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|  | BHARAT HEAVY ELECTRICALS Ltd RAMACHANDRAPURAM HYDERABAD – 502032 | REV 01 | Page 1 of 3 |
| | FP-PI01 Specification for PIG IRON FOR FOUNDRY | Date: 24.06.2025 | |

1. GENERAL:

This specification governs the quality requirements of Pig Iron for Foundry.

2. APPLICATION:

Used for the production of heavy duty Iron / Steel castings.

3. COMPLIANCE WITH NATIONAL STANDARDS:

This specification is based on the following national standard.

IS 13502 : 2023: Pig Iron-Specification.

4. SIZE AND SHAPE:

The blocks of pig can be 5 to 50 kg (approx.) having 3/2/1/0 notches, each segment weighing 5 to 20 kg (approx.).

5. GENERAL APPEARANCE:

The material shall be clean and free from excessive Sand or Kish.

6. CHEMICAL COMPOSITION:


The chemical composition of pig iron shall be determined either by the methods specified in IS 12308 (relevant parts) or any established instrumental/chemical method and shall conform to the following composition:

| C | Si | Mn | P | S | Fe |
|-----------|------------|---------|----------|----------|-----------|
| 3.5 – 4.5 | 0.50 -1.25 | 1.0 max | 0.12 Max | 0.06 Max | Remainder |

7. SAMPLING & TESTING:

- Supplier shall give intimation to BHEL after the material is ready for dispatch along with the original manufacturer certificate mentioning the PO details.
- BHEL will depute a representative or will assign a designated third party for inspection at vendor's works. The inspection agency will identify the lot offered for BHEL purchase order supply.
- The inspection agency will pick representative samples from the offered lot. Along with the original manufacturer test certificate, the vendor shall also be responsible for getting the chemical analysis done for these samples at an NABL

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| Nature of Revision: Cl. 3,6,7,10 revised | Prepared By:  Manager/F&P Technology ABHINAV AGRAWAL एक एवं पी (प्रौद्योगिकी एवं पैटर्न शॉप) Manager / F&P (Technology & Pattern Shop) बी.एच.ई.एल.-एचपीईडी, हैदराबाद-32, BHEL - HPEP, HYD-32 | Approved By:  AGM/F&P,CWS VIVEK KISHORE PRASAD अवर महाप्रबन्धक / सी जेम्स एल (एक एवं पी) Addl. General Manager / CWS (F&P) बी.एच.ई.एल.-एचपीईडी, हैदराबाद-32, BHEL - HPEP, HYD-32 |
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accredited lab for all the elements specified in this specification, as per clause 6 mentioned above.

- d. The Test Report / Certificate should contain Sampling Process, Testing Methodology for the chemical Analysis, Batch/Lot No of material.
- e. Accordingly, the TPIA (Third-Party Inspection Agency) will review the test report/certificate from NABL accredited lab submitted by the vendor for the samples chosen by the inspection agency during the sampling process. The review will encompass the testing methodology and test results for the chemical analysis of the material lot.
- f. If the result obtained from NABL accredited lab confirms to the specification requirement and TPIA confirms the same, the vendor shall provide these reports to BHEL, based on which BHEL will grant clearance for the dispatch of the material
- g. BHEL may, at its discretion, may test the material after receipt and if done, acceptance of the material will be based on the BHEL's test results.
- h. In case of a dispute, the procedure outlined in the latest version of IS 12308 (relevant parts) will apply.
- i. For result of analysis and properties of material the decision of BHEL shall be final and binding on the supplier.
- j. If the material received is not found suitable according to the requirements, it shall be replaced free of cost by the supplier.

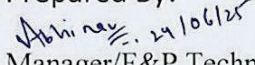

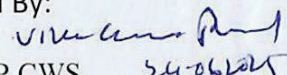
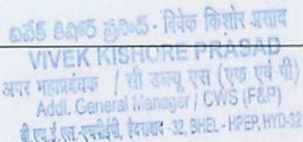
8. TEST CERTIFICATES:


The supplier shall give Test Certificate incorporating the results of the Inspection Agency and also certifying that the material supplied is as per the PO and Specification. Also one set of test certificates from the original manufacturer shall be supplied, in case vendor is trader.

One set of Test certificates shall be sent along with the dispatch documents and another set of test certificates shall be sent along with invoice and other documents.

The test certificates shall bear the following information:

- (i) Material: "PIG IRON"
- (ii) BHEL PO: "xxxxxxxxx"
- (iii) Original Manufacturer's Name & Details:
- (iv) Trade Mark, if any:
- (v) Test results of chemical analysis from the original manufacturer.

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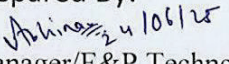
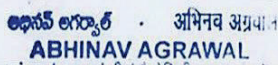
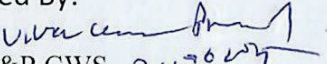
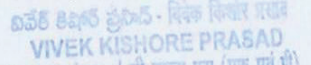
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9. PACKING AND MARKING:

The material shall be supplied in truck/wagon loads in loose condition but shall be protected from moisture, rain during transit.

10. REFERRED STANDARDS (Latest publications including amendments):

- 1) IS: 12308 2) IS13502

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