

NORMS AND STANDARDS FOR MEDICAL FITNESS

1. Objective

The objective of these guidelines is to select, for a particular post, a person who must be in :

- a) Good mental and bodily health and a strong constitution.
- b) Free from physical defect or abnormality-congenital or acquired, likely to interfere with the efficient performance of duties and/or safety of the Power Stations, machinery or co-workers.
- c) No evidence of mal-development-physical or mental
- d) Joints and loco motor functions are within normal limits.
- e) No deformity from old fractures or depressions of skull bones.

2. Scope

- Any person seeking appointment in NHPC Limited shall be required to undergo medical examination.
- The pre-employment medical examination shall be part of selection procedure of a candidate for a particular post.

3. General Guidelines

- **“Medical Authority”** For medical examination and issuance of medical fitness certificate on first appointment in the Company means, Chairman of Medical Board or Civil Surgeon or Chief Medical Superintendent or Chief Medical Officer or equivalent of a Central/ State Govt. Hospital (having the status of minimum District Hospital).
- Acceptance of joining will be subject to the fitness certificate so issued by the Medical Authority being further accepted by Head of Medical Services Division, CO, Faridabad..
- NHPC Limited reserves the right to re-examine or review the medical examination report submitted by the candidate without assigning any reason and decision of NHPC’s Head of Medical Services Division, Faridabad will be final and binding.
- Before taking up the Examination of a candidate, **Medical Authority** to verify that the candidate being examined is the same person whose photograph has been attested by the Authorized Officer of HR Department and who has directed the candidate to you for the medical examination.
- Advise the candidate to complete the statement and declaration duly signed in the prescribed profoma (Part-I) in your presence.
- Go through the information / declaration given by the candidate and make a note of anything significant relating to his physical fitness. Countersign candidate’s declaration thereafter.

4. Procedures to be followed for observing various parameters and their significance have been given below:

4.A. HEIGHT AND WEIGHT:

- (i.) **Height:** Measurement will be taken in centimetres with the individual standing bare footed and straight weight thrown on both heels kept together. Tendency to stand on toes or raise heels will be strictly avoided. The



candidate will stand erect with chin drawn in to bring the vertex of the head in level under the horizontal bar of the stand and clavicles, buttocks and shoulders touching the vertical portion of the stand with body fully relaxed and spine straight but not strained.

- (ii.) The table of standard weight for various groups is given below. Candidate not meeting the standard as given in the table below may be declared temporarily unfit for a maximum period of 21 days by CMO and shall be declared fit only in case the candidate fulfills the criteria including the norms for Body Mass Index.

Height - Weight Table for Males

Height (cm)	Weight in Kg at different ages		
	20-24 years	25-29 years	30-34 years
152.5	48	49	50
155.0	49	50	51
157.5	50	51	52
160.0	51	52	53
162.5	52	53	54
165.0	53	54	56
167.0	54	56	58
170.0	56	58	60
172.5	58	60	62
175.0	60	62	64
177.0	62	64	66
180.0	64	66	68
183.0	66	68	70

(iii) Add 2 Kg in weight for every additional 3 cm in height

- (iv) For females, the general state of physical development will be taken into account and body weight recorded in each case.

(v) The minimum height required for Drivers is 162 cm.

5. BODY MASS INDEX:

In case the weight of an individual is found more than prescribed as per the height - weight table as indicated above then Body Mass Index (BMI) will be taken as deciding parameter as per the norms given below:

5.1 Age up to 35 years –BMI should be maximum of $30 \text{ Kg} / \text{m}^2$.

5.2 Age above 35 years BMI should be maximum of $32 \text{ Kg} / \text{m}^2$.

6. CHEST :

Acceptable chest measurement at full expiration will be 79 cm (relaxable by 5 cm) minimum expansion 5 cm. The range of expansion upto 4 cm. i.e. a deviation of 20% will be acceptable. This is not applicable to female candidates.

