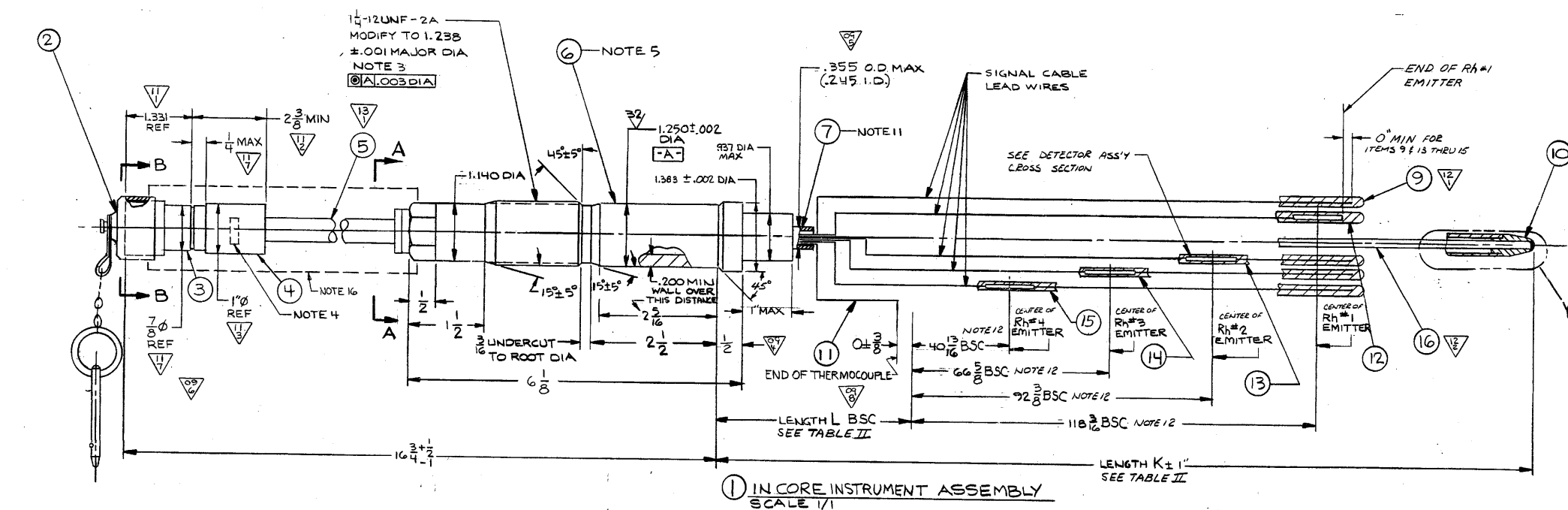
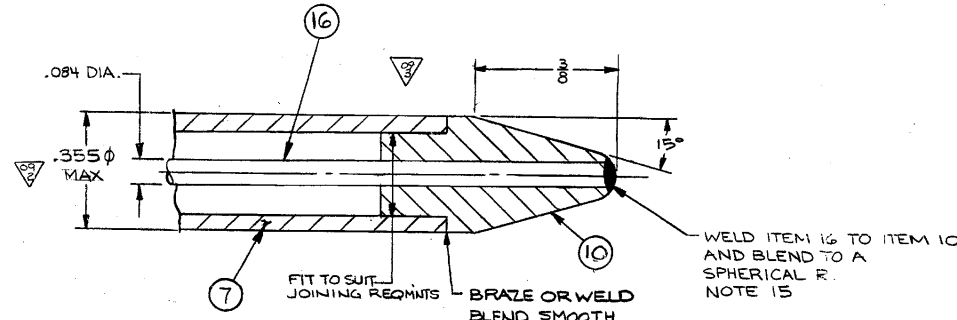
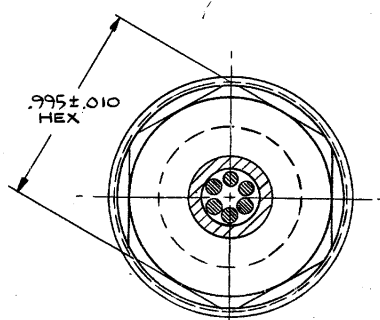
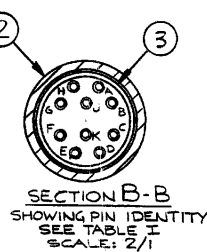


