Bay Area Air Quality Management District

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Permit Evaluation
and
Statement of Basis
MAJOR FACILITY REVIEW PERMIT
MINOR REVISION

for

Hanson Permanente Cement
Facility #A0017

Facility Address:
24001 Stevens Creek Blvd
Cupertino, CA 95014

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February 2006

Application Engineer: Eric Chan

Site Engineer: Eric Chan

Application: 9687

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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 BAAQMD Regulation 2-6-202), 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 VII 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.

This facility received its initial Title V permit on November 5, 2003 with an expiration date of October 31, 2008. The main purpose of this modification is to: (1) update the rated capacities in Table IIA of the Title V permit to reflect the correct capacities, (2) add minor updates, (3) correct the Title V permit to reflect the current standard format and recent changes to regulations and (4) incorporate actions taken in response to the following applications:

Application	Revision
7281	Reactivation of S-21, Roll Press Clinker Surge Bin and Feeder, that has been permitted by the BAAQMD in 1990 but for some reason was dropped off the BAAQMD's database
7578	Addition of S-600, Quarry Blasting and Mobile Operations, that had always been in operations at the plant but was a type of source that the BAAQMD usually does not permit.
7999	Install or upgrade bag leak detection systems (BLDS) at several abatement devices, 4 of which (A-218, A-220, A-230, and A-342) are listed in the Schedule of Compliance in the original Title V permit.
8682	Addition of new S-415, Finish Mill Building Conveyor, that improves the work area atmosphere by reprocessing the cement and clinker fines that have accumulated throughout the existing finish milling area.
12022	Replacement of existing Phase I vapor recovery on existing underground gasoline

	tank with Enhanced Vapor Recovery certified Phase I equipment for S-1, Gasoline Service Station.

The upgraded bag leak detection systems and gasoline vapor recovery systems will not result in any new emissions.

Since the Roll Press Clinker Surge Bin and Feeder (S-21) and Quarry/Mobile Operations (S-600) previously existed at the facility, they are not new or modified sources of emissions.

The Finish Mill Building Conveyor, S-415, is the only new source added in this Minor Revision.

The following is a summary of the proposed revisions to the permit:

- Update capacities in Table IIA based on updated documentation from plant
- Add reactivated Roll Press Clinker Surge Bin and Feeder S-21 to Title V permit
- Add existing Quarry Blasting and Mobile Operations S-600 to Title V permit.
- Add new Finish Mill Building Conveyor S-415 to Title V permit.
- Remove Schedule of Compliance with the installation of updated Bag Leak Detection Systems
- Update tables for S-1 Gasoline Station for EPA approved BAAQMD Regulation 8-7 instead of the SIP Regulation 8-7.
- Update version dates for newly modified regulations.
- Update tables and permit conditions to reflect the additions of permitted equipment.

This application will modify permit conditions and will therefore require a revision of the current MFR permit. The definition of significant revision is discussed below to determine if this application constitutes a significant MFR revision.

- Regulation 2-6-226.1 and 226.2: This application does not involve the incorporation of a change considered to be a major modification, or a modification under NSPS, NESHAPs, or Section 112 of the CAA.
- Regulation 2-6-226.3: This application does not significantly change or relax any applicable monitoring, reporting or recordkeeping condition.
- Regulation 2-6-226.4: This application does not establish or change any limits to avoid applicable requirements.
- Regulation 2-6-226.5: This application does not involve the establishment of or change to a case-by-case emission limit or standard.
- Regulation 2-6-226.7: This application does not involve the incorporation of any requirements promulgated by the EPA.

Since this application does not meet any of the above criteria for a significant revision, this application will be handled as a minor revision to the MFR Permit.

Increased Facility Emissions from Proposed New Equipment

Emissions	Annual Emissions (tons/yr)

Source	NOx	CO	POC	PM10	SO_2
S-415 Conveyor	0.000	0.000	0.000	0.185[1]	0.000

[1]Emissions offsets will be provided by the facility per BAAQMD Regulation 2-2-302 and 2-2-241.

