

May 18, 2020

Governor's Office of Planning & Research

**MAY 21 2020**

**STATE CLEARINGHOUSE**

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Irwindale, California 91706  
Submitted via email: [msimpson@irwindaleca.gov](mailto:msimpson@irwindaleca.gov)

Dear Marilyn Simpson:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the 13131 Los Angeles Street Industrial Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2019080276. The Project includes the demolition of on-site buildings and the development of a single industrial building totaling 528,710 square feet. Once in operation, the Project would introduce 3,210 daily vehicle trips, including 557 daily heavy-duty truck trips, along local roadways. The Project is located within the City of Irwindale (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

CARB submitted comments on the Notice of Preparation (NOP) for the DEIR released in August 2019, which is included as Attachment A of this letter. Those comments highlighted the need for a health risk assessment (HRA) to be prepared for the Project and encouraged the City and applicant to implement all existing and emerging zero-emission technologies to minimize exposure to diesel particulate matter (diesel PM) and nitrogen oxides (NO<sub>x</sub>) emissions for all neighboring communities, as well as minimize the greenhouse gases that contribute to climate change. Furthermore, CARB's comments emphasized the potential cumulative health impacts should the City allow the construction of the proposed industrial building near communities which score within the top 5 percent of California census tracts on the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen).<sup>1</sup>

CARB has reviewed the DEIR and is concerned about the air quality and health risk impacts that would result should the City approve the Project to build the proposed industrial building. The air quality analysis and HRA prepared for the Project did not account for all diesel PM emission sources and heavy-duty truck trips during on-site grading, and used outdated mobile emission factors. Although the DEIR did include some of CARB's air pollutant emission reductions measures for warehouse facilities, CARB urges the City and applicant to do more to reduce the Project's significant and unavoidable impact on air quality.

<sup>1</sup> "CalEnviroScreen 3.0." California Office of Environmental Health Hazard Assessment, June 2018, <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>.

## **I. It is Unclear Whether the Proposed Industrial Building Would Include Cold Storage Space**

Chapter 2 (Project Description) of the DEIR does not explicitly state that the proposed 528,710 square-foot industrial building would include cold storage space. Warehouses and distribution centers containing cold storage require trucks with transport refrigeration units (TRU) to transport frozen goods to and from the facility.<sup>2</sup> Based on CARB's research, TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within a facility. 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.

Although the Project's final use is not clearly defined, Chapter 3.1 (Air Quality) of the DEIR seems to suggest that the Project could include cold storage space by including Mitigation Measure AQ-1. This mitigation measure would require the installation of electrical hookups at loading/unloading docks for trucks with TRUs, which implies that trucks with TRUs could be transporting frozen goods to the Project site. CARB is concerned that the air quality impact analysis and HRA prepared for the Project (see Appendix B and Appendix C of the DEIR) did not account for air pollutant emissions and cancer risks from on-site TRUs. According to the Project's HRA, the operation of the Project would expose the nearest residents to cancer risks up to 3.24 in a million. Since diesel PM emissions from TRUs were not considered in the HRA, there is a concern that the health risks presented in the HRA are underestimated.<sup>3</sup>

CARB urges the applicant and City to revise the DEIR to clearly define the Project's description, so the public can fully understand the potential environmental effects of the Project on their communities.<sup>4</sup> If the Project will not be used for cold storage, CARB urges the City to include one of the following design measures in the Final Environmental Impact Report (FEIR):

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<sup>2</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>3</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 Environmental Impact Report (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 IS/MND fails to do this and, as a result, is currently inadequate as a matter of law.

<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.

- 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.

If the City does allow TRUs within the Project site, CARB urges the City to model air pollutant emissions from on-site TRUs in the FEIR, as well as include potential cancer risks from on-site TRUs in the Project's HRA. The revised HRA should account for all potential health risks from Project-related diesel PM emission sources such as backup generators, TRUs, heavy-duty truck traffic, and include all the air pollutant reduction measures listed in Mitigation Measure AQ-1 and Section IV of this letter.

