

May 26, 2022

Russell Brady Contract Planner Riverside County 4080 Lemon Street, 12<sup>th</sup> Floor Riverside, California 92501 rbrady@rivco.org



### Dear Russell Brady:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Stoneridge Commerce Center Specific Plan (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020040325. The Project site is located within unincorporated area of Riverside County, California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

The Project consists of the development of an approximately 583 acre site. The DEIR evaluates environmental impacts of two proposed alternatives. The first alternative "Primary Land Use Plan" would allow for up to 8,461,530 square feet of light industrial uses, 1,069,398 square feet of business park uses and 121,968 square feet of commercial retail uses. The second alternative "Alternative Land use Plan" would allow up to 8,461,530 square feet of light industrial uses, 936,540 square feet of business park uses and 126,542 square feet of commercial retail uses. To accommodate the proposed Project, the County proposes to modify the approved lands for the Project site from community center, commercial retail, and residential land uses to light industrial, business, and park land uses. The County assumed in the DEIR that the proposed light industrial uses would consist of approximately 20 percent high-cube could storage uses, 35 percent high-cube fulfillment center uses, 35 percent high-cube warehouses uses, and 10 percent manufacturing uses. Once fully operational in the 2030, the Project could add to up to approximately 23,894 vehicle daily trips along local roadways, which includes 3,850 heavy-duty daily truck trips.

Industrial facilities, like the facility described in the Project, can result in high volumes of heavy-duty diesel trucks, locomotive operations and operation of on-site equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change. 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 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. It shall be a further goal of the State that 100 percent of medium and

<sup>1.</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.

Russell Brady May 26, 2022 Page 2

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 percent 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 County, 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 County to construct and operate the Project using the zero-emission technologies recommended in this letter.

CARB submitted a comment letter, which is attached to this letter, on the Notice of Preparation (NOP) for the DEIR released in April 2020. CARB's comments, dated May 27, 2020, highlighted the need for preparing a health risk assessment (HRA) for the Project. The letter also encouraged the County to implement all existing and emerging zero-emission technologies to minimize exposure to diesel particulate matter (diesel PM) and nitrogen oxides (NOx) emissions for all neighboring communities, and to minimize the greenhouse gases that contribute to climate change. Due to the Project's proximity to residences already disproportionately burdened by multiple sources of pollution, CARB's comments expressed concerns with the potential cumulative health risks associated with the construction and operation of the Project.

# The DEIR Does Not Analyze Potential Air Quality Impacts from the Project's Transport Refrigeration Units

Chapter 3.3 (Proposed Project) of the DEIR states that the proposed light industrial development could result in up to 20 percent of high-cube cold storage uses. Since a portion of the Project would be used for cold storage, some of the trucks and trailers visiting the Project-site would be equipped with Transport Refrigeration Units (TRUs.). TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within the Project-site. Should the Project include cold storage uses, residences near the Project-site could be exposed to significantly higher levels of toxic diesel PM and NO<sub>x</sub>, and greenhouse gases than trucks and trailers without TRUs. To reduce these impacts, the DEIR included Mitigation Measure 4.3-3 that would require the installation of electrical hookups to eliminate idling of main and auxiliary engines during the loading and unloading process and provide for TRUs. None of the mitigation measures in the DEIR require trucks and trails with TRUs to be plug-in capable.

Although the HRA prepared for the Project evaluated cancer risks from the operation of onsite TRUs, the County did not model and report air pollutant emissions from TRUs in the DEIR. The air pollutant emission estimates, found in Table 4.3-9 and Table 4.3-10 of the DEIR, were modeled using CalEEMod. Although CalEEMod can estimate air pollutant emissions from area, energy, and mobile sources, 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 County to model and report the Project's air pollution emissions from TRUs using CARB's latest emission factors.

# The Health Risk Assessment Used Inappropriate Assumptions When Modeling the Project's Health Risk Impacts

The HRAs prepared for the Project and presented in Section 4.3 (Air Quality) of the DEIR, concluded that residences near the Project site would be exposed to diesel PM emissions that would result in cancer risks as high as 9.81 chances per million during Project operation. Since the Project's cancer risks are below the South Coast Air Quality Management District (SCAQMD) significance threshold of 10 chances per million, the DEIR concluded that the Project would result in a less than significant impact on public health. CARB has reviewed the Project's HRA and is concerned that the Project's cancer risk impacts may have been underestimated for the reasons detailed below.

