



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

August 30, 2016

Jaime Williams  
Director of Engineering  
Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, CA 94105

**Subject: EPA Comments on the Pacific Steel Casting Synthetic Minor Operating Permit**

Dear Mr. Williams:

Thank you for the opportunity to review the draft synthetic minor operating permit (SMOP) for the Pacific Steel Casting (PSC) facility located in Berkeley, California. We understand that the permit conditions in the SMOP action will cover all three PSC plants. We also understand that the Bay Area Air Quality Management District (District) has extended the closing date of the public comment period to August 30, 2016 for the permit action. Our comments are enclosed.

We greatly appreciate the District's efforts on this permit action, and look forward to your response. Please feel free to contact Shaheerah Kelly at (415) 947-4156 or at [kelly.shaheerah@epa.gov](mailto:kelly.shaheerah@epa.gov) if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gerardo C. Rios".

Gerardo C. Rios  
Chief, Air Permits Office

Enclosure

cc: Nicholas Maiden, Bay Area Air Quality Management District (via email)

# EPA Comments on the Pacific Steel Casting Synthetic Minor Operating Permit

August 30, 2016

## EMISSION CAPS AND COMPLIANCE DETERMINATION

### 1) *Permit examples*

a. Examples of enforceable emission limits and compliance demonstration methods can be found in the following synthetic minor permits:

- Warm Springs Forest Products Industries  
(See [https://www3.epa.gov/region10/pdf/permits/air/warm\\_springs\\_titlev\\_permit\\_2014.pdf](https://www3.epa.gov/region10/pdf/permits/air/warm_springs_titlev_permit_2014.pdf))
- Silgan Containers Manufacturing Corporation, Toppenish Plant (See <https://www3.epa.gov/region10/pdf/permits/air/silgan-nt5-permit-final-06082015.pdf>)
- Washington Beef, LLC  
(See [https://www3.epa.gov/region10/pdf/permits/air/wa\\_beef/wa\\_beef\\_nontitleVpermit\\_final\\_integrated\\_permit\\_document\\_2015\\_01\\_23.pdf](https://www3.epa.gov/region10/pdf/permits/air/wa_beef/wa_beef_nontitleVpermit_final_integrated_permit_document_2015_01_23.pdf))

2) ***Emission Limits*** – Part 1 of condition 20207 includes facility-wide emission limits. Part 2 of condition 20207 requires that PSC remain below throughputs, emission factors, emissions, and all data and assumptions in conditions 24466 (Plant #1), 24547 (Plant #2), and 24548 (Plant #3). These conditions do not clearly provide that all actual facility emissions should be considered in determining compliance with the emission limits in parts 1 and 2 of condition 20207, including emissions during startup periods, shutdown periods, and during periods of malfunction or upset.

a. To effectively limit PSC's facility-wide emissions limits, please specify in the SMOP that all actual emissions be considered in determining compliance with the respective limits.<sup>1</sup> The District may include a statement in parts 1 and 2 stating that the compliance demonstration for the emission limits shall include emissions from all equipment covered by the permit, including emissions during startup periods, shutdown periods, and during periods of malfunction or upset.

3) ***Emission Calculations*** – Parts 3 and 4 of condition 20207 refer to “District-approved calculation methods,” and part 56 of condition 20207 refers to a “District-approved quarterly throughput and emission report.”

a. Please specify in the SMOP how emissions will be calculated for determining compliance with the emission limits in parts 1 and 2 of condition 20207. Calculation methods used to demonstrate compliance with the emission caps must be specified in the permit. The District may include a statement in parts 3 and 4 of

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<sup>1</sup> See In the Matter of: Hu Honua Bioenergy Facility, Pepeekeo, Hawaii (Permit No. 0724-01-C) Issued by the Clean Air Branch for the Hawaii Department of Health; Order Responding to Petitioner's Request that the Administrator Object to Issuance of State Operating Permit; Petition No. IX-2011-1; February 7, 2014; pp. 7-12 (Claim 2) and pp. 15-19 (Claim 4).

condition 20207 that PSC shall use the compliance equations in conditions 24466 (Plant #1), 24547 (Plant #2), and 24548 (Plant #3), and emission factors from periodic source tests for each pollutant.

