

December 20, 2019

Carlos Rojas, Planner  
Kern County Planning Department  
2700 M Street, Suite 100  
Bakersfield, California 93301

Governor's Office of Planning & Research

DEC 30 2019

STATE CLEARINGHOUSE

Dear Carlos Rojas:

Thank you for providing California Air Resources Board (CARB) staff with the opportunity to comment on the 99 Houghton Industrial Park Project (Project) Recirculated Draft Environmental Impact Report (RDEIR), State Clearinghouse No. 2009051005. The Project consists of the construction and operation of approximately 4,613,004 square feet of warehousing, distribution, and retail uses. Once in operation, the Project is projected to introduce an additional 32,053 total vehicle trips daily. The Project is located within an unincorporated area of Kern County (County), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

Freight facilities, such as warehouse and distribution facilities, can result in high daily volumes of heavy-duty diesel truck traffic and operation of on-site equipment (e.g., forklifts, yard tractors, etc.) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change. CARB staff has reviewed the RDEIR and is concerned about the air pollution impacts that would result should the County approve the Project.

**I. The Project Would Increase Exposure to Air Pollution in Disadvantaged Communities**

The Project, if approved, will expose nearby disadvantaged communities to elevated air pollution. Residences are located north, south, and east of the Project with the closest residences located approximately 210 feet from the Project's northern boundary. In addition to residences, McKee Middle School, Ben Austin Greenfield Senior Center, and Lesley's Family Child Care are located within two miles of the Project. The community is located near existing toxic diesel particulate matter (diesel PM) emission sources, which include vehicular traffic along State Route 99 (SR-99). Due to the Project's proximity to residences, a school, a senior center, and a daycare center already disproportionately burdened by multiple sources of air pollution, CARB staff is concerned with the potential cumulative health impacts associated with the construction and operation of the Project.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities with high exposure burdens, like those surrounding the Project location. Diesel PM emissions generated during the construction and operation of the Project would negatively impact these communities, which are already disproportionately impacted by air pollution from existing traffic along SR-99.

Through its authority under Health and Safety Code section 39711, the California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 1 percent for Pollution Burden<sup>1</sup> and is therefore considered a disadvantaged community. Therefore, CARB staff urges the County to ensure that the Project does not adversely impact neighboring disadvantaged communities.

## **II. The RDEIR Did Not Calculate Air Pollutant Emissions Using the Latest Version of the California Emissions Estimator Model (CalEEMod Version 2016.3.2) and CARB's 2017 Emission Factor Model (EMFAC2017)**

The applicant calculated the Project's construction and operation air pollutant emissions using the California Emissions Estimator Model (CalEEMod) version 2013.2.2, which is two generations behind the latest version of CalEEMod (version 2016.3.2).<sup>2</sup> Some of the updates made to CalEEMod include updates to Title 24, Part 6 building efficiency reduction, trip generation rates, global warming potentials for greenhouse gases, and updated mobile emission factors. The primary concern is that emission factors used in CalEEMod version 2013.2.2 to estimate mobile sources (e.g., automobiles and trucks) are from CARB's 2011 Emission Factors Model (EMFAC2011). Although the latest version of CalEEMod uses mobile emission factors from EMFAC2014, CARB staff recommends that the Project's mobile air pollutant emissions be estimated using the latest version of EMFAC (EMFAC2017). One of the many updates made to EMFAC includes an update to the model's heavy-duty emission rates and idling emission

---

<sup>1</sup> Pollution Burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution.

<sup>2</sup> California Air Pollution Control Officers Association (CAPCOA), 2016. California Emissions Estimator Model. Accessible at <http://www.caleemod.com/>.



factors, which results in higher particulate matter (PM) emissions as compared to EMFAC2014.

Since EMFAC2017 shows higher air pollutant emissions from trucks than EMFAC2011, the Project's mobile source nitrogen oxides (NO<sub>x</sub>) and diesel PM emissions are underestimated. CARB staff urges the applicant and County to model and report the Project's air pollution emissions using the latest versions of CalEEMod and EMFAC.

### **III. It is Unclear Whether the Proposed Warehouse and Distribution Uses Include Cold Storage**

The air pollutant emissions reported in the RDEIR were estimated under the assumption that the Project would not be used for cold storage. Since the Project description in the RDEIR did not explicitly state that the proposed 4,613,004 square feet of warehousing, distribution, and retail uses would not include cold storage space, there is a possibility that trucks and trailers visiting the Project site would be equipped with transport refrigeration units (TRU).<sup>3,4</sup>

TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within the Project site. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near where these TRUs could be operating would be exposed to diesel exhaust emissions that would result in significant cancer risk. CARB staff urges the applicant and County to revise the RDEIR to clearly define the Project's description so the public can fully understand the potential environmental effects of the Project on their communities.

