NRC FORM 195 (2-76)

U.S. NUCLEAR REGULATORY COMMISSION

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TO:	FROM:	DATE OF DOCUMENT
Mr. Edson G. Case	Indiana & Michigan Power Company New York, N. Y. John Tillinghast	11/18/77
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DESCRIPTION

Consists of additional info concerning the Overpressurization Mitigating System for both units of Cook Nuclear Plant.... notorized 11/18/77....w/att drawings.....

PLANT NAME:
Cook Units 1 & 2 (2-P)+(2-P)

RJL 11/21/77

DISTRIBUTION FOR REACTOR VESSEL INFO FOR NON-OPERATING REACTORS PER H. SMITH 9-8-76

ENCLOSURE

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NRC FORM 195 (2-76)

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

November 18, 1977

Donald C. Cook Nuclear Plant Units 1 & 2
Docket Nos. 50-315 & 50-316
DPR. NO. 58 & 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:

The purpose of this letter is to provide additional information concerning the Overpressurization Mitigating System for both units of Cook Nuclear Plant.

In our letter of August 4, 1977 we indicated, in response to Item No.4, that control room annunciation will be provided for the motor operated valves up-stream of the PORV's to alert the operator if these valves are closed when the mitigating system is enabled. Figure No. 1 provides the revised electrical schematic for the mitigating system annunciators and shows electrical contacts for the "hard-wired" motor operated valve alarms. In addition, this figure shows electrical contacts for a pressure alarm, transmitting to the control room, to alert the operator that the compressed air bottle air pressure is low, as indicated in response to Item 6, of our August 4, 1977 letter. Figure No. 1, is the final version for Overpressurization Mitigating System annunciators and replaces Figure No. 3 of our August 4, 1977 letter.

The Overpressurization Mitigating System (OMS) will be enabled when the Reactor Coolant System pressure reaches 425 psig. This system will actuate the PORV when pressure increases above the system set point of 435 psig as indicated in Attachment 1 of our August 4, 1977 letter.

We will be installing surface thermocouples on each steam generator (SG), above the tube sheet, to measure SG shell side temperature. The SG temperature will be shown on a temperature indicator so that the operator can compare SG temperature to the RCS cold leg temperature for the RCS loop in which a Reactor Coolant Pump (RCP) is to be started. Should the SG temperature exceed the RCS temperature by more than 50°F (ΔT) in a loop, the RCP in that loop will not be started up until ΔT is brought within limits ($\Delta T \leq 50°F$). Figure No. 2 shows the thermocouple locations on the SG. In addition, a spare thermocouple will be installed on each SG. We shall include this ΔT limit in our proposed technical specifications for Donald C. Cook Unit 2 and propose the same technical specification for Unit 1 so that it can be available by the time of installation of the OMS in Unit 1.

Very truly yours,

John Tillinghast
Vice President

Sworn and subscribed to before
me on this 18th day of November 1977
in New York County, New York

