

# **GOVERNMENT OF MEGHALAYA**

### LAW (A) DEPARTMENT

# **MEGHALAYA BOILER OPERATION ENGINEERS RULES, 1987**

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No. LABOUR-78/86/17.- In exercise of the powers conferred by sub-clause (d) of Section 29 of the Indian Boilers Act, 1923 (Act No. V of 1923), the Government or Meghalaya is pleased to publish the following Rules for information of all persons likely to be affected thereby and notice is hereby given that the said rules will be taken into consideration after the expiry of 30 days from the date of their publication in the Official Gazette.

Objection or suggestion with respect to these rules may be sent if any, by any person before the expiry of the above period for consideration of the Governor.

#### CHAPTER I

#### PRELIMINARY

**1. Short title and commencement.-** (1) There rules may be called the Meghalaya Boiler Operation Engineers Rules, 1987.

(2) They shall come into force at once.

2. Definition.- In these rules unless there is anything repugnant in the Subject -

- (a) "Act" means the Indian Boilers Act, 1923 (V of 1923).
- (b) "Boiler Attendant" means a boiler attendant qualified under the Meghalaya Boiler Attendants Rules, 1987.
- (*c*) Every reference in these rules to a boiler shall be deemed to include also a reference to an economizer respectively.

#### CHAPTER II GENERAL

**3.** Boiler to be incharge of person holding a Boiler Operation Engineers' Certificate.-The owner of a boiler connected in a battery , or of so many separate individual boilers situated within a radius of 75 feet having a total heating surface exceeding 7,500 square feet, in any of the cases, shall not use the same or permit the same to be used unless the boiler is placed under the direct charge of a competent person as defined in Rule 4, in addition to number of Boiler Attendants as may be prescribed by the Chief Inspector of Boilers.

Provided, that noting in these rules shall debar a person holding certificate of proficiency granted under other State Boiler Rules from remaining in attendance and incharge of a boiler to the extent of his qualifications indicated in such certificate.

**4.** Competent person shall possess certificate and extent of qualification.- No person who does not possess a certificate of proficiency as a Boiler Operation Engineer under these rules shall be deemed fit and proper, to hold charge of a boiler exceeding the limits laid down in Rule 3.

**5. Production of certificate.-** The holder of certificate under these rules shall , at all reasonable times, during the period any boiler is under his charge; be bound to produce such certificate when called upon to do so by any of the persons empowered under Section 15.

**6.** Owner to furnish Chief Inspector of Boilers with particulars of certificates.- (1) The owner of a boiler who engages any person to be in-charge thereof, shall within seven days of

such engagement, furnish the Chief Inspector with full particulars of such person including the serial number, date and place of issue of his certificate.

(2) The owner of a boiler who engages any person to hold charge of such boiler, may in the event of such person leaving his employment, or in the event of the death of such person, report the face within seven days to the Chief Inspector.

**7.** Limits of daily period of attendance, relief and sphere of action.- (1) A person incharge of a boiler shall be deemed to be in-charge of the same when he is within 150 feet of such a boiler.

(2) An Operation Engineer of a boiler for which a certificate of proficiency is required may be relieved of charge by a person holding a first class certificate of competency as an attendant in any one day for not more than two periods, the total of which does not exceed two hours.

(3) The holder of a first class certificate of competency as an attendant may, also with the consent in writing of the Chief Inspector, relieve a person holding a certificate of proficiency as an Operation Engineer for a period which may extend to ten consecutive days which, in special circumstances, the Chief Inspector may extend to any length of time not exceeding thirty days at a time.

**8. When-boiler deemed to be in use.-** (1) A boiler shall be deemed to be in use, for the purpose of these rules, when, there is fire in the furnace, fire-box or fire-place for the purpose of heating the water in the boiler or under banked fire condition. A boiler shall be deemed to be not in use, only when the fire is removed and all steam and water connections are closed.

(2) A economizer shall be deemed to be in use , for the purpose of these rules, when there is a flow of flue gases past the economizer and an appreciable heat transfer between the water and the heating gases.