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Measurement: The candidate will stand with feet together and arms raised over the head. The tape will be taken round the chest horizontally with its upper edge touching interior angles of the shoulder blades. The arms will then be lowered to hang relaxed by the side of the body. The candidate will not be permitted to throw shoulders upwards or backwards so as to displace the tape. The candidate will be directed to take deep breath several times without causing contraction of chest muscles or wing out the shoulder blades. The maximum and minimum expansion of the Chest will then be recorded in centimetres thus 70-75, 78-84 etc. Fraction of cm below 0.5 will be ignored and over 0.5 taken as one.

7. EYE :

Standards and procedures of examination in respect of visual acuity and colour perception are as follows.

7.1 The candidate's eyes will be tested and results of the test recorded in accordance with the following rules.

7.2 **General:** The candidate's eyes will be submitted to a general examination directed to the detection of any disease or abnormality. The candidate may be rejected if he suffers from morbid condition of eyes, eye-lids or contiguous structures of such a nature as would render him/her unfit for service at the time of appointment or at a future date.

7.3 **Visual Acuity:**

7.3.1 The examination for determining the acuity of vision includes two tests, one for distant, the other for near vision. Each will be examined separately.

7.3.2 Standard of visual acuity for personnel of various categories, with or without glasses will be as follows:

Categories of Employees	Age	Distant Vision		Near Vision	
		Better eye	Worse eye	Better eye	Worse eye
For Employees in E1 and above grade	Below 35 yrs. of age	6/9	6/9	Sn. 0.6	Sn. 0.6
		6/6	6/12	-	-
	35 yrs. of age and above	6/12	6/12	Sn. 0.8	Sn. 0.8
		6/9	6/18	-	-
Others (except security & Fire Services)	Below 35 yrs. of age	6/9	6/12	Sn. 0.8	Sn. 0.6
		6/6	6/18	-	-
		6/18	6/18	-	-
	35 yrs. of age and above	6/12	6/24	Sn. 0.8	Sn. 0.8
		6/12	6/18	-	-
		6/24	6/24	-	-
		6/18	6/36	-	-



- 7.4 **Fundus Examination :**
- 7.4.1 In every case of Myopia, fundus examination should be carried out and the results recorded. In the event of a pathological condition being present which is likely to be progressive and affect efficiency of the candidate he/she should be declared unfit.
- 7.4.2 The total amount of myopia (including the cylinder) shall not exceed - 6.00 D. The total amount of hyper metropia (including the cylinder) shall not exceed + 6.00D. in each eye
- 7.4.3 Fundus and media should be healthy and within normal limits.
- 7.4.4 No degenerative signs of vitreous or chorioretinitis to be present, suggesting progressive myopia.
- 7.4.5 Should have good binocular vision, fusion faculty and full field of vision in both the eyes.
- 7.4.6 There should be no organic disease likely to cause exacerbations or deterioration.
- 7.5 **Colour vision :**
The testing of colour vision shall be essential for all candidates. Colour vision shall be tested with Ishihara's Isochromatic plates in good light.
- 7.6 **Field of vision:**
The field of vision shall be tested by the confrontation method. Where such test gives unsatisfactory or doubtful results, the field of vision should be determined on the visual field screener/perimeter.
- 7.7 Ocular conditions other than visual acuity.
- 7.8 **Colour Blindness:**
- 7.8.1 **Permissible :** This will not be a disqualification for employment in purchase, sales accounts, ministerial (clerical and Store Keepers), canteen peons, sweepers, apprentices covered by Apprentices Act and any other category wherein defective colour vision is not likely to interfere with his work or create risk for others working with him.
- 7.8.2 **Not permissible:**
Colour blindness is a disqualification for the following:
- Industrial staff dealing with machines involving recognition of coloured signals.
 - Technicians engaged in Laboratory work and chemists.



- c. Crane operators and Points men
- d. Draughtsmen
- e. Electricians
- f. Scientific Assistants
- g. Drivers of all categories
- h. Security Personnel
- i. Doctors
- j. Engineering Executives Trainees
- k. Engineering equipment erection and O&M.

l. Other occupations where perception of colour is considered essential in view of the nature of duties of the offered post and future posts likely to be occupied by the candidate either on appointment on promotion or on job rotation / transfer except in HR, Finance, Accounts, Clerical, Ministerial, Attendant and any other category where defective colour vision is likely to interfere with his work creates risk for others.

