भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
National Highways Authority of India
(Ministry of Road Transport & Highways, Govt. of India)
परियोजना निदेशक का कार्यालय, परियोजना कार्यान्वयन इकाई
Office of the Project Director, Project Implementation Unit
53, बसंत विहार, नौबस्ता, कानपुर - 208021 • 53, Basant Vihar, Naubasta, Kanpur - 208021
NHAI/13028/RW/KNP/NH-27(O)/2023-24/2630214 • ई–मेल / e-mail: knp@nhai.org

31 Dec, 2023

2360

Invitation of Public Comments

Sub: Permission for overhead crossing of Jhansi - Kanpur highway on NH-27 between Km. 1565+800 to Km. 1565+900 of 132 KV D/C Gujare (Solar Plant) - Pukhrayan Transmission Line in the State of U.P by U.P. Power Transimission Corporation Ltd. - reg.

The Executive Engineer, U.P Power Transmission Corporation Ltd., Govind Nagar, Kanpur has submitted the proposal for overhead crossing of Jhansi - Kanpur highway on NH-27 between Km. 1565+800 to Km. 1565+900 of 132 KV D/C Gujare (Solar Plant) - Pukhrayan Transmission Line in the State of U.P by U.P. Power Transimission Corporation Ltd.

2. From the submitted proposal, it is seen that UPPTCL has proposed 01 no. crossing, crossing length is proposed between Km. 1565.800 to Km. 1565.900 across NH-27. The overhead crossing normal span is 348m whereas at the location of crossing of project highway the span length is 148m. From top of the road height of lowest conductor is mentioned as 16.85m. which is more than 6.5m as given in IRC 32-1969 for vertical clearance. The horizontal clearance from centre line of road is mentioned 63 & 85 mtr. which is more than required clerance. The existing NH is 4-lane divided carriageway.

3. As per the guidelines, issued by the Ministry vide OM No.RW/NH-33044/29/ 2015/ S&R(R) dated 22.11.2016, the application shall be put out in the public domain for 30 days for seeking claims and objections (on grounds of public inconvenience, safety and general public interest).

4. In view of the above, comments of the public on the above application is invited to the below mentioned address, which should reach by this office within 30 days from the date of publication beyond which no comments shall be entertained.

The Dy. General Manager (T)/ Project Director,
National Highways Authority of India,
Project Implementation Unit,
53, Basant Vihar,
Kanpur -208021

This issues with the direction of RO-West (UP).

Encl: As above.

Aman Rohilla 31/12/23
(Aman Rohilla)
Project Director

Copy to:
1. Regional Officer (West)-UP, NHAI, 3/248, Vishal Khand, Gomati Nagar, Lucknow.
2. The Web Admin, NHAI-HQ- with request for uploading on the NHAI website.
3. The Technical Director, NIC, Transport Bhawan, New Delhi- with a request for uploading on the Ministry's website.
4. Executive Engineer, U.P Power Transmission Corporation Ltd., Govind Nagar, Kanpur.

