

MEMORANDUM

TO: Gavin Ball

FROM: Dan Jones, Senior Associate, RCH Group

DATE: September 16, 2024

SUBJECT: Alpenglow Sawmill Cross Laminated Timber Products Air Quality Emissions

Introduction

This Memo quantifies the emissions from the use of glue onsite for manufacturing cross laminated timber products for comparison to the emissions disclosed in the *Air Quality Technical Report* (November 2023). The pollutant of concern with glues, adhesives, coatings, etc. are volatile organic compounds (VOC) also referred to as reactive organic gases (ROG). When exposed to sunlight, VOCs and nitrogen oxides (NOx) react to form ground-level ozone.

Analysis

RCH Group (RCH) coordinated with the Applicant (David Mercer) for annual glue throughput and the glue manufacturer (Henkel Corporation) for VOC/ROG content and density for the proposed glue product (LOCTITE HB X102 PURBOND). The following inputs were used to calculate the VOC/ROG emissions from glue use:

- Annual throughput of 25,000 kilograms (or 55,116 pounds).
- Density of 10.1 pounds per gallon
- VOC content of 0.02 pounds VOC/ROG per gallon

Using the above inputs, VOC/ROG emissions were calculated at 109 pounds per year or 0.3 pounds per day. As shown on page 18 of the *Air Quality Technical Report*, VOC/ROG emissions greater than 136 pounds per day represent a significant and unavoidable air quality impact. As shown on page 30 of the *Air Quality Technical Report*, VOC/ROG emissions associated with project operation were calculated to be 35.19 pounds per day. Thus, glue emissions are negligible and would raise the estimated project VOC/ROG emissions by less than one percent and would not change the significance conclusions in the *Air Quality Technical Report* or Initial Study/Mitigated Negative Declaration.

Sincerely,



Dan Jones

Senior Associate

RCH Group