**WORK INSTRUCTIONS FOR** **CLEANING EL BY HITACHI**

**Criteria**: Environment & safety

**Responsibility:** Pig shifting Incharge

**Identified Hazard:**

1. Fire explosion

2. Contact with dust particle

3. Breaking of Hitachi glass due to heat

4. Breaking of Hitachi glass due to hot metal falling onto glass

5. Impact of moving machinery

6. Contact with hot metal/slag, hot water and steam.

7. Human Behavior- Non adherence to PPE/WI.

**Significant Aspect:**

1. Dust generation

2. Fumes generation

3. Vehicle emission

**Procedure:**

1. Unauthorized operation or repair of any equipment is a punishable offence.
2. Ensure that person supervising activity is wearing all PPE viz dust mask, safety goggle, safety shoes.
3. Before starting activity Pig shifting in charge should ensure that EL is cooled properly, check for metal left in EL by consulting the Cast house in charge.
4. Check for any oil spillage that can catch fire due to high temperature slag/metal
5. Pig shifting In charge should ensure that Hitachi operator and people around wear safety goggles, dust mask, helmets, safety shoes,
6. Remain away from Hitachi swing area.
7. Pig shifting in charge should ensure that EL cleaning is done slowly and carefully to avoid explosion, and dust generation. Small pieces should be removed.
8. Stack slag bolder at one side and spread for natural cooling.
9. After EL area is cleaned level the area with little slope and small dam all around.
10. Cool the slag boulders properly and shift as per procedure. Ref. VL/IMS/PID1/PROD/WI/15
11. Water should not be poured for cooling slag until cast is closed.
12. Alert to be generated for evacuating manpower from below and on PCM 4 while using EL for diverting slag/metal.
13. MS sheet protection to the corner area of EL platform to be ensured.
14. Periodic inspection & rectification to maintain the slag dam height to avoid metal entry in slag to be ensured.
15. Brick should be used for slag dam height & it should be higher than metal dam height.

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| **Prepared By:**  Head – Production PID I | **Reviewed & Issued By:**  Management Representative | **Approved By:**  Head – Pig Iron Division |
| **Signature:** | **Signature:** | **Signature:** |
| **Date: 10.07.2023** | **Date: 10.07.2023** | **Date: 10.07.2023** |

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| 15.07.2022 | Work instructions for cleaning of EL by Hitachi | Change in format | 04 |
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