

# History of Boilers

Steam Boilers are of very ancient origin. The introduction of famous James Watt's improved steam engine from 1769 to 1775 onwards resulted in great improvement in steam plants.

In the year 1863, a very serious boiler explosion occurred in Calcutta which caused the loss of several lives. As a result of this explosion, the necessity of inspection of boilers was widely recognised and a bill was introduced in the Bengal Council to provide for the inspection of steam boilers. In the year 1864, the Bengal Act VI of 1864 was passed which provided for the inspection of steam boilers and prime movers in the town and suburbs of Calcutta. This was the beginning of boiler legislation in India.

Following the Bengal Act of 1864, each of the other provinces framed legislation. At that time there were seven different Acts and seven different sets of rules and regulations. Those Acts, rules and regulations were inconsistent with one another. As the differences in the Acts, rules and regulations among the various provinces in India gave rise to many difficulties and hampered the development of industries, the Central Government appointed a committee called "The Boiler Law Committee" in 1920 to examine and report on the general question of boiler legislation in India.

The Boiler Laws Committee, 1920-21, the first to review the boiler laws on a national scale reported in March, 1921. The report criticised the differences in the Acts, rules and regulations. The report also pointed out that in the inspection of boilers the personal element was a weighty factor, and the difference in regulations resulted in what was termed as "provincial jealousy". The report stressed that all provinces should be subject to the same regulations and work done in one province should be accepted as correct in another province. The Committee recommended that regulations to cover the standard conditions for material, design and construction of boilers should be framed by Government of India and make applicable to all the provinces. The report also pointed out that regulations were entirely of technical nature and there was no reason for which these regulations would be affected by local conditions. The Committee prepared a draft Act on the lines of which, the basic All-India Act was passed in 1923. The Boiler Laws Committee also prepared a uniform set of technical regulations and a model set of administrative rules.

A sharp distinction was drawn between the regulations and the rules. The regulations referred entirely to technical matters where as the rules referred to questions concerning the administration of the Act. Indian Boilers Act, 1923 provides for the safety of life and property of persons from the danger of explosion of boilers.

The Government of India Act, 1935 assigned the subject 'Boilers' to the concurrent field. The provision for constituting Central Boilers Board having the authority to make regulations consistent with the Act was made in the Indian Boilers (Amendment) Act, 1937. A Board called the Central Boilers Board was accordingly constituted in the year 1937.



*Relevant extracts from*

# **THE JAN VISHWAS (AMENDMENT OF PROVISIONS) ACT, 2023**

(No. 18 of 2023, dt. 11-8-2023)

### 3. *The Boilers Act, 1923*

(A) In section 22, —

- (a) in clause (iii), for the word and figures “section 16,”, the words and figures “section 16; or” shall be substituted;
- (b) after clause (iii), the following clause shall be inserted, namely:—  
“(iv) to report an accident to a boiler or boiler component when so required under section 18,”;
- (c) in the long line, for the words “punishable with fine”, the words “liable to penalty” shall be substituted.

(B) For section 23, the following section shall be substituted, namely:—

**“23. Penalties for illegal use of boiler.**— Any owner of a boiler who—

- (a) in any case in which a certificate or provisional order is required for the use of the boiler under this Act, uses the boiler either without any such certificate or order being in force or at a higher pressure than that allowed thereby; or
- (b) uses or permits to be used a boiler which has been transferred from one State to another without such transfer having been reported as required under clause (b) of section 6; or
- (c) fails to cause the register number allotted to the boiler under this Act to be permanently marked on the boiler as required under sub-section (6) of section 7, shall be liable to penalty which may extend to one lakh rupees, and in the case of a continuing contravention or failure, with an additional penalty which may extend to one thousand rupees for every day during which such contravention or failure continues.”.

(C) In section 24, clauses (a), (b) and (d) shall be omitted.

(D) In section 25, in sub-section (1), for the words “punishable with fine”, the words “liable to penalty” shall be substituted.

(E) After section 26, the following sections shall be inserted, namely:—

**“26A. Adjudication.**—

- (1) The State Government or the Union territory administration, as the case may be, for the purposes of determining the penalties under sections 22, 23, sub-section (1) of section 25 and section 30, may authorise the District Magistrate or the Additional District Magistrate, as the case may be, having jurisdiction, to be the adjudicating officer to hold an inquiry and impose penalty, in the manner

as may be prescribed by the State Government or the Central Government, as the case may be.

