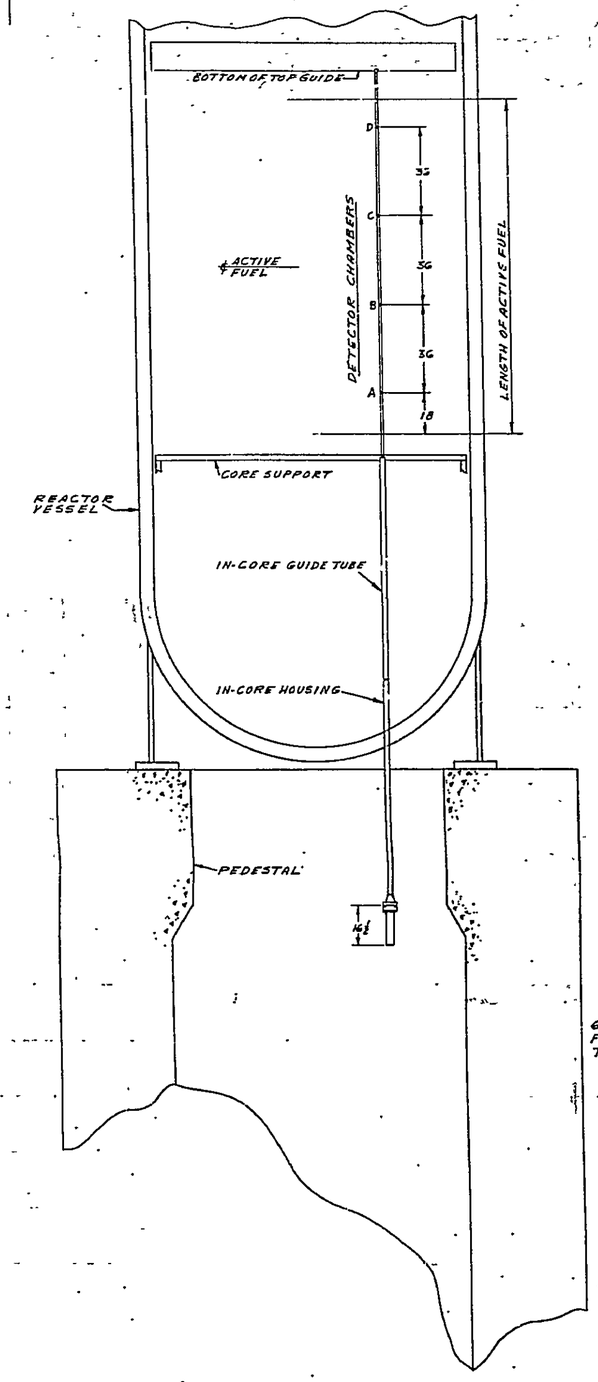
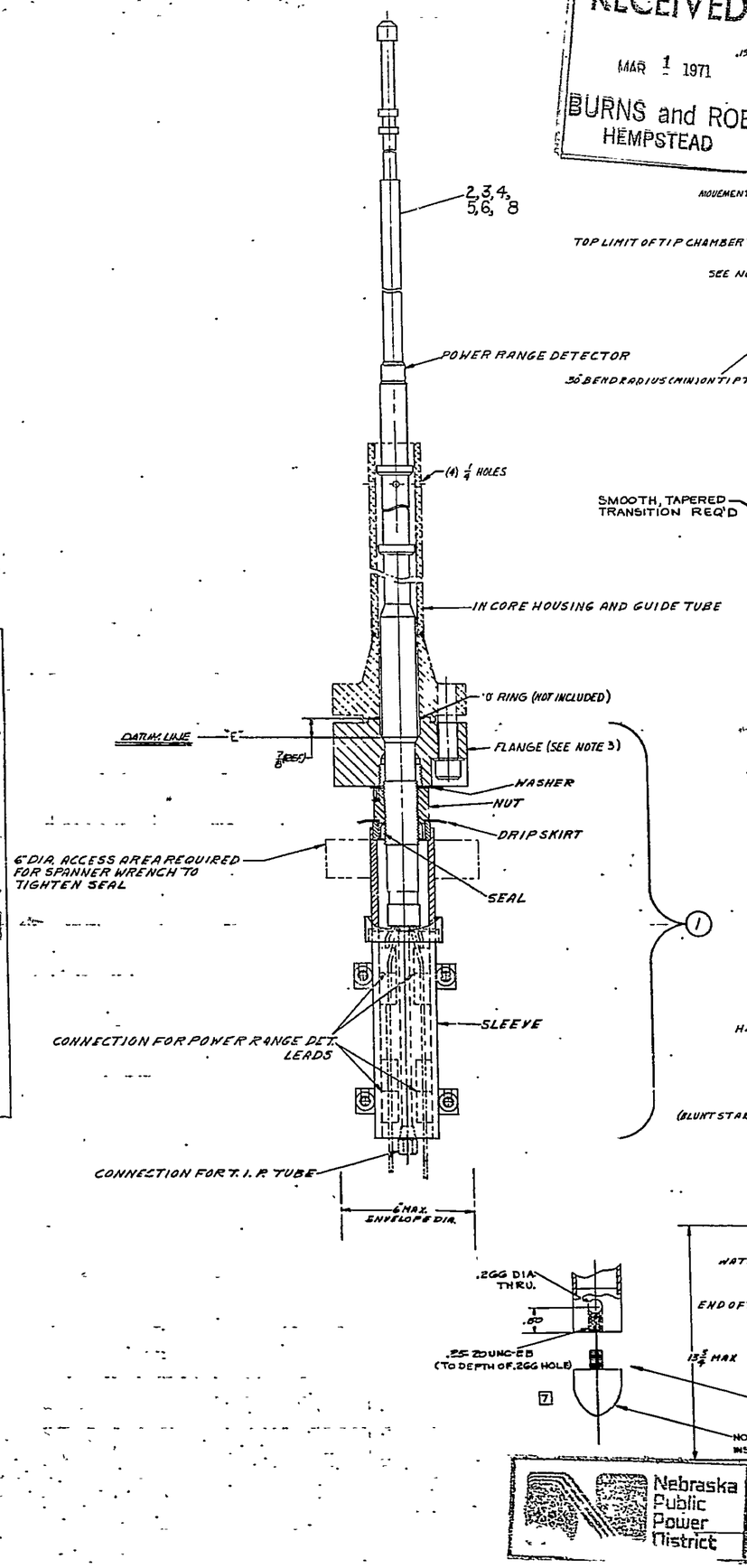
GENERAL ELECTRIC 729E989

