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**Objective** : Safe working/maintenance on Goulitine Damper in Boiler 1/2

**Scope** : Power Plant

**Responsibility** : Plant manager, Shift I/C, Operator

**PPEs to be used** : Helmet, Safety shoes, safety hand gloves, ear plugs, nose

mask, Goggles

## **Aspect-Impact**

Scrap Generation Resource Depletion

# **Hazards Identified**

Mechanical Hazard - Entanglement

Fall of man/ material from heightImpact of moving/slinged items.

-.Failure of Sling- Toppling of crane

- Crane Wire rope Snatching

- Cut injury

Physical Hazard Burn Injury

Suffocation

Health hazard CO gas poisoning Electrical Hazard Electric Shock

Human behavior improper housekeeping

Non use of PPEs Alcoholism Overconfidence Negligence

Improper body positioning

## **Safety precautions:**

- 1. Avoid using mobile phone while working.
- 2. Use appropriate tools required for the job.
- 3. Electrical equipments used should be thoroughly certified by Electrical Engineer.
- 4. After job always do proper housekeeping.
- 5. Always prevent body from line of action of force.
- 6. Perform proper communication verbal and non-verbal as required.
- 7. 24 volt DC supply should be used for providing illumination

#### PRECHECKS:-

- Take electrical shutdown for the required equipment in consultation with electrical & operation departments
- 2. Take work permit

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- 3. Ensure proper illumination while working
- 4. Other procedures to follow: SP44

## Work No 1: Procedure for dismantling the Goulitine Damper

- 1. Take work permit from operations for working on Boiler GD
- 2. Take electrical shutdown of the Actuator and disconnect the power and control cables.
- 3. Remove the actuator by opening the M16 bolts.
- 4. Remove the gratings and support structure in front of the GD
- 5. Place 100Ton Crane at required location
- 6. Dismantle the platforms which will foul with the crane while removing the Damper
- 7. Sling the Equipment at the bonnet cover. Proper sling to be used as the weight of the GD will be around 12 T.
- 8. Ensure the Boom top, Crane hook and Weight are in Straight line.
- 9. Once all the Bonnet cover bolts are cut and punched and GD is free from the structure start lifting the load with the Crane.
- 10. Slow lifting to be done as the disc should not foul with the Common Duct.
- 11. Once the Disc is free and completely out of the common duct start the slewing moment of the crane
- 12. Lift the cut piece and shift it at the bottom.
- 13. Shift the removed piece at a safe location.
- 14. Put Ceramic cloth on top of the opened bonnet and cover the same with a dummy plate and bolt the same.
- 15. Install the new damper gate fabricated above the dummy plate with proper supporting structure.

## DO :

- ✓ Ensure Crane Checks done before lifting
- ✓ Ensure the verification of the lifting tools & tackles & electrical equipment's before use.
- ✓ Proper Housekeeping to be done after job is completed.

#### DO NOT :

- X Use mobiles while working
- X Indulge in the Horse Play

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