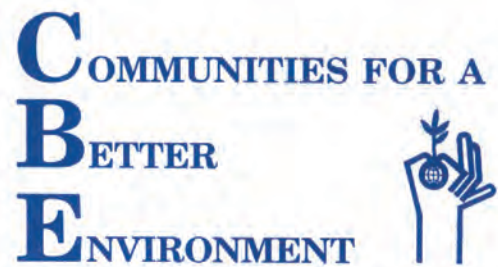


List of Air Emissions That Chevron’s Richmond Refinery Project Could Increase If Mitigation Is Not Required *According To The Revised Draft EIR**



Types of emissions the DEIR predicts could increase as a result of the project without mitigation [number of increase scenarios and of total scenarios investigated for the emission]. *Note that the DEIR’s emissions and its mitigation proposals are not yet verified and adopted by public reviews.**

Greenhouse gases (CO ₂ e)	[in 19 of 19 scenarios]	Cumene	[in 4 of 4 scenarios]
Carbon monoxide (CO)	[in 17 of 19 scenarios]	Cyclohexane	[in 4 of 4 scenarios]
Nitrogen oxides (NO _x)	[in 11 of 19 scenarios]	Diesel particulate matter	[in 4 of 4 scenarios]
Particulate matter (PM ₁₀)	[in 10 of 19 scenarios]	Diethanolamine	[in 4 of 4 scenarios]
Fine particulates (PM _{2.5})	[in 10 of 19 scenarios]	Ethane	[in 4 of 4 scenarios]
Sulfur oxides (e.g., SO ₂)	[in 9 of 19 scenarios]	Ethanol	[in 2 of 4 scenarios]
Reactive organic gases	[in 18 of 19 scenarios]	Ethanolamine	[in 4 of 4 scenarios]
Acetaldehyde	[in 4 of 4 scenarios]	Ethylene	[in 4 of 4 scenarios]
Ammonia	[in 4 of 4 scenarios]	Ethylbenzene	[in 4 of 4 scenarios]
Antimony	[in 4 of 4 scenarios]	Formaldehyde	[in 4 of 4 scenarios]
Arsenic	[in 4 of 4 scenarios]	N-Hexane	[in 4 of 4 scenarios]
Benzene	[in 4 of 4 scenarios]	Hydrogen sulfide	[in 4 of 4 scenarios]
Benzo(a)anthracene	[in 4 of 4 scenarios]	Indeno(1,2,3-cd)pyrene	[in 4 of 4 scenarios]
Benzo(b)fluoranthene	[in 4 of 4 scenarios]	Lead compounds	[in 4 of 4 scenarios]
Benzo(k)fluoranthene	[in 4 of 4 scenarios]	Tetra-ethyl lead	[in 4 of 4 scenarios]
Bromine compounds	[in 4 of 4 scenarios]	Manganese compounds	[in 4 of 4 scenarios]
1,3-Butadiene	[in 4 of 4 scenarios]	Mercury compounds	[in 4 of 4 scenarios]
Biphenyl	[in 4 of 4 scenarios]	Cresols	[in 4 of 4 scenarios]
Butane	[in 4 of 4 scenarios]	Naphthalene	[in 4 of 4 scenarios]
Cadmium	[in 4 of 4 scenarios]	Nickel compounds	[in 4 of 4 scenarios]
Chlorine	[in 4 of 4 scenarios]	Phenol	[in 4 of 4 scenarios]
Chlorobenzene	[in 4 of 4 scenarios]	Propane	[in 4 of 4 scenarios]
Chloroform	[in 4 of 4 scenarios]	Propylene	[in 4 of 4 scenarios]
Chromium	[in 2 of 4 scenarios]	Selenium	[in 4 of 4 scenarios]
Hexavalent chromium	[in 3 of 4 scenarios]	Silicon	[in 4 of 4 scenarios]
Copper compounds	[in 4 of 4 scenarios]		

continued next page

List of Air Emissions That Chevron’s Richmond Refinery Project Could Increase If Mitigation Is Not Required

According To The Revised Draft EIR — continued

Types of emissions the DEIR predicts could increase as a result of the project without mitigation [number of increase scenarios and of total scenarios investigated for the emission]. *Note that the DEIR’s emissions and its mitigation proposals are not yet verified and adopted by public reviews.**

Sulfate	[in 4 of 4 scenarios]
Perchloroethylene	[in 4 of 4 scenarios]
Toluene	[in 4 of 4 scenarios]
1,2,4-trimethylbenze	[in 4 of 4 scenarios]
Vanadium	[in 4 of 4 scenarios]
Xylene	[in 4 of 4 scenarios]
2,2,4-trimethylpentane	[in 4 of 4 scenarios]
Zinc compounds	[in 4 of 4 scenarios]
Aviation gasoline	[in 4 of 4 scenarios]
Bunker C fuel oil	[in 4 of 4 scenarios]
Diesel oil	[in 4 of 4 scenarios]
Jet fuel ‘A’	[in 4 of 4 scenarios]
Gas oil	[in 4 of 4 scenarios]
Ketones	[in 4 of 4 scenarios]
Oil/water mixture	[in 4 of 4 scenarios]
Other organic liquids	[in 4 of 4 scenarios]
Paraffins (C3+)	[in 4 of 4 scenarios]
Other petroleum products	[in 4 of 4 scenarios]
Other facility feedstock	[in 4 of 4 scenarios]
Sulfur or sulfur compounds	[in 4 of 4 scenarios]
Facility wastewater	[in 4 of 4 scenarios]
Water/organics mixtures	[in 4 of 4 scenarios]

* Chevron Refinery Modernization Project Revised Draft Environmental Impact Report (DEIR), SCH #2011062042, released 18 March 2014; data from tables 4.8-3, 4.3-22 and 4.3-24. As of 21 March 2014, CBE is still verifying the assertions made by Chevron and the DEIR about project emissions, potential impacts, and options to lessen or avoid potential impacts, among other issues.

Chevron asserts the project will “reduce pollution overall and ensure no net increase in criteria air pollutants and greenhouse gas emissions” (www.richmondproud.com/refinery-modernization; accessed 3/20/14), and the DEIR asserts proposals to fully mitigate (prevent) many of the potential emission increases the DEIR predicts. As stated above, however, these assertions have not yet been verified by independent public reviews.

21 March 2014.

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