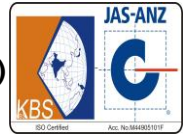




NATIONAL POWER TRAINING INSTITUTE
(An ISO 9001: 2008 & 14001:2004 Organization Under MoP. Govt .of India)
HOT LINE TRAINING CENTRE
Bangalore – 560 082



No. NPTI/HLTC/103rd LLMT-HSM/2016-17/
To

Date:21st Dec, 2016.

(All Electrical Utilities)

Sub: 12 weeks Training in Live Line Maintenance Techniques (103rd Batch) using Hot Stick Method (HSM) up to 220 KV lines from 20.02.2017 to 12.05.2017 – reg.

Sir,

We are glad to inform that the Twelve weeks Training on Live Line Maintenance Techniques (LLMT) using Hot Stick Method (HSM) up to 220 KV lines is scheduled to be conducted from **20.02.2017 to 12.05.2017** (103rd Batch). The training programme offers direct benefit to the organizations involved in maintenance of transmission lines by reducing the number and duration of shutdowns. The course covers the overall features of Hot Line Techniques including awareness about Insulator testing, bare hand techniques, switchyard maintenance, live line insulator washing, etc. which will enhance the competence level of the participants to handle the maintenance on transmission lines effectively. Hence learning the Hot Stick Method of training is a basic necessity to execute works on Live EHV transmission lines & switchyards. Also attending this course is a pre-requisite to undergo LLMT training programme using Bare Hand Method (BHM) subsequently. The course profile and other details are enclosed as **Annexure-I**. The salient features of the course are given under: -

Name of the Course	Live Line Maintenance Techniques using Hot Stick Method up to 220 KV lines
Course Duration	12 Weeks (From 20.02.2017 to 12.05.2017)
Course Fee	₹.1,55,000/- (Rupees One Lakh Fifty Five Thousand Only)
Add Service Tax	₹.19,782/- (Rupees Nineteen Thousand Seven Hundred And Eighty Two Only)
Grand Total	₹.1,74,782/- (Rupees One Lakh Seventy Four Thousand Seven Hundred and Eighty Two Only)
Eligibility	The sponsored participants can be: a) In the level of Engineers, Supervisors and Linemen engaged in operation and maintenance of EHV lines. b) Sound in health and physically fit c) Willing to Execute an Indemnity Bond.

In this programme, the trainees shall be trained to work adopting “**Hot Stick Method**” of LLMT on energized lines up to 220 KV. The nominated participants shall be physically fit, capable of working on the transmission towers as well as be conversant with the maintenance of EHV lines. Considering the risk involved, the sponsoring organization is requested to provide safety shoes to the trainees without which it will result the trainees unable to climb on towers and take up hands-on training. Also it is advised that all the nominees may be provided with adequate insurance cover for the training period and protective sunglasses issued by the sponsoring authority. The safety belt and helmet will be issued to them on returnable basis. The nominations along with full particulars of trainees duly filled in the enclosed Nomination Form (**Annexure II**) shall be sent to us well before the commencement date but latest by **10.02.2017**.

The trainees shall sign an Indemnity Bond on non-judicial stamp paper of not less than ₹.50/- before joining the training course. A copy of the Blank Indemnity Bond is enclosed (**Annexure – III**) for your information and reference, which may please be duly completed in all respects and sent to this office much before the commencement of the course. **No trainee who has not executed the Indemnity Bond shall be allowed to participate in the training.**

Normally we accommodate **only 5 to 6 nominees** from each government power transmission Utility / organisation and **only 1 to 2 nominees** from other / private organisations. Hence they are accepted on first come first served basis. If the nominations exceed that, they may be accommodated in the future courses, if requested. Therefore it is absolutely essential that the nominations are sent at the earliest **or well before 10.02.2017**. Nominations received after **10.02.2017** will be considered for the next course only.

NPTI is exempted from deduction of Income Tax at source under section No.10 (23C) (iiiab) of Income Tax Act 1961 vide letter No: ACIR/R-1/ Fbd/03- 04/5001 dated 27.10.2003 and hence no deduction of tax at source shall be made from course fee (copy of the letter can be forwarded on request).

