

Bay Area Air Quality Management District

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**Permit Evaluation
and
Statement of Basis
for
MAJOR FACILITY REVIEW PERMIT**

for
**Hanson Permanente Cement
(formerly Kaiser Cement Corporation)
Facility # A0017**

Facility Address:
24001 Stevens Creek Boulevard
Cupertino, CA 95014

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Title V Statement of Basis

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the “potential to emit,” as defined by BAAQMD Regulation 2-6-218, more than 100 tons per year of a regulated air pollutant.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70. The permits must contain all applicable requirements (as defined in 40 CFR § 70.2), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility number that consists of a letter and a 4-digit number. This facility number is also considered to be the identifier for the permit.

B. Facility Description

Hanson Permanente Cement was formerly known as Kaiser Cement Corporation. Its name was changed in 1999 after Kaiser Cement became one of Hanson PLC’s subsidiaries.

The Hanson Permanente Cement facility produces Portland cement – a fine gray powder that binds sand and aggregate into concrete. Portland cement is the generic term for the type of hydraulic cement (one that would harden with the addition of water) used in virtually all concrete. Raw materials used in Portland cement manufacturing comprise of calcium, silica, alumina, and iron. Although cement can be formed from a wide variety of materials, one of the most common combinations of raw materials is limestone, clay and sand. At the Permanente facility, materials containing these minerals are mined in a quarry, ground to a fine powder, and blended in specific proportions needed for the final cement product. The finely ground mixture of raw materials are heated until partially molten (to temperatures of 2550 to 2750°F) in a kiln to produce a pellet-shaped, glass-hard material called clinker. The clinker is then ground with gypsum to an extremely fine powder, Portland cement.

The Portland cement manufacturing process at the Permanente facility consists of mining, and handling of raw materials, raw milling and kiln feed preparation, pyroprocessing, coal

preparation, clinker cooling, and finish milling. The principal source operations at Permanente consists of:

- Quarry Operations
- Primary Storage Piles
- Tertiary Crushing/Preblending
- Raw Milling
- Homogenizing
- Pyroprocessing
- Clinker Storage/Finish Milling
- Finish Product Storage and Load Out
- Fuel Preparation
- Concrete Aggregate Products (Rock Plant)
- Asphalt Aggregate Products (Mineral Aggregate Plant)

Primary emissions in the manufacturing of Portland cement at the Permanente facility are combustion emissions, point-type particulate, and fugitive particulate. Plant operation is monitored and controlled by computer. The real-time computer system monitors feed rates and other parameters to optimize combustion control. Combustion emissions are generated in the pyroprocessing operation. Particulate emissions are generated throughout the facility from numerous stationary and mobile-type operations.

Baghouses are installed to recover product and control dust emissions from the kiln, mills, clinker cooler, coal mill, belt conveyor transfer points, bulk unloading stations and at numerous other locations at the facility. Water is sprayed on haul roads and uncovered storage piles to control fugitive dust generation. Facility maintenance activities and practices such as watering of road surfaces and speed limits reduce the quantity of fugitives generated on-site and limit their transport off-site.

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order that they are presented in the permit.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. If the Title IV (Acid Rain) requirements for certain fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. Many of these conditions derive from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Condition I.J has been added to clarify that the capacity limits shown in Table II-A are enforceable limits.

II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S24).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit more than 2 tons of a “regulated air pollutant,” as defined in BAAQMD Rule 2-6-222, per year or 400 pounds of a “hazardous air pollutant,” as defined in BAAQMD Rule 2-6-210, per year.

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device is identified by an “A” and a number (e.g., A24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will have an “S” number.

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District’s regulations. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

Following are explanations of the differences in the equipment list between the time that the facility originally applied for a Title V permit and the permit proposal date:

In the conduct of normal business, each of the following sources were issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits after the facility originally applied for a Title V permit. The equipment added was a Rock Crushing Operation handled in Application 1753, two existing emergency diesel generators (loss of exemption) handled in Application 3554, a Bulk Clinker Rail Car Loadout System with Dust Collector handled in Application 6414, a Feeder system in Application 7281, and a Quarry Blasting and Mobile Operations in Application 7578.

In Application #1753, Hanson Permanente Cement (henceforth Hanson) received Permits to Operate for modifications to the Mineral Aggregate Plant. These modifications improved the rock crushing and screening efficiencies and allowed more control in producing various rock sizes.

The Mineral Aggregate Plant processes rock that is suitable for asphalt aggregates. In its current configuration, the plant produces 5" x 1" coarse rock, 3/4" x 1/2" and 1/2" x 1/4" asphalt aggregates, 1/4 x 200 mesh and a byproduct called natural fines. The plant produces 5" x 1" coarse rock due to limited crushing and screening capacity. Hanson reduced the amount of coarse rock (5" x 1") by installing additional crushing and screening equipment to increase the output of the finished sizes (3/4" x 1/2", 1/2" x 1/4" and 1/4" x 200 mesh). No new stockpiles were created as a result of these changes. The new source along with the abatement equipment is shown as follows:

NEW EQUIPMENT

<u>Source</u> <u>Number</u>	<u>Description</u>	<u>Abatement Equipment</u>
S-440	Surge Bin and Feeder	A-441 Baghouse A-4400 Water Spray
S-441	Rock Crusher	A-441 Baghouse
S-442	Screening	A-442 Baghouse
S-443	Conveyors	A-4430 Water Spray System

In Application #19139, Hanson Permanente Cement (formerly Kaiser Cement) upgraded eight baghouses on several existing operations to improve the collection efficiency of the systems. The old baghouses were installed up to 47 years ago. Also, the plant installed one new baghouse to supplement the existing abatement system (A-10) on the Clinker Transfer Area (S-17). In addition, the plant installed eight new baghouses to further reduced PM10 emissions from the improved bulk cement offloading equipment. These were installed on the truck loadout operations on Sources S-48, S-49 and S-50. The changes made are shown below:

A-420 Baghouse: Pulse Jet, DCL, DC049-84, 2000 acfm, to abate emissions from S-48 Bulk Cement Loadout Tank #1.

A-421 Baghouse: Pulse Jet, DCL, DC049-84, 2000 acfm, to abate emissions from S-48 Bulk Cement Loadout Tank #1.

A-422 Baghouse: Pulse Jet, DCL, CFM 330, 2400 acfm, to abate emissions from S-48 Bulk Cement Loadout tanks #1.

A-423 Baghouse: Pulse Jet, DCL, DC049-84, 2000 acfm, to abate emissions from S-49 Bulk Cement Loadout Tank #28.

A-424 Baghouse: Pulse Jet, DCL, CFM 330, 2400 acfm, to abate emissions from S-49 Bulk Cement Loadout Tank #28.

