

February 3, 1981



SECY-81-86

## ADJUDICATORY ISSUE

(Notation Vote)

For: The Commissioners

From: Martin G. Malsch  
Deputy General Counsel

Subject: REVIEW OF DIRECTOR'S DENIAL OF 2.206 PETITION  
(IN THE MATTER OF CONSUMERS POWER COMPANY OF MICHIGAN)

Facility: Big Rock Point Nuclear Power Plant

Purpose: To inform the Commission of a Director's Decision under 10 CFR 2.206, which, in our opinion,

Review Time Expires: February 13, 1981 (as extended).

Discussion: The Big Rock Point Nuclear Power Plant had been shut down for modifications arising from the TMI Lessons Learned requirements. By letter dated November 4, 1979, Ms. JoAnn Bier and Ms. Shirley Johnson, concerned citizens living near the plant, requested that the facility not be permitted to restart even after implementation of those requirements. Mr. Denton responded to their requests, stating that the petitions were not received before restart of the plant, and explaining that they would be treated under 10 CFR 2.206. Notice was published to that effect in the Federal Register, 44 Fed. Reg. 71489 (Dec. 11, 1979). On January 6, 1980, petitioners supplemented their initial request, repeating most of their previous claims. By letter dated March 5, 1980, Mr. Denton denied, for the most part, the requests insofar as they concerned restart of the plant but indicated that final responses were unavailable without

Information in this record was deleted  
in accordance with the Freedom of Information  
Act, exemptions 5  
FOIA 92-436

CONTACT:  
Richard A. Parrish, OGC  
634-3224

9303160245 921207  
PDR FOIA  
GILINSK92-436 PDR

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further evaluations in several areas.

Commissioner Gilinsky did request that the staff more thoroughly address the issue of repetitive malfunction of containment isolation valves. The staff responded to the Commissioner's concerns in a memorandum dated April 25, 1980. [Attachment 4.]

Evaluation of the issues raised in the petitions has now been completed and reflects staff satisfaction with progress made in accordance with the TMI Action Plan. By letter dated December 18, 1980, Mr. Denton issued a final denial of petitioners' request. The bases for the Director's Denial were further explained in a letter dated January 29, 1981.

The two request letters raised nine distinct issues concerning specific safety matters and compliance with NRC regulations. They are listed with Mr. Denton's response as follows:

1. Petition Demand: Adequate evacuation plans.

Director's Response: Approved Emergency Plan conforms to previous regulations. Revised plan, submitted pursuant to regulations generally effective as of November 3, 1980, currently undergoing review which has been satisfactory to this point. There are no special circumstances requiring immediate action.

2. Petition Demand: Accountability for diffuser pieces in reactor vessel.

Director's Response: All plates and bolts were accounted for; worn pieces replaced during shutdown.

3. Petition Demand: Design alteration of reactor vessel level instrumentation.

Director's Response: Staff concluded design alteration of instrument adequate (copy of license amendment was enclosed with the March 5, 1980, partial denial).

4. Petition Demand: Sufficient biological shield.

Director's Response: Shielding being upgraded as result of TMI Lessons Learned. Delay in completion is consistent with compliance schedule approved by the Commission as indicated in NUREG-0737, "Clarification of TMI Action Plan Requirements. Current operation deemed reasonable in light of safety evaluation and present improvements in location of vital areas and radiation protection therein.

- 5/6. Petition Demand: Resolution of specific valve malfunctions, especially regarding containment isolation valves.

Director's Response: Licensee undertook corrective measures where necessary. Staff judgment is that these malfunctions do not indicate significant pattern of valve failures and that plant shutdown is therefore not required. Staff will continue to monitor the operation and testing of these valves.

7. Petition Demand: Ability to withstand bomber crash.

Director's Response: Air Force no longer uses facility area for training exercises and deems chance of crash remote. Staff satisfied upon review of documentation. Flight patterns recently adjusted to pass at greater distance from plant.

8. Petition Demand: Compliance with NRC Fire Protection requirements.

Director's Response: Licensee in process of compliance; staff satisfied that continued plant operation warranted by improvements to date, will monitor progress. Revised regulations regarding fire protection which become effective February 17, 1981 will be applicable to this facility.

