



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

November 17, 1976

50/261

DOCKET NOS.: 50-344, 50-213, 50-315, 50-244, 50-247, 50-286, 50-305,
50-266, 50-301, 50-282, 50-306, 50-261, 50-295, 50-304,
50-206, 50-280, 50-281, 50-250, 50-251, and 50-334.

LICENSEE/FACILITY:

ROCHESTER GAS & ELECTRIC CORPORATION (R. E. GINNA)
CONSOLIDATED EDISON COMPANY (INDIAN POINT UNITS 2 & 3)
DUQUESNE LIGHT COMPANY (BEAVER VALLEY UNIT 1)
CONNECTICUT YANKEE ATOMIC POWER COMPANY (HADDAM NECK)
WISCONSIN PUBLIC SERVICE CORPORATION (KEWAUNEE)
WISCONSIN ELECTRIC POWER COMPANY (POINT BEACH UNITS 1 & 2)
NORTHERN STATES POWER COMPANY (PRAIRIE ISLAND UNITS 1 & 2)
CAROLINA POWER LIGHT COMPANY (H.B. ROBINSON)
SOUTHERN CALIFORNIA EDISON COMPANY (SAN ONOFRE)
VIRGINIA ELECTRIC & POWER COMPANY (SURRY UNITS 1 & 2)
PORTLAND GENERAL ELECTRIC COMPANY (TROJAN)
FLORIDA POWER & LIGHT COMPANY (TURKEY POINT UNITS 1 & 2)
COMMONWEALTH EDISON COMPANY (ZION UNITS 1 & 2)
INDIANA & MICHIGAN POWER COMPANY (D.C. COOK, UNIT 1)

SUMMARY OF MEETING HELD ON NOVEMBER 4, 1976, CONCERNING PROPOSED MEASURES TO PREVENT REACTOR VESSEL OVERPRESSURIZATION IN OPERATING WESTINGHOUSE (PWR) FACILITIES.

On November 4, 1976, we met with representatives of PWR licensees with Westinghouse designed plants to discuss measures being taken to prevent reactor vessel overpressurization.

A list of attendees is attached.

Significant discussions are summarized below.

We summarized the correspondence and discussions that have occurred with the Westinghouse licensees since our generic letter on reactor vessel overpressurization was issued in August 1976. We then identified the criteria listed below as those that should be applied in the design of equipment which is to prevent pressure transients that would exceed the limits of Appendix G to 10 CFR §50.

memo
4

Meeting Summary for
W plants

- 4 - November 17, 1976

Docket File

NRC PDR

LOCAL PDR

ORB#1 Reading

NRR Reading

B. C. Rusche

E. G. Case

V. Stello

K. R. Goller

D. Eisenhut

T. J. Carter

A. Schwencer

D. Ziemann

G. Lear

R. Reid

R. Clark

L. Shao

R. Baer

W. Butler

B. Grimes

Project Manager

Attorney, OELD

OI&E (3)

S. M. Sheppard

Participants (NRC)

R. Fraley, ACRS (16)

T. B. Abernathy

J. R. Buchanan

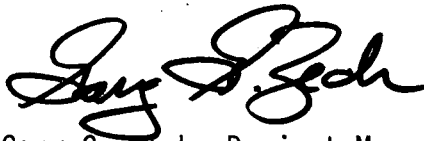
9

1. Credit of Operator Action - No credit can be taken for operator action until 10 minutes after the operator is aware that a pressure transient is in progress.
2. Single Failure Criteria - The pressure protection system should be designed to protect the vessel given a single failure that initiates the pressure transient. In this area, redundant or diverse pressure protection systems would be considered as meeting the single failure criteria.
3. Testability - The equipment design should include some provision for testing on a schedule consistent with the frequency that the system is used for pressure protection.
4. Seismic Design and IEEE 279 Criteria - Ideally, the pressure protection system should meet both seismic Category I and IEEE 279 criteria. The basic objective, however, is that the system should not be vulnerable to an event which both causes a pressure transient and causes a failure of equipment needed to terminate the transient.