If the Project will not be used for cold storage, CARB staff urges the County to include one of the following design measures in the Final Environmental Impact Report (FEIR):

- A Project design measure requiring contractual language in tenant lease agreements that prohibits tenants from operating TRUs within the Project site; or
- A condition requiring a restrictive covenant over the parcel that prohibits the applicant's use of TRUs on the property unless the applicant seeks and receives an amendment to its conditional use permit allowing such use.

---

<sup>3</sup> TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.

<sup>4</sup> Project descriptions "must include (a) the precise location and boundaries of the proposed project, (b) a statement of the objectives sought by the proposed project, (c) a general description of the project's technical, economic and environmental characteristics, and (d) a statement briefly describing the intended use of the EIR." (*stopthemillenniumhollywood.com v. City of Los Angeles* (2019) 39 Cal.App.5th 1, 16.) "This description of the project is an indispensable element of both a valid draft EIR and final EIR." (*Ibid.*) Without explicit acknowledgment in the project description that the proposed project will not include cold storage facilities, the current project description fails to meet the bare minimum of describing the project's technical and environmental characteristics.

If the County does allow TRUs within the Project site, CARB staff urges the County to model air pollutant emissions from on-site TRUs in the FEIR, as well as prepare a health risk assessment (HRA) that shows the potential health risks. The FEIR should also include the air pollutant reduction measures listed in Attachment A.

#### **IV. The RDEIR Fails to Include Enforceable Mitigation Measures to Reduce the Project's Air Pollutant Emissions**

The RDEIR concluded that the Project would generate air pollutant emissions that would exceed the San Joaquin Valley Air Pollution Control District's (SJVAPCD) significance thresholds. These air pollutant emissions consist of reactive organic gas (ROG), NO<sub>x</sub>, carbon monoxide (CO), and particulate matter 10 micrometers in diameter (PM<sub>10</sub>). Even after the implementation of Mitigation Measure (MM) 4.3-1 through MM 4.3-5, the applicant and County concluded the Project's impacts on air quality and public health to be significant and unavoidable.

MM 4.3-1 through MM 4.3-4 requires the applicant to implement a series of measures aimed at reducing the potential exposure of on-site personnel to Valley Fever. Although CARB staff recognize the importance of such measures, they do not reduce the high NO<sub>x</sub> and PM<sub>10</sub> emissions generated by the Project. MM 4.3-5 requires the applicant to submit to the SJVAPCD a document that verifies that the Project's total construction and operational emissions would be reduced to below 2 tons per year for NO<sub>x</sub> and PM<sub>10</sub>. However, MM 4.3-5 does not provide a list of measures to reduce the Project's construction or operational air pollutant emissions, but rather, it defers the development and implementation of such measures to an unspecified date.

Given the Project's unmitigated operational air pollutant emissions provided in Table 4.3-9 (Operational Emissions) of the RDEIR and 2-ton per year NO<sub>x</sub> and PM<sub>10</sub> threshold required under MM 4.3-5, CARB staff strongly encourages the applicant and County to include in the FEIR the air pollutant emission reduction measures found in Attachment A.

## **V. The RDEIR Fails to Adequately Analyze the Project's Potential Health Risk Impacts**

The RDEIR concluded that the Project would expose nearby sensitive receptors to substantial pollutant concentrations that would result in a significant and unavoidable impact. The RDEIR did not conduct an HRA, or any other qualitative analysis to reach this conclusion, but rather, states:

*"... operation Project emissions would exceed SJVAPCD thresholds for ROG, NO<sub>x</sub>, CO, and PM<sub>10</sub>. Thus, surrounding sensitive receptors could potentially be exposed to substantial pollutant concentrations from the proposed Project."*<sup>5</sup>

Although CARB staff agrees that the Project would have a negative effect on local air quality, the RDEIR must include some quantitative analysis in determining the severity of the Project's impact on public health.<sup>6</sup>

Since the Project is located near residences already disproportionately burdened by multiple sources of air pollution, CARB staff strongly urges the applicant and County to prepare an HRA for the Project. In doing so, the County must make a reasonable effort to discuss the specifics between the general health effects associated with a particular pollutant and the estimated amount of that pollutant the project will likely produce. The HRA prepared in support of the Project should be based on the latest Office of Environmental Health Hazard Assessment (OEHHA) guidance (2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments).<sup>7</sup>

---

<sup>5</sup> Kern County, 2019. 99 Houghton Industrial Park Project. October 2019. Page 4.3-51.

