



William A. Josiger
Resident Manager

April 25, 1989
IP3-89-034

License No. 50-286
Docket No. DPR-64

Charles E. Rossi, Director
Division of Operational Events Assessment
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

Subject: Indian Point 3 Nuclear Power Plant
NRC Bulletin No. 88-09: "Thimble Tube
Thinning in Westinghouse Reactors"

References: 1. NRC Bulletin No. 88-09: Thimble Tube
Thinning in Westinghouse Reactors, dated
July 26, 1988.

Dear Mr. Rossi:

Reference (1) requested that all addressees 1) establish an inspection program to monitor thimble tube performance addressing acceptable inspection frequencies, methodologies, and thimble tube wear allowances, and 2) establish, document and retain the technical justifications for establishing and implementing the inspection program. Addressees were also requested to implement the inspection program in accordance with the requirements of Reference (1). This letter and Attachment I detail the Authority's actions in response to the bulletin requirements and provides compliance with all applicable actions per Reference (1).

The Authority has established a thimble tube inspection program that includes the criterion of NRC Bulletin 88-09. The first inspections were performed during the current 6/7 Refueling Outage on 46 of 50 thimbles at Indian Point 3 using an Eddy Current Testing (ECT) methodology. Four (4) thimbles will be replaced this 6/7 Refueling Outage due to mechanical damage sustained during the 5/6 Outage and do not require inspection.

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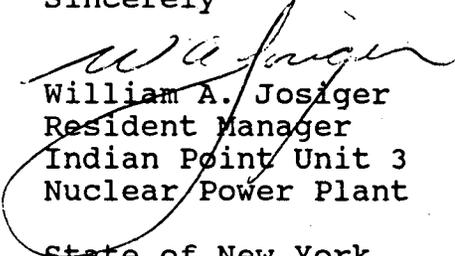
IE18
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Upon inspection completion the data was submitted to Westinghouse Electric Corporation for analysis. Westinghouse's analysis which provides the basis for acceptable thimble tube wear indicated that all 46 thimble tubes inspected were in good condition with wall losses well within Westinghouse's recommended maximum allowable wear criterion of 60%. Results of the thimble inspection are summarized in Attachment I.

A second thimble tube inspection will be conducted during the 7/8 Refueling Outage currently scheduled for late 1990. An appropriate inspection interval subsequent to the 7/8 Refueling Outage will then be determined upon evaluation of inspection data for the thimble tubes. The Authority will retain all inspection program records as required by Bulletin 88-09.

Should you or your staff have any questions regarding this matter, please contact Mr. M. Peckham of my staff.

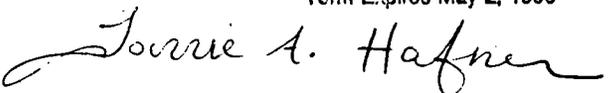
Sincerely


William A. Josiger
Resident Manager
Indian Point Unit 3
Nuclear Power Plant

State of New York
County of Westchester
Subscribed and sworn to before me this

25th day of April 1989

LORRIE A. HAFNER
Notary Public, State of New York
No. 4928710, Dutchess County
Term Expires May 2, 1990



cc: Mr. William T. Russell
Regional Administrator
U.S. Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

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**ATTACHMENT I
RESPONSE TO NRC BULLETIN 88-09
THIMBLE INSPECTION RESULTS**

<u>Core Location (#)</u>	<u>Indicated % Wall Loss</u>	<u>Location of Damage</u>
J-8(1)	No Damage	
J-7(2)	10-22	Below** Lower Core Plate (LCP)
G-9(3)	No Damage	
H-6(4)	No Damage	
F-8(5)	No Damage	
J-10(6)	No Damage	
F-7(7)	Capped - No Inspection	
K-6(8)	4-8 *	Below ** LCP
H-11(9)	No Damage	
L-8(10)	No Damage	
G-5(11)	No Damage	
E-9(12)	5-10	LCP
L-10(13)	17-19	
H-4(14)	No Damage	
D-8(15)	5-20/5-14*	LCP/Diffuser Plate
M-7(16)	5-18	Below ** LCP
G-12(17)	No Damage	
L-11(18)	Fixed Detector - No Inspection	
L-5(19)	Fixed Detector - No Inspection	

* Indicates unrelated deposits or scratches found.

** Damage was below the lower core plate due to previous thimble relocation.

See Figure 1 for wear summary by core location

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<u>Core Location (#)</u>	<u>Indicated % Wall Loss</u>	<u>Location of Damage</u>
E-5(20)	Fixed Detector - No Inspection	
E-11(21)	Fixed Detector - No Inspection	
K-12(22)	No Damage*	
D-10(23)	9-24	Below ** LCP
H-13(24)	Fixed Detector - No Inspection	
N-8(25)	Fixed Detector - No Inspection	
H-3(26)	Fixed Detector - No Inspection	
C-8(27)	Fixed Detector - No Inspection	
C-7(28)	3-15	Core Support Forging
N-6(29)	No Damage *	
F-3(30)	No Damage	
D-12(31)	9-12	LCP
L-13(32)	11-13	LCP
C-5(33)	No Damage	
H-2(34)	No Damage	
B-8(35)	3-10	Core Support Forging
J-14(36)	No Damage	
P-9(37)	7-14	LCP

* Indicates unrelated deposits or scratches found.

