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| <br><b>SHAKAMBHARI GROUP</b><br>#SteelWithin |                    | <b>SHAKAMBHARI ISPAT &amp; POWER LTD.</b><br>(Formerly known as Ess Dee Aluminium Ltd.) |                         |
| <b>STANDARD OPERATING PROCEDURE</b>                                                                                           |                    |                                                                                         |                         |
| <b>Title:</b> Equipment Maintenance & Calibration                                                                             |                    |                                                                                         | <b>Page No.</b> 1 of 3  |
| <b>SOP No.</b>                                                                                                                | <b>Version No.</b> | <b>Effective Date</b>                                                                   | <b>Next review date</b> |
| SIPL/QAS/006                                                                                                                  | 00                 | 07.07.2026                                                                              | 06.07.2028              |

**1.0 PURPOSE**

- 1.1 To define the procedure for maintenance and calibration of equipment. All equipment and instruments that have an impact on product quality must be tracked and maintained under the calibration and maintenance schedule.

**2.0 SCOPE**

- 2.1 This SOP applies to instruments / equipment and utilities at Shakambhari Ispat & Power Ltd. which may have an impact on product quality.

**3.0 REFERENCE(S) & ATTACHMENTS****3.1 References**

- 3.1.1 ISO 15378:2017, D.6 & D.6.4

**3.2 Attachments**

- 3.2.1 Attachment I: Daily Verification of Weighing Balance - SIPL/QAS/006/F01/00  
 3.2.2 Attachment II: Breakdown Maintenance Report - SIPL/QAS/006/F02/00

**4.0 RESPONSIBILITY****4.1 Engineering Department Person**

- 4.1.1 To prepare the SOP.

**4.2 Engineering Head**

- 4.2.1 To check the SOP and to give training of the SOP to relevant personnel.

**4.3 QA Head:**

- 4.3.1 To ensure the training of the SOP to all concerned personnel involved in implementation of the SOP.  
 4.3.2 To ensure the implementation of the SOP after training.

**4.4 Plant Head / Department Head**

- 4.4.1 To approve new or revised SOP.  
 4.4.2 To ensure the implementation of the defined system.

**5.0 DISTRIBUTION**

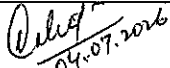
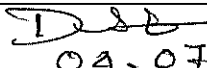
- 5.1 Quality Control  
 5.2 Production  
 5.3 Engineering

**6.0 DEFINITION(S) & ABBREVIATION(S)****6.1 Definitions**

- 6.1.1 **Maintenance:** actions necessary for retaining or restoring a piece of equipment, machine or system to the specified operable condition to achieve its maximum useful life. It includes corrective maintenance and planned maintenance.  
 6.1.2 **Calibration:** a comparison between measurements — one of known magnitude or correctness made or set with one device, and another measurement made in as similar a way as possible with a second device. The device with the known or assigned correctness is called the Standard. The second device is the unit under test, test instrument, or any of several other names for the device being calibrated.

**6.2 Abbreviations**

- 6.2.1 PM: Planned Maintenance

|                                                                                                   |                                                                                                   |                                                                                                     |
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| <b>Prepared By:</b>                                                                               | <b>Checked By:</b>                                                                                | <b>Approved By:</b>                                                                                 |
| <br>04.07.2026 | <br>04.07.2026 | <br>04.07.2026 |

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| SIPL/QAS/006                                                                                                                  | 00                 | 07.07.2026                                                                              | 06.07.2028              |

## 7.0 PROCEDURE

### 7.1 Planned Maintenance

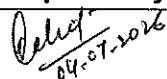
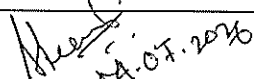
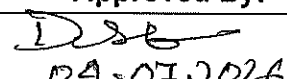
- 7.1.1 The Engineering (Maintenance) Department shall prepare a monthly planned maintenance schedule for the production equipment, utilities, material handling and HVAC equipment.
- 7.1.2 The Engineering (Maintenance) Department shall prepare the checklist for each functional location.
- 7.1.3 The Maintenance Engineer will execute the planned maintenance job and complete the planned maintenance.
- 7.1.4 The Maintenance Department shall also record planned maintenance activities for each machine, spare parts consumed and status of the machine in a separate checklist.
- 7.1.5 Planned maintenance and checklists of all equipment need to be described.

