PCC Structurals, Inc.

May 31, 2022

BY EMAIL

Kenzie Billings (Kenzie.BILLINGS@state.or.us)
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Re: Cleaner Air Oregon Air Toxics Emissions Inventory - SSBO

Dear Kenzie:

On March 31, 2022, PCC Structurals, Inc. (PCC) received a letter from Keith Johnson at the Oregon Department of Environmental Quality (DEQ) providing us written notice pursuant to Oregon Administrative Rule (OAR) 340-245-0050(1) that the Small Structurals Business Operation (SSBO) facility was being called into the Cleaner Air Oregon (CAO) program. CAO rules specify that a toxic air contaminant (TAC) emissions inventory be submitted no later than 90 days after being called in (in our case, May 31, 2022). The email to which this letter is attached constitutes our timely emissions inventory submittal.

In preparing this emissions inventory, we employed best engineering knowledge to generate an estimate of listed TACs emitted by processes at our facility, including the collocated noncontiguous facility (SSB1). SSBO and SSB1 will subsequently be referred to as "SSBO" in this letter. Form AQ523, included in Attachment A, identifies all of our categorically insignificant activities. To the best of our knowledge at this time, the activities listed on form AQ523 constitute all of our Exempt toxic emission units (TEUs).

SSBO typically operates year-round for 24-hours per day. Where processes can vary, we have conservatively estimated short-term emissions based on reasonable worst-case operations. Many of the emission calculation methodologies employed rely on conservative assumptions and may overstate our actual emissions. The emission calculation methodologies attempt to ensure that the facility can retain the operational flexibility needed to respond to changing market demands in a manner that can be effectively managed as any future permit conditions that may result from the CAO process. Where possible, emissions were calculated consistent with the PCC Large Parts Campus (LPC) emissions inventory, which is currently in the process of being reviewed and approved.

CONFIDENTIAL BUSINESS INFORMATION

Parts of the enclosed submittal include trade secrets that we seek to have protected as confidential business information (CBI) consistent with Oregon Revised Statute (ORS) §192.345(2) and OAR 340-214-0130(3). As a result, we are including two versions of the TAC emissions inventories. The first version includes all information and, as required by OAR 340-214-0130, each page containing CBI is

prominently marked as "Confidential Business Information – Do Not Release to Public." This version should not be released to the public. The other version has all of the CBI redacted and is, therefore, suitable for public distribution.

The redacted information is entitled to trade secret status because: (1) it cannot be patented, (2) it is known only to a limited number of individuals within PCC who make every effort to ensure this information is not available to or obtained by competitors, (3) PCC derives economic value by maintaining the confidentiality of this information, and (4) maintaining this information as confidential provides PCC with a business advantage over its competitors. In support of these factors, we note that PCC has never shared the redacted information with anyone outside of a select group of "need to know" employees and contractors and for many products we are prohibited by our customer from revealing certain aspects of production. Our competitors are always keenly interested in knowing details about our operations. The redacted portions of the attached submittal contain information we take great pains to keep confidential. If such information was released to the public, competitors could utilize that information to their advantage to steer sales away from PCC and/or to avoid incurring expenses. This information derives independent economic value from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use—the very definition of a trade secret.

We note that the data being redacted are outside the scope of "emissions data". PCC recognizes that the total emissions from SSBO are emissions data and would be subject to public scrutiny. However, the redacted information does not include total emissions data and so should be exempt from disclosure.

If the Department determines that any portion of the submittal for which we are requesting trade secret protection is not immune from a Public Records Act request, we request that you return the attached materials, in their entirety, to us so that we can find a different means of providing the information you need without endangering our business or causing PCC to be in breach of the representations it has made to its customers.

EMISSIONS INVENTORY

Electronic versions of the emissions inventory form AQ520 are being submitted electronically along with this cover letter in Excel format, as both a CBI and redacted version. AQ520 includes emissions estimates representing the facility's potential to emit, and production data for calendar year 2021. The supporting TAC emissions inventory containing additional detail on how TAC emissions were calculated are also being submitted with this cover letter in PDF format. We will subsequently provide these calculations in Excel format to aid the DEQ in their review of the emissions calculations.

