

Operational Impacts

Operational Emissions – Mass Annual Emissions

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities on the project site after occupation. Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices and cooking appliances, the operation of landscape maintenance equipment, the use of consumer products, and the application of architectural coatings (paints). Mobile emissions would be generated by the motor vehicles traveling to and from the project site.

The analysis of annual operational emissions from the proposed project has been prepared utilizing the URBEMIS 2007 computer model. The model was adjusted so that trip generation rates match the rates given in the traffic study. The results of these calculations are shown below in Table IV.D-8.

As shown in Table IV.D-8, annual emissions of CO and PM₁₀ from operational activities would exceed the thresholds set by AVAQMD. Therefore, based on the AVAQMD thresholds, impacts from operational emissions would constitute a significant impact.

**Table IV.D-8
Estimated Future (2012) Mass Annual Operational Emissions**

Emissions Source	Emissions in Tons per Year					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Proposed Land Uses						
Water and Space Heating	0.05	0.70	0.59	0.00	0.00	0.00
Landscape Maintenance Equipment	0.05	0.01	0.00	0.00	0.00	0.00
Consumer Products	0.00	-	0.59	0.00	0.00	0.00
Architectural Coatings	0.42	-	-	-	-	-
Motor Vehicles	19.08	19.67	195.01	0.17	32.26	6.15
Total Operational Emissions	19.60	20.38	196.19	0.17	32.26	6.15
AVAQMD Thresholds	25.0	25.0	100.0	25.0	15.0	N/T
Significant Impact?	No	No	Yes	No	Yes	No
<i>N/T = No AVAQMD threshold for PM_{2.5} emissions. Note: Subtotals may not appear to add correctly due to rounding in the URBEMIS2007 model. Source: Christopher A. Joseph & Associates, 2008. Calculation sheets are provided in Appendix C.</i>						

Operational Emissions – Localized Emissions of CO, NO_x, PM₁₀, and PM_{2.5}

The average daily emissions associated with stationary and area sources, and motor vehicles operating within the project site have the potential to generate localized emissions of CO, NO_x, PM₁₀, and PM_{2.5}. The average daily emissions have been calculated using URBEMIS 2007, assuming that each vehicle would travel a maximum of 0.1 miles within the project site. The average daily emissions were then

**Table IV.D-8
Estimated Future (2012) Mass Annual Operational Emissions**

Emissions Source	Emissions in Tons per Year					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Proposed Land Uses						
Water and Space Heating	0.05	0.68	0.57	0.00	0.00	0.00
Landscape Maintenance Equipment	0.12	0.02	1.46	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coatings	0.42	0.00	0.00	0.00	0.00	0.00
Motor Vehicles	20.27	20.99	212.50	0.18	33.00	6.27
Total Operational Emissions	20.86	21.69	214.53	0.18	33.00	6.27
AVAQMD Thresholds	25.0	25.0	100.0	25.0	15.0	N/A
Significant Impact?	No	No	Yes	No	Yes	No

Source: Christopher A. Joseph & Associates, 2008. Calculation sheets are provided in Appendix C.

Operational Emissions – Localized Emissions of CO, NO_x, PM₁₀, and PM_{2.5}

The average daily emissions associated with stationary and area sources, and motor vehicles operating within the project site have the potential to generate localized emissions of NO_x, CO, PM₁₀, and PM_{2.5}. The average daily emissions have been calculated using URBEMIS 2007, assuming that each vehicle would travel a maximum of 0.1 miles within the project site. The average daily emissions were then modeled using the ISC model to determine localized pollution concentrations generated by project operations. As shown in Table IV.D-9, localized emissions from operations would not result in a violation of ambient air quality standards and impacts are therefore less than significant.

**Table IV.D-9
Summary of Dispersion Modeling Results – Operational**

Emissions	Pollutant – Averaging Time				
	CO - 1 Hour	CO - 8 Hour	NO _x - 1 Hour	PM ₁₀ - 24 Hour	PM _{2.5} - 24 Hour
Operational - Maximum Concentration	0.106 ppm	0.025 ppm	0.007 ppm	0.69 µg/m ³	0.21 µg/m ³
Background Concentration	2.9 ppm	1.18 ppm	0.066 ppm	33.0 µg/m ³	N/T
Project plus background	3.006 ppm	1.205 ppm	0.073 ppm	33.69 µg/m ³	N/T
Significance Threshold	9.0 ppm	20.0 ppm	0.18 ppm	50.0 µg/m ³	N/T
Significant Impact?	No	No	No	No	No

N/T – No Thresholds

Note: The AVAQMD does not currently have localized thresholds for PM_{2.5} emissions during operation. However, it is assumed that because PM_{2.5} is only a small fraction of PM₁₀ emissions, PM_{2.5} would cause an exceedance of PM₁₀ thresholds.

Source: Christopher A. Joseph and Associates, 2008. Modeling output sheets are provided in Appendix C.