



A4-10

CE / PANKI1X660MW / 416/ Single I/P-DINTTxr

REV 00

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PROJECT:- PANKI 1X660MW

CUSTOMER: M/s UPRVUNL

CONSULTANT: M/s NTPC

**PURCHASE SPECIFICATIONS
FOR
TEMPERATURE TRANSMITTERS
(SINGLE INPUT DIN Rail type)**

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APPROVED
&
VERIFIED

SAILENDRA KUMAR KISAN

PREPARED

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416

DATE

30/01/2021



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SCOPE OF SUPPLY FOR TEMPERATURE TRANSMITTERS (SINGLE INPUT DIN Rail type)

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SCOPE OF SUPPLY

1.0 **TEMPERATURE TRANSMITTER'S** as per technical Requirements Ref: CE / PANKI 1X660MW / 416/ Single I/P-DINTTxr / TR Rev.00 & respective BOM enclosed.

2.0 **Quantity of Single input DIN-Rail mounted temperature transmitters:**

Project	Unit Qty	Mand. spares Qty	Total Qty (No's)
PANKI 1X660MW	1753	176	1929

Above qty specified may undergo changes during detailed Engg.

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3.0 GENERAL TERMS & CONDITIONS

- 3.1 Considering possibilities of change in requirement, i.e. addition & deletion of quantities for individual project BOM at a later date after system design finalisation, the vendor must clearly quote unit price as well as lot price for all items, including mandatory spares and commissioning spares for indisputable calculations of lot prices in case of revised quantities later.
- 3.2 In case of quantity change, unit rates shall be applicable. However in case of item change for a project, if the required model is not available in the original offer, the unit price of another model, for the same range but with features having the closest similarity to the required one, quoted elsewhere in another variant or another group, shall be applicable.
- 3.3 Although transmitter are allowed to be indigenously assembled, calibrated & certified, but considering the fact that not yet any indigenous sensors & electronics are offered, site-proven and acceptable to most customers, the sensors and electronics should preferably be procured from vendors' own principals abroad..
- 3.4 Model selection is sole responsibility of vendor with clear understanding of specification requirement. Any change in basic model & accessories during technical evaluation **shall not be allowed**. In case of any doubt regarding the intent of specification technically, vendor shall interact with the purchaser & get the doubts clarified well before the due date of technical bid submission to **minimize the deviation from spec. & the chances of rejection**. Also any doubt is there in spec. for the parameters to be offered or not then same may be offered as alternate without any ambiguity.
- 3.5 Offered transmitters shall have at least one (01) year satisfactory operation as on date of techno-commercial bid opening i.e. **02.11.2015** in one power station having unit rating of 500MW or above.

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4.0 DOCUMENTS REQUIREMENT

Following documents shall be furnished to BHEL as a minimum, apart from any other documents required to be submitted as called for elsewhere or as deemed necessary. The same shall be for the complete equipment offered including TEMPERATURE Transmitters other peripherals etc.

4.1 Along with Technical offer in one (01) set with model and accuracy for the calibrated range etc, these documents are mandatory, absence of these documents your offer will be liable for technical ejection.

- a) Bill of Material
- b) Drawings (GA/layout/wiring/interconnection/schematic, etc.)
- c) Technical literatures/Catalogs/Clause-wise compliance/deviation list to Specification(Refer 5.0)

4.2 Within one week from the date of placement of Order for BHEL/CUSTOMER approval in four (4) sets hard copy & 1 CD soft copy in PDF format as a single file against each purchase order (P.O.):

- a) Bill of Material
- b) Data Sheet
- c) Drawings (GA/layout/wiring/interconnection/schematic, etc.)
- d) Technical literatures/Catalogs
- e) Quality Plan.

4.3 Before inspection of Material for BHEL/ CUSTOMER review & acceptance in two(02) sets & 1 CD soft copy in PDF format against each purchase order:-

- a) Test Certificates/Reports as per Check list and Approved Quality Plan.
- b) Preliminary Instruction/O&M Manual.

4.4 At the time of Material dispatch in four(4) sets to BHEL against each purchase order:-

- a) Instruction/O&M Manual
- b) Bill of Material
- c) Data Sheets
- d) Drawings (GA/layout/wiring/interconnection/schematic, etc.)
- e) Technical literatures/Catalogs.

NOTE: These documents shall be in final as-built/approved status. Apart from above one (01) set of Instruction / O&M Manual shall also be sent directly to site along with each system against each purchase order.

4.5 One (01) set soft copy of Final documents as mentioned at clause above shall also be provided to BHEL against each purchase order. The soft copy shall be CD-ROM media in PDF format and shall also submitted compatible with Windows-95/98/NT/2000 with drawing / documents in AutoCad-14 /MS-Word / MS-Excel / Acrobat / HTML formats.

NOTE: Also, drawing/documents under 4.2 to be provided in a soft copy in PDF format in CD shall be submitted to BHEL for customer approval.

5.0 In case no Clause-wise compliance/deviation list is furnished & deviation is found during technical evaluation, then the offer is liable for technical rejection on the grounds of not meeting the specification.



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TECHNICAL REQUIREMENTS FOR TEMPERATURE TRANSMITTERS (SINGLE INPUT DIN Rail type)

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TECHNICAL REQUIREMENTS

REQUIREMENTS FOR TEMPERATURE TRANSMITTERS

1.0 Temperature transmitter shall be of SMART type and shall be used for receiver instrument or control loop requiring signal conversion. They shall have either resistance or thermocouple type measuring system.

2.0 Following types of 2-wire temperature transmitter (directly powdered from 4-20 mA input cards of DDCM1S) shall be provided. The temperature transmitter shall be fully compatible with thermocouples and RTDs being provided by the BHEL. Temperature compensation of the thermocouples shall be performed in the temperature transmitter itself.

2.1 Single Input DIN-rail mounted Temperature Transmitter

These shall be suitable for mounting on DIN-rails in JBs. This temperature transmitter shall be the ones which are especially designed for **DIN-rail mounting with IP 20 protection classes**. These shall have terminals for input/output provided on front side when mounted on DIN-rail. Head mounted temperature transmitter with clamps to make it suitable for DIN-rail mounting shall not be acceptable under this category.

2.2 Common requirements for each of the above type of temperature transmitters

2.2.1 The transmitter output shall be compatible with major instrumentation selected. Adjustable spans and suppressed ranges shall be provided where required by process consideration. Thermocouple burn-out or RTD wire-break protection for "failsafe" condition shall be provided.

2.2.2 Transmitters shall have easily accessible span and zero adjustment facilities and shall meet the following minimum requirements:-

Output : 2-wire (power supply from input card of Control System) with 4-20mA output with superimposed HART protocol signal.

