



LEARNING FROM INCIDENTS AWARENESS ALERT

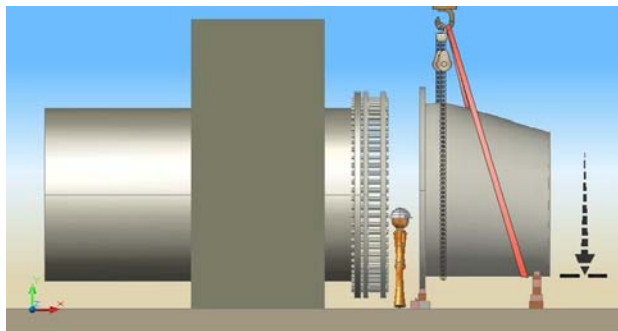
Failed Temporary Pipe Supports (nuoc)

UI/AW/2010/03-01

A fatal incident occurred on the 4th of February 2010 on a nuoc construction site in Ras Laffan Industrial City, Qatar. You are recommended to incorporate the learning from this incident in relevant site procedures and to discuss this alert with project staff and contractors involved in this type of activity as well as maintenance staff in operating assets involved in managing shutdowns/turnarounds activities.

What happened?

A pipe fitter lost his life while working to install a section of a pipe spool. He was caught between two 114” pipe flanges when temporary wooden pipe supports failed.



The pipe fitter did not recognize the immediate hazard of the unstable pipe supports and placed himself in the ‘line of fire’

Key Learnings (immediate causes)

- Make sure your hands and body are in a position to keep you safe and out of the ‘line of fire’, away from any pinch points.
- Eliminate the use of unsafe temporary pipe supports (see pictures below).
- Confirm that the wooden supports rest on a reliable and flat base. If on grating, ensure the supports rest on top of the beam or span between two beams if this is not possible.



Never stack or arrange wood support in a “single line” manner beyond 2 layers to support a spool; this is to avoid or prevent a collapse of support due to unstable set up

Pipe spool supported by wood must be properly arranged in “square type” manner to have stability and load is distributed



Goal Zero: Zero injuries, Zero fatalities

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LEARNING FROM INCIDENTS LEADERSHIP ALERT

Learnings from a fatal incident in a construction environment (nuoc)

UI/LA/2010/03-01

Purpose

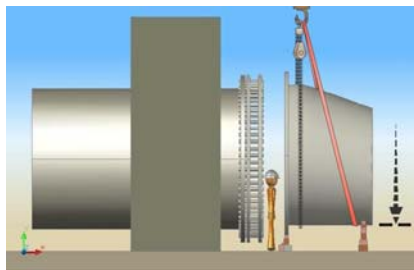
This alert is to encourage leadership to implement Management of Change when organisational changes are made in construction activities (i.e. taking scope away from one contractor to another, bringing in a new contractor or supplementary resources) to ensure there is clarity of accountability, an integrated line management structure and adequate supervisor / worker ratio to enable work to be executed safely.

What Happened and Lessons learned

On the 4th of February 2010 a worker lost his life while installing a section of a pipe spool. He was standing in 'the line of fire' between two 114" pipe flanges and was crushed when the temporary wooden support failed during the placement of an awkward shaped pipe spool. One of the main underlying factors contributing to this incident was the fact that work was transferred from one contractor to another in order to meet the schedule. No Management of Change review was undertaken by the site project management team to ensure clarity of accountability.

This resulted in poor planning and various deficiencies in managing the risk of this hazardous activity, such as:

- **Insufficient supervision:** the Foreman assigned to the work crew was working on a different location. The pipe-fitter Charge-Hand assigned to give the task instruction supervised a crew of 30 staff and had limited language skills.
- **Inadequate task instruction:** the task instruction was not carried out at the work site, did not detail specific work steps and did not address the use of temporary pipe supports.
- **Inadequate procedures:** the method statement for this job did not include job sequence steps and the job safety analysis listed the pipe support as a hazard, with no mitigation measures. None of these documents were used or reviewed during the task instruction.
- **Inadequate training of work crew:** probably none of the pipe fitters completed the specific piping safety training, which includes proper use of temporary timber pipe supports. Two safety officers visiting the site did not recognise this hazard and there is no evidence that one of them attended the recommended training on piping safety.



Leadership Action

As a leader, please use this incident as input to discussions with your team. To frame your discussion, the questions below may be useful:

- How are we managing the unintended consequences of dealing with schedule challenges or poor contractor performance?
- How does our Management of Change process address organisational change: how do we ensure clarity of accountability and adequate levels of management and supervision?
- How have we defined what level of supervision is required given the nature of the jobs we are performing and the experience of the work crew we are using?
- How do we ensure that hazardous and non-routine activities are identified as part of our Worksite Hazard Management procedure?
- How do we check that the Job Safety Analysis prepared for work activities is presented in a way which can be clearly communicated to those responsible for undertaking the work?
- How do we verify that the workforce have both the skill and hazardous awareness training necessary for the work?
- How do we promote a culture of intervention and verify that it is effective?



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