Pipeline Pump Fire

Recently, a fire occurred on a platform when oil began spraying from a pipeline pump. The oil contacted the hot exhaust system from the engine of the second pipeline pump causing the oil to ignite. The fire engulfed the pipeline pump skid causing approximately $350,000 damage to pumps, valves, and wiring and four weeks downtime. No personnel were injured. At the time of the incident the platform was producing 1800 barrels of oil per day.

The investigation revealed that the pump packing nut had backed off of the rod packing allowing oil to spray around the pump rod. Second, the hatch/cover on pump rod packing box was not secured with nuts and bolts as it was originally designed. Further investigation revealed that the insulation blankets on the pipeline pump engine exhaust had degraded exposing sections of exhaust piping with surface temperatures in excess of the ignition point of the oil.

Therefore, MMS recommends the following:

- Inspect pump packing daily as recommended by the pump manufacturer.
- Pipeline packing/plunging inspection covers should always be secured as suggested by the manufacturer.
- Inspect and maintain insulation on exhaust stacks to prevent oil from coming into contact with hot surfaces.
- Operators might consider installing a barrier between gas driven engines and pipeline pump units to avoid any fluid from contacting the engine or exhaust of engine.

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