

Pasadena Citizens' Advisory Council

Annual Report on Air Emissions from PCAC Plants

October 25, 2022

Roel Munoz presented the annual report on Pasadena Citizens' Advisory Council (PCAC) plant air emissions. (PCAC plants rotate serving as the presenter annually.) The annual report derives its data from two yearly inventories most PCAC plants must file: the Air Emissions Inventory (EI), which plants submit to the Texas Commission on Environmental Quality (TCEQ), and the Toxics Release Inventory (TRI), which plants submit to the US Environmental Protection Agency (EPA). From 2020 to 2021, the total Air Emissions Inventory from PCAC plants declined 3% while those emissions went down 21% over the last 5 years. TRI emissions increased 1% from 2020 to 2021 but have declined 14% since 2017.

The report compared pounds of Nitrogen Oxide (NOx) and Volatile Organic Compound (VOC) emissions from 17 PCAC plants that filed a TCEQ Emissions Inventory in 2020 to the totals from 1,917 facilities that did so in Texas in 2020 and 268 that did so in Harris County that year. For this comparison, data from 2020 are the most current. In 2020, 0.6% of the state's NOx emissions came from PCAC plants; and 8% of the county's NOx emissions did so. In 2020, 3% of the state's VOC emissions came from PCAC plants, and 16% of the county's VOC emissions inventory did so. PCAC tracks NOx and VOC emissions because they contribute to the formation of ozone on warm, sunny days without much wind.

Highlights of the 2021 report may be found on page 2. Questions may be sent to info@pasadenacac.org.

PASADENA CITIZENS' ADVISORY COUNCIL
HIGHLIGHTS OF 2021 DATA IN OCTOBER 2022 EMISSIONS REPORT

Full Emissions Inventory by Cause	Pounds in 2021	Compared to 2020
Routine Permitted Emissions	12,151,481	-6%
Maintenance Emissions	295,470	465%
Upset Emissions	301,722	241%
Emissions Inventory of Selected Criteria Air Pollutants	Pounds in 2021	Compared to 2020
NOx – nitrogen oxides	2,494,458	-5%
All VOCs – volatile organic compounds	5,300,213	8%
— Portion of pounds that are highly reactive (HRVOCs)	256,885	-1%
SOx – sulfur oxides	1,603,779	-32%
CO – carbon monoxide	2,502,127	10%
TSP – total suspended particulates	709,205	-10%
PM 2.5- TSPs less than 2.5 micrometers in diameter	627,502	2%
Toxics Release Inventory (TRI)		
Total releases to the air	731,147	1%
Portion from fugitive air sources	317,599	15%
Portion from point air sources	413,548	-8%
TRI total air releases from 1995 – 2021	4,732,013 in 1995	731,147 lbs. in 2021 down 85%
	In 2021	The year before...
Number of Pasadena CAC Plants *	18	18
Plants reporting TRI	12	14
Plants reporting air emissions inventory	15	17
Plants reporting Highly Reactive VOCs	9	9
<p><i>*PCAC has 18 plant members in October 2022. Next Wave Energy Partners is under construction so has no data to report. Ethyl did not submit data for the 10-22 report. PCI Nitrogen resigned in 2022.</i></p>		

Green = decreased from 2020 to 2021 - Red = increased from 2020 to 2021