# Bay Area Air Quality Management District

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

**for**

## USS-POSCO Industries

**Facility #A2371**

**Facility Address:**
900 Loveridge Road
Pittsburg, CA 94565

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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, of 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 as contained in BAAQMD Regulation 2, Rule 6. 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 VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A2371.

## B. Facility Description

USS-POSCO is a secondary steel finishing facility that receives hot rolled steel coils by ship and rail, prepares the steel coil for finishing by removing the surface scale and rust, and cold rolls the steel coil to controlled thickness specifications. This cold rolled steel coil is either shipped from the facility, or additional finishing of the steel coil is performed at the facility. These finishings include tempering, annealing, electrolytic tinning, tin-free steel processing, and galvanizing. A rust preventative coating is applied to some of the bare steel. Some of the galvanized steel is printed with customer requested markings.

## C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order 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 of 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 whose primary function is to reduce emissions is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will be listed in this table but will have an "S" number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or "A") device. If the primary function of a device is a non-control function, the device is considered to be a source (or "S").

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:

Devices Permitted Since Application was submitted:

> Added sources 300 through 312, Solvent Cold Cleaners, which only use solvent containing NPOCs with application number 7773.

Added sources S400 Contaminated Soils (SWMUs) – "Out" and S401 Contaminated Soils (CAMU) – "In" which are associated with a soil remediation project with Application Number 5417.

Added S299, a diesel-powered fire water pump, with Application Number 4578.

Devices with Changed Permit Status:

Sources 293 through 297, Emergency Standby Generators, lost their permit exemption effective September 1, 2001 and were therefore issued permits under Application Number 3550.

Source 171, Tandem Cold Mill, suffered fire damage in 2001 and had repairs performed under Application Number 2965. The repairs constituted an alteration rather than a modification.

Solvent cold cleaner sources 190 through 197, 199 through 201, 203 through 206, 208, 210 through 212 and 214 through 216 had been listed as exempt sources. Solvent cold cleaner sources 202 and 218 through 222 had been exempt and not listed on the permit to operate. Effective September 1, 1999, all these sources lost their permit exemption and were therefore issued permits under Permit Application 27784. Subsequently, sources 192, 193, 197, 199 through 201, 203 through 205, 211, 212, 216, and 219 through 222 have been removed from service.

Change of Conditions:

Increased allowable PM10 emissions from sources 174, KMCAL Annealing Furnace, and 177, Iron Oxide Production Roaster, with Application Number 6628

Several sources had a change of permit conditions associated with a facility throughput increase without any hardware change from 1.8 million tpy of hot rolled coils processed to 2.2 million tpy. The change of permit conditions also allows the delivery of hot rolled coils by ships NOT equipped with SCR for NOx control. The change of permit conditions was processed under Application Number 32.

## 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 *significant sources* 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) are listed following the corresponding District rules. SIP rules are District rules that have been 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 will be federally enforceable; the non-SIP version will not be 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 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.

Four complex applicability determinations were made as discussed below:

The requirements of District Regulation 11, Rule 15, Airborne Toxic Control Measure for Emissions of Toxic Metals from Non-ferrous Metal Melting, had previously been applied to S97, Tin Anode Casting Pot, and S98, Tin Anode Casting Furnace. A baghouse was installed in March of 1996 under permit application 14999 and an alternative compliance option was approved under permit application 16277 in June of 1996. Upon closer examination, the requirements of the cited rule do not apply since tin is not listed in the definition of "non-ferrous" metal as defined in the rule. Therefore, permit condition 13910 has been archived.

The requirements of 40 CFR Part 63, Subpart N, National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, do not apply since the US EPA has approved as equivalent the rule adopted by the

BAAQMD by reference, Section 93102 of the State of California Health and Safety Code, Hexavalent Chromium Airborne Toxic Control Measure for Chrome Plating and Chromic Acid Anodizing. BAAQMD Regulation 11, Hazardous Pollutants, Rule 8, Hexavalent Chromium Airborne Toxic Control Measure for Chrome Plating and Chromic Acid Anodizing adopted Section 93102 of the State of California Health and Safety Code by reference.

The requirements of 40 CFR Part 63, Subpart CCC, National Emission Standards for Hazardous Air Pollutants for Steel Pickling-HCl Process Facilities and Hydrochloric Acid Regeneration Plants, do not apply since USS-POSCO is not a major source of HAP.

