

# EXAMINATION

for

## Grant of Certificate of Proficiency (CoP) as Boiler Operation Engineer under the Boilers Act,1923

11<sup>th</sup> and 12<sup>th</sup> DECEMBER 2021 (Saturday & Sunday)



**GOVERNMENT OF INDIA**  
**Ministry of Commerce and Industry**  
**(Department for Promotion of Industry and Internal**  
**Trade)**  
**New Delhi.**

**to be conducted by**



National Productivity Council

**Dr. Ambedkar Institute of Productivity**  
**National Productivity Council**

No. 06, Aavin Dairy Road, Ambattur Industrial Estate North  
Ambattur, Chennai – 600 050



**Department for Promotion of  
Industry and Internal Trade (DPIIT),  
Ministry of Commerce and Industry,  
Government of India, New Delhi.**

### **Foreword**

As per the Boiler Operation Rules, 2021 framed under the Boilers Act, 1923, a provision has been made for conducting examination for Grant of Certificate of Proficiency (CoP) as “Boiler Operation Engineer (BoE)” by the Central Government also in addition to examination conducted by States in their territories, in which candidates from all the states/Union Territories can appear.

Government of India has authorized Dr. Ambedkar Institute of Productivity (AIP), National Productivity Council (NPC) to conduct the EXAMINATION

I invite you to register for the examination for Grant of Certificate of Proficiency (CoP) as Boiler Operation Engineer and wish you all very best for your success in the examination.

**T.S.G. Narayannen  
Technical Advisor (Boilers) &  
Chairman, Committee of Examiners (CoE)**

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## **1.0 BACKGROUND:**

As per the Boiler Operation Rules, 2021 framed under the Boilers Act, 1923 as notified vide Gazette Notification No. G.S.R.(E) dated 16<sup>th</sup> February, 2021, a provision has been made for conducting examination for Grant of Certificate of Proficiency (CoP) as “Boiler Operation Engineer (BoE)” by the Central Government also in addition to examination conducted by States in their territories, in which candidates from all the states/Union Territories can appear.

Government of India has authorized Dr. Ambedkar Institute of Productivity (AIP), National Productivity Council (NPC) to conduct the examination for Grant of Certificate of Proficiency (CoP) as Boiler Operation Engineer under the Boiler Operation Rules, 2021.

## **2.0 PURPOSE:**

The Boiler Operation Rules, 2021 specify the requirements for the grant of certificates of proficiency as a “Boiler Operation Engineer (BoE)”. The candidates shall be selected through a written examination consisting of three papers (Paper-1, Paper-2, and a written drawing examination (Paper-3)). The candidates who qualify in all the written examination shall be called for an oral examination (VIVA-VOCE) and those candidates qualifying the oral exam shall be awarded a certificate of proficiency as stated in Boiler Operation Rules, 2021.

## **3.0 CAPABILITIES OF HOLDERS OF CERTIFICATE:**

- i. The certificate of proficiency as a Boiler Operation Engineer shall qualify the holder thereof to be incharge of a boiler or boilers of any type and size provided that the boilers are so situated that none of them is at a distance of more than fifty meters radius from any one of them.
- ii. The holder of a certificate of proficiency as a Boiler Operation Engineer shall for all intents and purposes be deemed to have fulfilled the requirements of the Boilers Attendants Rules, 2011.

Provided that a Boiler Operation Engineer holding certificate of proficiency prior to the publication of the Boiler Operation Rules, 2021 in the official Gazette as a Boiler Operation Engineer issued by a Government prior to the date of notification of the said rules shall be eligible to be in-charge of a boilers as mentioned in the certificate of proficiency.

