NRC FORM 195 (2-76)

U.S. NUCLEAR REGULATORY COMMISSION

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

DOCKET NUMBER: 50-316

FILE NUMBER:

TO: Mr. Edson G. Case

FROM: Indiana & Michigan Power Company, New York, N. Y., J. A. Tillinghast

DATE OF DOCUMENT: 11/28/77

DATE RECEIVED: 12/12/78

☒ LETTER ☒ NOTORIZED
☒ ORIGINAL ☒ UNCLASSIFIED
☐ COPY

PROP:

INPUT FORM:

NUMBER OF COPIES RECEIVED: 1 SIGNED

DESCRIPTION

Advising that transmitted to NRC 11/28/77 is an analysis of the effects of the rupture of a major feedwater pipe.....notorized 11/28/77.....

ENCLOSURE

PLANT NAME : Cook Unit No. 2

RJL 1/9/78 (2-P)

Dist Pee J. Lee 1/6/78

FOR ACTION/INFORMATION

SAFETY		ENVIRONMENTAL
ASSIGNED AD:		ASSIGNED AD: V. MOORE (LTR)
~~BRANCH CHIEF:~~		BRANCH CHIEF:
PROJECT MANAGER:	MLYNCZAK	PROJECT MANAGER:
LIC. ASST:	J. LEE	LIC. ASST:
		B. HARLESS

INTERNAL DISTRIBUTION

REG FILES	SYSTEMS SAFETY	PLANT SYSTEMS	SITE SAFETY &
NRC PDR	R. MATTSON	TEDESCO	ENVIRON ANALYSIS
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OELD		LAINAS	CRUTCHFIELD
GOSSICK & STAFF	ENGINEERING	IPPOLITO	
HANAUER	KNIGHT	E. ROSA	ENVIRON TECH
MIPC	BOSNAK		ERNST
CASE	SIHWEIL	OPERATING REACTORS	BALLARD
BOYD	PAWLICKI	STELLO	YOUNGBLOOD
		EISENHUT	
PROJECT MANAGEMENT	REACTOR SAFETY	SHAO	SITE TECH
SKOVHOLT	ROSS	BAER	GAMMILL (2)
P. COLLINS	NOVAK	BUTLER	
HOUSTON	ROSZTOCZY	GRIMES	SITE ANALYSIS
MELTZ	CHECK		VOLLMER
HELTEMES			BUNCH
SK	AT & I		J. COLLINS
	SALTZMAN		KREGER
	RUTBERG		

EXTERNAL DISTRIBUTION

LPDR: St Joseph MI	NAT LAB:	
TIC		
NSIC	-	
REG V (J. HANCHETT)		
16 CYS SENT CATEGORY	TO ACRS	

CONTROL NUMBER

MR 4

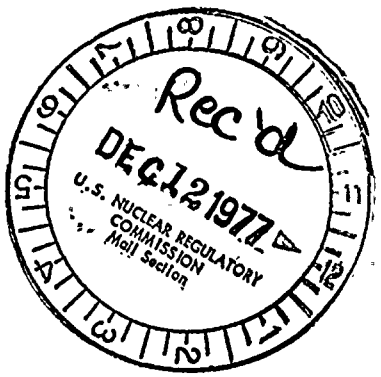
780090122

60

INDIANA & MICHIGAN POWER COMPANY
P. O. BOX 18
BOWLING GREEN STATION
NEW YORK, N. Y. 10004

November 28, 1977

Donald C. Cook Nuclear Plant Unit No. 2
Docket No. 50-316
CPPR No. 61



Mr. Edson G. Case, Acting Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Case:

Transmitted to you today by Westinghouse Electric Corporation in their letter AEW-7039, dated November 28, 1977, are 40 copies of an analysis of the effects of the rupture of a major feedwater pipe for Donald C. Cook Nuclear Plant, Unit No. 2. This information is transmitted in response to NRC Question 212.8 as transmitted by Mr. K. Kniel's letter of April 13, 1977. The information included herein will be included as an amendment to our FSAR at a later date.

Very truly yours,

J. A. Tillinghast
Vice President

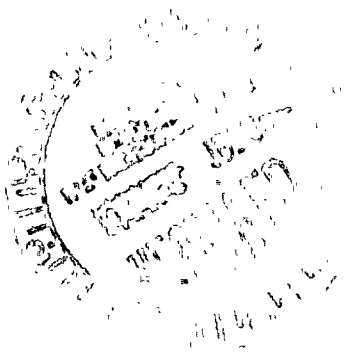
JAT:mg

Sworn and subscribed to before me
on this 28th day of November in
New York County, New York

Kathleen Barry
Notary Public

KATHLEEN BARRY
NOTARY PUBLIC, State of New York
No. 41-4606792
Qualified in Queens County
Certificate filed in New York County
Commission expires March 30, 1979

780090122



cc: G. Charnoff
R. C. Callen
P. W. Steketee
R. Walsh
R. W. Jurgensen
R. J. Vollen
D. V. Shaller - Bridgman

CENTRAL FILES

DEC 28 1977

Docket No. 50-316

American Electric Power Service
Corporation
Indiana and Michigan Power Company
ATTN: Mr. John E. Dolan, Senior
Executive Vice President
Engineering and Construction
2 Broadway
New York, NY 10004

Gentlemen:

Thank you for your final report dated November 2, 1977, pursuant to 10 CFR 50.55(e) regarding valve wall thickness requirements. We completed our review of your final action in regard to this matter during an inspection conducted October 19-21, 1977, (50-316/77-23) and have no further questions.