SUPPORTING DOCUMENTATION

Attached to this letter are data supporting the emissions calculations such as Safety Data Sheets (SDSs), emissions tests reports, process flow diagrams (PFDs), site diagrams, and other applicable records. A PFD outlining the general configuration of TEUs at SSBO, and site diagrams outlining the

general location of TEU IDs are provided in Attachment A. The TEU IDs used match those shown in the AQ520 emissions inventory. PCC may revise these TEU IDs as we proceed through the CAO process. The site diagrams are not meant to show specific locations of equipment of exhaust stacks, but instead provide a high-level overview of the facility process flow in the form of a physical layout.

SDSs used to estimate emissions are provided in Attachment B. We are not able to send any materials that identify our specific alloy contents such as welding rod SDSs or other proprietary formulas due to confidentiality concerns. However, those materials are maintained on site and can be reviewed in person by DEQ staff during regular business hours. Please let me know if you would like to set up an appointment to review those materials.

The 2021 baghouse dust analyses referenced in the TAC emissions inventory are provided in Attachment C. The data presented in the TAC emissions inventory may have minor differences from the data in Attachment C due to rounding of the calculated values.

Table 1 outlines the various control efficiencies used in the TAC emissions inventory, and the reference for each value. Documentation representative of the control efficiencies listed in Table 1 are shown in Attachment D.

Table 1 – Control Efficiency Documentation

TEU	Control Efficiency	Reference
Baghouses	99.9%	Filter Specifications
HEPA only	99.97%	Filter Specifications
Baghouse + HEPA	99.99997%	Calculated Compound Control Efficiency
ULPA only	99.999%	Filter Specifications
Baghouse + ULPA	99.999999%	Calculated Compound Control Efficiency
Investing, Controlled	97% (thermal oxidizer)	Minimum Required by Permit
Burnout, Non-Wax	95% (afterburner)	Manufacturer Documentation

Control efficiencies for baghouses are based on removal efficiencies provided by the filter manufacturers. In the case where a baghouse also has a polishing filter (i.e., HEPA or ULPA post-baghouse filter), a compound control efficiency was calculated.

Control efficiencies for the afterburners used on the flashfire furnaces (burnout ovens with afterburners) are derived from the destruction efficiencies provided by the manufacturer. The control efficiency from the investing thermal oxidizer is based on source testing which has previously been submitted to the DEQ.

Table 2 outlines the sources for which emission factors were based on stack testing data. The stack test reports, listed in Table 2, were previously provided to the DEQ in submittals on the dates shown.

Table 2 – Stack Testing Documentation

TEU	TAC	Report Title	Submitted to DEQ
Burnout, Wax	Organic TACs	Organic Emissions From Wax Burnout Furnace 44 at PCC Structurals, Inc.	June 15, 2020
Air Casting	Total PM	2014 Particulate Matter Emission Tests; PCC Structurals, Inc.	June 15, 2020
Heat Treat	Metal TACs	Heat Treat Furnace #23 Engineering Tests	August 28, 2020

Testing was performed on representative sources located at LPC.

The wax burnout emissions testing results are representative of all wax burnout activities at PCC that do not utilize an afterburner. Note, a burnout oven with an afterburner is also referred to as a flashfire oven.

The Air Casting emission factor of 0.207 lb PM per ton of metal poured shown in the TAC emissions inventory is derived from engineering testing performed at the LPC steel foundry on July 15, 2014. The total combined emissions from the three exhaust stacks tested was 0.7248 pounds particulate matter (lb PM) (0.0906 lb PM per hour total x 8-hour test time). Because testing was done on 3 of the 5 exhaust stacks, 0.7248 lb PM was scaled up to account for total emissions through all 5 stacks resulting in 1.208 lb PM total for the test period (0.2748 lb PM x 5 stacks / 3 stacks tested). For this test, 5.82445 tons of metal were poured, resulting in an air casting emission factor of 0.0207 lb PM per ton of metal poured (0.2748 lb PM / 5.82445 tons metal poured).

ADDITIONAL EXEMPT TEUS

The DEQ provided a guidance document titled "Cleaner Air Oregon Exempt TEU Reporting" (the guidance) to be used as the basis for determining whether processes previously considered categorically exempt should be included in the TAC emissions inventory. Supporting documentation for this analysis is attached to this letter. Form AQ523 is included as Attachment A.

Maintenance and Repair Shop

SSBO operates a small maintenance shop for periodic maintenance and repair of process equipment. Activities include a welding and use of various products such as lubricants, pipe sealants, and parts cleaners.