Mass emissions from cargo carriers are limited by condition #7216. These limits are not federally enforceable since BAAQMD Regulation 2, Permits; Rule 6, Major Facility Review; Section 206.1 excludes "the emissions related to cargo carriers … when determining applicability of the requirements of Sections 2-6-301, 307, 310, and 312."

## 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."

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.

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 during the past year. 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.

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, subject to consideration of comments received.

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.

Conditions that are obsolete or that have no regulatory basis have been deleted from the 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 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 Air Pollution Control Officer (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 which limits a source's to the 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 issued 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.

## 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 completely 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 following exceptions. Sources abated by scrubbers and baghouses have added monitoring to ensure proper operation of each abatement device. Sources 82, 93, 155, 286 and 287 with a hexavalent chromium mass emission rate and/or concentration limit have an added periodic source test to ensure compliance. Sources 166, 167, 168, 171, 173, 176 through 179, and 182 with a PM10, POC, and/or HCl mass emission rate and/or concentration limit have an added periodic source test to ensure compliance.

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 in the discussion when no monitoring is proposed due to the size of a source.

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 , 2) degree of variability in the 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 , 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**.**

## $SO_2$ Sources

| S# & Description | Emission Limit Citation | Federally Enforceable Emission Limit | Monitoring |
|---|---|---|---|
| S43 Annealing Furnace S70 Annealing Furnace, S174, ANNEALING FURNACE, S177, IRON OXIDE PRODUCTION ROASTER, S293 THROUGH S297, EMERGENCY STANDBY GENERATORS, S299, DIESEL FIRE PUMP | BAAQMD 9-1-301 | Ground level concentrations of SO2 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 | None |
| S43 Annealing Furnace S70 Annealing Furnace, S174, ANNEALING FURNACE, S177, IRON OXIDE PRODUCTION ROASTER | BAAQMD 9-1-302 | 300 ppm (dry) | None (Note 1) |
| S293 THROUGH S297, EMERGENCY STANDBY GENERATORS, S299, DIESEL FIRE PUMP | BAAQMD 9-1-304 | Sulfur content of liquid fuel ≤ 0.5% by weight | Fuel Certification (Note 2) |
| S299, DIESEL FIRE PUMP | BAAQMD Condition 19380, part 1 | Sulfur content of liquid fuel ≤ 0.05% by weight | Fuel Certification (Note 2) |

Note 1: Per CAPCOA/ARB/EPA Agreement, $SO_2$ monitoring for natural gas fired equipment is not required.

Note 2: Per CAPCOA/ARB/EPA Agreement, certification by fuel supplier for each fuel delivery. California Diesel Fuel shall not exceed a sulfur content of 0.05 %, by weight. Certification may be provided once for each purchase lot, if records are also kept of the purchase lot number of each delivery.

### SO2 Discussion:

BAAQMD Regulation 9-1-301

Area monitoring to demonstrate compliance with the ground level $SO_2$ 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 $SO_2$ and therefore is not required to have ground level monitoring by the APCO.

## PM Sources

| S# & Description | Emission Limit Citation | Federally Enforceable Emission Limit | Monitoring |
|---|---|---|---|
| S43, S70 and S174 Annealing Furnaces | BAAQMD Regulation 6-301 | Ringelmann 1.0 | None |
| S43, S70 and S174 Annealing Furnaces | BAAQMD Regulation 6-310.3 | 0.15 gr/dscf at 6% O2 | None |
| S65 and S72 Zinc Coating Pot | BAAQMD Regulation 6-301 | Ringelmann 1.0 | None |
| S65 and S72 Zinc Coating Pot | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | None |
| S80 and S91, Pickling Section | BAAQMD Regulation 6-301 | Ringelmann 1.0 | None |
| S80 and S91, Pickling Section | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | None |
| S80 and S91, Pickling Section | BAAQMD Regulation 6-310 | 0.15 gr/dscf | None |
| S97, Casting Pot and S134, Lime Handling | BAAQMD Regulation 6-301 | Ringelmann 1.0 | Pressure drop inspection and visual observation |
| S97, Casting Pot and S134, Lime Handling | BAAQMD Regulation 6-310 | 0.15 gr/dscf | Pressure drop inspection and visual observation |
| S97, Casting Pot and S134, Lime Handling | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | Pressure drop inspection and visual observation |
| S166, S167, S168, Pickling Line Coil Processor, Butt Welder, and Stretch Leveller | BAAQMD Regulation 6-301 | Ringelmann 1.0 | Pressure drop inspection, visual observation, source test every 5 years |
| S166, S167, S168, Pickling Line Coil Processor, Butt Welder, and Stretch Leveller | BAAQMD Regulation 6-310 | 0.15 gr/dscf | Pressure drop inspection, visual observation, source test every 5 years |
| S166, S167, S168, Pickling Line Coil Processor, Butt Welder, and Stretch Leveller | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | Pressure drop inspection, visual observation, source test every 5 years |