Gregory M. Gurican
Notary Public

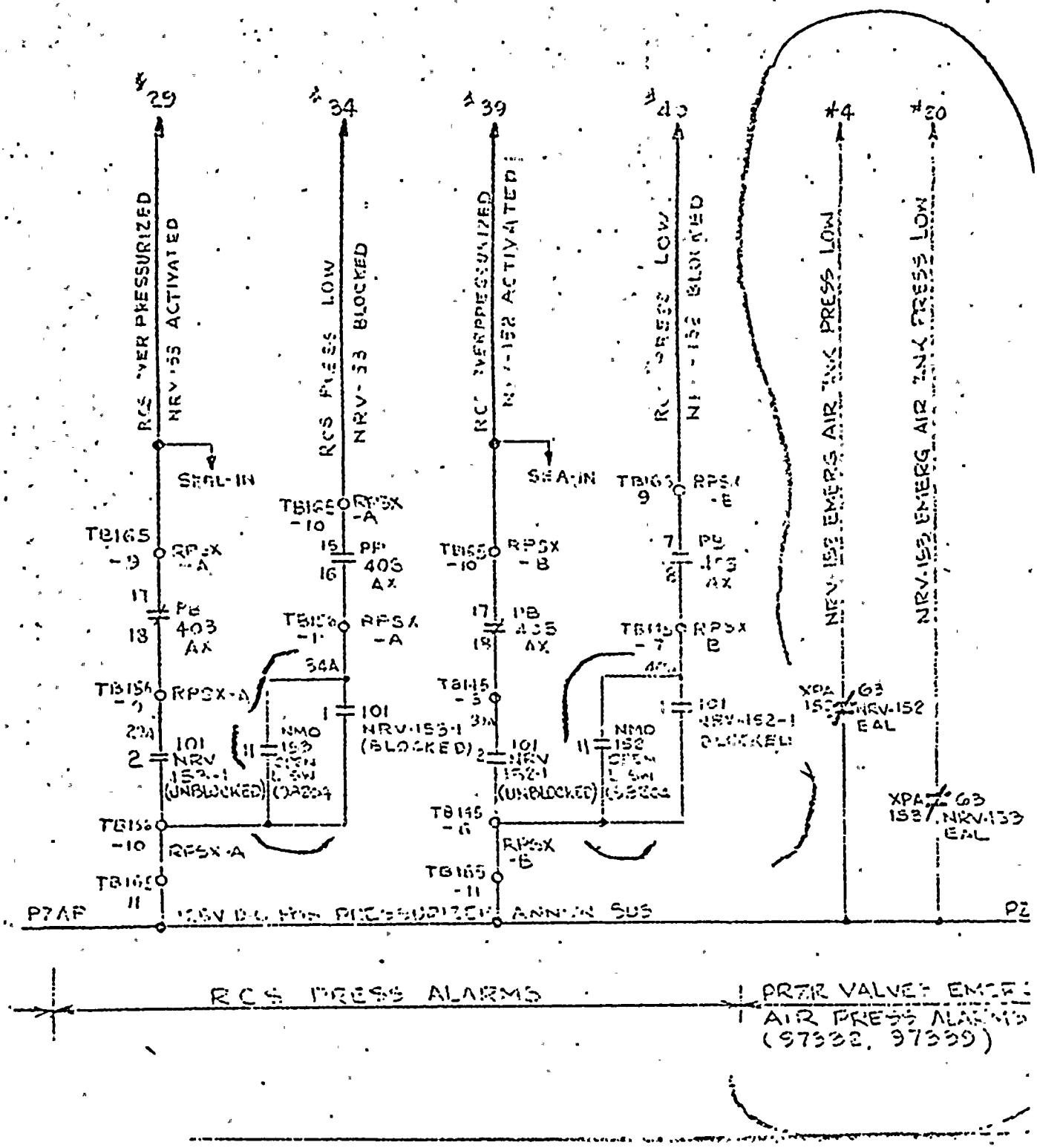
GREGORY M. GURICAN
Notary Public, State of New York
No. 31-4643431
Qualified in New York County
Commission Expires March 30, 19.79