#### CHAPTER III BOARD OF EXAMINERS

**9.** Constitution of the Board of Examiners.- A Board of Examiners shall be constituted consisting of the Chief Inspector and Inspector nominated by the Chief Inspector and not less than two other members having the theoretical and practical knowledge of prime-movers and modern boiler practice to be appointed by the State Government from time to time.

(2) The Chief Inspector shall be the *ex-officio* Chairman and the Inspector nominated by the Chief Inspector, shall be the Secretary of the Board of Examiners.

**10. Term of Office of the Members.-** The term of office of each of the members other than the *ex-officio* members of the Board of Examiners shall be three years. If a member leaves the State of Meghalaya permanently or absents himself from three consecutive meeting of the Board, he shall be deemed to have vacated his seat on the Board, and another person may be appointed in his place for the unexpired portion of his term.

11. Function of the Board.- The Board of Examines shall -

(1) conduct examinations of candidate for the grant of certificates of proficiency as a Boiler Operation Engineer.

(2) have powers to appoint any person as an external paper, setter and examiner at any examination;

(3) grant certificate of proficiency as a Boiler Operation Engineer;

(4) consider the reports of enquiries into allegations of drunkenness negligence of duty, misconduct on the part of Boiler Operation Engineers holding certificate of proficiency granted under these rules and take such other action as they may be necessary.

**12. Meeting of the Board.-** the Board of Examiners shall meet as often as may in the opinion of the Chairman, be necessary for transacting business which cannot be disposed of by circulation of papers.

Atleast thirty clear days' notice of the date of examination shall be sent to each member.

**13. Quorum.-** The Chairman or the Secretary and two members of the Board examiners shall form a quorum.

**14. Chairman of the Board.-** The Chairman shall preside over all meetings of the Board of examiners and in his absence, member chosen by the members present at the meeting, shall preside over the meeting.

**15. Secretary of the Board.-** The Secretary of the Board of Examiners shall maintain a register of Boiler Operation Engineers holding certificate of proficiency and shall perform such other functions as are specified in these Rules, or as the Chairman of the Board of Examiners may direct.

**16. Board's endorsement on application.-** The Board of Examiners shall endorse on the printed application form of each candidate the result of his examination for a certificate of proficiency as a Boiler Operation Engineer. The endorsed application shall be returned to the Secretary of the Board.

**17. Board's power to refuse issue of certificate.-** The Board of Examiners may direct any candidate, who in the opinion of the majority of the members, appears too old or physically unfit through deformity constitutional weakness, defective eye-sight, deafness or loss of a limb to produce a certificate of fitness from a Registered Medical practitioner. If, however, the candidate fails to do so, the Board shall have power to refuse the issue of a certificate of proficiency as a Boiler Operation Engineer.

**18. Examiner's Fees.-** Each member of the Board of Examiners shall be entitled to receive fees for examining candidates under these rules these rules and the rate of fees shall be determined by the State Government.

#### CHAPTER IV EXAMINATION

**19.** Examination for the grant of certificate of proficiency as a Boiler Operation Engineer shall be held by the Board of Examiners at such place and on such dates as may be notified by the Secretary of the Board from time to time in the official gazette.

**20. Class of Certificate.-** The certificate of proficiency as a Boiler Operation Engineer shall be of one class.

**21. Postponement of Examination.-** When a date fixed for the examination is declared a gazetted holiday or when for any unforeseen reason an examination cannot be held on the date fixed, the Chairman may fix another date for holding the examination and the same shall be duly notified to the candidates for examination.

#### CHAPTER IV

#### EXAMINATION

**22.** Capabilities of holders of Certificate.- The certificate of proficiency as a Boiler Operation Engineer shall qualify the holder thereof to be incharge of a boiler of any type and size provided that the boiler is situated in such a way that the distance of one from another is not more than 150 feet.

The holder of a certificate of proficiency as a Boiler Operation Engineer shall, all intents and purposes, be deemed to have fulfilled the requirements of Rule 4 of the Boiler Attendants Rules.

**23.** Endorsement on a Certificate.- A person holding a certificate of proficiency as a Boiler Operation Engineer granted by a the Board of Examiner under the corresponding rules in any other State, shall on application, have the certificate endorsed for validity in the State of Meghalaya. Such endorsement shall be made by the Chairman of the Board of Examiners constituted under these Rules.

