



State of Oregon Department of Environmental Quality

Cleaner Air Oregon Facility Prioritization Results

March 1, 2019

About Cleaner Air Oregon

The Cleaner Air Oregon program and rules add public health-based protection from emissions of toxic air contaminants to the state's existing air permitting regulatory framework. The goal of the Cleaner Air Oregon program is to evaluate potential health risks to people near commercial and industrial facilities that emit regulated toxic air contaminants, communicate those results to affected communities, and reduce those risks to below health-based standards.

Purpose of this report

This report documents the results of DEQ's prioritization process for identifying existing permitted facilities for beginning further analysis as part of the Cleaner Air Oregon risk assessment process. The process followed DEQ's 2018 draft prioritization memo, which proposed a method that considers numerical prioritization values, as well as certain qualitative factors. Based on these factors, facilities are placed in priority groups or tiers. As facilities are called in, they will perform air toxics risk assessments that will determine the actual risk associated with facility emissions.

Limitations of the evaluation

The described prioritization process was established as a method to initiate the call in process for existing permitted sources. Consistent with OAR 340-245-0050, DEQ may at its discretion call in any facility at any time, regardless of the groups established in this memo. Sources applying for a modification to their facility that triggers major New Source Review/Prevention of Significant Deterioration or a Type A State New Source Review will also be required to perform a CAO risk assessment. Other types of permit modifications do not trigger mandatory call in.

This prioritization process is not a risk assessment, and the results should not be interpreted as a health assessment or statement of potential health risks from any of the facilities evaluated. This process was undertaken to determine a priority for facilities in each DEQ region for entry into the program. Health risks associated with emissions of toxic air contaminants from prioritized facilities can only be determined after that facility has completed an approved health risk assessment after being called into the CAO program.

Prioritization is based upon information DEQ had at the time of this evaluation. Any new information not previously considered may affect call in priorities in the future.

Facilities with Title V, Standard ACDP, Simple ACDP, and some General ACDP permits were evaluated for prioritization.

Summary of Results

Consistent with the 2018 memo, DEQ calculated a prioritization score for each facility. DEQ then considered additional qualitative criteria, such as sufficiency of the emissions data,

distance to the nearest exposure location, and whether or not emissions are controlled, among other criteria. Using the results of these evaluations, DEQ has established the following groups for call in to the CAO program.

Names of facilities included in Groups 1 and 2 are shown below. Names and data for all facilities included in the prioritization can be found on the [Cleaner Air Oregon website](#) and in the prioritization details spreadsheet.

Group 1 (20 facilities): These facilities will likely be called in during the first 12 months. Six members of Group 1, two from each DEQ region, are being called in to Cleaner Air Oregon now. From DEQ Northwest Region, Columbia Steel Casting and Owens-Brockway Glass Container. From DEQ Western Region, Entek International and Roseburg Forest Products' Medford facility. From DEQ Eastern Region, AmeriTies West and Chemical Waste Management of the Northwest.

- AmeriTies West, LLC (The Dalles)
- Boise Packaging & Newsprint, L.L.C. (Salem)
- Cascade Steel Rolling Mills, Inc. (McMinnville)
- Chemical Waste Management of the Northwest, Inc. (Arlington)
- Collins Pine Company (Lakeview)
- Columbia Steel Casting Co Inc. (Portland)
- Covanta Marion, Inc. (Brooks)
- Eagle Foundry Co. (Eagle Creek)
- Ecolube Recovery LLC (Portland)
- Entek International LLC (Lebanon)
- Georgia-Pacific Toledo LLC (Toledo)
- Hollingsworth & Vose Fiber Company (Corvallis)
- Oil Re-Refining Company (Klamath Falls)
- Owens-Brockway Glass Container Inc. (Portland)
- PCC Structural, Inc. (Portland)
- PCC Structural, Inc. (Clackamas)
- Roseburg Forest Products Co (Medford)
- Hydro Extrusion Portland, Inc. (Portland)
- Stimson Lumber Company (Gaston)
- Wolf Steel Foundry, Inc. (Hubbard)

Group 2 (20 facilities): These facilities may be called in during the next 2-3 years.