A-425 Baghouse: Pulse Jet, DCL, DC049-84, 2000 acfm, to abate emissions from the S-50 Bulk Cement Loadout Tank #29

A-426 Baghouse: Pulse Jet, DCL, CFM 330, 2400 acfm, to abate emissions from the S-50 Bulk Cement Loadout Tank #29

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- A-427 Baghouse: Pulse Jet, U.S. Air Filtration/2110-CKPT-96-5, 8300 acfm, to serve as an alternate to A-429 for the abatement of emissions from S-49 and S-50 Bulk Cement Loadout tanks #28 and #29.
- A-428 Baghouse: Pulse Jet, Fuller/Dracco; 6100 acfm; to abate emissions from S-48 Bulk Cement Loadout tanks #1 and #2.
- A-429 Baghouse: Pulse Jet, Fuller/Dracco; 8300 acfm; to abate emissions from S-49 and S-50 Bulk Cement Loadout Tanks #28 and #29.
- A-430 Baghouse: Pulse Jet with pleated filters, 8000 acfm; to abate emissions from S-54 Cement Packer #1.
- A-431 Baghouse: Pulse Jet with pleated filters, BHA Conversion, 8000 acfm, to abate emissions from S-55 Cement Packer #2.
- A-432 Baghouse: Pulse Jet with pleated filters, BHA Conversion, 8000 acfm, to abate emissions from S-56 Cement Packer #3.
- A-433 Baghouse: Pulse Jet with 100 filter bags, U.S. Air Filtration/1010-PT-96-5; 4000 acfm; to abate emissions from S-45 West Silo Top Cement Tower.
- A-434 Baghouse: Pulse Jet with 100 filter bags, U.S. Air Filtration/1010-PT-96-5; 4000 acfm; to abate emissions from S-46 Middle Silo Top Cement Tower.
- A-435 Baghouse: Pulse Jet with 210 filter bags, U.S. Air Filtration/2110-CKPT-96-5; 10,000 acfm; to abate emissions from S-47 East Silo Top Cement Tower.
- A-436 Baghouse: Pulse Jet, DCE Vokers, DLM-V15/lff, 4000 acfm, to abate emissions from S-17 Clinker Transfer Area

The Quarry Blasting and Mobile Operations (S-600) being permitted under Application #7578 is an existing mobile source that did not have a source number. It is being permitted as part of the Title V permitting process.

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound), are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered a significant source pursuant to the definition in BAAQMD Rule 2-6-239.

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) listed following the corresponding District Rules. SIP rules are District rules that have been approved by EPA into the California State Implementation Plan. SIP rules are “federally enforceable” and a “Y” (yes) indication will appear in the “Federally Enforceable” column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the “Federally Enforceable” column will have a “Y” for “yes”. If the SIP rule is not the current District rule, the SIP rule or the necessary portions of the SIP rule are cited separately after the District rule. The SIP portions will be federally enforceable; the non-SIP versions will not be federally enforceable, unless EPA has approved them through another program. Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District’s or EPA’s websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

Complex Applicability Determinations

NESHAP 40 CFR, Part 63 Subpart LLL supersedes the NSPS, Standards of Performance for Portland Cement Plants for many of the sources, as noted in the tables in section IV of the permit.

V. Schedule of Compliance

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

“409.10 A schedule of compliance containing the following elements:

- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
- 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and

- 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.”

The facility is not in compliance with new permit condition #20752 part 3 because the District has not given the facility permission to install District-approved broken bag detection devices. A compliance schedule has been incorporated in the Title V permit and District permit condition #20752 part 2 for the plant to come into compliance with part 3 of the condition.

The BAAQMD Compliance and Enforcement Division has conducted a review of compliance over the past year and has no records of compliance problems at this facility. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

VI. Permit Conditions

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

Where necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

All changes to existing permit conditions are clearly shown in “strike-out/underline” format in the proposed permit. When the permit is issued, all ‘strike-out’ language will be deleted; all “underline” language will be retained.

The existing permit conditions are generally derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). It is also possible for permit conditions to be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

Conditions that are obsolete or that have no regulatory basis have been deleted from this permit.

Conditions have also been deleted due to the following:

- Redundancy in record-keeping requirements.
- Redundancy in other conditions, regulations and rules.

- The condition has been superseded by other regulations and rules.
 - The equipment has been taken out of service or is exempt.
- The event has already occurred (i.e. initial or start-up source tests).

The regulatory basis has been referenced following each condition. The regulatory basis may be a rule or regulation. The District is also using the following codes for regulatory basis:

- BACT: This code is used for a condition imposed by the APCO to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- Cumulative Increase: This code is used for a condition imposed by the APCO which limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This code is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This code is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit pursuant to Regulation 2, Rule 2.
- TRMP: This code is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy pursuant to Regulation 2-1-412.

Abatement device operating parameter monitoring has been added for each abatement device. Additional monitoring has been added, where appropriate, to assure compliance with the applicable requirements.

Applicability Determinations:

Per BAAQMD Regulation 2-1-234.3, throughput limits are proposed to be added for the majority of sources to facilitate determining the applicability of District preconstruction review permitting requirements. The following table illustrates the hourly or daily and annual limits based on either design maximum capacities or historical maximum throughputs.

For all conditions:

References to either "Kaiser Cement" or "Hanson Permanente Cement" has been replaced with "The Owner/Operator"

The Basis for each condition have been added.

The two year recordkeeping requirement has been replaced with five year recordkeeping requirement.

COND# 603

For S-173 Kiln Coke System and S-174 Precalciner Coke System

1. Added Cumulative Increase, Regulation 2-2-212 as basis
2. Added Cumulative Increase, Regulation 2-2-212 as basis
3. Added Regulation 2-2-306 Non-Criteria Pollutant Analysis, PSD as basis
4. Added Regulation 2-2-306 Non-Criteria Pollutant Analysis, PSD as basis

5. Changed wording from :
Each shipment of coke shall be sampled and analyzed for sulfur and trace metal content. The results of a composite analyses shall be submitted to the District once each quarter.
To:
Each shipment of coke shall be analyzed for sulfur and trace metal content. The results of this analysis shall be submitted to the District once each quarter.
Added Regulation 2-1-403 as basis

COND# 779

For S-210 Finish Mill #9-6-GM-1

1. Corrected name from Finish Mill #9 to Finish Mill 6-GM-1. Added Cumulative Increase as basis.
2. Corrected emission limit point from Finish Mill #9 to Finish Mill 6-GM-1 dust collector 6-DC-17 (A-210). Added BACT, Cumulative Increase as basis.
3. Added Cumulative Increase as basis.
4. Added condition for visible particulate emission limit of 0.5 Ringelmann
5. Added Regulation 6, Sections 302 and 601 as basis.

COND# 804

For S-171 Kiln Coal System

Deleted heading of “This permit shall superseded Permit to Operate #26523-24, issued on August 17, 1982.”, no longer necessary

1. Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.

COND# 805

For S-201 Primary Crusher and S-202 Secondary Crusher

1. Added Regulation 6-301 as basis.

COND# 1004

For S-172 Precalciner Coal Mill

Deleted heading of “This permit shall superseded Permit to Operate #26523-24, issued on August 17, 1982.”, no longer necessary

1. Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.

