

ENGEN LFI: MERCAPTAN RELEASE

INCIDENT DESCRIPTION

- Operations Team attempts Mercaptan transfer from hired pot to the bulk tank starting 23 July 2020. Cited difficulties in the transfer as it was difficult to gauge if transfer was taking place or not, suspected passing valves
- 27 July 2020, Dayshift crew transfer Mercaptan from hired Pot to an Engen Pot but does not complete the task. System isolated
- 27 July Nightshift crew attempts a transfer and release Mercaptan to atmosphere via the hired pot bursting disk resulting in smell complaints of over 18 from Refinery neighbours as per call Centre records. First call came in at 22:11
- 28 July, Refinery receives a notice from eThekweni Municipality

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IMMEDIATE CAUSE

Training and Competency:

Understanding of procedure needs improvement

Practice / repetition needs improvement

Procedure difficult to understand and require improvement

The pot was not lined up correctly for the transfer

The operators initiated the transfer without instruction and without adequate training.

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UNDERLYING CAUSE

The operators did not have the competency and the capability to perform the task safely. One Operator has not read the procedure before and the other observed the transfer once. Understanding needs improvement.

The on the Job training is inadequate, lacks structured approach and the procedure needs improvement

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ROOT CAUSE

Human Error - Error enforcing conditions – employees defied instructions from supervision

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FINDING AND RECOMMENDATIONS

	Finding	Recommendation
1.	Operator executed Task without permission on a system they don't understand. Lack of honesty during incident investigation	Consider consequence management
2.	Supervisor exposed himself to danger by not using correct PPE when isolating the Mercaptan Pot during the lifting of the PSV of the Hired Mercaptan Pot	Balance of consequence for Supervisor – coaching and mentoring
3.	ERP not Followed: <ul style="list-style-type: none">• ERT not notified• Toxic Gas Release Alarm not sounded	<ol style="list-style-type: none">1. Balance of consequences2. Review ERP when an Incident happens. There must be

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RECOMMENDATIONS

4.	Mercaptan transfer System knowledge lacking for both Supervision and field operator (OMOC ineffective)	<p>Mentor until system is understood by both Operators/Supervisors</p> <ol style="list-style-type: none">1. SCPX 3 Operator should observe Competent SCPLX 2 Operator doing the transfer2. Operator to transfer Mercaptan twice under supervision of a competent SCPLX2 Operator3. Operator to transfer Mercaptan independently before deemed competent <p>Since the transfer is not a frequent activity (Happens approx. 3 times a year), it is recommended that Operators training in the LPG Unit if not on duty the Area Manager should consider calling them out on overtime to witness the Mercaptan Transfer Activity</p>
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RECOMMENDATIONS

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| 5. | Procedure needs review: Confusing to the reader (operators) | <ol style="list-style-type: none">1. The Procedure must be reviewed to show step by step of the process with process flow diagram showing valves and instruments to operate during transfer.2. The valves and instruments on the field must be labelled and the labelling must also be referenced on the procedure3. Use easy to understand language. Ensure no ambiguity |
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Thank You....

