0.002 grain/dscf; or
  - The difference between two samples shall be less than 35% of their average and the difference between the sample catches (normalized to the average sampling volume) shall be less than 3.5 milligrams;

- Requirements after facility closure:
  - Continued Cr+6 ambient monitoring in compliance with the applicable thresholds and compliance plan, inclusive of reduction to a minimum of one monitoring station;
  - The facility closure provisions no longer apply if both (1) and (2) occur:
    (1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property with all permanent stabilization measures done in compliance with SCAQMD Rules, including SCAQMD Rule 403 – Fugitive Dust during equipment dismantling or demolition and material removal; or determination from the Executive Officer that no further action is required or the reclamation/clean-up/rehabilitation activities have been satisfactorily completed; and
    (2) Subsequent three months of demonstrated compliance with the applicable Cr^{+6} ambient monitoring thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

    A site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

ATTACHMENT B

Rule Development Process

Proposed Amended Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

Beginning of Rule Development Process
January 2015

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Working Group Meeting
April 7, 2015

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Stationary Source Committee Meeting
April 17, 2015

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Public Consultation Meeting
April 22, 2015 – Gonzales Community Center

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Public Workshop
June 18, 2015

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Environmental Assessment released for a 30-day review
July 21 to August 19, 2015

↓

Set Hearing
June 5, 2015

↓

Public Hearing
September 4, 2015

Eight (8) months spent in rule development.

ATTACHMENT C

Key Contacts List

Proposed Amended Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

California Portland Cement Company

Riverside Cement Company

Coleman Law

E4 Strategic Solutions

Department of Toxic Substances Control

Santa Ana Regional Water Quality Control Board

ATTACHMENT D

RESOLUTION NO. 15-_____

A Resolution of the SCAQMD Governing Board certifying the Final Environmental Assessment for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities.

A Resolution of the South Coast Air Quality Management District (SCAQMD) Governing Board amending Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities.

WHEREAS, the SCAQMD Governing Board finds and determines that the proposed amendments to Rule 1156 are considered a "project" pursuant to the California Environmental Quality Act (CEQA); and that the proposed project would not have a significant adverse effect on the environment; and

WHEREAS, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code § 21080.5 and has conducted CEQA review and analysis pursuant to such program (SCAQMD Rule 110); and

WHEREAS, SCAQMD staff has prepared a Draft Environmental Assessment (EA) pursuant to its certified regulatory program and pursuant to CEQA Guidelines §15252, setting forth the potential environmental consequences of Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities; and

WHEREAS, the Draft EA was circulated for 30-day public review and comment period from July 21, 2015 to August 19, 2015; and

WHEREAS, no comment letters were received during the comment period relative to the analysis presented in the Draft EA and the Draft EA has been revised such that it is now a Final EA; and

WHEREAS, it is necessary that the adequacy of the Final EA be determined by the SCAQMD Governing Board prior to its certification; and

WHEREAS, a Mitigation Monitoring Plan pursuant to Public Resources Code §21081.6 has not been prepared since no mitigation measures are necessary; and

WHEREAS, the SCAQMD Governing Board voting on Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities has reviewed and considered the Final EA prior to its certification; and

WHEREAS, hexavalent chromium has been identified as a toxic air contaminant by the Office of Health Hazard Assessment (OEHHA); and

WHEREAS, California Health and Safety Code §40727 requires that prior to adopting, amending or repealing a rule or regulation, the SCAQMD Governing Board

shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report; and

WHEREAS, the SCAQMD Governing Board has determined that a need exists to amend Rule 1156, to revise the hexavalent chromium (Cr^{+6}) fence-line ambient monitoring threshold to reflect updated risk assessment procedures by the California Office of Health Hazard Assessment; to require continued Cr^{+6} monitoring after facility closure before and during site clean-up or reclamation activities; and to set conditions for reducing the number of Cr^{+6} monitoring stations and to sunset monitoring upon meeting specified criteria. Additional amendments are also proposed to improve rule clarity and effectiveness; and

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from California Health and Safety Code **§§** 39002, 39650 et seq., 40000, 40001, 40702, 40725 through 40728, 41508, and 41700; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 is in harmony with, and not in conflict with or contradictory to, existing federal or state statutes, court decisions, or state or federal regulations; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 does not impose the same requirements as any existing state or federal regulations and the proposed amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 references the following statutes which the SCAQMD hereby implements, interprets or makes specific: Health and Safety Code **§§**40001(b) (rules to prevent and abate air pollution episodes), 40702 (rules to execute duties as required by law) and 41700 (nuisance); and

WHEREAS, Health and Safety Code §40727.2 requires the SCAQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and that the SCAQMD's comparative analysis of Proposed Amended Rule 1156 is included in the staff report; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment of Proposed Amended Rule 1156 is consistent with the March 17, 1989 and October 14, 1994 Governing Board Socioeconomic Resolutions for rule adoption; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 may reduce monitoring costs for both facilities and may potentially result in increased costs to one cement manufacturing facility, yet are considered to be reasonable, with the total compliance costs and potential cost-savings accruable to all affected facilities as specified in the Socioeconomic Impact Assessment; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment is consistent with the provisions of the California Health and Safety Code §§40440.8 and 40728.5; and

WHEREAS, Proposed Amended Rule 1156 is not a control measure in the 2012 Air Quality Management Plan (AQMP) and thus, was not ranked by cost-effectiveness relative to other AQMP control measures in the 2012 AQMP; and

WHEREAS, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code **§**40725; and

WHEREAS, the SCAQMD Governing Board has held a public hearing in accordance with all provisions of law; and

WHEREAS, the SCAQMD Governing Board specifies the manager of Proposed Amended Rule 1156 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of these proposed amendments are based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

WHEREAS, the SCAQMD Governing Board finds and determines, taking into consideration the factors in section (d)(4)(D) of the Governing Board Procedures (codified as Section 30.5(4)(D) of the Administrative Code), that the modifications made to Proposed Amended Rule 1156 since the notice of public hearing was published do not significantly change the meaning of the proposed amended rule within the meaning of Health and Safety Code **§**40726 and would not constitute significant new information requiring recirculation of the Draft CEQA document pursuant to CEQA Guidelines § 15088.5; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156, should be adopted for the reasons contained in the Final Staff Report; and

WHEREAS, the proposed amendments to Rule 1156 will not be submitted for inclusion into the State Implementation Plan.

NOW, THEREFORE, BE IT RESOLVED, that the SCAQMD Governing Board does hereby certify that the Final EA for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities was completed in compliance with CEQA and Rule 110 provisions; and that the Final EA was presented to the SCAQMD Governing Board, whose members reviewed,

considered and approved the information therein prior to acting on Proposed Amended Rule 1156; and

BE IT FURTHER RESOLVED, that because no significant adverse environmental impacts were identified as a result of implementing Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities, a Statement of Findings, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan are not required; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities, as set forth in the attached and incorporated herein by reference.

DATE: _____ _____

CLERK OF THE BOARDS

ATTACHMENT E

(Adopted November 4, 2005)(Amended March 6, 2009)
(Amended September 4, 2015)

PROPOSED AMENDED RULE 1156. FURTHER REDUCTIONS OF PARTICULATE EMISSIONS FROM CEMENT MANUFACTURING FACILITIES

(a) Purpose

The purpose of this rule is to further reduce particulate matter (PM) emissions and minimize hexavalent chromium emissions from cement manufacturing ~~facilities~~ operations and the property after facility closure.

(b) Applicability

This rule applies to all operations, materials handling, and transport at a cement manufacturing facility, including, but not limited to, kiln and clinker cooler, material storage, crushing, drying, screening, milling, conveying, bulk loading and unloading systems, internal roadways, material transport, and track-out. After facility closure, this rule also applies to the owner/operator of the property on which a cement manufacturing facility has operated on or after November 4, 2005.

(c) Definitions

(1) BAG LEAK DETECTION SYSTEM (BLDS) means a system that meets the minimum requirements specified under U.S. EPA 40 CFR Part 63, Subpart LLL, Section 1350 (m) to continuously monitor bag leakage and failure.

(2) CEMENT MANUFACTURING FACILITY means any facility that engages in~~, or has been engaged in prior to November 4, 2005,~~ the operation of producing portland cement or associated products, as defined in the Standard Industrial Classification Manual as Industry No. 3241, Portland Cement Manufacturing.

(3) CHEMICAL DUST SUPPRESSANT means any non-toxic chemical stabilizer which is used as a treatment material to reduce fugitive dust emissions and its use is not prohibited by any other applicable law and meets all applicable specifications required by any federal, state, or local water agency.

(4) CLINKER means a product from the kiln which is used as a feedstock to make cement.

(5) CLINKER COOLER means equipment into which clinker product leaving the kiln is placed to be cooled by air supplied by a forced draft or natural draft supply system.

(6) CONVEYING SYSTEM means a device for transporting materials from one piece of equipment or location to another piece of equipment or location within a facility. Conveying systems include, but are not limited to, the following: feeders, belt conveyors, bucket elevators and pneumatic systems.

(7) CONTINUOUS OPACITY MONITORING SYSTEM (COMS) means a system that meets minimum requirements specified under U.S. EPA 40 CFR Part 60, Appendix B, to continuously monitor opacity.

(8) CONVEYING SYSTEM TRANSFER POINT means a point where any material including, but not limited to, feed material, fuel, clinker or product, is transferred to or from a conveying system, or between separate parts of a conveying system.

(9) COVERED CONVEYOR is a conveyor where the top and side portion of the conveyor are covered by a removable cover to allow routine inspection and maintenance.

(10) DUST SUPPRESSANTS are water, hygroscopic materials, or chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(11) ENCLOSED CONVEYOR is any conveyor where the top, side and bottom portion of the conveyor system is enclosed except for points of loading and discharge and except for a removable cover to allow routine inspection and maintenance.

(12) ENCLOSED SCREENING EQUIPMENT means screening equipment where the top portion of the equipment is enclosed, except for the area where the materials are loaded to the screening equipment.

(13) ENCLOSED STORAGE PILE means any storage pile that is completely enclosed in a building or structure consisting of a solid roof and walls.

(14) END OF WORK DAY means the end of a working period that may include one or more work shifts, but no later than 8 p.m.

(15) EXISTING EQUIPMENT means any equipment, process or operation having an existing valid ~~AQMD~~SCAQMD permit that was issued prior to November 4, 2005.

(16) FACILITY means any source or group of sources or other air contaminant-emitting activities which are subject to this rule and are located on one or more contiguous properties within the ~~AQMD~~SCAQMD, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a

pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

(17) FACILITY CLOSURE occurs when all cement manufacturing operations at the facility have completely ceased and all permits associated with on-site cement manufacturing operations, such as blending silos, kilns, clinker cooler, and clinker grinding/milling, are surrendered or have expired and are no longer reinstateable.

(18)~~(17)~~ FINISH MILL means a roll crusher, ball and tube mill or other size reduction equipment used to grind clinker to a fine powder. Gypsum and other materials may be added to and blended with clinker in a finish mill. The finish mill also includes the air separator associated with the finish mill.

(19)~~(18)~~ HAUL TRUCK means a diesel heavy-duty truck that has a loading capacity equal to or greater than 50 tons.

(20)~~(19)~~ INACTIVE CLINKER PILE is a pile of clinker material that has not been disturbed, removed, and/or added to as a result of loading, unloading, and/or transferring activities for 30 (thirty) consecutive days.

(21)~~(20)~~ KILN means a device, including any associated preheater or precalciner devices that produce clinker by heating limestone and other materials for subsequent production of portland cement.

(22)~~(21)~~ OPEN STORAGE PILE is any accumulation of materials which attains a height of three (3) feet or more or a total surface area of one hundred fifty (150) square feet or more. The open pile is defined as inactive when loading and unloading has not occurred in the previous 30 consecutive days.

(23)~~(22)~~ OWNER/OPERATOR means the owner and/or operator of the cement manufacturing facility ~~subject to this rule unless otherwise specified~~ or, upon facility closure, the owner and/or operator of the property where a cement manufacturing facility operated on or after November 4, 2005.

(24)~~(23)~~ PAVED ROAD means a road improved by covering with concrete, asphaltic concrete, recycled asphalt, or asphalt.

(25)~~(24)~~ RAW MILL means a ball, tube, or vertical roller mill or other size reduction equipment used to grind materials to the appropriate size. Moisture may be added or removed from the materials during the grinding operation. A raw mill may also include a raw material dryer and/or air separator.

(26)~~(25)~~ ROAD means any route with evidence of repeated prior travel by vehicles.

(27)~~(26)~~ STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting, is resistant to being the source of wind-driven fugitive dust, and is demonstrated to be stabilized by the applicable test methods contained in the Rule 403 Implementation Handbook.

(28)~~(27)~~ STREET SWEEPER is a PM_{10} efficient street sweeper approved pursuant to Rule 1186 – PM_{10} Emissions from Paved and Unpaved Roads & Livestock Operations.

(29)~~(28)~~ TOP PROCESS PARTICULATE EMITTERS means:

(A) process equipment, including but not limited to the kiln, clinker cooler, raw mill, and finish mill, vented to air pollution control equipment, except open-top baghouses, that account for 60% of the total process particulate emissions at the facility, for the requirement of using BLDS or COMS under paragraph (e)(2); or

(B) process equipment, including but not limited to the kiln, clinker cooler, raw mill, and finish mill, vented to air pollution control equipment, that account for 80% of the total process particulate emissions at the facility for the monitoring, source testing and recordkeeping requirements under paragraph (e)(3), (e)(8) and subparagraph (f)(2)(D).

(30)~~(29)~~ TRACK-OUT means any material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that has been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(31)~~(30)~~ VERIFIED FILTRATION PRODUCT means filtration products that are verified under the U.S. EPA Environmental Technology Verification program (ETV).

(32)~~(31)~~ WET SUPPRESSION SYSTEM means a system that supplies ultra-fine droplets of water or chemical dust suppressant by atomization through means of using compressed air or applying high pressure as specified by manufacturers to minimize dust.

(33)~~(32)~~ WIND-DRIVEN FUGITIVE DUST means particulate matter emissions from any disturbed surface area which is generated by wind action alone.

(34)~~(33)~~ WIND FENCE means a system consisting of a stand alone structure supporting a wind fence fabric. The wind fence fabric shall have maximum porosity of 20%.

(d) Requirements

The owner/operator of a cement manufacturing facility shall comply with the following requirements unless otherwise stated.

(1) Visible Emissions

(A) The operator of a facility shall not cause or allow the discharge into the atmosphere of visible emissions exceeding 10 percent opacity based on an average of 12 consecutive readings from any operation at the facility, except open piles, roadways and unpaved areas, using EPA Opacity Test Method 9.

(B) For open piles, roadways and other unpaved areas, the owner/operator of a facility shall not cause or allow the discharge into the atmosphere of visible emissions exceeding 20 percent opacity based on an average of 12 consecutive readings; or 50 percent opacity based on 5 individual consecutive readings using SCAQMD Opacity Test Method 9B.

(C) The ~~operator~~ owner/operator of a facility shall not cause or allow any visible dust plume from exceeding 100 feet in any direction from any operations at the facility.

(2) Loading, Unloading, and Transferring

(A) The ~~operator~~ owner/operator shall conduct material loading and unloading to and from trucks, railcars, or other modes of material transportation through an enclosed system that is vented to SCAQMD permitted air pollution control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A) and is operated during loading and unloading activities. In the event the system consists of a building, the enclosed building shall have openings with overlapping flaps, sliding doors or other equally effective devices, as approved by the Executive Officer to meet the requirement in subparagraph (d)(1)(A), which shall remain closed, except to allow trucks and railcars to enter and leave.

(B) The owner/operator shall cover or enclose all conveying systems and enclose all transfer points. During all conveying activities, the enclosed transfer points and enclosed conveying systems shall be vented to a permitted air pollution control device that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6) and is operated during all conveying activities. The enclosure shall have access doors to allow routine inspection and maintenance.

(C) The owner/operator shall apply dust suppressants as necessary during material loading, unloading, and transferring activities, and at conveying system transfer points to dampen and stabilize the materials transported and prevent visible dust emissions generated to meet the requirement in subparagraph (d)(1)(A).

(D) The owner/operator shall install and maintain as necessary dust curtains, shrouds, belt scrapers, and gaskets along the belt conveying system to contain dust, prevent spillage and carryback in order to minimize visible emissions.

(E) The owner/operator shall use appropriate equipment including, but not limited to, stackers or chutes, as necessary, to minimize the height from which materials fall into storage bins, silos, hoppers or open stock piles and reduce the amount of dust generated to meet the requirements in paragraphs (d)(1) and (d)(6).

(3) Crushing, Screening, Milling, Grinding, Blending, Drying, Heating, Mixing, Sacking, Palletizing, Packaging, and Other Related Operations

(A) The owner/operator shall enclose crushing, screening, milling, grinding, blending, drying, heating, mixing, sacking, palletizing, packaging and other related operations. The enclosed system shall be vented to permitted control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A). The control equipment shall be operated during these operations.

(B) In lieu of the configuration described in subparagraph (d)(3)(A), the owner/operator of a primary crusher installed and operated prior to November 4, 2005 may use wind fences on at least two sides of the primary crusher with one side facing the prevailing winds. The structure shall be equipped and operated with a wet suppression system. To implement this, the owner/operator shall submit a permit modification application by May 4, 2006 for a primary crusher to enable the Executive Officer to develop permit conditions to ensure that this air pollution control system is designed and operated to minimize particulate emissions.

(C) The owner/operator shall apply dust suppressants, as necessary, during all operations to dampen and stabilize the materials processed and prevent visible emissions generated to meet the requirements in subparagraph (d)(1)(A).

(4) Kilns and Clinker Coolers

The owner/operator shall not operate the kilns and clinker coolers unless the kilns and clinker coolers are vented to air pollution control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A).

(5) Material Storage

(A) An owner/operator that stores raw materials and products in a silo, bin or hopper shall vent the silo, bin or hopper to an air pollution control device that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6).

(B) No later than September 8, 2009, the owner/operator shall conduct all clinker material storage and handling in an enclosed storage area that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6). The enclosed storage area shall have opening(s) covered with overlapping flaps, and sliding door(s) or other equivalent device(s) approved by the Executive Officer, which shall remain closed at all times, except to allow vehicles to enter or exit. Prior to the completion and operation of the enclosure, all clinker materials shall be stored and handled in the same manner as non-clinker materials as set forth in subparagraph (d)(5)(D).

(C) If clinker material storage and handling activities occur more than 1,000 feet from, and inside, the facility property-line, the owner/operator may comply with all of the following in lieu of the requirements of subparagraph (d)(5)(B) no later than September 8, 2009:

(i) Utilize a three-sided barrier with roof, provided the open side is covered with a wind fence material of a maximum 20% porosity, allowing a removable opening for vehicle access. The removable wind fence for vehicle access may be removed only during minor or routine maintenance activities, the creation or reclamation of outside storage piles, the importation of clinker from outside the facility, and reclamation of plant clean-up materials. The removable opening shall be less than 50% of the total surface area the wind fence and the amount of time shall be minimized to the extent feasible;

(ii) Storage and handling of material that is immediately adjacent to the three-sided barrier due to space limitations inside the structure shall be contained within an area next to the structure with a wind fence on at least two sides, with at least a 5 foot freeboard above

the top of the storage pile to provide wind sheltering, and shall be completely covered with an impervious tarp, revealing only the active disturbed portion during material loading and unloading activities;

(iii) Storage and handling of other active clinker material shall be conducted within an area surrounded on three sides by a barrier or wind fences with one side of the wind fence facing the prevailing wind and at least a 5-foot freeboard above the top of the storage pile to provide wind sheltering. The clinker shall remain completely covered at all times with an impervious tarp, revealing only the active disturbed portion during material loading and unloading activities. The barrier or wind fence shall extend at least 20 feet beyond the active portion of the material at all times; and

(iv) Inactive clinker material may be alternatively stored using a continuous and impervious tarp, covered at all times, provided records are kept demonstrating the inactive status of such stored material.

(D) For active open non-clinker material storage and handling, the owner/operator shall comply with one of the following to meet the requirements of subparagraphs (d)(1)(B) and (d)(1)(C):

(i) Apply chemical dust suppressants to stabilize the entire surface area of the pile, except for areas of the pile that are actively disturbed during loading and unloading activities; or

(ii) Install and maintain a three-sided barrier or wind fences with one side facing the prevailing winds and with at least two feet of visible freeboard from the top of the storage pile to provide wind sheltering, maintain surface stabilization of the entire pile in a manner that meets the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C), and store the materials completely inside the three-sided structure at all times; or

(iii) Install and maintain a three-sided barrier with roof, or wind fences with roof, to provide wind sheltering; maintain the open-side of the storage pile stabilized in a manner that meets the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C), and store the materials completely inside the three-sided structure at all times; or

(iv) Install and maintain a tarp over the entire surface area of the storage pile, in a manner that meets the performance standards of

subparagraphs (d)(1)(B) and (d)(1)(C), except for areas of the pile that are actively disturbed during loading and unloading activities. The tarp shall remain in place and provide cover at all times.

(E) All inactive non-clinker piles shall be stored and handled in the same manner as non-clinker materials, as set forth in subparagraph (d)(5)(D). The owner/operator shall keep records demonstrating the inactive status of the non-clinker piles.

(F) For open storage piles subject to subparagraph (d)(5)(D), the owner/operator shall apply chemical dust suppressants or dust suppressants during any material loading and unloading to/from the open piles; and re-apply chemical dust suppressants or dust suppressants to stabilize the disturbed surface areas of the open piles at the end of each work day in which loading and unloading activities were performed to meet the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C) .

(6) Air Pollution Control Device

(A) The owner/operator shall install and maintain an air pollution control system referred to in paragraphs (d)(2), (d)(3), (d)(4) and (d)(5) to meet the following performance standards measured with the approved source test in subdivision (g):

(i) an outlet concentration of 0.01 grain PM per dry standard cubic feet for equipment installed prior to November 4, 2005; and

(ii) a BACT outlet concentration not to exceed 0.005 grain PM per dry standard cubic feet for equipment installed on and after November 4, 2005.

(B) The owner/operator shall install and maintain a baghouse ventilation and hood system that meets a minimum capture velocity requirement specified in the applicable standards of the U.S. Industrial Ventilation Handbook, American Conference of Governmental Industrial Hygienists, at the time of installation. If modification to the baghouse ventilation and hood system is required to meet the applicable standard, the owner/operator shall be granted additional time up to December 31, 2006 to complete this process.

(C) The owner/operator shall meet the requirements in paragraph (d)(6) by December 31, 2006 for pulse-jet baghouses, and by December 31, 2010 for non-pulse-jet baghouses.

(D) To show incremental progress towards the December 31, 2010 compliance date for non-pulse-jet baghouses, the owner/operator shall submit to the Executive Officer a list of baghouse candidates for future modification or replacement by December 31, 2006. In addition, the owner/operator shall submit a notification letter by December 31 of each year thereafter, starting in 2006, to demonstrate that the owner/operator has completed at least 20% of the modification or replacement by 2006; 40% by 2007; 60% by 2008, 80% by 2009; and 100% by 2010.

(7) Internal Roadways and Areas

(A) Unpaved Roadways and Areas

(i) For haul roads used by haul trucks to carry materials from the quarry to different locations within the facility, the owner/operator shall apply chemical dust suppressants in sufficient quantity and at least twice a year to stabilize the entire unpaved haul road surface; post signs at the two ends stating that haul trucks shall use these roads unless traveling to the maintenance areas; and enforce the speed limit of 35 miles per hour or less to comply with the opacity limits in paragraph (d)(1).

(ii) For other unpaved roadways and areas, the owner/operator shall apply chemical dust suppressants in sufficient quantity and at least twice a year to stabilize the surface, or apply gravel pad containing 1-inch or larger washed gravel to a depth of six inches; and enforce a speed limit of 15 miles per hour or less to comply with the opacity limits in paragraph (d)(1).

(B) Paved Roads

The owner/operator shall sweep all internal paved roads at least once each regular work day or more frequently if necessary to comply with the opacity limits in paragraph (d)(1). Sweeping frequency may be reduced on weekends, holidays, or days of measurable precipitation provided that the owner/operator complies with the opacity limits in paragraph (d)(1) at all times. Sweepers purchased or leased after November 4, 2005 shall be Rule 1186-certified sweepers.

(8) Track-Out

(A) The owner/operator shall pave the closest 0.25 miles of internal roads leading to the public roadways and ensure that all trucks use these roads

exclusively when leaving the facility to prevent track-out of dust to the public roadways and to comply with the opacity limits in paragraph (d)(1).

(B) If necessary to comply with the opacity limits in paragraph (d)(1), the owner/operator shall install a rumble grate, truck washer, or wheel washer; and ensure that all trucks go through the rumble grate, truck washer or wheel washer such that the entire circumference of each wheel or truck is cleaned before leaving the facility.

(C) To prevent material spillage from trucks to public roadways and fugitive dust emissions during transport, a truck driver on the facility shall ensure that the cement truck hatches are closed and there is no track-out, and the owner/operator shall provide truck cleaning facilities on-site.

(D) The owner/operator shall provide, at least once each calendar year, the "Fugitive Dust Advisory" flyers prepared by the District to any company doing business with the facility and which is subject to the requirements in subparagraph (d)(8)(C).

(9) No Backsliding

To prevent any backsliding from the current level of control, the owner/operator shall operate and maintain all existing equipment according to permit conditions stated in the permits approved by the Executive Officer prior to November 4, 2005 at all times.

(10) Compliance Monitoring Plan

(A) No later than June 8, 2009, the owner/operator shall submit to the Executive Officer a complete compliance plan for wind monitoring and the monitoring, sampling, and analysis of hexavalent chromium, and pay a plan evaluation fee pursuant to Rule 306 – Plan Fees. The submitted plan will be disapproved if it does not meet the provisions of subparagraph (d)(10)(B). The owner/operator shall resubmit an approvable plan within 30 days from date of disapproval; otherwise, the owner/operator shall be deemed in violation of this provision.

(B) The monitoring plan submitted shall contain, at a minimum, the following:

(i) Siting and monitoring protocols that comply with EPA's and CARB's guidance and/or protocols for measurement of hexavalent chromium, wind direction, and wind speed. A minimum of three fence-line monitoring stations are required for hexavalent chromium: one upwind and one downwind of the facility under the common prevailing wind directions, and one subject to approval by

the Executive Officer to ensure maximum effectiveness of the monitoring to the most potentially affected receptor, such as nearest residential or business receptors relative to clinker storage areas or potential hexavalent chromium emitting sources.

(ii) Breakdown provisions which include: (1) a statement that the owner/operator will notify the Executive Officer in writing of the breakdown within 24 hours of its occurrence. If the breakdown occurs on a Friday, over a weekend, or on a national or state holiday observed by the facility, the facility shall report such breakdown on the following work day; (2) a repair schedule; and (3) an action plan with detailed measures to be taken by the owner/operator to ensure that there will be at least 70% data capture at each site by each monitoring system;

(iii) Consent from the owner/operator that allows the Executive Officer to conduct any co-located or audit sampling at any time;

(iv) Sampling analysis protocols that comply with EPA and CARB's appropriate guidance and/or protocols for hexavalent chromium. All samples shall be analyzed at a District-approved laboratory, which can be audited at any time; and

(v) Any other relevant data and information required by the Executive Officer.

(C) The Executive Officer shall approve or disapprove the complete plan within 60 days from the submittal date.

(D) The owner/operator may file for a compliance monitoring plan amendment in the future relative to monitor siting or other elements of the plan as more site-specific data becomes available.

(11) Hexavalent Chrom~~e~~ium Monitoring and Other Requirements

(A) No later than six months from compliance plan approval or March 1, 2010, whichever occurs first, the owner/operator of a cement manufacturing facility shall conduct hexavalent chromium ambient air monitoring as follows:

~~(A)~~(i) The owner/operator shall conduct ambient air monitoring for hexavalent chromium in accordance with the approved monitoring plan set forth in subparagraph (d)(10)(B) or (d)(10(D), as applicable. The hexavalent chromium concentration from a 30-day rolling average at each monitoring station shall not exceed 0.70

nanograms per cubic meter (ng/m^3), excluding background. 24-hour sampling shall be conducted once every third day according to the EPA 1-in-3-day sampling calendar. For monitoring sample retrieval in which collection occurs on a weekend or facility observed national or state holiday, the sample may be collected the following business day.

~~(B)~~(ii) The owner/operator may conduct 24-hour sampling once every six days for hexavalent chromium if there is no single exceedance of the 0.70 ng/m^3 level during 12 continuous months of monitoring. On this sampling schedule, the hexavalent chromium concentration from a 90-day rolling average at each monitoring station shall not exceed 0.70 ng/m^3, excluding background. If there is a~~n~~ confirmed exceedance while on this sampling schedule, sampling shall ~~immediately~~ revert back to once every three days. For monitoring sample retrieval in which collection occurs on a weekend or facility observed national or state holiday, the sample may be collected the following business day. Reverting back to the more frequent sampling schedule stated in clause (d)(11)(A)(i) due to an exceedance of the threshold must occur within 14 calendar days after the Executive Officer gives notice to the facility confirming that, through wind event or other relevant data, as necessary, the facility is the source of the exceedance.

