	VEDANTA LIMITED – VALUE ADDED BUSINESS	Format No.:	VL/IMS/PP2/MECH/WI/10
	INTEGRATED MANAGEMENT SYSTEM	Revision Date:	05.04.2021
	<u>Work instruction for Valve Maintenance</u>	Revision No.:	02
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Objective: - Overhaul used valves and re use them
Scope: - power plant Accessories
Ref.: - valve maintenance manual
Responsibility: - Engineer In charge & Fitter on job
PPE's to be used: Helmet, Safety shoes, Hand gloves and complete sealed goggle

Aspect, impact

Grease spillage Land contamination
 Scrap generation Resource Depletion
 Oil traced waste generation Land contamination & Resource Depletion

Hazards identified

Mechanical hazard -

1. Fall of valve on feet, hand while shifting
2. Entanglement while operating , shifting the valve
3. Fall of valve while keeping in vertical
4. Injury while using chisel
5. Fall of spare parts while overhauling
6. Chips entering in eyes while chipping.
7. Back Pain due to improper handling

Physical Hazard

1. Burn injury from gas cutting operation

Electrical hazard

1. Electric shock while re-building on broken parts


Human behavior:

1. Overconfidence,
2. alcoholism,
3. Negligence
4. non usage of PPE's
5. Poor house keeping

Safety precautions:

- Avoid using mobile phone while working.
- Use appropriate tools required for the job.
- After job always do proper housekeeping.
- Always prevent body from line of action of force.
- Perform proper communication verbal and non-verbal as required.

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Procedure

Work No 1: Valve overhauling

- Shift the valve from the storage area to the workshop at the valve overhauling section.
- Refer procedure/MECH/shifting / handling the valve
- Stack the valve properly in the overhauling area before starting the job.
- First step is to dismantle the valve.
- Check whether bolts of the bonnet can be removed by spanner. If the bolts are rusted then use chisel for removing the bolts. Use of chisel should be done as per WI/MECH/If not possible with chisel then use gas cutting set for the same. Gas cutting application should be done as per SP44
- After dismantling the bonnet, separate all the parts such as gate, spindle, yoke, nut etc and clean all the parts thoroughly. Replace any damaged part.
- Use of safety goggles (completely sealed) while cleaning .
- Grinding can also be done if required. Grinding should be done as per WI/MAINT/NPP/38
- After all the parts are fully cleaned prepare for assembly of the valve. After assembly shift the valve from overhauling section to 'OVERHAULED VALVES' valves rack outside w/shop
- For valves above 150 NB one helper should be used for the overhauling process.
- After completion of the day's job, area housekeeping, scrap shifting and 5 S should follow.

DO's:

- Use safety goggles while cleaning
- Stack valve properly at overhauling area.

DONT's:

- Shift valves of size 150NB & above manually

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