B. Facility Description

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 cement 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 enforcement of the 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.

Changes to Permit:
The dates of adoption of the rules listed in Standard Condition I.A.1 will be updated.

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., S-1).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Regulation 2-1-302. There are currently (8) permitted sources at this facility.

Significant sources are those sources that have a potential to emit of more than 2 tons of a "regulated air pollutant," as defined in BAAQMD Regulation 2-6-222, per year or 400 pounds of a "hazardous air pollutant," as defined in BAAQMD Regulation 2-6-210, per year. There are no significant sources.

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-3). Some equipment, such as the landfill gas fired engine generator sets, are both sources

and abatement devices. However, if the primary function of the equipment is something other than abating air pollutants, it will have an “S” number and will be listed in Table II A “Permitted Sources”.

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.

Per the attached 3/2004 "Compliance Agreement" between the BAAQMD and Hanson Permanente Cement, based on the demonstrated capacities provided by the facility, the maximum hourly throughput limits in Table IIA for S-17, S-45, S-46, S-47, S-204, S-205 and S-230 were increased. The following table shows the current and proposed new throughput limits followed by the basis for change:

Table II A - Permitted Sources
Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits.

S-#	Description	Make or Type	Grandfathered Or NSR Source	Capacity (Column A)	Proposed Capacity (Column B)		Basis	Facts
17	Clinker Transfer Area	Custom Design	Grandfathered	~~200~~ ~~tons/hour~~	312 tons/hr		Demonstrated throughput capacity .	S-17 Clinker Transfer Area only receives product from the S-230 roller press. S-17 is not measured directly. The maximum averaged hourly throughput for S-230 occurred on March 19,1998 and February 3, 2000 at 312 tons per hour.
45	West Silo Top Cement Distribution Tower	Custom Design	Grandfathered	~~100~~ ~~tons/hour~~	282 tph		Demonstrated throughput capacity	Finish cement produced by S-210 and S-220 milling circuits are conveyed through S-45, S-46 and S-47 Finish Cement Storage Silos. The throughput rate for the S-45, S-46 and S-47 is not measured directly. The maximum combined average hourly throughput rate for S-210 and S-220 occurred on July 7, 1998 at 282 tons per hour.

Table II A - Permitted Sources
Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits.

S-#	Description	Make or Type	Grandfathered Or NSR Source	Capacity (Column A)	Proposed Capacity (Column B)		Basis	Facts
46	Middle West Silo Top Cement Distribution Tower	Custom Design	Grandfathered	~~100 tons/hour~~	282 tph		Demonstrated throughput capacity	Finish cement produced by S-210 and S-220 milling circuits are conveyed through S-45, S-46 and S-47 Finish Cement Storage Silos. The troughput rate for the S-45, S-46 and S-47 is not measured directly. The maximum combined average hourly throughput rate for S-210 and S-220 occurred on July 7, 1998 at 282 tons per hour.
47	East Silo Top Cement Distribution Tower	Custom Design	Grandfathered	~~100 tons/hour~~	282 tph		Demonstrated throughput capacity	Finish cement produced by S-210 and S-220 milling circuits are conveyed through S-45, S-46 and S-47 Finish Cement Storage Silos. The troughput rate for the S-45, S-46 and S-47 is not measured directly. The maximum combined average hourly throughput rate for S-210 and S-220 occurred on July 7, 1998 at 282 tons per hour.

Table II A - Permitted Sources
Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits.

