



Suncor & Oil and Gas Update

City Council Meeting February 6, 2023
Dr. Rosemarie Russo

Suncor

- 14 Air Permit Exceedances
- 1 Water NPDES Exceedance
- 2 EPCRA Violation (> 500 lbs. SO in 24 hrs.)
- 2 Fires -12/24; 12/27
- OSHA, APCD, WPCD Investigation
- Title VI of the Civil Rights Act of 1964, 42 U.S.C. §§ 2000(d) *et seq.* (Title VI), and EPA's nondiscrimination regulation, at 40 C.F.R. Parts 5 and 7

12/21/2022	Air	Plant 1 – FCCU	Suncor’s initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	Opacity exceedance - 27%	Opacity not to exceed 20% for a 6-minute average	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/21/2022	Air	Plant 1	A malfunction in the Plant 1 Main Flare resulted in the release of 587 pounds of sulfur dioxide. Case Number: 2022-0681	Undisclosed	Emissions of SO2 not to exceed 15.68 lbs./hr.	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/21/2022	Air	Plant 1	A malfunction in the Plant 1 Main Flare resulted in the release of 587 pounds of sulfur dioxide. Case Number: 2022-0681 EPCRA	587 lbs. of SO2 per 24 hr. (2 days)	500 lbs. of SO2 per 24 hr.	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.

12/21/2022	Air	Plant 3 Flare	Suncor's initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	H2S - 191 ppmv	162 ppm H2S in flare gas for a 3-hour average	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/21/2022	Air	Plant 1	Suncor's initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	H2S - 322 ppmv	162 ppm H2S in flare gas for a 3-hour average	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/21/2022	Air	Plant 1 – Flare	Suncor's initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	Visible emissions limit exceedances (2 days)	Flares shall be operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. (Plant 1 Flare)	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.

12/21/2022	Air	Plant 1 H-25 TGU Incinerator	Suncor's initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	27 lbs./ hr. SO2	15.68 lbs./hr. SO2	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/21/2022	Air	Plant 2 Flare	Suncor's initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	hourly on a 3-hour rolling average basis.	162 ppm H2S in flare gas for a 3-hour average	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/23/2022* seven exceedances continue plus 2 additional ones	Air	Flue Gas	Suncor's initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	Not disclosed	Shall not burn in any fuel gas combustion device any fuel gas that contains in excess of 162 ppmv	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.

12/23/2022* seven exceedances continue plus 2 additional ones	Air	H-25	Suncor's initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	658 lbs./hr. - 8,243	Emissions of SO2 not to exceed 15.68 lbs./hr. PLUS Emissions of SO2 not exceed 250 ppmv on a 12-hr. rolling average	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/24/2022	Air	Plant 2	Fire - 2 injuries (hospitalization)	TBD	TBD	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/27/2022	Air	Plant 2	Alarm activated due to fire. No injuries - no additional details.	TBD	TBD	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/27/2022* seven exceedances continue plus 2 additional ones	Air	H-25	Suncor's initial notification to the department indicated that the shutdown was caused by the cold weather. According to this initial notification, the hydrogen plant tripped due to the cold, creating a cascading effect through the Suncor refinery.	658 lbs./hr. - 8,975 (Increase of 732 from 12/23 report)	Emissions of SO2 not to exceed 15.68 lbs./hr. PLUS Emissions of SO2 not exceed 250 ppmv on a 12-hr. rolling average	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
12/29/2022	Air	Plant 2 Flare	Plant 2 flare had a mechanical failure resulting in exceedance of the RQ for sulfur dioxide with a total of 947 lbs.	947 lbs./24 hr.	500 lbs. of SO2 per 24 hr.	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.

Compliance History

Total Hours of Non - Compliance 2018-2022					
		Plants 1 & 3	Plant 2		Totals
Hydrogen Sulfide (H ₂ S)		2868	810		3678
Sulfur Dioxide (SO ₂)		4510	655		5165
Carbon Monoxide (CO)		1308	394		1702
	* No data				
Nitrogen Oxides (NO ₂)	2022	284	0		284
Opacity		546	126		672
		9516	1985		11501



Contact

- Federal Environmental Justice Investigators
- Environmental Justice Advisory Board/EPAC
- Regulators: State Air Pollution Control Division and State Permitting Division

Strategies

- CU – Anschutz Study Cumulative Effects
- Petition federal regulatory agencies to review Health Advisory Limits to set cumulative, not pollutant specific limits and lower pollutant limits
- GEMMs 2 Rule-making (No emissions trading)
- Plant select trees to reduce PM (i.e., carrier of HAPs) through EJ Grant Fund applications
- EJ Grant – Restoration Projects

CDPHE Information on Suncor

- Water Exceedances by Suncor since last update (Dec 5)
- Exceedance is under investigation.

