

(To be published in Part II, Section 3, Sub-section (i) of the Gazette of India)

Government of India
Ministry of Commerce and Industry
Department of Industrial Policy and Promotion
(Central Boilers Board)

New Delhi, the 11 June, 2004.

Notification

G.S.R. 203- Whereas certain draft regulations further to amend the Indian Boiler Regulations, 1950 were published, as required by sub-section (1) of section 31 of the Indian Boilers Act, 1923 (5 of 1923), vide notification of the Government of India in the Ministry of Commerce and Industry (Department of Industrial Policy and Promotion) (Central Boilers Board) number G.S.R. 378, dated the 21st October, 2003, published in the Gazette of India, Part II, Section 3, Sub-section (i) dated the 25th October, 2003, for inviting objections and suggestions from all persons likely to be affected thereby before the expiry of forty-five days from the date on which copies of the Gazette containing the said notification were made available to the public;

And whereas the copies of the said Gazette containing the notification were made available to the public on the 7th November, 2003;

And whereas no objections or suggestions have been received within the specified period in respect of the amendments contained in the said notification;

Now, therefore, in exercise of the powers conferred by section 28 of the Indian Boilers Act, 1923, the Central Boilers Board hereby makes the following regulations further to amend the Indian Boiler Regulations, 1950, namely:-

1 (1) These regulations may be called the Indian Boiler (Second Amendment) Regulations, 2004.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Indian Boiler Regulations, 1950, (hereinafter referred to as the said regulations), for regulation 392, the following regulation shall be substituted, namely:-

"392. **Repairs to boilers and steam pipes** - (1) Major repairs such as fusion welded or riveted patches to shells, fire boxes and end plates of boilers and extensive building up of wasted parts of boilers permitted under these regulations, the renewal of furnaces and end plates, parts of shell, fire boxes, girders and steam-pipes, etc. shall only be entrusted to a firm who is recognised as a repairer under these regulations.

(2) Any firm seeking recognition shall apply to Chief Inspector of Boilers of the State in which the recognition is sought.

(3) A firm seeking recognition as a repairer shall meet the following requirements depending upon the class of boilers, namely:-

- (i) Class I boiler repairer- The owner of the firm himself shall have a degree in mechanical or electrical engineering or the firm shall have on its rolls a permanently employed engineer having a degree in mechanical or electrical engineering with the firm having at least five years' experience in fabrication, erection, repair or maintenance and quality control of boilers, and qualified and permanently employed welders as per the provisions of these regulations;
- (ii) Class II boiler repairer- The owner of the firm himself shall have a diploma in mechanical or electrical engineering or the firm shall have on its rolls a permanently employed engineer having a diploma in mechanical or electrical engineering with the firm having at least three years' experience in fabrication, repair and maintenance of boilers;
- (iii) Class III boiler repairer - The firm shall have the experience of five years in repair, maintenance, operation, erection or inspection of boiler.
- (iv) (a) Where the power stations, fertilizer plants, chemical and petrochemical plants or refineries apply for repair of their own boilers, they shall have all the facilities in-house and may apply to the Chief Inspector of Boilers of the State for permission to repair their own boilers in accordance with these regulations.
(b) On receipt of the application for permission to repair to a boiler, the Chief Inspector of Boilers of the State shall reply to the request within a period of fifteen days of the receipt of the application.

(4) On receipt of the application under sub-regulation (3), the Chief Inspector shall send a questionnaire in 'Form XVIII' to the applicant.

(5) The Chief Inspector will scrutinize and evaluate the application along with the replies to the questionnaire and after satisfying himself that the following requirements are fulfilled, shall recognise the firm as a repairer in the category applied for, namely:-

- (i) that the firm possesses rectifier or generator, grinder, general tools and tackles, dye-penetrant kit, expander and measuring instruments;
- (ii) that the electric arc or oxy-acetylene welding sets and all other tools and plant in his possession for carrying out repairs are suitable for the work undertaken;
- (iii) that the quality of material used conforms to the specifications prescribed in these regulations;
- (iv) that the supervisory and operational staff employed by the firm possesses the necessary training and experience for the work undertaken;
- (v) that all welders employed by the firm possess certificates issued as required under Chapter XIII of these regulations;
- (vi) standard of work should be of high order and comply with all the requirements and test that may be prescribed by the Chief Inspector.