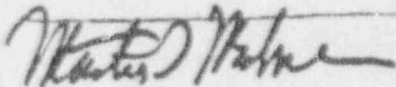
9. Petition Demand: Compliance with NRC orders after Oyster Creek loss of feedwater transient.

Director's Response: Staff satisfied with licensee compliance (copy of license amendment was enclosed with March 5, 1980, partial denial).

The nine issues raised involve specific areas where the Big Rock facility required NRC attention. In each instance, Mr. Denton was satisfied that the licensee had adequately complied with NRC regulations and the TMI Lessons Learned so that the facility could continue to operate safely. In several instances, the staff promised continued monitoring of licensee compliance actions (such as new shielding requirements and valve test issues) or completion of staff reviews (such as the plane crash and the emergency planning issues).

6x5

Recommendation:

  
Martin G. Malsch  
Deputy General Counsel

Attachments:

1. Request letters
2. Director's letters of denial
3. Director's Decision
4. Staff Memorandum to Commissioner  
Gilinsky

Commissioners' comments should be provided directly to the Office of the Secretary by c.o.b.  
Friday, February 13, 1981.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT  
February 6, 1981, with an information copy to the Office of the Secretary. If the paper  
is of such a nature that it requires additional time for analytical review and comment, the  
Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION

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Secretariat

P-1

ATTACHMENT 1



Director, Nuclear Reactor Regulation  
Attn: Mr. Dennis L. Niemann, Chief  
Operating Reactors Branch No. 2  
U. S. Nuclear Regulatory Commission  
Washington D. C., 20555

We, the undersigned, wish to petition the NRC, in pursuant to 2206, to intervene immediately on behalf of ourselves and of loved ones, in the matter of Consumers Power Company initiating start up at the BIG ROCK POINT NUCLEAR POWER FACILITY.

Before the NRC allows the BIG ROCK POINT NUCLEAR POWER FACILITY to start up:

1. We demand that our school systems have workable safety evacuation plans for our children, and that all citizens be informed of appropriate individual evacuation actions.

2. We demand accountability for all diffuser fastener pieces, which if left within the reactor vessel could interfere with rod movement and could cause flow blockage.

3. We demand that the integrity of the RCO 9 system be assured.

4. We demand that all NRC requirements issued to Consumers Power Company regarding the Oyster Creek occurrence be implemented with no proposed changes, technical specifications or administrative control compromises allowed.

5. We demand assurance that the biological shield is sufficient to contain gamma rays in the event of a LOCA.

6. We demand that repetitive malfunctions of valves CV/L087, CV/L096, CV/L117, CV/L027 and CV/L105 be resolved.

7. We demand evidence that the BIG ROCK POINT NUCLEAR POWER FACILITY could withstand the crash of a B-52 without disaster to the surrounding area. We remind the NRC that Big Rock was built to withstand a crash of a 707, not a B-52 bomber.

We feel that the NRC has in the past put the financial considerations of Consumers Power Company before the rights of the public. We ask that you act immediately to protect the health, safety and well being of the public. We wish to be involved in all aspects of this proceeding.

cc/ President Jimmy Carter, Congressman Bob Davis, Senators Carl Levin, Donald Reig,  
Governor William Milliken, Senator Fitch Irwin, State Representative Charles Var

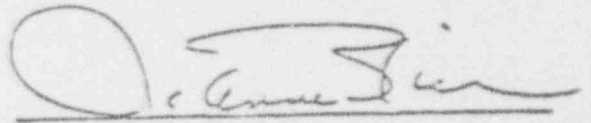
UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the matter of Consumers Power Company requesting license to put  
BIG ROCK POINT NUCLEAR POWER FACILITY back "on line", pursuant of the  
NRC 100CFR Section 2.711.

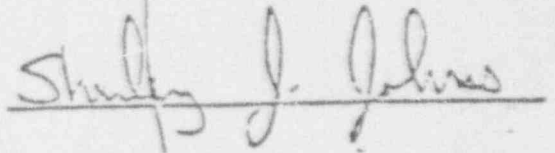
We, the undersigned, JoAnn Bier, and Shirley J. Johns, being duly sworn  
do depose and say that we are citizens living within a fifty-mile  
radius of the BIG ROCK POINT NUCLEAR POWER FACILITY and we wish to  
intervene in any aspects of this matter.

