

भारत सरकार  
Government of India  
**उत्तर क्षेत्रीय विद्युत समिति**  
Northern Regional Power Committee  
18-ए शहीद जीत सिंह मार्ग, कटवारिया सराय, नई दिल्ली- 110016  
18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016

No. NRPC/OPR/ Insulators/2012-13/

Dated: 01.11.2012

To:

1. CMD, POWERGRID, Gurgaon
2. Chairman, BBMB, Chandigarh, Fax No 0172- 2549186, 2652820
3. CMD, DTL, New Delhi Fax No 011 23234640
4. CMD, PSTCL, Ablowal, Patiala
5. CMD, UPPCL, Lucknow Fax No 0522- 2287880
6. MD, HVPNL, Panchkula Fax No 0172-2560640
7. CMD, RRPVNL, Jaipur Fax No 0141- 2740168
8. Director (Electrical Engineering-PS), Railway Board, Rail Bhavan, New Delhi-110001, Fax 011- 23387045,
9. CED, North Central Railway, Allahabad, 0532-2223211, 2230204
10. CED, Northern Railways, New Delhi, Fax No 011-23387045
11. CEO, POWERLINKS Transmission Limited, New Delhi, Fax-011-45459555
12. GM (O&M), POWERGRID, NR-I
13. GM (O&M), POWERGRID, NR-II
14. Managing Director, Adani Power Ltd.

Subject: Minutes of the meeting on Replacement & Cleaning of Insulators in Northern region.

A meeting for assessing progress of replacement of porcelain Insulators with polymer/ anti-fog insulators and cleaning of porcelain insulators in Northern region was held on Tuesday, the 23<sup>rd</sup> October, 2012 at NRPC Secretariat, New Delhi. The Minutes of this meeting have been hosted on the website of NRPC and can be down loaded from <http://www.nrpc.gov.in>.

Sd/-  
(Ajay Talegaonkar)  
SE (Operation) & Member Convener, OCC

Copy for information to:

- (i) Chief Engineer (GM), CEA
- (ii) Director (OM), Ministry of Power

Summary record of Discussions of the review meeting for assessing replacement of porcelain Insulators with polymer/ anti-fog insulators and cleaning of porcelain insulators in Northern region.

List of participants is enclosed at **Annexure-I**

1. Welcoming the participants, SE (O), NRPC requested participants to intimate the progress of replacement of porcelain Insulators with polymer/ anti-fog insulators and cleaning of porcelain insulators so far and their programme to complete the balance work before the onset of winter.
2. Representative of POWERGRID (NR-I) intimated that replacement of porcelain Insulators with polymer insulators under stage-I have been completed except for some tension towers of Maharani Bagh- Ballabgarh line which would also be completed between 16.11.2012 and 22.11.2012. He added that under stage-II, 32,000 insulators out of 54,000 have been replaced. He further informed that out of 12 nos. of lines identified under stage-III, work on 03 nos. of critical lines has already been completed. He further informed that they would not be able to complete remaining work of stage-I, II and III during this winter.
3. Representative of POWERGRID (NR-II) intimated that replacement of porcelain Insulators with polymer insulators under stage-I have been completed. Briefing about critical lines, he informed that under stage-II, 400 kV Nathpa Jhakri-Abdullapur Ckt. - I would be completed by 30.11.2012 and Ckt.-II by 1<sup>st</sup> week of December, 2012. He further intimated that under stage-III, 400 kV Moga-Bhiwadi ckt.-II would be completed by 15.11.2012. In respect of 400 kV Kaithal- Meerut ckt.-II, he added that 86% work has been completed and balance would be completed by 25.11.2012. In respect of 400 kV Jalandhar-Ludhiana ckt., he added that 88% work has been completed and balance would be completed by 15.11.2012.
4. SE (O), NRPC requested POWERGRID to submit the consolidated progress of region as a whole and not from NR-I and NR-II. He requested that such consolidated report should be submitted within a week.
5. Representatives of POWERGRID intimated that wherever replacement of porcelain Insulators with polymer insulators has not been done, cleaning would be taken up w.e.f 01.11.2012 and would be completed by 30.11.2012.
6. SE (O), NRPC requested utilities to inform any instances of failure of polymer insulators. Representative of POWERGRID (NR-II) intimated that conventional insulators on 220 kV Hissar-Hissar link lines were replaced with polymer recently but a flashover took place on 22.10.2012. It was decided that POWERGRID would submit a detailed report of the event by 31.10.2012.
7. Representative of PSTCL intimated that replacement of porcelain Insulators under stage-I & II have been completed. He further submitted a list of 14 nos. of additional lines where PSTCL was going to replace porcelain insulators with anti-fog insulators during 2012-13. He intimated that replacement on these additional lines will be completed during November/December, 2012. Representative of PSTCL was advised to install polymer insulators instead of antifog Insulators on these additional lines as they are not only cost effective but also do not require cleaning. Also, incidents of fog related flashovers on antifog insulators have taken place but barring incident mentioned at S. No. 6 above,

there is no report of flashovers in polymer insulators. He also referred to recommendation 10.3 of enquiry committee on grid disturbance in January, 2007 wherein polymer insulator have been recommended in areas having heavy and very heavy pollution. In respect of cleaning of insulators, representative of PSTCL intimated that cleaning work was going on and 25% cleaning would be completed by the end of October, 2012 and total cleaning was scheduled to be completed by 25.12.2012. Representative of PSTCL was requested to expedite the cleaning so as to complete the same by 15.12.2012. He assured to take up cleaning of critical lines on priority. Representative of PSTCL was requested to submit a list of all lines where conventional insulators have already been replaced by polymer/antifog insulators.