(iii) After *(date of adoption)* and upon a subsequent 12 consecutive months of demonstrating less than the hexavalent chromium thresholds in clauses (d)(11)(A)(i) or (ii) and/or subparagraph (d)(11)(B) as applicable, the owner/operator may submit for approval an amended compliance monitoring plan to operate a minimum of one monitoring station at a location in the predominantly downwind direction from the emission source(s). If the applicable thresholds in clauses (d)(11)(A)(i) or (ii) and/or subparagraph (d)(11)(B) are exceeded and the facility is confirmed to be the source of the exceedance, the owner/operator shall, within 14 calendar days of being so notified by the Executive Officer, revert back to the most recently approved compliance monitoring plan under subparagraph (d)(10).

(B) Effective September 5, 2016, the ambient hexavalent chromium concentration from a 30-day or 90-day rolling average, as applicable, at each monitoring station in subparagraph (d)(11)(A) shall not exceed 0.20

ng/m^3, excluding background. All other provisions of subparagraph (d)(11)(A) shall continue to apply.

(C) Upon any exceedance of 0.20 ng/m^3 (excluding background) that occurs prior to September 5, 2018, but after September 5, 2016, of which the cement manufacturing facility has been confirmed to be the source of the Cr^{+6} exceedance, the owner/operator shall, within 60 days of notice by the Executive Officer, submit for approval a compliance plan and pay applicable fees pursuant to Rule 306 – Plan Fees. Failure to obtain an approved compliance plan is a violation of this rule.

(D) The compliance plan shall include detailed descriptions of all feasible measures being utilized or that will be utilized to reduce hexavalent chromium emissions at the facility to demonstrate increments of progress as quickly as possible. The plan shall include, but not be limited to, the following information:

(i) The name(s), address(es), and phone number(s) of the person(s) responsible for the preparation, submittal, and implementation of the plan;

(ii) A description of the activities, including a map depicting the location of the site, notating any defining landmarks or demarcations;

(iii) A listing of all potential sources of fugitive dust emissions within the property lines;

(iv) The owner/operator shall describe the implementation, including the application schedule/frequency of all applicable dust control measures listed in Rule 403 – Fugitive Dust;

(v) A description of additional control and/or stabilization measures that will be applied to each of the sources. The description must include the application frequency of the measures and must be sufficiently detailed to demonstrate that all feasible measures will be utilized.

(E) The compliance plan requirement of subparagraph (d)(11)(C) will not apply to an owner/operator who currently has in place or has been required to submit a Health Risk Assessment under Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, subdivision (d).

(F) A confirmed hexavalent chromium exceedance of 0.20 ng/m^3 that occurs on or after September 5, 2018 will be a violation of this rule.

~~(C)~~(G) For facilities that elect to comply with (d)(5)(C), any exceedance of the concentrations listed in clauses (d)(11)(A) and/or (d)(11)(B) will require enclosure of all clinker materials storage and handling if the Executive Officer confirms, through wind event monitoring data, that the cement manufacturing facility is the source of violation. The facility operator may select one of the following enclosure schedule: 25% of the facility's five-year annual average clinker material stored and handled, by weight, no later than 12 months from the date of the exceedance; and an incremental 25% per subsequent year until completion; or complete the total enclosure within 24 months from the date of exceedance.

(12) Particulate Matter (PM10) Monitoring and Other Requirements

The owner/operator of the cement manufacturing facility who accrues three or more approved notices of violation for an exceedance of the upwind/downwind level specified in Rule 403 within a 36-month period shall conduct PM10 ambient air monitoring. An amendment to the compliance monitoring plan to include PM10 monitoring protocols and procedures shall be filed within 90 days of the date of the third approved notice of violation. The monitoring equipment shall be installed and operated within 6 months from the date of modified plan approval and no later than one year from the date of the third approved notice of violation.

(A) The owner/operator shall conduct continuous and real-time ambient air monitoring for PM10, using a continuous monitoring system, in accordance with a monitoring plan approved by the Executive Officer in a manner as set forth in subparagraphs (d)(10)(B) or (d)(10)(D), as applicable. The differences of PM10 concentrations from any two monitoring sites which represent upwind and downwind concentrations shall not exceed the amount and averaging time period specified in Rule 403.

(B) The owner/operator shall apply dust suppressants on all openly stored non-clinker materials, unpaved roads, and unpaved areas within the facility, as well as take steps to decrease clinker dust, if the PM10 difference(s) set forth in Rule 403 are exceeded at any time.

(13) Wind Monitoring

(A) No later than September 8, 2009, the owner/operator shall install and operate wind monitoring equipment to conduct hourly wind monitoring according to a protocol approved by the Executive Officer.

(B) On and after the date of operation of the wind monitoring equipment pursuant to subparagraph (d)(13)(A), the owner/operator shall cease all

open handling of clinker material for a two-hour period in the event that instantaneous wind speeds exceed 25 miles per hour (mph), and if such wind speeds subsequently exceed 25 mph, a new two-hour period shall begin. During the aforementioned two-hour period, the facility would be exempt from the requirement of subparagraph (d)(1)(C) if the open handling of clinker material is ceased, provided that dust controls as required by District rules are applied; and unpaved roads are stabilized upon register of the high wind event via the wind monitoring equipment.

(e) Monitoring and Source Testing at a Cement Manufacturing Facility

(1) For the kilns and clinker coolers, the owner/operator shall continuously monitor and record operating parameters including, but not limited to, flue gas flow rates and pressure drops across the baghouses to monitor baghouse performance and ensure compliance with the opacity limit in subparagraph (d)(1)(A).

(2) For all new baghouses greater than or equal to 10,000 actual cubic feet per minute, and for all existing bahouses of the top process particulate emitters as defined under subparagraph (c)(28)(A), the owner/operator shall install, operate, calibrate and maintain a COMS or BLDS to monitor baghouse performance and ensure compliance with the opacity limit in subparagraph (d)(1)(A).

(3) The owner/operator operator shall conduct visible emission observations with EPA Method 22 for process equipment equipped with air pollution control equipment at the following frequency:

(i) Weekly for top process particulate emitters defined under subparagraph (c)(28)(B) that are not equipped with BLDS or COMS;

(ii) Monthly for top process particulate emitters defined under subparagraph (c)(28)(B) that are equipped with BLDS or COMS; and

(iii) Monthly for other process equipment.

(4) The owner/operator shall monitor and record pertinent operating parameters, such as pressure drops, according to the Operation and Maintenance Procedure in paragraph (e)(12) to monitor the performance of air pollution control equipment and ensure compliance with the opacity limit in subparagraph (d)(1)(A).

(5) If the owner/operator receives an alarm from the BLDS, or COMS, the owner/operator shall immediately conduct an EPA Method 22 test and implement all necessary corrective actions to minimize emissions.

(6) If the owner/operator observes visible emissions during any EPA Method 22 test, the owner/operator shall immediately implement all necessary corrective actions

to minimize emissions, and conduct EPA Method 9 test within one hour of any observation of visible emissions.

(7) For the kilns and clinker coolers, the owner/operator shall conduct an annual compliance source test in accordance with the test methods in subdivision (g) to demonstrate compliance with the emission limit(s) in subdivision (d). The first annual compliance source test in accordance with an approved source test protocol shall be conducted within ninety (90) calendar days after the compliance date specified in subdivision (d). The owner/operator shall submit a source test protocol to the Executive Officer no later than sixty (60) calendar days prior to the proposed test date for the Executive Officer's approval for the first compliance source test. The testing frequency may be reduced to once every 24 calendar months if the two most recent consecutive annual source tests demonstrate compliance with the limits. Upon notification by the Executive Officer, the testing frequency shall be reverted back to annual testing if any subsequent source test fails to demonstrate compliance with the limits. In lieu of annual testing, any owner/operator who elects to use all verified filtration products in its baghouses shall conduct a compliance test every five years.

(8) By February 4, 2006, the owner/operator shall provide the Executive Officer a list of the top process particulate emitters as defined under subparagraph (c)(28)(B), and the proposed testing schedule for these equipment. The owner/operator shall conduct compliance source tests on representative baghouses within each process system and submit test results for these processes every 5 years, with at least two source tests conducted in any calendar year. If there are any changes to the list of equipment to be tested or the testing schedule, the owner/operator shall notify the Executive Officer 60 calendar days before the test date.

(9) The owner/operator shall not be required to test non-operational equipment, which is not in operation for at least 6 consecutive months prior to scheduled testing, as indicated in paragraph (e)(8) provided that the owner/operator shall conduct such test within one month after resuming operation.

(10) During any compliance source test, the owner/operator shall monitor and record, at a minimum, all operating data for the selected operating parameters of the control equipment and the process equipment and submit this data with the test report.

(11) The owner/operator shall submit a complete test report for any compliance source test to the Executive Officer no later than sixty (60) calendar days of completion of the source test.

(12) Operation and Maintenance Procedures

(A) The owner/operator shall develop and implement an Operation and Maintenance Procedure to ensure that the performance of the air pollution control equipment is continuously maintained and operated. The Operation and Maintenance Procedure shall include, at a minimum, information on monitoring and recordkeeping procedures, routine maintenance procedures, corrective and preventive actions for the air pollution control equipment, and training related to EPA Method 22, EPA Opacity Test Method 9 and ~~AQMD~~SCAQMD Opacity Test Method 9B, and other applicable information to demonstrate compliance with this rule.

(B) The owner/operator shall develop and implement an Operation and Maintenance Procedure that would require sufficient maintenance of internal roadways and areas, prompt cleanup of any pile of material spillage or carry-back, and application of chemical dust suppressant or other dust control methods to maintain surface stabilization of the open piles, spillage and carry-back to ensure compliance with the opacity standards in paragraph (d)(1) at all times.

(C) The owner/operator shall develop and maintain the Operation and Maintenance Procedures described under subparagraphs (e)(12)(A) and (e)(12)(B) within 6 months after November 4, 2005, and shall make the Operation and Maintenance Procedures available to the Executive Officer upon request.

(f) Reporting and Recordkeeping at a Cement Manufacturing Facility

(1) The owner/operator shall maintain all records and information required to demonstrate compliance with the provisions of this rule in a manner approved by the Executive Officer for a period of at least five years which shall be made available to the Executive Officer upon request.

(2) The owner/operator of a facility shall keep, at a minimum, the following records to demonstrate compliance:

(A) Daily records of applying chemical dust suppressants, watering, sweeping and cleaning activities;

(B) Appropriate records, on at least a monthly basis, for primary crushers, kilns, raw mills, and finish mills, production records of clinkers and cements and records of raw materials delivered to the facility in order to determine emissions;

(C) Test reports to demonstrate compliance with the emission standards in subdivision (d) including, but not limited to, PM emission rates, and opacity readings;

(D) Records of equipment malfunction and repair for the air pollution control equipment of the top process particulate emitters specified under subparagraph (c)(28)(B);

(E) Daily records of all material handling, including loading and unloading, and storage pursuant to paragraphs (d)(2) and (d)(5);

(F) Monitoring data pursuant to subparagraphs (d)(11), and (d)(12) as applicable, and supporting documentation, including, but not limited to chains of custody and laboratory results;

(G) Hourly records of wind speed and direction pursuant to subparagraph (d)(13);

(H) Records of all maintenance activities pursuant to clause (d)(5)(C)(i) and paragraph (i~~h~~)(7), including any equipment testing after the repairs and duration of wind fence removal;

(I) Records of clinker pile reclamation, importation, and transport pursuant to clause (d)(5)(C)(i), including duration of wind fence removal; and

(J) Records of all vehicle traffic and monthly average road trips pursuant to paragraph (i~~h~~)(4).

(3) Monitoring data shall be reported monthly to, and in an electronic format specified by, the Executive Officer. In the event the facility owner/operator finds that an exceedance of the levels specified in subparagraphs (d)(11)(A), (d)(11)(B), or (d)(12)(A) as applicable has occurred, the owner/operator shall report in writing such finding to the Executive Officer, and follow up with a phone call the next business day after such finding.

(g) Test Methods and Calculation for a Cement Manufacturing Facility

(1) The owner/operator shall use the following source test methods, as applicable, to determine the PM emission rates. All source test methods referenced below shall be the most recent version issued by the respective organization. All test results in units of grains/dscf shall be determined as before the addition of any dilution or air, if present, that was not a part of the stream(s) processed by the device that was tested.

(A) SCAQMD Source Test Method 1.1 or 1.2 – Velocity and Sample Traverse Points;

(B) SCAQMD Source Test Method 2.1 or 2.3 – Stack Gas Flow Rate;

(C) SCAQMD Source Test Method 3.1 – Stack Gas Density;

(D) SCAQMD Source Test Method 4.1 – Stack Gas Moisture;

(E) SCAQMD Source Test Method 5.2 or 5.3 - Determination of Particulate Matter Emissions in which reagent grade acetone shall be used to recover samples from the components of the sampling train located before the particulate filter;

(F) EPA Source Test Method 5 with the impinger analysis may be used in lieu of SCAQMD Source Test Method 5.2 or 5.3.

(G) EPA Source Test Method 5D with the impinger analysis may be used to measure PM emissions from positive pressure fabric filters.

(2) Measurement of particulate matter emissions from the cement kiln shall provide for a correction of sulfur dioxide emissions collected in the particulate matter samples. Any measured gaseous sulfur dioxide emissions shall be excluded from the measurement of particulate matter emissions by subtracting from the mass of material collected in any impingers a mass equivalent to the amount of measured sulfur dioxide emissions based upon sulfuric acid dihydrate as specified in SCAQMD Source Test Methods 5.2 or 5.3.

(3) Source tests for PM shall be taken and the average of the samples shall be used to determine the applicable emission rate in accordance with the following requirements:

(A) Simultaneous duplicate samples shall be obtained unless the owner/operator demonstrates to the satisfaction of the Executive Officer that it is not physically feasible to do so, in which case the owner/operator shall take sequential triplicate samples;

(B) All samples must have minimum sampling volume of 120 cubic feet or a minimum PM catch of 6 milligrams per sample shall be collected;

(C) For duplicate samples, the source test shall be deemed ~~invalid~~valid if:

(i) both samples are below 0.002 grain/dscf; or

(ii) the difference between the two samples is ~~greater~~less than 35% of the average of the two samples in the applicable units specified in subdivision (d) and if the difference between the sample catches normalized to the average sampling volume is ~~greater~~ less than 3.5 milligrams. If the source test is deemed invalid, the test shall be repeated; and

(D) For triplicate samples, upon approval of the Executive Officer or designee, if the owner/operator can demonstrate that the process conditions including, but not limited to, the throughput, quantity, type, and quality of all feedstock to the equipment process, and the emission control equipment conditions have not changed throughout the sequential test period, then the owner/operator may apply the Dixon outlier test at the 95% significance level to check for and discard one outlier, and shall use the average of the two remaining samples to determine PM emissions.

(4) The owner/operator may use alternative or equivalent source test methods, as defined in U.S. EPA 40 CFR 60.2, if they are approved in writing by the Executive Officer, the California Air Resources Board, and the U.S. Environmental Protection Agency.

(5) The owner/operator shall use a test laboratory approved under the SCAQMD Laboratory Approval Program for the source test methods cited in this subdivision if such approved lab exists. If there is no approved laboratory, then approval of the testing procedures used by the laboratory shall be granted by the Executive Officer on a case-by-case basis based on appropriate SCAQMD protocols and procedures.

(6) The owner/operator shall use the methods specified in the SCAQMD Rule 403 Implementation Handbook to determine threshold friction velocity and stabilized surface; and EPA Opacity Test Method 9 and Method 22, or SCAQMD Opacity Test Method 9B to determine opacity.

(7) When more than one source test method or set of source test methods are specified for any testing, the application of these source test methods to a specific set of test conditions is subject to approval by the Executive Officer. In addition, a violation established by any one of the specified source test methods or set of source test methods shall constitute a violation of the rule.

(h) Requirements After Facility Closure

(1) The requirements of this division (h) shall apply after facility closure to the owner/operator of the property on which a cement manufacturing facility operated on or after November 4, 2005, and these requirements shall cease to apply in accordance with paragraph (h)(5).

(2) The owner/operator shall continue the applicable hexavalent chromium ambient monitoring pursuant to subparagraph (d)(11)(A) and/or (d)(11)(B), and shall

continue complying with the compliance plan pursuant to subparagraphs (d)(11)(C) through (E), as applicable.

(3) In the event of any need to relocate an ambient hexavalent chromium monitor, the owner/operator shall notify the SCAQMD in writing and obtain Executive Officer approval prior to such relocation. The monitor(s) shall be moved back to the original location(s) or other approved locations(s) within the timeframe specified by the Executive Officer.

(4) The owner/operator shall provide the SCAQMD with monitoring calibration and maintenance data upon request of the Executive Officer.

(5) The requirements of subdivision (h) shall cease to apply when both subparagraphs (A) and (B) below are achieved:

(A) One of the following occurs:

(i) Reclamation is completed according to an approved reclamation plan by the lead agency; or

(ii) Completion of clean-up/rehabilitation of the property to minimize hexavalent chromium emissions via fugitive dust, including but not limited to:

(I) Compliance with SCAQMD Rule 403 – Fugitive Dust or other SCAQMD rules, as applicable, during the dismantling or demolition of cement manufacturing or related equipment and the removal of cementacious dust and other material build-up; and

(II) Complete and permanent stabilization of the property, including but not limited to paving and/or revegetation.

The owner/operator may submit a site-specific assessment using soil sampling, historic site activity, or other means, identifying areas determined not to be potentially contaminated by hexavalent chromium contamination. If approved by the Executive Officer, those areas determined not to be potentially contaminated may be excluded from the provisions of this clause (h)(5)(A)(ii); ~~and/~~or

(iii) The Executive Officer determines that either no further action is required or reclamation/clean-up/rehabilitation activities have been satisfactorily completed such that fugitive emissions of hexavalent chromium have been reduced and are no longer of public health concern; and

(B) The owner/operator demonstrates compliance with the applicable hexavalent chromium threshold pursuant to subparagraph (d)(11)(A) and/or (d)(11)(B) for a subsequent 3 month period after completion of reclamation, clean-up/rehabilitation or no further action determination in subparagraph (h)(5)(A).

(6) The owner/operator must notify the Executive Officer in writing when commencing actions in subparagraph (h)(5)(A) or (h)(5)(B).

(~~h~~i) Exemptions

(1) The owner/operator is exempt from installing a three-sided barrier or enclosure, or using the test methods in the SCAQMD Rule 403 Implementation Handbook for the demonstration of surface stabilization for open storage piles if 90% of the pile's mass consists of materials that are larger than ½ inch. Applicability of this exemption shall be determined through the measurement of any composite sample of at least 10 pounds taken from a minimum depth of 12 inches below the pile surface, and from various locations in the pile, but not from within 12 inches from the base of the pile. This exemption is limited to open storage piles that contain only materials other than clinker, providing that such piles meet the performance standards in subparagraphs (d)(1)(B) and (d)(1)(C).

(2) The owner/operator is exempt from the use of chemical dust suppressants for internal unpaved roads if the use of applicable chemical dust suppressants on that specific unpaved road violates the rules and/or regulations of the local Water Quality Control Board or other government agency provided the owner/operator uses water in sufficient quantity and frequency to stabilize the road surface and the owner/operator notifies the Executive Officer in writing 30 days prior to the use of water.

(3) Haul trucks are not required to use designated roads for haul trucks if they travel on unpaved roads complying with the requirements in clause (d)(7)(A)(ii).

(4) The owner/operator is exempt from the use of chemical dust suppressants in clause (d)(7)(A)(ii) where a road is used less than a monthly average of twice a day by a designated vehicle at a speed limit less than 15 miles per hour.

(5) The owner/operator is exempt from the use of chemical dust suppressants on unpaved areas specified in clause (d)(7)(A)(ii) during a period for demolition activities of no longer than six (6) calendar months provided that the owner/operator uses water in sufficient quantity and frequency to stabilize the

unpaved areas, meets the opacity requirements in subparagraphs (d)(1)(B) and (C) at all times, and keeps sufficient records to demonstrate compliance.

(6) With the exception of primary crushing, open material storage piles, and covers and existing enclosures for conveying systems, the provisions of this rule shall not apply to equipment or operations that are subject to Rule 1157 or Rule 1158 located at the cement manufacturing facilities, provided that there is no backsliding from the current level of control as stated in the permits approved by the Executive Officer prior to November 4, 2005 or as required under Rule 1157 and Rule 1158, whichever is more stringent.

(7) The owner/operator is exempt from the requirements in clause (d)(5)(C)(i) in the event the wind fence material needs to be removed to perform periodic maintenance of the clinker crane or building. During the time the wind fence material is removed, the clinker crane shall not actively transport clinker material in the building, except for post maintenance equipment testing.

(8) During day(s) in which the instantaneous wind speeds exceed 25 mph using the on-site wind monitoring equipment pursuant to (d)(13)(A), the owner/operator is exempt from the hexavalent chromium and PM10 averaging provisions of subparagraphs (d)(11)(A) and/or (d)(11)(B), and (d)(12)(A) as applicable, provided all open handling of clinker material is ceased and dust controls are applied pursuant to subparagraph (d)(13)(B). If the Executive Officer determines a significant potential of re-entrained hexavalent chromium containing dust from the facility exists during such high wind events, the owner/operator shall implement an approved Mitigation Monitoring Plan to minimize exposure to the surrounding area and to ensure implementation of all applicable dust control measures to meet the requirements of subparagraphs (d)(11)(A) and/or (d)(11)(B), and (d)(12)(A), as applicable. The Mitigation Monitoring Plan is due 90 days, inclusive of appropriate plan fees pursuant to Rule 306, after notification by the Executive Officer.

ATTACHMENT F

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

~~Draft~~Final Staff Report

Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

~~August~~September 2015

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Table of Contents

LIST OF FIGURES

I. EXECUTIVE SUMMARY

Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities was adopted in November 2005. The original rule requires cement manufacturing facilities to comply with specific requirements applicable to various operations, as well as materials handling and transport at the facilities. Riverside Cement (RC) in Riverside and California Portland Cement Company (CPCC) in Colton are the two cement manufacturing facilities in the SCAQMD's jurisdiction subject to Rule 1156.

Rule 1156 was amended in March 2009 to further reduce particulate emissions and to address elevated ambient concentrations of the carcinogen, hexavalent chromium (Cr^{+6}), observed at the Rubidoux monitoring station in Western Riverside County as part of the third Multiple Air Toxics Emissions Study (MATES III). To protect the public from Cr^{+6} exposure, the amendments included a threshold for Cr^{+6} that was established to be 0.70 ng/m^3 (excluding background), based on a 100-in-a-million fence-line cancer risk. Based on MATES III, a 0.16 ng/m^3 Cr^{+6} background was derived based on the two-year sampling effort at nine fixed-site monitoring stations across the Basin (excluding the Rubidoux station). Rubidoux station was excluded from the derivation as its Cr^{+6} levels were likely influenced by the cement manufacturing facilities. Therefore, a fence-line effective limit was established at 0.860 ng/m^3 (0.70 + 0.160). The rule amendment also required additional control measures such as: clinker storage area protection, Cr^{+6} ambient monitoring, and wind monitoring, with contingencies (i.e., clinker enclosure based on Cr^{+6} results and PM10 monitoring in case of elevated concentrations). As part of the rule amendment Resolution, the Board directed staff to re-evaluate the need for, and the frequency of, Cr^{+6} ambient monitoring after five (5) years of data collection, and to establish a working group to develop a Facility Closure Air Quality Plan Option (Closure Plan).

Staff met with the working group in 2010 and 2011 to discuss the criteria for facility closure and conditions to potentially sunset Cr^{+6} ambient monitoring. A draft closure plan was developed and presented to the Stationary Source Committee (SSC) in 2012, but was left as a living document since neither facility was producing clinker at the time and there was uncertainty regarding future cement manufacturing activities given the economic recession. Currently, both cement manufacturing facilities are still non-operational regarding clinker production. RC and CPCC only process clinker or cement material imported from facilities outside the SCAQMD's jurisdiction.

The rule proposal includes requirements for current owners/operators of the affected property before and after cement manufacturing facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. The proposal is intended to minimize potential air quality impacts from cement facility closure and to streamline Cr^{+6} ambient monitoring.

Staff also proposes to revise the Cr^{+6} ambient air monitoring fence-line threshold as a result of the 2015 update to the Office of Environmental Health Hazard Assessment's (OEHHA) risk assessment guidelines.

Staff is proposing to change the fence-line Cr^{+6} ambient air monitoring threshold from 0.7 ng/m^3 to 0.20 ng/m^3 (excluding background) and to update and refine the calculation determining background levels. The change from 0.7 to 0.2 ng/m^3 maintains the 100-in-a-million risk threshold under the new OEHHA guidelines that account for early-life exposures to air toxics. The Cr^{+6} ambient air monitoring background levels are currently 0.062 ng/m^3 and 0.056 ng/m^3 for a 30-day and 90-day rolling average, respectively, based on the 90th percentile background concentrations observed at the Fontana and Rubidoux stations as part of the fourth Multiple Air Toxics Exposure Study (MATES IV). With these background levels, the new Cr^{+6} effective limit will be 0.262 ng/m^3 and 0.256 ng/m^3 for a 30-day and 90-day rolling average, respectively. Staff also proposes an implementation schedule for the new fence-line limit phase-in.

Staff conducted a public consultation meeting in April 2015 to solicit input on the April version of proposed rule, including dust control measures. In response to industry's request, the Public Hearing was rescheduled to September 2015 to allow additional time for stakeholders to provide comments. Staff conducted a public workshop in June 2015 to seek additional input on the additional proposed Cr^{+6} ambient air monitoring background and fence-line threshold, the implementation schedule for the new Cr^{+6} standard and compliance requirements in the event of Cr^{+6} exceedance, and the criteria to validate duplicate source tests at low PM10 concentrations (significantly less than the PM emission limit of 0.01 grain/dscf, in paragraph (d)(6). In addition, staff has worked extensively with representatives of both cement facilities.

The following summarizes the key proposed amendments:

- Rule purpose and applicability are updated to clarify applicability of the rule after facility closure;
- Criteria for facility closure relative to cement manufacturing operation: activities must be completely ceased (i.e., blending silo, kiln, clinker cooler, and clinker grinding/milling) and related permits must be surrendered or have expired and are no longer reinstatable;
- Condition for reducing Cr^{+6} ambient monitoring stations at existing cement facilities:
    - Approval for reduced number of monitoring stations (minimum of one) may be obtained upon subsequent 12 consecutive months of demonstrating less than Cr^{+6} threshold (0.70 ng/m^3 and/or 0.20 ng/m^3, excluding background, depending on the compliance date) after date of rule amendment;
    - Reversion to the most recently approved compliance monitoring plan within 14 calendar days of being notified by the SCAQMD of confirmed exceedances of the applicable threshold, considering wind and other relevant data;

- Effective September 5, 2016, ambient Cr^{+6} concentrations from a 30-day or 90-day rolling average at each monitoring station shall not exceed 0.20 ng/m^3 (excluding background). Prior to this date, the previous Cr^{+6} threshold of 0.70 ng/m^3 (excluding background) remains in effect;
- Within 60 days from notification of a confirmed exceedance of 0.20 ng/m^3 (excluding background) that occurs prior to September 5, 2018, but after September 5, 2016, a compliance plan with detailed descriptions of all feasible mitigations measures must be submitted for approval in addition to the appropriate fees. Failure to obtain an approved compliance plan is a violation of Rule 1156;
- The compliance plan requirement will not apply to owner/operator who has an approved or has been required to submit a Health Risk Assessment under Rule 1402 – Control of Toxic Air Contaminants for Existing Sources;
- A confirmed Cr^{+6} exceedance of 0.20 ng/m^3 (excluding background) that occurs on or after September 5, 2018 will be a violation of the rule;
- Criteria to validate duplicate source tests:
  - PM10 concentrations of both samples must be below 0.002 grain/dscf; or
  - The difference between two samples shall be less than 35% of their average and the difference between the sample catches (normalized to the average sampling volume) shall be less than 3.5 milligrams;
- Requirements after facility closure:
  - The facility closure provision is applicable only to owner/operator of the property on which a cement manufacturing facility operated on or after November 4, 2005;
  - Continued Cr^{+6} ambient monitoring in compliance with the applicable thresholds and compliance plan, inclusive of reduction to a minimum of one monitoring station;
  - Provisions for Cr^{+6} ambient monitoring relocation ~~and co-located monitoring and sampling by SCAQMD~~;
  - Requirement for monitoring calibration and maintenance;
  - The facility closure provisions cease to apply if both (1) and (2) occur:
    (1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property with all permanent stabilization measures ~~and~~done in compliance with SCAQMD Rules, including SCAQMD Rule 403 – Fugitive Dust during equipment dismantling or demolition and material removal; ~~and/~~or determination from the Executive Officer that no further action is required or the reclamation/clean-up/rehabilitation activities have been satisfactory completed; and
    (2) Subsequent three months of demonstrated compliance with the applicable Cr^{+6} ambient monitoring thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

    A site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

II. BACKGROUND

Portland cement is commonly manufactured through a dry method in which the combination of ground limestone rock and iron ore or other materials is fed to a cement kiln. As the materials move through the rotating kiln at high a temperature (about 2,700 degree Fahrenheit), some elements are driven off as gases or particulates and the remaining form a new substance called clinker. Clinker comes out of the kiln as hot, gray spheres about the size of large marbles. Clinker is cooled, ground and/or milled to a very fine product, and blended with small amounts of gypsum and fly ash to become cement, which is sold in packages or in bulk.