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<u>Core Location (#)</u>	<u>Indicated % Wall Loss</u>	<u>Location of Damage</u>
K-2(38)	No Damage	
B-6(39)	No Damage	
F-14(40)	7-10*	Below ** LCP
N-4(41)	No Damage	
D-3(42)	No Damage	
H-51(43)	No Damage	
R-8(44)	No Damage	
N-13(45)	No Damage	
J-1(46)	No Damage	
A-9(47)	Capped - No Inspection	
P-4(48)	No Damage	
D-14(49)	Capped - No Inspection	
R-6(50)	No Damage	
F-1(51)	Capped - No Inspection	
L-15(52)	No Damage	
R-11(53)	10-18	LCP
A-11(54)	No Damage*	
N-14(55)	No Damage	
N-2(56)	No Damage	

* Indicates unrelated deposits or scratches found.

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See Figure 1 for wear summary by core location

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<u>Core Location (#)</u>	<u>Indicated % Wall Loss</u>	<u>Location of Damage</u>
B-3 (57)	No Damage	
B-13 (58)	No Damage	

* Indicates unrelated deposits or scratches found.

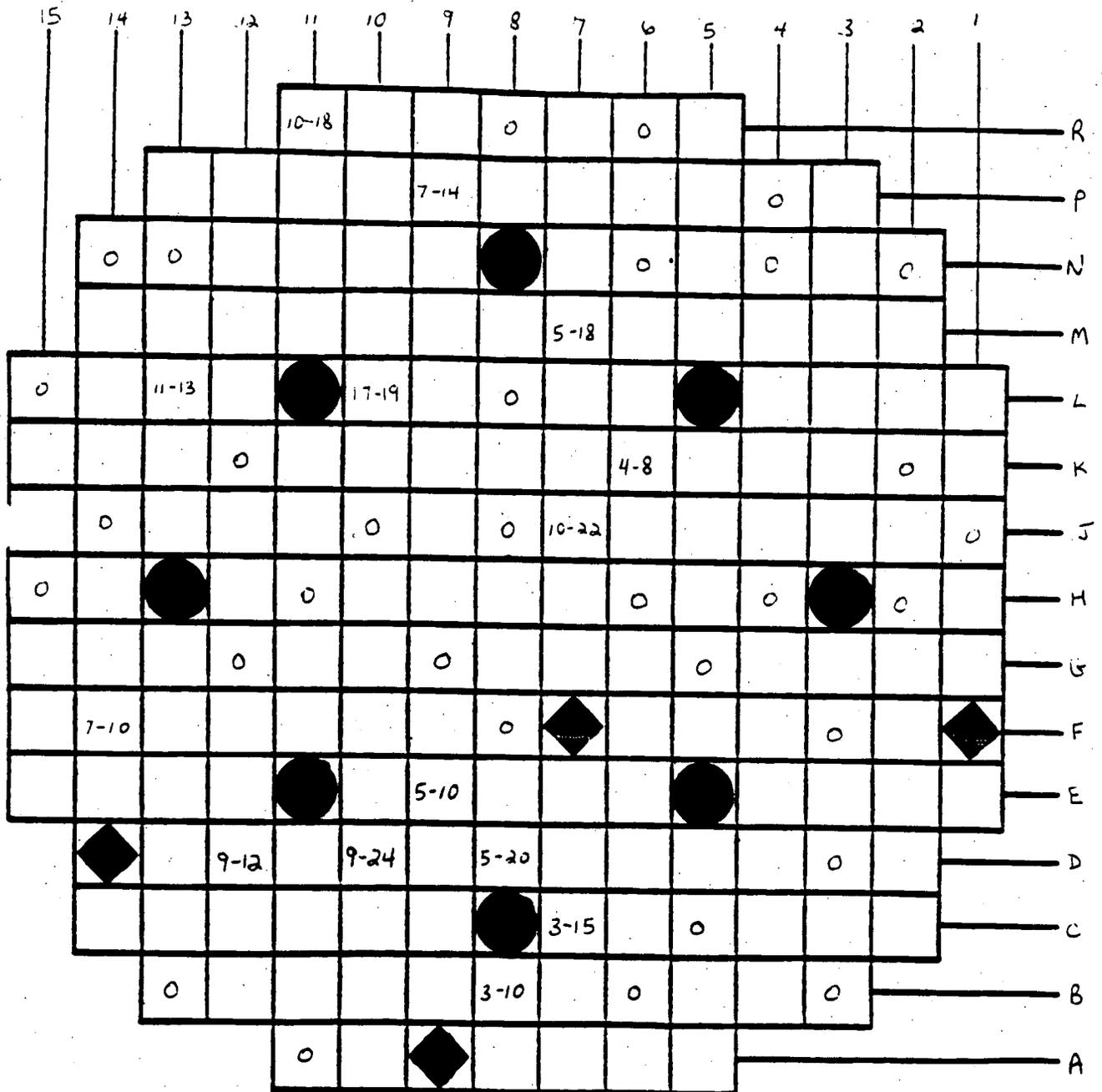
** Damage was below the lower core plate due to previous thimble relocation.

See Figure 1 for wear summary by core location

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THIMBLE INSPECTION RESULTS**

Figure 1

Measured Thimble Wall Loss by Core Location



X-Y RANGE OF WALL LOSS (%)

○ NO DAMAGE

● FIXED DETECTOR THIMBLE

◆ CAPPED MINIHALL DETECTOR THIMBLE