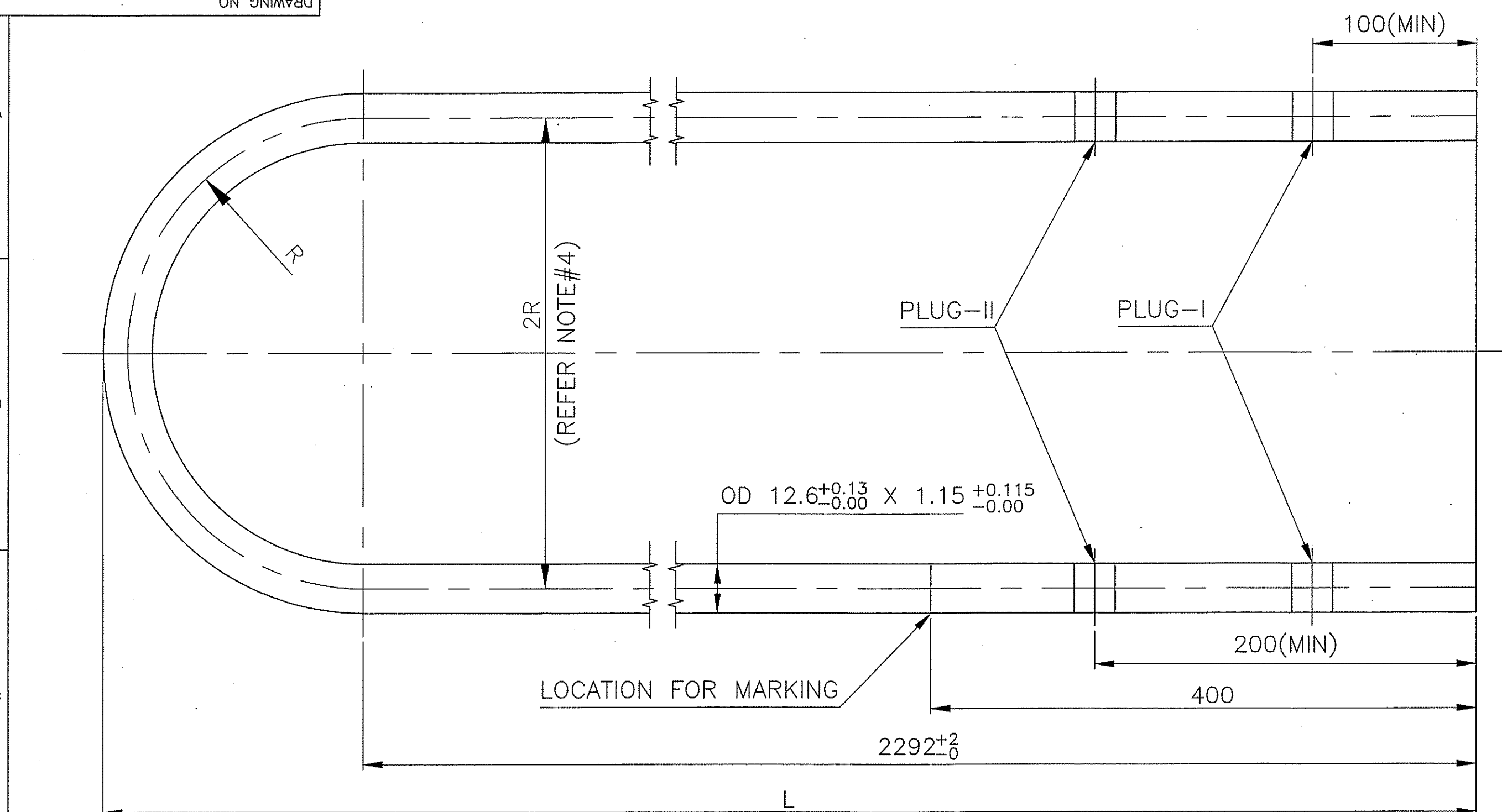




TECHNICAL REQUIREMENTS (TR) :-

- 1) TUBE MATERIAL SEAMLESS INCOLOY-800 AS PER SB163UNS8800.
- 2) TUBE SHALL BE SUPPLIED MEETING THE REQUIREMENT AS PER TECH. SPEC. DOC. NO. BHEL/NPCIL/30599/INCOLOY-800 TUBES/CDE-19-3410.
- 3) TOLERANCE ON TUBE BENDS.
 - a) THINNING ALLOWANCE : 10% (MAX.) OF THE MINIMUM WALL THICKNESS.
 - b) OVALITY: 5% (MAX.)
- 4) TOLERANCE ON LEG SPACING:-
 - a) FOR BEND RADIUS(R) LESS THAN 220 : $\pm 1\text{mm}$.
 - b) FOR BEND RADIUS(R) $220 < R < 450$: $\pm 1.6\text{mm}$.
- 5) EACH TUBE SHALL BE MARKED BY ELECTRO-ETCHING OR ANY OTHER SUITABLE PERMANENT MARKING METHOD AT APPROX. 400mm FROM EACH END. MARKING SHOULD CONTENT TUBE IDENTIFICATION NO. ALONG WITH TUBE OD X TK X STRAIGHT LEG AND MATERIAL OF CONSTRUCTION.
- 6) EACH BEND TUBE SHALL BE CHECKED FOR PASSAGE BY BALL TEST USING BALL SIZE $(9.2+0/-0.1)$ AS PER NPCIL APPROVED PROCEDURE.
- 7) EACH TUBE SHALL BE HYDROSTATICALLY TESTED AS PER TECH. SPEC. MENTIONED IN TR # 2.
- 8) THE TUBES SHALL BE FREE FROM KINKS,BENDS, LOCAL DISTORTIONS ETC.
- 9) IN THE EVENT THAT CERTAIN REQUIREMENTS OF THE CODE/STANDARD LISTED IN DRG. & BHEL TECH. SPEC. CONFLICTS, THE REQUIREMENTS WHICH ARE MORE STRINGENT SHALL GOVERN.
- 10) VENDOR TO INSERT 4 NOS. TUBE PLUGS 2 NOS. ON EACH STRAIGHT LEG AS SHOWN. VENDOR TO SUPPLY PLUG REMOVAL TOOL WITH SUPPLY OF U-TUBES AND PROCEDURE ALONG WITH SUPPLY.
- 11) QUANTITY MENTIONED IN BILL OF MATERIAL IS FOR ONE TUBE BUNDLE ASSEMBLY ONLY