According to staff analysis in 2008 that included soil sampling, ambient air samples, and emissions modeling, uncontrolled clinker material handling at cement manufacturing facilities associated with outdoor storage, transfer and re-entrained road dust were found to be the sources of the elevated ambient hexavalent chromium (Cr^{+6}) concentrations in Rubidoux and at monitors placed in the adjacent communities. Kilns and finish mills at cement manufacturing facilities can also influence the formation and emissions of Cr^{+6}. Cr^{+6} is a potent, known carcinogen, exposure to which could result in lung cancer, irritation and damage to the skin, eyes, nose, throat, and lung, asthma symptoms, and/or allergic skin reactions. Since clinker materials might also contain other toxics such as lead, arsenic, cadmium, and cobalt in addition to Cr^{+6}, controlling emissions from these activities is essential.

Currently, both RC and CPCC are no longer producing clinker on-site. CPCC only imports cement from its Mojave facility for batch operations. RC previously manufactured clinker at the Riverside facility, but discontinued this operation many years ago. RC continues its cement manufacturing at this location by bringing in clinker from its Mojave facility for grinding, blending, and packaging.

At the time of the 2009 amendment, CPCC and RC had expressed a need for an off-ramp or sunset in Cr^{+6} monitoring upon facility closure. As currently written, Rule 1156 does not contain any such provisions. After facility closure, a cement manufacturing facility property can be converted for a variety of other uses. These potential uses can provide long-term stabilization of the land and as a result, can improve air quality in the area; however, during such land transformation, Cr^{+6} in soils might be re-entrained during land disturbance activities such as demolition, construction, grading, and paving. To ensure no degradation to air quality after facility closure and long-term public health protection, continued Cr^{+6} ambient monitoring after closure, and soil sampling, ground stabilization, and dust mitigation at the property related to land disturbing activities are important. However, recognizing a continued low level of Cr^{+6} concentrations in compliance with the Rule 1156 threshold during the past five years of monitoring, staff is proposing conditions for reducing or eliminating the required Cr^{+6} ambient monitoring, at existing cement facilities and after facility closure, in addition to other proposed rule revisions.

A. Regulatory History

Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities was adopted in 2005. The rule requires cement manufacturing facilities to comply with specific requirements, ranging from tarping, partial cover, dust suppressant, and total enclosure to control devices applicable to various operations and equipment, including kiln and clinker coolers and material storage, handling, processing, and transferring. To prevent track-out from the facility's roadways and areas, Rule 1156 requires specific controls, such as sweeping, speed limits, chemical dust suppressants, gravel pads, rumble grates, and truck/wheel washers, etc. RC Riverside Cement (RC) in Riverside and California Portland Cement (CPCC) in Colton are the only two cement manufacturing facilities in the SCAQMD's jurisdiction, and thus the only two facilities subject to Rule 1156.

Rule 1156 was amended in March 2009 to address unexpected elevated levels of Cr^{+6}, a potent known human carcinogen, observed at the Rubidoux monitoring station and at monitors adjacent to the facilities as part of the MATES III. These elevated concentrations were traced back to uncontrolled clinker materials handling associated with outdoor storage and transfer, and to re-entrained road dust at cement manufacturing facilities. Cr^{+6} emissions also occurred from facility operations, including kilns, kiln dust ponds, and finish mills since they can also influence the formation and emissions of Cr^{+6}.

The 2009 rule amendment included adoption of an ambient Cr^{+6} limit of 0.70 ng/m^3 based on a 100 in a million fence-line risk, less background. The 2009 rule amendment also required additional control measures at the facilities, such as: clinker storage area protection (i.e., wind fencing and impervious tarps), Cr^{+6} ambient monitoring, and wind monitoring, with contingencies (i.e., clinker enclosure based on Cr^{+6} results and PM10 monitoring in case of elevated concentration), to further reduce particulate and Cr^{+6} emissions from cement manufacturing facilities. Under a Governing Board adoption resolution, the need for and frequency of Cr^{+6} ambient monitoring was to be re-evaluated after five (5) years of data collection and a working group was established to develop a Facility Closure Air Quality Plan Option (Facility Closure Plan). Cr^{+6} ambient monitoring results have been reported annually to the Stationary Source Committee beginning in 2011, and bi-annually to the Governing Board beginning in 2012.

B. Five-Year Hexavalent Chromium Ambient Monitoring

Figure 1 shows the previous locations of SCAQMD's Cr^{+6} monitoring stations (numbered 1 through 10) in Western Riverside and San Bernardino Counties that were used during the initial investigation. All but location 7 were subsequently removed as the Rule 1156 requirements for monitoring at

the facilities were implemented. Figure 1 also shows the current locations of the four Cr^{+6} monitoring stations at RC and the three stations at CPCC.

Figure 1 - Sampling Locations for Hexavalent Chromium in Western Riverside and San Bernardino Counties

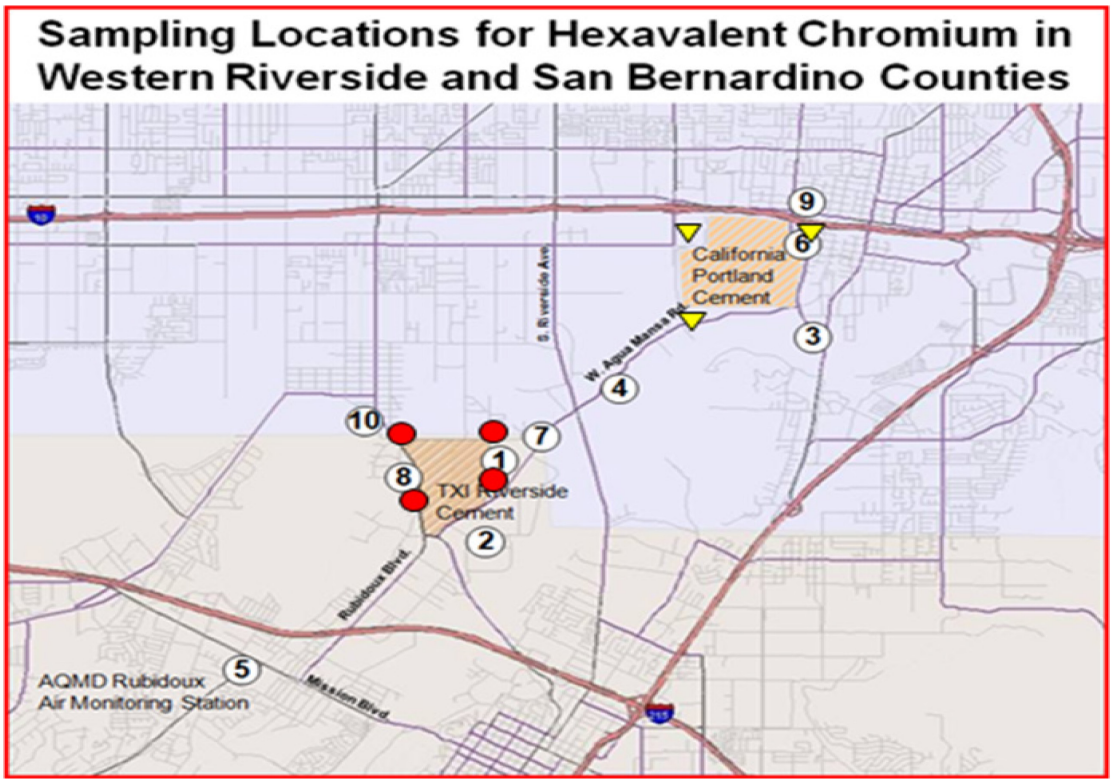
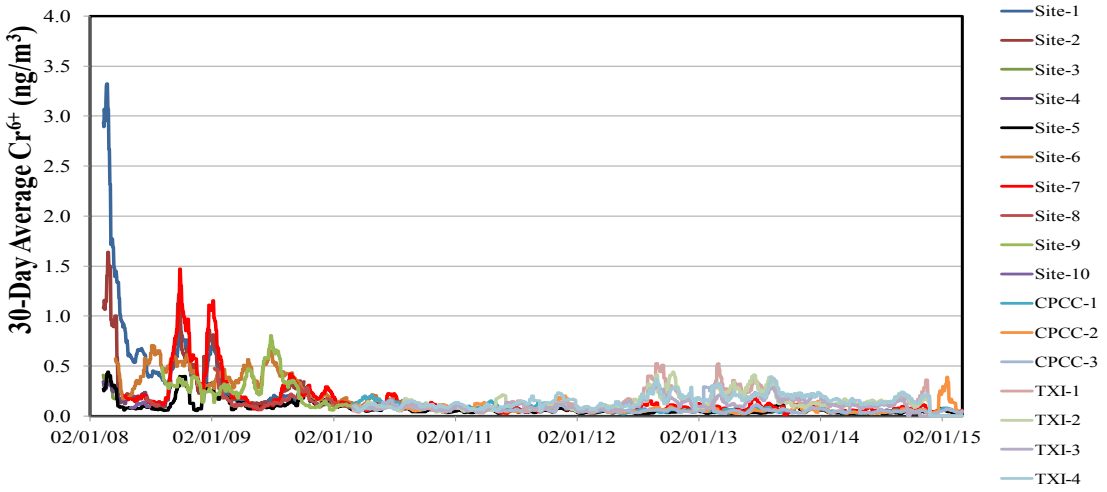


Figure 2 depicts the 30-day rolling average of Cr^{+6} ambient air concentrations at the monitoring stations in Western Riverside and San Bernardino Counties, as well at CPCC and RC since 2008.

Since implementation of a settlement agreement with RC in August 2008 and RC's voluntary shut down of its white cement kilns and finish mills due to the economic climate, the 30-day rolling average of Cr^{+6} shows an overall downward trend, except for some incidents where elevated ambient concentrations of Cr^{+6} were detected. However, since the implementation of amended Rule 1156 in March 2010, the 30-day rolling average of Cr^{+6} ambient concentrations measured at the monitoring stations in Western Riverside and San Bernardino Counties, as well at CPCC and RC, indicate continued compliance with the current Rule 1156 threshold (0.7 ng/m^3, excluding background concentration of 0.16 ng/m^3).

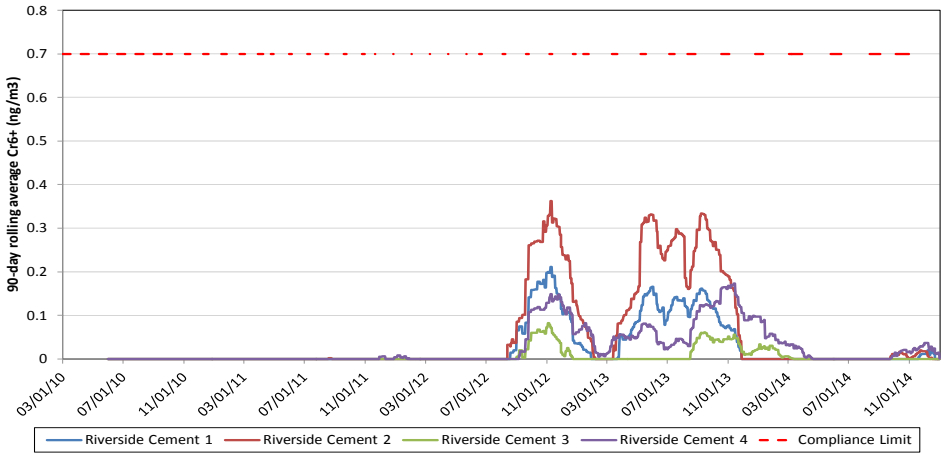
Figure 2 - 30-Day Rolling Average
All Sites | 2008 - Current



Per Rule 1156, after 12 months of no exceedances of Cr^{+6} ambient air concentrations under the 1-in-3-day sampling schedule, CPCC and RC changed their 24-hour Cr^{+6} ambient monitoring sampling to a 1-in-6-day schedule and a 90-day average threshold calculation in April 2011.

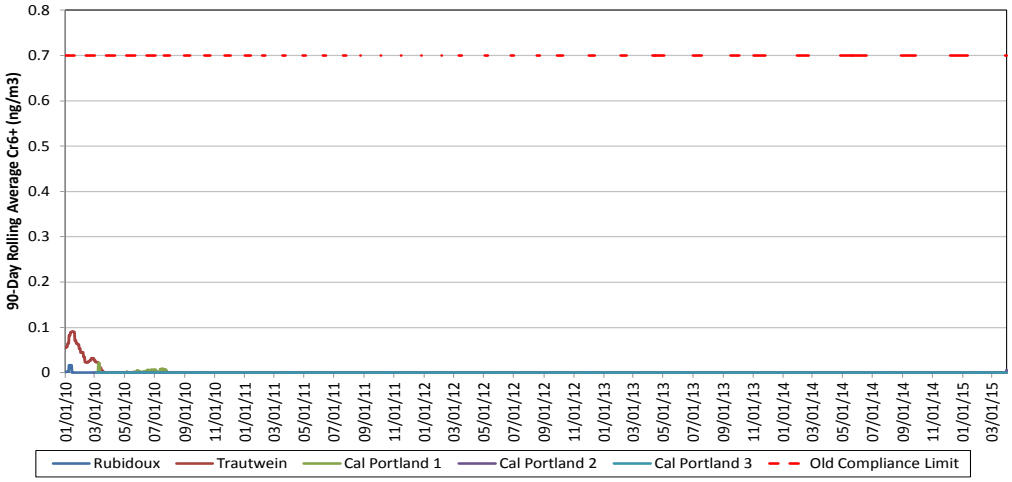
Figures 3 and 4, respectively, depict RC and CPCC's 90-day rolling average of Cr^{+6} ambient air concentrations, excluding the background of 0.16 ng/m^3 as per Rule 1156. The background level of 0.16 ng/m^3 was based on the Cr^{+6} ambient air concentrations from the two-year sampling effort of MATES III (from 2004 to 2006) at nine fixed-site monitoring stations across the Basin (excluding the Rubidoux station). The Rubidoux station was excluded from the calculation as its Cr^{+6} levels were influenced by the cement manufacturing facilities.

Figure 3 - 90-Day Rolling Average minus Background – Riverside Cement[1]



[1] Per the South Coast AQMD 2005 Staff Report for Rule 1156, a background concentration of 0.16 ng/m³ (~~MATES IV Study I average CR 6+ concentration in Fontana and Rubidoux~~ MATES III Study; average Cr^{6+} concentration at nine stations, excluding Rubidoux) is utilized for rolling average compliance calculations. The rolling average is reported as a value of zero when the rolling average is less than or equal to zero.

Figure 4 - 90-Day Rolling Average minus Background– CPCC[1]



[1] Per the South Coast AQMD 2005 Staff Report for Rule 1156, a background concentration of 0.16 ng/m³ (~~MATESS IV Study I average Cr6+ concentration in Fontana and Rubidoux~~ MATES III Study ; average Cr^{6+} concentration at nine stations, excluding Rubidoux) is utilized for rolling average compliance calculations. The rolling average is reported as a value of zero when the rolling average is less than or equal to zero.

The 90-day rolling averages of Cr^{+6} are calculated based on the 1-in-6-day sampling for data measured after April 2011 when both facilities converted from a 1-in-3-day sampling schedules to a 1-in-6-day sampling. The 90-day rolling averages prior to April 2011 are calculated based on the 1-in-3-day measurements. The rolling average is reported as a zero value if it is less than or equal to zero (at or below background). For RC, the peak of the 90-day rolling average of Cr^{+6} ambient air concentrations collected at each of

their four monitoring stations was below 0.4 ng/m^3, less than the Rule 1156 limit of 0.7 ng/m^3. For CPCC, the 90-day rolling average of Cr^{+6} ambient air concentrations collected at each of their three monitoring stations are all below 0.1 ng/m^3.

C. Cement Facility Closure Working Group

The Cement Facility Closure Working Group was convened and consisted of representatives from CPCC and RC, as well as staff from the Santa Ana Regional Water Quality Control Board and the San Bernardino County Land Use Services Department. The working group's purpose was to ensure minimal air quality impacts from cement facility closure and long-term health protection for the surrounding communities.

Staff conducted two working group meetings in 2011 and 2012. Potential criteria for facility closure, ways to measure long-term soil stability, steps to ensure long-term health protection, and conditions to sunset the Cr^{+6} monitoring requirements were discussed. A draft Facility Closure Plan, inclusive of input and recommendations from the working group, was presented to the Stationary Source Committee (SSC) in 2012, but was left as a living document since neither facility was producing clinker at the time and uncertainties existed as to the restarting of clinker and cement manufacturing activities when the economy recovered.

D. Update to OEHHA Risk Assessment Guidelines

Since the 1990s, it has been a Governing Board policy, as established in Rules 1401 – New Source Review of Toxic Air Contaminants and 1402 – Control of Toxic Air Contaminants from Existing Sources, for the assessment of public health risk to be conducted via guidelines established by OEHHA. Under AB2588, the SCAQMD is required to follow OEHHA guidelines for health risk assessments, H&S §44360(b)(2). In April 2015, OEHHA finalized updates to its guidelines for determination of risk. The guidelines include an update to how risk is calculated. Specifically, the guidelines now include age sensitivity factors, updated breathing rates and the number of years spent at home or at the workplace. The result is a net cancer risk increase for residential receptors of approximately three times the prior calculated levels. In the case of hexavalent chromium, due to the multi-pathway exposure, the risk increases by a factor of 3.87. Based on the revised guidelines, fence-line Cr^{+6} levels for a 100-in-a-million cancer risk would be 0.181 ng/m^3. The Basin-average Cr^{+6} ambient monitoring concentration based on MATES IV is 0.056 ng/m^3. Staff's proposal to address the updated guidelines and to update and refine the Cr^{+6} background calculation pertaining to Rule 1156 is described herein.

E. Public Process

In addition to the working group meetings in 2011 and 2012, staff also met with representatives of CPCC and RC beginning in January 2015 to solicit comments on the proposed amendment concepts. Comments received were incorporated into development of the April version of proposed amendments, as appropriate.

Staff conducted a working group meeting on April 7, 2015 to present detailed proposed amendments. Draft rule language was released to the working group for their review and comments prior to the SSC meeting on April 17th. Staff conducted a public consultation meeting on April 22nd near a cement facility for ease of community participation, to solicit input on the April version of proposed rule, including dust control measures. Since then, staff also met with RC and CPCC on two separate occasions in May regarding the proposed more stringent threshold and determination of the actual emission sources to be addressed if there is an exceedance.

Staff conducted a public workshop in June 2015 to seek additional input on the proposed Cr^{+6} ambient air monitoring fence-line threshold, the implementation schedule for new Cr^{+6} standard, compliance requirements in the event the Cr^{+6} levels are exceeded, and the criteria to validate duplicate PM10 source tests at low concentrations (significantly less than the emission limit of 0.01 grain/dscf). Following the public workshop, staff conducted a site visit to learn more about the current operational status at one facility. Staff also met with both facilities on two occasions in July to address issues regarding the new Cr^{+6} ambient air monitoring fence-line threshold and background, and the continued monitoring requirement after facility closure.

In response to industry's request, the Public Hearing was rescheduled to September 2015 to allow additional time for stakeholders to provide comments.

III. PROPOSED AMENDMENTS

A. Reduced Monitoring and Facility Closure

To address potential air quality impacts from the closure of cement manufacturing facilities and to ensure long-term air quality and protection, staff proposes to update and clarify rule applicability after facility closure.

Staff also proposes the criteria for facility closure. To qualify for facility closure, all cement manufacturing operations/equipment, including but not limited to blending silo, kiln, clinker cooler, and clinker grinding/milling must be completely ceased, and all related permits for operation must be surrendered or are expired and not reinstatable.

To streamline Cr^{+6} ambient monitoring at existing cement manufacturing facilities, staff proposes conditions for reducing the number of Cr^{+6} ambient monitoring stations. After the date of rule amendment and upon a subsequent twelve (12) consecutive months of demonstrating less than the applicable Cr^{+6} threshold (0.70 ng/m^3 and/or 0.20 ng/m^3, depending on the date of compliance, excluding background), the owner(s)/operator(s) may submit for approval an amended compliance monitoring plan to operate a minimum of one monitoring station, predominantly downwind from the emission source(s). However, if such thresholds are confirmed to have been exceeded at any time while under the new monitoring plan, the owner(s)/operator(s) must revert back to prior monitoring requirements, which include a minimum of three (3) monitoring stations, and comply with the previously approved compliance monitoring plan. Reverting back to the prior monitoring requirements must occur within 14 days of notification if the Executive Officer confirms through wind event or other wind data, as necessary, that the facility is the source of the emissions.

To ensure no degradation to air quality after a facility closure, the proposed amendments require owner/operator of the property on which a cement manufacturing facility has operated on or after November 4, 2005, to continue their Cr^{+6} ambient monitoring in accordance with the most recent monitoring plan, schedule, and applicable threshold until both (1) and (2) are met:

(1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property with permanent stabilization measures ~~and~~done in compliance with SCAQMD Rules, including SCAQMD Rule 403 – Fugitive Dust during equipment dismantling or demolition and material removal; ~~and/~~or determination from the Executive Officer that no further action is required or the reclamation/clean-up/rehabilitation activities have been satisfactory completed; and

(2) Subsequent three months of demonstrated compliance with the applicable Cr^{+6} thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

A site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

The proposed amendments also include provisions for Cr^{+6} ambient monitoring relocation and monitoring calibration and maintenance requirement. In the event of any relocation of ambient Cr^{+6} monitor(s), the owner(s)/operator(s) must notify the SCAQMD in writing and obtain its approval prior to such relocation. The owner(s)/operator(s) must move the monitor(s) back to the original location(s) or other approved locations(s) within the timeframe specified by the SCAQMD. The owner(s)/operator(s)

is also required to provide the SCAQMD with monitoring calibration and maintenance upon request.

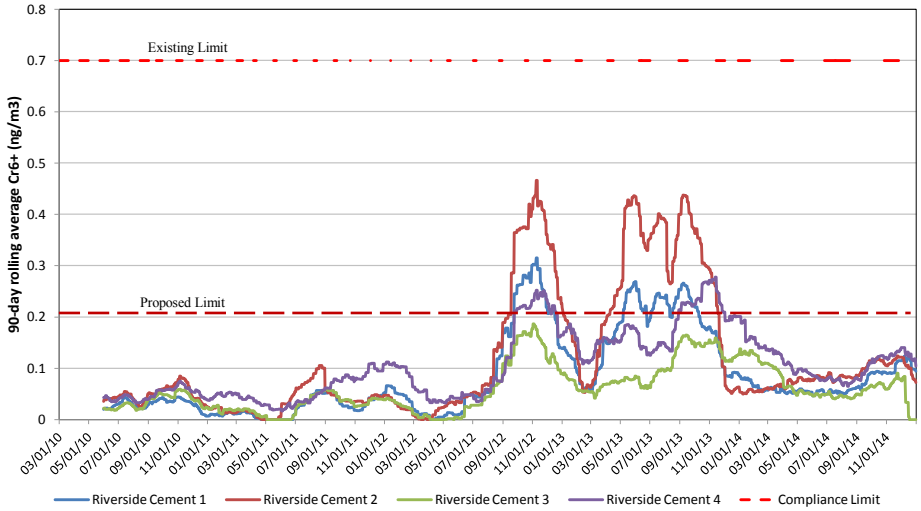
B. Cement Facilities and New OEHHA Guidance

As previously discussed, under the 2015 update to the OEHHA's risk assessment guidelines, the fence-line Cr^{+6} ambient monitoring threshold is proposed to be lowered to 0.20 ng/m^3 (excluding background). This maintains the 100 in a million cancer risk at the facility fence line.

Staff also updates the background level concentration for determining compliance with the fence-line risk. Specifically, the MATES IV Basin average background risk is 0.056 ng/m^3. However, staff proposes two different MATES IV sites (Fontana and Rubdidoux) Cr^{+6} background levels applicable to the proximity of RC and CPCC for two different sampling schedules. Using the 90th percentile data, the 30-day rolling average Cr^{+6} background concentration for a 1-in-3 sampling schedule would be 0.062 ng/m^3, and the 90-day rolling average Cr^{+6} background concentration for a 1-in-6 sampling schedule would be 0.056 ng/m^3. These background levels will be used for Rule 1156 compliance purposes. Therefore, the proposed new effective limits would be 0.262 ng/m^3 and 0.256 ng/m^3, respectively.

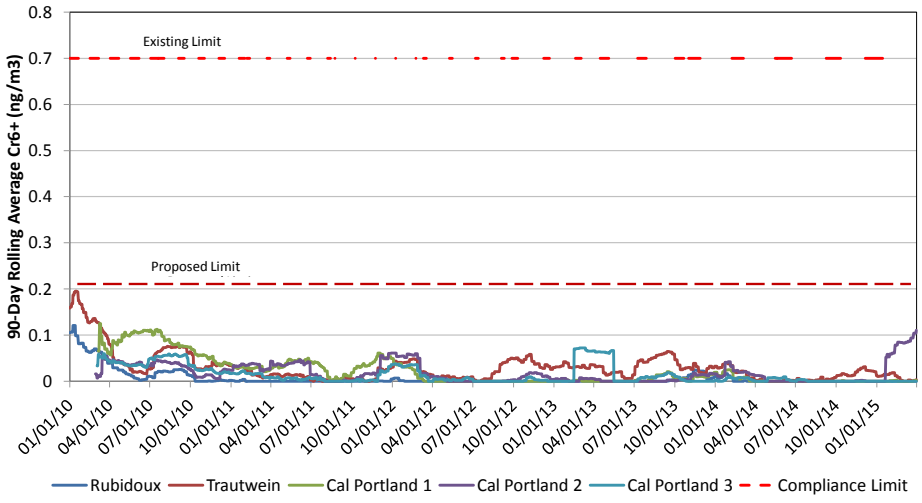
Figures 5 and 6, respectively, depict RC and CPCC's 90-day rolling average of Cr^{+6} ambient air concentrations in relation to the newly proposed 0.20 ng/m^3 threshold, less the background concentration of 0.056 ng/m^3

Figure 5 - 90-Day Rolling Average minus Background – Riverside Cement[1]



[1] A background level of 0.056 ng/m^3 (MATES IV Study; 90th percentile Cr^{+6} concentration in Fontana and Rubidoux) is utilized for the rolling average compliance calculations. The rolling average is reported as a value of zero when the rolling average is less than or equal to zero.

Figure 6 - 90-Day Rolling Average minus Background – Cal Portland Cement[1]



[1] A background level of 0.056 ng/m³ (MATES IV Study; 90th percentile Cr^{+6} concentration in Fontana and Rubidoux) is utilized for the rolling average compliance calculations. The rolling average is reported as a value of zero when the rolling average is less than or equal to zero.

As with Figures 3 and 4, the 90-day rolling averages of Cr^{+6} from these figures are calculated based on the 1-in-6-day sampling for data measured after April 2011 when both facilities converted from a 1-in-3-day sampling schedules to a 1-in-6-day sampling. The 90-day rolling averages prior to April 2011 are calculated based on the 1-in-3-day measurements. The rolling average is reported as a zero value if it is less than or equal to zero.

For RC, the peak of the 90-day rolling average of Cr^{+6} ambient air concentrations collected at each of their four monitoring stations were occasionally above the newly proposed 0.20 ng/m^3. According to RC, higher than usual Cr^{+6} levels occurred when the facility restarted their finishing mills at less than full capacity. However, since that time, RC has operated below the threshold. Staff will continue working with RC on the potential impact of the new fence-line threshold as production increases to near capacity.

For CPCC, the peak of the 90-day rolling average of Cr^{+6} ambient air concentrations collected at each of their four monitoring stations is below the proposed 0.20 ng/m^3. Even using the new, lower background level and threshold, CPCC's past monitoring has been consistently lower than the proposed limit.

