

TABLE 5.3.8.1–2.—Projected Maximum Carbon Monoxide Concentrations Associated with Increased Traffic Conditions in the Environs of the Livermore Site Under the Proposed Action

	No Action Alternative	Proposed Action
	Traffic Assessment ^a	
Peak hourly background traffic through intersection	3,757	3,757
Additional traffic related to alternative	62	166
Total traffic through intersection	3,819	3,923
	Maximum 1-Hour Concentrations (ppm)	
Near-roadway CO concentration ^b from:		
Background traffic	0.66	0.66
Increased traffic from alternative	0.012	0.032
Estimated background concentration ^c	3.5	3.5
Total - traffic plus background	4.2	4.2
% of state ambient air quality standard ^d	21	21
	Maximum 8-Hour Concentrations (ppm)	
Near-roadway CO concentration from:		
Background traffic (ppm) ^c	0.46	0.46
Increased traffic from alternative ^c	0.008	0.023
Estimated background concentration	1.7	1.7
Total - traffic plus background	2.2	2.2
% of state ambient air quality standard ^d	25	25

^a Peak hourly traffic is estimated to be 10 percent of the total daily traffic passing through the intersection of Vasco and Patterson Pass Roads. This value (10 percent) is recommended by the air district for use when hourly values are not available. Local traffic patterns are discussed in Section 4.13.2.

^b Concentrations are assessed for locations 25 feet from roadway. Assessment methodology is discussed in Section 5.1.8.1, and follows BAAQMD CEQA Guidelines (1999). Emission factors and ambient concentrations of carbon monoxide are expected to decline over time through 2010 due to improved emission controls on newer vehicles and reformulated gasoline.

^c Background carbon monoxide is defined as that part of the ambient CO concentration that is not attributable to traffic sources from a nearby street or intersection. It is calculated according to procedures recommended by BAAQMD (1999).

^d National 1-hour ambient air quality standard is 35 ppm; more restrictive state standards, 20 ppm, is used. National and state 8-hour ambient air quality standard is 9 ppm. BAAQMD = Bay Area Air Quality Management District; CEQA = California Environmental Quality Act; CO = carbon monoxide; ppm = parts per million.