

# SUNCOR AIR PERMIT COMPLIANCE REVIEW

Presented by:  
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Community & Economic Development Department



ADAMS COUNTY  
COLORADO

ADAMS COUNTY  
GOVERNMENT CENTER

# AGENDA



Purpose & Operating Permit Overview



Suncor Permit Data Review



Operating Permit Compliance & Enforcement



Data Review Take-Aways

# Overview

- Background and Purpose
- Common Air Permit Terms
  - Construction Permit
  - Pollutant Emission Limit
  - Permit Limit
  - Permit Exceedance
  - Malfunction
  - National Ambient Air Quality Standards (NAQQS)

# Air Permit Overview

- Suncor Energy (Suncor) refinery is classified as a Major Stationary Source of air pollutant emissions subject to Clean Air Act Title V operating permit provisions
- An Operating Permit consolidates *all* applicable requirements for a stationary source into one legally enforceable document:
  - Construction Permit Requirements
  - Emission limits
  - Process limits
  - Emission control technology requirements
  - State-only & federal regulations & standards
  - Monitoring, Recordkeeping & Reporting requirements
- Suncor refinery is covered by two Operating Permits:
  - 96OPAD120 (West Plant) renewal pending
  - 96OPAD108 (East Plant): renewed 9/01/2022
    - EPA blocked issuance 8/01/2023
    - Revised Permit still pending 5/7/2024



Image of Suncor Refinery by Commerce City, <https://www.c3gov.com/living-in/energy-equity-and-the-environment/suncor-refinery>

# Permit Compliance

- Suncor is required to self-report permit limit exceedance to Air Pollution Control Division (APCD) via an Event Report by noon of the next working day
- 2 types of Event Reports unique to Suncor:
  - Startup/Shutdown
  - Malfunction
- Suncor is also subject to an annual compliance inspection by APCD, including on-site inspections and records review
  - Typically conducted in the middle of the year



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 Commerce City Refinery  
 6801 Brighton Blvd.  
 Commerce City, Colorado 80022  
 Tel (303) 288-6701  
 Fax (303) 288-6702  
 www.suncor.com

CDPHE Startup/Shutdown Reporting Form <sup>1-8</sup>	
Suncor Representative	Craig Neuman
Date of E-Mail Notification	Monday, March 25, 2024
Time of E-Mail Notification	10:00 AM
Startup/Shutdown (specify)	Startup
Estimated Event Start Date and Time	3/24/24 5:00 PM
Estimated Event End Date and Time	3/24/24 6:00 PM
Operating Permit No.	98OPAD120 - West Plant
AIRS ID No.	100 - Tail Gas Incinerator (H-25)
Condition of Permit, Regulation, or Standard Potentially Deviated From (e.g., Condition 25.1)	Condition 20.1 - Plant 1 Tail Gas Incinerator (H-25) shall not exceed 15.68 lbs/hr SO <sub>2</sub> , averaged over a 1-hour period.
Estimated Maximum Numeric Value of Deviation <sup>9</sup> (e.g., ppm, ppmc lb/hr, etc.)	Plant 1 Tail Gas Incinerator (H-25) - 17.25 lbs/hr
Information Regarding Cause of Deviation <sup>10</sup>	Planned startup of the No. 1 Hydrodesulfurization (HDS) Unit in Plant 1 after the unit was shutdown for planned maintenance.

Notes:

<sup>1</sup>The periods of excess emissions that occurred during startup and/or shutdown were short and infrequent and could not have been prevented through careful planning and design.

<sup>2</sup>The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance.

<sup>3</sup>If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.

<sup>4</sup>The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable.

<sup>5</sup>All possible steps were taken to minimize the impact of excess emissions on ambient air quality.

<sup>6</sup>All emissions monitoring systems were kept in operation (if at all possible).

<sup>7</sup>Suncor's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence.

<sup>8</sup>At all times, the facility was operated in a manner consistent with good practices for minimizing emissions.

<sup>9</sup>These are draft emissions estimates and are subject to revisions and/or updates. The final emissions will be reported on the quarterly excess emissions reports.

