

Government of West Bengal
DIRECTORATE OF BOILERS

N. S. Building, 8th Floor,
1 K.S. Roy Road, Kolkata – 700001

Order No. L/1655

Date: 24.12.18

ORDER

The following STANDARD INSPECTION PROCEDURE, corresponding to services mentioned against them, are issued for information of public and are to be strictly followed:

1) STANDARD INSPECTION PROCEDURE FOR DRY AND THOROUGH INSPECTION

- a) Checking Registration Number of the Boiler.
- b) Carry out thorough visual inspection of boiler inside and outside after proper cleaning.
- c) Checking defects like crack, erosion, corrosion, bulging, pitting, deformation of pressure parts etc.
- d) Checking of thickness of pressure parts.
- e) Checking of Mountings and Fittings.
- f) Witnessing Non-destructive Testing if required

2) STANDARD INSPECTION PROCEDURE FOR GROUND INSPECTION OF BOILER UNDER REGISTRATION / ERECTION

- a) Verification of documents of pressure parts with relevant IBR certificates.
- b) Verification of the approved drawings and documents.
- c) Checking of the facsimile of the makers' stamp and other identification marking with Form-II or other relevant IBR certificates.
- d) Checking of the leading dimension of the pressure parts with the approved drawing.
- e) Checking of the general condition of the pressure parts (like denting, deformation, crack pitting etc.).
- f) Checking of all Mountings and Fittings with relevant IBR document.

3) STANDARD INSPECTION PROCEDURE FOR MATERIAL INSPECTION

- a) Verification of the approved drawing corresponding to the material and documents.

- b) Checking of the pressure part material with relevant IBR certificate and approved drawing (Name of Part, Material Specification, Heat No., Cast No., Class, Size, Identification Number, Stamping etc.)
- c) Checking of leading dimension of the pressure parts with the approved drawing.
- d) Checking of the general condition of the pressure parts visually.
- e) Selection of Samples for Physical and Chemical testing if required.

4) STANDARD INSPECTION PROCEDURE FOR FIT-UP / TACK WELD INSPECTION

- a) Verification of the approved drawing.
- b) Verification of the Welder's Certificate.
- c) Verification of the certificates of the Welding Consumables.
- d) Verification of the approval of the Contractor for the particular job.
- e) Verification of the approved Welding Procedure Specification.
- f) Verification of the satisfactory result of the site Simulation Test.
- g) Verification of the satisfactory Check Test result of the pipe/tube/plate.
- h) Checking of the Root gap, Weld groove profile, Alignment of the pressure parts to be welded as per approved drawing etc.
- i) Ensure weld joint area to be free from rust, scale, oil, grease, crack etc.
- j) Check provision for baking of electrode for low hydrogen electrode.
- k) Check weld joint identification number.

5) STANDARD INSPECTION PROCEDURE FOR VISUAL INSPECTION OF WELDING

- a) Visual inspection for checking the general condition of welding (like Spatter, Undercut, Reinforcement, Surface Crack, Leg length, Surface condition etc.)
- b) Checking alignment of the pressure parts.
- c) Witnessing Magnetic Particle Test, Dye Penetrant Test, and Hardness Test etc. if required.
- d) Selection of welded joints for Non-destructive Testing like Radiographic Testing, Ultrasonic Testing etc.

6) STANDARD INSPECTION PROCEDURE FOR HYDRAULIC TEST

- a) Verification of the satisfactory Non-destructive Testing report of the welded joints.

- b) Verification of the Positive Material Identification (PMI) Report.
 - c) Verification of the Pressure Parts Calculation approval.
 - d) Verification of all previous Inspection Reports and PWHT Charts.
 - e) Checking of calibration certificate of pressure gauge.
 - f) Witnessing Hydraulic Test carried out as per Indian Boiler Regulations. 1950.
 - g) Checking of Deflection, Distortion and extension of pressure parts during Hydraulic Test.
- h) Thorough Checking of the pressure parts during Hydraulic Test for detecting any leakage or sweating.

