



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

APR 1 1981

Docket No. 50-155

LICENSEE: Consumers Power Company

FACILITY: Big Rock Point Plant

SUBJECT: SUMMARY OF MEETINGS WITH CONSUMERS POWER COMPANY HELD
ON MARCH 17 AND 18, 1981 TO DISCUSS THE BIG ROCK POINT
PROBABILISTIC RISK ASSESSMENT

On March 17 and 19, 1981, the NRC staff met in Bethesda, Maryland with representatives of Consumers Power Company and their consultants. The purpose of the meetings was to discuss the results of the licensee's Probabilistic Risk Assessment (PRA) of the Big Rock Point Plant. A list of attendees is enclosed (Enclosure 1).

The licensee explained that the motivation for the PRA study was their concern regarding projected capital expenditures at the Big Rock Point Plant. These expenditures are exceeding six million dollars per year whereas the licensee's analysis shows that the economic break even point, depending on number of years of plant operation, is between one and four million dollars per year. Consumers Power Company feels that they cannot spend significant sums of money on solutions that provide little or no increase in safety for the Big Rock Point Plant.

The PRA study objectives were:

1. Perform a comprehensive and systematic evaluation of plant safety.
2. Maintain technical objectivity in this effort.
3. Explore means of reducing plant risk.
4. Evaluate effectiveness of regulatory issues using PRA.
5. Develop a cost effective risk management program for Big Rock Point.

The licensee has stated that the PRA indicates that there are some highly cost-effective actions that can be taken to reduce risk. These modifications, if implemented, would reduce the frequency of core damage events (currently about 9.8×10^{-4} per year) by a factor of 15 to 20.

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The licensee will submit the PRA on March 31, 1981. PRA-based documentation for deferral of certain regulatory requirements, including certain NUREG-0737 items, will also be submitted on March 31, 1981. The licensee wants a "provisional acceptance" from the NRC which involves our agreement to defer those items requested by the licensee pending the completion of our detailed review of the PRA. A "provisional acceptance", if agreed to by the NRC, would imply approval of PRA-based licensing decisions for the Big Rock Point Plant. Some of the NUREG-0737 items that Consumers Power Company identified as being directly affected by PRA are:

- II.B.2 Design Review of Plant Shielding and Environmental Qualification of Electrical Equipment for Spaces/ Systems which may be used in Post-Accident Operations
- II.B.3 Post-Accident Sampling Capability
- II.F.2 Instrumentation for Detection of Inadequate Core Cooling
- II.K.3.14 Isolation of Condensers on High Radiation
- II.K.3.19 Interlock on Recirculation Pumps Loops
- III.A.1.2 Upgrade Emergency Support Facilities (NUREG-0696)
- III.D.3.4 Control Room Habitability

Other issues identified by the licensee as being affected by PRA include electrical equipment qualification, fire protection, systematic evaluation program, generic issues, and IE Bulletins.

If the NRC provides "provisional acceptance" of the licensee's position, Consumers Power Company will initiate detailed design activities on PRA-recommended modifications. Implementation of the PRA-recommended modifications would be accomplished following NRC's completion of the review of the PRA.

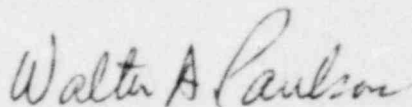
The licensee discussed the PRA methodology, risk outliers, and the proposed short term plan (application to NUREG-0737 and other items). If the Big Rock Point PRA is accepted by the NRC, the licensee plans to maintain the PRA through updating as better data become available.

The licensee did not do an independent detailed quantification of the probability of failure to scram; rather, a value of 3×10^{-5} was used based on NUREG-0460. The NRC staff stated that the licensee should review

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this value of failure to scram especially considering the Commission paper (SECY 80-409, September 4, 1980) on BWR scram system experience.

The viewgraphs used during the presentations are enclosed (Enclosure 2).



Walter A. Paulson, Project Manager
Operating Reactors Branch #5
Division of Licensing

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MEETING SUMMARY DISTRIBUTION

Docket files
NRC PDR
L PDR
ORB#5 reading
T. Novak
R. Tedesco
G. Lainas
G. Zech
J. Heitemes, AEOD
S. Varga
T. Ippolito
R. Clark
J. Stolz
B. Youngblood
A. Schwencer
F. Miraglia
D. Crutchfield
W. Russell
J. Olshinski
W. Paulson
OELD
OI&E(3)
H. Smith
ACRS(16)
S. Israel
A. Thadani
B. Hardin
H. Levin
R. Snaider
G. Lanik
J. Mazetis
F. Skopec
R. Scholl
B. Glordin
A. El-Bassioni
NSIC
TERA