COND# 1545

For S-211 Separator

1. Changed wording from:
Separator shall not be operated unless the equipment is abated by A-211 dust collectors.
To:
Separator 6-SE-2 shall not be operated unless the equipment is abated by A-211 (6DC12 through 6DC18) dust collectors.
Added Regulation 2-2-212 Cumulative, BACT as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-212 Cumulative Increase as basis.
4. Added Regulation 6-302 as basis.
5. Added condition for visible particulate emission limit of 0.5 Ringelmann

COND# 1720

**For S-203 Screen (8-VS-2), S-204 Tunnel Conveyor (8-BC-1) with 2
Belt
Conveyors (8-BC-2, 8-BC-3),
S-205 Conveying System with 10 Belt Conveyors (8-BC-1 to 8-
BC-10), S-206 Five**

Sand and Aggregate Piles

S-214 Crusher (8-CR-1), S215 Screen (~~7-SC-1~~) (8-VS-1)

Condition title corrected from **S-203 Screen (7-SC-2) to S-203 Screen (8-VS-2)**

1. Added Cumulative Increase as basis.
2. Changed wording from:
Sources 214, 215, 203, 204 and 205 shall not be operated unless they are abated by water sprays, A-2140, A-2150, A-2030, A-2040, and A-2050, respectively.
To:
S214, 215, 203, 204 and 205 shall not be operated unless they are abated by water sprays, A-2140, A-2150, A-2030, A-2140 and A-2150, respectively, or when the material is sufficiently moist.
Proposed wording change will eliminate redundant controls during wet conditions.
Added Regulation 2-2-212 Cumulative Increase as basis.
3. Changed throughput limits from 3200 ton/day and 500,000 tons/year to 4200 ton/day and 750,000 tons/year per District Application #7183
Added Regulation 2-2-212 Cumulative Increase as basis.
4. Added BACT, Regulation 1-301 as basis.
5. Added Regulation 2-2-212 Cumulative Increase as basis.
6. Added Regulation 6-3605, Regulation 2-2-212 Cumulative Increase as basis.
7. Added Regulation 2-2-212 Cumulative Increase as basis.
8. Added Regulation Cumulative Increase as basis.
9. Added Regulation 6-301 as basis.
10. Corrected a reference to "Condition #9" to "Part #9"
Added Cumulative Increase as basis.

COND# 2786

For:

**S-111 RAIL UNLOADING SYSTEM, S-112 ADDITIVE HOPPER TRANSFER SYSTEM,
S-113 ADDITIVE BIN TRANSFER FACILITIES, S-115 ADDITIVE STORAGE
S-121 TERTIARY SCALPING SCREEN 2-VS-1-2, S-122 TERTIARY CRUSHER 2-CR-1,
S-123 ROCK CONVEYING SYSTEM, S-131 ROCK SAMPLING SYSTEM,
S-132 PREBLEND, S-134 PREBLEND STORAGE BIN 4-S-1-2,
S-135 HIGHGRADE STORAGE BIN 4-S-3-4,
S-141 RAW MILL 4-GM-1, S-142 RAW MILL 2 4-GM-2,
S-143 RAWMILL 1 SEPARATOR SYSTEM 4-SE-3,
S-144 RAW MILL 2 SEPARATOR CIRCUIT 4-SE-4,
S-151 HOMONGENIZER 5-S-1-2, S-153 KILN FEED SYSTEM,
S-154 PRECALCINER KILN, S-161 CLINKER COOLER 5-CC-1, S-162 CLINKER SILO A,
S-163 CLINKER SILO B, S-164 FREELIME STORAGE BIN,
S-165 CLIKER TRANSFER SYSTEM, S-171 KILN COAL SYSTEM,
S-172 PRECALCINER COAL SYSTEM**

Added S-154 to condition, inadvertently deleted when it was relinked to Condition #11780

- A.1 Added Regulation 2-2-212 Cumulative Increase as basis.
- A.2 Deleted - redundant condition with 11780 condition C.1.
- A.3 Corrected from Kaiser Cement & Gypsum Corporation to The owner/operator
Deleted reference to “a location approved by the APCO continuous instack SO₂ and NO_x monitoring equipment on an emission point of one of the Kiln-Mill baghouses at a location approved by the APOC and” since the point has already been approved
Changed monitoring “phenomena” to monitoring “parameters”
Added Cumulative Increase as basis
- A.4 Reworded from:
The two sources of emissions of SO₂, the coal mill and kiln mill, the allowable emissions shall be prorated...
To:
The allowable emissions of SO₂ at the coal mill and kiln mill, shall be prorated...
Replace reference to “SUPRA” with reference to “above” monitoring requirements
Added Regulation 2-2-212 Cumulative Increase as basis.
- B. Added Regulation 2-2-212 Cumulative Increase as basis.
- B.1 Added source numbers to description
- B.2 Added source numbers to description
- B.3 Added source number to description
- C. Added Regulation 1-501 as basis.
- D. Added Regulation 2-2-212 Cumulative Increase as basis.
- E. Deleted (part of startup conditions).

COND# 4995

For S-222 Gypsum Feeder (6-WF-4), S-240 Additive Conveyor/Bins (6-BC-20, 6-SS-4, 6-SS-5, 6-SS-7, 6-SS-9), S-243 Gypsum Feeder 6-GM-1 (6-WF-9), S-244 Pozzolan Feeder (6-WF-7), S-245 Clay Feeder (6-WF-5).

1. Added BACT, Regulation 1-301 as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-301.1 BACT as basis.
4. Deleted (initial startup up source testing)
5. Deleted (initial startup up source testing)
6. Added hours of operation and pressure drop recordkeeping. Added Cumulative Increase as basis.

COND# 4996

For S-216 Clinker Cake Conveyor (~~S-216~~) (6-BC-13), S-217 Clinker Cake Conveyor (~~S-217~~) (6-BC-15), S-221 Clinker Cake Feeder (6-WF-2), S-231 Clinker Cake Storage Silo (6-SS-2), S-242 Clinker Cake Feeder (6-WF-3)

(~~S-221~~), ~~Cake Storage (S-231)~~, ~~Cake Feeder (S-242)~~.

1. Added BACT, Regulation 1-301 as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-301.1 BACT as basis.
4. Deleted (initial startup up source testing)
5. Added Cumulative Increase as basis.

COND# 4997

For S-218 Air Separator (~~S-218~~) (6-SE-1)

1. Corrected S-210 source name from Finish Mill #9 to Finish Mill 6-GM-1
Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added BACT, Regulation 1-301 as basis.
3. Added Regulation 2-2-301.1 BACT as basis.
4. Added Cumulative Increase as basis.
5. Added Regulation 2-2-212 Cumulative Increase as basis.
6. Deleted (initial startup up source testing)
7. Added Cumulative Increase as basis.
8. Deleted (related to initial startup)

COND# 4998

For S-220 Finish Mill (~~S-220~~) (6-GM-2)

1. Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added BACT, Regulation 1-301 as basis.
3. Corrected abatement device number from A-218 to A-220
Added Regulation 2-2-301.1 BACT as basis.
4. Added BACT, Cumulative Increase as basis.
5. Added Regulation 2-2-212 Cumulative Increase as basis.

