



SAFETY ALERT-LOCK OUT TAG OUT (LOTO)

INCIDENT: A contract workman carrying out mechanical Preventive Maintenance (PM) job on air fin fan cooler was hit by the blades of fan when it was accidentally started. He succumbed to his injuries.



Opening in the cage through which the contractor workman entered for PM job



Fan blade condition after the Accident

OBSERVATIONS:

- (1) Fin Cooler Fan motor was having the problem of 'motor not stopping' from local stop push button.
- (2) On production Dept.'s written request, Electrical operation de-energised the motor and put the tag on electrical isolating device. Production Department handed over the motor to Electrical Maintenance for rectification.
- (4) Subsequently, Production handed over the same fan to Mechanical Maintenance for preventive maintenance job.
- (5) After completion of job, electrical maintenance started Fin Cooler Fan Motor directly from the electrical sub-station for ascertaining success of the rectification job. No clearance from Production Dept. was taken.
- (6) Fatal Accident occurred at the same instant, as a workman was on the job on the same fan for mechanical check.

ROOT CAUSE: (1) Lack of coordination between Electrical (Operation), Electrical (Maintenance) and Production Departments. (2) System of Lock Out and Tag Out (LOTO) was not in place.

RECOMMENDATIONS: (1) The practice of making direct request by Electrical maintenance to Electrical operation for energization of motor to take trial run to be stopped. The Electrical isolation /energization permit system should be followed for trial run also.

(2) Full proof multidisciplinary LOTO system (Lockout & Tag out) should be in practice.

(3) Implementation of Work Permit System as per OISD-105 for all jobs inside Refinery needs to be strengthened further.

WORTH MENTION: July 2018: Compressor was handed over to Mechanical Maintenance (following LOTO) to check and rectify problem of vibration. Suddenly, the barring motor got started while the maintenance group was working on the equipment assembly.

Root cause: LOTO for auxiliaries (barring motor) was not done.

Recommendation: In case of any major maintenance job on equipment having auxiliaries, the de-energization of the main motor along with all the auxiliaries should be ensured.

LOTO: Why everyone needs to put their own lock



Lock Out Tag Out (LOTO) will save your life when working on a machine. This video shows a humorous example of why every worker should put their own lock on a machine.

Click the link:

<https://www.youtube.com/watch?v=wdWKQ708msg>

This safety alert is based on the Investigation report submitted by industry and published for information purpose only.

Industry members are requested to post 'Safety alerts' in above format to Devendra Mahajan, Joint Director, OISD at mahajandm.oisd@gov.in to share across the Industry.