## **II. The DEIR Did Not Model Mobile Air Pollutant Emissions Using CARB's 2017 Emission Factor Model (EMFAC2017)**

The Project's air pollutant emissions were modeled using mobile emission factors obtained from CARB's 2014 Emission Factors model (EMFAC2014). Project-related air pollutant emissions from mobile sources should be modeled using CARB's latest EMFAC2017.<sup>5</sup> One of the many updates made to EMFAC included an update to the model's heavy-duty emission rates and idling emission factors, which results in higher particulate matter (PM) emissions as compared to EMFAC2014. Since EMFAC2017 generally shows higher emissions of particulate matter from trucks than EMFAC2014, the Project's mobile source nitrogen oxides (NO<sub>x</sub>) and diesel PM emissions are likely further underestimated. CARB urges the applicant and City to model and report the Project's air pollution emissions from mobile sources using emission factors found in CARB's latest EMFAC2017.

## **III. The DEIR Did Not Account for Air Pollutant Emissions from Heavy-Duty Trucks During On-site Grading**

The DEIR did not account for mobile air pollutant emissions from grading operations during the Project's construction phase. Based on CARB's review of the CalEEMod outputs found in Appendix B (Air Quality and Greenhouse Gas Assessment) of the DEIR, the City and Applicant assumed that no heavy-duty truck trips would be required to import or export soil during the on-site grading. Furthermore, the DEIR does not explicitly state the quantity of soil needed to grade the Project site that would support this assumption. If the Project site cannot be graded using existing on-site soil, the soil will need to be imported into the Project site. If that is the case, a large number of heavy-duty truck trips may be required to transport soil.

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<sup>5</sup> The United States Environmental Protection Agency (U.S. EPA) approved the use of EMFAC2017 for SIP and conformity purposes effective August 15, 2019.

CARB urges the City and applicant to remodel the Project's construction air pollutant emissions using accurate heavy-duty truck trip estimates. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near construction haul routes could be exposed to diesel exhaust emissions that were not evaluated in the DEIR. The DEIR should clearly state the total number of heavy-duty truck trips expected during Project construction so the public can fully understand the potential environmental effects of the Project on their communities.

#### **IV. Recommend Mitigation Measures**

Chapter 3.1 (Air Quality) of the DEIR includes a series of emission reduction measures, identified as Mitigation Measure AQ-1, to reduce the Project operational air pollutant emissions. These measures include EV charging stations, electrical hookups for trucks with TRUs at loading/unloading docks, truck idling time restrictions, electric on-site equipment, and locating dock doors and trucking loading spaces away from residences. Although these measures would reduce the Project's operational air pollutant emissions, it was concluded in the DEIR that the Project would result in a significant and unavoidable impact on air quality. 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 City and applicant to add the emission reduction measures listed below to Mitigation Measure AQ-1 in the FEIR.

- If the Project will include cold storage, include contractual language in tenant lease agreements that requires all TRUs entering the project site be plug-in capable.
- 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.
- 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.

- 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>6</sup> Periodic Smoke Inspection Program (PSIP),<sup>7</sup> and the Statewide Truck and Bus Regulation.<sup>8</sup>
- Include rooftop solar panels for the proposed industrial building to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.

## V. Conclusion

CARB is concerned about the potential public health impacts should the City approve the Project. As discussed above, the DEIR may not have accounted for diesel PM emissions from trucks with TRUs when evaluating the Project's impact on air quality and public health. If the Project will include cold storage space, CARB recommends that the City and applicant revise the Project's air quality analysis and HRA, assuming a conservative percentage of the trucks visiting the Project site are equipped with TRUs and report the findings in the FEIR. Furthermore, the air quality analysis presented in the FEIR should be based on the latest EMFAC2017, account for heavy-duty truck trips during on-site grading, and include all feasible mitigation measures to reduce the Project's significant and unavoidable impact on air quality.