The facts stated in the attached petition are true and correct to the  
best of our information, knowledge, and beliefs.

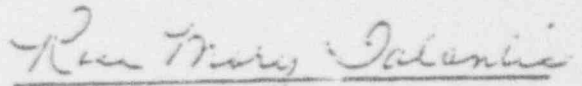
JoAnn Bier  
201 Clinton Street  
Charlevoix, Michigan 49720



Shirley J. Johns  
Route # 1 Box 88  
Ellsworth, Michigan 49729



Sworn that this is their free act and deed, this 1st day of November, 1978.



Notary Public,

Commission Expires: July 21, 1981



January 1, 1979

Director, Nuclear Reactor Regulation  
Attention: Mr. Dennis L. Eickman, Chief  
Operating Reactors Branch No. 2  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20545

We the undersigned, petition the Nuclear Regulatory Commission in pursuant to 10C.F.R. 2.220, to intervene collectively on behalf of ourselves and our loved ones, in the matter of General Atomics Power Company initiating start up at Big Rock Nuclear Power Plant.

Before the Nuclear Regulatory Commission allows Big Rock to start up:

1. We do not want that our school system have workable, safe evacuation plans for our children and that all parents citizens be informed of appropriate individual evacuation actions.

2. We do not want responsibility for all diffuser pieces, which if located within the reactor vessel could interfere with refueling and cause flow blockage as in the partial meltdown at the Fermi I Plant in Detroit.

3. We do not want that General Atomics Power Company systematically and absolutely take the necessary design alterations in the reactor level vessel instrument system, LSWP, LSWP, which initiator reactor system, containment isolation and core safety conditions.

4. We do not want that the biological shield be made sufficient to contain fission products in the event of loss-of-coolant accident (LOCA), and residents would be protected and plant personnel would be able to perform necessary functions to bring the plant under control.

5. We demand that reactive functions of their containment isolation valves CV/4006, CV/4007 be received.

6. We demand that the reactive functions of valves CV/4027, CV/4117, CV/4118, CV/4119 be received.

7. We do not want evidence that the LSWP could withstand the crash of a B-52 bomber without disaster to surrounding environment.

8. We do not want that a requirement as established by the Nuclear Regulatory Commission for the First Protection System be met.

In the past, the Nuclear Regulatory Commission has put the financial considerations of C.P.C. before the health and safety of the public. It is imperative that the Nuclear Regulatory Commission order the continued shutdown of Big Rock Point Nuclear Power Plant until these demands are met. We wish to be involved in all aspects of this proceeding.

JoAnn Bick  
JoAnn Bick

Shirley J. Johns  
Shirley J. Johns

Philip E. Lundy  
Notary Public  
My Commission Expires Aug 29, 1982  
Notary in/for ANTRIM COUNTY  
MICH.

cc: President Carter

Governor Sullivan

Levin, Bayne, Reigle; Deane, Whallon, Warren & Weiss; Greenman; Bacon; Hoff and Denton

Cain

WJ/cad

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ATTACHMENT 2



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

March 5, 1980

Docket No. 50-155

3/5  
Ms. JoAnn Bier  
204 Clinton Street  
Charlevoix, Michigan 49720

Ms. Shirley J. Johns  
Route #1, Box 88  
Ellsworth, Michigan 49729

Dear Ms. Bier and Ms. Johns:

Your petition of January 6, 1980 addressed to Mr. Dennis Ziemann, Chief, Operating Reactors Branch No. 2, requested that eight issues be resolved before the Nuclear Regulatory Commission allowed the Big Rock Point Plant to start up. The Big Rock facility was shutdown on December 31, 1979, for implementation of TMI Lessons Learned requirements.

