



**FUELS INDUSTRY**  
Association of South Africa

# LEARNING FROM FUEL OIL INCIDENT

2024



# INCIDENT DESCRIPTION

- Fuel oil was released from a pipeline rupture in the pipe rack area due to low wall thickness caused by corrosion at the pipe supports the pipeline in the pipe rack.



# INCIDENT ROOT CAUSE

## **Inadequate Inspection and Maintenance:**

- The line inspection work order that was scheduled was not completed, leading to undetected wall thinning.

## **Ineffective Corrective Actions:**

- In January 2024, a section of the pipeline in the pipe rack was replaced.
- The replacement of the pipeline in a different pipe rack was planned to be replaced later due to cost containment.
- Since the inspections were not completed, the extent of the degradation was unknown hence the replacement of the pipeline was scheduled on a planned basis.

## **Inadequate Instrumentation:**

- The lack of flow and pressure measurement devices prevented early detection of leaks or abnormal flow conditions, delaying the employee response.



# INCIDENT LEARNINGS

- Operating philosophy not in place for systems running across plant boundaries.
- Lessons learnt or recommendations which came from a previous investigations were not implemented as soon as possible to prevent the reoccurrence of the incident.
- Instrumentation installed not sufficient to quickly identify operating concerns.
- Procedure for managing redundant assets were not implemented correctly.
- Not all required actions of the MOC were identified and followed when pipelines were being repurposed.
- Inspection work order was cancelled without following the correct process.
- Engineering recommendations were not tracked or actioned properly.
- Corrosion prevention was not incorporated into the initial design of the plant.



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**Thank You**

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