

COMMITTEE REPORT ON FIRE ACCIDENT IN TG HALL AT 0 ML ON 17.05.2017

PREAMBLE:

On 17.05.2017 at 18:15 hrs, fire was noticed near condenser pit at 0 ML. Unit was hand tripped at 18:56 hrs on 17.05.2017 due to loss of major monitoring critical parameters. Fire was quenched with the help of CISF Fire service crew available at NTPL within minimum time period and restricted the damage to the minimum. After restoring the lost critical monitoring parameters, Unit was light up at 02:35 hrs on 18.05.2017. In this regard a committee has been constituted on 18.05.2017 to study and analyse the root cause of fire and to give suitable recommendation to avoid such incident in future.

OBSERVATION & ANALYSIS:

Committee members inspected local affected area on 19.05.2017. Following observations and analysis were made by committee members:

OBSERVATION:

1. Oil accumulation was found in the condenser pit.
2. Wooden blocks, insulation materials and other debris were found floating in the condenser pit.
3. Drain Oil and Water is being diverted from available 2 sumps at 0 ML in TG ground floor to Condenser Pit.
4. Power cable and feedback cable for actuators (14 nos) and its drain temperature element cables were also found damaged in MAL drain station.
5. Temperature element cables were found damaged in Steam Drain Flash Tank, Unit Flash Tank.
6. Two nos of HW level transmitter and two nos of level switches in right side of Condenser were damaged in fire.
7. Aftermath of Flame impact was noticed up-to 17.5 ML and damaged axial shift, IP Turbine Rotor expansion, pedestal & shaft vibration for HPT Front & Rear.
8. CDV-67 spray valve is completely damaged.

ANALYSIS:

1. It is presumed that the sudden eruption of violent fire from condenser pit might be due to the ignition of accumulated oil in pit with instigation from falling of some suspected external source like hot weld metal piece during welding / gas cutting, carried out in-around of the pit area.

2. From the available record, there was no work permit / LC issued by NTPL to do welding work in-around of condenser pit area before the fire incident.

RECCOMENDATIONS:

1. Condenser pit in both units shall be cleaned immediately to remove stagnated oil floating over water.
2. Any welding/cutting work or other work involved with flammable materials shall be started only after proper work permit issued by competent authority. Also during execution of work, sufficient fire safety measures shall be taken by concerned agency in order to tackle the inadvertent situation.
3. Condenser pit is only meant for collecting water from Condenser water box drains & vents and Hot-Well drains. Hence it is recommended to isolate the Condenser pit from other drains getting collected via TG sump connection though it is envisaged in the design.
4. The drain water at 0 ML in TG floor shall be collected in two available sumps near condenser pit and the accumulated drain water in sump shall be drained out by suitable pumps to nearby trenches.
5. Drain Oil shall not be let out to mix with water drain channel at 0 ML in TG floor.

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