**24. Fees.-** (1) A candidate for examination for certificate of proficiency as a Boiler Operator Engineer shall pay a fees of Rs. 40 which shall not, accept as otherwise provided in this rules, be refundable.

- (a) A fee of Rs. 15 shall be paid for the issue of a duplicate certificate.
- (b) A fee of Rs. 10 shall be paid for endorsement on certificate under Rule 23.

(2) All fees payable under these rules shall be paid in such manner as the State Government may direct.

**25. Refund of fees.-** Candidates once admitted to an examination under these rules shall not be entitled to any refund of fees. When a candidate is unavoidably absent from the examination on the date fixed, the Chairman of the Board of Examinees, may allow him to appear without payment of second fees at the next examination.

**26. Fees of candidates found ineligible.-** A candidate, who has paid the examination fee but is found ineligible of an examination, may apply within one year from the date of payment, for a refund of the fee or he may be allowed to appear without payment of the second fee at any subsequent examination, held within one year from the date of payment the fee; provided that he has become eligible to sit for such subsequent examination.

#### CHAPTER VI

#### APPLICATION FOR EXAMINATION

**27. Form of application.-** Every application for examination shall be as in Form 'A' appended to this rule. The application shall fill in such parts of the Form, and shall sign it in the presence of a Gazetted Officer or an Honorary Magistrate who shall attest his signature. The application so filled in shall be forwarded to the Secretary of the Board of Examiners, atleast one month before the date fixed for the examination and shall be accompanied by:-

- (1) Originals and one attested copy each of all testimonials in respect of practical experience and theoretical qualifications of the candidates.
- (2) A testimonial of good character from his employer, with a certificate of age.

- (3) A Treasury Challan or such other evidence as the State Government may specify in this behalf in support of payment of the fee specified in these rules for the examination at which the application wish to appear.
- (4) Any certificate granted to the applicant under these rules or a certificate granted by a competent authority referred to in Rules 20 and 23.
- (5) Two copies of recent bust photographs (size 2" x 2<sup>1</sup>/<sub>2</sub>") one of which shall bear the signature of the thumb impression of the applicant on the back, duly attested by a Gazetted Officer or employer.

**28. Candidate to produce satisfactory testimonials.-** No candidate shall be admitted to an examination who cannot produce satisfactory testimonials certifying his experience, ability, sobriety and general good conduct for the whole period of his qualifying service. Any break in the period of qualifying service shall be accounted for.

**29.** Essential statements.- A testimonial shall clearly state the capacity in which the candidate was employed, whether as an Apprentice Engineer Supervisor, Assistant Engineer, or Engineer and the periods of such employment stating the dates between which the candidate was so employed.

**30. Signature and counter signature.** A testimonial shall be signed by a responsible person with whom the candidate was employed and be countersigned by the Owner, Agent, Manager or Secretary of the mill, factory or workshop or by such other persons as the State Government may prescribe in this behalf.

Candidates who have undergone a course of training at an Engineering College or Technical Institution must produce either the diploma of the Institution or a certificate from the principal or Superintendent of the Institution giving the period devoted in completing the course.

A testimonial in respect of service on a steamship may be signed by the Chief Engineer and countersigned by the master of the vessel or may be in the form of a Seaman's discharge certificate issued by a Shipping Master.

A testimonial of service rendered on railway boilers, or boilers belonging to a Government Department or local bodies, shall be signed by a responsible officer under whom the candidate has directly served and countersigned by the head of the Department concerned.

**31. Doubtful testimonials.** - If the Secretary of the Board of Examiners has reason to doubt the truth to any statement made in any application or testimonials, he may make such enquiries as he thinks fit to verify the same.

**32.** False testimonials.- If on inquiry, the Secretary is satisfied that any testimonial submitted by a candidate is false in any material particular, he shall submit his findings to the Chairman of the Board of Examiners who may, by a written order, debar such candidate from being admitted to any subsequent examination held under these rules. If, on the strength of any such testimonial, a candidate has already been admitted to an examination, he shall be deemed to have failed in such examination and any certificate granted to him as a result of recalled and be cancelled by a notification in the Official Gazette provided that before any certificate is cancelled under this rule, the holder thereof shall be given a reasonable opportunity of being heard in the matter.