#### **4.0 VALIDITY OF CERTIFICATE:**

Certificate of proficiency as a Boiler Operation Engineer granted to a candidate shall be valid all over the India provided that a person holding a certificate of proficiency as a Boiler Operation Engineer shall give an intimation through on-line mode including by e-mail to the Chief Inspector or Director of Boilers of the concerned Government in which he or she applies for services or in case of change of services from one State to another

#### **5.0 ELIGIBILITY CRITERIA FOR APPEARING IN THE EXAMINATION FOR THE GRANT OF CERTIFICATES OF PROFICIENCY AS A BOILER OPERATION ENGINEER:**

A candidate appearing for Examination for grant of certificate of proficiency as a Boiler Operation Engineer shall fulfill the following criteria's

- a) has completed the age of twenty-three years;
- b) possesses a degree or diploma in Mechanical or Electrical or Chemical or Power Plant or Production or Instrumentation Engineering from a recognised university or Institution;

(Any integration or combination with the above-mentioned branches of Engineering e.g. Electrical and Electronics, Electrical and Instrumentation etc. shall also be allowed)

- c) has served for not less than two years in case of degree holders and for five years in case of diploma holders in the operation or maintenance of a boiler of not less than one thousand square meters heating surface or a Battery of boilers of not less than one thousand square meters heating surface in aggregate out of which at least one boiler of not less than five hundred square meters heating surface. (Training period shall not be considered as experience)

Provided that in case of a degree holder or post graduate diploma holder from a National Power Training Institute, the requirement of minimum working experience shall be one year.

#### **6.0 TESTIMONIALS TO BE PRODUCED BY CANDIDATES:**

- (1) No candidate shall be admitted to an examination who cannot produce satisfactory testimonials certifying his experience, ability, and good conduct for the whole period of his qualifying service or any unaccounted break in the

period of qualifying service and such testimonials shall clearly state the capacity in which candidate was employed, whether as an Apprentice Engineer, Supervisor or Assistant Engineer and the periods of such employment stating the dates between which candidate was so employed.

- (2) The testimonial shall be signed by the incharge of the department in which the candidate was employed and be countersigned by the owner or agent of the mill, factory or workshop or by such other persons as the committee may lay down in this behalf.
- (3) A candidate who has undergone a course of training at a recognized Engineering College or Technical Institution shall produce either the degree or diploma of the course or a certificate from the college or institution as the case may be, giving the period devoted in completing the course.
- (4) A testimonial in respect of service in a steamship may be signed by the Chief Engineer and counter signed by the master of the vessel or may be in the form of a seaman's discharge certificate issued by a Shipping Master.
- (5) A testimonial of service rendered on railway boilers or boilers belonging to any Government Department or local bodies, shall be signed by a responsible officer of that Department in which the candidate had served and countersigned by the concerned Head of the Department.

#### **7.0 Doubtful testimonials:**

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

#### **8.0 False testimonials:**

If on enquiry, the Secretary, Committee of Examiners is satisfied that any testimonial submitted by a candidate is false in any material particulars, he shall submit his findings to the Chairman, Committee of Examiners who may by a written order debar such candidate from being admitted to any examination held under these rules and in case if, on the strength of any such testimonials, a candidate has already been admitted to an examination, he or she shall be deemed to have been failed in such examination and any certificate granted to him or her as a result of his or her having been declared to have passed such examination, shall be forthwith recalled and be cancelled:

## 9.0 SYLLABUS/CURRICULUM FOR THE EXAMINATION:

Syllabus for the three written examination papers on which the candidates shall be assessed are as given below:

### **PAPER-1:**

- a) can calculate loads, areas, volumes, quantities and weights;
- b) can give 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 formulae supplied, calculate the safe working pressure for any part of a boiler in accordance with the Indian Boiler Regulations;
- c) can calculate the direct stress, the torsional stress and the bending stress in round bars and shafts and the bending stress in rectangular bars and levers with given load;
- d) understands the working and management of steam boilers, super heaters and economisers;
- e) understands the use and purpose of various valves, cocks, mountings, fitting and other safety devices;
- f) 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 draught, induced draught and automatic draught control devices;
- g) can answer questions on fact relating to combustion, heat and steam and calculate consumption of coal and water and quantity of steam that may be generated from a given heating surface under the various systems of draught, in any land boiler and also calculate the overall efficiency of boiler plant;
- h) can explain jet and surface condensation, reheating and the working of steam expansion;