Input : Same transmitter shall be capable to handle Pt-100 RTD , Thermocouples -K, R & other types (**input type to be selectable at site through HART terminal at site from TC to RTD & vice versa**)

Isolation : should be optically isolated from power circuit (Min. 500V AC)

Output load : min 600 ohms at 24VDC.

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Operating ambient : 0 to 85 deg C (Without indicator)
Temperature 0 to 70 deg C (With indicator)

Power supply : Uv=24VDC (admissible tolerance
13Vdc <= Uv <= 45Vdc) or compatible with input
module of Control System.

Composite Accuracy : **For single input DIN rail mounted-type:**
RTD =<0.4% of 0-250 deg C span
T/C-K type =<0.4% of 0-600 deg C span
T/C-R type =<0.4% of 0-1000 deg C span
CJC accuracy (for T/C) shall be =< 1deg C

(Composite Accuracy is to be calculated as summation of all applicable accuracies of temp transmitter, for converting sensor input to output in 4-20 mA (e.g., basic accuracy, digital accuracy, D/A accuracy, etc.) and temperature effect on these accuracies at ambient temperature of 50 deg C, based on the figure/ formula given in the standard product catalogue for span as specified above for various types of Temperature Elements. specified. All such accuracy/ temp effect figures in catalogue shall be first converted to deg C, and then percentage of this converted accuracy in specified span shall be calculated to compare with the specified composite accuracy figures.)

EMC Compatibility : as per EN 61326

3.0 Transmitters shall be provided with following features

- Sensor drifts alarm for sensor failure prediction also for zero shifts.
- RFI / EMI Effect: Conforming to EEC standards.
- Accepts any of the sensor type (RTD, TC, mV or ohms)
- Ambient temperature compensation (Cold junction compensation shall be provided in-built with the equipment).
- In case of failure (open or burn-out) of RTD/thermocouple, temp. Transmitter shall provide low temperature output.

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4.0 The product and make shall be selected so that with one make of transmitter all applications with respect to measuring ranges temperature sensor (resistance thermometer / thermocouple) and connection type (2/3/4) wire connection of resistance thermometers) shall be covered. In a nutshell, the transmitter shall be universal type.

5.0 The offered model DDL (Device Driver list) shall be registered in HART foundation, which is required for device operable by universal HART communicator & HMS system. These HMS & HART communicator are being procured by BHEL separately. If this technicality is not met, the offer will be technically rejected.



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**BILL OF MATERIAL
FOR
TEMPERATURE TRANSMITTERS
(SINGLE INPUT DIN Rail type)**

REVISION : 00

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CE / PANKIIX660MW / 416/ Single I/P-
DINTTxr /QP

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STANDARD QUALITY PLAN FOR TEMPERATURE TRANSMITTERS (SINGLE INPUT DIN Rail type)

REVISION : 00

APPROVED
&
VERIFIED

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DATE

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BOM of single input din rail mounted tempertaure transmitters for Panki 1X60MW project

