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Sent via email

Dear Daniel Alcayaga:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Apple Valley 143 (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2022070019. The Project proposes the construction and operation of three industrial/warehouse buildings totaling 2,520,000 square feet on an approximately 143-acre site. The proposed industrial/warehouse buildings are anticipated to consist of 85% High-Cube Fulfillment Center Warehousing, and 15% High-Cube Cold Storage Warehousing. The proposed Project would result in 4,855 daily vehicle trips along local roadways, including 1,473 heavy-duty truck trips.<sup>1</sup> The Project is proposed within portions of the Town of Apple Valley (Town), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

If approved, the Project will expose nearby communities to elevated levels of air pollution beyond the existing baseline emissions at the Project site. Residences are located southeast, and east of the Project site. The closest residence is located approximately 1,140 feet southeast of the Project site. Industrial facilities, like the facilities described in the Project, can result in high volumes of heavy-duty diesel truck traffic, and operation of on-site equipment (e.g., forklifts and yard tractors) that expose nearby residences to toxic diesel emissions such as diesel particulate matter (Diesel PM), and contribute to regional air pollution and global climate change.<sup>2</sup>

Governor Gavin Newsom signed Executive Order N-79-20 on September 23, 2020. The Executive Order states: "It shall be a goal of the State that 100% of in-state sales of new

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<sup>1</sup> Town of Apple Valley. Apple Valley 143 Draft Environmental Impact Report. Appendix I. Table 2. Page 24. Accessible at <https://files.ceqanet.opr.ca.gov/279899-2/attachment/SoY3oPl-qnYg1LZqgvBQQHivCY9oMf3SNBskSJioWYcU9IEWNqkGmDPWxhRuuYxIHdbkY2ISDhilZGzd0>

<sup>2</sup> With regard to greenhouse gas emissions from this project, CARB has been clear that local governments and project proponents have a responsibility to properly mitigate these impacts. CARB's guidance, set out in detail in the Scoping Plan issued in 2017, makes clear that in CARB's expert view, local mitigation is critical to achieving climate goals and reducing greenhouse gases below levels of significance.

passenger cars and trucks will be zero-emission by 2035. It shall be a further goal of the State that 100% of medium and heavy-duty vehicles in the State be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks. It shall be further a goal of the State to transition to 100% zero-emission off-road vehicles and equipment by 2035 where feasible.” The Executive Order further directs the development of regulations to help meet these goals. To ensure that lead agencies, like the Project, stay in step with evolving scientific knowledge to protect public health from adverse air quality and greenhouse gas impacts from the transportation sector, which serves as the basis of the Governor’s Executive Order N-79-20, CARB staff urges the Town to plan for the use of zero-emission technologies within the Project area recommended in this letter.

## **The DEIR Uses Inappropriate Trip Lengths When Modeling the Project’s Air Quality Impacts from Mobile Sources**

The Project’s operational mobile source air pollutant emissions may have been underestimated in the DEIR by using vehicle trip lengths unsupported by substantial evidence. The Project’s operational air pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod). Based on CARB’s review of the CalEEMod outputs found in Appendix B-1 (Air Quality & GHG Emissions Estimates) of the DEIR, the Town assumed heavy-duty trucks would travel a distance of 40 miles in the estimate of the Project’s mobile source air pollution emissions.<sup>3</sup>

Chapter 4.2 (Air Quality) of the DEIR states that the 40-mile truck trip lengths were based on the trip distance recommended by the South Coast Air Quality Management District (SCAQMD). Although 40 miles would be an appropriate trip distance to evaluate the air quality impacts of a warehouse facility located within the SCAQMD, the proposed Project is located in the Mojave Desert Air Quality Management District (MDAQMD) where major maritime freight hubs (e.g., Port of Long Beach and Port of Los Angeles) are much further as compared to a proposed warehouse facility in the SCAQMD. The proposed Project site is located approximately 107 miles from the Port of Long Beach and Port of Los Angeles. If freight is transported by truck from these ports to the Project site, those trucks would need to travel significantly further than the trip distances assumed in the Project’s air quality analysis.

