



BHARAT HEAVY ELECTRICALS LIMITED

TRANSMISSION BUSINESS ENGINEERING MANAGEMENT

DOCUMENT No.	TB-360-316-001	Rev 00	Prepared	Checked	Approved
TYPE OF DOC.	TECHNICAL SPECIFICATION	NAME	AS	JK	VK
TITLE Illumination System		SIGN	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
		DATE	20/10/22	20/10/22	21/10/22
		GROUP	TBEM	W.O. No	83001
CUSTOMER	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LTD				
CONSULTANT	TATA CONSULTING ENGINEERS LTD (TCE)				
PROJECT	400kV SWITCHYARD AT 2 X 660 MW SURATGARH SUPER-CRITICAL THERMAL POWER STATION, STAGE-V, UNIT-7 & 8				

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Rev No.	Date	Altered	Checked	Approved	REVISION DETAILS			
Distribution			To	TBTS	O/C	TBMM	TBQ M	TBCM
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Project: 400kV Switchyard at 2x660 MW Suratgarh
Super-Critical Thermal Power Station, Stage-V, Unit-7 & 8
Customer: Rajasthan Rajya Vidyut Utpadan Nigam Ltd
Consultant: Tata Consulting Engineers Ltd (TCE)

Bharat Heavy Electricals Limited
Document No. TB-360-316-001

SCOPE AND SPECIFIC TECHNICAL REQUIREMENT

1. SCOPE

This technical specification covers the requirements of design, manufacture, testing at works, packing and dispatch of items of illumination system.

Name of the Project : 400kV Switchyard at 2x660 MW Suratgarh Super-Critical Thermal Power Station, Stage-V, Unit-7 & 8
Name of Customer : Rajasthan Rajya Vidyut Utpadan Nigam Ltd (RRVUNL)
Name of the Consultant : Tata Consulting Engineers Ltd (TCE)

2. SPECIFIC TECHNICAL REQUIREMENTS

Scope of work include supply of following items.

S.No.	Item as per BOQ	Remark/Details	Unit	Qty	Approved Make
1.	SODIUM VAPOUR LAMP 400W FOR LIGHTING FIXTURE	400W HPSV(T) Lamp	Nos.	87	Philips/Bajaj/Wipro/Equivalent
2.	SON BALLAST	400W SON Ballast	Nos.	80	Philips/Bajaj/Wipro/Equivalent
3.	CAPACITOR FOR 1X400W HIGH PRESSURE SODIUM VAPOUR LAMP/EQUIVALENT SPARE	Capacitor 42mfd	Nos.	64	Reputed Make
4.	IGNITOR	Ignitor SN 58	Nos.	67	Reputed Make
5.	MCB	63A TPN MCB	Nos.	8	L&T/C&S/ABB/Siemens/GE/Schneider / Legrand/Havells
6.	ELCB (EARTH LEAKAGE CIRCUIT BREAKER)	63A 100mA (ELCB)	Nos.	4	L&T/C&S/ABB/Siemens/GE/Schneider / Legrand/Havells
7.	1-POLE 20 AMPS MINIATURE CIRCUIT BREAKERS (M.C.BS)	20A SP MCB	Nos.	4	L&T/C&S/ABB/Siemens/GE/Schneider / Legrand/Havells
8.	CONTACTOR	63A (LT) Contractor	Nos.	4	L&T/C&S/ABB/Siemens/GE/Schneider

Note:

- i) Bidder shall furnish Catalogue/Leaflets/Technical Literature for getting Technical Manufacturing clearance (TMC).

3. TESTING

Test certificate (as applicable) shall be furnished for getting dispatch clearance.

4. SITE CONDITION

a)	Location	Prabat Nagar, Suratgarh Sriganganagar district, Rajasthan
b)	Altitude and longitude	Lattitude:29 deg. 10 min. N Longitude: 74 deg. 01 min. E
c)	Elevation above mean sea level	186 m(approximately)
d)	Transport Facilities	Suratgarh project is located 27 km from Suratgarh , 15 km from Suratgarh to Biradhwal on NH15, 12km in east from NH15.
SITE CONDITIONS		
a)	Mean of daily maximum temperature	32.3 deg. C
b)	Mean of daily minimum temperature	19.6 deg. C
c)	Highest temperature recorded	50 deg. C
d)	Lowest temperature recorded	-2.8 deg. C
e)	Design ambient temperature for electrical equipment design	50 deg. C
f)	Relative humidity	Varies between 21 % and 81%
g)	Pollution Severity	Heavily Polluted
h)	Seismic zone	II
i)	Basic Wind speed	47 m/sec
j)	Annual mean wind speed	4km/hr
k)	Terrain category	2
l)	Annual average rain fall	312 mm

AUXILIARY POWER SUPPLY

3 phase A.C power supply	415V \pm 10%, 50 Hz, 3-phase 4 wire, solidly earthed with variation in frequency of \pm 5%
1 phase A.C power supply	240V \pm 10%, 50 Hz, 1-phase , 2 wire , AC supply with variation in frequency of \pm 5%
D.C. power supply	220V \pm 15%, 2-wire ungrounded 48V \pm 10%, 2 wire system positively earthed

Combined variation of voltage and frequency shall be +/- 10%

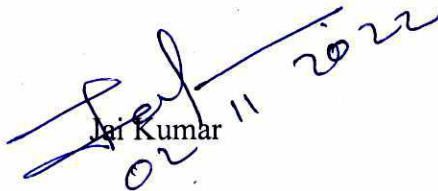
TECHNICAL QUALIFICATION REQUIREMENTName of Project: **400kV Switchyard at Suratgarh TPP**Name of Customer: **RRVUNL**Name of Item: **Illumination items****TECHNICAL QUALIFICATION REQUIREMENT**

The bidder must have supplied atleast 50 lighting fixtures (250W or above HPSV lamps and ballasts) to any industrial installations or electric utilities in a single PO in last 10 years.

SUPPORTING DOCUMENTS TO BE SUBMITTED BY BIDDER ALONG WITH TECHNICAL BID

Sr	Required Criteria	Supporting Documents
1	Supply	PO / Dispatch clearance / LR / Material Receipt certificate at site / etc. establishing bidder as proven supplier of offered item.


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02/11/22


Jai Kumar
02/11/22


Vivek Kapil
2/11/22

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