<sup>10</sup>Information regarding the cause of the deviation may change based on the results of pending investigations.



# Permit Enforcement

- APCD identifies alleged violations from Event Reports and their inspection findings can take any of the following formal compliance actions:
  - Enforcement Action
  - Notice of Violation (NOV)
  - Compliance Advisory (CA)
- Permittee can dispute alleged violations with additional, supporting documentation
- If the alleged violations did occur and an agreement cannot be made between the source and APCD, then APCD will issue a Compliance Order (CO) with a penalty

# ENFORCEMENT PROCESS

Permit exceedance occurs and the Source submits an Event Report to Air Pollution Control Division (APCD)



Event report is filed within the Source's record and publicly posted via CDPHE's platform, OnBase



APCD conducts an annual compliance inspection, including review of Source records and data for each Exceedance Event



APCD identifies alleged violations or noncompliance and issues an enforcement action (EA), Notice of Violation (NOV), &/or Compliance Advisory (CA)



EA for a few violations. If settled, then an Early Settlement Agreement is issued



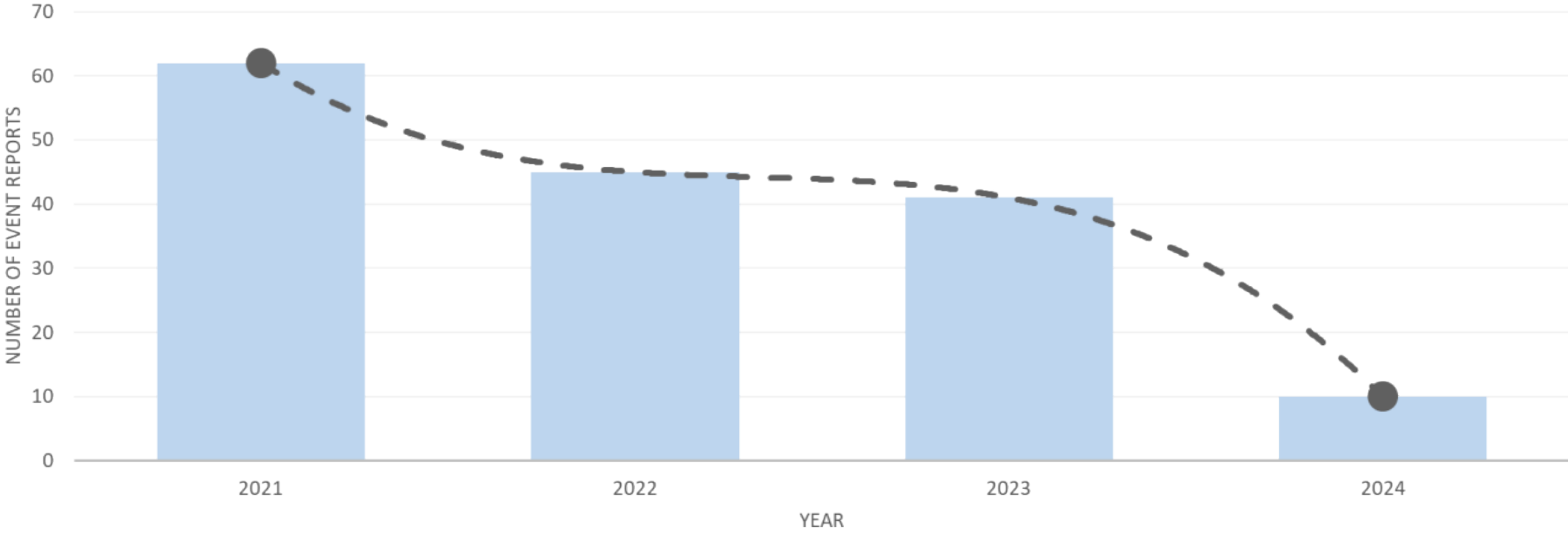
Source enters settlement agreement for EA, CA, NOV → Compliance Order on Consent is issued