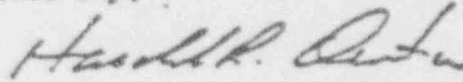
Essentially all of the concerns identified in your petition of January 6, 1980, are identical to those contained in your petition of November 4, 1979. By letter of December 4, 1979, I informed you that we were treating your earlier petition, under 10 CFR 2.206 of the Commission's regulations, as a request for an order to show cause why the operating license for Big Rock Point should not be suspended pending resolution of the seven issues you identified. (Receipt of your request was noticed in the Federal Register on December 11, 1979, 44 FR 71489). We are carefully evaluating each of the issues you have identified to assure that our reply is fully responsive to your concerns. When our evaluation is complete, we will rule on your request. However, our evaluation of your concerns has progressed to the extent that we can conclude there is sufficient assurance of safety to permit the Big Rock Point facility to continue operating pending the final disposition of the issues raised in your petition; therefore, there is no need for immediate or emergency actions. Our assessment in support of this conclusion is enclosed.

The new issues identified in your petition of January 6, 1980, will be consolidated for consideration with those raised in your earlier request. Please be assured that I have instructed my staff to give its highest priority to your petitions to enable me to rule on the request for an order.

March 5, 1980

I appreciate the efforts you have made to research the public record and to bring to our attention specific matters which you feel are not adequately addressed and are of concern to you.

Sincerely,

A handwritten signature in dark ink, appearing to read "Harold R. Denton". The signature is fluid and cursive, with a prominent initial "H" and a long, sweeping tail on the "n".

Harold R. Denton, Director  
Office of Nuclear Regulation

Enclosure:  
Safety Assessment

cc: See next page



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

DEC - 3 1980

Docket No. 50-155 ,

Ms. JoAnn Bier  
204 Clinton Street  
Charlevoix, Michigan 49720

Ms. Shirley J. Johns  
Route #1, Box 88  
Ellsworth, Michigan 49729

Dear Ms. Bier and Ms. Johns:

This letter is in response to your petitions dated November 4, 1979 and January 6, 1980 requesting that the Director of Nuclear Reactor Regulation issue an order to Consumers Power Company to delay restart of the Big Rock Point Plant pending resolution of certain concerns considered by you to be safety issues.

As stated in our letter dated December 4, 1979, the petitions were not received before restart of the plant. Consequently, the petitions have been treated as a request for an order to show cause why Facility Operating License No. DPR-6 for the Big Rock Point Plant should not be suspended pending resolution of the issues you raised.

By letter dated March 5, 1980 we issued a Safety Assessment relating to these concerns and concluded that there was sufficient assurance of safety to permit the plant to continue operating, pending final disposition of the issues raised. Based on the evaluation contained in the Safety Assessment we advised you that there was no need for emergency actions. By letter dated April 14, 1980, the Acting Secretary of the Commission issued a statement related to the Commission's review of our March 5, 1980 Assessment. That statement indicated that the Commission was taking no action with respect to my decision of March 5, 1980.

Your petitions have been considered under the provisions of 10 CFR Section 2.206 of the Commission's regulations. This office has determined, for reasons set forth in the enclosed "Director's Decision Under 10 CFR 2.206," not to issue an order to show cause why Facility Operating License DPR-6 for Consumers Power Company's Big Rock Point Plant should not be suspended.



A copy of the decision is being filed with the Secretary for further Commission review in accordance with 10 CFR Section 2.206(c). As provided in 10 CFR 2.206 (c), the decision will constitute the final action of the Commission twenty days after the date of issuance of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

A copy of the Notice of Issuance of the Director's Decision, which is being filed with the Office of Federal Register for publication, is also enclosed.

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosures:

1. Director's Decision
2. Notice of Issuance



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

*For Deposit  
GC*

January 29, 1981

Docket No. 50-155  
LS05-81-01-045

Ms. JoAnn Bier  
204 Clinton Street  
Charlevoix, Michigan 49720

Ms. Shirley J. Johns  
Route #1, Box 88  
Ellsworth, Michigan 49729

Dear Ms. Bier & Ms. Johns:

On December 18, 1980, I issued a decision (DD-80-34) under 10 CFR 2.206 which denied your petition requesting the issuance of an order to show cause why the operating license for Consumers Power Company's Big Rock Point Plant should not be suspended. I have determined that it would be appropriate to amplify the bases for my decision. Therefore, I am enclosing revised pages with the modifications.