- (2) The adjudicating officer may summon and enforce the attendance of any person acquainted with the facts and circumstances of the case to give evidence or to produce any document, which in the opinion of the adjudicating officer, may be useful for, or relevant to, the subject-matter of the inquiry, and if, on such inquiry, he is satisfied that the person concerned has failed to comply with the provisions of sections 22, 23, sub-section (1) of section 25 and section 30, he may impose penalty:

Provided that no such penalty shall be imposed without giving the person concerned a reasonable opportunity of being heard.

#### 26B. Appeal.—

- (1) Whoever aggrieved by the order, passed by the adjudicating officer under section 26A, may prefer an appeal to an officer not below the rank of Secretary to the State Government or the Union territory administration, as the case may be, to be an appellate authority, specially authorised by that Government or administration in this behalf, within sixty days from the date of receipt of order, in such form and manner as may be prescribed by the State Government or the Central Government, as the case may be.
  - (2) An appeal may be admitted after the expiry of the period of sixty days if the appellant satisfies the appellate authority that he had sufficient cause for not preferring the appeal within that period.
  - (3) The appellate authority may, after giving the parties to the appeal an opportunity of being heard, pass such order as he may think fit.
  - (4) An appeal under sub-section (1) shall be disposed of within sixty days from the date of filing.”.
- (F) In section 27, the words “Presidency Magistrate or a” shall be omitted.
- (G) In section 28A, in sub-section (1A), after clause (c), the following clauses shall be inserted, namely:—
- “(ca) the manner of holding inquiry and imposing penalty under sub-section (1) of section 26A;
  - (cb) the form and manner of preferring appeal under sub-section (1) of section 26B;”.
- (H) In section 29, in sub-section (1), after clause (h), the following clauses shall be inserted, namely:—
- “(ha) the manner of holding inquiry and imposing penalty under sub-section (1) of section 26A;
  - (hb) the form and manner of preferring appeal under sub-section (1) of section 26B;”.
- (I) In section 30,—
- (i) for the words “punishable, in the case of a first offence, with fine”, the words “liable to penalty, in the case of a first contravention, with penalty” shall be substituted;
  - (ii) for the words “subsequent offence, with fine”, the words “subsequent contravention, with penalty” shall be substituted.



# The Indian Boilers (Amendment) Act, 2007

[49 of 2007, dt. 12-12-2007]

## *An Act further to amend the Indian Boilers Act, 1923*

Be it enacted by Parliament in the Fifty-eighth Year of the Republic of India as follows:—

### **1. Short title and commencement**

(1) The Act may be called the Indian Boilers (Amendment) Act, 2007.

(2) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint; and different dates may be appointed for different provisions of this Act.

### **2. Amendment of Sec. 1**

In Sec. 1 of the Indian Boilers Act, 1923 (5 of 1923) (hereinafter referred to as the principal Act), in sub-sec. (1), the word “Indian” shall be omitted.

### **3. Amendment of Sec. 2**

In Sec. 2 of the principal Act—

<sup>1</sup>(1) for clause (a), the following clause shall be substituted, namely:—

“(a) “accident” means an explosion of boiler, or boiler component, which is calculated to weaken the strength or an uncontrolled release of water or steam therefrom, liable to cause death or injury to any person or damage to any property;”;

<sup>1</sup>(2) for clause (b), the following clauses shall be substituted, namely:—

“(b) “boiler” means a pressure vessel in which steam is generated for use external to itself by application of heat which is wholly or partly under pressure when steam is shut off but does not include a pressure vessel,—

- (i) with capacity less than 25 litres (such capacity being measured from the feed check valve to the main steam stop valve);
- (ii) with less than one kilogram per centimetre square design gauge pressure and working gauge pressure; or
- (iii) in which water is heated below one hundred degrees centigrade;

(ba) “boiler component” means steam piping, feed piping, economizer, superheater, any mounting or other fitting and any other external or internal part of a boiler which is subject to pressure exceeding one kilogram per centimetre square gauge”;

<sup>1</sup> Enforced w.e.f. 27.5.2008 vide S.O. 1226(E), dt. 27.5.2008.