6. Deleted (initial startup up source testing)
7. Added Cumulative Increase as basis.
8. Deleted (related to initial startup)

COND# 4999

For S-230 Hydraulic Roller Press (6-RP-1)

1. Added BACT, Regulation 1-301 as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-301.1 BACT as basis.
4. Added Cumulative Increase, BACT as basis.
5. Added Regulation 2-2-212 Cumulative Increase as basis.
6. Deleted (initial startup up source testing)
7. Added Cumulative Increase as basis.
8. Deleted (related to initial startup)

COND# 6655 S-74 Type II Mechanical Transfer System

1. Added BACT, Regulation 1-301 as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added BACT, Cumulative Increase as basis.
4. Added Regulation 2-2-301.1 BACT as basis.
5. Deleted (initial startup up source testing)
6. Added Regulation 2-2-212 Cumulative Increase as basis.
7. Added Regulation 2-2-212 Cumulative Increase as basis.
8. Added Regulation 2-2-212 Cumulative Increase as basis.
9. Added Cumulative Increase as basis.

COND# 7246

For S-342 Rock Plant Coarse Rock Crushers (8-CR-50 and 8-CR-51)

1. Added BACT, Regulation 1-301 as basis.
2. Regulation 2-2-301.1 BACT, Regulation 2-2-212 Cumulative Increase, Regulation 2-2-303 offsets as basis
3. Added BACT, Cumulative Increase as basis.
4. Deleted (initial startup up source testing)
5. Corrected device numbers from S-340, S-341, S-342, S-343, S-344, S-250, S-260, S-270, S-280, S-281, S-282, S-290 to S-340, S-341, S-342, S-343, S-344, S-350, S-360, S-370, S-380, S-381, S-382, S-390
Added Regulation 2-2-212 Cumulative Increase as basis.
6. Corrected wording from “processed at from S-290” to “processed from S-390”
Added Regulation 2-2-212 Cumulative Increase as basis.
7. Corrected device numbers from S-340, S-341, S-342, S-343, S-344, S-250, S-260, S-270, S-280, S-281, S-282, S-290 to S-340, S-341, S-342, S-343, S-344, S-350, S-360, S-370, S-380, S-381, S-382, S-390
Hours of operation increased from 4160 hours / 365 days to 5660 hours / 365 days to allow periodic third shift capacity. This will not affect compliance with the existing annual throughput.

- Added Regulation 2-2-212 Cumulative Increase as basis.
- 8 Corrected reference to “parts 5 and 6” from “Condition number 5 and 6”
Corrected reference to “part 7” from “Condition number 7”
Added Cumulative Increase as basis.
- 9. Added Cumulative Increase as basis.

COND# 7247

For S-340 Rock Plant Coarse Rock Withdrawal System (8-BC-50 and 8-BC-51), S 341 Screens (8-VS-50), S-343 Crushed Rock Conveyor (8-BC-53), and S-390 Conveyors (8-BC31 and 8-BC-32)

- 1. Corrected device number from S-290 to S-390
Added BACT, Regulation 1-301 as basis.
- 2a. Corrected device number from S-290 to S-390
Deleted reference to A-343 (probably accidentally added by copying the source numbers)
Added BACT, Cumulative Increase as basis
- 2b. Added BACT, Cumulative Increase as basis
- 3. Added Regulation 2-2-301.1 BACT, Regulation 2-2-212 Cumulative Increase, Regulation 2-2-303 Offsets as basis.
- 4. Deleted (initial startup up source testing)
- 5. Corrected device numbers from S-340, S-341, S-342, S-343, S-344, S-250, S-260, S-270, S-280, S-281, S-282, S-290
to S-340, S-341, S-342, S-343, S-344, S-350, S-360, S-370, S-380, S-381, S-382, S-390
Added Regulation 2-2-212 Cumulative Increase as basis.
- 6. Added Regulation 2-2-212 Cumulative Increase as basis.
- 7. Corrected device numbers from S-340, S-341, S-342, S-343, S-344, S-250, S-260, S-270, S-280, S-281, S-282, S-290
to S-340, S-341, S-342, S-343, S-344, S-350, S-360, S-370, S-380, S-381, S-382, S-390
Hours of operation increased from 4160 hours / 365 days to 5660 hours / 365 days to allow periodic third shift capacity. This will not affect compliance with the existing annual throughput.
Added Regulation 2-2-212 Cumulative Increase as basis.
- 8 Corrected reference to “parts 5 and 6” from “Condition number 5 and 6”
Corrected reference to “parts 7” from “Condition number 7”
Added Cumulative Increase as basis.
- 9. Added Cumulative Increase as basis.

COND# 7248

For S-344 Rock Plant Wet Screen Feed Conveyor(8-BC-54)

1. Added BACT, Regulation 1-301 as basis.
2. Corrected device number from S-250 to S-350
Added Regulation 2-2-212 Cumulative Increase as basis.
3. Corrected device number from S-250 to S-350
Added Regulation 2-2-212 Cumulative Increase as basis.
4. Added Regulation 2-2-212 Cumulative Increase as basis.
5. Added surface condition recordkeeping requirement.
Added Cumulative Increase as basis.

COND# 7249

For S-350 Rock Plant Wet Screen (8-VS-51)

1. Added BACT, Regulation 1-301 as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-212 Cumulative Increase as basis.
4. Added Regulation 2-2-212 Cumulative Increase as basis.
5. Added surface condition recordkeeping requirement.
Added Cumulative Increase as basis.

COND# 7250

For S-360 Rock Plant Wet Aggregate Loadout System (8-BC-62, 8-SS-60 through 65)

1. Added BACT, Regulation 1-301 as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-212 Cumulative Increase as basis.
4. Added Regulation 2-2-212 Cumulative Increase as basis.
5. Added surface condition recordkeeping requirement.
Added Cumulative Increase as basis.

COND# 7251

For S-370 Rock Plant Class 2 Aggregate Additive Transfer System (8-BC-35 & 8-BC-37), S-380 Sand Transfer Hopper (8-SC-70), S-381 Sand Storage Pile, S-382 Water Clarifying Fines System (8-CLAR-70, 8-BP-70, 8-BC-70, 8-BC-71)

1. Corrected Source Numbers from S-270, S-280, S-281, S-282 to S-370, S-380, S-381, S-382
Added BACT, Regulation 1-301 as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-212 Cumulative Increase as basis.
4. Added Regulation 2-2-212 Cumulative Increase as basis.
5. Added surface condition recordkeeping requirement.
Added Cumulative Increase as basis.

COND# 7252

For S-300 Rock Plant Four Wet Aggregate Storage Piles

1. Added BACT, Regulation 1-301 as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-212 Cumulative Increase as basis.
4. Added Regulation 2-2-212 Cumulative Increase as basis.
5. Added Regulation 2-2-212 Cumulative Increase as basis.
6. Corrected reference to “part 5” from “Condition number 5”
Added surface condition recordkeeping requirement.
Added Cumulative Increase as basis.

COND# 7837

For S-301 Rail Loadout System

1. Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added BACT, Regulation 1-301 as basis.
3. Added Regulation 2-2-212 Cumulative Increase as basis.
4. Deleted reference to having manometer installed by 8/15/92, already complied
Added Regulation 2-2-212 Cumulative Increase as basis.
5. Added Regulation 2-2-212 Cumulative Increase as basis.
6. Added Regulation 2-2-212 Cumulative Increase as basis.
7. Added Cumulative Increase as basis.

