

From: [Council](#)
To: [Matt Aamot](#); [Mark Personius](#); [Becky Boxx](#)
Subject: FW: Air pollutants from refineries
Date: Wednesday, July 31, 2019 8:18:10 AM
Attachments: [44111.pdf](#)
[ATT00001.htm](#)

From: Rud Browne
Sent: Tuesday, July 30, 2019 7:01 PM
To: Council
Subject: Air pollutants from refineries

Extract from an EPA publication

“ Petroleum refineries are a major source of hazardous and toxic air pollutants such as BTEX compounds (benzene, toluene, ethylbenzene, and xylene). They are also a major source of criteria air pollutants: particulate matter (PM), nitrogen oxides (NO_x), carbon monoxide (CO), hydrogen sulfide (H₂S), and sulfur dioxide (SO₂). Refineries also release less toxic hydrocarbons such as natural gas (methane) and other light volatile fuels and oils. Some of the chemicals released are known or suspected cancer-causing agents, responsible for developmental and reproductive problems. They may also aggravate certain respiratory conditions such as childhood asthma. Along with the possible health effects from exposure to these chemicals, these chemicals may cause worry and fear among residents of surrounding communities. Air emissions can come from a number of sources within a petroleum refinery including: equipment leaks (from valves or other devices); high-temperature combustion processes in the actual burning of fuels for electricity generation; the heating of steam and process fluids; and the transfer of products. Many thousands of pounds of these pollutants are typically emitted into the environment over the course of a year through normal emissions, fugitive releases, accidental releases, or plant upsets. The combination of volatile hydrocarbons and oxides of nitrogen also contribute to ozone formation, one of the most important air pollution problems in the United States.”

https://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display/files/fileID/14522