SL NO	KKS NO	DESCRIPTION	INST TYPE	SENSOR TYPE	RANGE	RANGE UNIT	I/P SOURCE
1	10LAC30FT026	MDBFP BARREL TOP TEMP	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
2	10LAC30FT027	MDBFP BARREL BOTTOM TEMP	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
3	10LAV30FT005	MDBFP OIL DRAIN TEMP - BP JRNL BRG NDE & THRST BRG	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
4	10LAV30FT006	MDBFP OIL DRAIN TEMP - BP JRNL BRG DE	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
5	10LAV30FT015	MDBFP OIL DRAIN TEMP - BFP JRNL BRG DE	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
6	10LAV30FT016	MDBFP OIL DRAIN TEMP - BFP JRNL BRG NDE & THRST BRG	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
7	10LAV31FT016	MDBFP-C WORKING OIL TEMP DOWN STREAM OF COOLER	SINGLE I/P TT	RTD	0 - 180	Deg C	PEM
8	10LAV31FT017	MDBFP-C LUB OIL TEMP UPSTREAM OF COOLER	SINGLE I/P TT	RTD	0 - 180	Deg C	PEM
9	10LAV32FT001A	MTR BRG TEMP BP END	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
10	10LAV32FT001B	MTR BRG TEMP BP END	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
11	10LAV32FT002A	MTR BRG TEMP HC END	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
12	10LAV32FT002B	MTR BRG TEMP HC END	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
13	10LAV32FT003	MTR BRG DRAIN OIL TEMP - BP END	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
14	10LAV32FT004	BFP MTR BRG DRAIN OIL TEMP - HC END	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
15	10LAV32FT006	MDBFP-C STATOR WINDING TEMP. (R-PHASE)	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
16	10LAV32FT009	MDBFP-C STATOR WINDING TEMP. (Y-PHASE)	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
17	10LAV32FT012	MDBFP-C STATOR WINDING TEMP. (B-PHASE)	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
18	10PGB30FT001	MDBFP BP MECH. SEAL CLR - NDE SW I/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
19	10PGB30FT002	MDBFP BP MECH. SEAL CLR - NDE SW O/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
20	10PGB30FT003	MDBFP BP MECH. SEAL CLR - DE SW I/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
21	10PGB30FT004	MDBFP BP MECH. SEAL CLR - DE SW O/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
22	10PGB30FT005	MDBFP BP MECH. SEAL CLR - NDE CW O/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
23	10PGB30FT006	MDBFP BP MECH. SEAL CLR - DE CW O/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
24	10PGB30FT007	MDBFP MECH. SEAL CLR - DE SW I/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
25	10PGB30FT008	MDBFP MECH. SEAL CLR - DE SW O/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
26	10PGB30FT009	MDBFP MECH. SEAL CLR - NDE SW I/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
27	10PGB30FT010	MDBFP MECH. SEAL CLR - NDE SW O/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
28	10PGB30FT011	MDBFP MECH. SEAL CLR - NDE CW O/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
29	10PGB30FT012	MDBFP MECH. SEAL CLR - DE CW O/L TEMP	SINGLE I/P TT	RTD	0 - 120	Deg C	PEM
30	10LBG10FT011	MAIN STM TEMP TO APRDS	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
31	10LBG20FT011	CRH STM TEMP TO APRDS	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
32	10LBG30FT011	AUX STM HDR TEMP	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
33	10LBG30FT012	AUX STM HDR TEMP	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
34	10LBG30FT013	AUX STM HDR TEMP	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
35	10LBG58FT001	AUX STM HDR TEMP TO MAIN TURB GLAND SEALS	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
36	10LBG58FT002	AUX STM HDR TEMP TO MAIN TURB GLAND SEALS	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
37	10LAA01FT011	DEA FST TEMP	SINGLE I/P TT	RTD	0 - 450	Deg C	PEM
38	10LAA01FT012	DEA FST TEMP	SINGLE I/P TT	RTD	0 - 450	Deg C	PEM
39	10LCA00FT012	COND. SUCTION HEADER TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
40	10LCA01FT011	CEP-A SUC TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
41	10LCA02FT011	CEP-B SUC TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
42	10LCA03FT011	CEP-C SUC TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
43	10LCA90FT011	COND TEMP TO LPH-5	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
44	10LCA90FT012	TEMP AT LPH-5 O/L	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
45	10LCA90FT013	COND TEMP TO DEA I/L	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
46	10LCA90FT014	COND TEMP TO DEA I/L	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
47	10PAB20FT011	CONDENSER-1 I/L TEMP-R	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
48	10PAB20FT012	CONDENSER-1 O/L TEMP-R	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
49	10PAB20FT013	CONDENSER-2 O/L TEMP-R	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
50	10PAB25FT011	CONDENSER-1 I/L TEMP-L	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
51	10PAB25FT012	CONDENSER-1 O/L TEMP-L	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
52	10PAB25FT013	CONDENSER-2 O/L TEMP-L	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
53	10PCB60FT011	SELF CLEANING STAINERS DISCH TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
54	10PCB61FT011	ACW TEMP AFT PHE-A FOR SG AUX	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
55	10PCB62FT011	ACW TEMP AFT PHE-B FOR SG AUX	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
56	10PCB63FT011	ACW TEMP AFT PHE-A FOR TG AUX	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
57	10PCB64FT011	ACW TEMP AFT PHE-B FOR TG AUX	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
58	10PCB65FT011	ACW TEMP AFT PHE-C FOR TG AUX	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
59	10PCB71FT011	ACW TEMP AFT VAC PUMP-1 HE	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
60	10PCB72FT011	ACW TEMP AFT VAC PUMP-2 HE	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
61	10PCB73FT011	ACW TEMP AFT VAC PUMP-3 HE	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
62	10PCB74FT011	ACW TEMP AFT VAC PUMP-4 HE	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
63	10PGC10FT011	TG DMCW PUMP DISCH HDR TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
64	10PGC11FT011	TG PHE-A DMCW OUTLET TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
65	10PGC12FT011	TG PHE-B DMCW OUTLET TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
66	10PGC13FT011	TG PHE-C DMCW OUTLET TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
67	10PGC40FT011	SG DMCW PUMP DISCH HDR TEMP	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
68	10PGC41FT011	DMCW TEMP AT PHE-A SG O/L	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
69	10PGC42FT011	DMCW TEMP AT PHE-B SG O/L	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
70	10LBS63FT001	EXT STM TEMP TO BFPT-A	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
71	10LBS63FT002	EXT STM TEMP TO BFPT-A	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
72	10LBS64FT001	EXT STM TEMP TO BFPT-B	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
73	10LBS64FT002	EXT STM TEMP TO BFPT-B	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
74	10LBS65FT001	EXT STM TEMP FROM BFPT-A TO COND	SINGLE I/P TT	RTD	0 - 150	Deg C	PEM
75	10LBS65FT002	EXT STM TEMP FROM BFPT-A TO COND	SINGLE I/P TT	RTD	0 - 150	Deg C	PEM
76	10LBS65FT003	EXT STM TEMP FROM BFPT-A TO COND	SINGLE I/P TT	RTD	0 - 150	Deg C	PEM
77	10LBS66FT001	EXT STM TEMP FROM BFPT-B TO COND	SINGLE I/P TT	RTD	0 - 150	Deg C	PEM
78	10LBS66FT002	EXT STM TEMP FROM BFPT-B TO COND	SINGLE I/P TT	RTD	0 - 150	Deg C	PEM
79	10LBS66FT003	EXT STM TEMP FROM BFPT-B TO COND	SINGLE I/P TT	RTD	0 - 150	Deg C	PEM
80	10LAB10FT011	TDBFP-A BP SUC TEMP	SINGLE I/P TT	RTD	0 - 250	Deg C	PEM
81	10LAB10FT020	TDBFP-A BP DISCH TEMP	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
82	10LAB20FT011	TDBFP-B BP SUC TEMP	SINGLE I/P TT	RTD	0 - 250	Deg C	PEM
83	10LAB20FT020	TDBFP-B BP DISCH TEMP	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
84	10LAB30FT011	MDBFP BP SUC TEMP	SINGLE I/P TT	RTD	0 - 250	Deg C	PEM
85	10LAB30FT020	MDBFP-C BP DISCH TEMP	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
86	10LAB40FT014	BFP DISCH HDR TEMP AFT FCS	SINGLE I/P TT	RTD	0 - 250	Deg C	PEM
87	10LBQ64FT012	HPH-7 DESH MTL TEMP TO FLASH TANK-B	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
88	10LCJ11FT011	DRN CLR O/L TEMP TO F/T-A	SINGLE I/P TT	RTD	0 - 60	Deg C	PEM
89	10LAE31FT001	BFP SPRAY TEMP	SINGLE I/P TT	RTD	0 - 250	Deg C	PEM
90	10LBA10FT011	HPBP-1 U/S TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
91	10LBA10FT012	HPBP-1 U/S TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM


92	10LBA20FT011	HPBP-2 U/S TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
93	10LBA20FT012	HPBP-2 U/S TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
94	10LBF11FT011	HPBP-1 D/S TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
95	10LBF11FT012	HPBP-1 D/S TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
96	10LBF11FT013	HPBP-1 D/S TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
97	10LBF21FT011	HPBP-2 D/S TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
98	10LBF21FT012	HPBP-2 D/S TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
99	10LBF21FT013	HPBP-2 D/S TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
100	10LBA01FT011	MS TEMP AT SH O/L-LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
101	10LBA01FT012	MS TEMP AT SH O/L-LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
102	10LBA01FT013	MS TEMP AT SH O/L-LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
103	10LBA02FT011	MS TEMP AT SH O/L-RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
104	10LBA02FT012	MS TEMP AT SH O/L-RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
105	10LBA02FT013	MS TEMP AT SH O/L-RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
106	10LBA10FT005	SH O/L HDR TEMP TO HP TURB TO EAST	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
107	10LBA10FT006	MS TEMP AT SH O/L TO EAST	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
108	10LBA11FT005	HP TURB I/L TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
109	10LBA11FT006	HP TURB I/L TEMP TO EAST - LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
110	10LBA12FT005	HP TURB I/L TEMP TO EAST - RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
111	10LBB01FT011	HRH STM TEMP AT RH O/L - LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
112	10LBB01FT012	HRH STM TEMP AT RH O/L - LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
113	10LBB01FT013	HRH STM TEMP AT RH O/L - LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
114	10LBB02FT011	HRH STM TEMP AT RH O/L - RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
115	10LBB02FT012	HRH STM TEMP AT RH O/L - RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
116	10LBB02FT013	HRH STM TEMP AT RH O/L - RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
117	10LBB10FT005	IP TURB I/L TEMP TO EAST - LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
118	10LBB10FT006	IP TURB I/L TEMP TO EAST - RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
119	10LBB11FT005	IP TURB I/L TEMP - RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
120	10LBB11FT007	IP TURB I/L TEMP TO EAST - LEFT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
121	10LBB12FT005	IP TURB I/L-L TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
122	10LBB12FT007	IP TURB I/L TEMP TO EAST - RIGHT	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
123	10LBC01FT011	CRH STM TEMP AT RH I/L-LEFT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
124	10LBC02FT011	CRH STM TEMP AT RH I/L-RIGHT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
125	10LBC10FT001	HP TURB O/L TEMP TO EAST	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
126	10LBC10FT011	HP TURB O/L TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
127	10LBC12FT007	HP TURB I/L TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
128	10HAN11FT001	FTDT DRAIN LINE TEMP	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
129	10LCL20FT001	FLASH TANK DRAIN TANK TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
130	10LBG70FT001	AUX STEAM TO SCAPH INLET TEMP	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
131	10LBG73FT001	TEMP OF SCAPH -A DRN TO FLASH TANK	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
132	10LBG74FT001	TEMP OF SCAPH -B DRN TO FLASH TANK	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
133	10LBG78FT001	TEMP OF SCAPH DRN TO FLASH TANK	SINGLE I/P TT	TC-K	0 - 400	Deg C	PEM
134	10QHX10FT001	COOLING WATER SUPPLY TEMP	SINGLE I/P TT	RTD	0 - 100	Deg C	PEM
135	10QHX11FT001	COOLING WATER RETURN TEMP	SINGLE I/P TT	RTD	0 - 100	Deg C	PEM
136	10HBK20FT001	FRONT PLATEN SH OUTLET TEMP-LEFT	SINGLE I/P TT	TC-R	0 - 1300	Deg C	PEM
137	10HBK25FT001	FRONT PLATEN SH OUTLET TEMP-RIGHT	SINGLE I/P TT	TC-R	0 - 1300	Deg C	PEM
138	10HBK30FT001	REAR PLATEN SH OUTLET TEMP-LEFT	SINGLE I/P TT	TC-R	0 - 1300	Deg C	PEM
139	10HBK35FT001	REAR PLATEN SH OUTLET TEMP-RIGHT	SINGLE I/P TT	TC-R	0 - 1300	Deg C	PEM
140	10HBK40FT001	FINISH RH OUTLET TEMPERATURE-LEFT	SINGLE I/P TT	TC-R	0 - 1300	Deg C	PEM
141	10HBK45FT001	FINISH RH OUTLET TEMP-RIGHT	SINGLE I/P TT	TC-R	0 - 1300	Deg C	PEM
142	10HBK50FT001	FINISH SH OUTLET TEMP-LEFT	SINGLE I/P TT	TC-R	0 - 1000	Deg C	PEM
143	10HBK55FT001	FINISH SH OUTLET TEMP-RIGHT	SINGLE I/P TT	TC-R	0 - 1000	Deg C	PEM
144	10HBK60FT001	LTRH OUTLET TEMPERATURE-LEFT	SINGLE I/P TT	TC-K	0 - 800	Deg C	PEM
145	10HBK65FT001	LTRH OUTLET TEMPERATURE-RIGHT	SINGLE I/P TT	TC-K	0 - 800	Deg C	PEM
146	10HFE10FT001	PA FAN-A INLET TEMPERATURE AT SUCTION CHAMBER	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
147	10HFE15FT001	PA FAN-B INLET TEMP AT SUCTION CHAMBER	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
148	10HFE20FT001	PA FAN-A OUTLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
149	10HFE25FT001	PA FAN-B OUTLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
150	10HFE30FT001	AH-A PA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
151	10HFE30FT002	AH-A PA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
152	10HFE35FT001	AH-B PA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
153	10HFE35FT002	AH-B PA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
154	10HFE40FT001	AH-A PA OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
155	10HFE40FT002	AH-A PA OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
156	10HFE40FT003	AH-A PA OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
157	10HFE40FT004	AH-A PA OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
158	10HFE45FT001	AH-B PA OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
159	10HFE45FT002	AH-B PA OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
160	10HFE45FT003	AH-B PA OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
161	10HFE45FT004	AH-B PA OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
162	10HLB10FT001	FD FAN-A INLET TEMPERATURE AT SUCTION CHAMBER	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
163	10HLB15FT001	FD FAN-B INLET TEMP AT SUCTION CHAMBER	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
164	10HLA10FT001	FD FAN-A OUTLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
165	10HLA15FT001	FD FAN-B OUTLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
166	10HLA20FT001	AH-A SA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
167	10HLA20FT002	AH-A SA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
168	10HLA20FT003	AH-A SA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
169	10HLA20FT004	AH-A SA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
170	10HLA25FT001	AH-B SA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
171	10HLA25FT002	AH-B SA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
172	10HLA25FT003	AH-B SA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
173	10HLA25FT004	AH-B SA INLET TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
174	10HLA30FT001	AH-A SA OUTLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
175	10HLA30FT002	AH-A SA OUTLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
176	10HLA30FT003	AH-A SA OUTLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
177	10HLA30FT004	AH-A SA OUTLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
178	10HLA35FT001	AH-B SA OUTLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
179	10HLA35FT002	AH-B SA OUTLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
180	10HLA35FT003	AH-B SA OUTLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
181	10HLA35FT004	AH-B SA OUTLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
182	10HHL10FT001	SA TO WINDBOX TEMPERATURE-LEFT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
183	10HHL10FT002	SA TO WINDBOX TEMPERATURE-LEFT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
184	10HHL10FT003	SA TO WINDBOX TEMPERATURE-LEFT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
185	10HHL15FT001	SA TO WINDBOX TEMPERATURE-RIGHT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
186	10HHL15FT002	SA TO WINDBOX TEMPERATURE-RIGHT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM

187	10HHL15FT003	SA TO WINDBOX TEMPERATURE-RIGHT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
188	10HNA21FT001	ECONOMISER OUTLET TEMP-LEFT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
189	10HNA22FT001	ECONOMISER OUTLET TEMPERATURE-RIGHT	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
190	10HNA27FT001	AH-A FLUE GAS INLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
191	10HNA27FT002	AH-A FLUE GAS INLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
192	10HNA27FT003	AH-A FLUE GAS INLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
193	10HNA27FT004	AH-A FLUE GAS INLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
194	10HNA28FT001	AH-B FLUE GAS INLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
195	10HNA28FT002	AH-B FLUE GAS INLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
196	10HNA28FT003	AH-B FLUE GAS INLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
197	10HNA28FT004	AH-B FLUE GAS INLET TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
198	10HNA51FT001	ESP-A OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
199	10HNA51FT002	ESP-A OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
200	10HNA52FT001	ESP-B OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
201	10HNA52FT002	ESP-B OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
202	10HNA53FT001	ESP-C OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
203	10HNA53FT002	ESP-C OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
204	10HNA54FT001	ESP-D OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
205	10HNA54FT002	ESP-D OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
206	10HNA55FT001	ESP-E OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
207	10HNA55FT002	ESP-E OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
208	10HNA56FT001	ESP-F OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
209	10HNA56FT002	ESP-F OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
210	10HNC10FT001	ID FAN-A INLET TEMPERATURE AT SUCTION CHAMBER	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
211	10HNC15FT001	ID FAN-B INLET TEMPERATURE AT SUCTION CHAMBER	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
212	10HNA70FT001	ID FAN-A OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
213	10HNA75FT001	ID FAN-B OUTLET TEMPERATURE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
214	10HNE10FT001	TEMP MEASUREMENT FOR OPACITY MONITOR AT CHIMNEY	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
215	10HFE71FT001	PULV "A" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
216	10HFE71FT002	PULV "A" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
217	10HFE71FT003	PULV "A" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
218	10HFE72FT001	PULV "B" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
219	10HFE72FT002	PULV "B" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
220	10HFE72FT003	PULV "B" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
221	10HFE73FT001	PULV "C" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
222	10HFE73FT002	PULV "C" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
223	10HFE73FT003	PULV "C" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
224	10HFE74FT001	PULV "D" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
225	10HFE74FT002	PULV "D" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
226	10HFE74FT003	PULV "D" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
227	10HFE75FT001	PULV "E" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
228	10HFE75FT002	PULV "E" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
229	10HFE75FT003	PULV "E" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
230	10HFE76FT001	PULV "F" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
231	10HFE76FT002	PULV "F" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
232	10HFE76FT003	PULV "F" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
233	10HFE77FT001	PULV "G" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
234	10HFE77FT002	PULV "G" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
235	10HFE77FT003	PULV "G" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
236	10HFE78FT001	PULV "H" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
237	10HFE78FT002	PULV "H" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
238	10HFE78FT003	PULV "H" PRIMARY AIR INLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
239	10HFC10FT017	PULV "A" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
240	10HFC10FT018	PULV "A" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
241	10HFC20FT017	PULV "B" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
242	10HFC20FT018	PULV "B" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
243	10HFC30FT017	PULV "C" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
244	10HFC30FT018	PULV "C" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
245	10HFC40FT017	PULV "D" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
246	10HFC40FT018	PULV "D" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
247	10HFC50FT017	PULV "E" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
248	10HFC50FT018	PULV "E" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
249	10HFC60FT017	PULV "F" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
250	10HFC60FT018	PULV "F" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
251	10HFC70FT017	PULV "G" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
252	10HFC70FT018	PULV "G" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
253	10HFC80FT017	PULV "H" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
254	10HFC80FT018	PULV "H" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 350	Deg C	PEM
255	10LAE21FT001	RH / DSH "A" SPRAY WATER TEMP (UPSTREAM OF SPRAY FLOW NOZZLE)	SINGLE I/P TT	TC-K	0 - 300	Deg C	PEM
256	10LAE22FT001	RH / DSH "B" SPRAY WATER TEMP (UPSTREAM OF SPRAY FLOW NOZZLE)	SINGLE I/P TT	TC-K	0 - 300	Deg C	PEM
257	10HAG27FT001	BWCP COOLING WATER SUPPLY TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
258	10HAG27FT002	BWCP COOLING WATER RETURN TEMP	SINGLE I/P TT	RTD	0 - 80	Deg C	PEM
259	10HAC10FT001	ECON INLET FW TEMP AFTER FLOW ELEMENT	SINGLE I/P TT	TC-K	0 - 450	Deg C	PEM
260	10HAC10FT002	ECON INLET FW TEMP AFTER FLOW ELEMENT	SINGLE I/P TT	TC-K	0 - 450	Deg C	PEM
261	10HAC10FT003	ECONOMISER INLET LINK DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 450	Deg C	PEM
262	10HAC20FT001	ECON OUTLET LINK TEMP	SINGLE I/P TT	TC-K	0 - 450	Deg C	PEM
263	10HAC20FT002	ECON OUTLET LINK TEMP	SINGLE I/P TT	TC-K	0 - 450	Deg C	PEM
264	10HAC20FT003	ECON OUTLET LINK TEMP	SINGLE I/P TT	TC-K	0 - 450	Deg C	PEM
265	10HAD03FT001	FURN LOWER FRONT INLET HEADER DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 450	Deg C	PEM
266	10HAG15FT001	WTR STORAGE TANK DOWNCOMER TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
267	10HAG15FT002	LINK TO FLASH TANK SYSTEM TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
268	10HAG15FT003	LINK TO FLASH TANK SYSTEM TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
269	10HAG15FT004	WATER STORAGE DOWNCOMER TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
270	10HAG15FT005	BWCP SUCTION LINE TEMP	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
271	10HAJ21FT001	LINK TO RH DESH-A TEMP	SINGLE I/P TT	TC-K	0 - 750	Deg C	PEM
272	10HAJ21FT002	LINK TO RH DESH-A TEMP	SINGLE I/P TT	TC-K	0 - 750	Deg C	PEM
273	10HAJ21FT003	LINK TO RH DESH-A TEMP	SINGLE I/P TT	TC-K	0 - 750	Deg C	PEM
274	10HAJ21FT004	LINK FROM RH DESH-A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
275	10HAJ21FT005	LINK FROM RH DESH-A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
276	10HAJ21FT006	LINK FROM RH DESH-A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
277	10HAJ22FT001	LINK TO RH DESH-B TEMP	SINGLE I/P TT	TC-K	0 - 750	Deg C	PEM
278	10HAJ22FT002	LINK TO RH DESH-B TEMP	SINGLE I/P TT	TC-K	0 - 750	Deg C	PEM
279	10HAJ22FT003	LINK TO RH DESH-B TEMP	SINGLE I/P TT	TC-K	0 - 750	Deg C	PEM
280	10HAJ22FT004	LINK FROM RH DESH-B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
281	10HAJ22FT005	LINK FROM RH DESH-B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM


282	10HAJ22FT006	LINK FROM RH DESH-B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
283	10HAH91FT001	LINK TO SH DESH-2A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
284	10HAH91FT002	LINK TO SH DESH-2A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
285	10HAH91FT003	LINK TO SH DESH-2A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
286	10HAH91FT004	LINK FROM SH DESH-2A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
287	10HAH91FT005	LINK FROM SH DESH-2A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
288	10HAH91FT006	LINK FROM SH DESH-2A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
289	10HAH92FT001	LINK TO SH DESH-2B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
290	10HAH92FT002	LINK TO SH DESH-2B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
291	10HAH92FT003	LINK TO SH DESH-2B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
292	10HAH92FT004	LINK FROM SH DESH-2B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
293	10HAH92FT005	LINK FROM SH DESH-2B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
294	10HAH92FT006	LINK FROM SH DESH-2B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
295	10LAE91FT001	STAGE II SH / DSH "A" SPRAY WATER TEMP(UPSTREAM OF SPRAY FLOW NOZZLE)	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
296	10LAE92FT001	STAGE II SH / DSH "B" SPRAY WATER TEMP(UPSTREAM OF SPRAY FLOW NOZZLE)	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
297	10HAH05FT001	SH FURN ROOF INLET HEADER DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
298	10HAH06FT001	SH FURN ROOF METAL TEMPERATURE MEASUREMENT	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
299	10HAH06FT002	SH FURN ROOF METAL TEMPERATURE MEASUREMENT	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
300	10HAH06FT003	SH FURN ROOF METAL TEMPERATURE MEASUREMENT	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
301	10HAH06FT004	SH FURN ROOF METAL TEMPERATURE MEASUREMENT	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
302	10HAH06FT005	SH FURN ROOF METAL TEMPERATURE MEASUREMENT	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
303	10HAH06FT006	SH FURN ROOF METAL TEMPERATURE MEASUREMENT	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
304	10HAH06FT007	SH FURN ROOF METAL TEMPERATURE MEASUREMENT	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
305	10HAH14FT001	BACKPASS LOWER FRONT HEADER DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
306	10HAH14FT002	BACKPASS LOWER REAR HEADER DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
307	10HAH26FT001	LINK TO SH FRONT PLATEN INLET HDR-TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
308	10HAH26FT002	LINK TO SH FRONT PLATEN INLET HDR-TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
309	10HAH71FT001	LINK TO SH DESH-1A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
310	10HAH71FT002	LINK TO SH DESH-1A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
311	10HAH71FT003	LINK TO SH DESH-1A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
312	10HAH71FT004	LINK FROM SH DESH-1A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
313	10HAH71FT005	LINK FROM SH DESH-1A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
314	10HAH71FT006	LINK FROM SH DESH-1A TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
315	10HAH72FT001	LINK TO SH DESH-1B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
316	10HAH72FT002	LINK TO SH DESH-1B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
317	10HAH72FT003	LINK TO SH DESH-1B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
318	10HAH72FT004	LINK FROM SH DESH-1B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
319	10HAH72FT005	LINK FROM SH DESH-1B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
320	10HAH72FT006	LINK FROM SH DESH-1B TEMP	SINGLE I/P TT	TC-K	0 - 700	Deg C	PEM
321	10LAE71FT001	STAGE I SH / DSH "A" SPRAY WATER TEMP (UPSTREAM OF SPRAY FLOW NOZZLE)	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
322	10LAE72FT001	STAGE I SH / DSH "B" SPRAY WATER TEMP (UPSTREAM OF SPRAY FLOW NOZZLE)	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
323	10HAH01FT001	WATER SEPARATOR "A" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
324	10HAH01FT002	WATER SEPARATOR "A" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
325	10HAH02FT001	WATER SEPARATOR "B" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
326	10HAH02FT002	WATER SEPARATOR "B" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
327	10HAH03FT001	WATER SEPARATOR "C" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
328	10HAH03FT002	WATER SEPARATOR "C" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
329	10HAH04FT001	WATER SEPARATOR "D" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
330	10HAH04FT002	WATER SEPARATOR "D" OUTLET TEMP	SINGLE I/P TT	TC-K	0 - 600	Deg C	PEM
331	10LAB91CT001	FEEDWATER LINE DRAIN TEMP	SINGLE I/P TT	TC-K	0 - 450	Deg C	PEM
332	10HAD10FT037	FURN INTERM LEFT SIDE HEADER DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
333	10HAD20FT037	FURN INTERM FRONT SIDE HEADER DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
334	10HAD30FT037	FURN INTERM REAR SIDE HEADER DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
335	10HAD40FT037	FURN INTERM RIGHT SIDE HEADER DRAIN TEMPERATURE	SINGLE I/P TT	TC-K	0 - 500	Deg C	PEM
336	10HFW11CT001	SEAL AIR FAN "A" DE TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
337	10HFW11CT002	SEAL AIR FAN "A" NDE TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
338	10HFW12CT001	SEAL AIR FAN "B" DE TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
339	10HFW12CT002	SEAL AIR FAN "B" NDE TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
340	10HFC01CT002	PULV "A" MOTOR NDE BEARING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
341	10HFC01CT003	PULV "A" MOTOR NDE BEARING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
342	10HFC01CT005	PULV "A" MOTOR WINDING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
343	10HFC01CT007	PULV "A" MOTOR WINDING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
344	10HFC01CT009	PULV "A" MOTOR WINDING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
345	10HFC01CT011	PULV "A" MOTOR DE BEARING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
346	10HFC01CT012	PULV "A" MOTOR DE BEARING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
347	10HFC02CT002	PULV "B" MOTOR NDE BEARING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
348	10HFC02CT003	PULV "B" MOTOR NDE BEARING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
349	10HFC02CT005	PULV "B" MOTOR WINDING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
350	10HFC02CT007	PULV "B" MOTOR WINDING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
351	10HFC02CT009	PULV "B" MOTOR WINDING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
352	10HFC02CT011	PULV "B" MOTOR DE BEARING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN
353	10HFC02CT012	PULV "B" MOTOR DE BEARING TEMP	SINGLE I/P TT	RTD	0 - 150	Deg C	TRICHY - EDN

