E&P (Offshore/Onshore) No. 02/18

Title: Explosion on Drillship during repair in Ship yard
Location: A/C plant room
Activity Type: Drillship repair for maintaining Class certification

(Result/outcome): Five Fatalities and seven injuries

What Happened?

Welding on the hull of a Drillship from inside of Pot water tank was in progress since few days at the ship yard. An explosion occurred around 9am at the air handling unit in AC plant area situated in the second deck below the main deck. Heavy vibration was felt in the accommodation area of the rig. Five person lost their lives and seven person injured in the explosion.

What Caused It?

Oxygen and Acetylene is supplied from central storage/bank to several manifolds located on the rig at various locations. In the same area of the blast another team had worked up to late in the night. In all probability one of the hoses would have been left without the cutting nozzle in place which contributed to a gas accumulation around A/c plant room as the smell of gas was also reported in the morning on that area. A spark created physically or due to falling of metallic object triggered the blast. The job card (PTW) was not signed by the master of the ship before the start of the work.

Corrective Actions:

1. Work areas should be inspected thoroughly before issuing of permit to work.
2. Post issue of work permit, continuation of work should be done after mandatory checks.
3. Job responsibilities should be clearly defined while issuing permit to work.
4. Proper supervision should be ensured especially when multiple agencies are working in enclosed areas (below deck) in drill ships.