S-#	Description	Make or Type	Grandfathered Or NSR Source	Capacity (Column A)	Proposed Capacity (Column B)		Basis	Facts
204	Tunnel Conveyor (~~7~~8BC1) with 2 Belt Conveyors (~~7~~8BC2&~~7~~8BC8)	Custom Design	NSR	~~180 tons/hour~~	455 tons/hour		See Aggregate Authority to Construct (ATC) [Application 1753]	Capacity increased as a result of ATC granted in Application 1753 but source not identified as needing higher capacity because of oversight. There is no emissions increase since the daily and annual throughput limit remains unchanged. Made change due to ATC.
205	Conveying System w/10 Belt Conveyors	Custom Design	NSR	~~400 tons/hour~~	455 tons/hour		See Aggregate ATC (Application 1753)	Make change since higher source capacity addressed in Application 1753.
230	6-RP-1 Roller Press and Peripherals	Humboldt Wedag	NSR	~~240 tons/hour~~	320 tph		Reflects clinker transfer rate. Demonstrated capacity.	Roller Press has not been physically modified but design capacity is higher than represented on original form. There is no increase in emissions because the baghouse limit stays the same. Hanson submited new data form with higher capacity.

Changes to Permit:

- Table II A's capacities for S-17, S-45, S-46, S-47, S-204, S-205 and S-230 will be increased as shown.

Other Changes to Permit:

- The existing S-21 Roll Press Clinker Surge Bin and Feeder was added to the Title V permit. It was permitted by the BAAQMD in 1990 but for some unknown reason was dropped off the

BAAQMD's database. It was reactivated in A/N 7281. The S-21 Roll Press Clinker Surge Bin and Feeder will be added to Table II A and Dust Collector A-13 will be added to Table II B.

- The existing Quarry Blasting and Mobile Operations, S-600, will be added to the Title V permit. It was permitted in A/N 7578. The Quarry Blasting and Mobile Operations, S-600, will be added to Table II A.

- The new S-415 Finish Mill Building Conveyor will be added to Table II A and Dust Collector A-415 will be added to Table II B. S-415 was permitted in A/N 8682.

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.

Sources that are exempt from 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. This facility does not have any significant sources that do not have District permits.

Changes to Permit:

- The standard permit text will be modified to say that SIP standards are now found on EPA's website and are not included as part of the permit.
- The version date for the newly modified Regulation 2, Rule 1 was updated.

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 and Regulations
- SIP Rules (if any) are listed following the corresponding District regulations. SIP rules are District regulations that will be approved by EPA for inclusion in 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 portion of the SIP rule is cited separately after the District rule. The SIP portion is federally enforceable; the non-SIP version are not federally enforceable, unless EPA has approved it 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 VII. 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.

For sources that will be equipped with broken bag detection devices, requirements for the alarm triggering levels and exceedance reporting will be added to their permit conditions. Conditon #20752, which restates the Schedule of Compliance for 4 of the abatement devices requiring these devices, will be deleted.

Changes to Permit:
Broken bag leak detection device alarm triggering levels and exceedance reporting will be added to:

- Condition #2786 and Table IV-K for S-143 and S-144 Raw mill Separators
- Condition #779 and Table IV-W for S-210 Finish Mill (6-GM-1)
- Condition #1545 and Table IV-X for S-211 Separator
- Condition #4997 and Table IV-Z for S-211 Air Separator
- Condition #4998 and Table IV-AA for S-220 Finish Mill (6-GM-2)
- Condition #4999 and Table IV-CC for S-220 Hydraulic Roller Press
- Condition #7246 and Table IV-GG for S-342 Rock Plant Coarse Rock Crushers
- Condition #13900 and Table IV-MM for S-220 Finish Mill (6-GM-3)

Table IV-A for S-1 Gasoline Dispensing Facility will be updated as a result of replacement of existing Phase I vapor recovery on S-1's existing underground gasoline tank with Enhanced Vapor Recovery certified Phase I equipment. This was permitted in A/N 12022.

Changes to Permit:

- The Table IV-A will be updated to reflect the EPA approved BAAQMD Regulation 8-7 and to remove the SIP Regulation 8-7.

The existing Roll Press Clinker Surge Bin and Feeder S-21 will be added to the Title V permit because it had been permitted by the BAAQMD in 1990 but for some unknown reason was dropped off the BAAQMD's database. It was reactivated in A/N 7281.