CARB is concerned that the Town underestimated the Project’s mobile sources emissions in the DEIR. CARB urges the Town to substantiate the chosen 40-mile trip length, or to remodel the Project’s mobile source air pollutant emissions using updated Project-specific trip lengths supported by substantial evidence and to report those findings in the Project’s

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<sup>3</sup> Town of Apple Valley. Apple Valley 143 Draft Environmental Impact Report. Appendix B-I. Accessible at <https://files.ceqanet.opr.ca.gov/279899-2/attachment/QOgjWYacrrKeDOd1uDjRBw5XC6E6QpLdTkHFt1vwi2k0qxhTSSDqhvq8INJb92SmsEmynzWL7P5WRQpF0>

Final Environmental Impact Report (FEIR). Furthermore, the truck traffic proposed in the DEIR would travel outside of the MDAQMD and would likely traverse through neighboring air districts such as the SCAQMD to reach their final destinations. Since it is likely that the Project's truck traffic would transverse through the SCAQMD, the Project's mobile source air pollutant emissions should be compared to the SCAQMD's respective significance thresholds and reported in the FEIR.

## **The Health Risk Assessment Used Inappropriate Assumptions When Modeling the Project's Health Risk Impacts from On-Site Transport Refrigeration Units**

According to the Project Description in the DEIR, 15% of the proposed industrial/warehouse buildings would be used for High-Cube Cold Storage Warehousing. Warehouses containing cold storage are serviced by trucks with transport refrigeration units (TRU) to transport refrigerated goods to and from the facility. Based on CARB's research, TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating at a facility.<sup>4</sup> Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near the Project would be exposed to diesel emissions that would result in significant cancer risk.<sup>5</sup> CARB has reviewed the Project's HRA and has concerns regarding the assumptions used to estimate the Project's health impacts.

The HRA assumed all TRUs visiting the Project site would not idle longer than 30 minutes. Data obtained by CARB staff indicates that TRUs can operate for as long as two hours per visit, which is well above the 30-minute duration assumed in the HRA. Unless the Town restricts TRU idling durations to less than 30 minutes, the Project's HRA should be revised to assume a TRU idling duration supported by substantial evidence.

The HRA prepared for the Project assumed 358 of the Project's 1,473 daily heavy-duty truck traffic would consist of trucks equipped with TRUs. It is unclear in the HRA how this estimate was derived; CARB urges the Town to provide substantial evidence to support this assumption. Since 15% of the proposed industrial/warehouse building would be used for cold storage, it is reasonable to assume that a good portion of the trucks transporting frozen freight to the Project site would be equipped with TRUs. If the Town plans to allow a maximum of 358 trucks with TRUs to access the Project site per day, the Town must indicate

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<sup>4</sup> CARB, 2021. Proposed Amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate, Appendix F, Applicable Facility Determination Methodology, III. A. Refrigerated Warehouses or Distribution Centers. Accessible at <https://ww2.arb.ca.gov/sites/default/files/barcu/board/rulemaking/tru2021/appf.pdf>

<sup>5</sup> CARB, 2021. Proposed Amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate, Appendix I, Health Analyses: Transport Refrigeration Units, II. F. 4. Health Risk Assessment - Summary of Cancer Risk, Accessible at <https://ww2.arb.ca.gov/sites/default/files/barcu/board/rulemaking/tru2021/appf.pdf>

in the FEIR that it will require tenant lease agreements to restrict the number of trucks with TRUs accessing the Project site to 358 per day.

