

Safety Alert 252 : Pump Handle Failure – Flygt 3102

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Distribution: Thames Water Managers & Contractors

What is the danger?



An incident occurred at one of our wet well submersible pumping station sites where a two-man team was responding to a pump failure alarm.

On arrival at the site, the technicians set up the didsbury tripod lifting equipment and began to extract a pump.

During the lift, the pump fell approximately 3 metres into the wet well which meant an alternative means of extracting the pump had to be devised which would allow the technicians to assess the extent of the damage caused by the fall.

Having agreed an alternative procedure for extraction, the pump was recovered so that the cause for it falling could be assessed.

Investigation conclusion

The pump was examined for signs of damage sustained by the fall and during the investigation it was observed that the pump handle had become severely weakened due to the harsh environment of the wet well and had failed.

Having been submerged in sewage within a wet well environment for most of its operational life, the metal had corroded to a point of failure and during the lift, the weight and strain on the worn metal caused the handle to fail & shear which led to the pump to falling.

Action required

Managers must take the following actions:

- Where practicable, wet wells are drained low enough to expose the top of the pumps so that a visual inspection can be made of their condition in-situ and prior to attempting to lift the pump.
- Task lighting is provided to aid inspection of the pumps if adequate site lighting is not available.
- Prior to attempting to lift the pump, if a visual inspection indicates an unsafe lifting handle, it is imperative that a SHE 4 Safe System of Work is devised which identifies a safe means of removing the pump.
- Pumps which can be safely removed are thoroughly inspected and if found to have worn handles they are to be immediately quarantined until a new handle can be procured and the defective one replaced.

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Briefing to all Employees

If you are involved in extracting pumps using pump handle fittings you must ensure that:

- You have read, understood and followed the lifting plan, RAGS and Safe System of Work.
- Use the correct lifting equipment and associated accessories.
- Whilst the pump is visible, undertake inspections to identify any defects and report any issues to your Line Manager.
- Maintain a record of any defects found.

We the undersigned have been made aware of the contents of this briefing. If we are unable to carry out the work safely, we agree that we must immediately stop work and inform our manager/supervisor.

Date	Name	Signature

Manager/supervisor's signature:		Date:	
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Please continue on another copy for additional employees