The programme is residential in nature and as far as possible the Hot Line Training Centre shall make arrangements for their comfortable stay in a well-furnished single roomed Trainee Hostel inside HLTC Campus on twin sharing basis. Transport facility will be provided to the place of training and back.

The residential course fee of ₹.1,74,782/- (**Rupees One Lakh Seventy Four Thousand Seven Hundred and Eighty Two Only**) per trainee which includes training fee, boarding & lodging charges and Service Tax shall be payable in advance by the sponsoring Authority to Hot Line Training Centre. This payment is to be made by **Demand Draft** preferably on **State Bank of India** drawn in favour of **“DIRECTOR, HOT LINE TRAINING CENTRE, BANGALORE”**. In case the nominated participants attending the course are not carrying the Demand Draft with them, it may be sent by **Speed post or by Registered post or by e-transfer**.

The course fee can be effected by **e-transfer only after confirmation** of nomination by NPTI/HLTC. The enclosed bank details can be made use of and under intimation to this office by fax followed by post copy; giving complete details such as, the name, designation, office of working, etc; of the officials being sponsored for the training course.

All other expenses in respect of the sponsored trainees, such as Pay, DA, TA, Hot Line Special Allowance, etc. shall be borne by the sponsoring authority and such payments are to be made to the trainees directly and **NOT** thro' this office.

The trainees nominated for the course may be made aware of the contents of this circular especially **Annexure IV. The sponsoring authorities are advised to obtain written confirmation from this office before deputing the trainees to HLTC for the said training.**

Yours faithfully,

-sd-

K.S.VENU BABU
Deputy Director I/C

Enclosures:

1. Course Outline and other information (**Annexure –I**).
2. Nomination form (**Annexure – II**).
3. Specimen Indemnity Bond (**Annexure – III**).
4. Instructions and Check list for Trainees (**Annexure – IV**).
5. Bank account details of HLTC, Bangalore.

Note: This circular can also be downloaded from our official website: www.hltc.in

TRAINING IN LIVE LINE MAINTENANCE TECHNIQUES USING HOT STICK METHOD UP TO 220 KV LINES

COURSE OUTLINE AND OTHER INFORMATION

The fast developing Power System Network calls for least interruption in Power Supply and increased system security. Efficient operation and maintenance of existing and expanding Power System networks, which play a vital role in shaping the economy any country, necessitated adoption of specialized techniques for the maintenance of power transmission and distribution lines.

The Hot Line Training Centre was established at Bangalore to impart specialized training in Live Line Maintenance Techniques (LLMT) using Hot Stick Method (HSM) up to 220 KV to the personnel of the State Electricity Boards / Supply Undertakings all over India and Abroad. The course on Hot Stick Method up to 220 KV lines so designed and planned as to meet the needs of the power systems owned and operated by various power utilities in the country. This 12 weeks training course is conducted about three times in a year.

OBJECTIVE

The Training Programme has been organized with the following objectives:

- ❖ To Provide in-depth approach and technical know-how for live line maintenance
- ❖ To highlight the importance of maintenance of HV and EHV Power Transmission lines using Hot Stick Method.
- ❖ To give an introduction to Bare Hand Method of Live Line Maintenance

Why Hot Line Maintenance is necessary and beneficiary as it reduces the shut down time drastically.

- ❖ If a 220 Kv line transmitting about 200 MW of power is under shut down condition for about 6 hrs, the loss is shown in the sample calculation below.
- ❖ $200 \text{ MW} = 200000 \text{ KW}$
- ❖ $200000 \text{ KW} \times 6 \text{ hrs.} = 1200000 \text{ KWH}$
- ❖ i.e. loss of 12 Lakhs units
- ❖ Considering a rate of Rs. 5/- per unit the revenue loss works out to Rs 60 Lakhs
- ❖ This is just revenue loss to the electric supply company.
- ❖ The industrial production loss, agriculture production loss and loss due to commercial and residential activities. etc. will be add up to the tangible losses account.
- ❖ Apart from this, dissatisfaction of consumers due to inconvenience will add upto intangible loss to the power utilities.