A copy of this letter and the modifications will be filed with the Secretary of the Commission.

Sincerely,

A handwritten signature in dark ink, appearing to read "Harold R. Denton", is written over the typed name.

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosures:

1. Replacement pages for Director's Decision
2. Modifications for DD-80-34
3. Director's Decision dated 12/18/80 with new pages

cc w/enclosures:  
See next page

cc w/enclosures:

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

Cudd L. Bacon, Esquire  
Consumers Power Company  
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Joseph Gallo, Esquire  
Isham, Lincoln & Beale  
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Peter W. Steketee, Esquire  
605 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  
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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

cc w/enclosures:

Dr. John H. Buck

Atomic Safety and Licensing Appeal Board

U. S. Nuclear Regulatory Commission

Washington, D. C. 20555

Mr. David P. Hoffman

Nuclear Licensing Administrator

Consumers Power Company

1045 W. Parnall Road

Jackson, Michigan 49201

*[Handwritten mark, possibly a stylized 'R' or 'L' with a diagonal line through it]*

ATTACHMENT 3

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSIONOFFICE OF NUCLEAR REACTOR REGULATION  
Harold R. Denton, Director

In the Matter of

CONSUMERS POWER COMPANY  
(Big Rock Point Plant)

}

Docket No. 50-155  
(10 C.F.R. 2.206)DIRECTOR'S DECISION UNDER 10 C.F.R. 2.206

By petitions dated November 4, 1979, and January 6, 1980, Ms. JoAnn Bier and Ms. Shirley J. Johns requested that the Nuclear Regulatory Commission's (NRC or the Commission) Director of Nuclear Reactor Regulation issue an order to Consumers Power Company (the licensee) to delay startup of the Big Rock Point Plant pending resolution of eight items considered by them to be safety issues. Six of the seven issues identified in the November 4, 1979 request were repeated, with clarifications, in the request of January 6, 1980. An eighth issue was added in the January 6, 1980 submittal. Notice of receipt of the November 4, 1979 petition was published in the Federal Register on December 11, 1979 (44 FR 71489).

The petitions were not received by the Commission prior to restart of the Big Rock Plant. Consequently, the petitions have been treated as requests for an order to show cause why Facility Operating License No. DPR-6 for the Big Rock Point Plant should not be suspended pending resolution of the issues raised. A preliminary safety assessment of the issues raised in the petitions was issued on March 5, 1980. Based on that assessment I concluded that sufficient assurance of safety existed to permit the Big Rock facility to continue operating pending final disposition of the issues raised in the petitions.

Evaluation of the issues raised in the petitions has now been completed. Based on analysis of each of the issues raised which is set forth below, I have



determined that the operating license for the Big Rock facility should not be suspended. The analyses for Items 2, 3, 5, and 6 of the November 4, 1979 petition and Item 4 of the January 6, 1980 petition are unchanged from those contained in the March 5, 1980 Safety Assessment.

#### DISCUSSION

Issue: "1. We demand that our school systems have workable, safe evacuation plans for our children and that all private citizens be informed of appropriate individual evacuation actions."

Response: The Big Rock Point Emergency Plan currently approved by the NRC requires notification of a number of government organizations including the local sheriffs, Michigan State Police and the Michigan State Department of Health in the event of a serious emergency. Local and State officials would be responsible for notification of local school systems and evacuation, if needed.

New emergency planning regulations were published in the Federal Register on August 19, 1980 (45 FR 55402). These new regulations (copy attached) became effective on November 3, 1980 and are generally to be implemented by April 1, 1981 by licensees of operating plants. Section II A, B, and C of the revised Appendix E states:

"As a minimum, the following items shall be described:

A. Onsite and offsite organizations for coping with emergencies and the means for notification, in the event of an emergency, of persons assigned to the emergency organizations.

B. Contacts and arrangements made and documented with local, State, and Federal governmental agencies with responsibility for coping with emergencies, including identification of the principal agencies.