COND# 11780

For Source 154 Cement Kiln, Plant 17

- A. Added CAA Section 182(f) – RACT as basis.
 - A1. Added RACT basis.
 - A2. Added Applicability as basis.
 - A3. Added Applicability as basis.
 - A4. Added RACT basis.
 - A5. Added Compliance Verification Component as basis.
 - A6. Added RACT basis.
- B. Added Regulation 2-2-212 Cumulative Increase as basis.
 - B1. Added Regulation 2-2-212 Cumulative Increase as basis.
- C. Added Regulation 2-2-212 Cumulative Increase as basis.
 - C1. Added RACT basis.
 - C2. Added RACT basis.
 - C3. Added RACT basis.
- D. Added RACT basis.
 - D1. Added RACT basis.
 - D2. Added RACT basis.
 - D3. Exhaust flow rate was recalculated to 263,000 on 9/17/97. Added RACT basis.
- E. Added RACT basis.
 - E1. Added Cumulative Increase as basis.
 - E2. Added totaling of daily clinker production for calculating yearly production to meet limit in Part B.
 - E3. Added RACT basis.
 - E4. Added RACT basis.

- F1. Added Manual of Procedures, Volume IV as basis.
- F2. Added Regulation 1-522, 1-602; Manual of Procedures, Volume V as basis.

COND# 13900

For S-412 Finish Mill (6-GM-3)

- 1. Added Regulation 2-2-212 Cumulative Increase as basis.
- 2. Added Cumulative Increase, BACT, Regulation 1-301 as basis.
- 3. Added Regulation 2-2-301.1 BACT as basis.
- 4. Added Regulation 2-2-301.1 BACT as basis.
- 5. Added Regulation 2-2-212 Cumulative Increase as basis.
- 6. Added Cumulative Increase as basis.

COND# 13982

For S-414 Finish Mill Additive Bin (6-SS-13)

- 1. Added BACT, Regulation 1-301 as basis.
- 2. Added Regulation 2-2-212 Cumulative Increase as basis.
- 3. Added Regulation 2-2-212 Cumulative Increase as basis.
- 4. Added Regulation 2-2-212 Cumulative Increase as basis.
- 5. Added Cumulative Increase as basis.

COND# 16109

For S-17 Clinker Transfer (6-BC-3, 6-BC-6, 6-BC-7), S-45 West Silo Top Cement Distribution Tower, S-46 Middle Silo Top Cement Distribution Tower, S-47 East Silo Top Cement Distribution Tower, S-48 Bulk Cement Loadout Tanks #1 and #2, S-49 Bulk Cement Loadout Tank #28, S-50 Bulk Cement Loadout Tank #29, S-54 Cement Packer #1, S-55 Cement Packer #2, S-56 Cement Packer #3.

- 1. Added BACT, Regulation 1-301 as basis.
- 2a. Added Regulation 2-2-212 Cumulative Increase, BACT as basis.
- 2b. Added Regulation 2-2-212 Cumulative Increase, BACT as basis.
- 3. Added Cumulative Increase, Regulation 2-2-301.1 BACT as basis.
- 4. Deleted (initial startup up source testing)
- 5. Added Regulation 2-2-212 Cumulative Increase as basis.
- 6. Added Cumulative Increase as basis.

COND# 17352

Solvent Cold Cleaners S-207, S-208 and S-209

- 1. Added Regulation 2-2-212 Cumulative Increase as basis.
- 2. Added Regulation 2-2-212 Cumulative Increase and Regulation 2-1-314 Toxic Risk Screen as basis.
- 3. Added Regulation 2-2-212 Cumulative Increase and Regulation 2-1-314 Toxic Risk Screen as basis.

COND# 17918

For S-440 Surge Bin/Belt Feeder, S-441 Crusher, S-442 Screens, S-443 Conveyors

Condition part numbers have been reordered from 1 through 24 instead of 1-5 for S-440, 1-12 for S-441, 1-7 for S-442, and 1-5 for S-443

1. Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 1-301 Public Nuisance as basis.
4. Added BACT, Cumulative Increase as basis.
5. Added surface condition recordkeeping requirement.
Added Cumulative Increase as basis.
6. Added Regulation 2-2-212 Cumulative Increase as basis.
7. Added Regulation 2-2-212 Cumulative Increase as basis.
8. Added BACT, Cumulative Increase as basis.
9. Added Cumulative Increase, BACT as basis.
10. Added Regulation 1-301 Public Nuisance as basis.
11. Added BACT, Cumulative Increase as basis.
12. Added Cumulative Increase as basis.
13. Added Regulation 2-2-212 Cumulative Increase as basis.
14. Added Regulation 2-2-212 Cumulative Increase as basis.
15. Added Regulation 2-2-212 Cumulative Increase as basis.
16. Added BACT, Cumulative Increase as basis.
17. Added Regulation 1-301 Public Nuisance as basis.
18. Added BACT, Cumulative Increase as basis.
19. Added Cumulative Increase as basis.
20. Added Regulation 2-2-212 Cumulative Increase as basis.
21. Added Regulation 2-2-212 Cumulative Increase as basis.
22. Added Regulation 1-301 Public Nuisance as basis.
23. Added BACT, Cumulative Increase as basis.
24. Added surface condition recordkeeping requirement.
Added Cumulative Increase as basis.

COND# 18474

For S-57 Cement Packer #4

1. Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Regulation 2-2-212 Cumulative Increase as basis.
4. Added Cumulative Increase as basis.
5. Added Regulation 1-301 Public Nuisance as basis.
6. Added BACT, Cumulative Increase as basis.
7. Added Cumulative Increase as basis.

COND# 18475

For S-19 Clinker Storage Area

1. Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added Regulation 2-2-212 Cumulative Increase as basis.
3. Added Cumulative Increase as basis.
4. Added Regulation 1-301 Public Nuisance as basis.
5. Added BACT, Cumulative Increase as basis.

6. Added Cumulative Increase as basis.

COND# 18855

FOR S-501 and S-502:

1. Added Regulation 2-2-212 Cumulative Increase as basis.
2. Added Regulation 9-8-231 Cumulative Increase as basis.
3. Added Regulation 9-8-330, Regulation 2-2-212 Cumulative Increase as basis.