COURSE OUTLINE

- ❖ General Principles of LLMT.
- ❖ Introduction to maintenance on EHV lines using Hot Stick Method.
- ❖ Safety aspects and Regulatory requirements.
- ❖ Practical oriented Operation covering various tower configurations and on uncharged and charged conditions.
- ❖ Hands on training on commercial lines of various configurations on 66Kv & 220Kv lines.
- ❖ Introduction to testing of insulators and live line insulator washing techniques.
- ❖ Study Tours to Certain Important substations and transmission line locations.
- ❖ Introduction to Bare Hand Method of Live Line Maintenance and Switchyard Maintenance.

PERIOD: From 20.02.2017 to 12.05.2017 (12 weeks)

ATTENDANCE

As the Live Line Maintenance training is intensive, it is expected that the participants who join the training will not avail any kind of leave during the training period except in emergency situations. The sponsoring authorities are requested to advise them accordingly so that they may not apply for any kind of leave during training. If desired, a monthly attendance report of the trainees will be sent to their controlling officers for preparation of salary bills. Trainees found irregular/ uninterested in training by HLTC will not be issued with training certificates.

ASSESSMENT

At the end of the training course there will be an objective assessment test / viva voce for the participants. Course certificate shall be awarded only to those participants found successful in the test.

**NATIONAL POWER TRAINING INSTITUTE
HOT LINE TRAINING CENTRE
BANGALORE – 560 082.**

12 weeks Training in Live Line Maintenance Techniques (LLMT) using Hot Stick Method (HSM) up to 220 KV lines from 20.02.2017 to 12.05.2017 (103rd Batch).

NOMINATION FORM

(TO BE FURNISHED BY THE SPONSORING DEPARTMENT)

01. Name of the candidate (in block letters) :
02. Father's name :
03. Date of birth :
04. Designation & official address :
05. Residential address for future Communication :
06. Details of Educational/Technical Qualification:
07. Whether the candidate has working knowledge of English/Hindi/ local language to understand the lectures and instructions. :
08. To complete the arduous training Programme whether the candidate has: -
 - a) Physical fitness to climb and work on towers :
 - b) Good eye sight & hearing :
 - c) Free from Height phobia & colour blindness :
 - d) Free from Heart ailments, Arthritis, Epilepsy, etc.:
9. Number of years the Candidate had Worked in overhead T & D lines
 - a) Construction, erection, stringing, testing, etc.:
 - b) Maintenance and repairs :
10. Whether the candidate has high degree of manual skill and even temperament which are the essential requirements for Hot Line Trainees. :
11. Whether the Indemnity Bond is executed :

The information furnished above is true to the best of my knowledge and belief.

SIGNATURE OF THE SPONSORING AUTHORITY
WITH NAME, DESIGNATION and ADDRESS :

Date : (OFFICE SEAL)

INDEMNITY BOND *

THIS DEED MADE ON THIS _____ day of _____, 2017 by _____ (Name of the Trainee with address) do hereby hold and firmly bound to National Power Training Institute (NPTI) and its officials or any person employed by NPTI who have agreed to give me training in the fundamental of routine line maintenance, and thereafter in repairs, maintenance and operation of the overhead transmission and distribution lines and equipment when they are energized, here-in-after referred to as “ **The Live Line Training** ” at the Hot Line Training Centre at Bangalore. Now, the above written bond/obligation’s condition is that I hereby undertake to receive such training at my own risk and responsibility and agree and declare that the NPTI and its officials or any person employed by NPTI shall not be liable for damage sustained in the event of my death or in the event of my being wounded or for any other bodily injury suffered by me or for damage to my property and during my training period and whether arising by accident or by reasons of any acts of NPTI or persons employed by NPTI and I hereby further undertake to indemnify and keep the NPTI indemnified against all liability in respect thereof.

IN WITNESS WHEREOF both the Parties viz. National Power Training Institute (HLTC), Bangalore represented by its Director and the Trainee, (Shri _____) have signed on this the _____ day of _____ 2017.