## PM Sources

| S# & Description | Emission Limit Citation | Federally Enforceable Emission Limit | Monitoring |
|---|---|---|---|
| S166, S167, S168, Pickling Line Coil Processor, Butt Welder, and Stretch Leveller | BAAQMD Condition #7216, part B.1 | 0.670 lb of PM10/hr | Source test, every 5 years |
| S169, Acid Pickling Line | BAAQMD Regulation 6-301 | Ringelmann 1.0 | Pressure drop inspection, visual observation, source test every 5 years |
| S169, Acid Pickling Line | BAAQMD Regulation 6-310 | 0.15 gr/dscf | Pressure drop inspection, visual observation, source test every 5 years |
| S169, Acid Pickling Line | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | Pressure drop inspection, visual observation, source test every 5 years |
| S169, Acid Pickling Line | BAAQMD Condition #7216, part C.3 | 0.506 lb of PM10/hr | Source test, every 5 years |
| S171, Tandem Cold Mill | BAAQMD Regulation 6-301 | Ringelmann 1.0 | Pressure drop inspection, visual observation, source test every 5 years |
| S171, Tandem Cold Mill | BAAQMD Regulation 6-310 | 0.15 gr/dscf | Pressure drop inspection, visual observation, source test every 5 years |
| S171, Tandem Cold Mill | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | Pressure drop inspection, visual observation, source test every 5 years |
| S171, Tandem Cold Mill | BAAQMD Condition #7216, part E.1 | 0.035 lb of PM10/hr | Source test, every 5 years |
| S173, HCD Alkaline Cleaner | BAAQMD Regulation 6-301 | Ringelmann 1.0 | Pressure drop inspection, visual observation, source test every 5 years |
| S173, HCD Alkaline Cleaner | BAAQMD Regulation 6-310 | 0.15 gr/dscf | Pressure drop inspection, visual observation, source test every 5 years |

## PM Sources

| S# & Description | Emission Limit Citation | Federally Enforceable Emission Limit | Monitoring |
|---|---|---|---|
| S173, HCD Alkaline Cleaner | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | Pressure drop inspection, visual observation, source test every 5 years |
| S173, HCD Alkaline Cleaner | BAAQMD Condition #7216, part D.4 | 1.642 lb of PM10/hr | Source test, every 5 years |
| S176, Roll Etch Machine | BAAQMD Regulation 6-301 | Ringelmann 1.0 | Pressure drop inspection and visual observation |
| S176, Roll Etch Machine | BAAQMD Regulation 6-310 | 0.15 gr/dscf | Pressure drop inspection and visual observation |
| S176, Roll Etch Machine | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | Pressure drop inspection and visual observation |
| S176, Roll Etch Machine | BAAQMD Condition #7216, part H.2 | 0.01 gr/dscf of PM10 | Pressure drop inspection and visual observation |
| S177, Iron Oxide Production Roaster; S178 and 180, Silos; S179, Bagging Station; S180 and S181, Acid Gas Adsorbers | BAAQMD Regulation 6-301 | Ringelmann 1.0 | Pressure drop inspection, visual observation, source test every 5 years |
| S177, Iron Oxide Production Roaster; S178 and 180, Silos; S179, Bagging Station; S180 and S181, Acid Gas Adsorbers | BAAQMD Regulation 6-310 | 0.15 gr/dscf | Pressure drop inspection, visual observation, source test every 5 years |
| S177, Iron Oxide Production Roaster; S178 and 180, Silos; S179, Bagging Station; S180 and S181, Acid Gas Adsorbers | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | Pressure drop inspection, visual observation, source test every 5 years |