The HRA assumed all TRUs visiting the Project site would not idle longer than 15 minutes. Data obtained by CARB staff indicates that TRUs can operate for as long as two hours per visit, which is well above the 15-minute duration assumed in the HRA. Unless the County restrict TRU idling durations to less than 15 minutes, the Project's HRA should be revised to assume a TRU idling duration legitimized by substantial evidence.

The HRA assumed 630 trucks with TRUs would operate within the Project site daily. It is unclear in the HRA how this estimate was derived. Due to the large size of the proposed warehouse development, CARB is concerned that the number of TRUs visiting the Project site may be underestimated in the HRA. CARB urges the County to provide substantial evidence to support this assumption.

The HRA used a daily breathing rate of 209 for 16<70 age group. CARB recommends the County use a daily breathing rate of 290 for this age group when estimating the Project's operational cancer risk impacts, which is consistent with the recommend mythology found in the Office of Environmental Health Hazard Assessment's (OHEEA) Risk Assessment Guidelines.<sup>2</sup>

The HRA did not evaluate cancer risk impacts from trucks with TRUs traveling along local roadways. According to the Project's description, trucks serving the Project would travel along either Nuevo Road or Ramona Expressway to access the Project site. There are residences located adjacent to these roadway that will be expose to diesel PM emissions from trucks and trucks with TRUs traveling to and from the Project site that has the potential to result in a potentially significant cancer risk impact. To fully understand the Project's

<sup>2</sup> Office of Environmental Health hazard Assessment. Air Toxics Hot Spots Program Risk Assessment Guidelines. February 2015. Accessible at https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

impact on public health, the revised HRA should evaluate potential cancer risks along local roadways serving the Project site.

## The County Should Include More Mitigation Measures to Minimize the Project's Significant and Unavoidable Impact on Air Quality

Chapter 4.3 (Air Quality) of the DEIR concludes that NOx, reactive organic compounds (VOC) and carbon monoxide (CO) emitted during Project operation would exceed the SCAQMD's significance thresholds. To reduce the Project's impact on air quality, the DEIR included seven mitigation measures (MM 4.3-1 through MM 4.3-7). These mitigation measures include requiring compliance with SCAQMD's rules, onsite blasting to be limited to the use of 1.72 tons of explosives daily, heavy duty trucks used during Project construction to be equipped with 2010 model year engines, onsite construction equipment to be equipped with Tier 3 engines, and on-site outdoor cargo handling equipment to be powered by electricity or comply with Tier 4 engine standards, installation of electric hookups for trucks with TRUs, Even after implementing these mitigation measures, the County concludes in the DEIR that the Project's operational air pollutant emissions would remain significant after mitigation.

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)). To meet this requirement, CARB urges the County to add the emission reduction measures listed below in the FEIR.

- 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 are equal to or exceed that of a Tier 4 engine.
- 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.
- 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-oxides of nitrogen (NO<sub>x</sub>) standard starting in the year 2022.<sup>3</sup>

<sup>3.</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: <a href="https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards">https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards</a>.

Russell Brady May 26, 2022 Page 5

- 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 2023. 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>4</sup> Additional incentive funds can be obtained from the Carl Moyer Program and Voucher Incentive Program.<sup>5</sup>
- Include contractual language in tenant lease agreements that requires the tenant to 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>6</sup> Advanced Clean Trucks Regulation,<sup>7</sup> Periodic Smoke Inspection Program (PSIP),<sup>8</sup> and the Statewide Truck and Bus Regulation.<sup>9</sup>
- Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than two minutes while on site.
- Include contractual language in tenant lease agreements, requiring the installing of vegetative walls<sup>10</sup> or other effective barriers that separate loading docks and people living or working nearby.

