



FUELS INDUSTRY
Association of South Africa

LEARNING FROM INCIDENT (LFI)

Sparking from Electrical Wiring



INCIDENT DESCRIPTION

- A neighbour walking along the fire pump house, located outside the terminal fence line, identified an electrical spark at the electrical distribution box mounted on the pump house building.
- Investigations identified that the wiring leading into the fire house had been isolated and de-energised but the wiring coming into the redundant distribution box from the municipal supply was still energised.
- Over time, the insulation of the wiring had weathered away, exposing the cables, resulting in the electrical sparking as the wires made contact.

This had the potential to cause harm to someone who touched it assuming it to be de-energised, a potential ignition source if there was a large vapour cloud that moved in the direction of the live exposed cables.



This building is outside the terminal

Point where the Sparks occurred



INCIDENT ROOT CAUSE

- When the distribution box was made redundant on the terminal side, the follow through to test the municipal isolation was omitted.
- The Operator rounds did not identify the exposed cabling or sparking from the municipal distribution box.
- The Proactive maintenance inspections and checks did not include this element of the facility in the R&I plans
- This section of the fire house does not form part of the staff/contractor normal routes of travel



INCIDENT LEARNINGS

- 3rd party assets and installations pose a risk to business installations.
- Redundant equipment of the organisation and other parties should be considered in the site risk assessments.
- Operator rounds to be more specific on conducting 360deg checks around assets and installations.
- Review the current process for validation of Electrical Isolation across the power supply as per the Lock Out Tag Out requirements and guidance



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Thank You

2024