



# WSHAlert

13 April 2020, Ref: 2021005

## Accident Advisory: Fatal fire at chemical plant

Ref: [1920097](#) WSH Alert Accident Notification dated 11 February 2020

On 7 February 2020, a group of workers was carrying out nitrogen purging of a hydrocarbon pipeline at a chemical plant. The nitrogen hose ruptured during purging and a fire broke out. Two workers suffered burns and were conveyed to the hospital where they eventually succumbed to their injuries.

### Recommendations

Persons in control of similar workplaces and work activities such as occupiers, employers and principals are advised to implement the following for safe execution of purging:

- Ensure the scope of the purging is clearly defined.
- Conduct a risk assessment and develop a purging plan that includes procedures for the safe execution of purging operations.
- Isolate section of process pipelines to be purged from other process pipelines or units.
- De-inventorise vessels, equipment and pipelines to a safe location by transferring, blowdown, flaring, etc.
- Check and verify that the pressure in process pipelines is at safe levels prior to purging.
- Ensure clear communications between the control room and field personnel involved in the purging activities.
- Put in place an effective emergency response that is catered to purging operations.

### Further Information

1. Workplace Safety and Health Act
2. Workplace Safety and Health (Risk Management) Regulations
3. Code of Practice on Workplace Safety and Health Risk Management
4. SS 634: 2018 Code of practice for fire safety for open plant processing facilities in oil, chemical and process industries
5. WSH Guidelines on Flammable Materials
6. WSH Council's Case Studies for Chemical Industry
7. UK HSE's HSG253 The Safe Isolation of Plant and Equipment (2006)

Information on the accident is based on preliminary investigations by the Ministry of Manpower as at 06 April 2020. This may be subject to change as investigations are still on-going. Please also note that the recommendations provided here are not exhaustive and they are meant to enhance workplace safety

and health so that a recurrence may be prevented. The information and recommendations provided are not to be construed as implying liability on any party nor should it be taken to encapsulate all the responsibilities and obligations under the law.

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