<sup>4</sup> Zero-Emission Truck and Bus Voucher Incentive Project. Accessible at: https://californiahvip.org/

<sup>5</sup> Carl Moyer Program and Voucher Incentive Program. https://ww2.arb.ca.gov/carl-moyer-program-apply

<sup>6.</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: <a href="https://ww2.arb.ca.gov/our-work/programs/ttghg">https://ww2.arb.ca.gov/our-work/programs/ttghg</a>

<sup>7</sup> On June 25, 2020, CARB approved the Advanced Clean Trucks Regulation. The regulation 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. CARB is expected to consider a fleet regulation in 2021 that would be compatible with the Advanced Clean Trucks regulation, requiring fleets to purchase a certain percentage of zero-emission trucks and vans for their fleet operations. <a href="https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks">https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks</a>

<sup>8.</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: <a href="https://www.arb.ca.gov/enf/hdvip/hdvip.htm">https://www.arb.ca.gov/enf/hdvip/hdvip.htm</a>

<sup>9.</sup> The regulation requires that newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be 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: <a href="https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm">https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm</a>
10. Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies (2017) is available at: <a href="https://www2.arb.ca.gov/sites/default/files/classic//research/apr/past/13-306.pdf">https://www2.arb.ca.gov/sites/default/files/classic//research/apr/past/13-306.pdf</a>

### Conclusion

As concluded in Chapter 4.3 (Air Quality) of the DEIR, the Project's operation would expose residences to NOx, ROG and CO emissions that would result in a significant and unavoidable impact on air quality. CARB is concerned with the Project's potential cumulative impacts to the surrounding community. CARB urges the County to address the deficiencies in the Project's HRA and air quality analysis identified in this letter in the FEIR. Lastly, to reduce the Project's impact on public health, CARB urges the County to implement all the mitigation measures listed in this letter.

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.

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 <a href="mailto:stanley.armstrong@arb.ca.gov">stanley.armstrong@arb.ca.gov</a>.

Sincerely,

Robert Krieger, Branch Chief, Risk Reduction Branch

Attachment

cc: State Clearinghouse state.clearinghouse@opr.ca.gov

Yassi Kavezade, Organizer, Sierra Club yassi.kavezade@sierraclub.org

Lijin Sun, Program Supervisor, CEQA Intergovernmental Review, South Coast Air Quality Management District \( \sun@agmd.gov \)

Morgan Capilla, NEPA Reviewer, U.S. Environmental Protection Agency, Air Division, Region 9

capilla.morgan@epa.gov

Russell Brady May 26, 2022 Page 7

Taylor Thomas, Research and Policy Analyst, East Yard Communities for Environmental Justice

tbthomas@eycej.org

Stanley Armstrong, Air Pollution Specialist, Risk Reduction Branch



May 27, 2020

Russell Brady
Project Planner
Riverside County
4080 Lemon Street, 12<sup>th</sup> Floor
P.O. Box 1409
Riverside, California 92502
Submitted via email: rbrady@rivco.org

### Dear Russell Brady:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Notice of Preparation (NOP) for the Stoneridge Commerce Center (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020040325. The Project proposes to develop the 582.9 acre site under either a Primarily Land Use Plan or Alternative Land Use Plan. The Primary Land Use Plan proposes the development of up to 389.2 acres of Light Industrial land uses, 49.1 acres of Business Park land uses, and 8.0 acres of Commercial Retail land uses. Alternatively, under the Alternative Land Use Plan, the site would be developed to include up to 389.2 acres of Light Industrial land uses, 51.5 acres of Business Park land uses, and 8.5 acres of Commercial Retail land uses. The Project is proposed within an unincorporated area of Riverside 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 and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change. CARB has reviewed the NOP and is concerned about the air pollution and health risk 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 levels of air pollution. Residences are located south, east, and west of the Project site, with the closest residences situated approximately 2,400 feet of the Project's

<sup>&</sup>lt;sup>1.</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.

southeastern boundary. In addition to residences, 3 schools (Orange Vista High School, Sierra Vista Elementary School, and Avalon Elementary School) are located within 2 miles of the Project. The community is surrounded by existing toxic diesel particulate matter (diesel PM) emission sources, which include vehicular traffic along Interstate 215 (I-215) and local roadways. Due to the Project's proximity to residences and schools already disproportionately burdened by multiple sources of air pollution, CARB 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 in which the Project is located. Diesel PM emissions generated during the construction and operation of the Project would negatively impact the community, which is already disproportionally impacted by air pollution from traffic on I-215 and local roadways.

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 5 percent for Pollution Burden² and is considered a disadvantaged community; therefore, CARB urges the County to ensure that the Project does not adversely impact neighboring disadvantaged communities.