NPDES ID	Start Date	End Date	Outfall Number	Output Type	Outfall Type Description	Parameter Desc	Max Violation Status	Compliance Status
CO0001147	1/1/2023	1/5/2023	20	EXO	External Outfall	Benzene at 7 ug/L and 9 ug/L respectively which is above the permit limit of 5 ug/L.	The elevated benzene may be related to the fire event on the site that occurred before 12/25/22.	This is a NPDES permit exceedance and Suncor will contact Jacob Dyste in Cleanwater Compliance to report the incident per the permit requirements. WQCD Field Services is conducting downstream notification



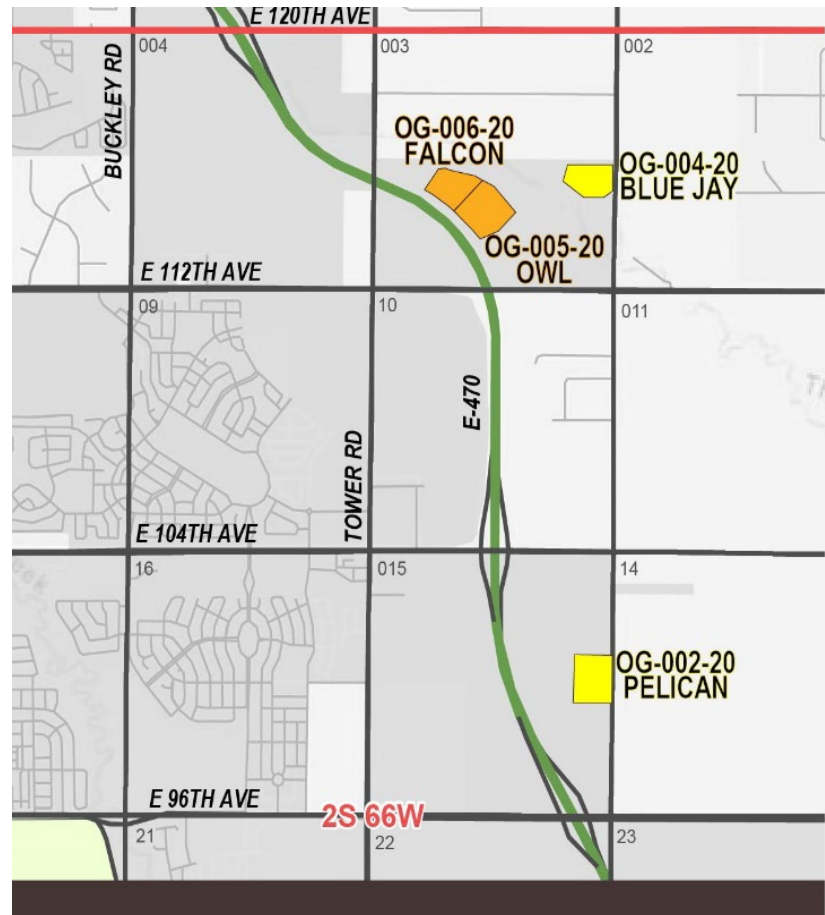


Oil and Gas Update



Oil & Gas Permit

- Yellow: Active
- Golden: Withdrawn
- Both located in Planned Unit Developments.
- Pelican: Reunion PUD
- Blue Jay: TR Ranch PUD.



City Oil & Gas Permit Applications

- Extraction Oil and Gas, now Civitas Resources has been asked to resubmit information given the lapse from previous submittal.
- Both applications involve additional land use applications, such as PUD Amendments, Subdivision Plats, and Conditional Use Permits.
- December 15, 2022, C3 staff suggested Civitas set up meetings with the developers of Reunion and TR Ranch.
- Public Works, Planning, and Environmental staff will be meeting with applicant on February 9th.

Site Name	Case Number	Operator	Council Action Required	Well Count
Pelican	OG-002-19	Extraction Oil and Gas	Conditional Use Permit	28
Blue Jay	OG-004-19	Extraction Oil and Gas	Rezoning	18



Questions?

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