## PM Sources

| S# & Description | Emission Limit Citation | Federally Enforceable Emission Limit | Monitoring |
|---|---|---|---|
| S177, Iron Oxide Production Roaster; S178 and 180, Silos; S179, Bagging Station; S180 and S181, Acid Gas Adsorbers | BAAQMD Condition #7216, part G.10 | 0.46 lb of PM10/hr | Source test every 5 years |
| S286 and S287, Chrome Recovery Unit Evaporators | BAAQMD Regulation 6-301 | Ringelmann 1.0 | Pressure drop inspection and visual observation |
| S286 and S287, Chrome Recovery Unit Evaporators | BAAQMD Regulation 6-310 | 0.15 gr/dscf | Pressure drop inspection and visual observation |
| S286 and S287, Chrome Recovery Unit Evaporators | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | Pressure drop inspection and visual observation |
| S293 through 297 Standby Generators | BAAQMD Regulation 6-303 | Ringelmann 2.0 | None |
| S293 through 297 Standby Generators | BAAQMD Regulation 6-310 | 0.15 gr/dscf | None |
| S299 Diesel Fire Pump | BAAQMD Regulation 6-303 | Ringelmann 2.0 | None |
| S299 Diesel Fire Pump | BAAQMD Regulation 6-310 | 0.15 gr/dscf | None |
| S400 Contaminated Soils Out, S401 Contaminated Soils In | BAAQMD Regulation 6-311 | $4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr | None |

**PM Discussion:**

BAAQMD Regulation 6 "Particulate Matter and Visible Emissions"

Visible Emissions

BAAQMD Regulation 6-301 limits visible emissions to no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour). Visible emissions are normally not associated with combustion of gaseous fuels, such as natural gas. Sources 43, 70 and 174 burn natural gas exclusively, therefore, per the EPA's June 24, 1999 agreement with CAPCOA and ARB titled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for these sources.

Visible emissions are not normally associated with sources that emit directly into a large room that encloses several sources. Sources 65 and 72 emit directly into a room.

Visible emissions are not normally associated with sources that use a weak solution of sulfuric acid. Sources 80 and 91 use a weak solution of sulfuric acid for pickling.

No visible emissions monitoring is required for standby diesel engines based on the consideration that sources in California usually combust California diesel or other low-sulfur, low aromatic diesel fuels per the EPA's June 24, 1999 agreement with CAPCOA and ARB titled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP."

The following sources are proposed to have pressure drop monitoring and a visual observation of the source emissions. By operating each abatement device within a prescribed pressure drop and by performing a periodic visual observation, sources 97, 134 176, 286 and 287 should be operated in a manner to meet the limit in BAAQMD Regulation 6-301 of visible emissions no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour).

The following sources are proposed to have pressure drop monitoring, a visual observation of the source emissions, and periodic source testing. By operating each abatement device within a prescribed pressure drop, by performing a periodic visual observation, and by performing a periodic source test, sources 166, 167, 168, 169, 171, 173, 177 through 181 should be operated in a manner to meet the limit in BAAQMD Regulation 6-301 of visible emissions no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour).

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 a "heat transfer operation" to 0.15 gr/dscf @ 6% $O_2$. These are the "grain loading" standards.

Exceedances of the grain loading standards are normally not associated with combustion of gaseous fuels, such as natural gas. Sources 43, 70 and 174 burn natural gas exclusively, therefore, per the EPA's July 2001 agreement with CAPCOA and ARB entitled "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources: Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for these sources.

Particulate emissions are not normally associated with sources that use a weak solution of sulfuric acid. Sources 80 and 91 use a weak solution of sulfuric acid for pickling.

Also in agreement with the above agreement, monitoring is not required for nonutility distillate-oil-fueled emergency piston-type IC engines, which describes Sources 293 through 297 and 299.

The following sources are proposed to have pressure drop monitoring and a visual observation of the source emissions. By operating each abatement device within a prescribed pressure drop and by performing a periodic visual observation, sources 97, 134 176, 286 and 287 should be operated in a manner to meet the limit in BAAQMD Regulation 6-310.

The following sources are proposed to have pressure drop monitoring, a visual observation of the source emissions, and periodic source testing. By operating each abatement device within a prescribed pressure drop, by performing a periodic visual observation, and by performing a periodic source test, sources 166, 167, 168, 169, 171, 173, 177 through 181 should be operated in a manner to meet the limit in BAAQMD Regulation 6-310.

Allowable Rate of Emissions Based on Process Weight Rate

BAAQMD Regulation 6-311 limits particulate emissions from general operations based on the process weight throughput. The maximum permitted throughput for each source was assumed, along with accepted emission factors and abatement factors.