EA, CA or NOV cannot be settled → APCD can issue a Compliance Order subject to judicial process

# SUNCOR DATA REVIEW

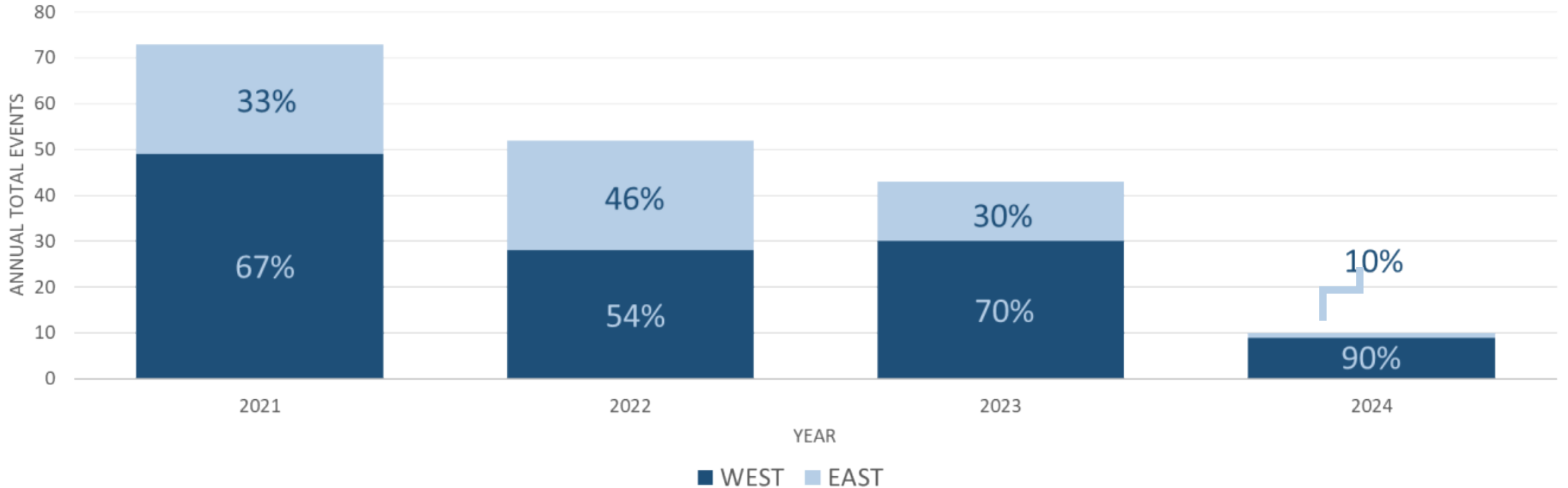
## NUMBER OF EVENT REPORTS PER YEAR





# SUNCOR DATA REVIEW

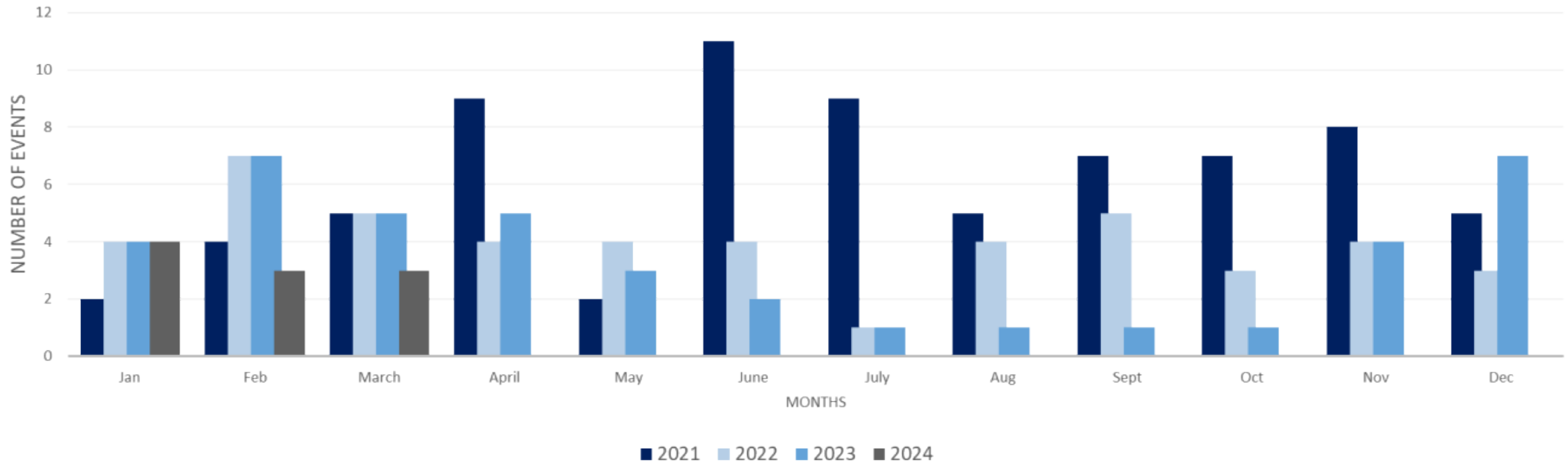
## ANNUAL NUMBER OF TOTAL EXCEEDANCE EVENTS PER PLANT



*Note: Includes both Event Reports and Compliance Advisory Events & the