## II. The DEIR Should Quantify and Discuss the Potential Cancer Risks from On-site Transport Refrigeration Units

Since the Project description does not explicitly state that the proposed industrial land uses would not be used for cold storage, there is a possibility that trucks and trailers visiting the Project site would be equipped with transport refrigeration units (TRU).<sup>3</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

<sup>2.</sup> Pollution Burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution.

<sup>&</sup>lt;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.

Russell Brady May 27, 2020 Page 3

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 a significant cancer risk impact.

CARB urges the County to model air pollutant emissions from on-site TRUs in the DEIR, as well as include potential cancer risks from on-site TRUs in the Project's health risk assessment (HRA). The HRA prepared for the Project should account for all potential health risks from Project-related diesel PM emission sources such as backup generators, TRUs, and heavy-duty truck traffic, and include all the air pollutant reduction measures listed in Attachment A.

In addition to the health risks associated with operational emissions, health risks associated with construction emissions should also be included in the air quality section of the DEIR and the Project's HRA. Construction of the Project would result in short-term diesel emissions from the use of both on-road and off-road diesel equipment. The Office of Environmental Health Hazard Assessment's (OEHHA) guidance recommends assessing cancer risks for construction projects lasting longer than two months. Since construction would very likely occur over a period lasting longer than two months, the HRA prepared for the Project should include health risks for existing residences near the Project site during construction.

The HRA prepared in support of the Project should be based on the latest OEHHA guidance (2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments),<sup>4</sup> and the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook.<sup>5</sup> The HRA should evaluate and present the existing baseline (current conditions), future baseline (full build-out year, without the Project), and future year with the Project. The health risks modeled under both the existing and the future baselines should reflect all applicable federal, state, and local rules and regulations. By evaluating health risks using both baselines, the public and County planners will have a complete understanding of the potential health impacts that would result from the Project.

### III. Conclusion

To reduce the exposure of toxic diesel PM emissions in disadvantaged communities already disproportionally impacted by air pollution, the final design of the Project should include all existing and emerging zero-emission technologies to minimize diesel PM and oxides of nitrogen (NO<sub>x</sub>) emissions, as well as the greenhouse gases that contribute to climate change. CARB encourages the County and applicant to implement the measures listed in Attachment A of this comment letter to reduce the Project's construction and operational air pollution emissions.

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/crnr/2015guidancemanual.pdf.
 SCAQMD's 1993 Handbook can be found at: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook.

Russell Brady May 27, 2020 Page 4

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.

CARB appreciates the opportunity to comment on the NOP for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your State Clearinghouse list of selected State agencies that will receive the DEIR as part of the comment period. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, at (916) 440-8242 or via email at stanley.armstrong@arb.ca.gov.

Sincerely,

Richard Boyd, Chief Risk Reduction Branch

Richard By

Transportation and Toxics Division

Attachment

cc: See next page.

Russell Brady May 27, 2020 Page 5

cc: State Clearinghouse

state.clearinghouse@opr.ca.gov

Carlo De La Cruz Senior Campaign Representative Sierra Club carlo.delacruz@sierraclub.org

Lijin Sun
Program Supervisor
CEQA Intergovernmental Review
South Coast Air Quality Management District
Isun@aqmd.gov

Morgan Capilla
NEPA Reviewer
U.S. Environmental Protection Agency
Air Division, Region 9
capilla.morgan@epa.gov

Taylor Thomas
Research and Policy Analyst
East Yard Communities for Environmental Justice
tbthomas@eycej.org

Andrea Vidaurre
Policy Analyst
Center for Community Action and Environmental Justice
andrea.v@ccaej.org

Stanley Armstrong
Air Pollution Specialist
Risk Analysis Section
Transportation and Toxics Division
stanley.armstrong@arb.ca.gov

#### **ATTACHMENT A**

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

The California Air Resources Board (CARB) 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 recommended by CARB, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

### **Recommended Construction Measures**

- 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-oxides of nitrogen (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 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 year 2010 and later. CARB's optional low-NO<sub>x</sub> emission standard is available at: <a href="https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm">https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm</a>.

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

### **Recommended Operation Measures**

- 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 in 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.
- 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>&</sup>lt;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: <a href="https://www.arb.ca.gov/msprog/tech/techreport/tru">https://www.arb.ca.gov/msprog/tech/techreport/tru</a> 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>
- Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than 5 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/hdvip/hdvip.htm.

<sup>&</sup>lt;sup>5.</sup> The regulation requires that newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be 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.