- b. Please specify in the SMOP that the facility shall demonstrate compliance by compiling emissions data each month for all emission sources and determine emissions for each consecutive 12-month period every month for the criteria pollutant and HAP emission limits in parts 1 and 2 of condition 20207. Please include in the SMOP reporting forms that will be used to determine compliance.
- 4) ***Fugitive Emissions*** – Negative pressure may be essential to compliance with the emissions caps in part 1 of condition 20207; however, but the permit does not require monitoring of negative pressure.
- a. Please specify in the SMOP monitoring conditions to ensure that the negative pressure will be maintained in the buildings housing the emissions sources at all three plants.
- 5) ***Capture Efficiency*** – The permit requires capture efficiency of 90-100 percent for many emission units in conditions 24466 (Plant #1), 24547 (Plant #2), and 24548 (Plant #3), but does not clearly require venting of emissions to a control device or provide for enforceable monitoring or testing.
- a. Please specify in the SMOP appropriate conditions to ensure that capture efficiency will be achieved as required.
- 6) ***SO<sub>2</sub> Emission Limitation*** – The source testing conditions in parts 33 through 47 include testing for POC, PM<sub>10</sub>, CO, as well as various other HAPs, but do not include requirements for testing for SO<sub>2</sub> emissions.
- a. Please specify the method for determining compliance with the facility-wide SO<sub>2</sub> emissions limit in part 1 of condition 20207.
- 7) ***FID Systems for Carbon Adsorption Systems*** – Parts 6 through 17 of condition 20207 concerns installation of an automatic monitoring and recording flame ionization detector (FID) system.
- a. Please clarify in the SMOP whether parts 7 through 9, and parts 16 and 17 of condition 20207 apply to ***all*** three PSC plants.

#### **MONITORING, TESTING, RECORDKEEPING, REPORTING**

- 8) ***Test Methods*** – **The permit does not specify test methods for each pollutant.**
- a. Please specify in the SMOP the source test methods for each pollutant that will be used for determining compliance and identify whether any of these methods deviate from the federal EPA testing and monitoring methods (we note that the permit includes the source test frequency in part 47 of condition 20207, but not the actual source test methods).

9) **Frequency of Source Tests** – Parts 33 through 47 in condition 20207 require the source testing requirements in Table 1 below. After the initial source test for sources of metal HAPs, filterable PM, polycyclic aromatic hydrocarbons (PAHs), benzene, formaldehyde, and non-methane hydrocarbon (NMHC) in parts 37 through 41, there is no requirement for another source test. Also, the deadline for CO test of the shakeout/pouring/cooling operations is 3 years in parts 42 through 44.

- a. Please consider more frequent source testing (i.e., earlier than 3 years) for determining and accurately calculating CO emissions in parts 42 through 44.