COND# 20751

FOR S-17 Clinker Transfer, S-19 Clinker Storage Area, S-45 West Silo Top Cement Distribution Tower, S-46 Middle Silo Top Cement Distribution Tower, S-47 East Silo Top Cement Distribution Tower, S-48 Bulk Cement Loadout Tanks #1 and #2, S-49 Bulk Cement Loadout Tank #28, S-50 Bulk Cement Loadout Tank #29, S-54 Cement Packer #1, S-55 Cement Packer #2, S-56 Cement Packer #3, S-57 Cement Packer #4, S-74 Type II Mechanical Transfer System, S-166: Bulk Clinker Rail Car Loadout System, S-216 Clinker Cake Conveyor, S-217 Clinker Cake Conveyor, S-221 Clinker Cake Feeder, S-222 Gypsum Feeder, S-231 Clinker Cake Storage Silo, S-240 Additive Conveyor/Bins, S-242 Clinker Cake Feeder, S-243 Gypsum Feeder, S-244 Pozzolan Feeder, S-245 Clay Feeder, S-301 Rail Loadout System, S-340 Rock Plant Coarse Rock Withdrawal System, S-341 Screens, S-343 Crushed Rock Conveyor, and S-390 Conveyors, S-414 Finish Mill Additive Bin, S-441 Crusher, S-442 Screen:

Added condition for baghouse pressure drop monitoring

CONDITION 20752

For S-218 Air Separator, S-220 Finish Mill, S-230 Hydraulic Roller Press, S-342 Rock Plant Coarse Rock Crushers, S-412 Finish Mill

Added condition for baghouse leak detection monitoring

Added Schedule of Compliance language

Condition 20753

For S-19 Clinker Storage Area, S-111 Rail Unloading System Area 1, S-112 Additive Hopper Transfer System Area 1, S-113 Additive Bin Transfer Facilities Area 1, S-115 Additive Storage Tripper, S-121 Tertiary Scalping Screen, S-122 Tertiary Crusher, S-123 Rock Conveying System Area 2, S-131 Rock Sampling System Area 3, S-132 Preblend, S-134 Preblend Storage Bin, S-135 Highgrade Storage Bin, S-141 Raw Mill 4-GM-1, S-142 Raw Mill 2 4-GM-2, S-143 Raw Mill 1 Separator System, S-144 Raw Mill 2 Separator Circuit, S-151 Homogenizer, S-153 Kiln Feed System, S-154 Calciner Kiln, S-161 Clinker Cooler, S-162 Clinker Silo A, S-163 Clinker Silo B, S-164 Freeline Storage Bin, S-165 Clinker Transfer System, S-171 Kiln Coal System, S-172 Precalciner Coal Mill, S-174 Pre-Calciner Coke System, S-203 Screen, S-214 Rock Crusher, S-215 Vibrating Screen, S-383 Rock Plant 2, S-384 Rock Plant 2 Screens

Added condition for visible emission monitoring

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements that apply to each source. The summary includes a citation for each monitoring requirement, frequency, and type. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The District has the authority to impose additional monitoring where: (1) the existing applicable requirement does not require monitoring AND (2) monitoring is necessary to assure compliance with such applicable requirement.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other limits and has determined that monitoring is adequate to provide a reasonable assurance of compliance. Calculations for potential to emit will be provided when no monitoring is proposed due to the size of a source. In all other cases, the column will have “N/A”, meaning “Not applicable”.

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements. It follows that, although Title V calls for a re-examination of all monitoring, there is a presumption that these factors have been appropriately balanced and incorporated in the District’s prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation. Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate.

A summary of all monitoring is contained in Section VII, Applicable Limits and Compliance Monitoring Requirements, of the permit. The summary includes a citation for each monitoring requirement, frequency, and type. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

NOX Sources

# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-154 Cement Kiln	BAAQMD cond #11780, part C (1)	All kiln emission points <1158 lb/hr or 615 ppm averaged for 2 hr	CEMS/ Record keeping

NOx Discussion:

Since there are only three sources of NOx emissions at the whole facility, all sources are listed. The S-154 Cement Kiln was required to have a CEM before the advent of Title V. The two diesel-fired emergency generators (S-501 and S-502) will operate for no more than 100 hours per year in a non-emergency mode for maintenance and testing. In an emergency situation, the hours of operation are unlimited. Because of the anticipated low usage, no monitoring for visible emissions is recommended.

SO₂ Sources

# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-154 Cement Kiln	BAAQMD 9-1-301	Ground level concentrations of SO ₂ shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	N
	BAAQMD 9-1-302	300 ppm (dry)	N
	BAAQMD 9-1-304	Sulfur content of fuel < 0.5% by weight	N
	BAAQMD cond # 2786, part A(1)	Rejection of 90% of the sulfur in the raw feed plus fuel, not requiring 0.6% sulfur coal as the fuel or 481 lb/hr averaged over the 24 hour day. As to the alternative limitation of 481 lbs/hr, so long as the coal mill emissions are not monitored, SO ₂ emissions from the kiln mill shall not exceed 423 lbs/hr, and from the coal mill 58 lbs/hr.	Instack monitoring system
S-501	BAAQMD 9-1-304	Sulfur content of liquid fuel ≤ 0.5% by weight	N
S-502	BAAQMD 9-1-304	Sulfur content of liquid fuel ≤ 0.5% by weight	N

SO2 Discussion:

BAAQMD Regulation 9-1-301

Area monitoring to demonstrate compliance with the ground level SO2 concentration requirements of Regulation 9-1-301 is at the discretion of the APCO (per BAAQMD Regulation 9-1-501). This facility does not have equipment that emits large amounts of SO2 and therefore is not required to have ground level monitoring by the APCO.

PM Sources

S#	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S176, S187, S383, S384, S501, S502	BAAQMD Regulation 6-301	Ringelmann 1.0	N
S440, S443	BAAQMD Regulation 6-301	Ringelmann 1.0	Water Spray System
S19, S57, S111, S112, S113, S115, S121, S122, S123, S131, S132, S134, S135, S141, S142, S151, S153, S161, S162, S163, S164, S-165, S441, S442	BAAQMD Regulation 6-301	Ringelmann 1.0	Pressure Drop Monitoring
Other opacity limits			
S-17, S-45 to S-50, S-54, S-55, S-56,	Condition 16109, part 1	Ringelmann 0.5 or 10% opacity	Pressure Drop Monitoring
S-19	Condition 18475, part 5	Ringelmann 0.5 or 10% opacity	Pressure Drop Monitoring
S-57	Condition 18474, part 6	Ringelmann 0.5 or 10% opacity	Pressure Drop Monitoring
S-74	Condition 6655, part 1	Ringelmann 0.5 or 10% opacity	Pressure Drop Monitoring
S-143, S-144	Condition 13900, part 2	Ringelmann 0.5 or 10% opacity	Pressure Drop Monitoring
S-204, S-205	Condition 1720, part 9	Ringelmann 0.5 or 10% opacity	Pressure Drop Monitoring
S-222, S-240, S-243, S-244, S-245	Condition 4995, part 1	Ringelmann 0.5	Pressure Drop Monitoring
S-230	Condition 4998, part 1	Ringelmann 0.5	Pressure Drop Monitoring
S-300	Condition 7252 part 1	Ringelmann 0.5	Pressure Drop Monitoring