To address industry's concern, staff proposes an implementation schedule for the updated Cr^{+6} threshold and a provision that wind and other relevant data will be examined to determine whether the cement facility is the actual source of any Cr^{+6} exceedances. As proposed, effective September 5, 2016, the Cr^{+6} concentrations from a 30-day or 90-day rolling average at each

monitoring station shall not exceed 0.20 ng/m^3 (excluding background). Starting September 5, 2016, the Cr^{+6} threshold of 0.20 ng/m^3 and background concentrations of 0.062 ng/m^3 and 0.056 ng/m^3 would be utilized for the rolling average compliance calculations. The current Cr^{+6} threshold of 0.70 ng/m^3 (excluding background of 0.16 ng/m^3) would still be operative prior to this date.

The proposed amendments also require the owner(s)/operator(s) to submit for approval a compliance plan for any confirmed Cr^{+6} exceedance of the new threshold of 0.20 ng/m^3 occurring prior to September 5, 2018, but after September 5, 2016,. A failure to obtain an approved compliance plan will be a violation of Rule 1156. The compliance plan and appropriate fees must be submitted within 60 days of SCAQMD's notice and must include the following in addition to basic contact information: (1) a description of the activities, including a site location map; (2) a listing of all potential sources of fugitive dust emissions within the property line; (3) a description of the implementation schedule and frequency of all applicable dust control measures listed in Rule 403 – Fugitive Dust; and (4) a detailed description of additional feasible control and/or stabilization measures that will be applied to each of the emission sources and the application frequency.

The requirement for a compliance plan will not apply to facilities that have an approved, or have been required to submit, a Health Risk Assessment under Rule 1402 – Control of Toxic Air Contaminants for Existing Sources as it is expected that compliance with Rule 1402 will adequately prevent risks from exceeding the action level.

To ensure public health protection, staff also proposes that any confirmed Cr^{+6} exceedance of the new threshold of 0.20 ng/m^3 occurring on or after September 5, 2018 will be a violation of Rule 1156, even if they are subject to Rule 1402.

C. Other Proposed Amendments

To address industry's concern regarding unnecessary cost to comply with current precision requirements for duplicate source tests with significantly lower PM10 concentrations than the emission limit of 0.01 grain/dscf, staff also proposes to revise the criteria to validate duplicate samples. Specifically, PM10 concentrations of both samples must be below 0.002 grain/dscf; or the difference between two samples must be less than 35% of their average and the difference between the sample catches (normalized to the average sampling volume) must be less than 3.5 milligrams.

IV. CALIFORNIA ENVIRONMENTAL QUALITY ACT

SCAQMD staff has reviewed the proposed project pursuant to CEQA Guidelines §15002 (k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to the California Environmental Quality

ACT (CEQA). SCAQMD staff has determined that the proposed amendments to Rule 1156 are a discretionary action by a public agency, which has potential for resulting in direct or indirect changes to the environment and, therefore, is considered a "project" as defined by CEQA. SCAQMD staff's review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. Therefore, pursuant to CEQA Guidelines §15252 and 15126.6(f), no alternatives are proposed to avoid or reduce any significant effects because there are no significant adverse impacts, and pursuant to CEQA Guidelines §15126.4(a)(3), mitigation measures are not required for effects not found to be significant. SCAQMD has prepared a draft Environmental Assessment to address the potential adverse environmental impacts associated with the proposed project which was released for a 30-day public review beginning on July 21 and ending on August 19, 2015.

V. SOCIOECONOMIC ASSESSMENT

PAR 1156 would, among other changes, establish a more stringent fence-line Cr^{+6} ambient monitoring threshold, effective September 5, 2016. The amendments would also reduce the required monitoring effort (i.e., number of monitors) by the affected facilities, provided that monitors consistently demonstrate ambient concentrations below the threshold as specified in the proposed amendments. Additionally, the proposed amendments to Rule 1156 also include facility closure provisions.

A. Affected Facilities and Industries

The proposed amendments would affect two cement manufacturing facilities [North American Industrial Classification System (NAICS) 327310]. They are located, one each, in Riverside and San Bernardino counties respectively. According to the Dun and Bradstreet database acquired in January 2015, neither facility would be classified as a small business under the Federal Small Business Administration definition.

B. Compliance Costs

For ongoing cement manufacturing operations at a facility, continued compliance with the fence-line threshold for 12 months post adoption would allow the facility to reduce the number of ambient monitors to one in the principally downwind area. The ability to reduce the number of monitoring stations after meeting all criteria would potentially result in cost savings due to reduced spending on sampling and analysis. The estimated cost-saving would amount to approximately ~~$100,000~~ $112,500 per year for one facility and ~~$75,000~~ $30,500 per year for the other.[1]

[1] The cost-saving at the first facility was based on ~~the~~ its own annual monitoring cost estimate recently submitted to the SCAQMD ~~by one of the affected facilities~~ for running a one in six-day sampling schedule. SCAQMD staff divided the estimate of $150,000 by ~~three~~ four, the number of monitors currently in operation at the facility, to arrive at the cost per monitor, or the cost-saving per retired monitor. ~~Staff also~~

It is possible that one of the two affected facilities may not, based on previous monitoring data, be able to consistently comply with the more stringent fence-line Cr^{+6} ambient monitoring threshold of 0.20 ng/m^3 without implementing additional control measures. As a consequence, this facility may need to submit a compliance plan, increase housekeeping measures, implement additional dust stabilization, and worst case, install control equipment. A compliance plan would not be necessary if the facility had previously approved or is currently required to submit a Health Risk Assessment pursuant to Rule 1402. Depending on the risks estimated in the Health Risk Assessment, the facility may need to develop and implement a Risk Reduction Plan. The actions taken are likely similar under a compliance plan or a Risk Reduction Plan. Compliance costs associated with compliance plan submission, if applicable, would include a one-time cost of $1,925, which includes filing and plan evaluation fees. Under a compliance plan or Risk Reduction Plan, the potential cost of purchasing additional chemical stabilizers would amount to approximately $243,000 annually based on the potential need of two additional applications per year to approximately 50 acres, cumulatively, of facility property.[2] In addition, the purchase and installation of one additional steel partitioning wall, 125 feet in length and 75 feet in height, within an existing building near a cement packaging operation may be necessary to contain dust within the building, as well as four PVC curtain doors, each of 25 feet in length and 35 feet in height, to prevent dust from exiting.[3] The capital cost of the one steel ~~portioning~~partitioning wall would amount to approximately $172,000, based on the unit cost assumption of $18.30/$ft^2$. The capital cost of the four PVC curtain doors would total approximately $14,700, based on the unit cost assumption of $4.50/$ft^2$. (Note that all costs are expressed in 2015 dollars.)

Relative to facility closure, the proposed amendments would provide additional relief from monitoring through continued compliance with the fence-line threshold requirements until three months after site clean-up or remediation. The newly included facility closure provision would potentially reduce the required number of Cr^{+6} monitors following facility

~~assumes that the monitoring cost would be lower, by 25 percent, for t~~The other ~~facility~~ facility currently operates three monitors and incurred a lower monitoring cost because it used the SCAQMD laboratoty, which charged a lower fee, for sampling analysis~~due to variations in fees charged by different sample analysis labs~~. Staff derived the potential cost-saving for this facility based on the SCAQMD laboratory billing record over a one-year period between April 1, 2015 and March 31, 2016 of $45,800 and the three monitors that they operate.

[2] The unit cost of chemical stabilizer application was based on a 2008 estimate of 5 cents/ft^2. The unit cost was inflated to 2015 dollars using the Marshall and Swift Indices.

[3] Notice that the erection of the partitioning wall would be a worst case scenario. The facility may be able to achieve emission reductions through less costly compliance options, such as additional housekeeping measures, closing off doorways and other exit points, etc.

closure to one, principally downwind, if the reduction of monitors has not yet occurred while a facility is in operation. According to staff estimates, the aggregate cost-savings from reduced sampling and analysis for the owner(s)/operator(s) of both facilities undergoing closure would be approximately ~~$8,300~~ $9,400 per month at one facility and ~~$6,200~~ $2,500 per month at the other.[4] Relative to the amendments regarding duplicative source tests, there is a potential cost savings in that unnecessary duplicate source testing will be avoided in the future while accomplishing the same goal as the current requirement.

When the annual compliance cost is less than one million dollars, the Regional Economic Impact Model (REMI) is not used to analyze impacts on jobs and other socioeconomic impacts because the impact results would be very small and would fall within the noise of the model. A major portion of the socioeconomic report covers the regional jobs and other socioeconomic impacts generated from the REMI model. As such, when the REMI model is not run, the socioeconomic assessment is included in the staff report scenario.

VI. DRAFT FINDINGS

Health and Safety Code Section 40727 requires the SCAQMD to adopt written findings of necessity, authority, clarity, consistency, non-duplication and reference.

Necessity

A need exists to amend Rule 1156 to allow flexibility to the facilities given a continuous demonstration of compliance and to conditionally sunset Cr^{+6} monitoring after facility closure. A need also exists to update the ambient Cr^{+6} threshold based on updated OEHHA's risk assessment guidelines.

Authority

The SCAQMD Board obtains its authority to adopt, amend, or repeal rules and regulations from California Health & Safety Code Sections 39002, 40000, 40001, 40440, 40702, and 40725 through 40728, and 41700, inclusive.

Clarity

The proposed amended rule has been written or displayed so that its meaning can be easily understood by persons directly affected by it.

Consistency

The proposed amended rule is in harmony with and not in conflict with or contrary to, existing statutes, court decisions or state or federal regulations.

[4] The cost-saving estimates were based on the estimated cost-saving of ~~$100,000~~ $112,500 per year at one facility and ~~$75,000~~ $30,500 at the other, for reducing the number of Cr+6 ambient monitors to one. (Annual cost-saving ÷ 12 months = monthly cost-saving.)

Duplication
The proposed amended rule does not impose the same requirements as any state or federal regulations. The amendment is necessary and proper to execute the powers and duties granted to, and imposed upon, SCAQMD.

Reference
By adopting the proposed amended rule, the SCAQMD Board will be implementing, interpreting, and making specific the provisions of the California Health & Safety Code Sections 40000 (authority over non-vehicular sources), 40001 (rules to achieve ambient air quality standards), and 41700 (public nuisance).

Comparative Analysis
Health and Safety Code §§40727.2 requires a written analysis comparing a proposed rule or amendment with existing federal, State and District regulations. Health and Safety Code§§40727.2, subsection (c) and (d) further require the analysis to review averaging provisions, operating parameters, work practice requirements, and monitoring, reporting and recordkeeping requirements associated with existing applicable rules and proposed regulations. A comparative analysis for the adoption of Rule 1156 in 2005 was conducted and is included in Appendix B. The analysis was updated in conjunction with the Rule 1156 amendments in 2009 and is reflected in italics. Relative to the 2015 proposal, the comparative analysis in Appendix B has been further updated and the provisions are shown in bold and underline format.

Analysis of Alternative Control Measures
Health and Safety Code Section 40440.5, subsection (c)(3) requires an analysis of alternative control measures if the proposed rule will significantly affect air quality or emissions limitations. Current proposed amendments to Rule 1156 are the result of a Governing Board directive relative to the previous 2009 amendments and do not significantly affect air quality or emissions limitations. Therefore, an analysis of alternatives is not required.

VII. CONCLUSION

The proposed amendments address the Governing Board directive, as stated in the 2009 adoption Resolution, to re-assess the frequency of, or the need for, continued monitoring after five years of data or facility closure. The proposed amendments provide potential relief from monitoring through continued compliance with the Cr^{+6} fence-line threshold requirements. The proposals also address facility closure with a sunset of Cr^{+6} monitoring three months after completion of site clean-up/remediation. The proposed amendments would lower the ambient hexavalent chromium fence-line levels to reflect changes made by OEHHA to the risk assessment methodology.

APPENDIX A

RESPONSE TO COMMENTS

PAR 1156 Comments/Responses

SCAQMD's Authority

Comment#1: SCAQMD lacks legal authority to impose obligations on a "non-source".

Response #1: While the statutes do not define the term "source", and neither do district rules, the California Air Resources Board glossary defines "source" as any place or object from which air pollutants are released. It does not require any human activity to meet the definition. Moreover, the Air Resources Board definition of "area sources" includes "natural sources" which do not implicate any human activity (www.arb.ca.gov/html/gloss.htm). But in any event, the sources which SCAQMD seeks to regulate in PAR 1156 clearly have been affected by human activity (i.e., cement manufacturing), which causes the dirt or dust on the property to contain higher levels of hexavalent chromium (Cr^{+6}). SCAQMD staff submits that property on which dirt or dust containing hexavalent chromium is located constitutes a "source" of air pollution because the dirt or dust may be picked up by the wind and blown outside the property lines where people can breathe it.

The California Court of Appeal upheld SCAQMD's interpretation of "source" to include natural gas in a pipeline which ultimately would be combusted and create NOx emissions, even though there were no emissions from the gas as it sat in the pipeline. The court noted that it must liberally construe the terms in issue for the protection of public health, and the same principle would apply here. *Southern California Gas Co. v. South Coast Air Quality Management District* (2012) 200 Cal. App. 4th 251.

Comment #2: SCAQMD cannot regulate a person such as a subsequent landowner based on emissions which they did not generate, have no knowledge of or potentially cannot control.

Response #2: The District has authority to pass rules and regulations to prevent "air pollution episodes which, at intervals, cause discomfort or health risks to, or damage to the property of, a significant number of persons or class of persons." H&S 40001(b). "By using this language, the Legislature clearly intended to vest AQMD with the authority to adopt preemptive measures designed to prevent air pollution episodes…" (*Ultramar, Inc. v. South Coast Air Quality Management Dist.* (1993) 17 Cal.App.4th 689, 707.) The property will continue to be a potential source of hexavalent chromium emissions after facility closure, regardless of who the owner is. The new owner of a post closure source has control over the property and is thus in the best position to minimize hexavalent chromium emissions from the property. (See Preston v. Goldman 42 Cal.3d 108, 125-126 (ownership and control are fundamental requirements for ascribing liability for conditions on the property).

Notably, SCAQMD only proposes to require an owner of a property to monitor for hexavalent chromium (Cr^{+6}) emissions and comply with the appropriate Cr^{+6} fence-line thresholds and compliance plan, as applicable, during reclamation or site clean-up/rehabilitation and for 3 months following the completion of these activities. These are reasonable regulations. The commenter fails to explain why the new owner would have no knowledge of the emissions or have "no ability to control" the emissions.

Comment #3: SCAQMD is regulating future owners of unrelated activities based solely on emissions and conduct by a former industrial operator.

Response #3: This is not correct. The rule is based on the current risk of dangerous emissions even after the cement operation is closed and the property is sold to a new owner or owners. The rule has also been clarified so that the rule ceases to apply if certain conditions are met after facility closure, as stated in subdivision (h). After facility closure, ambient monitoring in accordance with the most recent monitoring plan, schedule, and applicable threshold shall continue until both (1) and (2) are met:

(1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property with permanent stabilization measures and in compliance with SCAQMD Rules, including SCAQMD Rule 403 – Fugitive Dust during equipment dismantling or demolition and material removal; ~~and/~~or determination from the Executive Officer that no further action is required or the reclamation/clean-up/rehabilitation activities have been satisfactory completed; and

(2) Subsequent three months of demonstrated compliance with the applicable Cr^{+6} thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

In addition, a site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

Comment #4: SCAQMD is requiring that a former permittee have perpetual access to land it has sold and that the rule requirements may have to be recorded to provide notice to future land owners and operators.

Response #4: The rule requirements are intended to apply to the current owner or operator, who must comply with the terms of the rule until the requirements are met. The rule is not intended to impose an obligation on a former permittee to have perpetual access to land it has sold. The rule has also been clarified so that the rule ceases to apply if certain conditions are met after facility closure, as stated in subdivision (h). After facility closure, ambient monitoring in accordance with the most

recent monitoring plan, schedule, and applicable threshold shall continue until both (1) and (2) are met:

(1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property with permanent stabilization measures and in compliance with SCAQMD Rules, including SCAQMD Rule 403 – Fugitive Dust during equipment dismantling or demolition and material removal; ~~and/~~or determination from the Executive Officer that no further action is required or the reclamation/clean-up/rehabilitation activities have been satisfactory completed; and

(2) Subsequent three months of demonstrated compliance with the applicable Cr^{+6} thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

In addition, a site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

Regarding recordation, nothing in this rule requires a current owner or operator to record any notice of the rule requirements on the property deed. Health & Safety Code Section 25359.7 already requires an owner of non-residential real property who knows or has reasonable cause to believe that a release of hazardous substance is located on the property to provide written notice of such condition to a buyer, lessee, or renter of the property prior to the sale, lease or rental of the property. As such, any future owner or operator who conducts due diligence will have notice of the rule requirements. As recommended, the specific provisions applicable only to the operations relating to the manufacture of cement are specifically called out. Specifically, those provisions of the rule via subdivision headings have the phrase "at a cement manufacturing facility" added.

Comment #5: As a part of their comment letters, both facilities provided information regarding actions required by other agencies relative to post facility closure and actions required before repurposing of the property for other uses. These include a reclamation plan by the lead agency regarding mining and other city/county over-site requirements regarding demolition and site clean-up of the property prior to reuse, as well as the CEQA process for future land use activities.

Response #5: As noted in the prior comment relative to subdivision (h), information received from the facilities contributed to the modified rule language regarding facility closure and sunset of the rule provisions once clean-up and stabilization have occurred, as well as three months of compliant monitoring data after the activities have been completed.

Comment #6: Open-ended monitoring is well beyond SCAQMD authority especially once a facility is no longer an operating cement plant.

Response #6: See Response #1. Nevertheless, the rule has been clarified so that the rule ceases to apply if certain conditions are met after facility closure, as stated in subdivision (h).

Comment #7: SCAQMD has no jurisdiction over land use issues and other agencies have jurisdiction over land use and development of the site.

Response #7: The proposed rule requirements are specifically designed to protect public health and are not land use requirements. SCAQMD's proposed rule does not prohibit any kind land use or dictate how the site must be developed. The rule has been clarified so that the rule ceases to apply once reclamation or site clean-up is completed and subsequent three months of compliance with the applicable hex chrome threshold, as provided in subdivision (h) of the rule.

Hexavalent Chromium Monitoring

Comment #1: Monitoring after closure is unnecessary because SCAQMD maintains its regional monitoring network.

Response #1: Regional monitoring does not detect localized levels of air toxics which are the concern here.

Comment #2: PAR 1156 requires access for siting of SCAQMD monitoring equipment on the former cement plant property. This is a taking without due process of law.

Response #2: SCAQMD has removed this provision.

New Cr^{+6} Fence-line Threshold and Background

Comment #1: The commenter's facility may not be able to comply with the new 0.2 ng/um^3 standard. If the facility is forced to close its operation, that "can" constitute an unlawful taking.

Response #1: The commenter fails to explain why they cannot meet the new standard. Just because there have been exceedances of this level in the past does not mean the facility cannot install additional precautionary measures to achieve this standard. But if the facility is forced to close its cement operations, normally that does not constitute a "taking" since the rule would not deprive the facility of all reasonable use of the property, and there is a reasonable health-based rationale for the fence-line limit. If the facility can demonstrate that it could not meet the proposed new limit, staff can assist with evaluating alternative control measures feasible to reduce Cr^{+6} emissions. However, with the newly proposed Cr^{+6} background levels derived from the 90 percentile data for the Rubidoux/Fontana area (a 30-day rolling average of 0.062 ng/m^3 for the 1-in-3 sampling schedule and a 90-day rolling average of 0.056 ng/m^3

for the 1-in-6 sampling schedule), staff believes that the facility can comply with the new Cr^{+6} fence-line threshold, assuming that feasible control measures are taken. Staff is willing to work with the facility in this regard.

Comment #2: SCAQMD should not modify the fence-line limit before CARB guidance documents have been approved.

Response #2: The revised fence-line limit merely applies OEHHA-approved methods to establishing an approximate equivalent to the 100 in a million risk which was the basis for the previous fence-line limit. Nothing in CARB's guidance document is inconsistent with this approach.

Comment #3: The proposed limit presents a risk of facility closure which will cause adverse environmental as well as economic impacts.

Response #3: The commenter has not presented any evidence from which to conclude that it cannot meet the newly-proposed limit, which provides equivalent health protection to the original limit. Any economic or environmental impacts of compliance methods, if identified to SCAQMD, will be analyzed in the CEQA and socioeconomic assessments.

Comment #4: SCAQMD uses wrong background limit that does not accurately reflect the immediate area around the commenter's facility. In addition, if the standard for compliance is based on a 30-day or 90-day rolling average then the background should be based on a similar average.

Response #4: The previously proposed Cr^{+6} background level of 0.043 ng/m^3 observed at Fontana and Rubidoux was the sub-regional annual average background applicable to the proximity of the two cement manufacturing facilities. However, SCAQMD staff concurs that two different Cr^{+6} background levels applicable to the proximity of RC and CPCC for two different sampling schedules is appropriate. Using the 90th percentile data, staff now proposes the 30-day rolling average Cr^{+6} background concentration for a 1-in-3 sampling schedule would be 0.062 ng/m^3, and the 90-day rolling average Cr^{+6} background concentration for a 1-in-6 sampling schedule would be 0.056 ng/m^3. These background levels will be used for Rule 1156 compliance purposes. Therefore, the proposed new effective limits would be 0.262 ng/m^3 and 0.256 ng/m^3, respectively.

SCAQMD staff does not believe that monitoring data from the immediate area around the facilities should be used to derive background because it is unduly influenced by facility emissions and not truly background

Comment#5: There are no residential receptors at the fence-line and the majority of receptors in the area is light industrial.

Response #5: The fence-line risk is driven by residential exposure. Specifically, such a development is across a two-lane road from one facility's property boundary.

Comment #6: Using a 70 year or 30 year exposure limits is a mismatched compliance standard compared to the monitoring data which is generated on a 90-day rolling average.

Response #6: These are two separate issues: an appropriate health-protective standard assuming the appropriate OEHHA approved exposure assumptions, and a proper measure of meeting that limit. To derive the limit, staff properly uses the OEHHA approved exposure assumptions, as is done for all other programs including permitting, CEQA, and AB2588. To decide whether the facility is meeting that limit, staff use the monitoring data which, in this case, is the 90-day rolling average, since both facilities are in their 1-in-6 day sampling schedule pursuant to existing rule requirements.

Miscellaneous

Comment #1: The rule should be "void for vagueness" because a person cannot tell what provisions it must comply with under the sections that require compliance with other agency requirements and mitigations. Also a person may be faced with multiple agencies (i.e., DTSC, CA Water Board, and EPA) interpreting the same requirement differently.

*Response #*1: SCAQMD has removed the provisions requiring compliance with other agencies' rules and regulations, including CEQA requirements. .

Comment #2: SCAQMD is improperly extending the rule to cover air toxics without CEQA review.

Response #2: The current rule version already aims for minimizing Cr^{+6} emissions, which is a toxic air contaminant. SCAQMD staff is revising the CEQA document for the proposed amendments to cover any impacts of lowering the hexavalent chromium monitoring threshold.

Comment #3: The rule is unclear as to which obligations apply to the current permittee and which requirements apply to future landowners. By imposing all obligations on all categories of "owners/operators" at the same time, the rule is vague and unworkable.

Response #3: SCAQMD staff has revised the language to clearly specify requirements for owner(s)/operator(s) of a current cement manufacturing facility and owner(s)/operator(s) of a property after facility closure.

Comment #4: There may be large laboratory errors in SCAQMD's data and the data may not be able to be duplicated by independent third party labs.

Response #4: In a recent collaborative effort between the SCAQMD lab, both affected facilities, and one facility's third party lab, it was found that there were no notable differences in the laboratory results when analyzing samples. Efforts continue to evaluate monitoring itself to identify any potential discrepancies.

Comment #5: Staff fails to consider other possible sources of hexavalent chromium in the area such as other industrial activity and railroads.

Response#5: Other nearby industrial activities and railroads would contribute to the Cr^{+6} background levels observed at the Fontana-Rubidoux stations. Staff also added a provision in the proposed rule that a Cr^{+6} exceedance will be confirmed and verified with wind data and/or relevant data to determine the real source of the exceedance.

Comment #6: The Mancuso manuscript which appears to be the basis for OEHHA's unit risk factor is obscure and cannot be found. The study must be made available.

Response #6: Staff will try to obtain a copy from the OEHHA for reference.

Comment #7: The OEHHA inhalation risk factor is based on a workplace cohort and may not be "directly applicable" here. Also, the Glaser study was on rats and it seems likely that a greater percent of particles were in the respirable range than would occur with hexavalent chromium originating from cement manufacturing. The rats may have been exposed to greater amounts of chromium because they groom themselves and one another and may have ingested chrome. The chrome from cement plants is likely contained within the "complex chemical and structural matrix" of cement and may be less available for contact with deep respiratory tract tissues.

Response #7: SCAQMD uses the inhalation risk factors and follows the risk assessment guidelines developed by OEHHA in estimating potential health effects of toxic air contaminants. These risk factors, as developed by OEHHA, are applicable to the population residing in the South Coast Air Basin.

Comment #8: SCAQMD cannot make a finding of "necessity" simply by creating a new standard and then saying it is necessary to meet that standard. SCAQMD cannot make findings of authority or clarity, for reasons previously stated. SCAQMD cannot make findings of "consistency" and "non-duplication" because it may be using an approach different from that used for AB2588, and because other state and federal agencies can regulate chromium-impacted soils.

Response #8: SCAQMD is not setting a new standard. The standard is under 100 in a million at the fence-line, and the proposed amended rule merely sets a new limit to meet that same standard based on OEHHA's recently-approved guidance. In any event, the standard is justified because SCAQMD has previously determined that 100 in a million is an unacceptable level of risk under the AB 2588 program, as specified in Rule 1402. Staff has previously responded to the "authority" issue. Staff has revised the rule to improve its clarity. The approach is not different from that used in AB2588. Finally, although other agencies may impose requirements to regulate chromium impacted soils, the commenter has not presented any argument that any such regulation preempts SCAQMD requirements which are specifically designed to protect public health. Rule 403 may overlap with respect to some operations, but it does not require monitoring for hexavalent chromium,

and does not focus on emissions of toxic air contaminants, which may require more rigorous control activities than those required under Rule 403.

Specific Rule Language Recommendations

SCAQMD staff has received proposed language submitted by each of the cement manufacturing facilities regarding the proposed amendments. Copy of the suggest language resides in the SCAQMD administrative record, and a summary of the suggested language and intent is summarized as follows:

Comment #1: Suggested modifications regarding the purpose and applicability of Rule 1156 as it pertains to facility closure.

Response #1: Staff modified the rule purpose and applicability to clarify that after facility closure, the rule is also applicable to owner(s)/operator(s) of the property on which the cement manufacturing facility has operated on or after November 4, 2005. Suggestions regarding what constitutes closure was not included in these subdivision, rather it has been clarified in the new definition of "facility closure" and the definition of "owner/operator."

Comment #2: Suggested edits to the definitions of "facility closure" and "owner/operator" relative to the applicability after facility closure. Also, suggested language regarding the approval of proposed modifications to existing compliance monitoring plans.

Response #2: Staff revised the definition of "facility closure" so that closure occurs when all on-site cement manufacturing operations have completely ceased and all equipment permits associated with those operations (i.e., blending silos, kilns, clinker cooler, and clinker grinding/milling) are surrendered, or have expired and no longer reinstatable.

The definition of "owner/operator" was revised to specify current owner/operator of the cement manufacturing facility, and upon facility closure, owner/operator of the property on which the cement manufacturing facility has operated on or after November 4, 2005.

Clause (d)(11)(A)(iii) was revised to allow for potential modification of current compliance monitoring plan upon a subsequent 12 consecutive months of compliance with the appropriate Cr^{+6} thresholds (0.70 ng/m^3 and/or 0.20 ng/m^3, excluding background). If such request is approved, the owner/operator may reduce the number of monitoring stations to a minimum of one and place it downwind from the emission source(s). Rule language was also revised per comment so that upon any confirmed exceedance of Cr^{+6} thresholds, the owner/operator must, within 14 days of SCAQMD's notice, revert back to the most recently approved compliance plan which includes a minimum of three (3) monitoring stations.

Comment #3: It should be made clear in the requirements and subsequent sections those provisions that apply only to cement manufacturing operations.

Response #3: SCAQMD staff concurs and the applicable subdivision titles in the rule have the added phrase "…at a cement manufacturing facility".

Comment #4: Language clarifying that any exceedance of the fence-line hexavalent chromium threshold should be conclusively due to the facility.

Response #4: Language was added to clause (d)(11)(A) (ii) to state that wind event and/or other relevant data will be utilized by the Executive Officer, as necessary, to determine the actual source of the exceedance of Cr^{+6} fence-line threshold.

Comment #5: Suggested additional language that would not require compliance for an exceedance of the fence-line threshold if due to circumstances deemed out of their control.

Response #5: Since a compliance plan detailing all feasible control measures being utilized or will be utilized is very essential to demonstrate increments of progress upon a Cr^{+6} exceedance, and the reversion to previous monitoring schedule and requirement is crucial to ensure protection of public health, staff did not remove those provisions. Instead, staff added language so that owner/operator is only responsible for any confirmed Cr^{+6} exceedance caused by their facility's operations/activities.