8. Representative of BBMB intimated that replacement of porcelain insulators with anti-fog insulators under stage-I have been completed except for 400 kV Dehar-Panipat, 400 kV Dehar-Bhiwani and 220 kV Rohtak Road-Narela ckts. I & II. He added that finalization of specifications was under process for 400 kV Dehar-Panipat, 400 kV Dehar-Bhiwani lines and replacement of insulators on 220 kV Rohtak Road-Narela ckts. I & II would be taken up along with replacement of conductor for which NIT was under process. He further intimated that in respect of replacement of porcelain insulators with polymer insulators both under stages I & II would be completed by 08.12.2012. In respect of cleaning of insulators, he intimated that cleaning/ re-cleaning work has been completed in Bhiwani circle and would be completed in Panipat circle by 27.10.2012.
9. Representative of DTL intimated that replacement of porcelain insulators with polymer insulators under stage-I have been completed. He added that for the 18 nos. Identified under stage-II, DTL had requested POWERGRID to take up the entire work but POWERGRID was willing only for the supply of material. This being not acceptable to DTL, replacement will be done by them and for this NIT has been done. He added that schedule of replacement can be known only after the award of work. SE (O), NRPC stated that the list of lines under stage-II is not available with and requested to furnish the same by 31.10.2012.
10. Representative of POWERGRID intimated that some towers were getting corroded due to fumes from the waste of chemical factories flowing in small drains in the close vicinity of transmission lines. He added that in some cases, thickness of the tower angle has reduced to half, posing the danger to the stability of towers. SE (O), NRPC suggested chemical analysis of the waste to ascertain the chemical damaging the towers and taking up the matter with State Pollution Control Board.
11. It was decided that utilities which were not present in the meeting will be requested to submit progress and action plan of replacement and cleaning of insulators. SE (O), NRPC expressed concern that no representative of UPPTCL was present in the meeting.
12. SE (O), NRPC requested that henceforth, progress of replacement of porcelain insulators with polymer/ anti-fog insulators and cleaning be sent on fortnightly basis to NRPC secretariat.
13. Progress of replacement of insulators as obtained in the meeting and subsequently submitted by utility is enclosed as **Annexure-II**.

-----

**Annexure-I****List of participants in the meeting held on 23.10.2012 to review replacement and cleaning of Insulators in Northern Region.**

<b>Name</b>	<b>designation</b>	<b>Organisation</b>	<b>Mobile No</b>	<b>e-mail ID</b>
Prabhat Rastogi	Dy, GM	POWEGRID	965076933	Rasrogi_prabhat@indiatimes.com
A.K.Pal	A.G.M	POWEGRID	9729872365	anandhkp@rediffmail.com
Alok Prakash	Chief Manager	POWEGRID	9971798497	prakashalok@indiatimes.com
Rajiv Kumar	Chief Manager	POWEGRID	9560890362	rajiv@powergridindia.com
Aakash Mittal	Add. S.E	PSTCL	9646118221	Xenpm_gobindgarh@yahoo.com
B.K.Yadav	Sr.Xen	BBMB	9717101444	Xenomdlhebbmb.nic.in
M.P.Singh	Manager (T)	DTL	9999533800	Mp.dtl@yahoo.co.in
R.B.singh	A.M (T)	DTL	9999533781	Rbsinghdl6@gmail.com
D.K.Jain	DGM	NRLDC	9910344127	Dkj2009@yahoo.co.in
Ajay Talegaonkar	SE	NRPC	9910728144	<a href="mailto:nrebops@yahoo.com">nrebops@yahoo.com</a>
Naresh Kumar	Xen	NRPC	9968808624	
R.C.Gupta	consultant	NRPC	9213723955	<a href="mailto:seonrpc@yahoo.in">seonrpc@yahoo.in</a>

							Annexure-II
Summary of Replacement of Porcelain Insulators by Polymer / Antifog Insulators							
	Stage-I (Lines identified after grid incidence on 8th March 2008)		Stage-II (Lines identified after grid incidence on 2nd January 2010)		Stage-III(Identified critical lines on their own)		
Utility	Lines Identified (Nos)	Progress of Replacement of Insulator String (%)	Lines Identified (Nos)	Progress of Replacement of Insulator String (%)	Lines Identified (Nos)	Progress of Replacement of Insulator String (%)	Status as on
HVPNL	25	89	17	53	Nil	-	30.09.2012
POWERGRID	68	86	39	45	12	39	31.10.2012
BBMB	35	100	5	20	Nil		23.10.2012
DTL	6	100	18	-	Nil	-	220 kV lines identified. Total insulator strings - 7385 (status as on 01.11.11.)
UPPTCL	17	100	34	72.45		72.45	17.10.2012
PSTCL	20	100	35	100	14		23.10.2012
POWERLINK	1	100	-	-	Nil	-	Work Completed
RVPNL	2	100	-	-	Nil	-	Work Completed
North Central Railways					Nil		1126 Insulator strings replaced (As informed during last winter)
Northern Railways	2	-	-	-	Nil	-	Procurement of insulators under progress (31.10.2011)