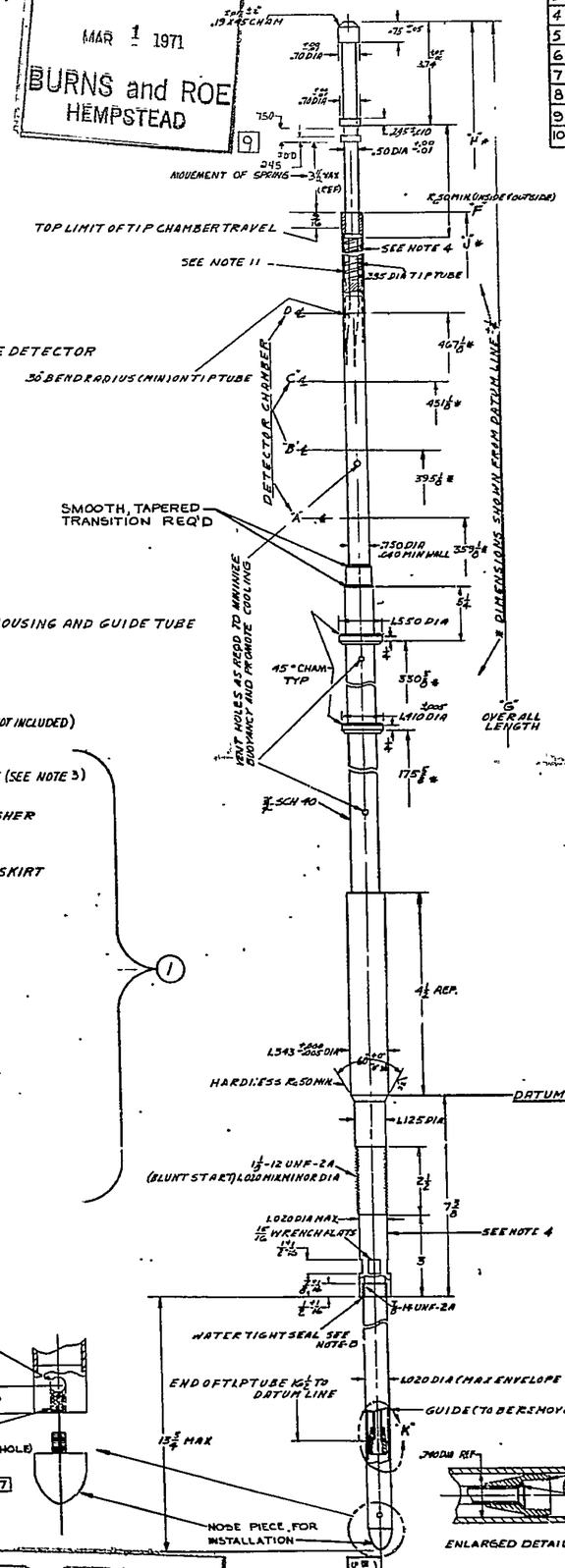
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:
APPLIED PRACTICES | SURFACES √ | FRACTIONS ± 1/32 | DECIMALS ±.005 | ANGLES ± 30'

