



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

NOV 15 1976

DOCKETS NOS.: 50-255, 50-317, 50-285, 50-336, 50-309, AND
50-335

LICENSEE/FACILITY: BALTIMORE GAS & ELECTRIC COMPANY (CALVERT CLIFFS UNIT NO. 1)
OMAHA PUBLIC POWER DISTRICT (FT. CALHOUN)
YANKEE ATOMIC ELECTRIC COMPANY (MAINE YANKEE)
NORTHEAST NUCLEAR ENERGY COMPANY (MILLSTONE UNIT NO. 2)
CONSUMERS POWER COMPANY (PALISADES)
FLORIDA POWER & LIGHT COMPANY (ST. LUCIE UNIT NO. 1)

SUMMARY OF MEETING HELD ON NOVEMBER 3, 1976, CONCERNING THE SUBMISSION
OF PROPOSED MEASURES TO PREVENT REACTOR VESSEL OVERPRESSURIZATION IN
OPERATING COMBUSTION ENGINEERING (PWR) FACILITIES

On November 3, 1976, the staff met with representatives of PWR licensees
with Combustion Engineering (CE) 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
between the staff and the CE licensees since our generic letter on
reactor vessel overpressurization was issued in August 1976. We re-
affirmed our requirement that the licensees must provide, by December 3, 1976,
a generic analysis of the transients that could occur at the CE plants
along with the basic design modifications that the licensees are con-
sidering to provide pressure protection. The licensees indicated that
comments on a proposed generic model will be provided to CE about
November 10, 1976, and that they expect the results of the transient
analysis by December 3, 1976. They also indicated, however, that they
had not yet determined what design modifications would be necessary.
The transient analysis will be applicable to each of the CE licensees
with the exception of Maine Yankee which intends to submit its proposals
separately. We then identified the below listed criteria as clearly
acceptable and stated that design deviations should be justified by
presenting technical bases or installation impacts.

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1. Credit for 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 in addition to a failure that initiated 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 protective 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.

The CE licensees indicated that they had not planned their design such that it could suffer a failure over and above the initiating event (operator error or equipment malfunction) causing the pressure transient. We indicated that any deviation from the single failure criteria given must be fully justified by the licensees.

The lead times necessary for procurement of valves and other quality equipment that might be needed for design modifications were discussed. We requested that the licensees include in their submittals, the potential impact these lead times might have on the implementation dates of any design modifications.

Maine Yankee representatives indicated that they expect to meet their Appendix G limits with existing equipment and would propose design changes after about five years at which time irradiation effects on their reactor vessel would cause the Appendix G limits to be more restrictive. The staff indicated that this approach would be acceptable.

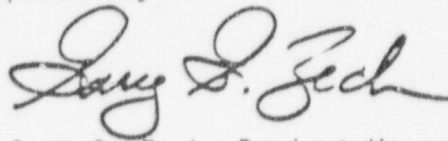
NOV 15 1976

The other CE licensees who comprise the task group stated that they intend to use as their reference the Appendix G limits based on 2 to 10 Effective Full Power Years of irradiation. If the surveillance capsules examined in the interim require more restrictive limits for the remainder of the plants' lifetime, they would then propose additional design modifications.

The CE owners group members (Maine Yankee excluded) indicated that they would take into consideration the criteria provided by the staff and would submit the results of the generic transient analysis by December 3, 1976. The basic design modifications being considered to provide the pressure protection needed will also be described. The plant-specific analyses will commence as soon as the results of the results of the generic analysis are available and the details of each plants' design modifications will then be submitted to the staff for review.

The Maine Yankee representatives indicated that they will provide the transient analysis and details of any design modifications required by December 3, 1976.

Each licensee provided information as to the status of implementation of the interim measures to reduce the likelihood of an overpressurization event. For those not yet implemented, the licensees agreed to inform their respective project managers when they were completed. In addition, the staff agreed to advise each licensee if they had questions about their interim measures, or their acceptability.



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

Attachment:
List of Attendees

Meeting Summary for
CE Plants

- 4 -

November 15, 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

NRC STAFF MEETING WITH
COMBUSTION ENGINEERING (PWR) LICENSEES

NOVEMBER 3, 1976

ATTENDANCE LIST

NRC

G. G. Zech
R. L. Baer
C. H. Berlinger
G. Lanik
L. B. Marsh
E. A. Reeves
F. Clemenson
B. Hardin
B. Buckley
R. Gamble
R. Silver
J. Matzetic
J. E. Ouzts
J. A. Dyer
D. M. Elliott

OMAHA PUBLIC POWER DISTRICT

K. J. Morris
D. D. Wittke

NUSCO

B. Ilbermann
P. Santoro
W. E. Terry
M. Kupinski
J. J. Kelley

LOWENSTEIN, NEWMAN, REIS & AXELRAD

M. A. Bauser

BALTIMORE GAS & ELECTRIC COMPANY

L. J. Lehman, Jr.
L. B. Russell
R. C. L. Olson

YANKEE ATOMIC ELECTRIC COMPANY

J. Chapman
D. K. Harding
R. P. Shone
G. Kingston
P. L. Anderson

CONSUMERS POWER COMPANY

D. A. Bixel
D. P. Hoffman

FLORIDA POWER & LIGHT COMPANY

C. S. Pillar
N. Ramek
M. Schoppman

COMBUSTION ENGINEERING

P. W. Kruse
L. Fitch
R. S. Daleas
J. R. Luttrell
F. G. King
J. Olsen