Changes to Permit:

- Table IV-C-1 will be added for the existing Roll Press Clinker Surge Bin and Feeder S-21.

The existing Quarry Blasting and Mobile Operations S-600 will be added to the Title V permit. It was permitted in A/N 7578.

Changes to Permit:

- Table IV-VV will be added for the existing Quarry Blasting and Mobile Operations S-600

The new Finish Mill Building Conveyor S-415 will be added to the Title V. It was permitted in A/N 8682.

Changes to Permit:

- Table IV-WW will be added for the new Finish Mill Building Conveyor S-415.

This permit did not require any complex applicability determinations.

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 had complied with the requirements of the previous Schedule of Compliance it has been removed from this permit.

Changes to Permit:

- The previous Title V permit had a Schedule of Compliance for installing or upgrading the bag leak detection systems (BLDS) at several abatement devices. This was done in A/N 7999. This Title V permit wll be modified to remove the Schedule of Compliance set forth in condition #20752.

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit contains only sections 2-6-409.10.1 and 2-6-409.10.2.

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.

While the District has authority to revise the existing permits, and is doing so here concomitantly with the Title V process, it also has authority to supplement the terms of existing permits through the Title V process itself. When 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 derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also 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.

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term 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 term is used for a condition imposed by the APCO that limits a source to the operations described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This term 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 term 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 term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.

Additional monitoring has been added, where appropriate, to assure compliance with the applicable requirements.

Changes to the permit:

- Condition #21025 will be added for the existing source S-600 Quarry Blasting and Mobile Operations.

- Condition #21345 will be added for new source S-415 Finish Mill Building Conveyor.
- Condition #20666 will be added for S-1 Gasoline Dispensing Facility to comply with replacement of existing Phase I vapor recovery on existing underground gasoline tank with Enhanced Vapor Recovery certified Phase I equipment.

- Condition #20752 will be deleted because it restated the Schedule of Compliance from the previous Title V permit. The facility has satisfied the requirements of that Schedule of Compliance.

Broken bag leak detection device alarm triggering levels and exceedance reporting will be added to:

- Condition #2786 and Table IV-K for S-143 and S-144 Raw mill Separators
- Condition #779 and Table IV-W for S-210 Finish Mill (6-GM-1)
- Condition #1545 and Table IV-X for S-211 Separator
- Condition #4997 and Table IV-Z for S-211 Air Separator
- Condition #4998 and Table IV-AA for S-220 Finish Mill (6-GM-2)
- Condition #4999 and Table IV-CC for S-220 Hydraulic Roller Press
- Condition #7246 and Table IV-GG for S-342 Rock Plant Coarse Rock Crushers
- Condition #13900 and Table IV-MM for S-220 Finish Mill (6-GM-3)

VII. Applicable Limits and Compliance Monitoring Requirements

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

The District has reviewed all monitoring and has determined the existing monitoring is adequate with the exceptions below. This Statement of Basis addresses only the changes made in the proposed Significant Revision.

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) the 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) 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 will be appropriately balanced and incorporated in the District's prior rule development and/or permit issuance. When 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**.**

Changes to Permit:

- Table VII-C-1 will be added for the existing Roll Press Clinker Surge Bin and Feeder S-21.
- Table VII-VV will be added for the existing Quarry Blasting and Mobile Operations S-600
- Table VII-WW will be added for the new Finish Mill Building Conveyor S-415.

Broken bag leak detection device and monitoring type will be added for:

- Table VII-K for S-143 and S-144 Raw mill Separators - Condition #2786
- Table VII-W for S-210 Finish Mill (6-GM-1) - Condition #779
- Table VII-X for S-211 Separator - Condition #1545
- Table VII-Z for S-211 Air Separator - Condition #4997
- Table VII-AA for S-220 Finish Mill (6-GM-2) - Condition #4998
- Table VII-CC for S-220 Hydraulic Roller Press - Condition #4999
- Table VII-GG for S-342 Rock Plant Coarse Rock Crushers - Condition #7246
- Table VII-MM for S-220 Finish Mill (6-GM-3) - Condition #13900

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 IV 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 an MFR permit explaining that specific federally enforceable regulations and standards that are not applicable to a source or group of sources, or (2) A provision in an MFR permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting 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, record keeping, and reporting requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.