### **PAPER-2:**

- i) can explain the general methods employed in laying foundation for boilers and chimneys and the suitable area and height of chimneys to promote efficient combustion;
- j) 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 stokers, pulverisers, gas, oil and pulverized fuel systems in use;
- k) understands the need for periodical cleaning, the methods used for prevention of scale or other deposits on heating surfaces and the necessity for maintaining a certain PH value in feed water;

- l) can detect defects in boilers and state the means and methods of rectifying them.
- m) understands the precautions to be taken for starting a boiler and economiser from cold or from banked fire condition;
- n) understands the procedure to be adopted in putting an economizer out of commission while the boiler is on steam;
- o) can explain the methods adopted for the achievement of fuel economy and the use of various instruments used in a Boiler House;
- p) materials used in Boiler components and piping; and

**PAPER-3:**

- q) can read and prepare a working sketch and drawing of boilers and boiler mounting or parts thereof.

**10.0 SCHEME OF EXAMINATION:**

The examination shall be conducted in the following manner, namely: -

**10.1 Written examinations:**

Paper-1(Covering syllabus at (a) to (h) above)

Paper-2(Covering syllabus at (i) to (p) above)

Paper-3 (Drawing examination covering syllabus at (q) above)

**10.2 Oral Examination (Viva-voce):**

An oral examination to answer questions pertaining to boiler practices 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 Boiler House

**11.0 REQUIREMENTS FOR PASSING THE EXAMINATION:**

- (a) A candidate shall secure at least forty-five per-cent (45%) of the marks in each written paper as well as in the oral and drawing examinations; but the aggregate should not be less than fifty per-cent (50%) of the total marks in order to qualify for award of certificate of proficiency.
- (b) A candidate securing less than forty- five per-cent (45%) of the marks in any written paper shall not be called for the oral examination.



## 12.0 SCHEDULE OF EXAMINATION:

Date/Day	Timings	Paper	Marks
11/12/2021 Saturday	Morning Session 09.30 to 12.30 (3 Hours)	Paper-1	100
11/12/2021 Saturday	Afternoon Session 14.00 to 17.00 (3 Hours)	Paper-2	100
12/12/2021 Sunday	Morning Session 09.30 to 12.30 (3 Hours)	Paper-3 (Drawing)	100
(Exact dates shall be decided & intimated later)		Viva-voce	100

## 13.0 APPLICATION FORM:

Candidates shall submit on-line application available on website. The online weblink is expected to be active by 1<sup>st</sup> November 2021.

## 14.0 WRITTEN EXAMINATION & VIVA-VOCE CENTRES:

Online applications shall be scrutinized and if found eligible, a Hall-Ticket for written examination can be downloaded from respective website one week before the examination.

The proposed written examination centres are as follows: -

S. No	Name of the Written Examination Centre
1)	Bengaluru
2)	Bhubaneswar
3)	Chandigarh
4)	Chennai
5)	Dehradun
6)	Gandhinagar
7)	Guwahati
8)	Hyderabad
9)	Indore
10)	Jaipur
11)	Jammu
12)	Jamshedpur
13)	Kanpur
14)	Kolkata
15)	Ludhiana
16)	Nagpur
17)	NCT of Delhi
18)	Patna
19)	Raipur
20)	Thiruvananthapuram
21)	Trichy
22)	Visakhapatnam

The proposed VIVA-VOCE centres are as follows: -

S. No	Name of the VIVA-VOCE Centre
1)	Bengaluru
2)	Bhubaneswar
3)	Chandigarh
4)	Chennai
5)	Gandhinagar
6)	Guwahati
7)	Hyderabad
8)	Jaipur
9)	Kanpur
10)	Kolkata
11)	Nagpur
12)	NCT of Delhi
13)	Patna

The applicants will have to give three choices of Written Examination/VIVA-VOCE centre in the order of their preference. If the number of applications for a particular centre is found to be less than the minimum required number, the Written Examination/VIVA-VOCE centre for those applicants may be shifted to their next preferred centre at NPC's own discretion. NPC reserves the right to cancel any examination centre at its discretion.