7.8.3 Whenever an employee suffering from colour blindness is posted or transferred into a category wherein colour perception is required his eyes will be re-examined for the same along with the examination for visual acuity.

7.9 **Night Blindness:**

The medical officer will have the discretion to improvise such test e.g. recording of visual acuity with reduced illumination or by making the candidate recognise various objects in a dark room after he/she has been there for 20 to 30 minutes. Candidate's own statements should not always be relied upon, but they should be given due consideration.

7.10 Any organic disease or a progressive refractive error which is likely to result in lowering of the visual acuity shall be considered as disqualification.

7.11 **Trachoma:**

Trachoma, unless complicated shall not ordinarily be a cause for disqualification.

7.12 **Squint /:**

For technical services skilled jobs, where the presence of binocular vision is essential, squint, even if the visual acuity is of the prescribed standards should be considered as disqualification. For other services, the presence of squint should not be considered as a disqualification if the visual acuity of each eye is of the prescribed standard.



7.13 One eyed person:

For regular service one eyed individual shall be considered as unfit except for ministerial and allied jobs where binocular vision is not considered essential. It will be ensured that the prognosis or the functioning eye is good and its vision is not likely to be endangered by the condition of the worse eye and the prescribed visual acuity standards are fully satisfied.

7.14 Contact Lenses:

Correction with contact lenses is no bar for employment provided the prescribed standards are fulfilled.

8 0 EAR:

A candidate should be free from any active disease of the ear. The candidate should be able to whispering voice separately in both the ears at a distance of 2 feet in a quiet room. A candidate who fails in this test will be declared medically unfit.

Procedure for hearing test : The examining medical officer will test the hearing standards of a candidate in a quiet room. The test will be carried out with the medical officer and the candidate standing at a distance of 20ft, from each other. Both the ear will be examined separately. The ear not being tested will be marked by a masking apparatus or by rubbing a piece of paper against pinna by an attendant. The candidate will face at right angles the examining medical officer with the ear under examination facing him. He will use the whispering voice (whisper produced with the residual air i.e. after an ordinary expiration). The hearing will be considered normal if the candidate can reproduce the whisper. Those with perforated ear drum will not be accepted as cooks.

9.0 NOSE:

A candidate should be free from any active disease of nose.

10.0 THROAT:

State of tonsils-Slight hypertrophy without evidence of repeated tonsillitis is not a cause for rejection. Enlarged tonsils cause temporary unfitness until treated with tonsillectomy. Throat, palate, gums, jaws, temporo-mandibular joint and dentitions should be within normal limits.

11.0 BLOOD-PRESSURE (BP)

The normal limits of blood pressure, without involvement of target organ, shall be assessed as follows:

Age Group	Systolic	Diastolic
Upto 35 years of age	Not exceeding 140	90 mm or below
Beyond 35 years of age	Not exceeding 150	100 mm or below

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12.0 ECG:

If resting ECG is abnormal then the individual shall be submitted for exercise tolerance test (TMT) and if TMT is positive the individual will be declared unfit.

13.0 GENITO URINARY SYSTEM ETC:

13.1 Testicles: Individuals detected to be having undescended testicles on one or both sides shall be declared temporarily unfit for maximum period of 21 days. Fitness can only be granted if the candidate reports back with orchidectomy with negative biopsy report for malignance, with 21 days of medical examination.

13.2 Candidates with Hydrocele, piles, varicocele and hernia shall be declared temporarily unfit for a maximum period of 21 days during which period candidate will have to undergo definitive treatment.

14.0 GLANDS :

Thyroid should be normal with no evidence of hypo or hyperthyroidism or generalised enlargement of lymphglands. Scars, if any, of the previous removal of tubercular glands should be normal and there must not have been any active disease in the last five year.

15.0 URINE:

Non orthostalic albuminuria will be a cause for rejection.