(6) The recognition of the firm as a repairer shall be for a period of two years. Thereafter they shall apply for renewal of their recognition at least two months before the expiry of said period.

(7) In case the repairer is found indulging in violating the provisions of the Act/Regulations knowingly or unknowingly, the firm shall be blacklisted under intimation to Chief Inspector or Director of Boilers of all the States/Union territories and renewal shall not be done in any case.

392 A. Procedure for repairs - (1) The repair work shall be carried out under the supervision of Inspector, and when the fireboxes and smoke tubes of locomotive tube boilers are withdrawn, the internal parts, which are otherwise inaccessible to close inspection, shall be inspected by the Inspector.

(2) Repair to boiler shells shall be carried out by patching or by removing a strip of worn or damaged plate and inserting the new strip with covering straps over the longitudinal butt ends, the strength of the riveted joints to be not less than that of the longitudinal joints of the shell.

(3) (a) Patches for fire exposed plates shall be fitted metal to metal without joint of any description.

(b) The affected part shall be cut out, leaving the corners of the hole well-rounded.

(c) Patches shall be secured, wherever possible, properly spaced rivets with a width of plate at least equal to the diameter of rivet between the edge of the rivet hole and the edge of the plate.

(d) Where riveting is impracticable, the plate shall be secured by welt fitting countersunk headed screw pins.

(4) The thickness of a patch plate shall not be less than the original thickness of the plate which it is used to patch.

(5) Bulged or distorted furnaces or circular section may, if the bulge or distortion is not too great, be pressed back to shape.

(6) Circular furnaces of horizontal boilers that have become distorted may be suitably reinforced.

(7) (a) Anti-collapse rings shall be of substantial section either of single or double angles bolted back to back with screw stays not less than 22mm in diameter and about 178mm in pitch passed through flat of angle and screwed into the furnace, the ends being either rounded or riveted over on the fire side and fitted with nuts at the other.

(b) The stay bolts shall be fitted with ferrules not less than 1 inch in depth between furnace and angle ring.

(8) Welding shall not be accepted for the repair of any part of a boiler for which welding is forbidden for a new boiler under these regulations and boiler shells shall not be repaired by welding beyond the filling up of a small isolated corroded or pitted part or the making up of wasted edges of openings.

(9) Cracks or grooving in dished or flat end plates of cylindrical shells or in the bends of furnace flanges in a circumferential direction may be weed out and welded.

(10) Wasted parts of circular furnaces and fire-boxes and fire exposed flat plates as in rectangular fire-boxes and combustion chambers may be cut out and be replaced by new pieces welded in or they may be built up by welding.

(11) Longitudinal cracks in circular furnaces and fireboxes and cracks in rectangular fireboxes and combustion chambers may be welded.

(12) No stay bar shall be welded.

(13) Smoke tubes may be butt welded either by fusion welding, flush welding or oxy-acetylene welding, and these may be tested hydraulically at the discretion of the Chief Inspector."

3. In the said regulations, after Form XVII, the following form shall be inserted, namely: -

"FORM – XVIII

{See regulation 392(4)}

Questionnaire form for repairer of boilers/economiser/steam line/feed water lines etc. under the Indian Boiler Regulations, 1950.