**33.** Filling of copies and return of the original testimonials.- Application and copies of testimonials submitted by candidates shall be filed in the office of the Chairman of the Board of Examiners. Original testimonials shall be returned to the candidates as soon as possible.

#### CHAPTER VII AGE AND TRAINING

34. **Qualification required:-** A candidate for certificate of proficiency as a Boiler Operation Engineer shall not be less than 23 years of age and shall not be admitted to the examination unless be proves to the satisfaction of the Chairman of the Board of Examiners that he has successfully completed :-

(1) a full time apprentice engineer's course in a recognised workshop engaged in making or repairing of boilers and accessories.

#### or

a degree or diploma in mechanical or electrical engineering recognised by the Institution of Engineer's (India).

#### and

a degree or diploma in mechanical or electrical engineering recognised by the Institution of Engineer's (India).

(2) served not less than 2 years as Engineer or Assistant Engineer in the running and maintenance of a battery of boilers not less than two in number and each of not less than 1,000 square feet heating surface.

**35.** Service not in strict conformity with rules.- Notwithstanding anything to the contrary contained in Rule 34, the Chairman of the Board of Examiners may, in his discretion allow any candidate to appear for the examination or grant exemption from any portion of the examination as prescribed in these rules.

#### CHAPTER VIII

#### **EXAMINATION SUBJECTS**

**36.** Syllabus for examination.- A candidate in order to be qualified for a certificate of proficiency under these rule shall, *inter alia* satisfy the examiners that he –

- (1) can calculate loads, areas, volume, quantities and weights;
- (2) can give a description of the principal types of steam boilers used on land and to state the purposes and reasons for which different types of boilers are employed; and from the data and formulas supplied, calculate the safe working pressure for any part of a boiler in accordance with the Indian Boiler Regulations;
- (3) can calculate the direct stress, the forsional stress and the bending stress in round bard and shafts and bending stress in rectangular bars and levers with given load;
- (4) understands the working and management of steam boilers, super heaters and economisers;
- (5) understands the use and purpose of various valves, cocks mountings, fittings, and other safety devices;
- (6) can give a description of and explain the functions of feed pumps, feed injectors, feed regulators, feed water filters and softeners, feed heaters, air heaters, calorifiers, steam accumulators, forced drought, induced drought and automatic draught control of devices;
- (7) can answer questions on facts relating to combustion, heat and steam and calculatic consumption of coal and water and the quantity of steam that may be generated from a given grate area or heating surface under the various systems of draught, in any land, boiler or boilers and also calculate the overall efficiency of a boiler plate;

- (8) can explain jet and surface condensation, reheating and the working of steam expansively;
- (9) can explain the general methods employed in laying foundation for boilers and chimneys and the suitable area and height of Chimneys to promote efficiency combustion;
- (10) can explain the significance of principal appliances in use for the prevention of smoke and the principle on which they work and give description of the principal mechanical stockers, pulverisers, gas oil and pulverised fuel systems in use;
- (11) understands the need for periodical cleaning the methods used for prevention of scale or other deposits on hearing surfaces and the necessary for maintaining, a certain PH value in feed water;
- (12) can detect defects in boilers and state the means and methods of rectifying them;
- (13) understands the precautions to be taken for starting a boiler or boilers and economiser from cold or from banked fire condition;
- (14) understands the procedure to be adopted in putting an economiser out of commission while the boiler is on steam;
- (15) can read and prepare working sketch and drawing of boilers and boilers mountings or parts thereof and;
- (16) can explain the methods adopted for the achievement of fuel economy and the use of various instruments used in a Boiler House.

#### CHAPTER IX

#### MODE OF EXAMINATION

**37. Nature of Examination.-** Examination for certificate of proficiency as a Boiler Operation Engineer shall be of such a nature a to test the practical ability and technical knowledge of the candidate to be in-charge of steam generating plants of all types and pressures in land use.