16.0 BLOOD SUGAR

18.1 All candidates with type-1 diabetes will be declared unfit irrespective of age.

18.2 Up to 35 years of age all the individuals detected to be having diabetes will be declared unfit.

18.3 Individual above 35 years of age detected to be having type-II diabetes, without organ involvement, shall be declared temporarily unfit for maximum period of 21 days during which their blood sugar has to be within normal limit otherwise they will be declared unfit.

18.4 All diabetics with any of target organ involvement shall be made unfit irrespective of age.

17.0 RADIOLOGICAL EXAMINATION:

Skiagram chest of all fresh entrants will be taken. Mass miniature radiography will be utilised in lieu, whenever available. Cases diagnosed as suffering from pulmonary tuberculosis will be declared unfit. Such candidates are considered to be unsuitable for employment in view of the industrial hazards.

18.0 VENEREAL DISEASE:

Candidates who are suffering from venereal disease will not be declared fit unless detailed examination of urethro smear and serological test proves negative.

19.0 PREGNANCY:

If at the time of medical examination, a candidate is pregnant of 12 weeks or more, she shall be declared temporarily unfit until she has completed six week after confinement.

20.0 SKIN DISEASE:

Candidate suffering from leprosy or chronic and inveterate skin conditions will be declared unfit. Vitiligo cases are acceptable.

21.0 FITS :

Candidates suffering from epilepsy will be declared unfit. Those suffering from epileptic attacks are dangerous in certain occupations like Drivers, Crane Operators, Mechanists, Fire brigade, Security duties and shop floor jobs where moving machinery may cause risk to life if they suffer from a fit in the vicinity.

22.0 MISCELLANEOUS:

Signs of mental retardation, incontinence of urine or enuresis, at the time of pre-employment examination will declare candidate unfit for employment.

23.0 DEFECTS:

Congenital or acquired physical defects, if any noticed, will be recorded on the medical examination form with a clear opinion as to whether it is likely to interfere with the efficient performance of the duties for which the candidate is under consideration for employment. The norms and standards shall however be further relaxed for **Physically Challenged** candidates as per government guidelines.



(Confidential)

PART-I

**NHPC Limited
(A Govt. of India Enterprise)**

Medical Examination Report for appointment in NHPC Limited
(Declaration to be given by the candidate before medical examination)

Post for which selected :

Reference No. :

1. Name in Full (in block letters):.....
2. Age :
3. Date of Birth:
4. Place of Birth :
5. Father's/Husband's Name:
6. Address:.....
7. Please tick the appropriate answer :

Attested
Passport size
photograph of
the Candidate
duly attested by
HR Officer

Have you ever suffered from	Yes	No
Enlargement or Suppuration of glands		
Spitting of blood		
Asthma		
Heart Disease		
Rheumatism		
Fainting attack		
Epilepsy		
Intermittent or any other fever		
Lung Disease		
Appendicitis		
Night Blindness		
Any other disease (give details)		

8. Have you ever suffered from any form of nervousness due to Over work/ Mental illness or of any other cause? YES/NO.
If yes give details
9. Have you been examined & declared unfit for Government service by a Medical Officer/Medical Board within last 03 years? YES/NO.
If Yes, give details
10. Have any of your near relations suffered from any of the above mentioned ailments (or any other disease)? YES/NO.
If Yes, give details.
11. Have you been vaccinated against COVID-19 (All 03 doses). Yes or No?
12. Any Other disease or accident requiring confining to bed and medical or surgical treatment. YES/NO. If Yes, give details.



13. Did you suffer from any illness wound or injuries sustained in the past with compensation paid? YES/NO.

If Yes, give details.

14. Furnish the following particulars concerning your family:

Father's age if living and state of health	Father's age at death and cause of death	No. of Brothers living, their age and state of health	No. of Brothers dead, their ages at death and cause of death

Mother's age if living and state of health	Mother's age at death and cause of death	No. of Sisters living, their age and state of health	No. of Sisters dead, their ages at death and cause of death

I declare that:

- 1.) All the above information is true to the best of my knowledge and belief.
- 2.) I have not received disability certificate/ pension on account of any disease or any other condition.

Marks of Identification:

- a.)
- b.)