7) STANDARD INSPECTION PROCEDURE FOR STEAM TEST OF BOILER

- a) Verification of the Provisional Order of the Boiler.
- b) Witnessing the Steam Test as per Indian Boiler Regulations, 1950.
- c) Checking of the Popping Pressure, Reset Pressure, Percentage Blow Down, Accumulation, Lift, Chattering etc. during Steam Test.
- d) Checking of the performance of all Mountings and Fittings during Steam Test.

8) STANDARD INSPECTION PROCEDURE FOR FINAL INSPECTION

- a) To carry out thorough visual inspection.
- b) Checking dimension and configuration as per approved drawing.
- c) Check the Identification Mark on the job.
- d) Stamp the pressure part with the Official Seal (Ashoka Emblem).

9) STANDARD INSPECTION PROCEDURE FOR FORMING OPERATION (BENDING, FORGING, SWAGING ETC.)

- a) Witness forming process as per approved drawing.
- b) Check starting and finishing temperature of forming operation, R/D ratio, ovality for tube/pipe, forging ratio etc. as per approved drawing.
- c) Suggest post forming heat treatment, if required.
- d) Select and stamp test pieces for check test.
- e) Review heat treatment chart and all testing reports.

- f) Carry out visual inspection, hardness, thickness test etc. and measure final dimension as per approved drawing.
- g) Check the identification mark and stamp it with the official seal (Ashoka Emblem).

10) STANDARD PROCEDURE FOR SCRUTINY OF DRAWING

a) Verification of the following reference documents:

- i) P&I Diagram
- ii) Feed pump characteristic curve
- iii) Flexibility analysis report
- iv) Copy of existing drawing.

b) Checking of title block with the following:

- i) Owners / Makers name and address.
- ii) Title of drawing
- iii) Drawing No. and revision No.

c) Checking of the following Design data:

- i) Code of design, inspection and testing.
 - ii) Design Pressure of component.
 - iii) Design Temperature of component.
 - iv) Hydraulic test pressure.
 - v) Related boiler Number.
 - vi) Boiler design pressure.
 - vii) Boiler design temperature.
- d) Notes to be checked:
- i) Process of forming
 - ii) Post forming heat treatment requirement.
 - iii) Testing of welded joints.
 - iv) Post weld heat treatment requirement.
 - v) Location of hydraulic test.
 - vi) Slope of piping.
 - vii) Revision Note

e) Bill of materials to be checked:

- i) Part Number.
- ii) Description of part.

- iii) Size or Dimension of part (O/D, thickness, length etc.) in mm.
- iv) Quantity of material.
- v) Class / Rating of part etc.
- f) Other details to be checked:
 - i) Design Criteria.
 - ii) Selection of proper material
 - iii) Strength calculation.
 - iv) Part no. marking.
 - v) Support type and location.
 - vi) Drainage.
 - vii) Venting.
 - viii) Direction of flow.
- ix) Reference welding figure no with configuration

11) STANDARD INSPECTION PROCEDURE FOR APPROVAL / RECOGNITION OF MANUFACTURER

- a) Scrutiny if Submitted Documents.
- b) Inspection of Premises, Verification of Manpower along with their Experience and Machineries.
- c) Submission of Report
- d) Technical Discussion.
- e) Issuance of Recognition Certificate.

12) STANDARD INSPECTION PROCEDURE FOR APPROVAL OF ERECTORS

- a) Scrutiny if Submitted Documents.
- b) Inspection of Premises, Verification of Manpower along with their Experience and Machineries.
- c) Submission of Report
- d) Technical Discussion.
- e) Issuance of Recognition Certificate.

This issues in compliance with Labour Department Notification No: Labr/141/IT&EoDB dated 30/11/2018 and shall come into immediate effect.

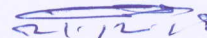
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Director of Boilers,
Government of West Bengal

L/1655/1-2 dt-24.12-18

Copy forwarded for information to:

- i. The Principal Secretary, Labour Department
- ii. Special Secretary, Labour Department
- iii. Managing Director, West Bengal Industrial Development Corporation "PROTITI",
23, Abanindranath Tagore Sarani, (Camac Street) Kolkata – 700017


Director of Boilers,
Government of West Bengal

 21/12/18

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