<sup>6</sup> In fact, the California Supreme Court recently addressed this issue in its landmark ruling in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (*Friant Ranch*). In *Friant Ranch*, the Court held that an EIR is inadequate if it does not make "a reasonable effort to discuss relevant specifics regarding the connection between two segments of information already contained in the EIR, the general health effects associated with a particular pollutant and the estimated amount of that pollutant the project will likely produce." (Id., at p. 521.) The current version of the RDEIR fails to do this and, as a result, is currently inadequate as a matter of law.

<sup>7</sup> Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February, 2015. Accessed at: <https://oehha.ca.gov/media/downloads/cmr/2015guidancemanual.pdf>.

## VI. Conclusion

CARB staff is concerned about the Project's potential public health impacts and the overall lack of analysis and proposed mitigation presented in the RDEIR. The RDEIR potentially underestimates air pollutant emission by using outdated versions of CalEEMod and EMFAC, fails to define the final use of the Project clearly, does not provide mitigation measures to reduce the Project's operational air pollution emissions, and does not evaluate the Project's potential health effects by conducting an HRA. Even where impacts will remain significant and unavoidable after mitigation, CEQA requires that all feasible mitigation measures be incorporated (see California Public Resources Code§ 21081; 14 CCR§ 15126.2(b)). Based on the items discussed above, CARB staff does not believe the applicant and County have met this CEQA requirement. CARB staff recommends that the County reanalyze the Project's air quality and health risk impacts using the appropriate and current models, and include the air pollution emission measures provided in Attachment A in the FEIR.

CARB staff appreciates the opportunity to comment on the RDEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, at (916) 440-8242 or via email at [stanley.armstrong@arb.ca.gov](mailto:stanley.armstrong@arb.ca.gov).

Sincerely,



Richard Boyd, Chief  
Risk Reduction Branch  
Transportation and Toxics Division

Attachment

cc: See next page.

Carlos Rojas  
December 20, 2019  
Page 7

cc: State Clearinghouse  
P.O. Box 3044  
Sacramento, California 95812

Gordon L. Nipp, Ph.D., Vice-Chair  
Sierra Club - Kern-Kaweah Chapter  
P.O. Box 3357  
Bakersfield, California 93385

Arnaud Marjollet, Director  
Permit Services - CEQA Department  
San Joaquin Valley Air Pollution Control District  
1990 East Gettysburg Avenue  
Fresno, California 93726

Morgan Capilla  
NEPA Reviewer  
U.S. Environmental Protection Agency  
Air Division, Region 9  
75 Hawthorne Street  
San Francisco, California 94105

Stanley Armstrong  
Air Pollution Specialist  
Exposure Reduction Section  
Transportation and Toxics Division



## **ATTACHMENT A**

### **Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers**

California Air Resources Board (CARB) staff recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommend by CARB staff, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

#### **Recommended Construction Measures**

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.
2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating on site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.
3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits such that emission reductions achieved equal or exceed that of a Tier 4 engine.
4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during project construction be battery powered.
5. 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-NO<sub>x</sub> standard starting in the year 2022.<sup>1</sup>

---

<sup>1</sup> In 2013, CARB adopted optional low-NO<sub>x</sub> emission standards for on-road heavy-duty engines. CARB staff encourages engine manufacturers to introduce new technologies to reduce NO<sub>x</sub> emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model years 2010 and later. CARB's optional low-NO<sub>x</sub> emission standard is available at: <https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm>.



6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB staff is available to assist in implementing this recommendation.

### **Recommended Operation Measures**

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating on site.
2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included lease agreements.<sup>2</sup>
3. Include contractual language in tenant lease agreements that requires all TRUs entering the project site be plug-in capable.
4. Include contractual language in tenant lease agreements that requires future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans.
5. Include contractual language in tenant lease agreements requiring all TRUs, trucks, and cars entering the Project site be zero-emission.
6. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission. This equipment is widely available.
7. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2030.

---

<sup>2</sup> CARB's Technology Assessment for Transport Refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: [https://www.arb.ca.gov/msprog/tech/techreport/tru\\_07292015.pdf](https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf).

8. Include contractual language in tenant lease agreements that requires the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,<sup>3</sup> Periodic Smoke Inspection Program (PSIP),<sup>4</sup> and the Statewide Truck and Bus Regulation.<sup>5</sup>
9. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than five minutes while on site.
10. Include contractual language in tenant lease agreements that limits on-site TRU diesel engine runtime to no longer than 15 minutes. If no cold storage operations are planned, include contractual language and permit conditions that prohibit cold storage operations unless a health risk assessment is conducted and the health impacts fully mitigated.
11. Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.

---

<sup>3</sup>. In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at: <https://www.arb.ca.gov/cc/hdghg/hdghg.htm>.

<sup>4</sup>. The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at: <https://www.arb.ca.gov/enf/hdvp/hdvp.htm>.

<sup>5</sup>. The regulation requires newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>.