	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN				SPEC. NO :		DATE:	
			CUSTOMER :				QP NO.: PE-QP-999-558-E003, R01		DATE: 10.07.2020	
			PROJECT:				PO NO.:		DATE:	
			ITEM: PVC Wires		SYSTEM: STATION LIGHTING SYSTEM		SECTION: II		SHEET 1 OF 4	


SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/ N			9	* D	M	C	N	
1	2	3	4	5	6		7	8	9	*	**			
					M	C/ N				D	M	C	N	

1.0 RAW MATERIAL/BOUGHT OUT ITEMS

1.1	CONDUCTOR (COPPER)	1. Physical properties	MA	Physical Tests	Sample/ Batch	-	IS:8130	IS:8130	Certificate of conformance	✓	P/V	V	-	
		2. Elec. Properties	MA	Electrical Tests	Sample/ Batch	-	-do-	-do-	-do-	✓	P/V	V	-	
1.2	PVC Compound for insulation	1. Material Properties	MA	Physical Tests	Sample/ Batch	-	IS 5831	IS 5831	Certificate of conformance	✓	P	V	-	


2.0 ROUTINE/ ACCEPTANCE/ TYPE TEST

2.1	PVC Wires	SURFACE DEFECTS	MA	Visual	IS 694 Annex A	-	IS:694	IS:694	Insp. And test report from manuf.	✓	P/V	V	-	BIS APPROVED MAKE
2.2		CONSTRUCTION OF WIRE	MA	Visual/ Measurement	-DO-	-	IS-694 (table-3) IS-8130 (table-2) Appd DS	IS-694 (table-3) IS-8130 (table-2) Appd DS	-DO-	✓	P/V	V	-	
2.3		TYPE TESTS	CR	Tests	One sample	One sample of	IS:694 (TABLE-1)	IS:694 (TABLE-1)	Test cert.	✓	P	W		1) Type test shall be conducted on first

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	Sign & Date	Name		Sign & Date	Name
Prepared by:	MUDIT CHOPRA MEET SAGAR SINGH RAJPAL	MUDIT CHOPRA MEET SAGAR SINGH RAJPAL	Checked by:	 Digitally signed by KUNAL GANDHI Date: 2020.07.20 19:24:56 +05'30'	KUNAL GANDHI
Reviewed by:	PRAVEEN DUTTA	PRAVEEN DUTTA	Reviewed by:	Digitally signed by RITESH KUMAR JAISWAL Date: 2020.07.30 13:36:25 +05'30'	R. K. JAISWAL




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Seal	

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			ITEM: PVC Wires		SYSTEM: STATION LIGHTING SYSTEM		SECTION: II		SHEET 2 OF 4	

SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/ N			9	*	M	C	N	
1	2	3	4	5	6		7	8	9	*				**
					M	C/ N				D				

					of each wire type & size	each wire type & size								project Order supply from rate Contract. 2) Refer note 1 & 2
2.4		ACCEPTANCE TESTS a) Annealing test b) Conductor Resistance test c) Thickness of Insulation d) Tensile strength and elongation at break of insulation e) IR test f) HR Test g) Flammability test h) Oxygen index test i) Temperature index j) Halogen acid	MA	CR	IS 694 Annex A	IS 694 Annex A	IS 694/ IS 8130	IS 10810	Test Report	√	P	W		Refer note-1

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	Sign & Date	Name		Sign & Date	Name
Prepared by:	 MEET SAGAR SINGH RAJPAL	MUDIT CHOPRA MEET SAGAR SINGH RAJPAL	Checked by:	 RITESH KUMAR JAISWAL	KUNAL GANDHI
Reviewed by:	 PRAVEEN DUTTA	PRAVEEN DUTTA	Reviewed by:	Digitally signed by RITESH KUMAR JAISWAL Date: 2020.07.30 13:37:13	R. K. JAISWAL

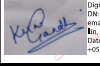
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					6				7	8	9	*	**			
					M	C/ N							M		C	N
		gas k) Smoke density														
2.5		ROUTINE TESTS	MA	-DO-	100%	-	-DO-	-DO-	-DO-	√	P/V	V				
2.6		MARKING	MA	VISUAL	IS 694 Annex A	IS 694 Annex A	APPD DS	APPD DS	INSP. REPORT	√	P/V	W				
3.0 PACKING																
	PACKING	Soundness of Packing against transit damage	Major	Visual	100%	100%	BHEL approved document	BHEL approved document	Inspection report	√	P	W	-			

NOTES:

- In case of FR type wires, FR properties test (Oxygen Index & Temp. Index) are also applicable.
- Type test report of successfully conducted test on First project of rate contract shall be referred for subsequent purchase orders & further conduction of type test is not required.
- Project specific QP shall be based on customer requirement. In case, any changes in QP commented by customer at contract stage shall be carried out by bidder without any implication to BHEL/ Customer.
- For export jobs, BHEL technical specification for seaworthy packing for export jobs is to be followed.
- Packing shall be suitable for storage at site in tropical climatic conditions. **Refer Annexure-I for packing specification.**
- Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.
- BHEL reserves the right for conducting repeat test if required.
- After packing and prior to issue MDCC, photographs of items to be dispatched shall be sent to BHEL purchase group for review.


BHEL						BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING			QUALITY			Sign & Date		Doc No:			
	Sign & Date	Name		Sign & Date	Name	Seal		Sign & Date	Name	Seal	
Prepared by:	MUDIT CHOPRA MEET SAGAR SINGH RAJPAL	MUDIT CHOPRA MEET SAGAR SINGH RAJPAL	Checked by:		RUNAL GANDHI			Reviewed by:			
Reviewed by:	PRAVEEN DUTTA	PRAVEEN DUTTA	Reviewed by:	Digitally signed by RITESH KUMAR JAISWAL Date: 2020.07.30	R. K. JAISWAL			Approved by:			

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			ITEM: PVC Wires	SYSTEM: STATION LIGHTING SYSTEM		SECTION: II		SHEET 4 OF 4	


SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY	REMARKS
					M	C/ N			9	*		
1	2	3	4	5	M	C/ N	7	8	9	D	M C N	

LEGENDS:
 *RECORDS, IDENTIFIED WITH "TICK"(√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,
 ** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER,
 P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE
 MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

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ENGINEERING			QUALITY		
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Reviewed by:	PRAVEEN DUTTA	PRAVEEN DUTTA	Reviewed by:	RITESH KUMAR	RITESH KUMAR

BIDDER/ SUPPLIER	
Sign & Date	
Seal	

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Doc No:			
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Reviewed by:			
Approved by:			


RITESH KUMAR JAISWAL
4. 4011 Number: 8645870114873A803A11
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 80448, Co#BHELSONKUMAR J AISWAL
 Date: 2020/07/30 13:38:39 +05:30

ANNEXURE-I
PACKING SPECIFICATIONS- PVC WIRES PACKAGE

PACKING

1. The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
2. The wire shall be clean and dry prior to packaging.
3. The wire shall be supplied in packed coils. The tapes used for packing shall not bleed, leave residue, or damage the item when removed.
4. The inside coil diameters shall not be smaller than the minimum safe allowable bending diameter for wires.
5. The coil shall be placed in a corrugated paperboard/ fibreboard container/ mono carton.
6. The mono cartons shall be wrapped or bagged or tied in place in master cartons. The master carton shall be taped and then wrapped with cushioning material.
7. The dimensions of cartons shall be as per manufacturer's recommendations.