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Fax

To:	Mr. Wayne Schmidt, NRC	**From:**	Michae Turnicki, Indian Point 2 Station
Fax:	(601) 337-5320	**Pages:**	6, including cover
Phone:	(610) 337-5315	**Date:**	01/31/01
Re:	R2C67 tube information request	**CC:**	NRC 95003 Inspection file

☐ **Urgent** ☑ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:** Wayne, here is the package provided by Jack.. He has informed me the Field Service Report is currently off site but if you need a copy of the applicable pages they could be available when you are here next week. We did not want to hold up this fax.

M.T

11

R2 C67 indication was identified by Westinghouse on June 8, 1997 @ 0440 am. (see attached C-Scan plot)

Also attached is a copy of the analysis log entries for the dates requested. There are no entries regarding S/G-24 R2 C67. Analysis log books are typically process oriented - i.e. what type of work happened, what should happen next, were there any notable problems and any changes in shift status. The reported signal in S/G-24 R2 C67 was a typical U-bend indication and, therefore, from the analysis perspective, not remarkable enough to warrant a log entry.

The daily reports were provided to Con Edison by Westinghouse, but these indication lists were not kept as a permanent record. The daily indication lists are considered an interim informational product and are typically disposed of when the database is final. Con Edison requested Westinghouse to determine if an electronic copy would exist in the computer system. Westinghouse informed Con Edison the daily indication lists were not available. Interim lists were normally overwritten in order to preserve limited hard drive space.

Con Edison Sr. Engineer was informed by Westinghouse on June 8, 1997 that R2 C67 had an axial indication at the center of the U-bend, the axial extent was 0.40 inch or the ID and it was detected by a +Point probe. This was determined by interviews with the Sr. Engineer. As noted above, the daily indication lists were not retained as permanent records. Also, as noted in the attached plugging list, (NRC RAI Letter dated March 24, 2000 response to question 1, Table 14 which shows a complete listing of Steam Generator 24 Tubes Plugged in 1997), R2 C67 was plugged. The exact date of plugging may be located in the 1997 Field Service Report which is not currently located on-site. Retrievablity would delay this response, hence if is not included here. Please advise if this is a required data point.

Sincerely,

J. O. Parry

1/31/01

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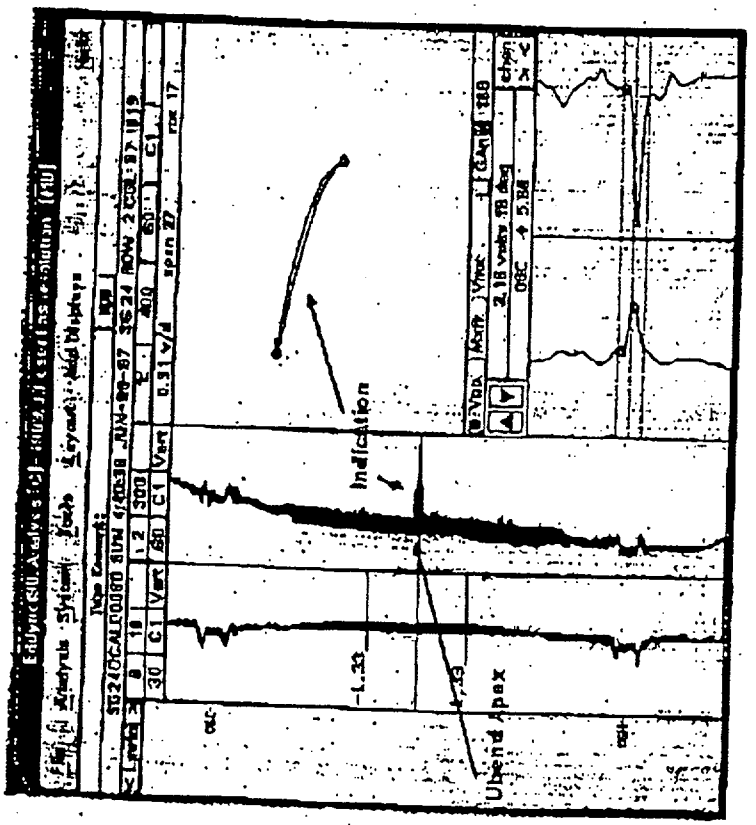
Exhibit 6
R2C67 plus point data for indication reported during 1997
- Lissajous display -



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6/8/97 SHIFT Days

all the Dent reports are on EC167 so if we do any more bobbin please store a copy of the dent report on EC167 handdrive

6-8-97 Night

SG 21 - 680 + Point Tubesheet etc/
SG 22 - 610 Bobbin - 65 tubes
SG 24 - 680 + Point Tubesheet etc/60B

6/9/97

Released two more people after their shift today K. Muller & M. Koens.-

There are No More DAYS OFF

Night SHIFT is to release Two people after their shift tonight.