1. Registered name of the firm and its permanent address :
2. Year of establishment :
3. Classification applied for –
 - (a) Class I (pressure ≥ 17.5 kg/cm²) :
 - (b) Class II (pressure < 17.5 kg/cm² and ≥ 7.5 kg/cm²) :
 - (c) Class III (pressure < 7.5 kg/cm²) :
4. Type of jobs executed by the firm earlier, with special reference to their maximum working pressure, temperature and the materials involved, with documentary evidence :
5. Whether the firm has ever been approved by any Boilers' Directorate/Inspectorate ? If so, give details :
6. Whether having rectifier/generator, grinder, general tools and tackles, dye penetrant kit, expander and measuring instruments or any other tools and tackles under regulation 392(5)(i). :

7. Detailed list of technical personnel with Xerox copy of the Welders' current certificate issued under the Regulations who are permanently employed with the firm :
8. How many working sites can be handled by the firm simultaneously? :
9. Whether the firm is prepared to execute the job strictly in conformity with the regulations and maintain a high standard of work ? :
10. Whether the firm is prepared to accept full responsibility for the work done and is prepared to clarify any controversial issue if required? :
11. Whether the firm is in a position to supply materials to required specification with proper test certificates if asked for? :
12. Whether the firm has an internal quality control system of their own?
If so, give details :
13. Qualification and experience of the personnel employed :

Date:

Place:

Signature of the authorised
signatory of the firm with stamp.

Note: 1. The recognition of the firm as a repairer shall be for a period of two years, thereafter they shall apply for renewal of their recognition at least two months before the expiry of the said period.

2. In case the repairer is found indulging in violating the provisions of the Act/Regulations knowingly or unknowingly, the firm shall be blacklisted under intimation to Chief Inspectors or Directors of Boilers of all the States/Union territories and renewal shall not be done in any case."

File No. 6(10)/2000-Boilers

(V.K. GOEL)
Secretary, Central Boilers Board

Note:- The principal regulations were published in the Gazette of India vide number S.O. 600, dated the 15th September, 1950 and subsequently amended vide notifications –

- (i) G.S.R. 178, dated the 24th March, 1990;
- (ii) G.S.R. 179, dated the 24th March, 1990;
- (iii) G.S.R. 488, dated the 9th October, 1993;
- (iv) G.S.R. 516 dated the 23rd October, 1993;
- (v) G.S.R. 634 dated the 25th December, 1993;
- (vi) G.S.R. 107 dated the 26th February, 1994; Errata G.S.R. 223 dated the 14th May, 1994;
- (vii) G.S.R. 250 dated the 4th June, 1994;
- (viii) G.S.R. 402 dated the 13th August, 1994;
- (ix) G.S.R. 427 dated the 20th August, 1994;
- (x) G.S.R. 562 dated the 12th November, 1994;
- (xi) G.S.R. 607 dated the 10th December, 1994;
- (xii) G.S.R. 83 dated the 25th February, 1995;
- (xiii) G.S.R. 93 dated the 4th March, 1995;
- (xiv) G.S.R. 488 dated the 9th November, 1996;
- (xv) G.S.R. 582 dated the 28th December, 1996;
- (xvi) G.S.R. 59 dated the 25th January, 1997;
- (xvii) G.S.R. 117 dated the 1st March, 1997;
- (xviii) G.S.R. 172 dated the 29th March, 1997.
- (xix) G.S.R. 221 dated the 21st November, 1998.
- (xx) G.S.R. 131 dated 1st May, 1999.
- (xxi) G.S.R. 139 dated 8th May, 1999. Errata G.S.R. No. 201 dated 7th April, 2001.
- (xxii) G.S.R. 237 dated 31st July, 1999.
- (xxiii) G.S.R. 345 dated 23rd October, 1999.
- (xxiv) G.S.R. 397 dated 14th October, 2000
- (xxv) G.S.R. 219 dated 14th April, 2001.
- (xxvi) G.S.R. 496 dated 8th September, 2001
- (xxvii) G.S.R. 672 dated 15th December, 2001.
- (xxviii) G.S.R. 127 dated 13th April, 2002.
- (xxix) G.S.R. 407 dated 22nd November, 2003.

To

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