**38. Subjects for Examination.-** Examination shall be conducted in the following manner:-

- (1) a written examination comprising of one paper on mathematics, one paper on applied mechanics and one paper on boilers and heat engines set, with reference to the syllabus prescribed in Rule 36.
- (2) a drawing examination to make within a prescribed time, a drawing and/or a sketch of a boilers or part thereof with reference to clause (15) of rule 36, and
- (3) an oral examination to answer question pertaining to Boiler practice and if required by the examiner, to demonstrate in the examination room or in a workshop his ability to carry out the practical aspects of his duties in a workmanlike manner.

**39.** Assessment of work.- A candidate shall secure at least 45 percent of the marks in each written paper as well as in the oral and drawing examinations; but the aggregate should not be less than 55 percent of the total marks in order that he can be awarded a certificate of proficiency under these rules.

**40. Grant of certificate of proficiency.-** If a certificate passes the examination, his result will be notified in the official Gazette and he shall be granted a certificate as soon as practicable after such publication.

**41. Form of Certificate.-** A certificate of proficiency as a Boiler Operation Engineer shall be in form 'B' appended to these rules.

**42. Application for endorsement on a certificate.-** An application for endorsement in the certificate for validity in the State other than the State of issue, shall be made in of the appendix to these rules.

**43. Record of duplicate certificate.-** Duplicate of all certificate granted under these rules shall be recorded in the Office of the Chairman.

**44. Identification requirements.-** Every certificate granted under these rules shall bear a bust photograph of the holder thereof previously submitted along with his application under Rule 27 and his signature and or thumb impression and such other particulars as may be required of the purpose of identification.

**45. Grant of duplicate certificate.-** Whenever the holder of a certificate proves to the satisfaction of the Chairman of the Board of Examiners that certificate granted to him under these rules has been lost, stolen or destroyed or mutilated without any fault on his part, he shall be granted a duplicate certificate to which, by the record so kept as aforesaid, he appears to be entitled, which shall have for all purposes the same validity as the original certificate.

If an enquiry, the secretary of the Board of Examiners, is satisfied that any statement made by the applicant for the issue of duplicate certificate is false, he shall report the case to the said Board at its next meeting and the Board may, at its discretion cancel the certificate or permit the grant as aforesaid of a duplicate certificate either immediately or after such period not exceeding twelve months as the Board may think fit having regard to the circumstances of each case.

**46. Application for duplicate certificate.-** Application for a duplicate certificate shall be lodged with the Chairman of the Board of Examiners, with a declaration before a Gazetted Officer or a Magistrate stating that the certificate granted under these rules has been lost without fault on the part of the applicant.

**47. Invalidity of original certificate.-** On the issue of a duplicate certificate, the original certificate shall cease to be valid, and shall, if in the possession or power of the holder thereof, be returned to the office of the Chairman for cancellation.

**48.** Enquiry regarding certificate holders.- If a District Magistrate or the Chief Inspector of Boilers has reason to believe from any cause whatsoever, that an inquiry should be made into an allegation of incompetence, drunkenness, misconduct, or negligence of duty on the part of a Boiler Operation Engineer holding certificate of proficiency under these rules, they shall either themselves make such enquiry or cause it to be made by their subordinate officers.

The District Magistrate may depute a Magistrate of the first class and the Chairman of the Board of Examiners and Inspector of Boilers duly authorised by him to hold such enquiry.

(2) The proceedings shall be held in the presence of the person, whose conduct, forms the subject of enquiry and he shall have an opportunity of making any statement he may wish to make and of producing any evidence in his defence.

(3) The proceedings of any such inquiry shall be forwarded by the officer conducting the inquiry, where he is not Chairman of the Board, to the Secretary of the Board of Examiners, for consideration of the Board.

**49.** Surrender of certificate.- When an inquiry is being conducted under Rule 48, the holder of such certificate shall, on demand by the officer charged with the inquiry, forthwith surrender his certificate to the said officer pending the result of such inquiry.

**50.** Submission of proceedings before the Board.- The Secretary of the Board of Examiners shall place the proceedings sent to him under sub-rule (3) of Rule 48 before the Board at its next meeting and the Board of Examiners at its discretion may, allow the certificate to stand or suspend it for such period as it thinks, or may cancel the certificate permanently. The decision of the Board shall be final.

