

Pasadena Citizens' Advisory Council

Annual Report of Air Emissions from PCAC Plants

October 26, 2021

Scott Kolb 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: 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).

The report also compares pounds of Nitrogen Oxide (NO_x) and Volatile Organic Compound (VOC) emissions from 17 PCAC plants that file a TCEQ Emissions Inventory to the totals from 2,024 facilities that do so in Texas and 246 that do so in Harris County. For this comparison, data from 2019 are the most current. In 2019, 0.6% of the state's NO_x emissions came from PCAC plants; and 10% of the county's NO_x emissions did so. In 2019, 3% of the state's VOC emissions came from PCAC plants, and 16% of the county's VOC emissions inventory did so. PCAC tracks NO_x and VOC emissions because they contribute to formation of ozone under certain weather conditions.

Overall, PCAC plant emissions declined when 2020 data were compared to 2019. The primary reasons were less production, reductions in operating hours, and less customer demand.

Highlights of the 2020 report may be found on page 2. Questions may be sent to info@pasadenacac.org.

PASADENA CITIZENS' ADVISORY COUNCIL
HIGHLIGHTS OF 2020 DATA IN OCTOBER 2021 EMISSIONS REPORT

Full Emissions Inventory by Cause	Pounds in 2020	Compared to 2019
Routine Permitted Emissions	12,985,693	-10%
Maintenance Emissions	52,290	78%
Upset Emissions	88,637	-81%
Emissions Inventory of Selected Criteria Air Pollutants	Pounds in 2020	Compared to 2019
NOx – nitrogen oxides	2,620,207	-14%
All VOCs – volatile organic compounds	4,906,222	-6%
— Portion of pounds that are highly reactive (HRVOCs)	256,153	-1%
SOx – sulfur oxides	2,373,396	-25%
CO – carbon monoxide	2,281,824	-1%
TSP – total suspended particulates	778,531	-10%
PM 2.5- TSPs less than 2.5 micrometers in diameter	610,596	-13%
Toxics Release Inventory (TRI)		
Total releases to the air	729,273	-5%
Portion from fugitive air sources	277,296	1%
Portion from point air sources	451,976	-8%
TRI total air releases from 1995 – 2019	4,732,013 in 1995	729,273 lbs. in 2020 down 85%
	In 2020	The year before...
Number of Pasadena CAC Plants *	18	18
Plants reporting TRI	14	14
Plants reporting air emissions inventory	17	17
Plants reporting Highly Reactive VOCs	9	8
<i>*PCAC has 18 plant members in October 2021.</i>		

Green = decreased from 2019 to 2020 - Red = increased from 2019 to 2020