Comment #6: Suggested modifications to language regarding facility closure as it pertains to a facility closure protocol relative to ownership and exit report that would sunset all rule requirements. Suggestions were also made as to limitation of the rule relative to concerns of duplication of other regulatory requirements and that additional monitoring of the site is unnecessary if proper fugitive dust controls under existing regulations are implemented.

Response #6: SCAQMD staff has taken the commenter's suggestions into consideration and has modified the provisions to create a point at which the rule would cease to apply to the owner/operator of a property where cement manufacturing had occurred. Specifically, Subdivision (h) was modified to require owner(s)/operator(s) of the property on which a cement manufacturing facility has operated on or after November 4, 2005, to continue their Cr^{+6} ambient monitoring in accordance with the most recent monitoring plan, schedule, and threshold until both (1) and (2) are met:

(1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property with permanent stabilization measures and in compliance with SCAQMD Rules, including SCAQMD Rule 403 – Fugitive Dust during equipment dismantling or demolition and material removal; ~~and/~~or determination from the Executive Officer that no further

action is required or the reclamation/clean-up/rehabilitation activities have been satisfactory completed; and

(2) Subsequent three months of demonstrated compliance with the applicable Cr^{+6} thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

In addition, a site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

APPENDIX B
COMPARATIVE ANALYSIS

Comparison of PAR 1156 and Other Requirements for Cement Manufacturing

Appendix B - Comparison Between PR1156 and Other Requirements for Cement Manufacturing

Note: For comparison purposes, Rule 1156 amendments made in 2009 are reflected in *italics* format. Proposed amendments for 2015 are in **bold underline and highlighted**.

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
APPLICABILITY				
Equipment/Operation: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, conveyor transfer points, bagging, bulk loading and unloading systems; and operations that generate fugitive dusts.	Equipment/Operation: Cement kiln and clinker cooler for dry-process manufacturing of gray cement.	Equipment/Operation: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, conveyor transfer points, bagging and bulk loading and unloading systems • Equipment constructed or modified after 7/17/1971.	Facility is a major source or area source of air toxics; Equipment/Operation: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, conveyor transfer points, bagging and bulk loading and unloading systems • Existing equipment or equipment constructed or reconstructed after 9/11/1998.	Equipment that: • is subject to emission standard (e.g. SIP approved rules but not 40 CFR Part 60 or Part 63 rules); • uses a control device, and • 3) has pre-control emissions that are equal to or more than the major source level (e.g. 70 tpy PM10)

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
COMPLIANCE DATE				
By December 2006. Facility Emissions: Reduce 2003 baseline emissions by 50% by 2006. *Clinker Material Storage* *Enclosure or alternatives:* *6 months from date of adoption* *Monitoring Requirements* *Wind: 6 months from date of adoption.* *Cr^{+6}: 6 months from date plan approval or 3/1/10, whichever occurs earlier.* **Effective September 5, 2016 fence-line limit of 0.2 ng/m^3** *PM10 (if applicable):* *6 months from date plan or 12 months from date of third confirmed violation, whichever occurs first.*	On and after February 1986.	On or after completion of the initial performance test.	• For existing equipment: 6/14/2002 • For new or modified equipment: Upon startup	If the Title V application is complete before 4/20/1998, a CAM plan is due as part of the application for the Title V permit renewal, or as part of the application for a significant permit revision.

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
PERFORMANCE STANDARDS				
All Equipment: Opacity ≤ 10% Kilns and Clinker Coolers: PM10 ≤ 0.05 lb/ton clinker All Baghouses: Outlet concentration ≤ 0.005 grain/dscf ; or 99.5% capture efficiency and 99.5% collecting efficiency Other Equipment • Opacity ≤ 10% process equipment via method 9 • Opacity < 20% open piles & roadways via method 9B • Visible emissions not to exceed 100 ft. plume in any direction Other Requirements • Enclosed storage piles,	Kilns and Clinker Coolers Combined • PM ≤ 0.4 lb/ton feed when kiln feed rates <75 ton/hr • PM ≤ 30 lb/hr when kiln feed rates >75 ton/hr	Kilns • PM ≤ 0.3 lb/ton feed dry basis • Opacity ≤ 20% Clinker Coolers • PM ≤ 0.1 lb/ton feed dry basis • Opacity ≤ 10% Other Equipment Opacity ≤ 10%	Kilns: • PM ≤ 0.3 lb/ton feed dry basis • Opacity ≤ 20% Clinker Coolers • PM ≤ 0.3 lb/ton feed dry basis • Opacity ≤ 10% Other Equipment Opacity ≤ 10% Other Requirements THC < 50 ppmvd as propane corrected to 7% oxygen D/F <8.7 x 10^{-11} grain/dscf corrected to 7% oxygen	Not specified performance standards.

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
crushers, screens, mills, conveying systems, and other equipment. • Pave roads, use chemical dust suppressants, limit vehicle speed, street sweeping, and facility cleanup. • *Enclose clinker material storage and handling; alternatively, tarp/wind fence if >1,000 feet from property line.* *Monitoring* • *Wind gusts >25 mph: shutdown of material handling.* • *Cr^{+6} 30-day or 90-day rolling average, as applicable, shall not exceed 0.7 ng/m^3.* **0.2 ng/m^3 beginning September 5, 2016.** • *PM10 monitoring, if applicable, shall require dust control activities if 3 NOVs for upwind/downwind concentration exceeding 50 µg/m^3.*				

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS				
• Annual source testing for kilns and clinker coolers • Source test at least 10 equipment vented to baghouses which are in the top 20% PM10 emitters at the facility. • Monitor operating parameters of baghouses such as flue gas flow rates and pressure drop across filters. • Keep all records to demonstrate compliance for at least 5 years. • Report annual emissions for all process equipment, open storage piles and vehicle traffic. • Source Test Methods: AQMD Method 5.1, 5.2, 5.3 or EPA Method 5 modified; or EPA Method 201A and 202 for PM10.	Not specify.	• Continuous opacity monitoring for kilns and clinker coolers and any bypass • Record visible emissions at least three 6-minute periods each day, and records maintained for 2 years. • Record daily production rates and kiln feed rates • Initial performance test is required to be conducted. • Excess emissions must be reported semi – annually. • Malfunctions must be reported. • Semiannual report of	• Initial performance test is required to determine compliance with the emission limitation and to establish the operating limits • Performance test is required every 30 months – 5years • Source Test Methods: EPA Method 5 for PM and Method 9 for opacity.	A CAM plan accompanying a Title V permit must: • Describe indicators to be monitored; • Describe indicators' ranges; • Describe performance criteria for monitoring; • Provide justification for the use of the indicators, ranges, and monitoring approach; • Provide emission test data, if necessary; and • Provide an implementation plan. A Title V permit must: • Include approved monitoring approach, • Have specific definitions of exceedence or excursion; • Include reporting and recordkeeping requirements; and • Indicate if source testing is required.

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
• *Submit compliance plan 3-months from date of adoption.* • *Keep records relative to monitoring and use of exemptions.* • *Report monitoring data monthly.* • **Upon 12 months of compliant monitoring date from *(date of adoption)*, facility may reduce to one monitor in principally down-wind areas.** • **After site remediation and/or clean up efforts are completed, monitoring may cease after 3 months.**		excess emissions and malfunctions • Source Test Methods: • EPA Method 5 for PM and Method 9 for opacity.		Source Test Methods: Not specified.

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Environmental Assessment:

Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

August 2015

SCAQMD No. 150623JI

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ATTACHMENT G

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ATTACHMENT G

TABLE OF CONTENTS

ATTACHMENT G

PREFACE

This document constitutes the Final Environmental Assessment (EA) for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities. The Draft EA was released for a 30-day public review and comment period from July 21, 2015 to August 15, 2015. No comment letters on the Draft EA were received during the public comment period. The environmental analysis in the Draft EA concluded that Proposed Amended Rule 1156 would not generate any significant adverse environmental impacts.

Minor modifications were made to the proposed amended rule subsequent to release of the Draft EA for public review. To facilitate identifying modifications to the Draft EA, added and/or modified text is underlined. Some of these rule modifications include: the elimination of a dust mitigation plan submittal prior to land disturbing activities; the extension of the effective date of the ambient hexavalent chromium fenceline standard; if exceeding the fenceline standard, the facility would not have to submit a compliance plan if it is required to submit, or has an approved health risk assessment under Rule 1402; and streamlined requirements relative to cessation of hexavalent chromium monitoring after facility closure. Staff has reviewed these minor rule modifications and concluded that they do not cause any CEQA impacts to be substantially worse or change any conclusions reached in the Draft EA. By analyzing the more stringent requirements of the previous version of the proposed amended rule, the Draft EA evaluated a "worst-case" impact scenario. Therefore, any potential adverse impacts from the currently proposed project are expected to be less than the potential adverse impacts evaluated in the Draft EA. As a result, these minor revisions do not require recirculation of the document pursuant to CEQA Guidelines §15088.5. Therefore, this document now constitutes the Final EA for Proposed Amended Rule 1156.

ATTACHMENT G

CHAPTER 1 - PROJECT DESCRIPTION

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977[1] as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin and Mojave Desert Air Basin referred to herein as the District. By statute, the SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the District[2]. Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP[3]. The Final 2012 AQMP concluded that reductions in emissions of particulate matter (PM), oxides of sulfur (SOx), oxides of nitrogen (NOx), and volatile organic compounds (VOC) are necessary to attain the current state and national ambient air quality standards for ozone, and particulate matter with an aerodynamic diameter of 2.5 microns or less (PM2.5). Ozone, a criteria pollutant which has been shown to adversely affect human health, is formed when VOCs react with NOx in the atmosphere. VOCs, NOx, SOx (especially sulfur dioxide) and ammonia also contribute to the formation of PM10 and PM2.5.

The Basin is designated by the United States Environmental Protection Agency (EPA) as a non-attainment area for ozone and PM2.5 emissions because the federal ozone standard and the 2006 PM2.5 standard have been exceeded. For this reason, the SCAQMD is required to evaluate all feasible control measures in order to reduce direct ozone and PM2.5 emissions, including PM2.5 precursors, such as NOx and SOx. The Final 2012 AQMP sets forth a comprehensive program for the Basin to comply with the federal 24-hour PM2.5 air quality standard, satisfy the planning requirements of the federal Clean Air Act, and provide an update to the Basin's commitments towards meeting the federal 8-hour ozone standard. In particular, the Final 2012 AQMP contains a multi-pollutant control strategy to achieve attainment with the federal 24-hour PM2.5 air quality standard with direct PM2.5 and NOx reductions identified as the two most effective tools in reaching attainment with the PM2.5 standard. The 2012 AQMP also serves to satisfy the recent requirements promulgated by the EPA for a new attainment demonstration of the revoked 1-hour ozone standard, as well as to provide additional measures to partially fulfill long-term reduction obligations under the 2007 8-hour Ozone State Implementation Plan (SIP).

In addition to regulating criteria pollutants, state law specifies that air districts may regulate Toxic Air Contaminants (TACs). Specifically, Health and Safety Code §39656, California legislature has delegated the air districts, including the SCAQMD, to establish and implement a program to regulate TACs. Similarly, SCAQMD implements the Air Toxics Hot Spots Act (Health and Safety Code §44330) through Rule 1402.

To address potential air quality impacts and exposure to hexavalent chromium (Cr^{+6}) after the closure of cement manufacturing facilities, and to ensure long-term air quality and protection, the SCAQMD is proposing revisions to Rule 1156. The currently proposed amendments include requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations, including the elimination of Cr^{+6} ambient monitoring under specific conditions.

[1] The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch 324 (codified at Health and Safety Code, §§40400-40540).
[2] Health and Safety Code, §40460 (a).
[3] Health and Safety Code, §40440 (a).

The proposed amendments would also revise the Cr^{+6} ambient air monitoring fence-line threshold as a result of the 2015 update to the Office of Environmental Health Hazard Assessment's (OEHHA) risk assessment guidelines. On June 5, 2015, the SCAQMD Governing Board amended the District's primary rules addressing toxic emissions (e.g. Rules 1401, 1401.1, 1402 and 212) to take into account the new OEHHA guidelines. This proposed amendment will ensure that PAR 1156 uses a risk assessment methodology that is consistent with the District's primary toxic rules. The new guidelines apply age sensitivity factors and multiple pathways of exposure, in addition to inhalation and cancer risk estimates to residential and sensitive receptors. Assuming a constant level of monitored Cr^{+6}, the new OEHHA guidelines yield an approximately 3.87-fold increase in residential cancer risk in comparison to the previous guidelines.

The proposed amendments would therefore change the fence-line Cr^{+6} ambient air limit from 0.7 ng/m^3 to 0.20 ng/m^3 (both levels are excluding background). The Cr^{+6} ambient air monitoring background is currently 0.043 ng/m^3, based on the average background concentrations observed at the Fontana and Rubidoux stations as part of the fourth Multiple Air Toxics Emissions Study (MATES IV). With this background level, the new effective limit for Cr^{+6} will be 0.243 ng/m^3. PAR 1156 also proposes an implementation schedule for the new fence-line limit phase-in.

PAR 1156 development is the result of a March 2009 Rule 1156 amendment Resolution in which the SCAQMD Governing Board directed staff to re-evaluate the need for, and the frequency of, Cr^{+6} ambient monitoring after five years of data collection, and to establish a working group to develop a Facility Closure Air Quality Plan Option (Closure Plan).

AFFECTED FACILITIES

Rule 1156 requires cement manufacturing facilities to comply with specific requirements applicable to various operations, as well as materials handling and transport at the facilities. Riverside Cement (RC) in Riverside and California Portland Cement Company (CPCC) in Colton are the two cement manufacturing facilities in the SCAQMD's jurisdiction subject to Rule 1156. Currently, both cement manufacturing facilities are non-operational regarding clinker production. RC and CPCC only process clinker or cement material imported from facilities outside the SCAQMD's jurisdiction.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PAR 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities, is a discretionary action by a public agency, which has potential for resulting in direct or indirect changes to the environment and, therefore, is considered a "project" as defined by the California Environmental Quality Act (CEQA). SCAQMD is the lead agency for the proposed project and has prepared this final environmental assessment (EA) with no significant adverse impacts pursuant to its Certified Regulatory Program and SCAQMD Rule 110. California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written document in lieu of an environmental impact report or negative declaration once the Secretary of the Resources Agency has certified the regulatory program. SCAQMD's regulatory program was certified by the Secretary of the Resources Agency on March 1, 1989, and is codified as SCAQMD Rule 110.

CEQA and Rule 110 require that potential adverse environmental impacts of proposed projects be evaluated and that feasible methods to reduce or avoid significant adverse environmental impacts of these projects be identified. To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this final EA to address the potential adverse environmental impacts associated with the proposed project. The final EA is a public disclosure document intended to: (a) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental effects of the proposed project; and, (b) be used as a tool by decision makers to facilitate decision making on the proposed project.

SCAQMD's review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. Therefore, pursuant to CEQA Guidelines §15252 and 15126.6(f), no alternatives are proposed to avoid or reduce any significant effects because there are no significant adverse impacts, and pursuant to CEQA Guidelines §15126.4(a)(3), mitigation measures are not required for effects not found to be significant. The analysis in the form of the environmental checklist in Chapter 2 supports the conclusion of no significant adverse environmental impacts.

~~Comments received on the draft EA during the public comment period and responses to comments will be prepared and included in the Final EA for the proposed project.~~
No comments were received on the draft EA during the public comment period.

PROJECT LOCATION

The potentially affected facilities are located within the SCAQMD jurisdiction. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Basin) (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB) (Figure 1-1).

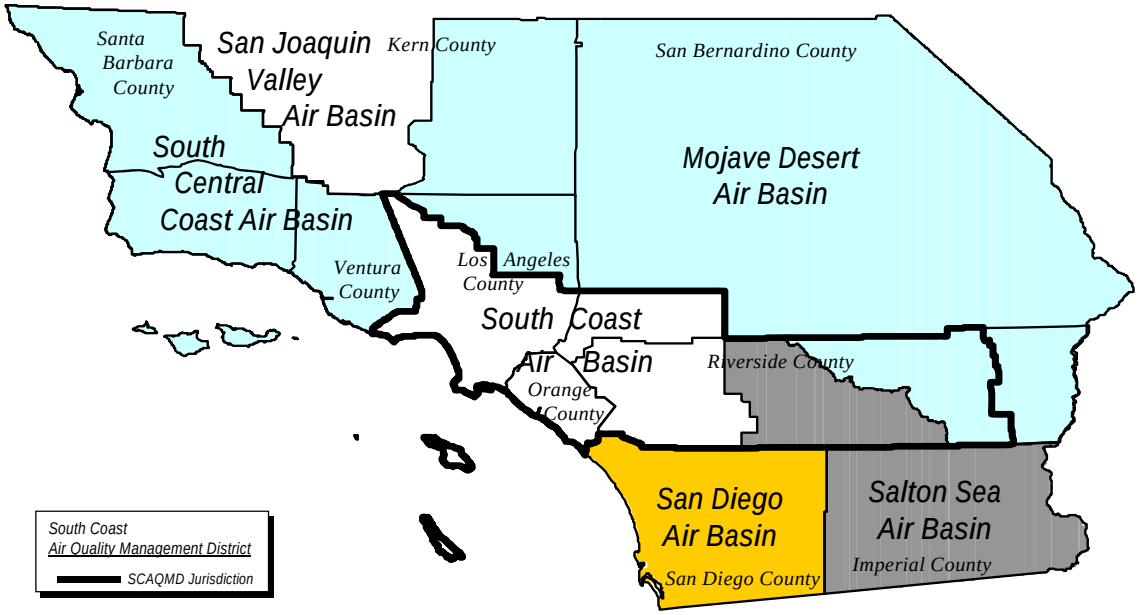

Figure 1-1
Boundaries of the South Coast Air Quality Management District

PROJECT OBJECTIVE
The objectives of the PAR 1156 are to:

- provide a mechanism for reduction of Cr^{+6} monitoring requirements for existing facilities based on monitored data or a cessation of monitoring upon facility closure;
- revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the new OEHHA risk assessment guidelines;
- revise the criteria used to validate duplicate PM samples; and
- add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure.

PROJECT BACKGROUND
Rule 1156 was originally adopted in November 2005. Rule 1156 implemented a portion of the 2003 AQMP control measure BCM-08 – Further Emission Reductions of Particulate Emissions from Cement Manufacturing Facilities. Cement manufacturing facilities are defined as any facility engaged in producing Portland cement or associated products. In March 2009, the rule was amended to further reduce particulate emissions and to address elevated ambient concentrations of the carcinogen, Cr^{+6}, observed at the Rubidoux monitoring station in Western Riverside County as part of the third Multiple Air Toxics Emissions Study (MATES III). To protect the public from Cr^{+6} exposure, the amendments included a threshold for Cr^{+6} that was established to be 0.70 ng/m^3 (excluding background), based on 100-in-a-million fence-line cancer risk. Based on MATES III, a 0.16 ng/m^3 Cr^{+6} background was derived based on the two-year sampling effort at nine fixed-site monitoring stations across the Basin (excluding the Rubidoux station). The Rubidoux station was excluded from the derivation as its Cr^{+6} levels were likely influenced by the cement manufacturing facilities. Therefore, a fence-line effective limit was established at 0.860 ng/m^3. The rule amendment also required additional control measures such as: clinker storage area protection, Cr^{+6} ambient monitoring, and wind monitoring, with contingencies (i.e., clinker enclosure based on Cr^{+6} results and PM10 monitoring in case of elevated concentrations). As part of the rule amendment Resolution in 2009, the Board directed staff to re-evaluate the need for, and the frequency of, Cr^{+6} ambient monitoring after five (5) years of data collection, and to establish a working group to develop a Facility Closure Air Quality Plan Option (Closure Plan).

SCAQMD staff met with the working group in 2010 and 2011 to discuss the criteria for facility closure and conditions to potentially sunset Cr^{+6} ambient monitoring. A draft closure plan was developed and presented to the Stationary Source Committee (SSC) in 2012, but was left as a living document since neither facility was producing clinker at the time and there was uncertainty regarding future cement manufacturing activities. Currently, both cement manufacturing facilities are still non-operational regarding clinker production. RC and CPCC only process clinker or cement material imported from facilities outside the SCAQMD's jurisdiction.

CEMENT MANUFACTURING OVERVIEW

Portland cement is commonly manufactured through a dry method in which the combination of ground limestone rock and iron ore or other materials is fed to a cement kiln. As the materials move through the rotating kiln at a high temperature (about 2,700 degree Fahrenheit), some elements are driven off as gases or particulates and the remaining form a new substance called clinker. Clinker comes out of the kiln as hot, gray spheres about the size of large marbles. Clinker is cooled, ground and/or milled to a very fine product, and blended with small amounts of gypsum and fly ash to become cement, which is sold in packages or in bulk.

Typical clinker nodules

According to staff analysis in 2008 that included soil sampling, ambient air sampling, and emissions modeling, uncontrolled clinker material handling at cement manufacturing facilities associated with outdoor storage, transfer and re-entrained road dust were found to be the sources of the elevated ambient Cr^{+6} concentrations in Rubidoux. Kilns and finish mills at cement manufacturing facilities can also influence the formation and emissions of Cr^{+6}. Cr^{+6} is a potent, known carcinogen, exposure to which could result in lung cancer, irritation and damage to the skin, eyes, nose, throat, and lung, asthma symptoms, and/or allergic skin reactions. Since clinker materials might also contain other toxics such as lead, arsenic, cadmium, and cobalt in addition to Cr^{+6}, controlling emissions from these activities are essential.

Currently, both RC and CPCC are no longer producing clinker on-site. CPCC only imports cement from its Mojave facility for batch operations and has no immediate plans to restart one or

both of its kilns to manufacture clinker at the Colton facility. However, CPCC retains the capability to restart clinker production. RC previously manufactured clinker at the Riverside facility, but has not done so for many years. RC continues its cement manufacturing at this location by importing clinker from its Oro Grande facility for grinding, blending, and packaging in enclosed buildings vented to air pollution control devices.

PROJECT DESCRIPTION

The SCAQMD is developing PAR 1156 to address potential air quality impacts and exposure to Cr^{+6} after the closure of cement manufacturing facilities, and to ensure long-term air quality and protection, while streamlining Cr^{+6} ambient monitoring. The summary below and the revised rule language contained in Appendix A of this EA make up the project description used for this CEQA analysis. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. The proposed amendments would reduce permissible Cr^{+6} fence-line levels to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines; reduce Cr^{+6} monitoring requirements at existing facilities based either on compliance history, or potentially ceasing monitoring upon facility closure; and add provisions for a dust mitigation plan prior to any land disturbance activities occurring on a property after facility closure. A compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr^{+6} exceedance of the new threshold of 0.20 ng/m^3 occurring after September 5, 2016.

ATTACHMENT G

CHAPTER 2 - ENVIRONMENTAL CHECKLIST

Introduction

General Information

Environmental Factors Potentially Affected

Determination

Environmental Checklist and Discussion

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's potential adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Mr. Jeff Inabinet (909) 396-2453
Rule Contact Person	Ms. Tuyet-le Pham (909) 396-3299
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	To address potential air quality impacts from the closure of cement manufacturing facilities and to ensure long-term air quality and protection, the South Coast Air Quality Management District (SCAQMD) is proposing revisions to Rule 1156. The currently proposed amendments are intended to minimize potential air quality impacts from cement facility closure and to ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed amendments include requirements for owners/operators of the affected property before and after facility closure. The proposed amendments would reduce permissible Cr^{+6} fence-line levels to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines; reduce Cr^{+6} monitoring requirements at existing facilities based either on compliance history, or potentially ceasing monitoring upon facility closure; and add provisions for a dust mitigation plan prior to any land disturbance activities occurring on a property after facility closure.
Surrounding Land Uses and Setting:	Not applicable
Other Public Agencies Whose Approval is Required:	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

☐ Aesthetics	☐ Geology and Soils	☐ Population and Housing
☐ Agriculture and Forestry Resources	☐ Hazards and Hazardous Materials	☐ Public Services
☐ Air Quality and Greenhouse Gas Emissions	☐ Hydrology and Water Quality	☐ Recreation
☐ Biological Resources	☐ Land Use and Planning	☐ Solid/Hazardous Waste
☐ Cultural Resources	☐ Mineral Resources	☐ Transportation/Traffic
☐ Energy	☐ Noise	☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☑ I find the proposed project, in accordance with those findings made pursuant to CEQA Guideline §15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1)has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: July 17, 2015 Signature: Jillian Wong

Jillian Wong, Ph.D.
Program Supervisor
Planning, Rule Development, and Area Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

As discussed in Chapter 1, the main focus of PAR 1156 is to minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. However, a compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr^{+6} exceedance of the new threshold of 0.20 ng/m^3 occurring after September 5, 2016.

The key proposed amendments to the rule include the following:

- Criteria for facility closure relative to cement manufacturing operation: activities must be completely ceased (i.e., blending silo, kiln, clinker cooler, and clinker grinding/milling) and related permits must be surrendered or have expired and are no longer reinstatable;
- Condition for reducing Cr^{+6} ambient monitoring stations at existing cement facilities:
  - Approval for reduced number of monitoring stations (minimum of one) may be obtained upon subsequent 12 consecutive months of demonstrating less than current Cr^{+6} threshold (0.70 ng/m^3, excluding background) after date of rule amendment;
  - Reversion to more frequent monitoring schedule for confirmed exceedances of the applicable threshold, considering wind and other relevant data;
- Effective September 5, 2016, ambient Cr^{+6} concentrations from a 30-day or 90-day rolling average shall not exceed 0.20 ng/m3 (excluding background). Prior to this date, the previous Cr^{+6} threshold of 0.70 ng/m3 (excluding background) is still in effect.
- A compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr^{+6} exceedance of the new threshold of 0.20 ng/m^3 occurring after September 5, 2016.
- Criteria to validate duplicate samples:
  - PM10 concentrations of both samples must be below 0.002 grain/dscf; or
  - The difference between two samples shall be less than 35 percent of their average and the difference between the sample catches (normalized to the average sampling volume) shall be less than 3.5 milligrams;
- Requirements after facility closure:
  - Continued Cr^{+6} ambient monitoring with possible sunset if no confirmed exceedance occurs during 12 consecutive months of monitoring after date of rule amendment;
  - Provisions for Cr^{+6} ambient monitoring relocation and co-located monitoring and sampling by SCAQMD;

- Dust mitigation plan submittal and written approval from SCAQMD prior to land disturbance activities:
  - Protocol for soil sampling and Cr^{+6} ambient monitoring required before, during, and after land disturbance activities;
  - Approval for reducing Cr^{+6} ambient monitoring stations and/or frequency of soil sampling and Cr^{+6} ambient monitoring may be obtained based on scope of activities;
  - Description of control and/or stabilization measures required upon evidence of Cr^{+6} in excess of the local background levels;
  - Required information regarding dust mitigation measures; and
  - Areas of property that are not contaminated may be excluded from the Dust Mitigation Plan, based on site-specific assessments identifying areas with and without Cr^{+6} contamination; and

Once the new Cr^{+6} threshold of 0.20 ng/m^3 becomes effective and there is a confirmed exceedance by the facility, a compliance plan with detailed descriptions of all feasible measures is required. Some of the potential measures may include additional controls on packing operations (i.e. installation of plastic shrouding), retrofitting of existing enclosures to ensure that fugitive emissions are not escaping, and application of water and/or chemical stabilizers for dust suppression. Potential impacts from these feasible measures are evaluated below in the appropriate environmental topic area.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

I. a), b), c) & d) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities on the property after facility closure. Therefore, there is no construction anticipated that would alter any views of the site as a result of PAR 1156. If the fenceline threshold is exceeded, the owner/operator of the affected property will have to submit a compliance plan which includes measures to reduce the on-site fugitive emissions.

The affected facilities are located in an existing highly industrialized commercial area that does not have any known scenic vistas or scenic resources. No construction is anticipated that would alter any views of the site in order to comply with PAR 1156. Therefore, PAR 1156 would not obstruct any scenic resources or degrade the existing visual character of any affected site, including but not limited to, trees, rock outcroppings, or historic buildings. Further, the proposed project would not involve the demolition of any existing buildings or facilities, require the

acquisition of any new land or the surrendering of existing land, or the modification of any existing land use designations or zoning ordinances. All new enclosures would be developed within the existing footprints of the affected facilities. Thus, the proposed project is not expected to degrade the visual character of any site or its surroundings from the existing visual character, affect any scenic vista, damage scenic resources, or create any new source of substantial light or glare.

Based upon these considerations, significant adverse aesthetics impacts are not anticipated and will not be further analyzed in this final EA. Since no significant adverse aesthetics impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES.** Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104 (g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on agriculture and forestry resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.

- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined in Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code § 51104 (g)).
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion

II. a), b), c) & d) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. There is no construction anticipated as a result of PAR 1156. Therefore, adoption of the proposed project would not result in any new construction of buildings or other structures that would convert farmland to non-agricultural use or conflict with zoning for agricultural use or a Williamson Act contract. The proposed project would not require converting farmland to non-agricultural uses because the potentially affected facilities are already completely developed. For the same reasons, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.

Based upon these considerations, significant adverse agricultural and forestry resource impacts are not anticipated and will not be further analyzed in this final EA. Since no significant agriculture and forestry resource impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☑
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☑
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☐	☑
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☑
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☑

Air Quality Significance Criteria

To determine whether or not air quality impacts from adopting and implementing the proposed project are significant, impacts will be evaluated and compared to the criteria in Table 2-1. The project will be considered to have significant adverse air quality impacts if any one of the thresholds in Table 2-1 are equaled or exceeded.

To determine whether or not greenhouse gas emissions from the proposed project may be significant, impacts will be evaluated and compared to the 10,000 MT CO2/year threshold for industrial sources.

TABLE 2-1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction [b]**	Operation [c]
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [d]		
NO2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM10 24-hour average annual average	10.4 $\mu g/m^3$ (construction)[e] & 2.5 $\mu g/m^3$ (operation) 1.0 $\mu g/m^3$	
PM2.5 24-hour average	10.4 $\mu g/m^3$ (construction)[e] & 2.5 $\mu g/m^3$ (operation)	
SO2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 $\mu g/m^3$ (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average Quarterly average	1.5 $\mu g/m^3$ (state) 0.15 $\mu g/m^3$ (federal) 1.5 $\mu g/m^3$ (federal)	

[a] Source: SCAQMD CEQA Handbook (SCAQMD, 1993)
[b] Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
[c] For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
[d] Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
[e] Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million $\mu g/m^3$ = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO2eq = metric tons per year of CO2 equivalents > = greater than

III. a), b) and f) Attainment of the state and federal ambient air quality standards protects sensitive receptors and the public in general from the adverse effects of criteria pollutants which are known to have adverse human health effects. The SCAQMD is required by law to prepare a comprehensive district-wide Air Quality Management Plan (AQMP) which includes strategies (e.g., control measures) to reduce emission levels to achieve and maintain state and federal ambient air quality standards, and to ensure that new sources of emissions are planned and operated to be consistent with the SCAQMD's air quality goals. The AQMP's air pollution reduction strategies include control measures which target stationary, area, mobile and indirect sources. These control measures are based on feasible methods of attaining ambient air quality standards. Pursuant to the provisions of both the state and federal Clean Air Acts (CAA)s, the SCAQMD is required to attain the state and federal ambient air quality standards for all criteria pollutants.

The main focus of PAR 1156 is to minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. However, a compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr^{+6} exceedance of the new threshold of 0.20 ng/m^3 occurring after September 5, 2016.

Construction Impacts

PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. A compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr^{+6} exceedance of the new threshold of 0.20 ng/m^3 occurring after September 5, 2016. Potential measures in the compliance plan could include the installation of plastic shrouding around bagging operations, the partitioning of active bagging operations from the finished product storage areas, and the installation of plastic door flaps to prevent the escape of fugitive dust.

The construction-related activities attributable to installing this type of limited control equipment would be conducted using predominantly small, hand held tools, since most of this equipment is manufactured off-site and brought to the location. For the purposes of this analysis, construction activities undertaken to install this limited type of control equipment are anticipated to entail the use of hand held equipment by small construction crews to cut, fit and affix plastic shrouding/partitioning where necessary. Criteria pollutant emissions were calculated for all on-road vehicles transporting workers, vendors, and material delivery associated with the limited control equipment. Table 2-2 presents the peak daily construction emissions associated with the installation of shrouding/partitioning materials. Construction emissions calculations are provided in Appendix B.

Table 2-2
Peak Daily Construction Emissions Due to Installation of Shrouding / Partitioning Materials

PEAK CONSTRUCTION	VOC	CO	NOx	SOx	PM10	PM2.5
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Total Project Emissions	0.69	4.60	4.55	0.01	0.26	0.21
SCAQMD CEQA SIGNIFICANCE THRESHOLD	75	550	100	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

The construction-related emissions attributable to installing this type of limited control equipment do not exceed SCAQMD peak daily construction emission significance thresholds.

Operational Impacts- Criteria Pollutants
The two affected facilities are currently required to apply chemical stabilizers to the properties twice per year, per Rule 1156. If the new Cr^{+6} ambient air monitoring fence-line threshold is exceeded, additional applications of chemical soil stabilizers may be required at the property, including any areas where uncovered piles of material are located on-site. For a conservative approach, it was estimated that each affected facility may be required to apply chemical soil stabilizers an additional two times per year. Also, additional Cr^{+6} sampling requirements will require the collection and delivery of samples to a laboratory for analysis. The sprayer truck emissions associated with the additional soil stabilizer applications and the sample collection and laboratory delivery vehicle emissions are presented in Table 2-3. Operational emissions calculations are provided in Appendix C.

Table 2-3
Peak Daily Operational Emissions Due to Additional Chemical Soil Stabilizer Applications and Sample Collection / Delivery

PEAK DAILY OPERATION	VOC	CO	NOx	SOx	PM10	PM2.5
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Total Project Emissions	1.36	7.06	10.35	0.02	0.44	0.43
SCAQMD CEQA SIGNIFICANCE THRESHOLD	55	550	55	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

The operational-related emissions attributable to additional soil stabilizer applications and sample collection/delivery do not exceed SCAQMD peak daily operational emissions significance thresholds.

Operational Impacts- Toxic Air Contaminants
In assessing potential impacts from the adoption of proposed rules and amendments, SCAQMD staff not only evaluates the potential air quality benefits, but also determines potential health risks associated with implementation of the proposed rules and amendments.

Adoption of the proposed rule would establish procedures to reduce Cr^{+6} emissions from the affected facilities even after facility closure. There are no provisions in the rule that would

generate any toxic emissions. As a result, there will be no increase in toxic air contaminant emissions due to the proposed project.

In summary, because emissions from this project would not exceed any SCAQMD thresholds for construction or operations, the proposed project will have no impact on our ability to implement the AQMP, no impact on any air quality standards, and no impact on any rules or requirements that could significantly impact air quality.

III. c) As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant[4].

This approach was upheld by the Court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the SDAPCD's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines §15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although the project will contribute additional air pollutants to an existing nonattainment area, these increases are below the significance criteria…" "Thus, we conclude that no fair argument exists that the Project will cause a significant unavoidable cumulative contribution to an air quality impact." As in *Chula Vista*, here the District has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. Here again the court upheld the lead agency's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively considerable. Thus, it may be concluded that the Project will not cause a significant unavoidable cumulative contribution to an air quality impact.

Based on the foregoing analysis, project-specific air quality impacts from implementing the proposed project would not exceed air quality significance thresholds (Table 2-1); therefore, based on the above discussion, cumulative impacts are not expected to be significant for air quality. Therefore, potential adverse impacts from the proposed project would not be "cumulatively considerable" as defined by CEQA Guidelines §15064(h)(1) for air quality impacts. Per CEQA Guidelines §15064(h)(4), the mere existing of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulative considerable.

[4] SCAQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4.

III. d) Affected facilities are not expected to increase exposure by sensitive receptors to substantial pollutant concentrations from the implementation of PAR 1156 for the following reasons: 1) the proposed monitoring requirements and compliance plan will help reduce potential toxic exposure by sensitive receptors; 2) there are no provisions in the proposed rule that would cause an affected facility to generate any new or increased toxic emissions; and 3) there will be no additional electrical generation facilities needed as a result of the adoption of the proposed project (note: there will be a minimal additional need for power, but the demand, according to the power generators, can be met with existing systems). Therefore, significant adverse air quality impacts to sensitive receptors are not expected from implementing the proposed project.

III. e) The main objective of the proposed rule is to establish procedures to reduce Cr^{+6} emissions from the affected facilities even after facility closure. Therefore, no significant odor impacts are expected to result from implementing the proposed project, as no odorous compounds are generated by any proposed project activities.

III. g) & h) Changes in global climate patterns have been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, recently attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming.[5] State law defines GHG to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) (HSC §38505(g)). The most common GHG that results from human activity is CO2, followed by CH4 and N2O.

GHGs and other global warming pollutants are often perceived as solely global in their impacts because increasing emissions anywhere in the world contributes to climate change anywhere in the world. However, a study conducted on the health impacts of CO2 "domes" that form over urban areas shows they can cause increases in local temperatures and local criteria pollutants, which have adverse health effects.[6]

The analysis of GHGs is a different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, the significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health (e.g., one-hour and eight-hour standards). Since the half-life of CO2 is approximately 100 years, for example, the effects of GHGs occur over a longer term which means they affect the global climate over a relatively long

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5 Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.). 2007. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007. Cambridge University Press. http://www.ipcc.ch/publications_and_data/ar4/wg1/en/contents.html

6 Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at: http://news.stanford.edu/news/2010/march/urban-carbon-domes-031610.html.

time frame. As a result, the SCAQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (e.g., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate effects.

On December 5, 2008, the SCAQMD adopted an interim CEQA GHG Significance Threshold for projects where SCAQMD is the lead agency (SCAQMD, 2008). This interim threshold is set at 10,000 metric tons of CO2 equivalent emissions (MTCO2eq) per year. Projects with incremental increases below this threshold will not be deemed to be cumulatively considerable.

The Program EIR for the 2012 AQMP concluded that implementing the control measures in the 2012 AQMP would provide a comprehensive ongoing regulatory program that would reduce overall GHGs emissions in the District.

GHG emissions were calculated for all on-road vehicles transporting workers, vendors, and material delivery associated with the limited control equipment (plastic shrouding/partitioning) required by the proposed project. Additionally, GHG emissions were calculated for additional operational requirements (application of soil stabilizers and additional monitoring sample collection/delivery) from the proposed project. Table 2-4 provides the total construction CO_2E emissions that could occur as a result of the proposed project. Detailed GHG calculations can be found in Appendices B and C. As shown in Table 2-4, GHG emissions generated by the construction and operational activities are expected to be relatively small, much less than 10,000 metric tons per year (SCAQMD's GHG significance threshold), and, therefore, not significant.

Table 2-4
Overall CO2 Equivalent (eq) Increases Due to Construction and Operational Activities (metric tons/year)[1]

	CO2	**CH4**	**CO2eq**
Annual CO2eq Emission Increases Due to:	lb/day	lb/day	MT/year
Proposed Construction Activities	1,393	0.05	1.27
Proposed Operational Activities	2,182	0.12	1.99
		Total	**3.26**

[1] 1 metric ton = 2,205 pounds

Since the proposed project is not expected to generate significant construction or operation-related GHG emissions, cumulative GHG adverse impacts from the proposed project are not considered significant or cumulatively considerable.

Indirect GHG and Criteria Pollutant Emissions from Electricity Consumption
Indirect GHG and criteria pollutant emissions are expected from the generation of electricity to operate new equipment that occurs off-site at electricity generating facilities (EGFs). Emissions from electricity generating facilities at their maximum permitted capacity are already evaluated in the CEQA documents for those projects when they are built or modified. The analysis in Section VI. Energy- b), c) and d) demonstrated that there is not likely to be increased electricity consumption from the proposed rule.

Under the SCAQMD Regional Clean Air Incentives Market (RECLAIM) program (that regulates NOx and SOx emissions), EGFs were provided annual allocations of NOx and SOx emissions that typically decline annually. However, the proposed project does require an increase in energy generation and any increase in emissions from generating additional energy (See Section VI. Energy for impacts) from the EGFs would be required to offset any potential NOx and SOx emission increases under the RECLAIM program and other pollutants under the New Source Review Project. Thus, air quality impacts from energy generation are anticipated to be to less than significant impacts.

Conclusion
Based on the preceding evaluation of potential air quality impacts, SCAQMD staff has concluded that the proposed project does not have the potential to generate significant adverse air quality impacts. Since no significant adverse air quality and greenhouse gases impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e)	Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Significance Criteria

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

IV. a), b), c), & d) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated outside of existing building footprints as a result of PAR 1156. The biological resources have already been disturbed or removed at the existing facilities. As a result, the proposed project would not directly or indirectly affect any new or existing species identified as a candidate, sensitive or special status species, riparian habitat, federally protected wetlands, or migratory corridors. For this same reason, the proposed project is not expected to adversely affect special status plants, animals, or natural communities.

IV. e) & f) The proposed project would not conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans because it would not cause new development. All existing facilities are already developed and the proposed project will not result in the need for construction. Additionally, the proposed project would not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan for the same reason identified in Item IV. a), b), c), and d) above. Likewise, the proposed project would not in any way impact wildlife or wildlife habitat.

Based upon these considerations, significant adverse biological resources impacts are not anticipated and will not be further analyzed in this final EA. Since no significant adverse biological resources impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource, site, or feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☐	☐	☑
e)	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?	☐	☐	☐	☑

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

V. a), b), c), & d) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. Furthermore, all existing affected facilities have already been developed and would not require disturbing native soils that may contain cultural resources.

Since no activities requiring native soil disturbance would be associated with the implementation of the proposed project, no impacts to historical or cultural resources are anticipated to occur. Further, the proposed project is not expected to require any major physical changes to the environment, which may disturb paleontological or archaeological resources or disturb human remains interred outside of formal cemeteries.

V. e) The proposed project is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, the proposed project is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. For these reasons, the proposed project is not expected to cause any substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074.

It is important to note that as part of releasing this CEQA document for public review and comment, the SCAQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code §21080.3.1 (b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project.

In the event that a Tribe submits a written request for consultation during this 30-day period, the SCAQMD will initiate a consultation with the Tribe within 30 days of receiving the request in accordance with Public Resources Code §21080.3.1 (b). Consultation ends when either: 1) both parties agree to measures to avoid or mitigate a significant effect on a Tribal Cultural Resource and agreed upon mitigation measures shall be recommended for inclusion in the environmental document [see Public Resources Code §21082.3 (a)]; or, 2) either party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached [see Public Resources Code §21080.3.2 (b)(1)-(2) and §21080.3.1 (b)(1)].

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing the proposed project and will not be further assessed in this final EA. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI.	**ENERGY.** Would the project:				
a)	Conflict with adopted energy conservation plans?	☐	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☐	☑
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☐	☑
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☐	☑
e)	Comply with existing energy standards?	☐	☐	☐	☑

Significance Criteria

Impacts to energy and mineral resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

VI. a) & e) The proposed project does not require any action which would result in any conflict with an adopted energy conservation plan or violation of any energy conservation standard. PAR 1156 is not expected to conflict with adopted energy conservation plans because existing affected facilities would be expected to continue implementing any existing energy conservation plans.

The proposed project is not expected to cause new development outside of the footprint of the affected facilities. The local jurisdiction or energy utility sets standards (including energy conservation) and zoning guidelines regarding new development and will approve or deny applications for building new equipment at the affected facility.

As a result, the proposed project would not conflict with energy conservation plans, use non-renewable resources in a wasteful manner, or result in the need for new or substantially altered power or natural gas systems.

VI. b), c) & d) There is not expected to be an increase in electricity consumption associated with the continued ambient air monitoring, because fenceline monitors will likely be battery powered and are already in use. Diesel fuel would be consumed by trucks delivering the plastic shrouding / partitioning materials to the facilities and gasoline fuel would be consumed by the workers' vehicles installing control materials and trips required to collect the samples and to send to the lab for analysis. The following sections evaluate the various forms of energy sources affected by the proposed project.

Petroleum Fuels: During the construction phases, diesel and gasoline fuel will be consumed in delivery trucks and construction workers' vehicles traveling to and from the two affected sites. To estimate "worst-case" energy impacts associated with the construction phase for the proposed project, the SCAQMD assumed that shrouding / partitioning material would be installed at both affected facilities simultaneously. The details of the construction scenarios are included in Appendix B.

To estimate construction workers' fuel usage per commute round trip, the SCAQMD assumed that workers' vehicles would get 20 miles to the gallon and would travel 50 miles round trip to and from the construction site in one day. Table 2-5 lists the projected energy impacts associated with the construction and installation at the two affected facilities at any given time.

Table 2-5
Total Projected Fuel Usage for Construction Activities

Overall Construction Activity	Equipment Type	Total Diesel Fuel Use (gal)	Total Gasoline Fuel Use (gal)
Diesel	Heavy-Heavy Duty Delivery Truck	26.67	N/A
Gasoline	Mixed Passenger Worker Vehicle	N/A	50

* Assume that delivery trucks use diesel and get 15 miles/gallon traveling 100 miles roundtrip; 2 locations
** Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.

Additionally, diesel fuel will be used by the spraying trucks used to apply additional soil stabilizers and gasoline fuel will be consumed in workers' vehicles operating the spraying trucks and collecting/delivering additional samples. The details of the operational scenario are included in Appendix C. Table 2-6 lists the projected energy impacts associated with operational activities required by the proposed project.

Table 2-6
Total Projected Fuel Usage for Operational Activities

Overall Construction Activity	Equipment Type	Total Diesel Fuel Use (gal)	Total Gasoline Fuel Use (gal)
Diesel	Heavy-Heavy Duty Spraying Truck	79.04	N/A
Gasoline	Mixed Passenger Worker Vehicle-Spraying Truck Operator	N/A	10
Gasoline	Mixed Passenger Worker Vehicle-Sample Collection / Delivery	N/A	10

* Assume that spraying vehicle use diesel and operate 8 hours/day (2 facilities).
** Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.

Based on the above information, the proposed project is not expected to generate significant adverse energy resources impacts and will not be discussed further in this final EA. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑
• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
	• Strong seismic ground shaking?	☐	☐	☐	☑
	• Seismic–related ground failure, including liquefaction?	☐	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

Significance Criteria

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

VII. a) Southern California is an area of known seismic activity. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The local city or county is responsible for assuring that a proposed project complies with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard

safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some non-structural damage; and 3) resist major earthquakes without collapse but with some structural and non-structural damage.

The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site. Accordingly, buildings and equipment at existing facilities affected by PAR 1156 are likely to conform with the Uniform Building Code and all other applicable state codes in effect at the time they were constructed.

PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. Therefore, no major change in geological existing setting is expected. Consequently, the proposed project is not expected to expose persons or property to new geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structure to the risk of loss, injury, or death involving seismic-related activities is not anticipated and will not be further analyzed in this final EA.

VII. b), c), d) & e) Since the proposed project would affect two existing facilities, it is expected that the soil types present at the affected facilities that are susceptible to expansion or liquefaction would be considered part of the existing setting. Implementation of PAR 1156 would not require construction outside of building footprints; therefore, new subsidence impacts are not anticipated since no major excavation or fill activities are expected to occur at affected facilities. Further, the proposed project does not involve the removal of underground products (e.g., water, crude oil, et cetera) that could produce new, or make worse existing subsidence effects. Additionally, the affected areas are not envisioned to be prone to new risks from landslides or have unique geologic features, since the affected facilities are located in highly industrial/commercial areas where such features have already been altered or removed. Finally, since adoption of the proposed project would be expected to affect operations at primarily existing facilities, the proposed project is not expected to alter or make worse any existing potential for subsidence, liquefaction, etc.

Based on the above discussion, the proposed project is not expected to have an adverse impact on geology or soils. Since no significant adverse impacts are anticipated, this environmental topic will not be further analyzed in the final EA. No mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	☐	☐	☐	☑
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☑
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
h) Significantly increased fire hazard in areas with flammable materials?	☐	☐	☐	☑

Significance Criteria
Impacts associated with hazards will be considered significant if any of the following occur:
- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion
VIII. a, b) & c) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. If the fenceline threshold is exceeded, the owner/operator of the affected property will have to submit a compliance which includes measures to reduce the on-site fugitive emissions. Therefore, the proposed project will not create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials.

Adoption of the proposed rule would establish procedures to reduce Cr^{+6} emissions from facilities even after closure. Therefore, there is little likelihood that affected facilities will emit new hazardous emissions or handle hazardous materials, substances or waste within one-quarter mile of an existing or proposed school as a result of implementing the proposed project.

VIII. d) It is not anticipated that the proposed project will alter in any way how operators of facilities who are affected by PAR 1156 manage their hazardous wastes. Government Code §65962.5 typically refers to a list of facilities that may be subject to Resource Conservation and Recovery Act (RCRA) permits. For any facilities affected by the proposed project that are on the Government Code §65962.5 list, it is anticipated that they would continue to manage any and all hazardous materials and hazardous waste, in accordance with federal, state and local regulations.

Riverside Cement (1500 Rubidoux Ave.) was listed on the Department of Toxic Substances Control (DTSC) Envirostor database as an "evaluation" site. According to the listing, the site was screened by the EPA in 2007. No further information was available.

California Portland Cement Company was not identified on the Envirostor database. However, a "closed" rail site (Site ID- 400217) was identified as being located within the site boundary. The database identified this listing as "Inactive facility - clean closed" and indicated that the facility has completed its closure activities.

VIII. e) Neither of the affected facilities is within two miles of an airport or private air strip; therefore, implementation of the proposed project is not expected to create any additional safety hazards for people residing or working in the project area.

VIII. f) The proposed project does not contain any provisions which will impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. Since the proposed project does not involve the change in current uses of any hazardous materials, or generate any new hazardous waste, no changes to emergency response plans are anticipated.

VIII. g) The two affected facilities are located in developed urban areas, where wildlands are not prevalent, risk of loss or injury associated with wildland fires is not expected as a result of implementing the proposed project.

VIII. h) Affected facilities must comply with all local and county requirements for fire prevention and safety. The proposed project does not require any activities which would be in conflict with fire prevention and safety requirements, and thus would not create or increase fire hazards at these existing facilities.

Pursuant to local and county fire prevention and safety requirements, facilities are required to maintain appropriate site management practices to prevent fire hazards. The proposed project will not interfere with fire prevention practices.

In conclusion, potentially significant adverse hazard or hazardous material impacts resulting from adopting and implementing the proposed project are not expected and will not be considered further. No mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	☐	☐	☐	☑
d)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
e)	Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	☐	☐	☐	☑
f)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
g)	Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
h)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
i)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion
PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. If the fenceline threshold is exceeded, the owner/operator of the affected property will have to submit a compliance which includes measures to reduce the on-site fugitive emissions.

IX. a) & f) No additional amount of wastewater generation is expected from the implementation of the proposed project. Therefore, there would be no impact on the current wastewater infrastructure. The proposed project is not expected to cause potentially affected facilities to violate any water quality standard or wastewater discharge requirements. The adoption of the proposed project is not expected to have significant adverse water demand or water quality impacts for the following reasons:

- The proposed project does not increase total demand for water by more than 5,000,000 gallons per day (or 262,820 gallons per day of potable water).
- The proposed project does not require construction of new water conveyance infrastructure.
- The proposed project does not create a substantial increase in mass inflow of effluents to public wastewater treatment facilities.
- The proposed project does not result in a substantial degradation of surface water or groundwater quality.
- The proposed project does not result in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The proposed project does not result in alterations to the course or flow of floodwaters.

IX. b) Because the proposed requirements of PAR 1156 do not rely on water, no increase to any affected facilities' existing water demand is expected. No additional watering requirements are currently being proposed beyond those in the current rule. Therefore, implementation of PAR 1156 will not increase demand for, or otherwise affect groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. In addition, implementation of PAR 1156 will not increase demand for water from existing entitlements and resources, and will not require new or expanded entitlements. No provisions of the proposed rule are expected to interfere with groundwater recharge. Therefore, no water demand impacts are expected as the result of implementing PAR 1156.

IX. c), d), & e) Implementation of the proposed project will occur at existing facilities that are paved and have drainage infrastructure in place. Any modifications required by the proposed project are expected to take place within the existing footprints of the affected facilities, which are already completely developed with existing storm water collection systems. Therefore, no change to existing storm water runoff, drainage patterns, groundwater characteristics, or flow are expected.

IX. g), h), & i) The proposed project will not require construction of new housing, and all construction activities associated with PAR 1156 are expected to take place at existing facilities that are already developed. Therefore, the proposed project is not expected to generate construction of any new structures in 100-year flood areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map. Further, the proposed project is not expected to require additional operational workers at affected facilities. As a result, the proposed project is not expected to expose people or structures to significant new flooding risks, or make worse any existing flooding risks. Finally, the proposed project will not affect in any way any potential flood hazards inundation by seiche, tsunami, or mud flow that may already exist relative to existing facilities or create new hazards at existing facilities.

The proposed project is not expected to generate a substantial amount of new storm water runoff. Therefore, no new storm water discharge treatment facilities or modifications to existing facilities will be required due to the implementation of the proposed project. Accordingly, the proposed project is not expected to generate significant adverse impacts relative to construction of new storm water drainage facilities.

Based upon these considerations, significant hydrology and water quality impacts are not expected from the implementation of the proposed project and will not be further analyzed in this final EA. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

Significance Criteria
Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion
X. a) Adoption of the proposed rule would establish procedures to reduce Cr^{+6} emissions from facilities even after closure. Since all construction activities are expected to take place at existing facilities that are already developed, implementation of the proposed project will not require or result in physically dividing an established community.

X. b) There are no provisions in the proposed project that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by the proposed project. Affected facilities would have to comply with local ordinances and land use requirements. Therefore, as already noted in the discussion under "Biological Resources," the proposed project would not affect any habitat conservation or natural community conservation plans, or agricultural resources or operations, and would not create divisions in any existing communities. Present or planned land uses in the region would not be significantly adversely affected as a result of implementing the proposed project.

Based upon these considerations, significant adverse land use and planning impacts are not expected from the implementation of the proposed project and will not be further analyzed in this final EA. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion

XI. a) & b) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. There are no provisions in the proposed project that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Based upon these aforementioned considerations, significant mineral resources impacts are not expected from the implementation of the proposed project. Since no significant mineral resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of permanent noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☑
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☑
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

Significance Criteria

Noise impact will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

XII. a) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Any operational requirements imposed by the proposed project would not be expected to generate noise above the existing setting. All of the activities required by the proposed project are expected to occur at the two affected existing facilities. Thus, the proposed project is not expected to expose persons to the generation of excessive noise levels above current levels because no change in current operations is expected to occur as a result of the proposed project. It is expected that any facility affected by the proposed project would continue complying with all existing local noise control laws or ordinances.

XII. b) The proposed project is not anticipated to expose people to or generate excessive groundborne vibration or groundborne noise levels since no heavy construction is required for compliance with PAR 1156.

XII. c) A permanent increase in ambient noise levels at the affected locations above existing levels is not expected because the proposed project does not contain any operational requirements that would generate additional noise beyond existing levels. Therefore, the existing noise levels are unlikely to change and raise ambient noise levels in the vicinities of affected facilities to above a level of significance in response to implementing the proposed project.

XII. d) There are no airports located within two miles of the two affected facilities and there are no new noise impacts expected as a result of the proposed project to affect the operations of the airport. Therefore, the proposed project is not expected to expose people residing or working in the affected facilities vicinities to excessive noise levels. See also the response to item XII.a).

Based upon these considerations, significant adverse noise impacts are not expected from the implementation of the proposed project and are not further evaluated in this final EA. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Significance Criteria

Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

XIII. a) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr^{+6} ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. However, if any minor modifications are necessary to the two affected facilities, it is expected that workers can be drawn from the existing labor pool in southern California. Therefore, the proposed project is not anticipated to generate any significant effects, either direct or indirect, on the District's population or population distribution as no additional operational workers are

anticipated to be required at the affected facilities. Human population within the jurisdiction of the SCAQMD is anticipated to grow regardless of implementing the proposed project. As such, implementation of the proposed project will not result in changes in population densities or induce significant growth in population.

XIII. b) The affected facilities are already developed and compliance with PAR 1156 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of people elsewhere.

Based upon these considerations, significant adverse population and housing impacts are not expected from the implementation of the proposed project and are not further evaluated in this final EA. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☐	☑

Significance Criteria
Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the

construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

XIV. a) & b) Adoption of the proposed rule would minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. There will be a compliance plan that is required if the ambient monitoring limit is exceeded. All new requirements would be expected to be compliant with fire department standards, therefore, they would not increase the risk of fire to occur. No other physical modifications or changes associated with the proposed project are expected and no flammable substances are necessary to comply with the proposed project. As such, the proposed project will not increase the chances for fires or explosions that could affect local fire departments. Finally, PAR 1156 is not expected to increase the need for security at affected facilities, which could adversely affect local police departments. Because the proposed project does not require or involve the use of new hazardous materials or generate new hazardous waste, it will not generate an emergency situation that would require additional fire or police protection, or impact acceptable service ratios or response times.

XIV. c), d), & e) As indicated in discussion under item XIII. Population and Housing, implementing the proposed project would not induce population growth or dispersion because no additional operational workers are expected to be needed at the existing affected facilities and construction workers will be temporary, not permanent. Therefore, with no increase in local population anticipated as a result of adopting and implementing the proposed project, additional demand for new or expanded schools or parks is also not anticipated. As a result, no significant adverse impacts are expected to local schools or parks.

