



FUELS INDUSTRY
Association of South Africa

LEARNING FROM BOILER FIRE INCIDENT

2024



INCIDENT DESCRIPTION

During the commissioning of a boiler, following a trip, a fuel oil leak was detected on a burner , situated on the fourth burner level, which subsequently ignited

A boiler was in the process of returning to service after tripping the previous afternoon due to flooding in the mill. A fire broke out on the front side of the boiler at the burners. The most significant damage occurred at the first burner level, where a puddle of fuel oil had accumulated on the floor due to a severe leak at a burner on the fourth burner level.



INCIDENT ROOT CAUSE

- First level assurance failed to ensure that the relevant theoretical and practical competency is achieved before allowing a process controller to operate the panel.
- Maintenance activities on the fuel oil lances are done without proper drawings and quality control procedures being implemented to ensure good quality of work being done
- Mitigation and control processes for overriding equipment safety systems are not followed



INCIDENT LEARNINGS

- Training and competency – Ensure that adequate support is in place while a person is undergoing training (practical component) for the next position prior to being declared competent
- Adherence to procedures – Re-emphasis the importance of following the sequence of steps in a procedure correctly and deferment to experienced persons in the team or a leader when it is impractical to follow the correct order/sequence
- Ensure QCP and drawings for maintenance activities on burners and fuel oil lances are developed and available to personnel for use



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Thank You

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