Sources 65 and 72 emit directly into a room. Emissions should be minimal and do not occur until the emission escapes the building. Hence, these sources are assumed to be in compliance with the standard.

Sources 80 and 91 use a weak solution of sulfuric acid for pickling. Particulate emissions are not normally associated with operations that use a weak solution of sulfuric acid. Hence, these sources are assumed to be in compliance with the standard.

The following sources are proposed to have pressure drop monitoring and a visual observation of the source emissions. By operating each abatement device within a prescribed pressure drop and by performing a periodic visual observation, sources 97,

134 176, 286 and 287 should be operated in a manner to meet the limit in BAAQMD Regulation 6-311.

The following sources are proposed to have pressure drop monitoring, a visual observation of the source emissions, and periodic source testing. By operating each abatement device within a prescribed pressure drop, by performing a periodic visual observation, and by performing a periodic source test, sources 166, 167, 168, 169, 171, 173, 177 through 181 should be operated in a manner to meet the limit in BAAQMD Regulation 6-311.

Sources 400 and 401 are associated with movement of contaminated and clean soil at the facility. These are area sources that are not amenable to being source tested. Therefore, no PM monitoring for this source is required.

PM10 Emissions Limited By Permit Conditions

Periodic source tests required once every five years have been added for the following sources that have permit conditions limiting mass emissions of PM10: 166, 167, 168, 169, 171, 173, 177 through 181. This is adequate monitoring because the PM10 emissions are very low as shown in the PM10 Sources table above.

## POC Sources

| S# & Description | Emission Limit Citation | Federally Enforceable Emission Limit | Monitoring |
|---|---|---|---|
| S171, TANDEM COLD MILL | BAAQMD Regulation 8-2-301 | 10 lbs/day and not more than 300 ppmdv each as C1 | Source test every 5 years |
| S171, TANDEM COLD MILL | BAAQMD Condition #7216, parts L.1 and 2 | 2.42 lb/hr | Source test every 5 years |
| S292, KMCAL HORIZONTAL ELECTROSTATIC OILER | BAAQMD Regulation 8-11-304 | Abatement to no more than 1.0 lb/gal and abatement device efficiency of at least 90% | Visual observation plus voltage and current monitoring |
| S292, KMCAL HORIZONTAL ELECTROSTATIC OILER | BAAQMD Condition #16682, part 3 | Control to no more than 0.05 lb/gal | Visual observation; voltage and current monitoring; source test every two years |

**POC Discussion:**

POC containing material usage at S171, Tandem Cold Mill, and S292, KMCAL Horizontal Electrostatic Oiler, is already being monitored. However, periodic source tests are proposed to ensure compliance with permitted emission limits. In addition, monitoring of the oil mist

precipitator is proposed for S292 to ensure that the abatement device operates within prescribed voltage and current limits.

## Hexavalent Chromium Sources

| S# & Description | Emission Limit Citation | Federally Enforceable Emission Limit | Monitoring |
|---|---|---|---|
| S82, S93, S155, ELECTRO TINNING | BAAQMD Regulation 11-8-93102(c)(2) | 0.01 mg/dscm | Source test every two years |
| S82, S93, S155, ELECTRO TINNING | BAAQMD Condition #7519, part 3 | 0.006 mg/amp-hr | Source test every two years |
| S286 AND S287, CHROME RECOVERY EVAPORATORS | BAAQMD Condition #12194, part 2 | 0.87 lb/yr | Source test every two years |

## HCl Sources

| S# & Description | Emission Limit Citation | Federally Enforceable Emission Limit | Monitoring |
|---|---|---|---|
| S169, Acid Pickling Line | BAAQMD Condition #7216, part C.3 | 30 ppmv | Source test every five years |
| S177, Iron Oxide Production Roaster; S178 and 180, Silos; S179, Bagging Station; S180 and S181, Acid Gas Adsorbers | BAAQMD Condition #7216, part G.5 | 2 ppmv | Source test every five years |

**Discussion of Other Pollutants:**

Periodic source tests have been added for sources with hexavalent chromium emission rate limits and sources with HCl concentration limits.

Source testing is proposed for the five sources that potentially emit hexavalent chromium, Sources 82, 93, 155 286 and 287. Sources 286 and 287 are permitted but have not been in use recently. Source testing for these two sources may be delayed until after the sources are placed back into service.

