**SOP FOR**

1. **PURPOSE: Safe Fabrication work at Receiving hopper Grizzly**
2. **SCOPE:** **Blast Furnace Accessories .**
3. **RESPONSIBILITY: Engineer In charge & Maintenance Fitter on job .**
4. **PROCEDURE: Receiving Hopper Grizzly welding / repair .**

**PPE –s to be used:**

* Helmet, Safety shoes safety goggles, **Apron** and Hand gloves.

**Aspect – impact**

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| Scrap generation Resource depletion  Dust generation Air Pollution  Fumes Health | Resource Depletion |

**Hazards identified**

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| **Physical hazards** |
| 1. Inhalation of welding fumes 2. Inhalation of dust. 3. Pressure 4. Temperature. |

**Mechanical Hazardous:**

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| 1. Entanglement between rotating components |
| 2.  Impact of hammer, tools, components. |
| 3.   Fall of materials such as hammer, pipe wrench, spare parts, bolts, spanners, slinged items. |
| 4.    Fall into the receiving hopper due to failure of working grizzly. |

**Electrical hazard** - Electrical shock

**Chemical hazardous**: Gas Poisoning,

**Work No 1 : Receiving Hopper Grizzly welding / repair**

1. This job has to be done only during furnace shutdown ~~& lower sealing~~ & upper sealing valve and also Burdun stop valve has to be kept Closed.
2. Ensure that receiving hopper should be empty before starting job.
3. Take clearance from control room Operator & ,~~take Electrical shutdown of Hydraulic power pack (BSV & USV in closed condition)~~& also take Electrical shutdown of Conveyor belt # 1 both drives.
4. ~~Remove the soloneide of both the valves.~~
5. Take mechanical isolation of BSV & USV (close condition ) particular valve manifold pressure line & return line , follow LOTO procedure.
6. Take workpermit from SS.
7. Close nitrogen line which was given to ~~thermometer~~ radar.
8. Check co-gas level & oxygen level , by coordinating with operation dept.
9. Continuously Monitor Co-gas Level & oxygen level.
10. Open the ~~manhole~~ hood door for Grizzly welding work .
11. Clear the material jamming with the help of operation.
12. Use safety belt ~~while working inside the receiving hopper~~& also use Hand lamp.
13. By using manila rope tie the grizzly plate & keep in position & then make a stitch welding on both ends & then remove the manila rope and weld completely,
14. After completion of job put back removed ~~manhole~~ hood & also open the Nitrogen valves.
15. Clear electrical shutdown ~~of hydraulic power pack~~ & conveyor belt # 01 both drives & also clear work permit & clear mechanical isolation.

DO’s:

1. Ensure top firing is carried out.

2.      Take separate electrical shutdown of Conveyor-1

3.      Keep monitoring CO gas & oxygen % , till work is completed.

**REFERENCES: Operation & Maintenance manual.**

**Amendement Record**

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| **Date** | **Manual Section Ref. & Para** | **Brief details of Revision** | **New Rev.** |
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| --- | --- | --- |
| **Prepared By:**  Area Engineer | **Reviewed & Issued By:**  Management Representative | **Approved By:**  Mechanical Head |
| **Signature:** | **Signature:** | **Signature:** |
| **Review Date:** | **Review Date:** | **Review Date:** |