

## **ARIYALUR**



## **MECHANICAL**

Issue No. 01	Rev. No: 00	Effe	ctive Date: 01-11-2019	SOP/MECH/190		
Issued By: M.R		Approved By: HOD (Mech)				
SOP-JSA FOR COMPRESSOR JOIN SET COUPLING REPLACING						

**Scope** : This SOP is applicable to Safe working for COMPRESSOR JOIN SET COUPLING replacing.

**Responsibility** : Section Engineer - Mech.

Accountability : Section Manager - Mech.

#### PPE:

- 1. Helmet,
- 2. Safety shoe,
- 3. Ear plug,
- 4. Safety goggles.
- 5. Rubber hand Gloves.
- 6. Hand Gloves.
- 7. Nose mask.

#### Tools:

- 1. Box Spanner set
- 2. Ring Spanner set
- 3. Waste cloth.

#### Hazards:

Risks associated Mitigating Measures

Electrical shock 1.Safe and tested tools and tackles

2. on job training



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3. LOTO for motor.

Pressurized air release 1. Mechanical LOTO for outlet valves.

2. Release the air through drain valve and kept it open till the job done.

Hot oil spillage 1.Proper draining of oil.

Fall of objects 1. Usage of certified lifting tools.

## **Training needs:**

- 1. Fire fighting
- 2. Emergency preparedness
- 3. Electrical prevention training
- 4. Assembly procedure
- 5. Lubricant handling.
- 6. Lifting of objects.

#### **Procedure:**

- 1. Take the LOTO for compressor and outlet valves.
- 2. The LOTO and permit paper should be with the person who is working in the site.
- 3. Release the pressure through drain valve and kept it open till the job completed.



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- 4. Loosen the coupling and pipe line bolts.
- 5. Remove the coupling and clean the seating area.
- 6. Replace with new join set coupling.
- 7. Close the drain valve.
- 8. Clear the electrical and mechanical LOTO.
- 9. Take the trial by checking oil spillage and vibration reading.

## **Emergency / Emergency Shut OFF:**

1. If body injury is there, First aid will be given and inform to the Safety department or Call Emergency number 3108/9865152222

## **Records/Annexure:**

- 1. JSA is enclosed below.
- 2. Isolation Matrix.







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## **JOB SAFETY ANALYSIS: (JSA)**

Job Safety Analysis	Job: COMPRESSOR JOINT SET COUPLING REPLACING	Date: 04- 05 - 2020	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: Section Engineer	Supervisor: Section Engineer	Department: Mech.	Section: UTILITY	Approved by: HOD Machanical

Req'd/recommended PPE: Safety helmet, Safety shoe, Safety goggles, Ear plug, nose mask & Rubber hand Gloves.

Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Valve operation	Hand injury / Fatal	Closed the out let valve and open the drain (manual) valve	System will be pressure raised it will blasting the system	Ensure valve condition before start the work
Hot lubricant handling	Resource usage/hand injury	Rubber hand glove usage/Usage of proper tools.	May be a injury/burn/land contamination.	Proper lubricant handling.







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## **Isolation Matrix:**

SL	Activity		Isolatio	Equipment.		
No	, , , , , , , , , , , , , , , , , , , ,					
			Electrical	Energy	Other Energy	
1	COMPRESOR SPIDER replacing	Pyro and dense phase compressor-441CP1-4, 421CP1  Cement mill and Fly ash unloading compressor-K21CP1-2,  N2 COMPRESSOR	Isolate the Related other energy isolatio n		Isolate or closed the valves	