



Lane Regional Air Protection Agency

Cleaner Air Oregon Facility Prioritization Results

November 26, 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. The Lane Regional Air Protection Agency (LRAPA) is required by state law to implement the Cleaner Air Oregon (OAR 340 division 245) program in Lane County.

Purpose of this Report

This report documents the results of LRAPA's prioritization process for identifying existing permitted facilities for beginning further analysis as part of the Cleaner Air Oregon risk assessment process. The process closely followed the Oregon Department of Environmental Quality's (DEQ's) 2018 draft prioritization memo and their March 1, 2019 Prioritization Results, which include 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, LRAPA 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 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 LRAPA 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 Operating Permits, Standard Air Contaminant Discharge Permits (ACDPs), Simple ACDPs, and some General ACDPs were evaluated for prioritization.

Summary of Results

Consistent with DEQ's prioritization process, DEQ assisted LRAPA by calculating a prioritization score for each LRAPA facility. LRAPA then considered additional qualitative criteria, such as sufficiency of the emissions data, and whether or not emissions are controlled, among other criteria. Using the results of these evaluations, LRAPA 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 section of LRAPA's website and in the prioritization details spreadsheet.

Group 1 (5 facilities) – These facilities will likely be called in during the first 12 months:

- Arauco North America Inc. – Eugene MDF
- International Paper, Springfield Mill
- J.H. Baxter & Co. – Eugene Plant
- Seneca Sustainable Energy, LLC
- The Willamette Valley Company LLC

Group 2 (5 facilities) – These facilities will likely be called in during the next 2-3 years:

- Emerald Forest Products, Plant #1
- Hexion Inc.
- Johnson Crushers International
- Murphy Company, Prairie Road Panelboard Plant
- Weyerhaeuser NR Company – Eugene, OR ELP

Group 3 (58 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 (1 facility) – One of these facilities is closed. This facility 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 ACDPs that were not included in the prioritization scoring will be treated like those in Group 3. LRAPA 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. For statewide consistency, LRAPA decided to prioritize Lane County sources using a nearly identical protocol used by DEQ.

Consistent with the DEQ protocol above, DEQ performed the LRAPA prioritization using a two-step process. A total of 69 facilities were included in the prioritization, including all facilities that have Title V Operating Permits, Standard ACDPs, or Simple ACDPs. General ACDP holders with chrome plating operations were also included.

1. Prioritization Score

The first step was to calculate a prioritization score for each facility. DEQ used LRAPA's 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

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

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 LRAPA 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, LRAPA considered demographic data for the area around each facility. LRAPA contracted with an experienced emission inventory specialist who 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 LRAPA provided 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 LRAPA 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, LRAPA also considered qualitative information about each facility, and moved some facilities up or down in the prioritization as a result. Similar to DEQ's periodization protocol, LRAPA 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; and
- The efficient allocation of LRAPA resources, including distribution of work between LRAPA permit writers.