.....
 Director
 National Power Training Institute
 Hot Line Training Centre
 Bangalore.
**(For and on behalf of the
 National Power Training Institute)**

.....
 Signature of the trainee

.....
**Signature of the Authority/Controlling Officer.
 (For and on behalf of Sponsoring Utility /
 Organisation)**

IN THE PRESENCE OF

1.

2.

IN THE PRESENCE OF

1.

2.

**(For and on behalf of National Power
 Training Institute)**

**(For and on behalf of Sponsoring Utility
 / Organisation)**

* **To be furnished in Non-Judicial Stamp Paper of not less than ₹.50/-**

INSTRUCTIONS FOR TRAINEES

- I. **ATTENDANCE:** As the training in Live Line Maintenance Techniques up to 220 kV using Hot Stick Method is highly comprehensive and intensive, the attendance of the trainees for the complete course is compulsory and no leave of any kind will be sanctioned to the trainees during the course of training. It is advisable to sponsor only such candidates who will be punctual and regular in attendance. Unauthorised absence by candidates will be viewed seriously and HLTC will not be in a position to issue Course Certificates in such cases.
- II. **INDEMNITY BOND:** The trainees shall sign an Indemnity Bond on non-judicial stamp paper of not less than ₹.50/- which is duly counter signed by the sponsoring/controlling authority before joining the training course. The participants who have **NOT** executed the bond shall **NOT** be admitted to training course.
- III. **ACCOMMODATION:** A Hostel with well-furnished rooms on twin sharing basis is available in the HLTC campus for the trainees. The course is fully residential and the boarding and lodging are provided by HLTC. As far as possible HLTC will make arrangements for the comfortable stay of the trainees.
- IV. **PHOTOGRAPHS:** Trainees shall submit Three (3) passport-sized and Two (2) Stamp sized colour photographs duly signed on the back of the photograph at the time of reporting to training course.
- V. **SAFETY SHOES:** As the nature of training demands regular climbing and working on the towers, the trainees need to be equipped with good quality **SAFETY SHOES** with thick rubber soles for providing electrical insulation, be sturdy, robust and secure for withstanding mechanical stresses. Non-availability of safety shoes will result in trainees not being able to take up hands-on training on towers. Also it is suggested that the sponsoring authority may provide the trainees with **Safety Glasses** for protecting eyes from ultra violet rays before sending them for the training course.
- VI. **HOW TO REACH:** The sponsored candidates may be directed to alight at Bangalore City Railway Station/city Bus Stand and report to this office, which is about 35 km from there. It is situated next to 220 kv Sub Station of Karnataka Power Transmission Corporation Ltd (KPTCL) and 400 kv Sub-station of POWERGRID on Kanakapura Road and is opposite to Acharya Patasala College (APS) of Engineering campus. Buses are available from Krishna Rajendra (K.R.) Market which is about 3 Km from City Railway station/City Bus stand. HLTC can be reached by City Bus Route Nos. 211, 211D, 211G, 211H, 211L, 211N, 213, 213A, 213B, 213K, etc. For any assistance, contact this office (Monday to Friday) between 10.00 hrs to 17.00 hrs on **Phone Numbers: 080-28432212 & 080-28432053, Tele fax: 080-2843596.**

CHECK LIST FOR TRAINEES:

All the trainees nominated for attending the LLMT course Using Hot Stick Method should check the following items before proceeding to HLTC, Bangalore.

1. Relieving order from respective departments for attending training course at HLTC.
2. Nomination form of trainee duly countersigned by controlling officer, in original, if not sent earlier.
3. Indemnity bond duly signed by the trainee and counter signed by his controlling officer.
4. **DEMAND DRAFT for ₹.1,74,782/- (Rupees One Lakh Seventy Four Thousand Seven Hundred and Eighty Two Only)** per trainee towards training fee plus boarding and lodging charges for 12 weeks, drawn in favour of **“DIRECTOR, HOT LINE TRAINING CENTRE, BANGALORE”**.
5. Safety shoes provided by sponsoring organisation.