Based upon these considerations, significant adverse public services impacts are not expected from the implementation of the proposed project and are not further evaluated in this final EA. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	☐	☐	☐	☑

Significance Criteria

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

XV. a) & b) As discussed under "Land Use and Planning" (Section X) above, there are no provisions in the proposed project that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments. No land use or planning requirements would be altered by the adoption of the proposed project, which only affects already developed cement producing facilities. Further, the proposed project would not affect District population growth or distribution (see "Population and Housing"- Section XIII) in ways that could increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or expansion of existing recreational facilities that might have an adverse physical effect on the environment because it would not directly or indirectly increase or redistribute population.

Based upon these considerations, significant recreation impacts are not expected from the implementation of the proposed project. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID/HAZARDOUS WASTE. Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on solid/hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

XVI. a) & b) Adoption of the proposed rule would minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. There will be a compliance plan that is required if the ambient monitoring limit is exceeded. No additional waste will be diverted to landfills as a result of the proposed project. As a result, no substantial change in the amount or character of solid or hazardous waste streams is expected to occur.

Sanitation districts forecast future landfill capacity and encourage recycling. Any portions of spent control equipment (if needed) in the future that cannot be recycled are expected to be able to be disposed of in the available landfill capacity. Additionally, no waste is expected to be generated by the proposed project. The proposed project is not expected to increase the volume of solid or hazardous wastes from the two affected facilities, require additional waste disposal capacity, or generate waste that does not meet applicable local, state, or federal regulations.

Based upon these considerations, the proposed project is not expected to increase the volume of solid or hazardous wastes that cannot be handled by existing municipal or hazardous waste disposal facilities, or require additional waste disposal capacity. Further, implementing the proposed project is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations. Since no solid/hazardous waste impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION/TRAFFIC. Would the project:					
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☑
b)	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☐	☑
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☑

Impacts on transportation/traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day
- Increase customer traffic by more than 700 visits per day.

Discussion

XVII. a) & b) Adoption of the proposed rule would minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. The additional amount of trips required for monitoring sample collection (2 per week, per facility), if required, are not expected to increase congestion or diminish the level of service of any roadways in the vicinity of the two affected facilities.

Implementation of the proposed project would not result in a net change or cause any additional transportation demands or services. Similarly, the implementation of the proposed project is not expected to adversely affect circulation patterns on local roadways or the level of service at intersections near affected facilities.

Implementation of the proposed rule amendments would not require any construction activities. Since no construction-related trips and no additional operational-related trips per facility are anticipated, the adoption of the proposed project is not expected to significantly adversely affect circulation patterns on local roadways or the level of service at intersections near affected facilities.

XVII. c) Adoption of the proposed rule would minimize potential air quality impacts from cement facility closure and to ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed project will not require operators of existing facilities to construct buildings or other structures that could interfere with flight patterns, so the height and appearance of the existing structures are not expected to change. Therefore, implementation of the proposed project is not expected to adversely affect air traffic

patterns. Further, the proposed project will not affect in any way air traffic in the region because it will not require transport of any materials by air.

XVII. d) No physical modifications to roadways are expected to occur by implementing the proposed project. Therefore, no offsite modifications to roadways are anticipated for the proposed project that would result in an additional design hazard or new incompatible uses.

XVII. e) All potential physical changes caused by implementation of the proposed project are expected to occur within the existing boundaries of the affected facilities. As a result, the proposed project is not expected to adversely impact existing emergency access.

XVII. f) All potential physical changes caused by implementation of the proposed project are expected to occur within the existing boundaries of the affected facilities. No changes to the parking capacity at or in the vicinity of the affected facilities are expected. Therefore, no shortage of parking spaces is expected. Further, the proposed project is not expected to require additional operational workers, so additional parking capacity will not be required. Therefore, the proposed project is not expected to adversely impact on- or off-site parking capacity. The proposed project has no provisions that would conflict with alternative transportation, such as bus turnouts, bicycle racks, et cetera.

Based upon these considerations, the proposed project is not expected to generate significant adverse project-specific or cumulative transportation/traffic impacts and, therefore, this topic will not be considered further. Since no significant transportation/traffic impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☐	☑
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☑

XVIII. a) As discussed in the "Biological Resources" section, the proposed project is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because any minor physical modifications that may occur as a result of the proposed project would occur at two existing cement production facilities that have already been greatly disturbed and that currently do not support such habitats. Additionally, special status plants, animals, or natural communities are not expected to be found within close proximity to the two facilities affected by the proposed project.

XVIII. b) Based on the foregoing analyses, cumulative impacts in conjunction with other projects that may occur concurrently with or subsequent to the proposed project are not expected to adversely impact any environmental topic. Related projects to the currently proposed project include existing and proposed amended rules and regulations, as well as AQMP control measures, which produce emission reductions from most industrial and commercial sectors. Furthermore, because the proposed project does not generate significant project-specific impacts, cumulative impacts are not considered to be "cumulatively considerable" as defined by CEQA guidelines §15065(a)(3). For example, the environmental topics checked 'No Impact' (e.g., aesthetics, agriculture resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation and traffic) would not be expected to make any contribution to potential cumulative impacts whatsoever. Also, in the case of air quality impacts, the net effect of implementing the proposed project with other proposed amended rules and regulations, and AQMP control measures is an overall reduction in District-wide emissions, thus, contributing to the attainment of state and national ambient air quality standards. Therefore, it is concluded that the proposed project has no potential for significant cumulative or cumulatively considerable impacts in any environmental areas.

XVIII. c) Based on the foregoing analyses, the proposed project is not expected to cause significant adverse effects to human beings. Significant adverse air quality impacts are not expected from the implementation of the proposed project. Based on the preceding analyses, no significant adverse impacts to aesthetics, agriculture resources, air quality, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation and traffic are expected as a result of the implementation of the proposed project.

As discussed in items I through XVIII above, the proposed project would have no potential to cause significant adverse environmental effects.

ATTACHMENT G

APPENDIX A

PROPOSED AMENDED RULE 1156 – FURTHER REDUCTIONS OF PARTICULATE EMISSIONS FROM CEMENT MANUFACTURING FACILITIES

ATTACHMENT G

(Adopted November 4, 2005)(Amended March 6, 2009)
(Amended ~~June 5~~September 4, 2015)

(Preliminary Draft)

PROPOSED AMENDED RULE 1156. FURTHER REDUCTIONS OF PARTICULATE EMISSIONS FROM CEMENT MANUFACTURING FACILITIES

(a) Purpose

The purpose of this rule is to further reduce particulate matter (PM) emissions and minimize hexavalent chromium emissions from cement manufacturing ~~facilities~~ operations and the property after facility closure.

(b) Applicability

This rule applies to all operations, materials handling, and transport at a cement manufacturing facility, including, but not limited to, kiln and clinker cooler, material storage, crushing, drying, screening, milling, conveying, bulk loading and unloading systems, internal roadways, material transport, and track-out. This rule also applies to owner(s)/operator(s) of the property after facility closure.

(c) Definitions

(1) BAG LEAK DETECTION SYSTEM (BLDS) means a system that meets the minimum requirements specified under U.S. EPA 40 CFR Part 63, Subpart LLL, Section 1350 (m) to continuously monitor bag leakage and failure.

(2) CEMENT MANUFACTURING FACILITY means any facility that engages in, or has been engaged in the operation of ~~prior to November 4, 2005,~~ producing portland cement or associated products, as defined in the Standard Industrial Classification Manual as Industry No. 3241, Portland Cement Manufacturing.

(3) CHEMICAL DUST SUPPRESSANT means any non-toxic chemical stabilizer which is used as a treatment material to reduce fugitive dust emissions and its use is not prohibited by any other applicable law and meets all applicable specifications required by any federal, state, or local water agency.

(4) CLINKER means a product from the kiln which is used as a feedstock to make cement.

(5) CLINKER COOLER means equipment into which clinker product leaving the kiln is placed to be cooled by air supplied by a forced draft or natural draft supply system.

(6) CONVEYING SYSTEM means a device for transporting materials from one piece of equipment or location to another piece of equipment or location within a facility. Conveying systems include, but are not limited to, the following: feeders, belt conveyors, bucket elevators and pneumatic systems.

(7) CONTINUOUS OPACITY MONITORING SYSTEM (COMS) means a system that meets minimum requirements specified under U.S. EPA 40 CFR Part 60, Appendix B, to continuously monitor opacity.

(8) CONVEYING SYSTEM TRANSFER POINT means a point where any material including, but not limited to, feed material, fuel, clinker or product, is transferred to or from a conveying system, or between separate parts of a conveying system.

(9) COVERED CONVEYOR is a conveyor where the top and side portion of the conveyor are covered by a removable cover to allow routine inspection and maintenance.

(10) DUST SUPPRESSANTS are water, hygroscopic materials, or chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(11) ENCLOSED CONVEYOR is any conveyor where the top, side and bottom portion of the conveyor system is enclosed except for points of loading and discharge and except for a removable cover to allow routine inspection and maintenance.

(12) ENCLOSED SCREENING EQUIPMENT means screening equipment where the top portion of the equipment is enclosed, except for the area where the materials are loaded to the screening equipment.

(13) ENCLOSED STORAGE PILE means any storage pile that is completely enclosed in a building or structure consisting of a solid roof and walls.

(14) END OF WORK DAY means the end of a working period that may include one or more work shifts, but no later than 8 p.m.

(15) EXISTING EQUIPMENT means any equipment, process or operation having an existing valid ~~AQMD~~SCAQMD permit that was issued prior to November 4, 2005.

(16) FACILITY means any source or group of sources or other air contaminant-emitting activities which are subject to this rule and are located on one or more contiguous properties within the ~~AQMD~~SCAQMD, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a

pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

(17) FACILITY CLOSURE occurs when all cement manufacturing operations at the facility have completely ceased and all permits associated with on-site cement manufacturing operations, such as blending silos, kilns, clinker cooler, and clinker grinding/milling, are surrendered or have expired and are no longer reinstateable.

(18) ~~(17)~~ FINISH MILL means a roll crusher, ball and tube mill or other size reduction equipment used to grind clinker to a fine powder. Gypsum and other materials may be added to and blended with clinker in a finish mill. The finish mill also includes the air separator associated with the finish mill.

(19) ~~(18)~~ HAUL TRUCK means a diesel heavy-duty truck that has a loading capacity equal to or greater than 50 tons.

(20) ~~(19)~~ INACTIVE CLINKER PILE is a pile of clinker material that has not been disturbed, removed, and/or added to as a result of loading, unloading, and/or transferring activities for 30 (thirty) consecutive days.

(21) ~~(20)~~ KILN means a device, including any associated preheater or precalciner devices that produce clinker by heating limestone and other materials for subsequent production of portland cement.

(22) ~~(21)~~ OPEN STORAGE PILE is any accumulation of materials which attains a height of three (3) feet or more or a total surface area of one hundred fifty (150) square feet or more. The open pile is defined as inactive when loading and unloading has not occurred in the previous 30 consecutive days.

(23) ~~(22)~~OWNER/OPERATOR means the owner and/or operator of the cement manufacturing facility ~~subject to this rule~~ or, upon facility closure, the owner and/or operator of the property where the closed cement manufacturing facility is or was located ~~unless otherwise specified~~.

(24) ~~(23)~~ PAVED ROAD means a road improved by covering with concrete, asphaltic concrete, recycled asphalt, or asphalt.

(25) ~~(24)~~ RAW MILL means a ball, tube, or vertical roller mill or other size reduction equipment used to grind materials to the appropriate size. Moisture may be added or removed from the materials during the grinding operation. A raw mill may also include a raw material dryer and/or air separator.

(26) ~~(25)~~ ROAD means any route with evidence of repeated prior travel by vehicles.

(27) ~~(26)~~ STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting, is resistant to being the source of wind-driven fugitive dust, and is demonstrated to be stabilized by the applicable test methods contained in the Rule 403 Implementation Handbook.

(28) ~~(27)~~ STREET SWEEPER is a PM_{10} efficient street sweeper approved pursuant to Rule 1186 – PM_{10} Emissions from Paved and Unpaved Roads & Livestock Operations.

(29) ~~(28)~~ TOP PROCESS PARTICULATE EMITTERS means:

(A) process equipment, including but not limited to the kiln, clinker cooler, raw mill, and finish mill, vented to air pollution control equipment, except open-top baghouses, that account for 60% of the total process particulate emissions at the facility, for the requirement of using BLDS or COMS under paragraph (e)(2); or

(B) process equipment, including but not limited to the kiln, clinker cooler, raw mill, and finish mill, vented to air pollution control equipment, that account for 80% of the total process particulate emissions at the facility for the monitoring, source testing and recordkeeping requirements under paragraph (e)(3), (e)(8) and subparagraph (f)(2)(D).

(30) ~~(29)~~ TRACK-OUT means any material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that has been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(31) ~~(30)~~ VERIFIED FILTRATION PRODUCT means filtration products that are verified under the U.S. EPA Environmental Technology Verification program (ETV).

(32) ~~(31)~~ WET SUPPRESSION SYSTEM means a system that supplies ultra-fine droplets of water or chemical dust suppressant by atomization through means of using compressed air or applying high pressure as specified by manufacturers to minimize dust.

(33) ~~(32)~~ WIND-DRIVEN FUGITIVE DUST means particulate matter emissions from any disturbed surface area which is generated by wind action alone.

(34) ~~(33)~~ WIND FENCE means a system consisting of a stand alone structure supporting a wind fence fabric. The wind fence fabric shall have maximum porosity of 20%.

(d) Requirements

The owner/operator shall comply with the following requirements unless otherwise stated.

(1) Visible Emissions

(A) The owner/operator of a facility shall not cause or allow the discharge into the atmosphere of visible emissions exceeding 10 percent opacity based on an average of 12 consecutive readings from any operation at the facility, except open piles, roadways and unpaved areas, using EPA Opacity Test Method 9.

(B) For open piles, roadways and other unpaved areas, the owner/operator of a facility shall not cause or allow the discharge into the atmosphere of visible emissions exceeding 20 percent opacity based on an average of 12 consecutive readings; or 50 percent opacity based on 5 individual consecutive readings using SCAQMD Opacity Test Method 9B.

(C) The owner/operator of a facility shall not cause or allow any visible dust plume from exceeding 100 feet in any direction from any operations at the facility.

(2) Loading, Unloading, and Transferring

(A) The owner/operator shall conduct material loading and unloading to and from trucks, railcars, or other modes of material transportation through an enclosed system that is vented to SCAQMD permitted air pollution control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A) and is operated during loading and unloading activities. In the event the system consists of a building, the enclosed building shall have openings with overlapping flaps, sliding doors or other equally effective devices, as approved by the Executive Officer to meet the requirement in subparagraph (d)(1)(A), which shall remain closed, except to allow trucks and railcars to enter and leave.

(B) The owner/operator shall cover or enclose all conveying systems and enclose all transfer points. During all conveying activities, the enclosed transfer points and enclosed conveying systems shall be vented to a permitted air pollution control device that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6) and is operated during all conveying activities. The enclosure shall have access doors to allow routine inspection and maintenance.

(C) The owner/operator shall apply dust suppressants as necessary during material loading, unloading, and transferring activities, and at conveying

system transfer points to dampen and stabilize the materials transported and prevent visible dust emissions generated to meet the requirement in subparagraph (d)(1)(A).

(D) The owner/operator shall install and maintain as necessary dust curtains, shrouds, belt scrapers, and gaskets along the belt conveying system to contain dust, prevent spillage and carryback in order to minimize visible emissions.

(E) The owner/operator shall use appropriate equipment including, but not limited to, stackers or chutes, as necessary, to minimize the height from which materials fall into storage bins, silos, hoppers or open stock piles and reduce the amount of dust generated to meet the requirements in paragraphs (d)(1) and (d)(6).

(3) Crushing, Screening, Milling, Grinding, Blending, Drying, Heating, Mixing, Sacking, Palletizing, Packaging, and Other Related Operations

(A) The owner/operator shall enclose crushing, screening, milling, grinding, blending, drying, heating, mixing, sacking, palletizing, packaging and other related operations. The enclosed system shall be vented to permitted control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A). The control equipment shall be operated during these operations.

(B) In lieu of the configuration described in subparagraph (d)(3)(A), the owner/operator of a primary crusher installed and operated prior to November 4, 2005 may use wind fences on at least two sides of the primary crusher with one side facing the prevailing winds. The structure shall be equipped and operated with a wet suppression system. To implement this, the owner/operator shall submit a permit modification application by May 4, 2006 for a primary crusher to enable the Executive Officer to develop permit conditions to ensure that this air pollution control system is designed and operated to minimize particulate emissions.

(C) The owner/operator shall apply dust suppressants, as necessary, during all operations to dampen and stabilize the materials processed and prevent visible emissions generated to meet the requirements in subparagraph (d)(1)(A).

(4) Kilns and Clinker Coolers

The owner/operator shall not operate the kilns and clinker coolers unless the kilns and clinker coolers are vented to air pollution control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A).

(5) Material Storage

(A) An owner/operator that stores raw materials and products in a silo, bin or hopper shall vent the silo, bin or hopper to an air pollution control device that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6).

(B) No later than September 8, 2009, the owner/operator shall conduct all clinker material storage and handling in an enclosed storage area that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6). The enclosed storage area shall have opening(s) covered with overlapping flaps, and sliding door(s) or other equivalent device(s) approved by the Executive Officer, which shall remain closed at all times, except to allow vehicles to enter or exit. Prior to the completion and operation of the enclosure, all clinker materials shall be stored and handled in the same manner as non-clinker materials as set forth in subparagraph (d)(5)(D).

(C) If clinker material storage and handling activities occur more than 1,000 feet from, and inside, the facility property-line, the owner/operator may comply with all of the following in lieu of the requirements of subparagraph (d)(5)(B) no later than September 8, 2009:

(i) Utilize a three-sided barrier with roof, provided the open side is covered with a wind fence material of a maximum 20% porosity, allowing a removable opening for vehicle access. The removable wind fence for vehicle access may be removed only during minor or routine maintenance activities, the creation or reclamation of outside storage piles, the importation of clinker from outside the facility, and reclamation of plant clean-up materials. The removable opening shall be less than 50% of the total surface area the wind fence and the amount of time shall be minimized to the extent feasible;

(ii) Storage and handling of material that is immediately adjacent to the three-sided barrier due to space limitations inside the structure shall be contained within an area next to the structure with a wind fence on at least two sides, with at least a 5 foot freeboard above

the top of the storage pile to provide wind sheltering, and shall be completely covered with an impervious tarp, revealing only the active disturbed portion during material loading and unloading activities;

(iii) Storage and handling of other active clinker material shall be conducted within an area surrounded on three sides by a barrier or wind fences with one side of the wind fence facing the prevailing wind and at least a 5-foot freeboard above the top of the storage pile to provide wind sheltering. The clinker shall remain completely covered at all times with an impervious tarp, revealing only the active disturbed portion during material loading and unloading activities. The barrier or wind fence shall extend at least 20 feet beyond the active portion of the material at all times; and

(iv) Inactive clinker material may be alternatively stored using a continuous and impervious tarp, covered at all times, provided records are kept demonstrating the inactive status of such stored material.

(D) For active open non-clinker material storage and handling, the owner/operator shall comply with one of the following to meet the requirements of subparagraphs (d)(1)(B) and (d)(1)(C):

(i) Apply chemical dust suppressants to stabilize the entire surface area of the pile, except for areas of the pile that are actively disturbed during loading and unloading activities; or

(ii) Install and maintain a three-sided barrier or wind fences with one side facing the prevailing winds and with at least two feet of visible freeboard from the top of the storage pile to provide wind sheltering, maintain surface stabilization of the entire pile in a manner that meets the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C), and store the materials completely inside the three-sided structure at all times; or

(iii) Install and maintain a three-sided barrier with roof, or wind fences with roof, to provide wind sheltering; maintain the open-side of the storage pile stabilized in a manner that meets the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C), and store the materials completely inside the three-sided structure at all times; or

(iv) Install and maintain a tarp over the entire surface area of the storage pile, in a manner that meets the performance standards of

subparagraphs (d)(1)(B) and (d)(1)(C), except for areas of the pile that are actively disturbed during loading and unloading activities. The tarp shall remain in place and provide cover at all times.

(E) All inactive non-clinker piles shall be stored and handled in the same manner as non-clinker materials, as set forth in subparagraph (d)(5)(D). The owner/operator shall keep records demonstrating the inactive status of the non-clinker piles.

(F) For open storage piles subject to subparagraph (d)(5)(D), the owner/operator shall apply chemical dust suppressants or dust suppressants during any material loading and unloading to/from the open piles; and re-apply chemical dust suppressants or dust suppressants to stabilize the disturbed surface areas of the open piles at the end of each work day in which loading and unloading activities were performed to meet the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C) .

(6) Air Pollution Control Device

(A) The owner/operator shall install and maintain an air pollution control system referred to in paragraphs (d)(2), (d)(3), (d)(4) and (d)(5) to meet the following performance standards measured with the approved source test in subdivision (g):

(i) an outlet concentration of 0.01 grain PM per dry standard cubic feet for equipment installed prior to November 4, 2005; and

(ii) a BACT outlet concentration not to exceed 0.005 grain PM per dry standard cubic feet for equipment installed on and after November 4, 2005.

(B) The owner/operator shall install and maintain a baghouse ventilation and hood system that meets a minimum capture velocity requirement specified in the applicable standards of the U.S. Industrial Ventilation Handbook, American Conference of Governmental Industrial Hygienists, at the time of installation. If modification to the baghouse ventilation and hood system is required to meet the applicable standard, the owner/operator shall be granted additional time up to December 31, 2006 to complete this process.

(C) The owner/operator shall meet the requirements in paragraph (d)(6) by December 31, 2006 for pulse-jet baghouses, and by December 31, 2010 for non-pulse-jet baghouses.

(D) To show incremental progress towards the December 31, 2010 compliance date for non-pulse-jet baghouses, the owner/operator shall submit to the Executive Officer a list of baghouse candidates for future modification or replacement by December 31, 2006. In addition, the owner/operator shall submit a notification letter by December 31 of each year thereafter, starting in 2006, to demonstrate that the owner/operator has completed at least 20% of the modification or replacement by 2006; 40% by 2007; 60% by 2008, 80% by 2009; and 100% by 2010.

(7) Internal Roadways and Areas

(A) Unpaved Roadways and Areas

(i) For haul roads used by haul trucks to carry materials from the quarry to different locations within the facility, the owner/operator shall apply chemical dust suppressants in sufficient quantity and at least twice a year to stabilize the entire unpaved haul road surface; post signs at the two ends stating that haul trucks shall use these roads unless traveling to the maintenance areas; and enforce the speed limit of 35 miles per hour or less to comply with the opacity limits in paragraph (d)(1).

(ii) For other unpaved roadways and areas, the owner/operator shall apply chemical dust suppressants in sufficient quantity and at least twice a year to stabilize the surface, or apply gravel pad containing 1-inch or larger washed gravel to a depth of six inches; and enforce a speed limit of 15 miles per hour or less to comply with the opacity limits in paragraph (d)(1).

(B) Paved Roads

The owner/operator shall sweep all internal paved roads at least once each regular work day or more frequently if necessary to comply with the opacity limits in paragraph (d)(1). Sweeping frequency may be reduced on weekends, holidays, or days of measurable precipitation provided that the owner/operator complies with the opacity limits in paragraph (d)(1) at all times. Sweepers purchased or leased after November 4, 2005 shall be Rule 1186-certified sweepers.

(8) Track-Out

(A) The owner/operator shall pave the closest 0.25 miles of internal roads leading to the public roadways and ensure that all trucks use these roads

exclusively when leaving the facility to prevent track-out of dust to the public roadways and to comply with the opacity limits in paragraph (d)(1).

(B) If necessary to comply with the opacity limits in paragraph (d)(1), the owner/operator shall install a rumble grate, truck washer, or wheel washer; and ensure that all trucks go through the rumble grate, truck washer or wheel washer such that the entire circumference of each wheel or truck is cleaned before leaving the facility.

(C) To prevent material spillage from trucks to public roadways and fugitive dust emissions during transport, a truck driver on the facility shall ensure that the cement truck hatches are closed and there is no track-out, and the owner/operator shall provide truck cleaning facilities on-site.

(D) The owner/operator shall provide, at least once each calendar year, the "Fugitive Dust Advisory" flyers prepared by the District to any company doing business with the facility and which is subject to the requirements in subparagraph (d)(8)(C).

(9) No Backsliding

To prevent any backsliding from the current level of control, the owner/operator shall operate and maintain all existing equipment according to permit conditions stated in the permits approved by the Executive Officer prior to November 4, 2005 at all times.

(10) Compliance Monitoring Plan

(A) No later than June 8, 2009, the owner/operator shall submit to the Executive Officer a complete compliance plan for wind monitoring and the monitoring, sampling, and analysis of hexavalent chromium, and pay a plan evaluation fee pursuant to Rule 306 – Plan Fees. The submitted plan will be disapproved if it does not meet the provisions of subparagraph (d)(10)(B). The owner/operator shall resubmit an approvable plan within 30 days from date of disapproval; otherwise, the owner/operator shall be deemed in violation of this provision.

(B) The monitoring plan submitted shall contain, at a minimum, the following:

(i) Siting and monitoring protocols that comply with EPA's and CARB's guidance and/or protocols for measurement of hexavalent chromium, wind direction, and wind speed. A minimum of three fence-line monitoring stations are required for hexavalent chromium: one upwind and one downwind of the facility under the common prevailing wind directions, and one subject to approval by

the Executive Officer to ensure maximum effectiveness of the monitoring to the most potentially affected receptor, such as nearest residential or business receptors relative to clinker storage areas or potential hexavalent chromium emitting sources.

(ii) Breakdown provisions which include: (1) a statement that the owner/operator will notify the Executive Officer in writing of the breakdown within 24 hours of its occurrence. If the breakdown occurs on a Friday, over a weekend, or on a national or state holiday observed by the facility, the facility shall report such breakdown on the following work day; (2) a repair schedule; and (3) an action plan with detailed measures to be taken by the owner/operator to ensure that there will be at least 70% data capture at each site by each monitoring system;

(iii) Consent from the owner/operator that allows the Executive Officer to conduct any co-located or audit sampling at any time;

(iv) Sampling analysis protocols that comply with EPA and CARB's appropriate guidance and/or protocols for hexavalent chromium. All samples shall be analyzed at a District-approved laboratory, which can be audited at any time; and

(v) Any other relevant data and information required by the Executive Officer.

(C) The Executive Officer shall approve or disapprove the complete plan within 60 days from the submittal date.

(D) The owner/operator may file for a compliance monitoring plan amendment in the future relative to monitor siting or other elements of the plan as more site-specific data becomes available.

(11) Hexavalent Chrome~~i~~ium Monitoring and Other Requirements

(A) No later than six months from compliance plan approval or March 1, 2010, whichever occurs first, the owner/operator of a cement manufacturing facility shall conduct hexavalent chromium ambient air monitoring as follows:

(i) The owner/operator shall conduct ambient air monitoring for hexavalent chromium in accordance with the approved monitoring plan set forth in subparagraph (d)(10)(B) or (d)(10)(D), as applicable. The hexavalent chromium concentration from a 30-day rolling average at each monitoring station shall not exceed 0.70

nanograms per cubic meter (ng/m^3), excluding background. 24-hour sampling shall be conducted once every third day according to the EPA 1-in-3-day sampling calendar. For monitoring sample retrieval in which collection occurs on a weekend or facility observed national or state holiday, the sample may be collected the following business day.

(ii) The owner/operator may conduct 24-hour sampling once every six days for hexavalent chromium if there is no single exceedance of the 0.70 ng/m^3 level during 12 continuous months of monitoring. On this sampling schedule, the hexavalent chromium concentration from a 90-day rolling average at each monitoring station shall not exceed 0.70 ng/m^3, excluding background. If there is a~~n~~ confirmed exceedance while on this sampling schedule, sampling shall ~~immediately~~ revert back to once every three days. For monitoring sample retrieval in which collection occurs on a weekend or facility observed national or state holiday, the sample may be collected the following business day. Reverting back to the more frequent sampling schedule stated in clause (d)(11)(A)(i) due to an exceedance of the threshold must occur immediately once the Executive Officer confirms through wind event or other relevant data, as necessary, that the facility is the source of the emissions.

(iii) After *(date of adoption)* and upon a subsequent 12 consecutive months of demonstrating less than the hexavalent chromium thresholds in clauses (d)(11)(A)(i) or (ii) as applicable, the owner/operator may submit for approval an amended compliance monitoring plan to operate a minimum of one monitoring station at a location in the predominantly downwind direction from the emission source(s). If the applicable thresholds in clauses (d)(11)(A)(i) or (ii) are exceeded and the facility is confirmed to be the source of the emissions, the owner/operator shall immediately revert back to the originally approved compliance plan stated in subparagraph (d)(10)(B).