- Biomass One, L.P. (White City)
- Boeing Company (Gresham)
- Boise Cascade Wood Products, L.L.C. (Medford)
- Cornerstone Industrial Minerals Corporation U.S.A. (Lakeview)
- East Side Plating, Inc. (Portland)
- Elkay Wood Products Company (Independence)
- Freres Lumber Co. Inc. (Lyons)
- Hampton Lumber Mills, Inc. dba Tillamook Lumber Company (Tillamook)
- Intel Corporation (Hillsboro)
- Interfor U.S. Inc. (Gilchrist)
- Microchip Technology, Inc. (Gresham)
- Murphy Company dba Murphy Plywood (Rogue River)

- Mutual Materials Company (Gresham)
- Oil Re-Refining Company Inc. (Portland)
- Orchid Orthopedic Solutions Oregon, Inc (Oregon City)
- Pacific Wood Laminates, Inc. (Brookings)
- Roseburg Forest Products Co (Dillard)
- Swanson Group Mfg. LLC (Roseburg)
- TDY Industries, LLC dba ATI Wah Chang (Albany)
- VADATA, Inc. (Boardman)

Group 3 (315 facilities): These facilities have a lower priority for call into the CAO process. Actual call in date will depend on regional and program priorities and available resources, and/or other new information about a source in this group.

Group 4 (8 facilities): These facilities are closed, closing, or have no air toxics emissions. These facilities will not be called in to CAO unless new information is received.

For a full list, including Group 3 and Group 4 facilities, please see the prioritization details spreadsheet.

Facilities with Basic and General ACDP permits that were not included in the prioritization scoring will be treated like those in Group 3. DEQ will evaluate each of these permits over time to assess whether additional conditions are needed to assess or meet health risk benchmarks.

How the Prioritization Process was completed

In June 2018, during the CAO rulemaking, DEQ in consultation with the Oregon Health Authority published a [Draft Cleaner Air Oregon Initial Facility Call-in Prioritization Protocol](#) detailing the agencies' plan for deciding how existing facilities would be prioritized for call in.

Consistent with the above protocol, DEQ performed the prioritization using a two-step process. A total of 363 facilities were included in the prioritization, including all facilities that have Title V, Standard ACDP, or Simple ACDP permits. General ACDP permit holders were also included if emissions data were available in the emissions database.

1. Prioritization Score

The first step was to calculate a prioritization score for each facility. DEQ used emissions inventory data for the reported actual emissions from each facility, together with the Risk-based Concentrations and Lookup Table from the CAO rules, to perform a Level 1 risk screening. The Level 1 risk screening estimates for cancer, chronic noncancer, and acute noncancer risk for each facility were combined to calculate a screening value as follows:

Equation 1:

Risk Screening Value

$$= (\text{Cancer screening value})/25 + (\text{Chronic non} \\ - \text{cancer screening value}) + (\text{Acute non} - \text{cancer screening value})$$

A note about Level 1 risk screening and screening values

Level 1 risk screens do not represent actual risk. These screens use very conservative assumptions (5 meter stack height, 50 meter distance from a residence, and others) to estimate a *worst-case scenario* of possible risk. In most cases, actual risk will be tens or hundreds of times lower than what is estimated by a Level 1 screening. Why does DEQ use a Level 1 screening? These screenings are relatively simple to perform, and can be useful in calculating relative risks between many facilities (such as this prioritization process). Also, if a facility screens below benchmarks in a Level 1 assessment, it can be reasonably assumed that the site does not pose a significant risk.

In addition to the risk screening value for each facility, DEQ considered demographic data for the area around each facility. DEQ used Geographic Information System software and census data to calculate the percent of low-income residents, the percent of minority residents, the percent of residents under 5 years old, and the total number of residents within a one-kilometer radius of the source.

DEQ converted the demographic statistics for each facility to a percentile, relative to the demographic statistics for the other facilities in the prioritization. The risk screening value was converted into a percentile in the same way.

DEQ then used Equation 2 to calculate a prioritization score for each facility. The formula puts $\frac{3}{4}$ of the weight on the risk score, and $\frac{1}{4}$ of the weight on demographic factors.

Equation 2:

$$\text{Prioritization Score} = \text{RSVP}^{0.75} * \left(\frac{\text{low income} + \text{minority} + \text{residents} < 5 + \text{population}}{4} \right)^{0.25}$$

Where:

- RSVP means the percentile ranking of the risk screening value calculated in Equation 1
- Low income means the percentile ranking of the percent of low-income residents within a 1 km radius
- Minority means the percentile ranking of the percent of minority residents within a 1 km radius
- Residents < 5 means the percentile ranking of the percent of residents under 5 years old within a 1 km radius
- Population means the percentile ranking of the total number of residents within a 1 km radius

2. Qualitative Factors

Once a prioritization score had been calculated for each facility, DEQ also considered qualitative information about each facility, and moved some facilities up or down in the prioritization as a result. DEQ considered these qualitative factors:

- The sufficiency of current information about emissions from this facility
- Whether or not the source has existing control devices to reduce its toxic air contaminant emissions
- The approximate distance from the facility to the nearest residential and non-residential receptors
- The efficient allocation of DEQ resources, including distribution of work between DEQ regions.