Representatives of the task group of Westinghouse utilities formed to evaluate the problem of reactor vessel overpressurization provided a description of the steps they have taken to respond to the requirements set forth in our August 1976 letter. A summary was given of the various types of Thermal and mass input transients being considered, and it was indicated that a "bounding" analysis is being performed to consider the worst case situation for all Westinghouse plants. The preliminary results of the mass input analysis show that the pressurizer power relief valves have both the capacity and time response characteristics to limit the resultant pressure surges. The task group, however, indicated that a more detailed analysis would be necessary in the case of the pump-start or thermal type of transient before any similar determination could be made. The detailed plant specific analyses are not scheduled for completion for about six months. Since the power operated relief has evidently been selected by the licensees as the means to limit pressure transients, we urged that efforts be made to begin ordering the necessary equipment now rather than waiting 6 months for the plant specific analyses results. We also urged that the licensees concurrently investigate other factors such that installation times can be minimized. The licensees' task group agreed to look into these matters.

November 17, 1976

We indicated that the "single failure" criteria being assumed by the licensees was not consistent with the conventional single failure criteria required by the staff. The licensee agreed to examine this area further and to provide justification for any deviations from the conventional single failure criteria. This information as well as a discussion of the various administrative measures that the licensees intend to use to prevent pressure transients while shutdown are to be prepared with a target date of submittal to the staff by December 3, 1976.



Gary G. Zech, Project Manager
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
List of Attendees

NRC STAFF MEETING WITH WESTINGHOUSE PWR LICENSEES

NOVEMBER 4, 1976

ATTENDANCE LIST

NRC

G.G.Zech
R.L.Baer
G.Lanik
L.B.Marsh
J.E.Ouzts
T.J.Carter
I.Villalva
W.A.Paulson
S. Israel
J.Mazetis
D.Tibbitts
D. Neighbors
W.T.Russell
M.B.Fairtile
R.J.Cook
P.B.Erickson
P.E.Harmon
J.Stosnider
R.M.Gamble
R.Clememson
M.Grotenhuis
D.Hood
W.Pike
R.W.Klecker
J.Wetmore
M.Fletcher
T.Wambach

CAROLINA POWER & LIGHT
CO.

D.B.Waters
R.G.Black

SOUTHERN CALIFORNIA EDISON

W.C.Moody

NUSCO

B.Ilberman
M.Kupinski
P.F.Santoro

CONNECTICUT YANKEE ATOMIC
POWER CO.

J.Levine

DUKE POWER CO.

R. W. Revels
E. M. Geddie, Jr.

VIRGINIA ELECTRIC & POWER CO.

D. W. Speidell, Jr.
A. L. Hogg, Jr.

ALABAMA POWER CO.

J. R. Campbell

COMMONWEALTH EDISON CO.

T.R.Tramm
E.E.O'Brien
W.A.Wogsland

CONSOLIDATED EDISON CO.

C.W.Jackson
P.M.Pivawer
J.Makepeace

POWER AUTHORITY OF THE
STATE OF NEW YORK

P.F.Altern
J.M.Vargas

WISCONSIN ELECTRIC POWER CO.

R. A. Newton

WISCONSIN PUBLIC SERVICE CORP

M.E.STERN

ROCHESTER GAS & ELCTRIC

R.W.Elias
B.A.Snow

AMERICAN ELECTRIC POWER

P.W. Daley
R.L. Shoberg
J.G. Dell Perico

DQUESNE LIGHT COMPANY

S. R. Porter
J. J. Carey

Attendance List

- 2 -

FLORIDA POWER & LIGHT

C.S.Pillar
M.A.Schopmann

WESTINGHOUSE - PWRSD

W. G. Poulson
F. Gilgliotti
H. Gutzman
A. M. Sklencar
R. W. Fleming
R. C. Jenkner

NOTHERN STATES POWER CO.

L. L. Taylor

PUBLIC SERVICE E&G CO.

L.K.Miller

SOUTHERN COMPANY SERVICES, INC.

J. R. Lyons

PORTLAND GENERAL ELECTRIC CO.

D. I. Herbon

SNUPPS

F. Schwoerer