Released Stark & McChesney

SHIFT SUPERVISOR | SHIFT SUPERVISOR | COORDINATOR

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NRC RAI Letter dated March 24, 2000

Question 1

Provide the inspection results (i.e., number, location, size, type of indications found in all four steam generators) for both the 1997 and 2000 outage inspections. Also, provide a separate list of pluggable indications and reasons for plugging.

Reply

Tables 1, 3, 5, 7, 9, 11, 13, and 15 provide the lists of tubes with indications and types of indications found in 1997 and 2000. Tables 2, 4, 6, 8, 10, 12, 14, and 16 list the tubes plugged and the primary reason for the plugging. Not all tubes were plugged based on pluggable indications. Tubes were also plugged because of restrictions to a 610 probe, the inability to completely analyze the entire length of a tube and administratively for other preventive reasons. The reasons listed for tubes plugged in 1997 are those reported to the NRC after that refueling outage. A review of the tubes plugged for u-bend restrictions concluded that the probes did not pass through the top support plate, and were the result of probe geometry (length), probe cable rigidity, and operator efforts, rather than definite reductions of cross section in the u-bend region of the tubes. The answer to question 11of the RAI, dated April 28, 2000 discusses these restrictions in depth. Table 17 shows the number and types of indications found in all four steam generators in 1997 and 2000.

Table 1 – Steam Generator 21, Indications 1997
Table 2 – Steam Generator 21, Tubes Plugged 1997
Table 3 – Steam Generator 21, Indications 2000
Table 4 – Steam Generator 21, Tubes Plugged 2000
Table 5 – Steam Generator 22, Indications 1997
Table 6 – Steam Generator 22, Tubes Plugged 1997
Table 7 – Steam Generator 22, Indications 2000
Table 8 – Steam Generator 22, Tubes Plugged 2000
Table 9 – Steam Generator 23, Indications 1997
Table 10 – Steam Generator 23, Tubes Plugged 1997
Table 11 – Steam Generator 23, Indications 2000
Table 12 – Steam Generator 23, Tubes Plugged 20000
Table 13 – Steam Generator 24, Indications 1997
Table 14 – Steam Generator 24, Tubes Plugged 1997
Table 15 – Steam Generator 24, Indications 2000
Table 16 – Steam Generator 24, Tubes Plugged 2000
Table 17 – Number and Type of Indications Found During Inspections in 1997 and 2000

Appendix A Abbreviations Used in Tables 1-17

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TABLE 14, Steam Generator 24 Tubes Plugged 1997

Row	Column	Location	Comments*
7	2	0.06 inch above TSH	Cecco TSI
4	6	Center of 6C	VOL
2	7	610 +Point RST @ 6C	Admin/Plug
10	15	1.09 inch above TEC	Roll transition indic.
29	15	Restriction at 6H	610 bobbin restricted
31	15	1.32 inches above TSC	41%
13	17	3.37 inches above TEH	Cecco PI (48%, MAI)
26	17	Within TSP 6C	Cecco SPI
9	25	5.96 inches above TEH	Cecco PI (MAI)
4	26	Top of TSC	Cecco TSI (PIT)
5	28	0.10 inch below TSC	Cecco TSI (PIT)
10	29	5.88 inches above TEH	Cecco PI (MAI)
16	29	2.62 inches below TSH	Cecco PI (VOL)
27	30	9.64 inches above TEH	Cecco PI (MAI)
2	31	Within TSP 5H	Cecco SPI
36	31	Within TSP 3H	Cecco SPI
27	35 In-Situ Tested	5.77 inches above TEH	Cecco PI (MAI, SCI)
27	34 In-Situ Tested	3.00 inches above TEH	Cecco PI (98%, MAI)
44	35	Within TSP 5H	Cecco SPI
35	36	0.14 inch below top of TSH	Cecco TSI
13	40	2.60 inches above TEH	Roll transition indic.
27	43	Within TSP 6H	Cecco SPI
42	47	0.08 inch below TSC	Cecco TSI
16	48	Within TSP 4H	Cecco SPI
4	55	0.30 inch above TSC	Cecco TSI
40	59	610 +Point BDA @ 2H	Admin/Plug
41	63	610 +Point BDA @ 6H	Admin/Plug
2	66	0.8 inch below TSH	Cecco TSI
23	66	Within TSP 6H	Cecco SPI
2	67	Apex of U-bend	SAI
2	76	610 +Point RST @ 5C, 6C	Admin/Plug
8	78	Within TSP 3H	Cecco SPI
8	90	610 +Point BDA @ 2H	Admin/Plug

Note: * Notation in parenthesis indicates a characterization by +Point