PM Sources

	Emission Limit	Federally Enforceable	
S-501 Emergency Diesel Generator	BAAQMD 6-301	Ringlemann 1.0 for > 3 minutes in any hour or equivalent Opacity	N
S-502 Emergency Diesel Generator	BAAQMD 6-301	Ringlemann 1.0 for > 3 minutes in any hour or equivalent Opacity	N
S-19, S-57, S-111, S-112, S-113, S-115, S-121, S-122, S-123, S-131, S-132, S-134, S-135, S-141, S-142, S-151, S-153, S-161, S-162, S-163, S-164, S-165, S-166, S-173, S-174, S-187, S-202, S-203, S-204, S-205, S-206, S-214, S-215, S-216, S-217, S-218 S-220, S-222, S-240, S-243, S-244, S-245, S-221, S-230, S-231, S-242, S-300, S-301, S-340, S-341, S-343, S-344, S-350, S-360, S-370, S-380, S-382, S-383, S-384, S-390, , S-414, S-440, S-441, S-442, S-443	BAAQMD Regulation 6-310	0.15 gr/dscf	Pressure Drop Monitoring
S-210, S-211	BAAQMD Regulation 6-310	0.15 gr/dscf	COMS
S-218, S-220, S-230, S-342, S-412	BAAQMD Regulation 6-310	0.15 gr/dscf	Triboflow leak detector
S-501, S-502	BAAQMD Regulation 6-310	0.15 gr/dscf	N
Other grain loading limits			
S-17, S-45, S-46, S-47, S-48, S-49, S-50, S-54, S-55, S-56	Condition 16109, part 3	0.006 gr/dscf	Pressure Drop Monitoring
S-57	Condition 18474, part 2	0.006 gr/dscf	Pressure Drop Monitoring
S-166	Condition 20026 part 3	0.0015 gr/dscf	Pressure Drop Monitoring
S-210	Condition 779, part 2	0.006 gr/dscf or 0.9 lbs/hr	COMS
S-211	Condition 779, part 2	0.006 gr/dscf or 3.6 lbs/hr	COMS

PM Sources

	Emission Limit	Federally Enforceable	
S-216, S-217, S-221, S-231, S-242	Condition 4996, part 4	0.006 gr/dscf	Pressure Drop Monitoring
S-218	Condition 4997, part 3	0.006 gr/dscf	Triboflow leak detector
S-220	Condition 4998, part 3	0.006 gr/dscf	Triboflow leak detector
S-222, S-240, S-243, S-244, S-245	Condition 4995, part 3	0.0013 gr/dscf	Pressure Drop Monitoring
S-230	Condition 4998, part 1	0.006 gr/dscf	Triboflow leak detector
S-301	Condition 7837 part 5	0.01 gr/dscf	Pressure Drop Monitoring
S-340, S-341, S-343, S-390	Condition 7247 part 5	0.0013 gr/dscf	Pressure Drop Monitoring
S-342	Condition 7246, part 2	0.0013 gr/dscf	Triboflow leak detector
S-412	Condition 13900, part 3	0.006 gr/dscf	Triboflow leak detector
S-414	Condition 13982 part 5	0.01 gr/dscf	Pressure Drop Monitoring
S-441	Condition 17918 part 8	0.005 gr/dscf	Pressure Drop Monitoring
S-442	Condition 17918 part 15	0.005 gr/dscf	Pressure Drop Monitoring
S-154, S-161	BAAQMD Regulation 6-311	$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	N
S19, S57, S74, S111, S112, S113, S115, S121, S122, S123, S131, S132, S134, S135, S141, S143, S144, S142, S151, S153, S162, S163, S164, S165, S171, S172, S173, S174, S176, S187, S201, S202, S203, S204, S205, S206, S214, S215, S210, S-211, S216, S217, S221, S231, S242, S218, S220, S222, S240, S242, S243, S244, S245, S-230, S300, S301, S340, S341, S342, S343, S344, S350, S360, S370, S-380, S-381, S382, S383, S-384, S414, S440S390, S440, S441, S442, S443	BAAQMD Regulation 6-311	$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	N

PM Sources

	Emission Limit	Federally Enforceable	
Other grain loading limits			
S-17, S-45 to S-50, S-54, S-55, S-56,	Condition 16109, part 3	0.006 gr/dscf	Pressure Drop Monitoring
S-57	Condition 18474, part 2	0.006 gr/dscf	Pressure Drop Monitoring
S-74	Condition 6655, part 4	0.006 gr/dscf	Pressure Drop Monitoring
S-111, S-112, S-113, S-115, S-121, S-122, S-123, S-131, S-134, S-135, S-151, S-153, S-141, S-142, S-154	Condition 2786 part B	36 lb/hr and 0.02 gr/dscf	Pressure Drop Monitoring
S-141, S-142, S-154,	Condition 2786, part B(1)	36 lb/hr for cement kilns and feed mills combined	Pressure Drop Monitoring
S-161, S-162, S-163, S-164, S-165	Condition 2786, part B(3)	8 lb/hr and 0.01 gr/dscf	Pressure Drop Monitoring
S-171, S-172	Condition 2786, part B(2)	6.6 lb/hr and 0.02 gr dscf	Pressure Drop Monitoring
S-172	Condition 1004, part 2	3.3 lb/hr	Pressure Drop Monitoring

PM Discussion:

BAAQMD Regulation 6 “Particulate Matter and Visible Emissions”

Visible Emissions

Particulate Weight Limitation

BAAQMD Regulation 6-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. Section 310.3 limits filterable particulate emissions from “heat transfer operations” to 0.15 gr/dscf @ 6% O₂. These are the “grain loading” standards.

No monitoring has been imposed for Regulation 6-305, Visible Particles, which states:

“**Visible Particles:** A person shall not emit particles from any operation in sufficient number to cause annoyance to any other person, which particles are large enough to be visible as individual particles at the emission point or of such size and nature as to be visible individually as incandescent particles. This Section 6-305 shall only apply if such particles fall on real property other than that of the person responsible for the emission.”

This requirement has been included as a generally applicable requirement because it limits the emissions of affected sources. However, the limitation is not quantifiable, and therefore not susceptible to monitoring, because the applicable standard is subjective: the annoyance of “any other person.”

Lead Emission Points

# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
P-175 FOR S-173 KILN COKE SYSTEM, P-174 FOR S-174 PRECALCINER COKE SYSTEM	BAAQMD cond #603, part 3	3.2 lb/day	N
P-111 FOR S-111 RAIL UNLOADING SYSTEM, P-112 FOR S-112 ADDITIVE HOPPER TRANSFER SYSTEM, P-113 AND P-114 FOR S-113 ADDITIVE BIN TRANSFER FACILITIES, P-115 FOR S-115 ADDITIVE STORAGE, P-141 AND P-142 FOR S-154 PRECALCINER KILN, P-171 FOR S-171 KILN COAL SYSTEM AND S-154 PRECALCINER KILN, P-172 FOR S-172 PRECALCINER COAL MILL AND S-154 PRECALCINER KILN, P-175 FOR S-173 KILN COKE SYSTEM, P-174 FOR S-174 PRECALCINER COKE SYSTEM	BAAQMD 11-1-301	15 lb/day	N

Lead Discussion:

EPA AP-42 lists a fabric filter abated emission factor of 7.5×10^{-5} lb/ton of clinker produced for Portland cement manufacturing. This plant is limited to 1.6 million tons/year of clinker production, therefore the estimated lead emission is only 120 lb/yr or 0.06 tons/year. This is

well below the 0.6 tons PSD limit of BAAQMD Regulation 2-2-306, and monitoring is not recommended.

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section VI of the permit.