### 7.2 Breakdown Maintenance

- 7.2.1 The Production Department shall communicate to the Engineering (Maintenance) Department about any failure of a machine in terms of physical damage, deviation in monitoring equipment beyond the tolerance limit, or deviation observed in the resultant product beyond the acceptance limit.
- 7.2.2 The communication shall clearly define the failure details along with time and date.
- 7.2.3 Maintenance shall analyse the problem and decide on the remedial / repair action.
- 7.2.4 The Maintenance Engineer shall attend the breakdown job and, after completion of the job, inform the Production Department.
- 7.2.5 After restoration of the equipment to normal condition, the Maintenance Engineer will technically complete the breakdown order.
- 7.2.6 At the end of the month, the Engineering (Maintenance) Head shall prepare breakdown time / response time / effectiveness of breakdown maintenance, etc.

### 7.3 Calibration

- 7.3.1 All equipment which directly affects the quality of the finished product shall be considered in the annual calibration plan.
- 7.3.2 QA shall generate a unique equipment ID for all equipment to be calibrated. A list of all equipment in all departments shall be maintained with QA.
- 7.3.3 The calibration plan for all critical equipment shall be maintained.
- 7.3.4 It should also be stated whether the calibration should be performed in-house or by external parties.
- 7.3.5 The calibration plan shall have "Equipment ID", "Location", "Last Calibration Date" and "Calibration Due".

|                                                                                                   |                                                                                                   |                                                                                                     |
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| <b>Prepared By:</b>                                                                               | <b>Checked By:</b>                                                                                | <b>Approved By:</b>                                                                                 |
| <br>04.07.2026 | <br>04.07.2026 | <br>04.07.2026 |

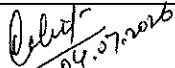
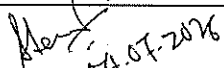
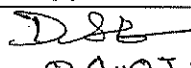
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| SIPL/QAS/006                                                                                                                  | 00                 | 07.07.2026                                                                              | 06.07.2028              |

- 7.3.6 Calibration can be performed 30 days prior to the date due for recalibration.
- 7.3.7 In case the calibration is not performed within the stipulated period, then the "Un-calibrated" sign in red colour shall be displayed on the equipment. Un-calibrated equipment shall not be used and, if possible, shall be removed from the area. If the un-calibrated equipment or part is in the VITAL category, the QA Head shall be notified and Quality Assurance is authorized to stop manufacturing operations until the part is re-calibrated.
- 7.3.8 After equipment is calibrated by an external testing agency, the report is reviewed by QA and, if found satisfactory, QA will stamp the report with "Checked & Reviewed by QA" and affix the signature and date of the reviewer.
- 7.3.9 If the equipment is found out of calibration, then inform the concerned agency to rectify the equipment and do the recalibration. After recalibration, if the equipment is found within acceptable tolerance then use it; if it is found again out of calibration, then discard the equipment and replace it with a new calibrated one.
- 7.4 Daily Verification of Weighing Balance**
- 7.4.1 Electronic weighing balances of the areas which directly affect the quality of material or weighing of finished goods shall be verified on a daily basis. The verification shall be done with the standard dead weight as applicable to the operating range. This is approved / stamped by the government. The daily verification of the weighing balance is done at the start of the shift.
- 7.4.2 Take weight at every corner and the mid of the weighing balance, i.e. 5 different points (C1, C2, C3, C4 & C5), and enter on the specified format.
- 7.4.3 Where "C" refers to the centre and corners of the weighing balance.

**8.0 REVISION HISTORY:**

| Revision No.                 | 00 | Effective Date | 07.07.2026 | CC No. | NA |
|------------------------------|----|----------------|------------|--------|----|
| Details of revision: New SOP |    |                |            |        |    |

| Prepared By:                                                                                      | Checked By:                                                                                       | Approved By:                                                                                        |
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| <br>04.07.2026 | <br>04.07.2026 | <br>04.07.2026 |