(B) Effective September 5, 2016, the ambient hexavalent chromium concentration from a 30-day or 90-day rolling average, as applicable, at each monitoring station in subparagraph (d)(11)(A) shall not exceed 0.20 ng/m^3, excluding background. All other provisions of subparagraph (d)(11)(A) continue to apply.

(C) Upon any confirmed hexavalent chromium exceedance that occurs after September 5, 2016, the owner/operator shall submit for approval a compliance plan and pay applicable fees pursuant to Rule 306 – Plan Fees. The plan shall include detailed descriptions of all feasible measures being utilized or that will be utilized to reduce hexavalent chromium emissions at the facility to demonstrate increments of progress as quickly as possible. The plan shall include, but not be limited to, the following information:

(i) The name(s), address(es), and phone number(s) of the person(s) responsible for the preparation, submittal, and implementation of the plan;

(ii) A description of the activities, including a map depicting the location of the site, notating any defining landmarks or demarcations;

(iii) A listing of all potential sources of fugitive dust emissions within the property lines;

(iv) The owner/operator shall describe the implementation of all applicable dust control measures listed in Rule 403 – Fugitive Dust, and maintain compliance with the rule requirements;

(v) A description of the control or other stabilization measures that will be applied to each of the sources. The description must be sufficiently detailed to demonstrate that all feasible measures will be utilized.

In the event that the fence-line risk cannot be brought below the threshold after implementation of the plan, the owner/operator shall submit a revised plan to meet the standard.

(12) Particulate Matter (PM10) Monitoring and Other Requirements

The owner/operator of the cement manufacturing facility who accrues three or more approved notices of violation for an exceedance of the upwind/downwind level specified in Rule 403 within a 36-month period shall conduct PM10 ambient air monitoring. An amendment to the compliance monitoring plan to include PM10 monitoring protocols and procedures shall be filed within 90 days of the date of the third approved notice of violation. The monitoring equipment shall be installed and operated within 6 months from the date of modified plan approval and no later than one year from the date of the third approved notice of violation.

(A) The owner/operator shall conduct continuous and real-time ambient air monitoring for PM10, using a continuous monitoring system, in accordance with a monitoring plan approved by the Executive Officer in a manner as set forth in subparagraphs (d)(10)(B) or (d)(10)(D), as applicable. The differences of PM10 concentrations from any two monitoring sites which represent upwind and downwind concentrations shall not exceed the amount and averaging time period specified in Rule 403.

(B) The owner/operator shall apply dust suppressants on all openly stored non-clinker materials, unpaved roads, and unpaved areas within the facility, as well as take steps to decrease clinker dust, if the PM10 difference(s) set forth in Rule 403 are exceeded at any time.

(13) Wind Monitoring

(A) No later than September 8, 2009, the owner/operator shall install and operate wind monitoring equipment to conduct hourly wind monitoring according to a protocol approved by the Executive Officer.

(B) On and after the date of operation of the wind monitoring equipment pursuant to subparagraph (d)(13)(A), the owner/operator shall cease all open handling of clinker material for a two-hour period in the event that instantaneous wind speeds exceed 25 miles per hour (mph), and if such wind speeds subsequently exceed 25 mph, a new two-hour period shall begin. During the aforementioned two-hour period, the facility would be exempt from the requirement of subparagraph (d)(1)(C) if the open handling of clinker material is ceased, provided that dust controls as required by District rules are applied; and unpaved roads are stabilized upon register of the high wind event via the wind monitoring equipment.

(e) Monitoring and Source Testing

(1) For the kilns and clinker coolers, the owner/operator shall continuously monitor and record operating parameters including, but not limited to, flue gas flow rates and pressure drops across the baghouses to monitor baghouse performance and ensure compliance with the opacity limit in subparagraph (d)(1)(A).

(2) For all new baghouses greater than or equal to 10,000 actual cubic feet per minute, and for all existing bahouses of the top process particulate emitters as defined under subparagraph (c)(28)(A), the owner/operator shall install, operate,

calibrate and maintain a COMS or BLDS to monitor baghouse performance and ensure compliance with the opacity limit in subparagraph (d)(1)(A).

(3) The owner/operator shall conduct visible emission observations with EPA Method 22 for process equipment equipped with air pollution control equipment at the following frequency:

(i) Weekly for top process particulate emitters defined under subparagraph (c)(28)(B) that are not equipped with BLDS or COMS;

(ii) Monthly for top process particulate emitters defined under subparagraph (c)(28)(B) that are equipped with BLDS or COMS; and

(iii) Monthly for other process equipment.

(4) The owner/operator shall monitor and record pertinent operating parameters, such as pressure drops, according to the Operation and Maintenance Procedure in paragraph (e)(12) to monitor the performance of air pollution control equipment and ensure compliance with the opacity limit in subparagraph (d)(1)(A).

(5) If the owner/operator receives an alarm from the BLDS, or COMS, the owner/operator shall immediately conduct an EPA Method 22 test and implement all necessary corrective actions to minimize emissions.

(6) If the owner/operator observes visible emissions during any EPA Method 22 test, the owner/operator shall immediately implement all necessary corrective actions to minimize emissions, and conduct EPA Method 9 test within one hour of any observation of visible emissions.

(7) For the kilns and clinker coolers, the owner/operator shall conduct an annual compliance source test in accordance with the test methods in subdivision (g) to demonstrate compliance with the emission limit(s) in subdivision (d). The first annual compliance source test in accordance with an approved source test protocol shall be conducted within ninety (90) calendar days after the compliance date specified in subdivision (d). The owner/operator shall submit a source test protocol to the Executive Officer no later than sixty (60) calendar days prior to the proposed test date for the Executive Officer's approval for the first compliance source test. The testing frequency may be reduced to once every 24 calendar months if the two most recent consecutive annual source tests demonstrate compliance with the limits. Upon notification by the Executive Officer, the testing frequency shall be reverted back to annual testing if any subsequent source test fails to demonstrate compliance with the limits. In lieu of annual testing, any owner/operator who elects to use all verified filtration products in its baghouses shall conduct a compliance test every five years.

(8) By February 4, 2006, the owner/operator shall provide the Executive Officer a list of the top process particulate emitters as defined under subparagraph (c)(28)(B), and the proposed testing schedule for these equipment. The owner/operator shall conduct compliance source tests on representative baghouses within each process system and submit test results for these processes every 5 years, with at least two source tests conducted in any calendar year. If there are any changes to the list of equipment to be tested or the testing schedule, the owner/operator shall notify the Executive Officer 60 calendar days before the test date.

(9) The owner/operator shall not be required to test non-operational equipment, which is not in operation for at least 6 consecutive months prior to scheduled testing, as indicated in paragraph (e)(8) provided that the owner/operator shall conduct such test within one month after resuming operation.

(10) During any compliance source test, the owner/operator shall monitor and record, at a minimum, all operating data for the selected operating parameters of the control equipment and the process equipment and submit this data with the test report.

(11) The owner/operator shall submit a complete test report for any compliance source test to the Executive Officer no later than sixty (60) calendar days of completion of the source test.

(12) Operation and Maintenance Procedures

(A) The owner/operator shall develop and implement an Operation and Maintenance Procedure to ensure that the performance of the air pollution control equipment is continuously maintained and operated. The Operation and Maintenance Procedure shall include, at a minimum, information on monitoring and recordkeeping procedures, routine maintenance procedures, corrective and preventive actions for the air pollution control equipment, and training related to EPA Method 22, EPA Opacity Test Method 9 and ~~AQMD~~SCAQMD Opacity Test Method 9B, and other applicable information to demonstrate compliance with this rule.

(B) The owner/operator shall develop and implement an Operation and Maintenance Procedure that would require sufficient maintenance of internal roadways and areas, prompt cleanup of any pile of material spillage or carry-back, and application of chemical dust suppressant or other dust control methods to maintain surface stabilization of the open piles, spillage and carry-back to ensure compliance with the opacity standards in paragraph (d)(1) at all times.

(C) The owner/operator shall develop and maintain the Operation and Maintenance Procedures described under subparagraphs (e)(12)(A) and (e)(12)(B) within 6 months after November 4, 2005, and shall make the Operation and Maintenance Procedures available to the Executive Officer upon request.

(f) Reporting and Recordkeeping

(1) The owner/operator shall maintain all records and information required to demonstrate compliance with the provisions of this rule in a manner approved by the Executive Officer for a period of at least five years which shall be made available to the Executive Officer upon request.

(2) The owner/operator of a facility shall keep, at a minimum, the following records to demonstrate compliance:

(A) Daily records of applying chemical dust suppressants, watering, sweeping and cleaning activities;

(B) Appropriate records, on at least a monthly basis, for primary crushers, kilns, raw mills, and finish mills, production records of clinkers and cements and records of raw materials delivered to the facility in order to determine emissions;

(C) Test reports to demonstrate compliance with the emission standards in subdivision (d) including, but not limited to, PM emission rates, and opacity readings;

(D) Records of equipment malfunction and repair for the air pollution control equipment of the top process particulate emitters specified under subparagraph (c)(28)(B);

(E) Daily records of all material handling, including loading and unloading, and storage pursuant to paragraphs (d)(2) and (d)(5);

(F) Monitoring data pursuant to subparagraphs (d)(11), and (d)(12) as applicable, and supporting documentation, including, but not limited to chains of custody and laboratory results;

(G) Hourly records of wind speed and direction pursuant to subparagraph (d)(13);

(H) Records of all maintenance activities pursuant to clause (d)(5)(C)(i) and paragraph (i~~h~~)(7), including any equipment testing after the repairs and duration of wind fence removal;

(I) Records of clinker pile reclamation, importation, and transport pursuant to clause (d)(5)(C)(i), including duration of wind fence removal; and

(J) Records of all vehicle traffic and monthly average road trips pursuant to paragraph (i~~h~~)(4).

(3) Monitoring data shall be reported monthly to, and in an electronic format specified by, the Executive Officer. In the event the facility owner/operator finds that an exceedance of the levels specified in subparagraphs (d)(11)(A), (d)(11)(B), or (d)(12)(A) as applicable has occurred, the owner/operator shall report in writing such finding to the Executive Officer, and follow up with a phone call the next business day after such finding.

(g) Test Methods and Calculation

(1) The owner/operator shall use the following source test methods, as applicable, to determine the PM emission rates. All source test methods referenced below shall be the most recent version issued by the respective organization. All test results in units of grains/dscf shall be determined as before the addition of any dilution or air, if present, that was not a part of the stream(s) processed by the device that was tested.

(A) SCAQMD Source Test Method 1.1 or 1.2 – Velocity and Sample Traverse Points;

(B) SCAQMD Source Test Method 2.1 or 2.3 – Stack Gas Flow Rate;

(C) SCAQMD Source Test Method 3.1 – Stack Gas Density;

(D) SCAQMD Source Test Method 4.1 – Stack Gas Moisture;

(E) SCAQMD Source Test Method 5.2 or 5.3 - Determination of Particulate Matter Emissions in which reagent grade acetone shall be used to recover samples from the components of the sampling train located before the particulate filter;

(F) EPA Source Test Method 5 with the impinger analysis may be used in lieu of SCAQMD Source Test Method 5.2 or 5.3.

(G) EPA Source Test Method 5D with the impinger analysis may be used to measure PM emissions from positive pressure fabric filters.

(2) Measurement of particulate matter emissions from the cement kiln shall provide for a correction of sulfur dioxide emissions collected in the particulate matter samples. Any measured gaseous sulfur dioxide emissions shall be excluded from the measurement of particulate matter emissions by subtracting from the mass of material collected in any impingers a mass equivalent to the amount of measured

sulfur dioxide emissions based upon sulfuric acid dihydrate as specified in SCAQMD Source Test Methods 5.2 or 5.3.

(3) Source tests for PM shall be taken and the average of the samples shall be used to determine the applicable emission rate in accordance with the following requirements:

(A) Simultaneous duplicate samples shall be obtained unless the owner/operator demonstrates to the satisfaction of the Executive Officer that it is not physically feasible to do so, in which case the owner/operator shall take sequential triplicate samples;

(B) All samples must have minimum sampling volume of 120 cubic feet or a minimum PM catch of 6 milligrams per sample shall be collected;

(C) For duplicate samples, the source test shall be deemed ~~invalid~~valid if:

(i) both samples are below 0.002 grain/dscf; or

(ii) the difference between the two samples is ~~greater~~ less than 35% of the average of the two samples in the applicable units specified in subdivision (d) and if the difference between the sample catches normalized to the average sampling volume is ~~greater~~ less than 3.5 milligrams. If the source test is deemed invalid, the test shall be repeated; and

(D) For triplicate samples, upon approval of the Executive Officer or designee, if the owner/operator can demonstrate that the process conditions including, but not limited to, the throughput, quantity, type, and quality of all feedstock to the equipment process, and the emission control equipment conditions have not changed throughout the sequential test period, then the owner/operator may apply the Dixon outlier test at the 95% significance level to check for and discard one outlier, and shall use the average of the two remaining samples to determine PM emissions.

(4) The owner/operator may use alternative or equivalent source test methods, as defined in U.S. EPA 40 CFR 60.2, if they are approved in writing by the Executive Officer, the California Air Resources Board, and the U.S. Environmental Protection Agency.

(5) The owner/operator shall use a test laboratory approved under the SCAQMD Laboratory Approval Program for the source test methods cited in this subdivision if such approved lab exists. If there is no approved laboratory, then approval of the testing procedures used by the laboratory shall be granted by the Executive

Officer on a case-by-case basis based on appropriate SCAQMD protocols and procedures.

(6) The owner/operator shall use the methods specified in the SCAQMD Rule 403 Implementation Handbook to determine threshold friction velocity and stabilized surface; and EPA Opacity Test Method 9 and Method 22, or SCAQMD Opacity Test Method 9B to determine opacity.

(7) When more than one source test method or set of source test methods are specified for any testing, the application of these source test methods to a specific set of test conditions is subject to approval by the Executive Officer. In addition, a violation established by any one of the specified source test methods or set of source test methods shall constitute a violation of the rule.

(h) Requirements After Facility Closure

(1) After facility closure, the owner/operator shall continue hexavalent chromium ambient monitoring in accordance with their most recently approved monitoring plan and sampling schedule, and comply with the requirements set forth in subparagraphs (d)(11)(A) or (d)(11)(B), as applicable.

(2) Effective (*date of adoption*), the owner/operator may seek SCAQMD approval to cease the hexavalent chromium ambient monitoring if no confirmed exceedance of the applicable hexavalent chromium threshold in subparagraphs (d)(11)(A) or (d)(11)(B) occurs during the most recent consecutive twelve (12) month period of monitoring.

(3) In the event of any temporary relocation of ambient hexavalent chromium monitor(s), the owner/operator shall notify the SCAQMD in writing and obtain Executive Officer's approval prior to such relocation and shall move the monitor(s) back to the original location(s) or other approved locations(s) within the timeframe specified by the SCAQMD.

(4) The owner/operator shall allow the SCAQMD to conduct co-located hexavalent chromium ambient monitoring and soil sampling as needed.

(5) The owner/operator shall submit a dust mitigation plan and receives written approval from the Executive Officer prior to any change in land use or disturbance activities occur and pay applicable filing and evaluation fees pursuant to Rule 306 – Plan Fees. The dust mitigation plan must contain, but is not limited to, the following information:

(A) The name(s), address(es), and phone number(s) of the person(s) responsible for the preparation, submittal, and implementation of the plan;

(B) A description of the activities to be conducted, including a map depicting the location of the site, notating any defining landmarks or demarcations;

(C) A list of all potential sources of fugitive dust emissions within the property lines, including but not limited to any demolition of existing structures, construction of new structures, and any grading and/or paving of the existing property;

(D) A protocol for soil sampling and hexavalent chromium compliance monitoring. The protocol shall consist of proposed frequency and threshold for soil sampling and a hexavalent chromium compliance monitoring plan consistent with paragraph (d)(10);

(i) Soil sampling and hexavalent chromium monitoring shall be conducted before, during, and after any land disturbance activities, including, but not limited to demolition, construction, grading, and paving activities at the property;

(ii) The property shall be stabilized upon evidence of hexavalent chromium in excess of local background soil concentration levels found through such sampling and monitoring;

The owner/operator may request a reduction in the number of hexavalent chromium ambient monitoring stations, and/or reduced frequency of soil sampling and hexavalent chromium ambient monitoring appropriate to the scope of the activities.

(E) The owner/operator shall describe the implementation of all applicable dust control measures listed in Rule 403 – Fugitive Dust, and maintain compliance with the rule requirements.

(F) A description of the control or other stabilization measures that will be applied to each of the sources. The description must be sufficiently detailed to demonstrate that the applicable best available control measures or reasonably available control measures will be utilized and/or installed during all periods of active operations.

(6) The owner/operator may, after facility closure, conduct and submit a site-specific assessment identifying areas of potential hexavalent chromium contamination using soil sampling, historic site activity, or other means. If approved by the Executive Officer, those areas determined not to be potentially contaminated may be excluded from the Dust Mitigation Plan Requirements.

(7) Subsequent owners/operator of the property where the closed cement manufacturing facility is or was located shall comply with subdivision (h) of this rule.

(8) The owner/operator shall comply with appropriate site-specific requirements from other agencies.

(9) The owner/operator shall work with other local agencies to ensure that any and all required mitigations/actions are met, including but not limited to, those required under the CEQA process.

(~~h~~i) Exemptions

(1) The owner/operator is exempt from installing a three-sided barrier or enclosure, or using the test methods in the SCAQMD Rule 403 Implementation Handbook for the demonstration of surface stabilization for open storage piles if 90% of the pile's mass consists of materials that are larger than ½ inch. Applicability of this exemption shall be determined through the measurement of any composite sample of at least 10 pounds taken from a minimum depth of 12 inches below the pile surface, and from various locations in the pile, but not from within 12 inches from the base of the pile. This exemption is limited to open storage piles that contain only materials other than clinker, providing that such piles meet the performance standards in subparagraphs (d)(1)(B) and (d)(1)(C).

(2) The owner/operator is exempt from the use of chemical dust suppressants for internal unpaved roads if the use of applicable chemical dust suppressants on that specific unpaved road violates the rules and/or regulations of the local Water Quality Control Board or other government agency provided the owner/operator uses water in sufficient quantity and frequency to stabilize the road surface and the owner/operator notifies the Executive Officer in writing 30 days prior to the use of water.

(3) Haul trucks are not required to use designated roads for haul trucks if they travel on unpaved roads complying with the requirements in clause (d)(7)(A)(ii).

(4) The owner/operator is exempt from the use of chemical dust suppressants in clause (d)(7)(A)(ii) where a road is used less than a monthly average of twice a day by a designated vehicle at a speed limit less than 15 miles per hour.

(5) The owner/operator is exempt from the use of chemical dust suppressants on unpaved areas specified in clause (d)(7)(A)(ii) during a period for demolition activities of no longer than six (6) calendar months provided that the owner/operator uses water in sufficient quantity and frequency to stabilize the

unpaved areas, meets the opacity requirements in subparagraphs (d)(1)(B) and (C) at all times, and keeps sufficient records to demonstrate compliance.

(6) With the exception of primary crushing, open material storage piles, and covers and existing enclosures for conveying systems, the provisions of this rule shall not apply to equipment or operations that are subject to Rule 1157 or Rule 1158 located at the cement manufacturing facilities, provided that there is no backsliding from the current level of control as stated in the permits approved by the Executive Officer prior to November 4, 2005 or as required under Rule 1157 and Rule 1158, whichever is more stringent.

(7) The owner/operator is exempt from the requirements in clause (d)(5)(C)(i) in the event the wind fence material needs to be removed to perform periodic maintenance of the clinker crane or building. During the time the wind fence material is removed, the clinker crane shall not actively transport clinker material in the building, except for post maintenance equipment testing.

(8) During day(s) in which the instantaneous wind speeds exceed 25 mph using the on-site wind monitoring equipment pursuant to (d)(13)(A), the owner/operator is exempt from the hexavalent chromium and PM10 averaging provisions of subparagraphs (d)(11)(A) and (d)(11)(B), and (d)(12)(A) as applicable, provided all open handling of clinker material is ceased and dust controls are applied pursuant to subparagraph (d)(13)(B). If the Executive Officer determines a significant potential of re-entrained hexavalent chromium containing dust from the facility exists during such high wind events, the owner/operator shall implement an approved Mitigation Monitoring Plan to minimize exposure to the surrounding area and to ensure implementation of all applicable dust control measures to meet the requirements of subparagraphs (d)(11)(A) and (d)(11)(B), and (d)(12)(A), as applicable. The Mitigation Monitoring Plan is due 90 days, inclusive of appropriate plan fees pursuant to Rule 306, after notification by the Executive Officer.

ATTACHMENT G

APPENDIX B

CONSTRUCTION EMISSION CALCULATIONS

ATTACHMENT G

Construction Emissions

Installation of Plastic Shrouding / Partioning Material at Affected Facilities

Installation of Limited Dust Controls at 2 Affected Cement Manufacturing Facilities

Construction Activity

Installing Plastic Shrouding / Partitioning Material around Bagging Operations and Doors

Construction Schedule - "Worst-case" Complete Installation at 2 Locations Simultaneously

Activity	Equipment Type	No. of Equipment	Hrs/day	Crew Size	
On-Road Mobile Source Operations	Delivery Truck	2	-	2	*– Deliver the control materials*
On-Road Mobile Source Operations	Worker Vehicle	10	-	20	*– Install Shrouding / Partitioning Materials*

Construction Vehicle (Mobile Source) Emission Factors for Years 2010	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Construction Related Activity	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile
Offsite (Construction Worker Vehicle)	0.00066355	0.00614108	0.00060188	0.00001070	0.00009259	0.00006015	1.10192837	0.00005923
Offsite (Equipment Delivery Truck - HHDT)	0.00178608	0.00766891	0.02122678	0.00004082	0.00104715	0.00087977	4.20902225	0.00008369

Source: EMFAC 2007 (v2.3) Emission Factors (On-Road Vehicles, Scenario Year 2015)

Composite Emission Factors for Passenger Vehicle and Heavy-Heavy Duty Trucks for Scenario Year 2015

http://www.aqmd.gov/home/regulations/cega/air-quality-analysis-handbook/emfac-2007-(v2-3)-emission-factors-(on-road)

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	Trip Length (miles)
Offsite (Construction Worker)	20	25
Offsite (Delivery/Haul Truck - HHDT)	4	50

Incremental Increase in Offsite Combustion Emissions from Construction Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x Number of workers x Trip length (mile) = Offsite Construction Emissions (lbs/day)

Vehicle	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Offsite (Construction Worker Vehicle)	0.33	3.07	0.30	0.01	0.05	0.03	550.96	0.03

Offsite (Delivery/Haul HHDT)	0.36	1.53	4.25	0.01	0.21	0.18	841.80	0.02
Vehicle TOTAL	**0.69**	**4.60**	**4.55**	**0.01**	**0.26**	**0.21**	**1392.77**	**0.05**

Total Incremental Combustion Emissions from Construction Activities (Construction Equipment, Trucks and Workers' Vehicles)

	VOC	**CO**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**CH4**	**CO2eq**
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	MT/year
TOTAL	**0.69**	**4.60**	**4.55**	**0.01**	**0.26**	**0.21**	**1392.77**	**0.05**	**1.27**
Significant Threshold	75	550	100	150	150	55	n/a	n/a	10,000
Exceed Significance?	NO	NO	NO	NO	NO	NO	n/a	n/a	NO

ATTACHMENT G

Construction Emissions

Total Increase in Fuel Usage From Construction Equipment and Workers' Vehicles

Overall Construction Activity	Total Project Hours of Operation	Equipment Type	Off-Road Fuel (gal/hr)	Total Diesel Fuel Use (gallons)	Total Gasoline Fuel Use (gals)
Workers' Vehicles* - Commuting	N/A	Mixed Passenger	N/A	N/A	50.00
Offsite Delivery Trucks**	N/A	Heavy-Heavy Duty Delivery Truck	N/A	26.67	N/A
			TOTAL	**26.67**	**50.00**

**Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.*

***Assume that delivery trucks use diesel and get 15 miles/gallon traveling 100 miles roundtrip; 2 locations*

ATTACHMENT G

APPENDIX C

OPERATIONAL EMISSION CALCULATIONS

ATTACHMENT G

Operational Emissions

Application of Soil Stabilizers and Additional Sampling Trips at Affected Facilities

Application of Soil Stabilizers and Additional Sampling at Affected Cement Manufacturing Facilities

Construction Activity
Application of Additional Soil Stabilizers

Operation Schedule - "Worst-case" Complete Soil Stabilizer Application at 2 facilities simultaneously

Activity	Equipment Type	No. of Equipment	Hrs/day	Crew Size	
Off-Road Mobile Source Operations	Application / Spraying Truck- Other Construction Equip. Composite	2	8	2	– *Spray soil stabilizer into place*
On-Road Mobile Source Operations	Worker Vehicle	2	-	2	– *Spraying vehicle operator*
On-Road Mobile Source Operations	Worker Vehicle	2	-	2	– *Sample Pick-up and Delivery to Lab*

2015 Construction Equipment Emission Factors	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Equipment Type*	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
Spraying Truck- Other Construction Equip. (composite)	0.0768	0.3645	0.6392	0.0013	0.0264	0.0264	123	0.0069

**Equipment is assumed to be diesel fueled.*

Source: CARB's Off-Road Mobile Source Emission Factors for Scenario Year 2015 http://www.aqmd.gov/home/regulations/cega/air-quality-analysis-handbook/off-road-mobile-source-emission-factors

Construction Vehicle (Mobile Source) Emission Factors for Years 2015	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Construction Related Activity	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile
Offsite (Construction Worker Vehicle- Spray Vehicle Operator)	0.00066355	0.00614108	0.00060188	0.00001070	0.00009259	0.00006015	1.10192837	0.00005923
Offsite (Worker Vehicle for Collecting Samples and Delivering to Lab)	0.00066355	0.00614108	0.00060188	0.00001070	0.00009259	0.00006015	1.10192837	0.00005923

Source: EMFAC 2007 (v2.3) Emission Factors (On-Road Vehicles, Scenario Year 2015)
http://www.aqmd.gov/home/regulations/cega/air-quality-analysis-handbook/emfac-2007-(v2-3)-emission-factors-(on-road)

ATTACHMENT G

Operational Emissions

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	Trip Length (miles)
Offsite (Construction Worker- Spray Vehicle Operator)	4	25
Offsite (Worker Vehicle for Collecting Samples and Delivering to Lab)	4	25

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lbs/day)

Equipment Type	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Spraying Truck- Other Construction Equip. (composite)	1.23	5.83	10.23	0.02	0.42	0.42	1961.57	0.11
Construction Equip TOTAL	**1.23**	**5.83**	**10.23**	**0.02**	**0.42**	**0.42**	**1961.57**	**0.11**

Incremental Increase in Offsite Combustion Emissions from Construction Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x Number of workers x Trip length (mile) = Offsite Construction Emissions (lbs/day)

Vehicle	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Offsite (Construction Worker- Spray Vehicle Operator)	0.07	0.61	0.06	0.00	0.01	0.01	110.19	0.01
Offsite (Worker Vehicle for Collecting Samples and Delivering to Lab)	0.07	0.61	0.06	0.00	0.01	0.01	110.19	0.01
Vehicle TOTAL	**0.13**	**1.23**	**0.12**	**0.00**	**0.02**	**0.01**	**220.39**	**0.01**

Total Incremental Combustion Emissions from Operational Activities (Soil Stabilization Equipment and Workers' Vehicles)

	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4	CO2eq
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	MT/year
TOTAL	**1.36**	**7.06**	**10.35**	**0.02**	**0.44**	**0.43**	**2181.95**	**0.12**	**1.99**
Significant Threshold	75	550	100	150	150	55	n/a	n/a	10,000
Exceed Significance?	NO	NO	NO	NO	NO	NO	n/a	n/a	NO

ATTACHMENT G

Operational Emissions

Total Increase in Fuel Usage From Soil Stabilization Equipment and Workers' Vehicles

Overall Operational Activity	Total Project Hours of Operation	Equipment Type	Off-Road Fuel (gal/hr)*	Total Diesel Fuel Use (gallons)	Total Gasoline Fuel Use (gals)
Application of Additional Soil Stabilizer	16	Spraying Truck- Other Construction Equip. (composite)	2.47	79.04	N/A
Workers' Vehicles** - Spray Vehicle Operator	N/A	Mixed Passenger	N/A	N/A	10.00
Offsite (Worker Vehicle for Collecting Samples and Delivering to Lab)**	N/A	Heavy-Heavy Duty Delivery Truck	N/A	N/A	10.00
			TOTAL	**79.04**	**20.00**

**Based on CARB's Off-Road Model (Version 2.0).*

***Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.*

****Assume that sample collection/delivery vehicles use gasoline and get 20 miles/gallon traveling 50 miles roundtrip; 2 locations*