



FUELS INDUSTRY
Association of South Africa

LEARNING FROM INCIDENT

Leak on the control valve resulting in Creosote Vapour Release

2024

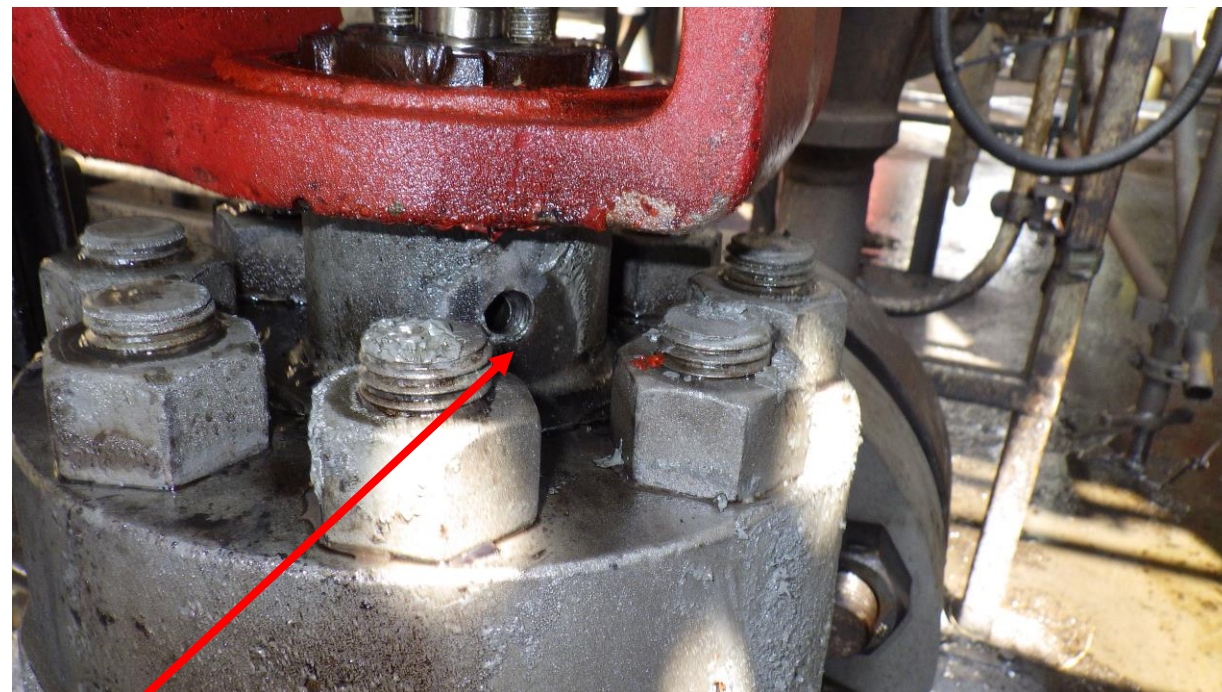
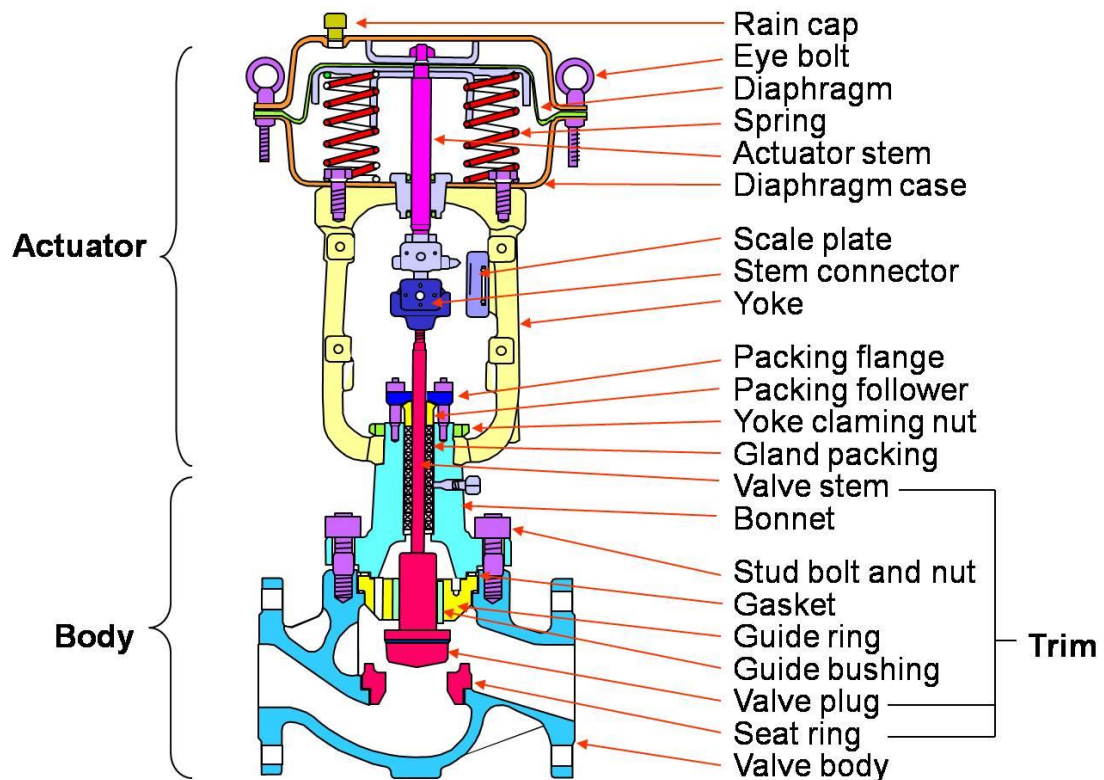


INCIDENT DESCRIPTION

- On 2 April 2024 at 06:00 it was reported by the outside operator that the plug on the feed control valve gland is leaking.
- Online leak sealing was done in January 2023 for the leaking gland online leak sealing was proposed. It was decided that the plug from the valve neck must be removed.
- When the online leak sealing technician remove the plug from the control valve to screw in the injection adaptor the plug came out and creosote vapor was released.
- The vapour cloud drifted towards outside the plant boundary and a works emergency was declared. Three persons sustained first aid injuries.



PHOTOS



Where the plug
was removed



INCIDENT ROOT CAUSE

Contributing causes:

- Inadequate QCP with regards the repacking of valve gland packing, type and quantity.
- Urgency to expedite long lead items. No follow up after the purchase order was loaded.
- Temporary attachments to equipment i.e., injection adaptors to be removed by the equipment owner before sending equipment to the valve shop.
- No business process exist for the injection of valve glands, no paper trail, etc.
- Inadequate scoping and communication on the injection to be done on 228FV-004.
 - No communication between the equipment owner and the scope owner.
 - The correct planner did not address the issue, instrument planner arranged leak sealing after receiving details from mechanical planner.
 - The discussion between leak sealing and production was not clear.
 - No attention was given to what was stated on the PTRAs when it was approved by production.

Root cause:

The hazard was not recognised to remove the plug from the control valve as scoping was not done properly and scope change. During January 2023 it was done when the plant was offline.



INCIDENT LEARNINGS

- DO not remove components from equipment that is online
- Proper scoping to be done for a task.
- Mechanical to deal with online leak sealing
- Follow up on long lead items



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Thank You

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