



Biannual Briefing Note

Date: August 2015

Agency: Husky Energy



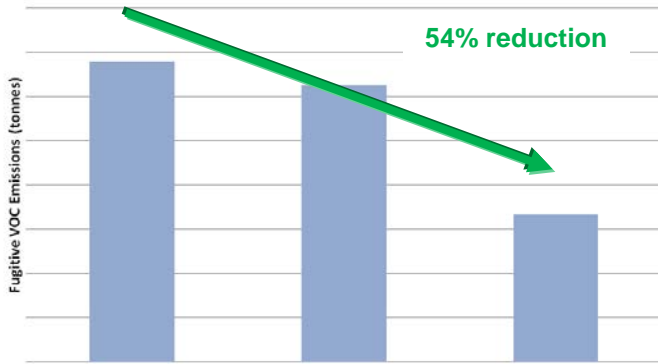
Prince George Husky Refinery – Leak Detection & Repair Program

The Prince George Husky Refinery contains equipment, such as valves, pumps, connections and seals, which present a potential source of fugitive emissions of volatile organic compounds (VOCs). To mitigate the potential of these emissions, Husky implemented a Leak Detection and Repair (LDAR) program that conforms to the Canadian Council of Ministers of the Environment's (CCME) *Environmental Code of Practice for the Measurement and Control of Fugitive VOC Emissions from Equipment Leaks*.

LDAR is a work practice designed to identify equipment that could potentially leak, so that emissions can be reduced through repairs. A component subject to LDAR requirements must be monitored at regular intervals to determine whether it is leaking. Any leaking component must be repaired or replaced within a specified time frame.

Husky initiated LDAR testing as a pilot project in 2007 and began full-scale implementation in 2011, incorporating an information management system that supports the full lifecycle of a leak detection program. Potential leak sources were identified by measuring VOC concentrations at valves, pumps, connections, seals and other system components that occur as part of normal wear and tear in plant operations. Component repairs were completed where appropriate, conforming to CCME performance guidelines.

Emissions reduction from the LDAR program increases safety for workers and the public, decreases potential exposure of the community to VOCs and reduces product losses. LDAR is integrated into Husky's work practice with regular monitoring and repair campaigns. The Refinery has realized a 54% reduction in fugitive process VOC emissions since implementing LDAR in 2011. This equates to almost 70 tonnes of VOCs removed from the Prince George air shed annually.



DEFI - Net - 1.1.1 - [2002]

File Collections Inspections Reports Window Working year 2011. Caution: Any change may impact past reports

DEFI Explorer

Inventory

View: picture preview

1508

2000

2001

2002

2003

Inventory tree:

- 12-1302 Cold Reformer Foo
- 12-1305 Reformer Stabilizer
- 12-1306/20-1310 Reformer
- 12-1307-0102 Reformer St
- 12-1308/0102 reformate Bo
- 12-1501 Reformer Stabilizer
- 12-1505 Reformer Stabilizer
- Unit 13 - Tank Farm
- Unit 14 - Vacuum
- Unit 15 - Amine Treatment
- Unit 16 - FCCU
- Unit 17 - Gas Concentration
- Unit 22 - Isomerization
- Unit 23 - CGHT
 - U23 - Amine Scrubber
 - 23-1102 Amine Scrubber
 - 1938
 - 2000
 - 2001
 - 2002
 - 2003
 - U23 - Battery Limbs
 - U23 - CGHT Splitter and Stabil
 - U23 - CGHT Structure
 - U23 - SHUANDS Reactors
 - Unit 3031 - Utilities



Characteristics

Insulated:

Excluded:

Equipment:

Equipment: Gate valve

Manufacturer: -

Model: -

Size: 0.75 in

Number: -

Comments: -

SAP number: -

User field: -

Rule	Link lev	Time to rep	Next reading due
CCME	10000	15	2012-12-31

Point properties | Group properties

Batch edition of points

Inventory	Tag ID	Position	Drawing	Process line	Insulated	Excluded	Reason 1	Reason 2	Equipment	Manufacturer	Model	Size	Nu
Routes	14032	1	23-MP-009	6"-BAFF-23-0831	<input type="checkbox"/>	<input type="checkbox"/>			Flange			2	
Searches	14033	3	23-MP-009	6"-BAFF-23-0831	<input type="checkbox"/>	<input type="checkbox"/>			Gate valve			0.75	
Query generator	14034	2	23-MP-009	6"-BAFF-23-0831	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Insulated		Threaded connect			0.75	
	14035	4	23-MP-009	6"-BAFF-23-0831	<input type="checkbox"/>	<input type="checkbox"/>			Threaded connect			0.75	