Signed in my presence

Signature of Medical Authority*

Date:

Signature of Candidate

Date :

Note:

If the fact that false information has been furnished or that there has been suppression of any factual information in the Attestation Form comes to notice at any time during the service of a person, his/her services would be liable to be terminated and his/her claims to any terminal benefit shall be forfeited.

***Chairman of Medical Board or Civil Surgeon or Medical Superintendent or Chief Medical Officer or equivalent of a Central/ State Govt. hospital (having the status of minimum District Hospital).**



**MEDICAL EXAMINATION REPORT
PHYSICAL EXAMINATION**

Name of the Candidate:

1. General Development:

Good..... Fair..... Poor.....

Thin.....Average..... Obese.....

Height (Without Shoes)cm. WeightKg.

Girth of chest (in cm):

(a) (After full inspiration).....

(b) (After full inspiration).....

2. APPREANCE

- i. Temperament : Sober/Nervous/Irritable
- ii. Nutrition : Good/Fair/Poor,
- iii. Marks of Primary Vaccination : Present/Absent
- iv. Deformities
- v. Operation Scars

3. Skin any obvious disease.....

(Leprosy or chronic and inveterate skin condition will be declared unfit).

4. Eyes:

- a) Any disease :
- b) Night blindness :
- c) Defect in colour vision :
- d) Field of vision :
- e) Visual acuity :

Distant vision (naked Eyes)	:	RE	LE
Distant vision with glasses or contact lenses	:	RE	LE
Near vision (naked Eyes)	:	RE	LE
Near vision with glasses or contact lenses	:	RE	LE



Age	Distant Vision		Near Vision	
	Better Eye	Worst Eye	Better Eye	Worst Eye
Below 35 Yrs	6/9	6/9	Sn/0.6	Sn/0.6
	6/6	6/12	-	-
Above 35 Yrs	6/12	6/12	Sn/0.6	Sn/0.6
	6/9	6/18	-	-

Strength of glasses used:

Sph. Cyl. Axis.

- Corrected Myopia (including cylinder) exceeding (-) 6D and Hypermetropia (+) 4D in each eye up to the age of 35 years will be considered as disqualification.
- Corrected Myopia (including cylinder) exceeding (-) 6 D and Hypermetropia (+) 6D in each eye beyond 35 years of age will be considered as disqualification.

Colour Vision: Complete / Partial Colour Blindness

(Please refer to Clause 7.8 of NORMS AND STANDARDS FOR MEDICAL FITNESS)

(Correction with contact lenses/intraocular implant/Lasik surgery is not a bar for employment provided the prescribed standards are fulfilled).

(Retinal diseases in diabetes, hypertension and atherosclerosis will be considered disqualification for all categories)

5. Ears:

General inspection: _____

Hearing: Right Ear _____ Left Ear _____

(Bilateral Nerve Deafness- Not acceptable for all categories.)

6. Nose:

(A candidate should be free from any active disease of the nose. Deviated nasal septum, Nasal polyposis, sinusitis of severe nature etc. will be declared temporarily unfit).

7. Throat:

(Slight Hypertrophy without evidence of repeated tonsillitis is not a cause for rejection. Enlarged tonsils cause temporary unfitness until treated with tonsillectomy).

8. Glands: _____

Thyroid: _____

(Hyperthyroidism/ Pituitary disorders declared unfit).

9. Condition of teeth: _____

(Dental caries and decaying teeth declared temporarily unfit.)



10. Respiratory System:

Cases diagnose as suffering from pulmonary tuberculosis will be declared temporarily unfit for 03 months.

11. Circulatory System:

(a) Heart Rate:

Any organic lesion _____

(b) Heart Rate/Pulse rate standing _____ after hopping 25 times _____ 2 minutes after hopping _____

(If pulse rate still over 100 after rest, candidate should be declared unfit)

(c) Blood pressure:

Systolic _____

Diastolic _____

(A candidate having abnormally high blood pressure should be considered unfit)

12. Abdomen:

Girth _____

Tenderness _____

Liver _____

Spleen _____

(Cirrhosis of Liver - declared unfit)

13. Nervous System:

(Epileptic and mentally challenged candidate - declared unfit)

14. Blood Vessels:

1. Pulse in upper and lower extremity.

2. Blood Vessels: Normal/thickened /varicose veins.

(Candidate with varicose vein declared temporarily unfit)

15. Loco-Motor System:

(Candidate with deformity or Amputation of a limb to such degree that interferes with successful and safer performance and emergency evacuation declared unfit).