#### CHAPTER XI

#### PENALTY

**51.** Cognizance of offences.- The owner of a boiler or any person who works or permits or causes the boiler to be worked at any time in contravention of Rules 3,5,6 or 7 whichever applies, shall be punishable with fine which may extend to Rs. 100.

**52. Repeal.-** The Assam Boiler Operation Engineer Rules (as adopted by Meghalaya) are hereby repealed:

Provided anything done or any action taken under any of the said Rules shall be deemed to have been done or taken under the corresponding provisions of the rules.

#### 'FORM-A'

#### **Boiler Operation Engineers Rules, 1987**

Application for examination for Certificate of Proficiency as Boiler Operation Engineers.

#### Division I-Name, etc. Of the applicant

- 1. Name (in-full)
- 2. Father's name.
- 3. Nationality and Religion.
- 4. Date of Birth.
- 5. Place of Birth.
- 6. Permanent Address.
- 7. Whether appeared in any previous examinations.
- 8. If so, when and where.

#### Division II - Particulars of all certificates submitted

of Certificate	Class of Certificate	Where issued	Date of issued	If at any time suspended or cancelled, and if so, state by whom.	Date of suspension of cancellation	Causes of suspension of cancellation	
1	2	3	4	5	6	7	

#### Division III - List of testimonials and statement of services

(The testimonials numbered serially corresponding to numbers given in Column 1 below)

testim the	Date of the testimoni	he the and estimoni person designati Is signing on of the factory or	and	Number, types and	Capaci ty in which	Service of applicant				Not to be filled by the applicant		
	als		on of hea factory or surf workshop of b where wor employ- on.	heating surface of boilers	employ ed		Date of termina tion	Time employed in this service		Initial	Remar ks	
				worked				Year	Month	Days		
1	2	3	4	5	6	7	8	9	10	11	12	13

Total Service

Time served for which certificates are produced.

Time served for while no certificates are produced.

#### Division IV - Declaration to be made by the applicant

I do hereby declare that the statement made in Division I, II and III of this form are correct and true to the best of my knowledge and belief; and that the papers enumerated in Division III and submitted with this form are true and genuine documents and further that the copies of the documents submitted with their form are true and correct. I further declare that the statements made in Division II contain a true and correct account of the whole period of my service without exception, and I make this declaration conscientiously believing the same to be true.

Date the ..... This....day of ..... 19......

Signature of the applicant Present address.....

Signed in the presents of.... Signature...... Designation.....

**Note** – (1) Every application must be accompanied by a treasury Challan or such evidence as may be prescribed by the State Government showing that the fee for the examination has been paid.

(2) Two copies of a recent bust photograph of the applicant (size  $2''x \ 2 \ 1/4''$ ) must accompany the application with applicant's signature on the back thereof, duly attested by a Gazetted Officer or the employer.

(3) Any person making a false statement for the purpose of admission to the examination renders himself liable to prosecution.

(4) Incomplete application are liable to be rejected.

#### FORM B

#### GOVERNMENT OF.....

#### CERTIFICATE OF PROFICIENCY AS BOILER OPERATION ENGINEER UNDER THE MEGHALAYA BOILER OPERATION ENGINEERS' RULES (RULE-42)

No..... of 19.....

Shri.....age about...... years, at present residing at......having satisfied the Board of Examiners appointed under the above noted rules of his proficiency to fulfil the duties of a Boiler Operation Engineer, is granted under the Boiler Operation Engineers Rules, this certificate of proficiency authorising him to be in-charge of boilers of any type or size, provided that the boilers are so situated that no one of them is 150 feel way from any other of them.

Date, at....this....day of ..... 19

Secretary, Board of Examiners Chairman Board of Examiners Descriptive Roll.

- 1. Date and place of birth.....
- 2. Permanent address.....
- 3. Nationality and religion.....
- 4. Height (without shoes).....
- 5. Marks of identification.....

#### PHOTO

6. Left thumb impression..... Endorsements

Signature of the applicant