

Incident Investigation Findings Summary



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| Incident Date(s): February 25, 2022 |
| Incident Title: Plant 1 Catalytic Polymerization Unit (No. 1 Cat Poly) Vapor Release |
| Incident Summary During normal operation, a leak developed at a flange in the Plant 1 Catalytic Polymerization Unit (Cat Poly Unit). Refinery personnel activated the plant alarm system indicating a vapor release in the area which, per procedure, activated the Suncor Emergency Operations Center (EOC) and Emergency Response Team (ERT). Operations personnel attempted to tighten the bolts on the flange but were unsuccessful. The leak was quickly brought under control by shutting the unit down and no injuries were reported. |
| Incident Investigation Summary The flange on the Cat Poly Unit leaked due to increased pressure in the line related to the line being frozen and being a "dead leg." The dead leg situation was created as one end of the line was blinded from the rest of the process unit due to maintenance work, and the other end had an isolation valve that was closed. Over a period of four days, ambient temperatures were below freezing with lows down to 0° Fahrenheit. Additionally, the service of this line can occasionally have small amounts of water entrained. With the freezing conditions and water in the line, the leak took the path of least resistance through the flange. |
| Recommended Actions to Prevent Recurrence To reduce the likelihood of recurrence, the following actions were recommended: <ol style="list-style-type: none">1. Repair the flange and gasket which leaked.2. Complete a dead leg evaluation for the Cat Poly Unit to identify and repair any other potential dead legs. |

**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.*