**Table 1: Source Testing Requirements in Parts 33 through 47 in Condition 20207**

Unit	Part	Pollutant	Source Test Frequency
S-1001 (Plant #1 EAF)	33	PM10	Initial compliance test; once every year thereafter
S-2027 (Plant #2 EAF)	34	CO	Initial compliance test; once every 2 years thereafter
S-3001 (Plant #3 EAF)	35	Metal HAPs, filterable PM	Initial compliance test; once every 3 years thereafter
S-3001 (Plant #3 EAF)	36	Metal HAPs, filterable PM	One-time initial compliance test <i>(to characterize emissions from this unit)</i>
S-3004 (Plant #3 Cast Mold Shakeout Area)	37	Metal HAPs, filterable PM, PAHs, Benzene, Formaldehyde, NMHC	One-time initial compliance test <i>(to characterize emissions separate from S-3019 (Pour Area) and S-3014 (Mold Mixing Area), and S-3018 (Coating Operation) emissions)</i>
S-3019 (Plant #3 Pour Area)	38	Metal HAPs, filterable PM, PAHs, Benzene, Formaldehyde, NMHC	One-time initial compliance test <i>(to characterize emissions separate from S-3004 (Shakeout) and S-3014(Mold Mixing Area), and S-3018 (Coating Operation) emissions)</i>
S-2029 (Plant #2 Shell Mold Pouring Station)	39	Metal HAPs, filterable PM, PAHs, Benzene, Formaldehyde, NMHC	One-time initial compliance test <i>(to characterize emissions separate from S-2029 (Shell Mold Pouring Station) and S-2031 (Shakeout &amp; Tray Sanding), and S-2032 (Rotoblast) emissions)</i>
S-2031 (Plant #2 Shakeout & Tray Sanding)	40	Metal HAPs, filterable PM, PAHs, Benzene, Formaldehyde, NMHC	One-time initial compliance test <i>(to characterize emissions separate from S-2029 (Shell Mold Pouring Station) and S-2031 (Shakeout &amp; Tray Sanding), and S-2032 (Rotoblast) emissions)</i>
S-2030 (Plant #2 Cast Mold Cooling Room)	41	Metal HAPs, filterable PM, PAHs, Benzene, Formaldehyde, NMHC	One-time initial compliance test <i>(to characterize emissions separate from S-2029 (Shell Mold Pouring Station) and S-2031 (Shakeout &amp; Tray Sanding), and S-2032 (Rotoblast) emissions)</i>
S-1002 (Plant #1 Pour-Off Area) S-1003 (Plant #1 B Shakeout) S-1004 (Plant #1 A Shakeout)	42	CO	Initial compliance test; once every 5 years thereafter <i>(to characterize emissions from pouring, cooling, and shakeout operations at Plant #1)</i>
S-2029 (Plant #2 Shell Mold Pouring Station) S-2030 (Plant #2 Cast Mold Cooling Room) S-2031 (Plant #2 Shakeout & Tray Sanding)	43	CO	Initial compliance test; once every 5 years thereafter <i>(to characterize emissions from pouring, cooling, and shakeout operations at Plant #2)</i>
S-3004 (Plant #3 Cast Mold Shakeout Area) S-3019 (Plant #3 Pouring and Cooling)	44	CO	Initial compliance test; once every 5 years thereafter <i>(to characterize emissions from pouring, cooling, and shakeout operations at Plant #3)</i>
Baghouses upstream of each carbon adsorption system	45	PM10	Once every year

**10) Pressure Drop Monitoring** – In part 50 of condition 20207, the pressure drop ranges do not appear to be tailored for the baghouse control device, but rather appear to be the entire range (minimum and maximum). This is inadequate.

- a. Please specify in part 50 more specific pressure drop ranges, or testing requirements to obtain the appropriate pressure drop ranges, that ensure proper operation of the baghouses.

## GENERAL

**11) Complete Permit** – The SMOP action consists of an Engineering Evaluation Report containing the draft permit conditions. It is unclear whether or how the permit conditions in the Engineering Evaluation Report will be integrated into existing BAAQMD permits for the facility. We also note that an actual “draft permit document” was not issued, separate from the engineering evaluation, for public comment. Based on discussions with the District, it is our understanding that there is no separate “draft permit document” that is issued separate from the Engineering Evaluation Report. Also, based on these discussions, we understand the District will incorporate the final SMOP conditions (20207, 24466, 24547, and 24548) into the facility’s locally-issued PTO which must be renewed annually.

- a. We request that the District clarify the above process in writing for the public. Additionally, we request that the District make the updated PTO available to the public on its website.

**12) Engineering Evaluation Report Attachments** – The following attachments identified in the Engineering Evaluation Report were not available online for the public during the public comment period. We also note that EPA did not receive a full package of these materials. We request that these materials be made readily available to the public with the other SMOP documents.

