



सत्यमेव जयते
भारत सरकार

Government of India

विद्युत मंत्रालय/Ministry of Power

केंद्रीय विद्युत प्राधिकरण/Central Electricity Authority

मुख्य विद्युत निरीक्षणालय प्रभाग/Chief Electrical Inspectorate Division

-18ए शहीद जीत सिंह मार्ग, कटवारिया सराय-नई दिल्ली -110016

18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016

संख्या : CEI/1/2/1947

Dated: 10.10.2017

To,

Shri B. C. Tripathi Chairman & Managing Director GAIL(INDIA) Limited GAIL Bhawan, 16 Bhikaji Cama Place, R K Puram, New Delhi – 110066 EPABX: 011-26172580 Fax: 011-26185941	Sh. Narendra Suwalka Addl. CE (T&C), Ajmer RVPNL NR. 220 KV GSS, Naka Madarnaka Madar, Ajmer, 305001 Ph: 9414061422, 0145-2670093 Fax: 2670074
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Sub: Minutes of the meeting on Safety Hazards to Petroleum Pipelines caused by crossing of EHT/HT Power Line held on 04.10.2017

Sir/Madam,

Please find enclosed the minutes of the meeting held on 04.10.2017 at 11:00 AM in the conference room of NRPC building, CEA, New Delhi on the above subject.

Yours faithfully,

10.10.2017

(Santhosh Kumar)
Deputy Director

Encl: As above

Minutes of meeting on Safety Hazards to Petroleum Pipelines caused by crossing of EHT/HT Power Line held on 04.10.2017.

List of the participants present in the meeting is annexed.

Chief Engineer, CEI, CEA welcomed the participants and stated that the M/s Indian Oil Corporation Limited (IOCL) has informed CEA that the high voltage transmission line of Powergrid and State Transmission utility, crossing their underground pipelines, causes electromagnetic interference resulting in induced voltage in their pipelines. This disturbs the Cathodic Protection and initiate corrosion of the pipelines. Since many new transmission lines have been envisaged in near future for construction, therefore, there is possibilities that some of these lines may cross the existing oil pipelines. Considering the issue raised by IOCL is of emergent in nature, this meeting has been convened. He requested M/s IOCL to put their views on the subject.

CGM, M/s IOCL, informed that IOCL has more than 13000 km of pipelines and most of them are underground pipelines. These underground pipelines are protected from corrosion by employing the specialized system of Cathodic Protection wherein an electrolytic action (External Voltage) greater in strength and the existing corrosion activity is maintained as per NACE SP 0169:2007 under which -0.85 V to -1.02V Pipe to Soil Potential (PSP) is maintained during instant off condition of Cathodic Protection.

Further he stated that interference due to EHT/HT overhead transmission lines crossing their pipelines induces voltage in pipelines and in turn disturbing the Cathodic Protection of pipelines as they are not able to maintain adequate (Pipe to Soil Potential) PSP of pipelines for proper protection.

He stated that these crossings are laid by PGCIL as well as State owned Transmission licensees such as RVPNL (Rajasthan), GETCO (Gujarat), MPPTCL (Madhya Pradesh) etc. Some of the crossings have been laid with proper permission of IOCL and with adequate protection system. However, many crossings have been laid without taking any permission from IOCL. He requested Chief Engineer, CEI, CEA to arrive at some mitigating mechanism for existing lines and inclusion of some provisions in CEA (Measures relating to Safety and supply) regulation 2010 for future lines.

Participants from HPCL, BPCL and GAIL also expressed their concern regarding this issue, and stated that they are also facing the same problem, which is

responsible for corrosion and in turn, a heavy loss to exchequer and environment. HPCL informed that many EHT transmission lines of PGCIL and GETCO are passing parallel to their existing oil pipelines in area around Bhuj resulting in induced voltage in their pipelines causing corrosion .They were of the view that the solution for the problem should be considered for existing lines and future lines separately.

GM Power Grid stated that current density is responsible for corrosion in pipeline besides other factor such as soil salinity etc. Therefore, there is a need of joint scientific studies that should account for both charged as well as uncharged condition of transmission line. He further informed that they are conducting joint scientific studies with IOCL at some locations and it is in process.

After detailed deliberations following were decided:

1. To tackle the situation of existing lines, there is a need of joint scientific study. Therefore, BPCL, HPCL and GAIL were requested to nominate their members who should also join the already existing expert group of PGCIL and IOCL. The Joint expert group will study the cases at different locations and give the recommendation to mitigate the problem of corrosion in pipelines.
2. For future, IOCL BPCL, HPCL, GAIL and PGCIL were requested to send the draft of guidelines for crossing the oil pipeline by transmission line and vice versa. The same would be deliberated in a meeting to be held in CEA after Diwali. Based on the final recommendation in the meeting, Chief Engineer, CEI, CEA will write a letter to all stakeholders regarding the precaution to be taken by them while crossing the oil pipelines by transmission line and the coordinated approach to adopt for any such crossings.
3. CEA would also consider inclusion of the recommendations of the guidelines for crossing the oil pipelines by Transmission lines in their safety regulations.

The meeting ended with the vote of thanks to the Chair.

List of participants for Meeting on Safety Hazards to Petroleum Pipelines caused by crossing of EHT/HT Power Line held on 04.10.2017 in the conference room of NRPC building, CEA, New Delhi

Name (Shri)	Designation	Mobile No.	e-mail ID
CEI Division, CENTRAL ELECTRICITY AUTHORITY			
Goutham Roy	Chief Engineer & CEI	8376817933	goutamroy.715@gmail.com
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PGCIL			
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