



September 13, 2022

E-mail

Doug Maples
Vice President of Plywood Manufacturing
Emerald Forest Products, Plant #1
P.O. Box 2746
Eugene, OR 97402

Re: Cleaner Air Oregon Emissions Inventory Submittal

Dear Doug Maples:

LRAPA has completed a preliminary review of the Cleaner Air Oregon Emissions Inventory (AQ520 Form) submitted by the facility on April 18, 2022 for Emerald Forest Products – Plant #1 (EFP1- Source Number 200528).

In general, LRAPA agrees with the emissions estimation approaches for the variety of toxic emissions units at the facility. During our review of the information received, we cataloged the following list of concerns that will need clarification, or additional information:

Emission Unit (EU)	Comments
Overall	On Emission Units & Activities (Tab 2): the facility has largely determined maximum daily activity production rates by dividing the annual production values by 365 days/year. Acute time periods are the maximum production activities or material usage over a 24-hour period. LRAPA's concern is that, if the facility uses this approach in requesting acute production levels and completing the Risk Assessment, the facility may underestimate maximum daily production, which could eventually result in daily limitations that are lower than the maximum daily production the facility can attain.
Overall	On Emission Units & Activities (Tab 2): The Requested PTE values are based on production or usage levels that a facility chooses as the basis for the risk calculations used for establishing Source Risk Limits and other CAO permit requirements. LRAPA is concerned that the annual Requested PTE levels are mainly based on factors from the emission detail sheets in the facility's current review report, and those throughputs can become permit limits depending on risk results.

LRAPA also identified the following list of errors in the emissions inventory file that will need to be addressed and/or corrected:

Emission Unit (EU) and/or Process	Comments
EU-NGVDRIY#1 – Benzene	The reference for the benzene emission factor (EF) indicates it is based on a 2003 source test result. The EF detail sheet of the permit review report indicates the correct DEQ AQGP-010 13.b EF reference.
EU-NGVDRIY#1 – Formaldehyde and Methanol	The heating zone portion of the EFs for formaldehyde and methanol are based on test data that is older (2003), from another facility (EFP#3) and have different results than those determined by EFP#1's December 2020 EU-NGVDRIY#1 source test results.
EU-NGVDRIY#1 - Methanol	The reference for the methanol emission factor (EF) incorrectly indicates it is based on DEQ AQGP-010 EFs rather than EFP's source test results.
EU-STVDRIY#2 – Formaldehyde and Methanol	The heating zone portion of the EFs for formaldehyde and methanol are based on AQGP-010 EFs and have different results than those obtained from the December 2020 testing performed at EFP1.
EU-PLYPRS – Formaldehyde and Methanol	The plywood press EFs for formaldehyde and methanol are based on test data that is older (2006) and have lower results than those obtained from the December 2020 testing performed at EFP1.
EU-PLYMISC – Acetaldehyde, Formaldehyde and Methanol	The EU-PLYMISC emission unit was incorrectly labeled as EU-PLYPRS in the Toxics Emission Unit ID column.
EU-PLYMISC – Acetaldehyde, Formaldehyde and Methanol	The Calculated Emissions formulas are linked to the EU-PLYPRS cells on Tab 2 rather than EU-PLYMISC.
EU-VDRY1-NG and EU-Boiler-NG - Ammonia	The ammonia EFs for natural gas-fired combustion in the EFP1 CAO EI is 18 lb/MMSCF which is the most conservative EF for ammonia from sources using SNCR (selective non-catalytic reduction, using urea injection). LRAPA believes the "uncontrolled" ammonia EF of 3.2 lb/MMSCF is more representative of the ammonia emissions for combustion of natural gas in EU-VDRY1-NG and EU-BOILER-NG at EFP1.

Please let me know if you need any further information or assistance, or if you would like to meet to discuss.

Sincerely,



Max Hueftle, P.E.
Operations Manager

cc: DJ Burrows, PBS Environmental