- a. **Odor Management Plan** – Parts 22 and 23 of condition 20207 refer to Appendices D and F of the facility’s Odor Management Plan, though these were not available on BAAQMD’s website. It appears that these documents relate to how the facility will maintain negative pressure at all exterior doors, windows and other openings. Negative pressure may be essential to compliance with the emission caps in part 1 of condition 20207. After discussing with the District that it provide a public version of the facility’s Odor Management Plan, the District provided a link to a public version of the Odor Management Plan dated October 3, 2008 found here:  
[http://www.cityofberkeley.info/uploadedFiles/Clerk/Level\\_3\\_-\\_City\\_Council/2010/03Mar/2010-03-23\\_Item\\_42\\_Settlement\\_of\\_Litigation.pdf](http://www.cityofberkeley.info/uploadedFiles/Clerk/Level_3_-_City_Council/2010/03Mar/2010-03-23_Item_42_Settlement_of_Litigation.pdf)
- b. **Appendix A Emission Calculations** – Appendix A is referenced as “Detailed Emission Calculations (Confidential)” – Please make publicly available a non-confidential version of the facility’s emission calculations.

- c. **September 9, 2005 letter from Brian Bateman, Director of Engineering, to Joe Emmerichs, Vice President and General Manager of PSC** – We note that although this document is referenced in the Engineering Evaluation Report (see bottom of p. 4), it was not included with the SMOP documents. It would be helpful to include this document in the permit record since it is the basis for including all three PSC plants in the SMOP.

**13) Lead Emissions** – Page 8 of the Engineering Evaluation Report states that “PSC sources emit criteria pollutants (NO<sub>x</sub>, VOC, PM<sub>10</sub>, CO, SO<sub>2</sub>, lead) as well as HAPs and toxic air contaminants (TACs)”. However Tables 4 and 5 of the Engineering Evaluation Report, which contain the PTE and proposed emissions, does not provide the emission levels for lead.

- a. Please specify in the Engineering Evaluation Report, and, if needed in the SMOP also, the PTE and proposed emission information for lead as provided in Tables 4 and 5 of the Engineering Evaluation Report for the other pollutants.

**14) NESHAP YYYYYY Applicability** – Page 15 of the Engineering Evaluation Report discusses applicability of certain National Emission Standards for Hazardous Air Pollutants (NESHAP). Although NESHAP Subpart YYYYYY (NESHAP for Area Sources: Electric Arc Furnace Steelmaking Facilities) is included in the list identified, the Engineering Evaluation Report does not contain an applicability analysis for this NESHAP. We note that if this rule applies to PSC, 40 CFR 63.10680(d) would require the facility to obtain a title V operating permit.

- a. Please specify in the Engineering Evaluation Report whether NESHAP Subpart YYYYYY applies to sources S-1001, S-2027, S-3001 (electric arc furnaces) at the PSC facility.<sup>2</sup>

**15) NSPS AA/AAa Applicability** – The Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974 and on or before August 17, 1983 (NSPS Subpart AA), and the Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 17, 1983 (NSPS Subpart AAa) apply to certain electric arc furnaces. Plant 2 and Plant 3 were constructed after October 1974.

- a. Please specify in the Engineering Evaluation Report whether NSPS Subpart AA or AAa applies to sources S-1001, S-2027, S-3001 (electric arc furnaces) at the PSC facility.

**16) Correction to condition 20207** – It appears that the following correction should be made in part 4 in permit condition 20207: change “Parts **1a** and **1c**” to “Parts **1b** and **1c**”.

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<sup>2</sup> We note that, according to the engineering evaluation report, PSC is subject to NESHAP Subpart ZZZZZ (NESHAP for Iron and Steel Foundries Area Sources) which does not require the PSC to obtain a title V operating permit.

**17) *Table of Source Test Frequency*** – Part 47 of condition 20207 contains source testing frequencies for PM<sub>10</sub> source tests, and does not contain the frequencies for source testing the other pollutants.

- a. Please specify the source testing frequencies for the other pollutants (i.e., NO<sub>x</sub>, POC, CO, SO<sub>2</sub>, and HAPs). Please consider either putting Table 7 of the Engineering Evaluation Report in part 47 of permit condition 20207, or adding the organization and comprehensive information contained within Table 7 to part 47 of permit condition 20207.