Source testing is proposed for the several permitted sources that emit HCl, sources 169 and 177 through 181. Note that the HCl from related sources 177 through 181 is emitted at one emission point.

The potential to emit HCl is less than 10 tons per year. Permit condition #7216 limits HCl emissions from A28 to 30 ppm and from A40 to 2 ppm. Source 169 and several exempt sources are upstream of A28. Sources 177 through 182 are upstream of A40. Potential emissions can also occur at all storage tanks since those that are abated do not have federally enforceable permit conditions. Potential emissions of HCl are:

HCl from A28 (tpy) = (30 ppm) * 11,770 acfm * (100% – 10% moisture by volume)/100%) * ((460 R + 60 F)/(460 R + 85 F)) * 8,640 hours/yr * 60 min/hr * 36.5 lbs HCl/lb-mole * 1 lb-mole/379 scf = 7.569 tpy

HCl from A40 (tpy) = (2 ppm) * 27,600 acfm * (100% – 10% moisture by volume)/100%) * ((460 R + 60 F)/(460 R + 85 F)) * 8,640 hours/yr * 60 min/hr * 36.5 lbs HCl/lb-mole * 1 lb-mole/379 scf = 1.315 tpy

HCl from one of five exempt tanks with 25% HCl at 60 F (tpy) = (1.2 mmHg vapor pressure / 760 mmHg atmospheric pressure) * (15,000 tpy volumetric throughput * 1 gal/ 8.33 lb * 1 cu ft/7.4805 gal) * 36.5 lbs HCl/lb-mole * 1 lb-mole/379 scf = 0.037 tpy

HCl from one of three exempt tanks with 18% HCl at 60 F (tpy) = (0.23 mmHg vapor pressure / 760 mmHg atmospheric pressure) * (50,000 tpy volumetric throughput * 1 gal/ 8.33 lb * 1 cu ft/7.4805 gal) * 36.5 lbs HCl/lb-mole * 1 lb-mole/379 scf = 0.023 tpy

HCl from one of three exempt tanks with 3% HCl at 140 F (tpy) = (0.01 mmHg vapor pressure / 760 mmHg atmospheric pressure) * (50,000 tpy volumetric throughput * 1 gal/ 8.33 lb * 1 cu ft/7.4805 gal) * 36.5 lbs HCl/lb-mole * 1 lb-mole/379 scf = 0.001 tpy

HCl from one of three exempt tanks with 1% HCl at 60 F (tpy) = (0.0001 mmHg vapor pressure / 760 mmHg atmospheric pressure) * (50,000 tpy volumetric throughput * 1 gal/ 8.33 lb * 1 cu ft/7.4805 gal) * 36.5 lbs HCl/lb-mole * 1 lb-mole/379 scf = 0.000 tpy

PTE for HCl = (7.569 + 1.315 + 5 * 0.037 + 3 * 0.023 + 3 * 0.001 + 3 * 0.000) = 9.140 tpy

Where:

11,770 acfm at 85F, 30 ppm HCl by volume and 10% moisture by volume is the flow through A28 and the flow can occur 8640 hr/yr

27,600 acfm at 85F, 2 ppm HCl by volume and 10% moisture by volume is the flow through A40 and the flow can occur 8640 hr/yr

HCl emitted from a tank is calculated assuming liquid input displaces saturated vapor. The partial pressure of HCl is a function of the tank temperature and HCl concentration in water.

## 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 a major facility review permit that identifies and justifies specific federally enforceable regulations and standards 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.

This facility has no permit shields.

**D. Alternate Operating Scenarios:**

No alternate operating scenario has been requested for this facility.

**E. Compliance Status:**

A May 12, 2003 office memorandum from the Director of Compliance and Enforcement, to the Director of Permit Services, presents a review of the compliance record of USS-POSCO Industries (Site #: 2371). The Compliance and Enforcement Division staff has reviewed the records for USS-POSCO Industries for the period between May 2, 2002 through May 2, 2003. This review was initiated as part of the District evaluation of an application by USS-POSCO Industries for a Title V permit. During the period subject to review, activities known to the District include:

- There was one Notice of Violation issued during this review period.
- The District did not receive any alleged complaints.
- The facility is not operating under a Variance or an Order of Abatement from the District Board.
- There was one monitor excess that resulted in the District issuing the one Notice of Violation mentioned above.
- There were no equipment breakdowns reported or documented by District staff.