1317	10GAD26FT123	RW PUMP-A MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1318	10GAD26FT124	RW PUMP-A MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1319	10GAD01FT102	RW INTAKE PUMP-B MTR WNDG TEMP R-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1320	10GAD01FT104	RW INTAKE PUMP-B MTR WNDG TEMP Y-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1321	10GAD01FT106	RW INTAKE PUMP-B MTR WNDG TEMP B-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1322	10GAD01FT120	RW INTAKE PUMP-B MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1323	10GAD01FT121	RW INTAKE PUMP-B MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1324	10GAD01FT123	RW INTAKE PUMP-B MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1325	10GAD01FT124	RW INTAKE PUMP-B MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1326	10GAD02FT102	RW INTAKE PUMP-A MTR WNDG TEMP R-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1327	10GAD02FT104	RW INTAKE PUMP-A MTR WNDG TEMP Y-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1328	10GAD02FT106	RW INTAKE PUMP-A MTR WNDG TEMP B-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1329	10GAD02FT120	RW INTAKE PUMP-A MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1330	10GAD02FT121	RW INTAKE PUMP-A MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1331	10GAD02FT123	RW INTAKE PUMP-A MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1332	10GAD02FT124	RW INTAKE PUMP-A MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1333	10GBK01FT102	APH/ESP-A MTR WNDG TEMP R-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1334	10GBK01FT104	APH/ESP-A MTR WNDG TEMP Y-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1335	10GBK01FT106	APH/ESP-A MTR WNDG TEMP B-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1336	10GBK01FT120	APH/ESP-A MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1337	10GBK01FT121	APH/ESP-A MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1338	10GBK01FT123	APH/ESP-A MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1339	10GBK01FT124	APH/ESP-A MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1340	10GBK02FT102	APH/ESP-B MTR WNDG TEMP R-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1341	10GBK02FT104	APH/ESP-B MTR WNDG TEMP Y-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1342	10GBK02FT106	APH/ESP-B MTR WNDG TEMP B-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1343	10GBK02FT120	APH/ESP-B MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1344	10GBK02FT121	APH/ESP-B MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1345	10GBK02FT123	APH/ESP-B MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1346	10GBK02FT124	APH/ESP-B MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1347	10GAD21FT102	AHP-B MTR WNDG TEMP R-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1348	10GAD21FT104	AHP-B MTR WNDG TEMP Y-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1349	10GAD21FT106	AHP-B MTR WNDG TEMP B-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1350	10GAD21FT120	AHP-B MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1351	10GAD21FT121	AHP-B MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1352	10GAD21FT123	AHP-B MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1353	10GAD21FT124	AHP-B MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1354	10GAD22FT102	AHP-A MTR WNDG TEMP R-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1355	10GAD22FT104	AHP-A MTR WNDG TEMP Y-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1356	10GAD22FT106	AHP-A MTR WNDG TEMP B-PHASE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1357	10GAD22FT120	AHP-A MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1358	10GAD22FT121	AHP-A MTR BRG MTL TEMP -DE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1359	10GAD22FT123	AHP-A MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1360	10GAD22FT124	AHP-A MTR BRG MTL TEMP -NDE	SINGLE I/P TT	RTD	0 - 200	Deg C	PEM
1361	LBA10CT005A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1362	LBA10CT006A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1363	LBA11CT007A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1364	LBA12CT007A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1365	LBB10CT005A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1366	LBB10CT006A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1367	LBB11CT007A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1368	LBB12CT007A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1369	LBB21CT001A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1370	LBB21CT002A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1371	LBB22CT001A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1372	LBB22CT002A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1373	LBC10CT001A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1374	LBG30CT001A		SINGLE I/P TT	TC-K	0 - 400	Deg C	TG DCS
1375	LBG30CT002A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1376	LBQ60CT001A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1377	LBQ70CT001A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1378	LBQ90CT001A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1379	LBS30CT001A		SINGLE I/P TT	TC-K	0 - 300	Deg C	TG DCS
1380	LBS40CT001A		SINGLE I/P TT	TC-K	0 - 300	Deg C	TG DCS
1381	LBS50CT001A		SINGLE I/P TT	TC-K	0 - 400	Deg C	TG DCS
1382	LBS63CT001		SINGLE I/P TT	TC-K	0 - 500	Deg C	TG DCS
1383	LBS63CT002		SINGLE I/P TT	TC-K	0 - 500	Deg C	TG DCS
1384	LBS64CT001		SINGLE I/P TT	TC-K	0 - 500	Deg C	TG DCS
1385	LBS64CT002		SINGLE I/P TT	TC-K	0 - 500	Deg C	TG DCS
1386	MAA11CT021A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1387	MAA11CT022A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1388	MAA12CT021A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1389	MAA12CT022A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1390	MAA21CT021A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1391	MAA50CT012A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1392	MAA50CT013A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1393	MAA50CT016A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1394	MAA50CT017A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1395	MAA50CT022A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1396	MAA50CT023A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1397	MAA50CT025A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1398	MAA50CT026A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1399	MAA50CT031A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1400	MAA50CT032A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1401	MAA50CT051A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1402	MAA50CT052A		SINGLE I/P TT	TC-K	0 - 600	Deg C	TG DCS
1403	MAB11CT021A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1404	MAB21CT021A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1405	MAB50CT012A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1406	MAB50CT013A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1407	MAB50CT022A		SINGLE I/P TT	TC-K	0 - 400	Deg C	TG DCS
1408	MAB50CT023A		SINGLE I/P TT	TC-K	0 - 400	Deg C	TG DCS
1409	MAB50CT041A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1410	MAB50CT042A		SINGLE I/P TT	TC-K	0 - 700	Deg C	TG DCS
1411	MAC10CT011A		SINGLE I/P TT	TC-K	0 - 400	Deg C	TG DCS