## **The DEIR Does Not Analyze Potential Air Pollutant Emissions from the Project's Transport Refrigeration Units**

Although the HRA prepared for the Project evaluated cancer risks from the operation of on-site and off-site TRUs, the Town did not model and report air pollutant emissions from TRUs in the DEIR. The air pollutant emission estimates, found in Table 4.2-11 (Estimated Maximum Daily Operation Criteria Air Pollutant Emissions - Unmitigated) of the DEIR, were modeled using the California Emissions Estimator Model (CalEEMod). Although CalEEMod can estimate air pollutant emissions from area, energy, and mobile sources, the current version of CalEEMod does not account for air pollutant emissions from TRUs. Since a portion of the Project will be used for cold storage, CARB urges the Town to model and report the Project's air pollution emissions from TRUs using CARB's latest emission factors. As indicated above, the Town should assume that a conservative percentage of the Project's truck fleet is equipped with TRUs and should assume a conservative idling duration for each TRU.

## **The Final Environmental Impact Report Should Include More Mitigation Measures to Further Reduce the Project's Air Pollution Emissions**

The DEIR concluded that the Project's unmitigated operational emissions of oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and particulate matter less than 10 micrometers in diameter (PM<sub>10</sub>) would exceed the MDAQMD's significance thresholds, resulting in a significant impact on air quality. To mitigate the Project's air quality impacts, the Town included three mitigation measures (MM-AQ-1 through MM-AQ-3) in the DEIR. These mitigation measures include requiring the use of "Super-Compliant" low-volatile organic compound paints, requiring that all generators and diesel-fueled off-road construction equipment of 75 horsepower or greater be equipped with Tier 4 Final compliant engines during Project construction, requiring all cargo handling equipment to be zero-emission, requiring all onsite diesel-fueled emergency generators be equipped with Tier 4 Final compliant engines, and requiring installation of charging infrastructure for electric vehicles and trucks. After the implementation of these mitigation measures, the Town concluded that the Project would result in a significant and unavoidable impact on air quality.

The list below details the CARB regulations that will result in the reduction of diesel PM and NO<sub>x</sub> emissions from trucks within California:

- **Drayage Truck Regulation:** The existing Drayage Truck Regulation requires all drayage trucks to operate with an engine that is a 2007 model year or newer.

- **Truck and Bus Regulation:** The Truck and Bus Regulation requires all trucks, including drayage, to have 2010 or newer model year engines by January 1, 2023.
- **Heavy-Duty Low-NOx Omnibus Rule:** The Heavy-Duty Low-NOx Omnibus Rule that requires truck emission standards to be reduced from 0.20 to 0.05 grams per brake horsepower-hour (g/bhp-hr) from 2024 to 2026, and to 0.02 g/bhp-hr in 2027.
- **Advanced Clean Trucks Regulation:** The Advanced Clean Trucks Regulation, approved by CARB on June 25, 2020, requires manufacturers to start the transition from diesel trucks and vans to zero-emission trucks beginning in 2024. The rule is expected to result in about 100,000 electric trucks in California by the end of 2030 and about 300,000 by 2035. The Advanced Clean Trucks regulation is part of CARB's overall approach to accelerate a large-scale transition to zero-emission medium- and heavy-duty vehicles. CARB approved amendments to the Advanced Clean Trucks regulation in March 2021; the amendments help ensure that more zero-emission vehicles are brought to market. CARB directed staff to ensure that fleets, businesses, and public entities that own or direct the operation of medium- and heavy-duty vehicles in California purchase and operate ZEVs to achieve a smooth transition to ZEV fleets by 2045 everywhere feasible, and specifically to reach:
  - 100% zero-emission drayage trucks, last mile delivery, and government fleets by 2035
  - 100% zero-emission refuse trucks and local buses by 2040
  - 100% zero-emission capable utility fleets by 2040
- **Advanced Clean Fleets Regulation:** The Advanced Clean Fleets Regulation is part of CARB's overall strategy to accelerate a large-scale transition to zero-emission medium- and heavy-duty vehicles. This regulation works in conjunction with the Advanced Clean Trucks regulation. The regulation applies to trucks performing drayage operations at seaports and railyards, fleets owned by State, local, and federal government agencies, and high priority fleets. High priority fleets are those entities that own, operate, or direct at least one vehicle in California, and that have either \$50 million or more in gross annual revenue, or that own, operate, or have common ownership or control of a total of 50 or more vehicles. The regulation affects medium- and heavy-duty on-road vehicles with a gross vehicle weight rating greater than 8,500 pounds, off-road yard tractors, and light-duty mail and package delivery vehicles. All drayage trucks entering seaports and intermodal railyards would be required to be zero-emission by 2035.