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

DONALD C. COOK NUCLEAR PLANT

FIGURE #1

O.M.S. ANNUNCIATORS



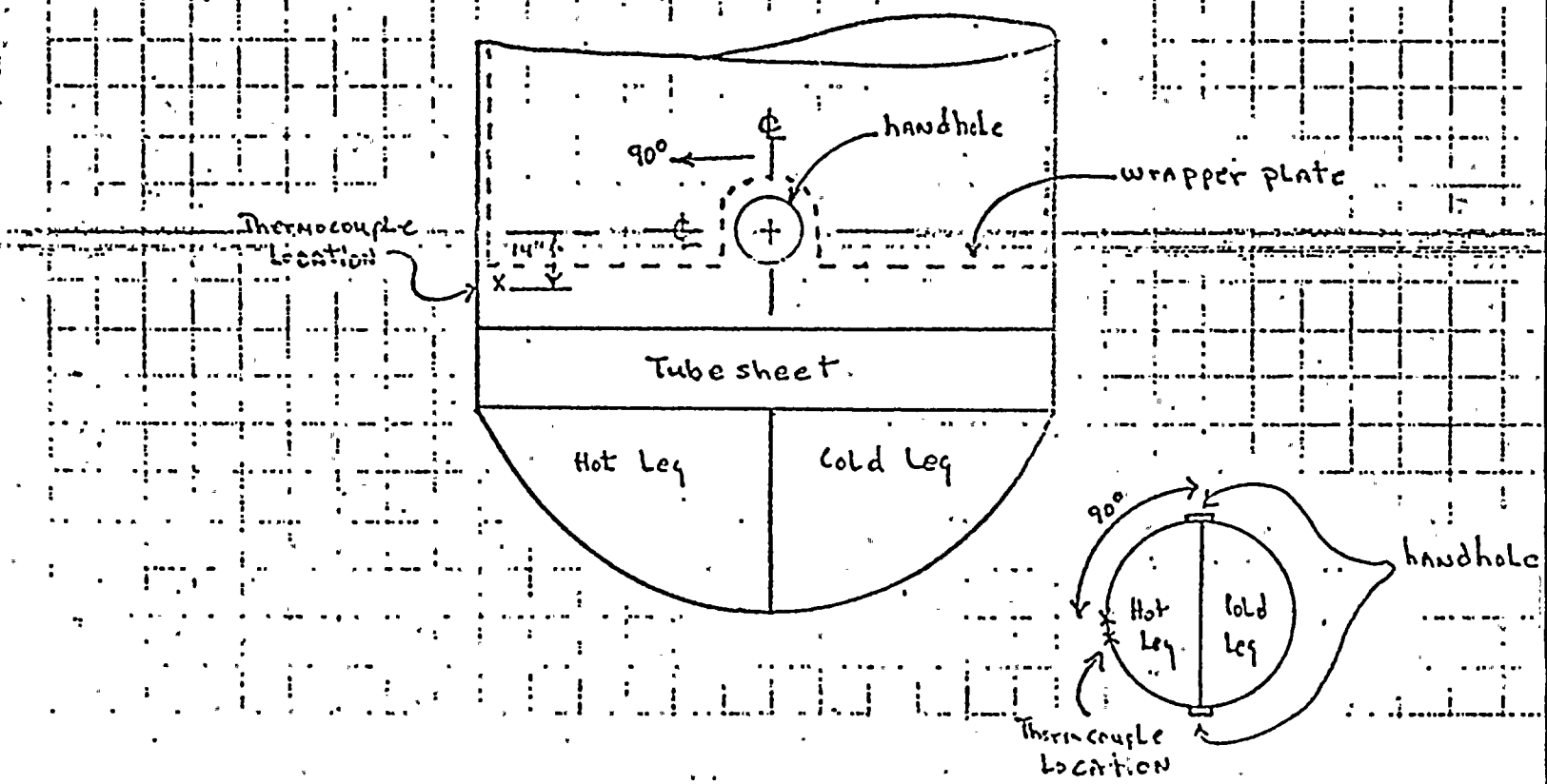
DONALD C. COOK NUCLEAR PLANT

FIGURE #2

SUBJECT Proposed Thermocouple Locations - Steam Generators

Two (2) thermocouples are to be located 14" down from the centerline of the handhole (secondary side) and 90° around the circumference of the steam generator handhole on the hot leg side. One thermocouple should be on the 90° azmuith and the other located 4" away on either side.

To determine the hot leg side of the steam generator visually check to see which side the hot leg pipe enters. This should be located between the two handhole plates. Select a hand hole and measure down 14" from its centerline. Keeping a line of 7" in the same plane locate the first probe 90° away from the handhole on the hot leg side.



Steam Generator Insulation will have to be modified for thermocouple and leads.