Review of products used in the maintenance shop identified products containing TACs. A conservative annual usage was developed by assuming 1.5 times the average annual purchasing records over the three-year period between 2019 and 2021. Chemical content was determined by review of the product SDSs. The usage and threshold analysis, provided in Attachment E, shows no TACs from product usage in the maintenance shops exceed the reporting thresholds set in Appendix A of the guidance.

Both shielded metal arc welding (SMAW) and gas tungsten arc welding (GMAW) are performed in the maintenance shop. A conservative annual usage was developed by assuming 1.5 times the average annual purchasing records over the three-year period between 2019 and 2021. Usage for one welding category exceeded the reporting threshold in Appendix B of the guidance, and two welding categories were unlisted, but still included in the analyses. Product usage and welding threshold calculations are included in Attachment E.

A Level 1 risk assessment (L1RA) was performed for TACs from welding activities that exceeded the reporting thresholds using the assumptions listed in Appendix C of the guidance, with two exceptions: the building area was set to 10,000 square feet, and the distance to the nearest residence was set to 300 meters (both conservatively low values for SSBO). Although emissions from the maintenance shop are controlled by Baghouse 9338, emissions estimated according to the DEQ guidance were assumed to be uncontrolled for the L1RA. The results of the L1RA were below the Target Risks of 0.25 excess cancer risk and 0.05 chronic non-cancer hazard index listed in the guidance. As noted by the DEQ in the CAO Facility Call-in Prioritization Protocol document, Level 1 risk screens do not represent actual risk, and in most cases actual risk will be tens or hundreds of times lower than what is estimated by a Level 1 screening. The results from the L1RA show that TAC emissions from the maintenance shop welding do not materially contribute to potential health risks to the community, and the maintenance shop should be considered an Exempt TEU.

Routine Maintenance, Repair, and Replacement Activities

PCC has not identified any regularly occurring maintenance or repair activities at SSBO that represent a significant source of TACs beyond what has already been included in the emissions inventory, so routine maintenance, repair, and replacement activities should be considered an Exempt TEU.

Natural Gas, Propane, and Liquefied Petroleum Gas (LPG) Storage Tanks and Transfer Equipment

SSBO uses few propane-powered forklifts. There are no storage tanks onsite. Propane use at SSBO is not considered "extensive use" and is typical of an industrial facility. Storage tanks and transfer equipment should be considered an Exempt TEU under the guidance provided by the DEQ.

Pressurized Tanks Containing Gaseous Compounds

PCC utilizes pressurized tanks for activities at SSBO. Gases used are not known to be a source of highly toxic compounds, so activities involving maintenances of the pressurized tanks should be considered an Exempt TEU.

Industrial Cooling Towers

SSBO operates cooling towers at the facility. MFA has reviewed the SDSs for products used in the cooling towers and found only one TAC (sodium hydroxide). Sodium hydroxide is a non-volatile dissolved salt. Drift losses from the cooling towers should not contain significant sodium hydroxide

and therefore, the cooling towers are not a TEU. SDSs for products used in the cooling towers are included in Attachment E.

Uncontrolled Oil/Water Separator

SSBO operates oil/water separators as part of typical stormwater and wastewater management activities (e.g., stormwater oil/water separators in employee parking lots). These devices are uncontrolled but are not expected to have TAC emissions.

CONCLUSIONS

The SSBO TAC emissions inventory includes emissions factors and calculation methodologies that were also used to develop the TAC emissions inventory for LPC. Many of the requests for additional information related to LPC also apply to SSBO.

Due to the size and nature of the information requested, the attachments identified in the letter are being provided electronically. Please contact me if you have any questions about the contents of this letter, or the attachments.

Very truly yours,

Sherry Uchytil

cc: Bryan McCampbell
Tom Wood (Stoel Rives)
Brian Eagle (MFA)

List of Attachments:

Attachment	**Description**	**Number of Pages**
Attachment A	SSBO/SSB1 Process Flow Diagram	1
	SSBO Site Diagram	1
	SSB1 Site Diagram	1
	Form AQ523	3
Attachment B	PM Glycol Ether SDS (Investing)	12
	DPM Glycol Ether SDS (Investing)	5
	Dye SDS (Wax)	12
	Mold Release SDS (Wax)	8
	Paint/Coating SDS (SLA)	6

Attachment C	Test Report PA210420210035	7
Attachment D	Filtration Specifications	8
	Afterburner Specifications	3
	Thermal Oxidizer Stack Test Report	100
Attachment E	Exempt TEU Threshold Determinations	3
	Exempt TEU SDS	145