CARB applauds the Town for including mitigation measures in the DEIR that would require the use of electric onsite equipment, zero-emission passenger vehicles and trucks, and the infrastructure to support those equipment and vehicles; specifically in Mitigation Measure MM-AQ-3. However, to further reduce the emissions from on-site TRUs, CARB urges the Town to include an operational mitigation measure to Mitigation Measure MM-AQ-3 that

would require the installation of infrastructure to support electric TRUs visiting the Project site. Additionally, Mitigation Measure MM-AQ-3 would require the installation of at least four heavy-duty truck charging stations on-site by 2030. To support trucks complying with the Advanced Clean Fleets regulation, CARB urges the City to modify its Mitigation Measures to increase electric infrastructure sooner than 2030.

Although CARB is encouraged by the mitigations in the DEIR that promote the use of zero-emission equipment and vehicles, more can be done to further reduce the Project's air pollution emissions. CARB urges the Town to include a mitigation measure or project design feature that requires all heavy-duty trucks to be electric. As presented above, CARB has many regulations that promote and eventually require the use of electric trucks at freight facilities such as the proposed Project. Specifically, the Advanced Clean Fleet Regulation would require all drayage trucks in California to be zero-emission by 2035. A list of commercially available zero-emission trucks can be obtained from the Hybrid and Zero-emission Truck and Bus Voucher Incentive Project (HVIP).<sup>6</sup> The HVIP is a part of California Climate Investments to incentivize the purchase of zero-emission trucks. Based on CARB's review of the zero-emission trucks listed in the HVIP, there are commercially available electric trucks that can meet the freight transportation needs of individual industrial uses under the proposed Project today.

In addition to the mitigation modifications recommended above, the Town should add the air pollutant emission reduction measures listed below in the FEIR.

- In construction contracts, include language that requires all heavy-duty trucks entering the construction site during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-NOx standard starting in the year 2022.<sup>7</sup>
- Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than two minutes while on site.

## Conclusion

Although CARB applauds the Town for including mitigation measures that promote the use of electric equipment and vehicles, CARB is concerned that the construction and operation of the Project may negatively impact the air quality in the surrounding community. CARB urges the Town to include a mitigation measure or project design feature requiring all

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<sup>6</sup> Zero-Emission Truck and Bus Voucher Incentive Project. Accessible at: <https://californiahvip.org/>

<sup>7</sup> In 2013, CARB adopted optional low-NOx emission standards for on-road heavy-duty engines. CARB encourages engine manufacturers to introduce new technologies to reduce NOx emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model-year 2010 and later. CARB's optional low-NOx emission standard is available at: <https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards>.

trucks accessing the Project site to be zero emission. CARB also urges the Town to use Project-specific truck distances when evaluating the Project's mobile air quality impacts, to provide substantial evidence supporting the 30-minute TRU duration used in the Project's HRA, and to model air pollutant emissions from TRUs visiting the Project site.

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

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CARB appreciates the opportunity to comment on the DEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your list of selected State agencies that will receive the FEIR. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist via email at [stanley.armstrong@arb.ca.gov](mailto:stanley.armstrong@arb.ca.gov).

Sincerely,



Richard Boyd, Assistant Division Chief, Transportation and Toxics Division

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