The owner certified that all equipment was operating in compliance on June 28, 1999. No non-compliance issues have been identified to date.

**F. Differences between the Application and the Proposed Permit:**

The Title V permit application was originally submitted on June 28, 1999. This version is the basis for constructing the proposed Title V permit. Revisions were made to the application as a

result of changes at the facility that were made pursuant to Permit Applications 32, 2965, 3550, 4578, 5417, 6682, 7773, and 27784. In addition, several solvent cold cleaners were permanently removed from service. Changes to the permit ***conditions, application, sources, etc.*** include the following:

Devices Permitted Since Application 27726 was submitted:

Added S299, a diesel-powered fire water pump, with Application Number 4578.

Added sources 300 through 312, Solvent Cold Cleaners, which only use solvent containing NPOCs with application number 7773.

Added sources S400 Contaminated Soils (SWMUs) – "Out" and S401 Contaminated Soils (CAMU) – "In" which are associated with a soil remediation project with Application Number 5417.

Devices with Changed Permit Status:

Sources 293 through 297, Emergency Standby Generators, lost permit exemption effective 9-1-01 and were therefore issued permits under Application Number 3550.

Source 171, Tandem Cold Mill, suffered fire damage in 2001 and had repairs performed under Application Number 2965. The repairs constituted an alteration rather than a modification.

Solvent cold cleaner sources 190 through 197, 199 through 201, 203 through 206, 208, 210 through 212 and 214 through 216 were listed as exempt sources and solvent cold cleaner sources 202 and 218 through 222 which had been exempt and not previously entered into the DataBank lost permit exemption effective September 1, 1999 and were therefore issued permits under Permit Application 27784. Subsequently, sources 192, 193, 197, 199 through 201, 203 through 205, 211, 212, 216, and 219 through 222 have been removed from service.

Devices with a Change of Conditions**:**

Increased allowable PM10 emissions from sources 174, KMCAL Annealing Furnace, and 177, Iron Oxide Production Roaster, with Application Number 6628

Several sources had a change of permit conditions associated with a facility throughput increase without any hardware change from 1.8 million tpy of hot rolled coils processed to 2.2 million tpy. The change of permit conditions also allows the delivery of hot rolled coils by ships NOT equipped with SCR for NOx control. The change of permit conditions was processed under Application Number 32.

Devices no longer subject to a rule:

During the Title V permit evaluation, Source 96, Tin Anode Casting Furnace, and Source 97, Tin Anode Casting Pot, were determined to not be subject to District Regulation 11,

Rule 15, Airborne Toxic Control Measure for Emissions of Toxic Metals from Non-Ferrous Metal Melting since tin is not one of the regulated non-ferrous metals.

Devices not subject to a rule listed in the application:

USS-POSCO Industries indicated in the application that it was subject to both 40 CFR 63, Subpart N – National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks and a proposed 40 CFR 63, Subpart CCC, National Emission Standards for Hazardous Air Pollutants for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants. District Regulation 11, Rule 8, Hexavalent Chromium Airborne Toxic Control Measure for Chrome Plating and Chromic Acid Anodizing Operations supercedes the first standard and the "proposed" standard, which was adopted effective June 22, 1999, does not apply since USS-POSCO Industries is not a major source of HAP.

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# APPENDIX A

# BAAQMD COMPLIANCE REPORT

# APPENDIX B
# GLOSSARY

**ACT**
Federal Clean Air Act

**APCO**
Air Pollution Control Officer

**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). Cumulative increase is 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.

**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)

**NOx**
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, 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**
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.

**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:**

| | | |
|---|---|---|
| Acfm | = | actual cubic feet per minute |
| bhp | = | brake-horsepower |
| btu | = | British Thermal Unit |
| cfm | = | cubic feet per minute |
| cu ft | = | cubic feet |
| F | = | degrees Fahrenheit |
| g | = | grams |
| gal | = | gallon |
| gpm | = | gallons per minute |
| hp | = | horsepower |
| hr | = | hour |
| lb | = | pound |
| in | = | inches |
| max | = | maximum |
| $m^2$ | = | square meter |
| min | = | minute |
| mmHg | = | millimeters of mercury |
| 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 |
| R= | = | degrees Rankin |
| scfm | = | standard cubic feet per minute |
| tpy | = | tons per year |
| yr | = | year |