TITLE: POWER RANGE MONITORING UNIT
FIRST MADE FOR NEUTRON MONITORING SYSTEM
PURCHASED PART

PT. NO.	NAME	VENDOR	VENDOR IDENT. NO.	MPL NO.
1	P.R.M. INSTALL. HARDWARE	1110	237X657G1	718, 2-1-103, B11-D194
2	POWER RANGE DETECTOR	↓	129B3620G3	719
3	POWER RANGE DETECTOR		129B3620G4	
4	POWER RANGE DETECTOR		129B3620G5	
5	POWER RANGE DETECTOR		129B3620G9	2-1-104
6	POWER RANGE DETECTOR		129B3620G8	
7				
8	POWER RANGE DETECTOR		129B3620G7	2-1-104, B11-D193
9	POWER RANGE DETECTOR	↓	129B3620G10	719
10	POWER RANGE DETECTOR	NID	129B3620G11	719







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HEMPSTEAD
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POWER RANGE DETECTORS

PROJECT	PART NO.	SPEC NO.
DRESDEN 2&3	729E989P2	21A1491
MILLSTONE	P4	21A1477
NULLENOR	P2	21A1488
TSURUGA	P2	21A1489
QUAD CITIES 1&2	P29	21A1442
MONTICELLO	P4	21A1445
FUKUSHIMA 1	P3	21A1444
TVA 1,2,3	P2	21A1410
VERMONT YANKEE	P6	21A1491
ARK	P5	21A1492
PENN BOTTOM 2&3	P8	21A1493
PILGRIM	P10	21A1445
FITZPATRICK	P8	21A1494
LILCO	P8	21A1545
COOPER	P8	21A1495
BELL	P8	21A1
FUKUSHIMA 2	P8	21A1496
HATCH 1&2	P8	21A1518
SHAUSHAN 1&2	P8	21A1519
O-ARAGO	P8	21A1520
E-FCHOI-2	729E989P8	21A1521
CHINSHAN 1&2	729E989P8	21A1661

* For Deleted Projects See Dwg 761E983

NOTES.