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Mr. David P. Hoffman

cc
Mr. Paul A. Perry, Secretary
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Judd L. Bacon, Esquire
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Joseph Gallo, Esquire
Isham, Lincoln & Beale
1120 Connecticut Avenue
Room 325
Washington, D. C. 20036

Peter W. Steketee, Esquire
505 Peoples Building
Grand Rapids, Michigan 49503

Alan S. Rosenthal, Esq., Chairman
Atomic Safety & Licensing Appeal Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. John O'Neill, II
Route 2, Box 44
Maple City, Michigan 49664

Charlevoix Public Library
107 Clinton Street
Charlevoix, Michigan

Chairman
County Board of Supervisors
Charlevoix County
Charlevoix, Michigan 49720

Office of the Governor (2)
Room 1 - Capitol Building
Lansing, Michigan 48913

Director, Criteria and Standards
Division
Office of Radiation Programs
(ANR-460)
U. S. Environmental Protection
Agency
Washington, D. C. 20460

U. S. Environmental Protection
Agency
Federal Activities Branch
Region V Office
ATTN: EIS COORDINATOR
230 South Dearborn Street
Chicago, Illinois 60604

Herbert Grossman, Esq., Chairman
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. Oscar H. Paris
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Frederick J. Shon
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Big Rock Point Nuclear Power Plant
ATTN: Mr. C. J. Hartman
Plant Superintendent
Charlevoix, Michigan 49720

Christa-Maria
Route 2, Box 108C
Charlevoix, Michigan 49720

William J. Scanlon, Esquire
2034 Pauline Boulevard
Ann Arbor, Michigan 48103

Resident Inspector
Big Rock Point Plant
c/o U.S. NRC
RR #3, Box 600
Charlevoix, Michigan 49720

Mr. Jim E. Mills
Route 2, Box 108C
Charlevoix, Michigan 49720

Thomas S. Moore
Atomic Safety & Licensing Appeal Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. David P. Hoffman

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CC

Dr. John H. Buck
Atomic Safety and Licensing Appeal Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Ms. JoAnn Bier
204 Clinton Street
Charlevoix, Michigan 49720

ATTENDANCE LIST

MEETING MARCH 17, 1981

NRC AND CONSUMERS POWER COMPANY

(BIG ROCK POINT)

<u>NAME</u>	<u>AFFILIATION</u>
W. Paulson	NRC
Frederick Buckman	Consumers Power
Gregory C. Withrow	Consumers Power
S. Israel	NRC
David Leaver	Wood-Leaver & Assoc.
Milan Stewart	EG&G Idaho, Inc.
Fred Balkovetz	EG&G Idaho, Inc.
David Vandewalle	Consumers Power
Patrick Donnelly	Consumers Power
Ashok Thadani	NRC/DST
David Blanchard	Consumers Power
John Thompson	Science Applications
Brad Hardin	NRC/RSB
James vonHerrmann	Wood-Leaver & Assoc.
Wes Brinsfield	Science Applications, Inc.
Anthony Tome	Science Applications, Inc.
Paul Wood	Wood-Leaver & Assoc.
Howard Levin	NRC/DE
Dennis Crutchfield	NRC/DL/C-ORB#5
Richard Snaider	NRC/DL/ORB#5
George Lanik	NRC/AEOD
Rossell B. DeWitt	CPCo
Kenneth D. Brienzo	CPCo
R.A. Vincent	CPCo
Bob Marusich	CPCo
Jerry Mazetis	NRC/NRR/RSB
G. Lainas (am)	NRC/AD-SA:DL
F. Skopec (pm)	NRC/
R. Scholl (parttime)	NRC/SEPB

ATTENDANCE LIST

MEETING ON MARCH 18, 1981

NRC AND CONSUMERS POWER COMPANY

(BIG ROCK POINT)

NAME

AFFILIATION

W. Paulson	NRC/ORB#5
S. Israel	NRC
D. Crutchfield	NRC/DL/C-ORB#5
B. Glordin	NRC
Paul Wood	Wood-Leaver & Assoc.
Fred Balkovetz	EG&G Idaho, Inc.
C.F. Obenchain	EG&G Idaho, Inc.
Bob Marusich	CPCo
Pat Donnelly	CPCo
David Leaver	Wood-Leaver & Assoc.
R.A. Vincent	CPCo
Anthony Tome	Science Applications
Wes Brunsfield	SAT
Ken Brienzo	CPCo
David Blanchard	CPCo
David VandeWalle	CPCo
A. Thadani	NRC
A. El-Bassioni	NRC

ENCLOSURE 2