1697	PGB15CT001A		SINGLE I/P TT	RTD	0 - 100	Deg C	TG DCS
1698	PGB21CT001A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1699	PGB22CT001A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1700	PGB23CT001A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1701	PGB30CT001A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1702	PGB30CT002A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1703	PGB32CT001A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1704	PGB32CT002A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1705	PGB32CT003A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1706	PGB32CT004A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1707	PGB33CT001A		SINGLE I/P TT	RTD	0 - 200	Deg C	TG DCS
1708	XAV10CT001		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1709	XAV10CT002		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1710	XAV11CT001		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1711	XAV11CT002		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1712	XAV60CT001		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1713	XAV60CT002		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1714	XAV60CT003		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1715	XAV61CT001		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1716	XAV61CT002		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1717	XAV61CT003		SINGLE I/P TT	RTD	0 - 120	Deg C	TG DCS
1718	10HTA01CT001	Unit-1 Absorber Inlet Temperature Transmitter (Before GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1719	10HTA01CT002	Unit-1 Absorber Inlet Temperature Transmitter (Before GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1720	10HTA01CT003	Unit-1 Absorber Inlet Temperature Transmitter (Before GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1721	10HTA01CT004	Unit-1 Absorber Inlet Temperature Transmitter (After GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1722	10HTA01CT005	Unit-1 Absorber Inlet Temperature Transmitter (After GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1723	10HTA01CT006	Unit-1 Absorber Outlet Temperature Transmitter (Before GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1724	10HTA01CT007	Unit-1 Absorber Outlet Temperature Transmitter (Before GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1725	10HTA01CT008	Unit-1 Absorber Outlet Temperature Transmitter (Before GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1726	10HTA01CT009	Unit-1 Absorber Outlet Temperature Transmitter (After GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1727	10HTA01CT010	Unit-1 Absorber Outlet Temperature Transmitter (After GGH)	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1728	10HTG02CT001	Unit-1 Oxidation Air Temperature Transmitter	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1729	10HTX08CT001	AUXILLIARY Steam line for distribution	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1730	10HTD10CT001	Unit-1 RC Pump-A Motor Winding RTD based Temperature Transmitter 1	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1731	10HTD10CT002	Unit-1 RC Pump-A Motor Winding RTD based Temperature Transmitter 2	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1732	10HTD10CT003	Unit-1 RC Pump-A Motor Winding RTD based Temperature Transmitter 3	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1733	10HTD20CT001	Unit-1 RC PumP-B Motor Winding RTD based Temperature Transmitter 1	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1734	10HTD20CT002	Unit-1 RC PumP-B Motor Winding RTD based Temperature Transmitter 2	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1735	10HTD20CT003	Unit-1 RC PumP-B Motor Winding RTD based Temperature Transmitter 3	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1736	10HTD30CT001	Unit-1 RC PumP-C Motor Winding RTD based Temperature Transmitter 1	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1737	10HTD30CT002	Unit-1 RC PumP-C Motor Winding RTD based Temperature Transmitter 2	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1738	10HTD30CT003	Unit-1 RC PumP-C Motor Winding RTD based Temperature Transmitter 3	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1739	10HTD40CT001	Unit-1 RC PumP-D Motor Winding RTD based Temperature Transmitter 1	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1740	10HTD40CT002	Unit-1 RC PumP-D Motor Winding RTD based Temperature Transmitter 2	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1741	10HTD40CT003	Unit-1 RC PumP-D Motor Winding RTD based Temperature Transmitter 3	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1742	10HTG10CT001	Unit-1 Oxidation Blower-A Motor Winding RTD based Temperature Transmitter 1	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1743	10HTG10CT002	Unit-1 Oxidation Blower-A Motor Winding RTD based Temperature Transmitter 2	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1744	10HTG10CT003	Unit-1 Oxidation Blower-A Motor Winding RTD based Temperature Transmitter 3	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1745	10HTG20CT001	Unit-1 Oxidation Blower-B Motor Winding RTD based Temperature Transmitter 1	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1746	10HTG20CT002	Unit-1 Oxidation Blower-B Motor Winding RTD based Temperature Transmitter 2	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1747	10HTG20CT003	Unit-1 Oxidation Blower-B Motor Winding RTD based Temperature Transmitter 3	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1748	00HTK10CT001	Unit-1 Ball Mill Motor-A Winding RTD based Temperature Transmitter 1	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1749	00HTK10CT002	Unit-1 Ball Mill Motor-A Winding RTD based Temperature Transmitter 2	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1750	00HTK10CT003	Unit-1 Ball Mill Motor-A Winding RTD based Temperature Transmitter 3	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1751	00HTK20CT001	Unit-1 Ball Mill Motor-B Winding RTD based Temperature Transmitter 1	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1752	00HTK20CT002	Unit-1 Ball Mill Motor-B Winding RTD based Temperature Transmitter 2	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD
1753	00HTK20CT003	Unit-1 Ball Mill Motor-B Winding RTD based Temperature Transmitter 3	SINGLE I/P TT	RTD	0 - 300	Deg C	BAP-FGD

Customer: 	Manufacturer's Name & address:-	MANUFACTURING QUALITY PLAN		NTPC QP No:	Project:
		ITEM: TEMPERATURE TRANSMITTER,		Revision No: 00	
		Confirming to code: BS 6447 & IEC 60770		Date:	
					Contractor: M/s BHEL-EDN, End User : M/s TANGEDCO-

Sl.No	Components & Operations	Characteristics	Class	Type of Check	Quantum of Check		Reference Documents	Acceptance Norms	Format of Record		Agency			Remarks
					M	C/N				D*	M	C	N	
1	2	3	4	5	6a	6b	7	8	9	10	11			
1.00 Raw Materials														
1	Raw Materials & Components (Housing, Electronic & other components)	a) Material properties, Size, Rating, Make, Type/Model No.	Major	Internal Test/ Checks	As per Manufacturer's Standard	-	Purchase Order Specification / Manufacturers Catalogues / Mfr Drawing	Purchase Order Specification / Manufacturers Catalogues / Mfr Drawing	Internal Records	-	P	-	-	
2.00 In Process Inspection														
2	Assembly & Fitting	a) Soundness of Fitting, Connections & Terminals Marking	Major	Verification	100%	-	Purchase Order Specification / Manufacturers Catalogues / Drawing	Purchase Order Specification / Manufacturers Catalogues / Drawing	Internal Records	-	P	-	-	
3.00 Final Inspection														
3	Routine Test	a) Dimensional details & Visual checking (Size, Rating, Make, Type/ Model No., Serial No./ Tag)	Major	Measurement / Visual	100%	10%	Approved Drawing / Approved Dataset / NTPC Specifications / Manufacturers Catalogues	Approved Drawing/ Approved Dataset / NTPC Specifications / Manufacturers Catalogues	TC	✓	P	V	V	
		b) Calibration Check (at 3 point) for Accuracy, ambient temperature error test	Critical	Measurement	100%	10%	- do-	- do-	TC	✓	P	V	V	Communication for HART Protocol shall be checked during Calibration

Customer: 		Manufacturer's Name & address:-			MANUFACTURING QUALITY PLAN			NTPC QP No:		Project:				
					ITEM: TEMPERATURE TRANSMITTER,			Revision No: 00		Contractor: M/s BHEL-EDN,				
					Confirming to code: BS 6447 & IEC 60770			Date:		End User : M/s TANGEDCO-				
Sl.No	Components & Operations	Characteristics	Class	Type of Check	Quantum of Check		Reference Documents	Acceptance Norms	Format of Record		Agency			Remarks
					M	C/N				D*	M	C	N	
1	2	3	4	5	6a	6b	7	8	9	10	11			
4.00	Packing & Dispatch	c) Bump less Change over (As applicable) and other functional & optional features	Major	Measurement	100%	10%	- do-	- do-	TC	-	P	V	V	
		d) Review of Test and Calibration certificates	Major	Review	100%	-	- do-	- do-	TC	✓	P	V	V	
		a) Completeness of TC's, COC's, Inspection Reports.	Major	Verification	100%	-	Ord Specn & QP	Ord Specn & QP	Documents	-	P	-	-	
		b) Identification Marking / Tagging of each instrument	Major	Verification	100%	-	Ord Specn	Ord Specn	Internal Records	-	P	-	-	
		c) Soundness of Packing against Transit	Major	Verification	100%	-	Ord Specn	Ord Specn	Internal Records	-	P	-	-	
Manufacturer/ Sub contractor:		Contractor: M/s. BHEL-EDN, Bangalore			LEGEND:					For Customer use:-				
Signature & Date		Signature & Date			* Records identified ✓ with shall be essentially included by the contractor in QA documentation. M: Manufacturer / Sub contractor, C: Contractor /Nominated inspection agency, Customer Indicate " P " - Perform, " W " - Witness & " V "- Verification					Reviewed By				
										N: Name & Sign of approving authority & Seal				