1. **PURPOSE: To describe the procedures for rail repair/ replacement & Alignment work and girder changing**
2. **SCOPE: Applicable to Rail# 00,02,04,05,06 & 07**
3. **RESPONSIBILITY:** Engineer In charge, Company Fitter & Contract workmen
4. **SAFETY PRECAUTIONS:**

* Ensure all Electrical & Mechanical isolation prior to starting work on equipment. Follow documented isolation procedure as per Vedanta approved isolation standards.
* Safety briefing / Toolbox talk to be carried out and to be documented
* Follow *one man one lock* system and use of LOTO box.
* Check availability of valid DCP fire extinguishers, if not available then inform shift in charge.
* Check and ensure safety of man and equipment before starting operations.
* Cordoning /barricading of area where work in progress
* All unwanted material from the area to be removed before releasing the equipment electrical isolation.
* Follow proper documented procedure for releasing the electrical isolations as per Vedanta approved isolation standards.
* *Certified lifting Tools & Tackles* to be used for the job.
* In case of BF gas leakage is detected, immediately vacate the area, along with persons working nearby and inform Production shift I/C of the same.

1. **PPE to be used :**

* Safety Helmet
* Safety shoes
* Safety Goggles
* Hand gloves
* Dust mask
* Welding shield & welder apron
* Cutting Goggles

1. **Activities**

Activity No 1 : Rail repair/ replacement work & alignment and Rail girder replacement

1. **Aspect-Impact:**
2. Scrap generation Resource Depletion.
3. Dust Generation Air Pollution.
4. **Hazards Identified:**
5. Physical Hazard

* coal dust and fines
* Contact with hot surface
* Electrical shock
* High Temperature

1. Mechanical Hazard

* Impact, Entrapment, Entanglement, Hit, Cut, Slip , trip and fall

1. Chemical Hazard

* Fire and explosion, fumes.

1. Ergonomical Hazard

* Poor workplace design

1. Health Hazard :

* Inhalation of coal dust

1. Human behavior:

* Alcoholism.
* Casual approach.
* Horse play.
* Non usage of PPE’s
* Improper Housekeeping
* Height Phobia

1. **PROCEDURE:**

**Activity No 1: Rail repair/ Girder replacement & alignment**

* Based on the pushing schedule ensure that the job is planned for the battery for which pushing is not scheduled.
* Take protocol/ work permit from shift in charge and car operator before the start of the job and after the completion of the job.
* Shut down to be taken for the car which is not in operation and Ensure that it is kept in repair bay
* Cordoning of working area to be done with WIP tape.
* Loosen the rail bolts, remove old/ damaged rail.
* Position new rail, align and fix using clamps.
* shift rail girder at center of stools provided.
* For Girder changing rail to be removed as per requirement.
* Job should be carried out under close supervision.
* After completion of job, Clear the area, inform shift in charge and clear the electrical shutdown.

**Safety precautions:**

* Take related work permit and electrical isolation of equipment before starting the job.
* Check availability of valid DCP fire extinguishers, if not available then inform shift in charge.
* Check and ensure safety of man and equipment before starting operations.
* Check no unauthorized personnel are working in and around car Travel area.
* Ensure Use of all relevant PPEs. (Safety shoes, safety helmet, Dust mask, safety goggles)

**10.0 REFERENCES:**

OEM Manuals & reference drawings, SP44, SP45

**11.0 RECORDS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Record No.** | **Record Title** | **Maintained by** | **Soft/Hard form** | **Retention Time** |
| 1. | - | - | - | - | - |
|  | HI/12 | Hazard Identification | IMS | Soft | 1 Yr. |
|  | RA/12 | Risk Assessment | IMS | Soft | 1 Yr. |

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| 13-08-2022 | Header | Company logo & Document no. | 05 |
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| **Prepared By:**  Head Mechanical Maintenance, Battery 1- MCD | **Reviewed & Issued By:**  Management Representative | **Approved By:**  Head Mechanical Maintenance MCD |
| **Signature:** | **Signature:** | **Signature:** |
| **Review Date: 13.08.2022** | **Review Date: 13.08.2022** | **Review Date: 13.08.2022** |