CHECKLIST-I

FOR NH27 ROAD CROSSING BY 132 KV D/C GUJARE (SOLAR PLANT) -POKHRAYAN T/LINE,

S.NO	DESCRIPTION	DETAILS
1	NATIONAL HIGHWAY NO	NH27
2	CROSSING LINE NAME	132 D/C GUJARE (SOLAR PLANT) -POKHRAYAN T/L LINE
3	CROSSING CHAINAGE	1565+800 - 1565+900
4	SYSTEM OF SUPPLY (i.e VOLTAGE) FREQUENCY NO, OF PHASES WATHER NEUTRAL IS EARTHED OR NOT	132 kV,3 PHASE DOUBLE CIRCUIT,ONE OPGW WIRE
5	POSITION OF TOWER	TOWER LOCATION AP-28/0 C60+5,TOWER LOCATION AP 29/0 C60+5
6	NORMAL SPAN OF ACSR PANTHER CONDUCTOR	380 M
7	MAXIMUM SAG AT NORMAL SPAN	10.475 M
8	CROSSING SPAN	148 M ✓
9	PRECEEDING SPAN WITH LOC.	LOC - 27/0(SPAN 290 M)
10	HIGHT OF TOWER STRUCTURE ABOVE GROUND AND BELOW GROUND SEPERATLY AND DETAILS OF FOUNDATION	HEIGHT OF C60+5 M TOWER ABOVE GL AT LOC NO.AP28/0 IS 37.225 M AND BELOW GL IS 3 M FOR FOUNDATION, HEIGHT OF C60+5 M TOWER ABOVE GL AT LOC NO AP5/0 IS 37.225 M AND BELOW GL IS 3M FOR FOUNDATION.
11	SUCCEEDING SPAN WITH LOC.	LOC - 30/0 (SPAN 167M)
12	MAXIMUM SAG OF ACSR PANTHER CONDUCTOR SIZE Aluminium 30Al +7st/3.00m.	10.475M
13	CLEARANCE OVER ROAD	16.85M ✓
14	HEIGHT OF LOWER CONDUCTOR FROM GROUND LEVEL AT LOCATION	22.025M
15	HEIGHT OF LOWER CONDUCTOR FROM ROAD LEVEL OF NH AT LOCATION.	16.85M ✓
16	ANGLE OF ROAD CROSSING	90 Degree ✓
17	DISTANCE FROM NH BOUNDARY FROM CENTER OF TOWER.	LOC NO -AP28/0=65.00M,LOC NO AP29/0=43.00M
18	PERPENDICULAR DISTANCE FROM CENTER OF TOWER TO CENTER OF ROAD.	LOC NO -AP28/0=85M,LOC NO AP29/0=63M
19	PROTECTION OF ASSEMBLY OF LINE	NO ANTI CLIMBING DEVICE PROVIDED
20	FOUNDATION TYPE	FS
21	NO OF STAY REQUIRED	NONE
22	MAX.FACTOR OF SAFETY	2
23	SIZE OF POWER CONDUCTOR	DIA-21.00MM WEIGHT=0.977KG/MTR
24	SIZE OF EARTH WIRE	DIA-7*/3.25MM WEIGHT = 0.460KG/MTR.
25	TWO LEGS OF TOWER EARTHED	PIT A & C
26	PLANE PAPER DIAGRAM	PROFILE (ENCLOSED)
27	EARTHING	PIPE TYPE

S.K. Infraprojects Pvt. Ltd.

Sub Division Officer
E.T.S.D.-II
Azad Nagar, Kanpur

U.P.POWER TRANSMISSION CORPORATION LIMITED

Name of Transmission Line :132 KV D/C GUJARE (SOLAR PLANT) -POKHRAYAN T/L LINE

NH-Questionnaire

1	Situation of the EHV transmission line crossing on National Highway.	On (KANPUR-JHANSI)National Highway (NH - 27)
2	Angle of crossing of the transmission line with the National Highway at crossing point	90°
3	The length of the span at the crossing and also those on either side of the crossing	A) Crossing span148Mtr. B) Preceeding span 290Mtr. C) Succeeding span 167 Mtr.
4	In the event of the transmission line deviating at any of the supports of the crossing necessitating one of the structure to be a corner structures, state angle of such deviation. The deviation of the span on either side of crossing shall be illustrated in the sketch mentioned in the claused 3 above.	Angle Tower Location No. AP 28/0 DC+5 ∠57°24'34"RT AP 29/0 DC+5 ∠01°10'35"RT
5	The number, size and the material of the conductors and wires crossing the NH each wire under phase, neutral each, guard, bearer and ground cross wire should be separately described and their disposition indicated by means of sketch.	SIZE OF CONDUCTOR - ACSR Panther ,30 Al +7st /3.00mm,UNIT WT-0.977 KG/M, DIAMETER-21 mm
7	Indicate whether the proposed guard is to be restricted to the crossing span or it is to be continued over the adjacent span.	No guard wire is provided.
8	The deviation of the span on either side on the crossing shall be illustrated in the sketch mentioned in the clause 2 above.	Enclosed in sketch.
9	System of supply (I.e. Voltage) frequency, No. of phases, whether neutral is earthed or not.	Rated system Voltage – 132 KV. Frequency – 50 Hz 6- Phase. Neutral effectively earthed.
10	Height of structure above ground and below ground separately and details of foundation.	A) Angle Tower Location No. AP028(DC+5) height above GL 37.225 M depth below GL 3 M. B) Angle Tower Location No. AP29(DC+5) height above GL37.225 M depth below GL 3M. C) Drawing enclosed for details of foundation.
11	Height above ground level of (1) Lowest conductor on insulator and (2) guard wire on bracket above ground level.	Angle Tower Location No. AP28 DC+5= 22.025 M. Angle Tower Location No. AP 29 DC+5=22.025 M.
12	Height of road level above ground level measured at the foot of the structure.	Angle Tower Location No. AP28 DC+5= 4.140 M. Angle Tower Location No. AP29 DC+5=3.98M.
13	Clearance under maximum sag condition between road level and the lowest live conductors & between road level and lowest guard wire (State if "box" type guarding is provided in case of adoptions of un-earthed neutral system).	At Road =16.85 M