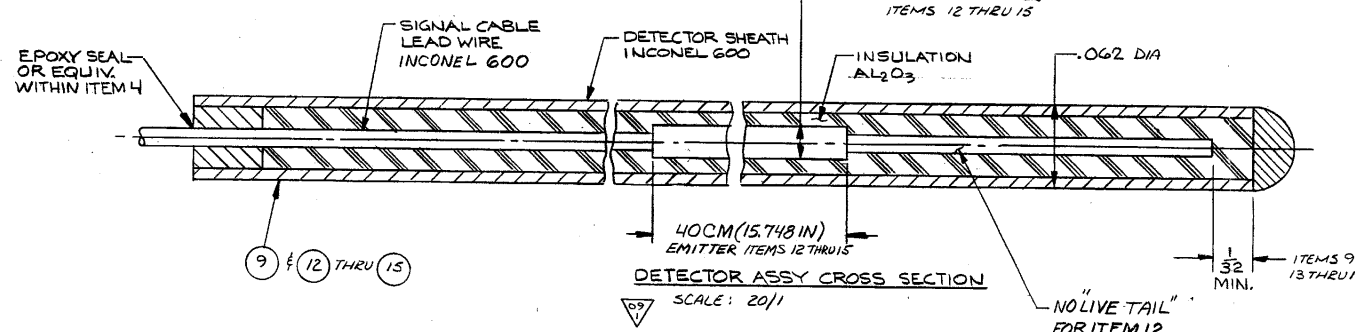
BILL OF MATERIALS				
QUANTITIES ARE FOR				
GROUP NO. & QUANTITY	ITEM NO.	NAME	PIECE NO.	MATERIAL
1	1	IN-CORE INSTRUMENT ASSY	E-23866-165-012-1	
1	2	DUST CAP	D-STD-165-024	
1	3	RECEPTACLE	E-23866-165-025	
1	4	RECEPTACLE ADAPTER, RIGID		NOTE 14
1	5	RIGID TUBE		NOTE 10
1	6	SEAL PLUG		NOTE 10
1	7	HOUSING		NOTE 10
1	9	BACKGROUND DETECTOR ASSY	E-23866-165-029	NOTE 6
1	10	BULLET NOSE TIP		NOTE 10
1	11	OUTLET THERMOCOUPLE		NOTE 10
1	12	RHODIUM DETECTOR (RH-1) ASSY		NOTE 10
1	13	RHODIUM DETECTOR (RH-2) ASSY		NOTE 10
1	14	RHODIUM DETECTOR (RH-3) ASSY		NOTE 10
1	15	RHODIUM DETECTOR (RH-4) ASSY		NOTE 10
1	16	CENTRAL MEMBER		NOTE 10 & 17



PIN	CONNECT TO
A	ITEM 1 (BACKGROUND)
B	ITEM 2 (RH-1)
C	ITEM 3 (RH-2)
D	ITEM 4 (RH-3)
E	ITEM 5 (RH-4)
F	ITEM 6 (CHROMEL)
G	ITEM 7 (ALUMINUM)
H	SHELL COMMON
J	SPARE
K	SPARE



INDIVIDUAL IDENT NO. IN-CORE INSTRUMENT ASSY	LENGTH K	LENGTH L	CORE COORDINATE LOCATION	FLANGE NO.	OPPD TAG #
E-23866-165-012-1	420 3/8	283 1/8	G-7	5	RC-70-1
2	433 3/8	297 1/8	G-9	3	RC-70-2
3	420 3/8	283 3/4	J-11	3	RC-70-3
4	436 1/8	299 3/8	L-9	2	RC-70-4
5	435 3/8	298 1/8	N-11	2	RC-70-5
6	424 1/8	287 1/8	P-9	1	RC-70-6
7	445 1/8	309 1/8	S-9	6	RC-70-7
8	410 5/8	274 1/8	U-4	6	RC-70-8
9	402 1/8	265 1/8	U-4	6	RC-70-9
10	393 1/8	256 1/8	G-3	5	RC-70-10
11	410 1/8	274 3/8	E-4	5	RC-70-11
12	436 3/8	300 1/8	C-4	4	RC-70-12
13	335	258 1/2	C-7	4	RC-70-13
14	450 3/8	313 1/8	B-9	5	RC-70-14
15	417 1/8	281 1/8	D-9	4	RC-70-15
16	446 1/8	309 1/8	E-11	3	RC-70-16
17	411 1/8	275 1/8	E-14	3	RC-70-17
18	401 1/2	265	G-15	2	RC-70-18
19	401 1/8	265 1/8	J-14	2	RC-70-19
20	410 1/8	273 1/8	N-14	2	RC-70-20
21	434 3/8	297 1/8	R-14	1	RC-70-21
22	403 3/4	267 1/4	S-3	1	RC-70-22
23	438 1/4	301 3/4	T-3	6	RC-70-23
24	393 3/8	256 3/8	S-13	1	RC-70-24
25	410 1/8	273 1/8	B-15	3	RC-70-25
26	392 1/8	256 1/8	B-13	4	RC-70-26
27	428 1/8	292 1/8	A-6	5	RC-70-27
28	441 1/8	304 1/8	L-7	6	RC-70-28