UNLESS OTHERWISE STATED :-
ALL DIMENSIONS ARE IN mm.
SURFACE FINISH TO BE $\sqrt{1.6}$ OR BETTER.
REMOVE ALL BURRS.
REMOVE ALL EXTERNAL SHARP CORNER
AND EDGES BY CHAMFERING TO $\begin{smallmatrix} 0.15 \\ 0.40 \end{smallmatrix}$
ROUND ALL INTERNAL CORNER AND ED

3333-HX-1-R15	2461.5	163.2	19	18	5097	15	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.68		
3333-HX-1-R14	2452.0	153.7	20	19	5067	14	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.67		
3333-HX-1-R13	2442.5	144.2	20	19	5037	13	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.66		
3333-HX-1-R12	2433.0	134.7	21	20	5007	12	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.66		
3333-HX-1-R11	2423.5	125.2	23	22	4977	11	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.65		
3333-HX-1-R10	2414.0	115.7	21	20	4947	10	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.64		
3333-HX-1-R9	2404.5	106.2	23	22	4918	09	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.63		
3333-HX-1-R8	2395.0	96.7	23	22	4888	08	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.62		
3333-HX-1-R7	2385.5	87.2	21	20	4858	07	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.61		
3333-HX-1-R6	2376.0	77.7	23	22	4828	06	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.60		
3333-HX-1-R5	2366.5	68.2	23	22	4798	05	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.59		
3333-HX-1-R4	2357.0	58.7	23	22	4768	04	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.58		
3333-HX-1-R3	2347.5	49.2	23	22	4739	03	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.57		
3333-HX-1-R2	2338.0	39.7	23	22	4709	02	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.56		
3333-HX-1-R1	2327.5	30.2	23	22	4679	01	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg	1.55		
TUBE IDENTIFICATION NO.	LENGTH L	MEAN BEND RADIUS "R"	VAR01 (QTY)	VAR00 (QTY)	REMARKS (DEVELOP LENGTH)	VAR. NO.	ITEM NO.	DESCRIPTION	DRAWING NO.	MATL. CODE	MATL. SPON.	UNIT	UNIT QTY.	UNIT WT.	ZONE

NPCIL PURCHASE ORDER NO.


न्यूक्लियर पवर कॉर्पोरेशन ऑफ इंडिया लिमिटेड
NUCLEAR POWER CORPORATION OF INDIA LTD.

☒ अनुमोदित / APPROVED

☒ प्रमाणित / CERTIFIED

☒ प्रमाणित / APPROVED AS NOTED

☒ सिकरान को नये चरण में

PROCEED WITH/UNDER ELABORATION

☒ सीमा दृष्टिकोण से

SEND FINAL TRANSPARENCIES & PRINTS

☒ सिकरान को नये चरण में

REVISE AND RESUBMIT FOR APPROVAL

जोडकर्ता CHECKED BY	सोचकारिता REVIEWED BY	अनुमोदित कर्ता APPROVED BY
 3.1.19	 3.1.19	 3.1.19

यदि सिकरान को नये चरण में अनुमोदित अनुमोदित को विनिर्देशों के अनुसार अनुमोदित के आधारपर नये चरण में करारा।
 The Approval of the Ministry does not release the supplier of responsibility of supplying according to the contract.

NUCLEAR POWER CORPORATION OF INDIA LIMITED (A GOVERNMENT OF INDIA ENTERPRISE)					
PROJECT : GORAKHPUR HARIYANA AND VIDHYUT PARIYOJANA 1&2 (700 Mw) NPCL PURCHASE ORDER NO. : CMM/T/P-NO.31-1149-C /PO/30599, DATED 25.01.2019 NPCL DRAWING NO. : GH&VP-1&2/33331/2001/DD REV.00, SHT. 50F6					
उपायुक्त का प्रकार या यन्त्रण/परिचालना का नाम TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		IARS COOLER (3333-HX-1)			
भारत हे वी इलेक्ट्रिकल्स लिमिटेड मे भोपल BHARAT HEAVY ELECTRICALS LTD. BHOPAL		क्राया डेटा सीमा चक्र अनुमति पं. क्र. माहौलर		प्रमाण / SIGN दिनांक / DATE 08/03/2019 07/03/2019 08/03/2019	
जम.दम. नाल की श्रेणी UNTOL. DIMS. GR. AAO2032308		अनुमान SCALE -		भार (किलो) WEIGHT (K.G.) -	
विभागी DEPT. CODE मॉड 411		आदेश का संदर्भ REF. TO ASSY. DRG. 1-16503-40861		मद का ITEM NO. -	
शीट/का / TITLE		मुद्रित गज./DRAWING NO. 1-16503-40838		कुल REV 01	