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14	Ultimate tensile stress of the steel wire used for guard for earth wire in tones per Sq. Cms.	Not applicable
15	Approximate distance of each of the structures to the nearest NH measured along the alignment of the transmission line	Angle Tower Location No.
		AP28 DC+5=85 M.
		Angle Tower Location No.
		AP29 DC+5=63M
16	Are the proposed structure is in NH boundary.	Outside NH boundary.
17	Are approved anticlimibing devices and warning notices provided on the structures erected.	No Anticlimbing devices provided, Only Warning boards are provided on both the Towers.
18	Dimensions and types of brackets used for the cross arms as well as for the guards wires.	Please see the enclosed drawing, Not applicable for Transmission Line
19	In each structure of the crossing span independently earthed by means of an earth plate.	Yes, each structure is shown in the drawing.
20	In each structure supported by means of stage in three directions give the size of guy wires, (the neglected in	No, guys or stays are provided structures are self supporting.
21	If no guard is provided, in the transmission line protected by device to ensure instantaneous isolation is conduction ?	Yes, the transmission line is protected instantaneously by high speed protection relays with carrier equipment.
22	State the method of maintenance to be employed to ensure the following protections.	
a)	From overhanging or decaying trees which might fall on the line.	a) Tree clearance to a width of 27M is done.
b)	To reduce the hazard to life and property.	b) Warning boards are provided.
c)	Supporting structure including guys, from the danger of being struck by moving road vechile.	c) Structures are at safe distance from road.
23	Drawing showing details of crossing disturbance of road, ground or attachment that may be necessary (to be supplied in quadruplicate).	Enclosed.

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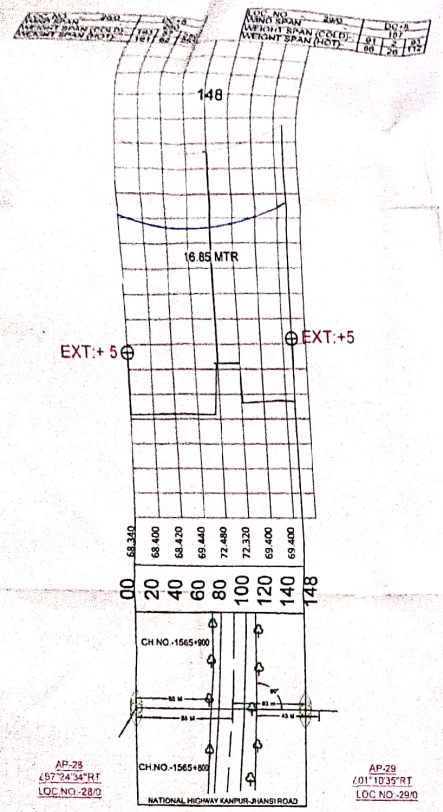
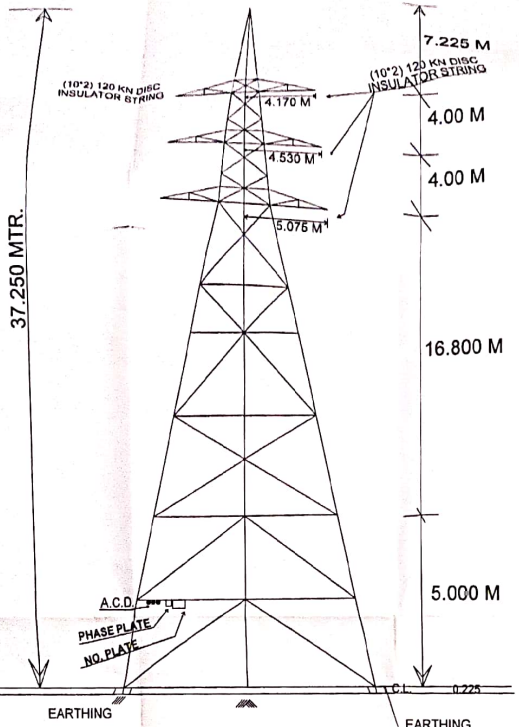
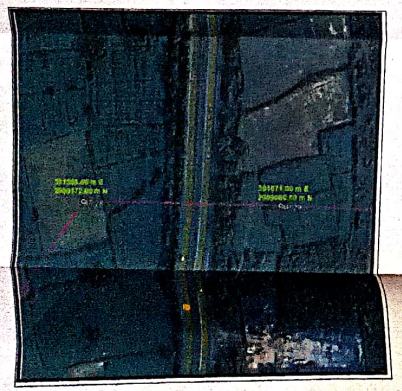
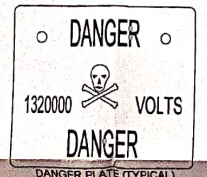
E.T.S.D.-II
Azad Nagar, Kanpur