<sup>1</sup>(3) after clause (c), the following clauses shall be inserted, namely:—

“(ca) “Competent Authority” means an institution recognised in such manner as may be prescribed by regulations for issue of certificate to the welders for welding of boiler and boiler components;

(cb) “Competent Person” means a person recognised in such manner as may be prescribed by regulations for inspection and certification of boilers and boiler components during manufacture, erection and use;”; All Inspectors shall be ipso facto competent persons;”;

(4) after clause (ccc), the following clauses shall be inserted, namely:—

<sup>1</sup>“(ccd) “Inspecting Authority” means an institution recognised in such manner as may be prescribed by regulations for the inspection and certification of boilers and boiler components during manufacture. All Chief Inspectors of Boilers shall be ipso facto Inspecting Authorities;

<sup>2</sup>(cce) “manufacture” means manufacture, construction and fabrication of boiler or boiler component, or both;

<sup>2</sup>(ccf) “manufacturer” means a person engaged in the manufacture;”;

<sup>2</sup>(5) in clause (d), for the words “includes any person”, the words “includes any person possessing or” shall be substituted;

<sup>2</sup>(6) for clause (f), the following clause shall be substituted, namely:—

“(f) “steam pipe” means any pipe through which steam passes if—

- (i) the pressure at which steam passes through such pipe exceeds 3.5 kilogram per square centimetres above atmospheric pressure, or
- (ii) such pipe exceeds 254 millimetres in internal diameter and the pressure of steam exceeds 1 kilogram per square centimetres above the atmospheric pressure, and includes in either case any connected fitting of a steam-pipe;”;

<sup>2</sup>(7) for clause (g), the following clauses shall be substituted, namely:—

“(g) “structural alteration, addition or renewal” means,—

- (i) any change in the design of a boiler or boiler component;
  - (ii) replacement of any part of boiler or boiler component by a part which does not conform to the same specification; or
  - (iii) any addition to any part of a boiler or boiler component;
- (h) “superheater” means any equipment which is partly or wholly exposed to flue gases for the purpose of raising the temperature of steam beyond the saturation temperature at that pressure and includes a re-heater;
- (i) “Technical Adviser” means the Technical Adviser appointed under sub-sec. (1) of Sec. 4-A.”.

<sup>1</sup> Enforced w.e.f. 7.10.2010 vide S.O. 2247(E), dt. 7.10.2010.

<sup>2</sup> Enforced w.e.f. 27.5.2008 vide S.O. 1226(E), dt. 27.5.2008.



**14. Substitution of new section for Sec. 3**

For Sec. 3 of the principal Act, the following section shall be substituted, namely:—

***"3. Limitation of application***

Nothing in this Act shall apply to—

- (a) locomotive boilers belonging to or under the control of the railways;
- (b) any boiler or boiler component,—
  - (i) in any vessel propelled wholly or in part by the agency of steam;
  - (ii) belonging to, or under the control of, the Army, Navy or Air Force; or
  - (iii) appertaining to a sterilizer disinfector used in hospitals or nursing homes, if the boiler does not exceed one hundred litres in capacity."

**5. Insertion of new Secs. 4A to 4F**

After Sec. 4 of the principal Act, the following sections shall be inserted, namely:—

***<sup>1</sup>4A. Technical Adviser***

(1) The Central Government shall appoint a Technical Adviser from amongst the persons having such qualifications and experience as may be prescribed by rules.

(2) The terms and conditions of service of the Technical Adviser shall be such as may be prescribed by the Central Government.

(3) The Technical Adviser shall, in addition to exercising the powers and discharging the functions assigned to him under this Act or rules or regulations made thereunder, exercise such other powers and discharge such functions as the Central Government and the Board may delegate to him.

***<sup>2</sup>4B. Welders certificate***

(1) Any person who proposes to undertake any welding work connected with or related to a boiler, or a boiler component or both shall apply to a Competent Authority for issue of a Welders certificate.

(2) On receipt of an application under sub-sec. (1), the Competent Authority shall follow such procedure for examination and grant of Welders certificate as may be prescribed by regulations.

(3) The Competent Authority may, if satisfied that the person applying for Welders certificate under sub-sec. (2) has complied with the conditions precedent for issue of the Welders certificate, issue such certificate, to such person subject to the payment of such fee and such other conditions as may be prescribed by regulations:

PROVIDED that the Competent Authority shall not refuse Welders certificate to any person unless such person is given an opportunity of being heard.

1 Enforced w.e.f. 27.5.2008 vide S.O. 1226(E), dt. 27.5.2008.

2 Enforced w.e.f. 7.10.2010 vide S.O. 2247(E), dt. 7.10.2010.