IX. Permit Shield:

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit that identifies and justifies specific federally enforceable regulations and standards which the APCO has confirmed are not applicable to a source or group of sources, or (2) A provision in a major facility review permit that identifies and justifies specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting which are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA’s White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District’s program does not allow other types of streamlining in Title V permits.

Following is the detail of the permit shields that were requested by the applicant.

The following permit shields are allowed:

Table IX A – 1
Permit Shield for S-176 Rock Plant 1 Storage Pile, S-187 Hopper and Storage Bin, S-201 Primary Crusher, S-202 Secondary Crusher

Citation	Title or Description (Reason not applicable)
40 CFR 60, NSPS Subpart OOO	Date of original construction or last modification prior to the effective date (August 31, 1983) of this regulation.

Table IX A – 2

Permit Shield for S-17 Clinker Transfer Area, S-19 Clinker Storage Area, S-45 West Silo Top Cement Distribution Tower, S-46 Middle Silo Top Distribution Tower, S-47 East Silo Top Distribution Tower, S-48 Bulk Cement Load Out Tank #1 & 2, S-49 Bulk Cement Loadout Tank #28, S-50 Bulk Cement Loadout Tank #29, S-54 Cement Packer #1, S-55 Cement Packer #2, S-56 Cement Packer #3, S-57 Cement Packer #4, S-74 Type II Mechanical Transfer System, S-141 Raw Mill (4-GM-1), S-142 Rawmill 2 (4-GM-2), S-143 Rawmill 1 Separator System (4-SE-3), S-144 Rawmill 2 Separator Circuit (4-SE-4), S-151 Homogenizer (5-S-1-2), S-153 Kiln Feed System, S-162 Clinker Silo (5-S-11), S-163 Clinker Silo (5-S-12), S-164 Frelime Storage Bin, S-165 Clinker Transfer System, S-210 Finish Mill, S-211 Separator (6-SE-2), S-216 Clinker Cake Conveyor, S-217 Clinker Cake Conveyor (6-GM-1), S-218 Air Separator (6-GM-1), S-220 Finish Mill (6-GM-2), S-221 Clinker Cake Feeder (6-GM-2), S-222 6-GM-2 Gypsum Feeder (6-WF-4), S-230 Hydraulic Roller Press (6-RP-1), S-231 Clinker Cement Pressed Cake Bin, S-240 Additive Conveyor/Bins, S-242 Clinker Cake Feeder (6-GM-1), S-243 Gypsum Feeder (6-GM-1), S-244 Pozzolan Feeder, S-245 Clay Feeder (60WF-9), S-301 Rail Loadout system, S-412 Finish Mill Additive Bin (6-GM-3), S-414 Kiln Dust Additive Bin

Citation	Title or Description (Reason not applicable)
40 CFR 60, NSPS Subpart F et.al.	Standards of Performance for Portland Cement Plants has been subsumed by 40 CFR 63, Subpart LLL et.al as of 6/14/2002 National Emission Standards for HAP from the Portland Cement Manufacturing Industry.

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Compliance Status:

A 5/13/2003 office memorandum from the Director of Compliance and Enforcement, to the Director of Permit Services, presents a review of the compliance record of Hanson Permanente (Site #: A0017). The Compliance and Enforcement Division staff has reviewed the records for compliance for the period between 5/1/02 through 4/30/03. This review was initiated as part of the District evaluation of an application by the facility for a Title V permit. During the period subject to review, activities known to the District include:

- There was one Notices of Violation issued during this review period. This occurred on 11/6/02 for a violation of BAAQMD Regulation 1-522.6 – failure to maintain their SO2 monitor.

- The District received one episode of an inoperative monitor that occurred on 11/6/02; which was related to the above Notice of Violation.
- The District received eight complaints of odor and three of dust during this period; none were confirmed.
- The facility is not operating under a Variance or an Order of Abatement from the District Board.
- There were no monitor excesses or equipment breakdowns reported or documented by District staff.

The owner certified that all equipment was operating in compliance on October 24, 1995. No non-compliance issues have been identified to date.

The facility is not in compliance with new permit condition #20752 part 3 because the District has not given the facility permission to install District-approved broken bag detection devices. A compliance schedule has been incorporated in the Title V permit and District permit condition #20752 part 2 for the plant to come into compliance with part 3 of the condition.

F. Differences between the Application and the Proposed Permit:

Differences related to sources and abatement devices included in the application are explained in Section C.II of this evaluation.

The Title V permit application was originally received on June 24, 1996 and was deemed administratively complete on July 17, 1996. A Title V permit application update submittal was provided to the District on September 14, 1999 to reflect the facility's name change from Kaiser Cement Corporation to Hanson Permanente Cement, and to cover other non-substantive changes. The information contained in this latest Title V application provides the latest version for the basis for constructing the proposed Title V permit

Source and abatement device lists have been revised since the applications were first submitted. All new sources and replacement abatement devices have been evaluated in accordance with District New Source Review regulations.

Permit Evaluation and Statement of Basis: Site A0017, Hanson Permanente,
24001 Stevens Creek Blvd., Cupertino, CA

APPENDIX A
BAAQMD COMPLIANCE REPORT

See separate compliance report from Compliance and Enforcement.

APPENDIX B

GLOSSARY

ACT

Federal Clean Air Act

APCO

Air Pollution Control Officer: Head of Bay Area Air Quality Management District

ARB

Air Resources Board

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

Basis

The underlying authority which allows the District to impose requirements.

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CAPCOA

California Air Pollution Control Officers Association

CEQA

California Environmental Quality Act

CFR

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO

Carbon Monoxide

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District

Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

dscf

Dry Standard Cubic Feet

EPA

The federal Environmental Protection Agency.

Excluded

Not subject to any District regulations.

Federally Enforceable, FE

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

FP

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

HAP

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

Major Facility

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

Method 9

EPA Test Method – Visual Determination of the opacity of emissions from stationary sources

Method 22

EPA Test Method – Visual Determination of fugitive emissions from material sources and smoke emissions from flares

MFR

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

MOP

The District's Manual of Procedures.

NAAQS

National Ambient Air Quality Standards

NESHAPS

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

NMHC

Non-methane Hydrocarbons (Same as NMOC)

NMOC

Non-methane Organic Compounds (Same as NMHC)

NO_x

Oxides of nitrogen.

NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

NSR

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

Offset Requirement

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NO_x, PM₁₀, and SO₂.

Phase II Acid Rain Facility

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

POC

Precursor Organic Compounds

PM

Particulate Matter

PM₁₀

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and

implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

RACT

Reasonably Available Control Technology

SIP

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO2

Sulfur dioxide

THC

Total Hydrocarbons (NMHC + Methane)

Title V

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TOC

Total Organic Compounds (NMOC + Methane, Same as THC)

TPH

Total Petroleum Hydrocarbons

TRMP

Toxic Risk Management Plan

TSP

Total Suspended Particulate

VOC

Volatile Organic Compounds

Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m ²	=	square meter

Permit Evaluation and Statement of Basis: Site A0017, Hanson Permanente,
24001 Stevens Creek Blvd., Cupertino, CA

min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year