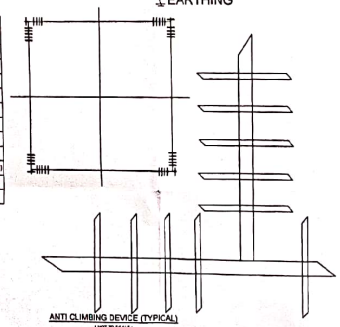


TOWER SPOTTING DATA	
01) CONDUCTOR	ACSR PANTHER
02) AREA	261.5 MM2
03) UNIT WT	0.976 KG/M
04) DIAMETER	21 MM
05) UTS (Kg)	9146 KG
06) NORMAL SPAN (RULING)	380 MTR
07) MAX. SAG 75° (AT 380 Mtr)	10.475 M
08) GROUND CLEARANCE-	6.100 M
09) SAG ERROR	0.420 M (4% OF MAX. SAG)
10) MODULUS OF ELASTICITY	NIL
10) MAX TENSION AT 75°C	1662.00 KG





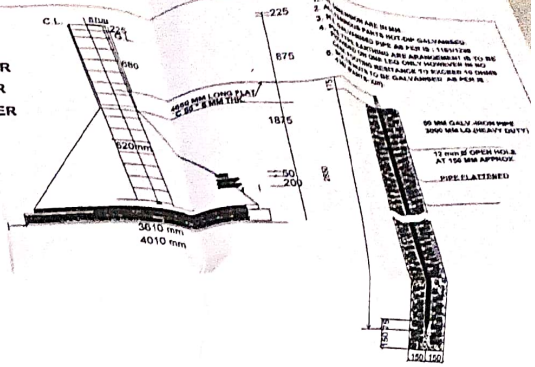
DANGER PLATE (TYPICAL)
(NOT TO SCALE)


ANTI CLIMBING DEVICE (TYPICAL)
(NOT TO SCALE)

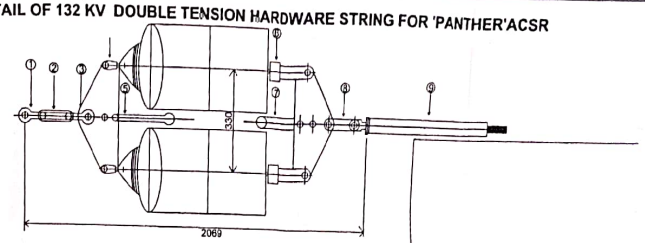
FOUNDATION DETAILS
132 KV D/C TOWER 'DC+5' TYPE (F S)

EXCAVATION VOLUME :-196.63 M3 / TOWER
CONCREATE VOLUME :- 45.00 M3 / TOWER
STEEL :- 187.48 KG / TOWER

NOTE :-
ALL DAIMENTION ARE IN MM



DETAIL OF 132 KV DOUBLE TENSION HARDWARE STRING FOR 'PANTHER'ACSR



1. ANCHOR SHACKLE
2. CHAIN LINK
3. YOKE PLATET.S. & L.S.
4. BALL CLEVIS
5. TOWER SIDE ARCHING HORN
6. SOCKET CLEVIS
7. LINE SIDE ARCHING HORN
8. CLEVIS
9. COMPRESSION DEAD END CLAMP

U.P.POWER TRANSMISSION CORPORATION LIMITED

PROJECT 132 KV D/C GUJARE (SOLAR PLANT)-KHRAYAN LINE

NH CROSSING DETAILS
BETWEEN LOC NO 28 - LOC NO -29 (1480.00 MTR)

RECOMMENDED FOUNDATIONS

DESCRIPTION	AT "LOC NO. - 28 (DC +5)	AT "LOC - 29 (DC +5)
FOUNDATION TYPE	" F.S "	" F.S "

FOR- RS INFRAPROJECTS PVT. LTD.

PREPARED BY

FOR-U.P.POWER TRANSMISSION CORPORATION LIMITED

Sub Division Officer
E.T.S.D.-II
Azad Nagar, Kanpur

CHECKED BY | SUBMITTED BY

FOR- NHAI