TASK CLOSE OUT DOCUMENT

Task Scope ______________________________

____

____

To: M. [illegible]
S. [illegible]
E. [illegible]

Task No. __________ Date Complete __________

Reason felt task is complete:

____

____

____

____

Members of Committee

____

____

____

____

____

____

____

____
Signed
Committee Leader

POOR ORIGINAL

160 144

7905220063

April 18, 1979

TO: SPECIAL INSTRUMENTATION
GROUP DISTRIBUTION

The attached is a summary report of the instrumentation diagnostics performed by Combustion Engineering personnel under Lionel Bamus.

Norbert J. Ackermann, Jr.
SIG Coordinator

NA:dr
Attachment

160 145

Instrumentation

Work Summary

4/2 to 4/13/79

3 Mile Island - Unit 2

L. Baker

Combustion Eng.

1\. Following test procedures were accomplished.

2-44 - Incore Instrument Analysis

2-66 - Incore Complement Input Modification

2 - Back up Readout on T/C in Control Room.

Incore Instrument Analysis:

All SPND's were checked for failure. The following SPND's were found functional. See test procedure for data.

8H - BKGD.	8B-1	6-C -1, 2
9P - 1	7B-2	10R - 1, 4
6L - 1, 2	6C-1, 2	1-O - 1
8N - 2, 3	5D - 2	12-D - 1, 2, 3
9N - 1	4E - 1, 2	13-L - 1, 2
11L - 1	3F - 1, 2	13C - 1, 3, 5
12K - 1, 2	2G - 1, 2	
13H - 1, 2	3L - 1, 2	
13G - 2	3M - 2	
11G - 1	4D - 1, 2	
10C - 1, 2		

160 146

Subsubsequent to the test procedure, several of the "good" SPNDs subsequently failed. It is felt that most of the good remaining SPND will fail during long term shutdown

Temperature sensitivity of the failed SPND due to moisture in the cable has not been established. Data analysis of SPND is logged on "CORE" during plant cooldown may show this relationship. It is recommended that SPND signals be trended with RCS temperature during cooldown evolutions

The Movable Detector was energized - driven 3' into the active core region. The detector is failed giving a high current reading. Long term trending showed a response but the down to what is unknown. The Movable Detector was subsequently withdrawn. Attempt to reinsert was unsuccessful. The detector is presently 3 ft below the active fuel. A trend was started on cooldown. The chart recording is still in the machine

160 147

Computer modifications were performed on selected SPND inputs to gain the current such that the computer could read the small (i.e. [illegible] ranging) currents. Test Procedure Z-68 installed 1 MEG. resistors in specific locations. Note that computer print out on these detectors are not true but rather must be reduced by a factor 1/200 to true ranging readings. This is the gain ratio → 5K/1 MEG.

Time Domain Reflectometry was performed on several T/C + SPND's in order to attempt to resolve the location of failure. These attempts were unsuccessful. Benchmark cable lengths were uncertain and pulse return was too feeble to be accurate. Tests of a Unit 1 SPND was attempted to provide a reference. See Leland Douglas report for results.