Changes to Permit:
There are no changes to permit shields proposed in this revision.

D. Alternate Operating Scenarios

No alternate operating scenario has been requested for this facility.

APPENDIX A
GLOSSARY

ACT
Federal Clean Air Act

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

ARB
Air Resources Board (same as CARB)

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

BARCT
Best Available Retrofit Control Technology

Basis
The underlying authority that 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

CARB
California Air Resources Board (same as ARB)

CEQA
California Environmental Quality Act

CEM
A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NOx concentration) in an exhaust stream.

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.

CH4 or CH_4
Methane

CO
Carbon Monoxide

CO2 or CO_2
Carbon Dioxide

CT
Combustion Zone Temperature

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

E 6
Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53 E 6 equals (4.53) x (10^6) = (4.53) x (10 x 10 x 10 x 10 x 10 x 10) = 4,530,000. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

EG
Emission Guidelines

EO
Executive Order

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 (HAP), 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.

FR
Federal Register

GDF
Gasoline Dispensing Facility

GLM
Ground Level Monitor

H2S or H_2S
Hydrogen Sulfide

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.

Hg
Mercury

HHV
Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60F and all water vapor is condensed to liquid.

LFG
Landfill gas

LHV
Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60 °F.

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.

MAX or Max.
Maximum

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.

MIN or Min.
Minimum

MOP
The District's Manual of Procedures.

MSDS
Material Safety Data Sheet

MSW
Municipal solid waste

MW
Molecular weight

N2 or N_2
Nitrogen

NA
Not Applicable

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)

NOx or 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 will be 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.)

O2 or O_2
Oxygen

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, NOx, 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 or PM_{10}
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.

PV or P/V Valve
Pressure/Vacuum Valve

RMP
Risk Management Plan

S
Sulfur

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 or SO_2
Sulfur dioxide

SSM
Startup, Shutdown, or Malfunction

SSM Plan
A plan, which states the procedures that will be followed during a startup, shutdown, or malfunction, that is prepared in accordance with the general NESHAP provisions (40 CFR Part 63, Subpart A) and maintained on site at the facility.

TAC
Toxic Air Contaminant (as identified by CARB)

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 Policy

TRS
Total Reduced Sulfur

TSP
Total Suspended Particulate

VOC
Volatile Organic Compounds

VMT
Vehicle Miles Traveled

Symbols:

<	=	less than
>	=	greater than
≤	=	less than or equal to
≥	=	greater than or equal to

Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
BTU	=	British Thermal Unit
°C	=	degrees Centigrade
cfm	=	cubic feet per minute
dscf	=	dry standard cubic feet
°F	=	degrees Fahrenheit
ft^3	=	cubic feet
g	=	grams

gal	=	gallon
gpm	=	gallons per minute
gr	=	grains (7000 grains = 1 pound)
hp	=	horsepower
hr	=	hour
in=	inches	
kg	=	kilograms
lb=	pound	
lbmol	=	pound-mole
M	=	thousand
m^2	=	square meter
m^3	=	cubic meters
Mg	=	mega-grams (1000 kg)
min	=	minute
mm	=	millimeter
MM	=	million
MMBTU	=	million BTU
MMcf	=	million cubic feet
mm Hg	=	millimeters of mercury (pressure)
MW	=	megawatts
ppb	=	parts per billion
ppbv	=	parts per billion, by volume
ppm	=	parts per million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scf	=	standard cubic feet
scfm	=	standard cubic feet per minute
sdcf	=	standard dry cubic feet
sdcfm	=	standard dry cubic feet per minute
therms	=	1 therm = 100,000 BTU
yd	=	yard
yd^3	=	cubic yards
yr	=	year