Only the names of the qualified candidates in the written examination shall be displayed on NPC's website. Communication shall also be sent by E-Mail to the qualified candidates, requesting them to appear in Viva-voce.

## 15.0 EXAMINATION FEE:

Rs.2,360/- (Rupees Two thousand Three Hundred and Sixty only) inclusive of GST @ 18% for all candidates. **Fee once paid is not refundable or adjustable under any circumstances in future**

Presently, the GST rate is 18%. However, Goods and Services Tax prevailing will be applicable based on notification by Government of India at the time of payment of fee.

The fee shall be paid through online mode while filling the application form.

## **16.0 LAST DATE FOR RECEIPT OF ONLINE APPLICATION:**

- ❖ The online registration form for the Examination shall be open until 25<sup>th</sup> November 2021. The last date for the receipt of the filled-in online application form along-with the necessary enclosures is 25<sup>th</sup> November 2021 (till 5 p.m. only) Registration will be done on receipt of the completely filled- in online application form along with all necessary enclosures and requisite fee from the candidates. The same shall be scrutinized and if found eligible, a Registration No. will be allotted and acknowledgement would be sent by e-mail.
- ❖ The Hall Tickets can be downloaded from the website one week before the commencement of the examination by the candidates using their registration no./application no./email id/date of birth and password.
- ❖ Only the names of the qualified candidates in the written examination would be displayed on NPC's/DPIIT's website. Communication would also be sent by E-Mail to the qualified candidates, requesting them to appear in Viva-voce.

## **17.0 ONLINE APPLICATION & REGISTRATION PROCESS:**

- 1) Candidates are advised to read the prospectus carefully, before filling the online application form.
- 2) Last date for submission of On-Line Application along with the required enclosures and application fee is 25<sup>th</sup> November 2021 upto 5.00 P.M.
- 3) In the process of registration, it is compulsory for the candidates to give an e-mail ID and a valid mobile number as most of the communication regarding the examination will be sent though either e-mails and/or SMS. (If you don't have an email account, please create one)
- 4) To fill the online application form, candidates have to visit the website [www.npcindia.gov.in](http://www.npcindia.gov.in) or <http://www.aipnpc.in> Select the online application form and fill the requisite information.
- 5) A unique Application Code will be generated for each application form which may be noted as reference for any future queries.
- 6) After successful completion of application, candidates must upload all the relevant enclosures as stipulated in the "Serial no. 18" of this prospectus and submit the application form through online mode only.
- 7) The application form received with necessary attachments shall be subjected

to scrutiny as per the guidelines

- 8) Incomplete applications on account of non-furnishing of required attachments shall be summarily rejected even if fee has been paid.
- 9) It is the candidate's responsibility to cross check the information and other instructions issued from time to time on a regular basis from the websites <http://www.aipnpc.in> or [www.npcindia.gov.in](http://www.npcindia.gov.in) .
- 10) Applications received after the last date or incomplete or in format other than the prescribed format shall be summarily rejected.
- 11) Candidates can download the e-Hall Ticket from the prescribed website two weeks before the examination. The Registration No. and the Seat No. will be intimated along with the e-Hall Ticket.
- 12) The results of the written examination shall be announced online. The candidate shall visit our website and key in the corresponding login credentials for viewing the written examination results.
- 13) NPC/DPIIT reserves the right to change the examination dates, centres due to unforeseen circumstance and reasons beyond its control.