1. MATERIAL (EXCEPT SPRING) SHALL BE TP 304, F304 OR TP 316 STAINLESS STEEL. SPRING SHALL BE INCONEL X-750. MATERIAL FOR PARTS REQUIRING DESIGN PER ASME CODE SECTION III, SHALL BE SPECIFIED PER THE FOLLOWING G.E. SPECIFICATIONS
   - B50YP21A2 PIPE, SEAMLESS TP 316, ASME SA312
   - B50YP22A7 PIPE, SEAMLESS TP 304, ASME SA312
   - B50YP33A2 TUBING, WELDED TP 304, ASME SA249
   - B50YP33B2 TUBING, SEAMLESS TP 304, ASME SA213
   - B50YP8JA2 ASME SA249
   - B50YP8JB7 ASME SA213
   - B50YP57C,D / B50YP58C,D FORGED AND ROLLED PARTS F304 ASME SA182 / FORGED AND ROLLED PTS F316 ASME SA182
2. UNIT SHALL BE DESIGNED, FABRICATED, TESTED AND STAMPED AS A PRIMARY VESSEL PER SECTION III, CLASS 1 OF ASME BOILER AND PRESSURE VESSEL CODE, (STAMP ON CODE PLATE) AND PER SPECIFICATION AS SHOWN IN TABLE ABOVE.
3. FLANGE OF PT-1 SHALL BE DESIGNED TO MATE WITH G.E. DWG. # 117C1684 AND SHALL BE FABRICATED AND EXAMINED IN ACCORDANCE WITH USAS B16.5 AND ASME BOILER AND PRESSURE VESSEL CODE, SECT. III.
4. MARK WITH VIBRA-TOOL OR LOW STRESS DIE STAMP ON AREA INDICATED APPLICABLE PT. NO. OR OTHER PRODUCT IDENTIFICATION.
5. ALL PARTS SHALL BE VAPOR DEGREASED PRIOR TO ASSEMBLY PER G.E. #P50YP11C OR CLEANED BY OTHER SUITABLE APPROVED METHODS WITH NON-HALOGENATED COMPOUNDS.
6. CLEAN WITH ACETONE AFTER ASSEMBLY AND WRAP TIGHTLY IN CLEAN CLEAR POLYETHYLENE TO PREVENT CONTAMINATION DURING STORAGE AND SHIPMENT. CAUTION: DO NOT USE ANY ADHESIVE TAPES ON BARE METAL.
7. MAY BE STRAIGHTENED ON HORIZONTAL FLAT SURFACE TO MEET THIS REQUIREMENT.
8. DETACHABLE JOINT TO BE WATER-TIGHT UNDER 110 FT. OF WATER.
9. THERE SHALL BE NO LEAKAGE BETWEEN THE POWER RANGE DETECTOR AND THE FLANGE OF PT-1 AFTER ASSEMBLY IN THE REACTOR AT MAX. REACTOR PRESSURE.
10. THE ENVIRONMENT BELOW THE FLANGE SHALL BE:
    - A. NORMAL OPERATION: 135°F AVERAGE - 50% R.H. / 185°F MAX - 90% R.H. UP TO 30 MINUTES
    - B. ABNORMAL OPERATION: [illegible] °F FOR 10 MINUTES / 330°F FOR 6 HRS. } 100% R.H. 100% R.H.
11. SPRING TO BE DESIGNED FOR A MINIMUM 100 SPRING UNLOADINGS FROM 20 TO 10 LBS AT 375°F.
    - 5 LBS. PRE-LOAD
    - 5 LBS./IN GRADIENT
    - 21 LBS. MAX. LOAD

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PTN	'G'	'H'	'J'
2	509 13/16	486 11/16	480 13/16
3	513 13/16	492 11/16	494 13/16
4	512 13/16	491 11/16	493 13/16
5	518 13/16	497 7/16	489 11/16
6	517 13/16	496 7/16	488 11/16
7			
8	514 13/16	493 7/16	485 11/16
9	509 13/16	488 11/16	480 13/16
10	512 13/16	491 11/16	483 13/16

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N.P.P.D., D.C.C.
S/N 5599

COOPER STATION
MPL.# 2-1-104

NO.	REVISIONS	BY	CHK	APP	DATE
N01	Incorp GE Rev. 8 E9	DM	DLT	WHH	2-9-77

ALL FUTURE REVISIONS BY N.P.P.D.

Nebraska Public Power District

REVISIONS: 6 NE 25899 NE 25076, NE 28576 NE 33083 NE 37525 NE 22636 NE 22635 — 3 CHG'D PER ECA 90340-3 — 2 CHG'D QUANTITY ON PTS 5,6 & DELETED PER ECA 7355-64 & ECA 7356 — 1 ADDED PTS 5&7 & WEATHER HEAD FLARE NUT WASHERS & MODIFIED FLARE NUT CHG'D PER ECA 7211-2 32-2-2 [illegible]

A.P.E.D. SAN JOSE 729E989

R DPL