citable violations do not include Conditions that are specific to good air pollution control practices*

# SUNCOR DATA REVIEW

## NUMBER OF TOTAL EXCEEDANCE EVENTS PER MONTH

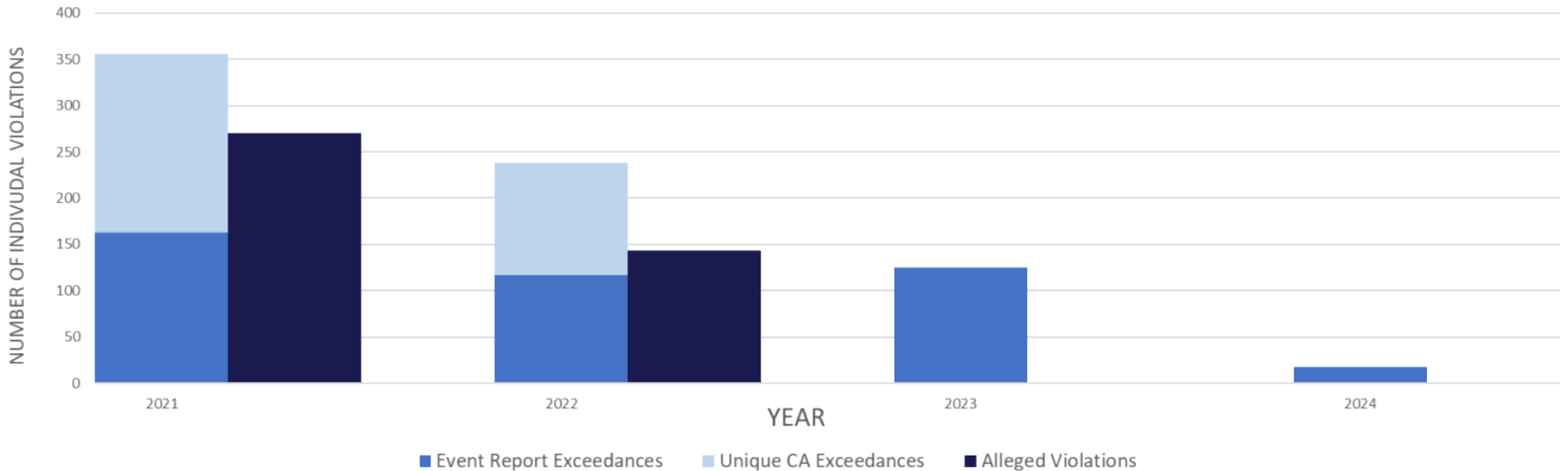


*Note: Includes both Event Reports and Compliance Advisory Events & the citable violations do not include Conditions that are specific to good air pollution control practices*