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

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<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: <https://www.arb.ca.gov/cc/hdghg/hdghg.htm>.

<sup>7</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>8</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>.

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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,

A handwritten signature in blue ink that reads "Richard Boyd". The signature is written in a cursive style with a long horizontal stroke at the end.

Richard Boyd, Chief  
Risk Reduction Branch  
Transportation and Toxics Division

Attachment

cc: See next page.

Marilyn Simpson, AICP

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cc: State Clearinghouse  
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## Attachment A



September 12, 2019

Marilyn Simpson  
Community Development Manager  
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City of Irwindale  
16102 Arrow Highway, Second Floor  
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Dear Marilyn Simpson:

Thank you for providing California Air Resources Board (CARB) staff the opportunity to comment on the Notice of Preparation (NOP) for the 13131 Los Angeles Industrial Street Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2019080276. The Project consists of the construction and operation of a standalone concrete tilt-up warehouse building totaling approximately 528,710 square feet within in the City of Irwindale (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

CARB staff is concerned about the air pollution and health risk impacts that would result should the City approve the Project to build the proposed warehouse building. Freight facilities, such as warehouse and distribution facilities, can result in high daily volumes of heavy-duty diesel truck traffic and operation of onsite equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change.

Existing residences are located east and southeast of the Project site, with the closest residences situated approximately 700 feet from the Project's eastern boundary. In addition to residences, three schools (Walnut Elementary School, Burch Elementary School, and Olive Middle School) are located within one mile of the Project. The communities near the Project are surrounded by existing toxic diesel emission sources, which include existing warehouses and other industrial uses and vehicular traffic along Interstate 605 (I-605). Due to the Project's proximity to residences and schools already disproportionately burdened by multiple sources of 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 in which the Project is located. Diesel emissions generated during the construction and operation of the Project would negatively impact the community, which is already disproportionately impacted by air pollution from existing freight facilities.

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). Communities that score within the top 25 percent of the census tracts are exposed to higher concentrations of air pollutants and have a higher Pollution Burden.<sup>1</sup> CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. According to CalEnviroScreen, communities near the Project score within the top 5 percent of the census tracts. Therefore, CARB urges the City to ensure that the Project does not adversely impact neighboring disadvantaged communities.

The NOP does not state whether the industrial uses proposed under the Project would include cold storage warehouses. The operation of cold storage warehouses would include trucks with transport refrigeration units (TRU) that emit significantly higher levels of toxic diesel emissions, oxides of nitrogen (NO<sub>x</sub>), and greenhouse gases than trucks without TRUs. Since it is unclear whether the Project would include cold storage warehouse space, any modeling done in support of the air quality analysis of the DEIR and associated health risk assessment (HRA) should assume that a conservative percentage of the truck and trailer fleet that would be serving the Project site are equipped with TRUs.

In addition to the health risk associated with operations, construction health risks should 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.

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

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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>2</sup> and the South Coast Air Quality Management District's CEQA Air Quality Handbook.<sup>3</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 city planners will have a complete understanding of the potential health impacts that would result from the Project.

To reduce the exposure of toxic diesel emissions in disadvantaged communities already disproportionately impacted by air pollution, the final design of the Project should include all existing and emerging zero-emission technologies to minimize diesel and NO<sub>x</sub> emission exposure to all neighboring communities, as well as the greenhouse gases that contribute to climate change. CARB encourages the City 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.

CARB staff 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](mailto:stanley.armstrong@arb.ca.gov).

Sincerely,



Richard Boyd, Chief  
Risk Reduction Branch  
Transportation and Toxics Division

Attachment

cc: See next page.

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<sup>2</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/crnrr/2015guidancemanual.pdf>

<sup>3</sup> SCAQMD's 1993 Handbook can be found at <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>

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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 onsite. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, onsite 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>

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<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 onsite.
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 today, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2030.

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<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 onsite.
10. Include contractual language in tenant lease agreements that limits onsite 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.

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<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>.

