



FUELS INDUSTRY
Association of South Africa

LEARNING FROM FLARE INCIDENT

2024



INCIDENT DESCRIPTION

Two service provider mechanical fitter employees were exposed to some fumes while installing an end blank on a pipeline where a pressure safety valve (PSV) was removed.

No injuries were sustained. Two mechanical fitters were directly exposed and four others indirectly exposed. All were taken to the medical centre for medical observation only.

It was found that the plant flare header to the factory flare header was not blocked in.



INCIDENT ROOT CAUSE

Rule, process or procedure not followed:

- The permit was prepared only considering the safe making on the inlet side of the PSV. The outlet side of the PSV was neither blocked in nor isolated from the flare header.
- The area general safe making checklist was utilised to verify safe making before the permit was issued. It indicated that the equipment was isolated from the process, however, the PSV was not isolated from the flare system.

Management system and administration:

- The SOP and decommissioning checklist were insufficient as they did not include safe making of the unit.
- A safe making plan was not in place to align the safe making requirements between disciplines, which led to the flare system not being isolated for removal of the PSV.

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Poor team culture in terms of operational discipline:

- A lack of ownership exists from management on first level of assurance, verification of critical controls, application of blank list, shutdown planning, updating of procedures and checklist.



INCIDENT LEARNINGS

- Ensure that equipment is isolated from the process on both ends before execution of maintenance activities.
- The decommissioning checklist should include safe making actions to be followed by the safe maker. Production area managers must ensure that the checklists are kept up to date with the latest information.
- Production area managers should ensure that all steps for each operating phase are included in SOPs.
- A detailed safe making should be included in the shutdown program to adequately allocate resources and time.
- The blank list shall be used in the approved format and may not be altered in any way after approval. Not installing all the safe making blanks and leaving the lines on the document open is seen as deviating from the approved blank list.
- Once a gas exposure is suspected or reported, a gas alarm should be activated. Detailed information should be given to emergency management control room which includes, but is not limited to, where the exposure occurred, ground level or at heights, and amount of personnel suspected or confirmed to have been exposed.



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Thank You

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