# SUNCOR DATA REVIEW

## ANNUAL CONDITION EXCEEDANCES CITED AS VIOLATIONS



*Note: The citable violations do not include Conditions that are specific to good air pollution control practices*

SUNCOR AIR PERMIT COMPLIANCE REVIEW

# SUNCOR DATA REVIEW, 2021

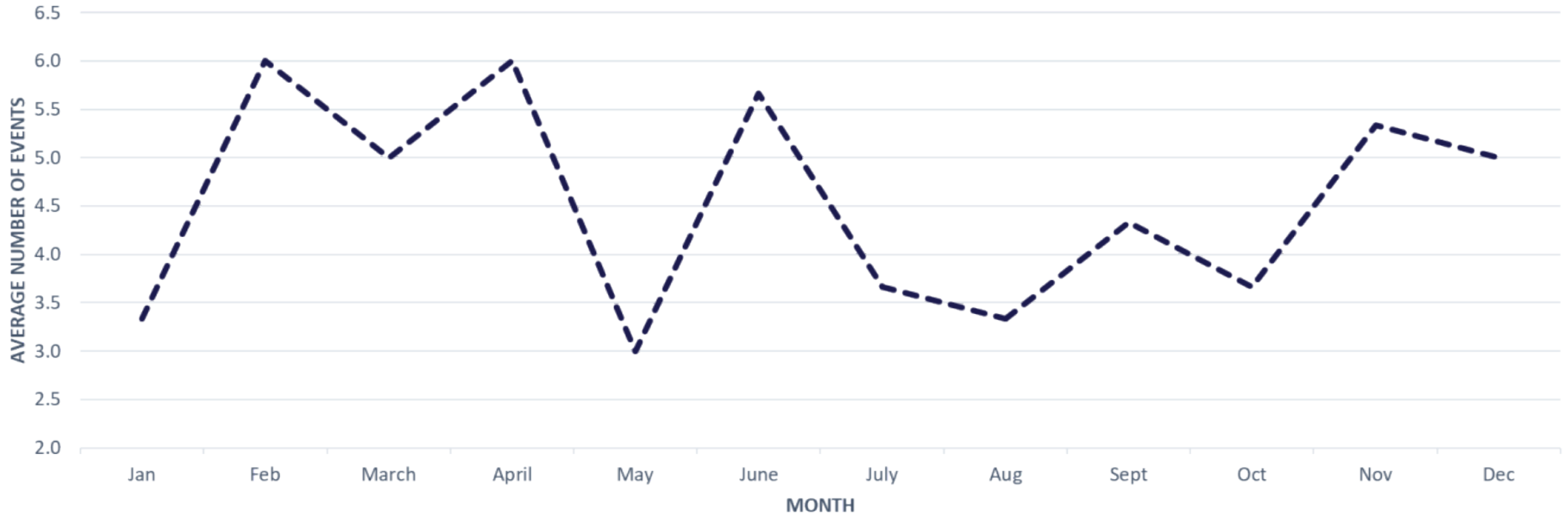
## TOTAL CONDITION EXCEEDANCES TO COMPLIANCE ORDER ON CONSENT



*Note: The citable violations do not include Conditions that are specific to good air pollution control practices*

# SUNCOR DATA REVIEW, 2021-2023

## TREADLINE OF AVERAGE EVENTS PER MONTH



*Note: The citable violations do not include Conditions that are specific to good air pollution control practices*

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# TAKE-AWAYS

- Suncor has seen a **decrease** in overall exceedance events since 2021
- Per calendar year, most exceedances occur in the West Plant
  - On a year-to-year basis, that percentage can swing between either Plant
  - During 2021-2023, February and April have the highest number of exceedance events
- In 2021, approximately 71% of alleged violations cited in a CA are included in the Compliance Order on Consent
  - Furthermore, only 54% of the total condition exceedances for the year make it into the Compliance Order on Consent
- Suncor is not required to quantify mass pollutant emissions resulting from Permit Exceedance Events
  - We could not quantify emission using publicly available reports and data