Your cooperation with us is appreciated.

Sincerely,

R. F. Heishman, Chief
Reactor Construction and
Engineering Support Branch

cc: Mr. D. V. Shaller
Plant Manager

cc w/ltr dtd 11/2/77:
Central Files
Reproduction Unit NRC 20b
PDR
Local PDR
NSIC
TIC
Ronald Callen, Michigan
Public Service Commission
David D. Comey, Executive
Director, Citizens for a
Better Environment

MA 4
GD

OFFICE>	RIII	RIII	RIII			
SURNAME>	Jones/jb	Hayes	Heishman			
DATE>	11/25/77		11/25			

NRC FORM 318 (9-76) NRCM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1976 — 626-624

AMERICAN ELECTRIC POWER Service Corporation

AEP

2 Broadway, New York, N. Y. 10004
(212) 422-4800

JOHN E. DOLAN
Senior Executive Vice President
Engineering

November 2, 1977

Donald C. Cook Nuclear Plant Unit No. 2
Docket No. 50-316

Mr. J. G. Keppler, Regional Director
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

This letter supplements our letters to you of August 4, 1972; October 12, 1972; August 1, 1974; October 22, 1974; and June 26, 1975, all of which were in response to your letter of June 29, 1972 which requested that we provide acceptable documentation of conformance showing that certain specified valves at the Donald C. Cook Nuclear Plant met minimum wall thickness requirements.

Our letter of June 26, 1975 indicated in Item 1 that 121 valves had been ultrasonically tested and found acceptable. Item 2 of this same letter indicated 15 valves had been ultrasonically tested and found to require additional evaluations or repair. Item 3 indicated 8 valves remained to be qualified by Westinghouse and shipped to the Plant.

A comprehensive audit of our valve wall thickness documentation for Unit #2 made by our site QA Department in October 1975 added seven (7) more suspect valves to the list of 15 mentioned above bringing the total number of suspect valves to twenty-two (22) and those found acceptable reduced to 114. Of these suspect valves:

1. Two (2) of the above valves were safety valves, SV-50 and SV-51, whose measured wall thickness was compared to the required thickness for the system design conditions calculated by the Cognizant Engineer and found to be more than adequate for the service. These valves are acceptable.

2. Three (3) of the valves were assumed to be three (3) inch valves when in reality they were two (2) inch valves with three inch increasers welded on. The wall thickness criteria should have been that of a two (2) inch valve which makes all three (3) of these valves acceptable.

3. One (1) valve was found to have two areas where the wall thickness was not less than 90% of the specified minimum. These areas are acceptable based on material strength. One additional area was below 90% of the specified minimum wall and was built up to an acceptable dimension.

4. One (1) valve was found to have been ordered to a rating higher than actually required by service conditions. We have reviewed the service for which this valve is intended and find that the wall thickness of the valve in all instances meets the strength requirements for the service conditions. This valve is acceptable.

5. Four (4) valves were found to have wall thicknesses not less than 90% of the specified minimum wall thickness but for which the physical characteristics of the valve material exceed the specification minimum by an amount sufficient to compensate for the measured reduction in wall thickness. These valves are acceptable.

6. Four (4) valves were reported as having several locations below the minimum wall in the transition area from valve to pipe. It was confirmed that the flow arrow and the dimensions shown on the UT maps were reversed for the inlet and outlet ends of these valves. The valves were procured to have a schedule 40 inlet and a schedule 140 outlet welding ends. Per ANSI B 16.5, the minimum dimension in the transition should never be less than 1.5 tp (tp, nominal pipe wall thickness). Therefore, these valves are acceptable.

7. Seven (7) valves, were found to have thickness below the specified minimum. One of these valves was returned to the manufacturer for wall build-up and the remaining six(6) were repaired on site to bring the wall thickness up to the specified minimum in the deficient areas.

The eight (8) valves were received documented by a Westinghouse Quality Release and maps for each valve showing measured wall thicknesses and acceptance criteria. These valves are acceptable.

During hydro testing eight (8) small check valves (1-1/2" and 2") with seal welded bonnets, which had been accepted, were found to be leaking through the seat. These were replaced with valves of a different design whose wall thicknesses were measured and found acceptable.

This completes our valve wall thickness verification program for Units #1 and 2.

Very truly yours,

John E. Dolan

John E. Dolan
Senior Executive Vice President
Engineering

JED/pw

cc: R. C. Callen
G. Charnoff
R. W. Jurgensen
D. V. Shaller - Bridgman
P. W. Steketee
R. J. Vollen
R. Walsh