17. MATERIAL FOR ITEM 16 SHALL BE IN THE FULLY ANNEALED CONDITION.
16. THE ASSY FROM ITEM 3 TO 6 SHALL BE HERMETIC. USING CENPS APPROVED SEAL WELD AND/OR BRAZE PROCEDURES.
15. SURFACES AND JOINTS OF ITEM 10 SHALL BE SMOOTH AND FREE FROM SHARP EDGES. POLISH TO $\frac{1}{4}$ OR BETTER.
14. ITEM 3: LITTON NO. CIRQHW-16A-10P-TC.
12. THE ACTUAL CENTER OF THE EMITTERS OF ITEMS 12 THRU 15 MUST FALL WITHIN $\frac{3}{8}$ OF LOCATIONS DEFINED BY DIMENSIONS NOTED "BASIC".
11. THE WRAPPING OF ITEM 7 MAY HAVE A SLOPING EDGE AND A SHARP EDGE. THE SLOPING EDGE SHALL FACE ITEM 10.
10. ITEMS 6, 7, 10 & 16 MUST MEET REQMTS AS NOTED ON DWG NO. D-STD-165-026 IN ADDITION TO THE REQMTS OF THE REFERENCED SPEC.
9. DIMENSIONING & TOLERANCING PER USAS1 Y14.5 1966.
6. CORE OF ITEM 9 CONSISTS OF FULL LENGTH INCONEL 600 SIGNAL CABLE LEAD WIRE (NO EMITTER IN ASSY) ASSY QD. 062.
5. UNLESS OTHERWISE NOTED, ALL DIAMETERS OF ITEM 6 SHALL BE $\frac{1}{4}$ DIA.
4. ELECTROETCH ASSEMBLIES WITH INDIVIDUAL IDENTITY NO., DWG REV., CORE COORDINATE LOCATION NO., FLANGE NO., PURCHASE ORDER NO., AND VENDOR NAME & SERIAL NO. $\frac{1}{8}$ HIGH EXCEPT THAT THE CORE COORDINATE NO.'S ARE TO BE $\frac{1}{4}$ HIGH IN TWO PLACES 180° APART.
3. CHROME PLATE THREADS ON ITEM 6 PER QQ-C-3202, CLASS 2B, .0002-.0008 THICK. ALL DIMENSIONS APPLY AFTER PLATING.
2. PRODUCT TO BE IN ACCORDANCE WITH CENPS SPEC NO. 00000-FA-6106.

E-23866-165-012

ALL ITEMS DEPICTED ON THIS DRAWING ARE WITHIN LICENSE RENEWAL SCOPE.

- DWG. REF'S.
1. DWG. E-23866-165-010 FOR FLANGE ASSEMBLY.
 2. DWG. E-15381-165-054 FOR CABLEING DIAGRAM.

EA-FC-00-134 DF 12/01

FORT CALHOUN STATION PRODUCTION ENGINEERING DIVISION		REV. SH. ----- FILE 49789		APPROVED E.N. 8/11/00		REV. 0		VERIFICATION STATUS: COMPLETE	
UNLESS OTHERWISE SPECIFIED		DIMENSIONS APPLY AT RPT (RPT)		DO NOT SCALE DRAWING		DIMENSIONS UNDER 1/8" ± 1/16" OVER 1/8" ± 1/32"		FRACTION ± 1/16" ± 1/32" ± 1/16"	
BRIEF COMMENTS 1/4" APPROX. R OR CHAMF - FILLETS 1/4" TO 1/8" R		FURNISH 1/2" MATS BRNO IN		ANALYST E.P. W.		CHARGE S.P.		DRAWN BY J.L. W.	
POWER SYSTEMS		COMBUSTION ENGINEERING INC.		NUCLEAR POWER SYSTEMS		CUSTOMER		MAHA PUBLIC POWER DIST	
UNIT NO. 1		UNIT NO. 1		UNIT NO. 1		UNIT NO. 1		UNIT NO. 1	
IN-CORE INSTRUMENT ASSEMBLY		IN-CORE INSTRUMENT ASSEMBLY		IN-CORE INSTRUMENT ASSEMBLY		IN-CORE INSTRUMENT ASSEMBLY		IN-CORE INSTRUMENT ASSEMBLY	
E-23866-165-012		E-23866-165-012		E-23866-165-012		E-23866-165-012		E-23866-165-012	

FOR INFORMATION ONLY

NOTE: THIS PRINT IS TO BE USED FOR THE FCS LICENSE RENEWAL PROJECT ONLY. IT MAY NOT REFLECT THE MOST CURRENT REVISION OF THIS DRAWING.