16. Spine:

(Kyphosis, scoliosis, Kyphoscoliosis and lordosis declared unfit).

17. Genito Urinary System:

Hernia _____

Hydrocele _____

Varicocele _____

Any other _____

(Candidate will be declared fit if corrective measures taken within 8 weeks.

18. For female candidates:

(a) History of menstrual cycle: regular/irregular

(b) Breasts



- (c) Pregnancy with duration
(d) Local/PV/PAP Smear examination if required.

(If at the time medical examination, a candidate is pregnant of 12 weeks or more, she shall be declared temporary unfit until she has completed 6 weeks after confinement. After confinement the candidate shall be required to produce a medical certificate of fitness from a registered medical practitioner before being called up for a final medical examination.)

Is there anything in the health of the candidate likely to render him unfit for the efficient discharge of his duties in the services for which he is a candidate?

If yes, please indicate details

Comments:

YES

NO

**Signature of the Examination
Medical Authority*
(Office Seal)**

Place: _____

Date: _____

**Signature of the Candidate
Name of Candidate**

Place: _____

Date: _____

***Chairman of Medical Board or Civil Surgeon or Chief Medical Superintendent or Chief Medical Officer or equivalent of a Central/State Govt. Hospital (having the status of minimum District Hospital)**



LIST OF INVESTIGATION

EXAMINATION OF BLOOD

1. CBC
2. ESR
3. BLOOD SUGAR-FASTING & PP
4. LIPID PROFILE
5. RENAL PROFILE
6. THYROID PROFILE
7. VDRL
8. BLOOD GROUP & RH Typing

EXAMINATION OF URINE

1. Routine microscopy of urine

EXAMINATION OF STOOL

1. Routine microscopy of Stool

EXAMINATION OF SPUTUM

1. Sputum for AFB

OTHER INVESTIGATIONS

1. X-Ray chest PA view (not to be performed in case of pregnancy)
2. ECG-in all leads
3. Audiometry
4. Ultra-Sound-Whole Abdomen

THE FOLLOWING TEST TO BE DONE (If required)

1. Pulmonary Function Test
2. PAP Smear (after 35 years of age if married)
3. Mammography after 35 years of age
4. FNAC-if there is any nodule presents
5. Any other Test, if required according to the examination of the candidate.





CERTIFICATE OF MEDICAL FITNESS ON FIRST APPOINTMENT IN NHPC Limited

I hereby certify that I have examined Mr./Ms. a candidate for employment in the NHPC Limited and cannot discover that he/she has any disease (communicable or otherwise), constitutional weakness or bodily infirmity, except..... I do consider/do not consider this a disqualification for employment to the post of..... His/her age is according to his/her own statement years and by appearance about Years.

I certify that the candidate is medically.....

FIT

UNFIT

TEMPORARILY
UNFIT

Signature of the Examining Medical Authority*

Medical Authority to refer to NHPC Limited Guidelines on Medical Standards/ norms for pre-employment medical examination before issuing certificate of fitness.

*Chairman of Medical Board or Civil Surgeon or Chief Medical Superintendent or Chief Medical Officer or Equipment of a Central/State Govt. Hospital (having the status of minimum District Hospital)

To

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.....
.....

Subject: YOUR MEDICAL EXAMINATION

Dear Sir,

With reference to your Medical Examination to your Medical Examination held on, we have to Inform you that you have been found temporarily unfit in account of the following:-

You may undergo the treatment of yourself for the above disease/sickness and appear for a re-examination within* from the date of issue of this letter. While reappearing for medical examination, please carry a certificate from the treating doctor on fitness and treatment of aforesaid disease /sickness.

Yours faithfully,

(MEDICAL AUTHORITY)

***Prescribe the period up to 06 months depending upon disease, surgery required.**

Copy for information to:

1. The Appointing Authority.