## **18.0 INFORMATION ON “ATTACHMENTS TO BE UPLOADED”**

1. Candidates are advised to go through the prospectus before filling the application form & all entries should be correctly filled.
2. As a proof of requisite educational qualification(s), upload scanned copy of Original Degree/Diploma certificate as per the eligibility criteria.
3. Proof of date of birth.
4. As a proof for requisite experience certificate(s), upload work experience certificate as per the eligibility criteria.
5. If the candidate uploading the scanned copy of photocopied Certificates, it has to be self-attested by the candidate.
6. Attach a recent passport size photograph in the prescribed column.
7. The fees paid by a candidate, shall not be refunded or adjusted under any circumstances on the basis of medical or any other grounds, including the rejected applications & applications received after due date. Hence, candidates are required to ensure themselves that they are eligible in all aspects before filling the application.

## 19.0 INSTRUCTION FOR THE CANDIDATES:

1. The candidates will have the responsibility to cross check the information on allotted examination centres, issue of hall tickets and other instructions issued from time to time, from the above-mentioned website.
2. Any candidate, who does not receive or loses the hall ticket, shall report to the allotted examination centre with documentary evidence of having registered for Examination. Information about allotted examination centres may be seen at the web-site mentioned in the prospectus.
3. (a) Request for revaluation & re-evaluation of Answer Books will not be entertained.  
(b) Photocopies of evaluated Answer Books will not be made available to candidates.
4. NPC/ Examination Standing Committee, Government of India reserves the right to change and cancel the examination dates / centres due to any unforeseen reasons and reasons beyond its control.
5. In all subsequent correspondence, make sure that invariably you quote the registration number, which you will receive in your acknowledgment by email.
6. For any clarification. Contact us at [rpmgchn.boiler@gmail.com](mailto:rpmgchn.boiler@gmail.com)
7. For Examination updates visit website: [www.npcindia.gov.in](http://www.npcindia.gov.in) or <http://www.aipnpc.in>
8. The decision of the Examination standing committee, Government of India in all matters related to the above examination will be final and binding on the candidates and no enquiry/correspondence will be entertained in this regard.

## 20.0 ROLE OF NPC

Government of India has authorized Dr. Ambedkar Institute of Productivity, National Productivity Council (NPC) to conduct the examination and to declare the results.

NPC shall carry out all the activities for the conduct of examination including the following

1. Dr. Ambedkar Institute of Productivity, NPC, Chennai shall receive and process the online applications from the candidates and register them as per the laid down procedures.
2. NPC shall send all necessary instructions in respect of the Examination and other details such as hall ticket, the venue of examination, timings, code of conduct for the candidates who are registered for the examination through e-mail.
3. NPC shall administer the examination at all the written examination centres as well as the VIVA-VICE centres.

## 21.0 COVID-19: INSTRUCTIONS TO CANDIDATES APPEARING FOR BoE Exam-2021

1. Candidates are required to follow the rules, regulations and guidelines of NPC/DPIIT; Local Authorities, State Government and Government of India especially related to COVID-19 as issued from time to time.
2. Candidate should follow social distancing and other COVID protocols while travelling in train/taxi/ or any other mode of transport. Candidates should abide by the laws/protocols of their own territory/state regarding COVID-19 while proceeding to the examination.
3. Candidates should maintain social distancing while commuting to and from the examination centre.
4. It is mandatory to undergo thermal scanning before entering examination centre.
5. Candidates with high temperature or other symptoms of COVID-19 will not be permitted to enter the examination centre and take examination.
6. Candidate should wash hands/ use hand sanitizer before entering examination hall.
7. It is responsibility of individual candidates to be safe during COVID-19. NPC/DPIIT will not be responsible for any untoward incident during BoE Examination.

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*“What we know is only a  
handful, what we don’t know is  
an ocean”*

*- Avvaiyar, Tamil poet, 2 AD.*

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**For any further details, please contact**

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