

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

Indian Point Unit No. 2

AEC Docket No. 50-247

Investigation of Welds and Pipe
Wall Thickness in Vent and Drain Assemblies

September 26, 1972

8110240333 720926
PDR ADOCK 05000247
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Introduction

On August 25, 1972, as part of the subcritical testing program for Indian Point Unit No. 2, a hydrostatic test of the Reactor Coolant System was conducted. During the test, a small leak developed in Vent S-48⁽¹⁾ in the weld joining the 3/4 inch diameter branch connection to the pipe nipple in the vent line. This minor leak would not have had any effect on orderly reactor shutdown and cooldown, and therefore would not have adversely affected the safe operation of Unit No. 2. Following detection of the leak, the Reactor Coolant System was depressurized, a repair procedure was formulated, and the defective weld was repaired.

Because the leak was found in a 2500 psi system vent line, the non-isolatable vent and drain assemblies in the 2500 psi system were also inspected. Radiographic inspections of these vent and drain assemblies uncovered some deficient conditions not in accordance with specifications; namely, the wall thickness of some pipe nipples, and the type of weld used to attach the branch connection to the header. Subsequently, radiographic inspections of additional non-isolatable and isolatable vent and drain assemblies were undertaken. Some additional instances of the same types of deficient conditions were found during these inspections and

(1) Vent S-48 is a 3/4 inch diameter vent connection in Line 355. Line 355 is a 6-inch diameter safety injection system line which connects to Line 351, a 10-inch diameter safety injection system line connected to the cold leg of Reactor Coolant System Loop 21.

are being corrected. None of these conditions discovered during inspection would have adversely affected the safe operation of Unit No. 2.

Inspection Results

The inspections of isolatable and non-isolatable vent and drain assemblies performed to date have disclosed the deficiencies presented in Table 1 attached hereto. The following deficient conditions were found:

a. Pipe Nipple Wall Thickness

Some of the pipe nipples in the vent and drain assemblies were found to have a wall thickness less than that required by specification.

b. Type of Coupling Attachment Weld

Some of the coupling attachment welds were fillet or partial penetration welds instead of the full penetration welds required by specification.

Corrective Action

The deficient coupling attachment welds are being replaced. Vent connection pipe nipples with wall thicknesses less than that required are being replaced in accordance with specifications.

Safety Implications

These conditions were found in small vent/drain assemblies and would not have adversely affected the safe operation of Indian Point 2. Most of the vent/drain assemblies inspected are isolatable.

If any non-isolatable vent/drain assembly failed during operation, the resultant leak would be within the capability of the Reactor Coolant Makeup System, and would not have prevented orderly reactor shutdown and cooldown.

TABLE 1

<u>Vent/Drain Assembly No.</u>	<u>Design Pressure</u>	<u>*Corrective Actions Required (A,B) /</u>
A-77	600	A & B
A-78	600	A & B
A-79	600	A & B
A-81	600	A & B
A-82	600	A & B
A-83	600	A & B
A-84	600	A & B
A-85	600	A & B
A-87	600	A & B
A-88	600	B
A-89	600	A
C-54	2500	B
C-58	2500	B
C-59	2500	B
C-60	2500	B
C-61	600	B
D-8	2500	B
E-1	600	B
S-12	600	B
S-17	1500	B
S-18	1500	B
S-21	1500	B
S-22	2500	B
S-27	1500	A
S-33	600	B
S-34	2500	B
S-35	600	A & B
S-36	600	B
S-38	600	A & B
S-39	2500	A
S-40	2500	A & B
S-40A	2500	A & B
S-41	600	B
S-42	2500	B
S-43A	2500	B
S-44	600	B
S-45	2500	A & B
S-46	2500	B
S-46A	2500	B
S-47	2500	A
S-48	2500	A
S-49	2500	B
S-51A	600	A & B
S-51B	600	A & B
S-52	2500	B
S-53	2500	B

* A - Replacement of thin-wall pipe nipple required

B - Replacement of coupling attachment weld required