

Environmental Reportable Events Summary



Event Date: 11/17/2022	
Event Title: Plant 2 Fuel Gas Exceedance	
Impacted Media (air, water, or soil): Air	
Operating Unit: Plant 2 Sulfur Recovery Unit (SRU)	
<p>Event Summary: During normal operation, the Plant 2 SRU tripped offline when a wire on an instrument was pulled out of a terminal during routine maintenance. This loss of instrumentation caused the SRU incinerator to shut down. The SRU treats refinery fuel gas and flare gas to reduce hydrogen sulfide (H₂S) concentrations. While the unit was offline, H₂S concentrations remained elevated but were combusted in the refinery fuel gas system. H₂S is combusted in the refinery fuel gas system, which results in the generation of sulfur dioxide (SO₂) and water vapor.</p> <p>This event began on 11/17/2022 at 12:00 p.m. and ended on 11/18/2022 at 3:00 a.m. when the wire was repaired and the SRU was brought back to stable operation.</p> <p>The specific permit terms or conditions exceeded for this event include:</p>	
Permit Term or Condition	Reported Value
162 ppm H ₂ S in fuel gas for a 3-hour average	300 ppm H ₂ S in fuel gas for a 3-hour average
<p>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.</p>	
Event Date: 11/30/2022	
Event Title: Plant 2 Fuel Gas Exceedance	
Impacted Media (air, water, or soil): Air	
Operating Unit: Plant 2 Sulfur Recovery Unit (SRU)	
<p>Event Summary: During normal operation, a level indicator in the amine treating section of the Plant 2 sulfur recovery complex began reading incorrectly, which caused liquid to fill one of the pieces of equipment in the unit. This caused the treating efficiency in the SRU to decrease, which resulted in an increase in hydrogen sulfide (H₂S) concentration in the refinery fuel gas system. The SRU treats refinery fuel gas and flare gas to reduce H₂S concentrations. While the unit was not operating at maximum efficiency, H₂S concentrations remained elevated but were combusted in the refinery fuel gas system. H₂S is combusted in the refinery fuel gas system, which results in the generation of sulfur dioxide (SO₂) and water vapor.</p> <p>This event began on 11/30/2022 at 7:00 p.m. and ended on 12/01/2022 at 12:00 a.m. when the instrument was repaired and the SRU was brought back to stable operation.</p> <p>The specific permit terms or conditions exceeded for this event include:</p>	
Permit Term or Condition	Reported Value
162 ppm H ₂ S in fuel gas for a 3-hour average	276 ppm H ₂ S in fuel gas for a 3-hour average
<p>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.</p>	

**Information in this report is based on the facts known to Suncor Energy (U.S.A.), Inc. at the time of preparation. We may update or change the information contained herein if and to the extent additional facts become available.*

Environmental Reportable Events Summary



Event Date: 12/04/2022	
Event Title: Plant 2 Fuel Gas Exceedance	
Impacted Media (air, water, or soil): Air	
Operating Unit: Plant 2 Sulfur Recovery Unit (SRU)	
Event Summary: The Plant 2 SRU thermal reactor was operating at higher than normal pressure caused by hydrocarbons being carried into this section of the unit. The amine treating section of the unit was adjusted to reduce the amount of gases being sent to the incinerator, which also resulted in decreased efficiency in removing hydrogen sulfide (H ₂ S) from refinery fuel gas. While the unit was in this operational state, H ₂ S concentrations remained elevated but were combusted in the refinery fuel gas system. H ₂ S is combusted in the refinery fuel gas system, which results in the generation of SO ₂ and water vapor. This event began on 12/04/2022 at 2:00 p.m. and ended on 12/05/2022 at 4:00 a.m. once the unit was stabilized. The specific permit terms or conditions exceeded for this event include:	
Permit Term or Condition	Reported Value
162 ppm H ₂ S in fuel gas for a 3-hour average	167 ppm H ₂ S in fuel gas for a 3-hour average
1.20% volume SO ₂ on a 12-hour rolling average	1.29% volume SO₂ on a 12-hour 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.	

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