

ALERT 3 – 17

LTI – HOT WATER SCALD

WHAT HAPPENED:

Maintenance was being carried out on a fresh water generator situated in the engine room. The day shift started the work on the generator, cleaning the condenser plates but did not complete the task and handed it over to nightshift. A toolbox talk took place between the nightshift and dayshift maintenance crew.

The injured person (IP) completed a permit to work, in order to continue the maintenance on the fresh water generator while the isolation certificate remained in place. The Mechanic de-isolated the generator in order to function the system, with the assistance of the Senior Mechanic.

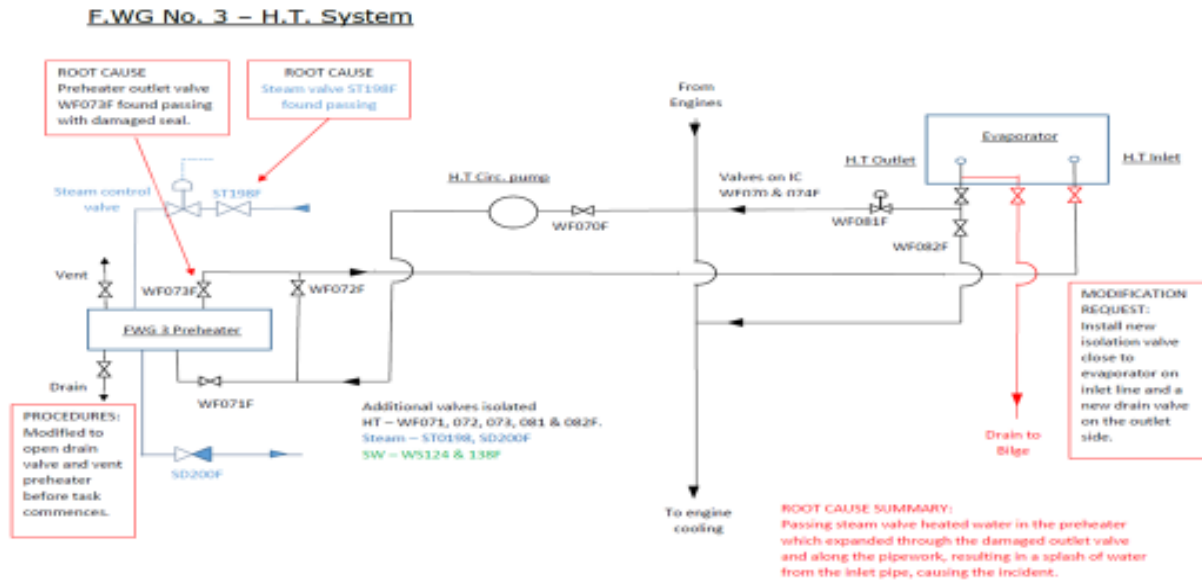
The generator was activated but failed to produce sufficient freshwater, it was then decided to shut down the system, re-isolate and carry out further fault finding. The unit was re-isolated with the exception of the seawater feed, which was used to cool the system down to allow work to be carried out safely. After approximately 40 minutes (time taken for unit to reach the required temperature of below 40°) the sea water valve was closed, locked & tagged.

The IP then started to dismantle the evaporator plates. He removed the end cover and 29 of the plates before encountering some plates which were stuck together – which is not uncommon due to the brine build up from the salt water flashing off during the evaporator process. Unexpectedly, a quantity of hot water was ejected from the evaporator and struck the mechanic on hand and leg where he suffered second degree burns.



-A Safety Alert can consist of any type of health, safety & environment (HSE) notification or Near Miss/Near Hit alert. Proactive Alerts on jobs well done are also encouraged.

System Drawing



WHAT WERE CONTRIBUTING FACTORS:

Maintenance procedures inadequate, did not effectively address isolation, draining of preheater system.
 Mechanical failure of isolation valves.
 There was no drain point in system to allow the removal of all water from lines

LESSONS LEARNED:

1. Review and update job procedure.
2. Identify and replace passing isolation valves.
3. Review and update risk assessment for task
4. Evaluate the requirement to install additional drain line(s).
5. Evaluate the requirement to install additional isolation valve on the high temperature inlet.