C. Protective measures to be taken within the site boundary and within each EPZ to protect health and safety in the event of an accident; procedures by which these measures are to be carried out (e.g., in the case of an evacuation, who authorizes the evacuation, how the public is to be notified and instructed, how the evacuation is to be carried out); and the expected response of offsite agencies in the event of an emergency."

The Big Rock Point Plant's Emergency Plan is being evaluated against these requirements.

On September 5, 1980, we requested Consumers Power Company to begin implementation of their June 9, 1980 version of the Big Rock Point Emergency Plan, although we have not yet completed our review. This request was based on our finding that this version provides an improvement over the previous plan, affords a greater margin for protection of public health and safety, and does not decrease the effectiveness of emergency preparedness. Consumers Power Company has recently informed us that they expect to implement the June 9, 1980 version of the Emergency Plan by December 31, 1980.

Based on: (1) the existence of an approved Emergency Plan which conforms to our current regulations, and (2) the results so far of our review of the draft revision of the plan, we have not identified any deficiencies in emergency planning which are so significant as to require suspension of the operating license.

Issue: "2. We demand accountability for all diffuser pieces, which if left within the reactor vessel could interfere with rod movement and cause flow blockage as in the partial meltdown at the Fermi 1 Plant in Detroit."

Response. On April 20, 1979, during shutdown conditions, Big Rock Point personnel detected a vibration-type noise in the lower pressure vessel when the No. 1 recirculation pump was in service. Because of an unrelated problem (a leak in a control rod drive housing) the reactor core was defueled and vessel internals removed. Subsequent inspection revealed that the No. 1 recirculation inlet baffle plate was loose from its mounting brackets on the vessel wall. The recirculation inlet baffle plates were not completely effective, and in 1963 a new skirt baffle was installed on the core support plate and completely encircled all the support tubes. The old baffle plates had been left in place and over the years the three hold-down bolts were worn through allowing the baffle plate to vibrate against the new skirt baffle. The safety consequences of this failure were minimal since the plates are designed such that they cannot enter the core or constitute a flow blockage. During the 1979 outage, new diffuser plates were installed using larger hold down bolts and positive nut locking devices.

All the bolt ends and nuts from the old plates were accounted for and the reactor vessel was cleaned and inspected to assure that there were no other loose materials that could affect reactor operations.

Issue: "3 We demand that Consumers Power Company systematically and absolutely make the necessary design alterations in the reactor level vessel instrument system LERE09 & LSRE09 which initiates reactor scram, containment isolation and core spray actuations."

Response: By Licensee Event Report 79-22 submitted to the NRC to letter of September 22, 1979, the licensee reported a potential deficiency in the water level instrumentation used for reactor scram and initiation of engineered safety features. CPCo modified the instrumentation and submitted an evaluation of the acceptability of the modification to us by letters of October 23 and October 31, 1979. By Amendment No. 31 dated November 2, 1979 (copy attached to our March 5, 1980 Assessment) we approved revised license Technical Specifications for the modified instruments. The Safety Evaluation accompanying that amendment addresses the acceptability of changes to the Technical Specifications and the acceptability of the modification made to the water level instruments. As explained in that document, we have concluded that the design alterations are acceptable and that no further actions are necessary.

Issue: "4. We demand that the biological shield be made sufficient to contain deadly gamma rays in the event of loss-of-coolant accident (LOCA), area residents would be protected and plant personnel would be able to perform necessary functions to bring the plant under control."

Response: One of the Lessons Learned from the TMI-2 accident is that radiation fields resulting from contained radiation sources after an accident may make it difficult to effectively perform accident recovery operations or may impair safety equipment. As a result, by letter of October 30, 1979 we asked nuclear power plant licensees to perform a design review of plant shielding by January 1, 1980 and to implement needed changes by January 1, 1981. Consumers Power Company submitted the design review by letter of December 27, 1979 and identified areas of the plant which would need additional shielding protection if NRC design criteria were to be met.

By letter dated February 22, 1980 and supplements dated April 2, May 6, August 25 and September 2, 1980, Consumers Power Company requested a delay in implementing the plant shielding requirement until the completion of an ongoing risk assessment of the plant. Consumers Power Company has estimated that this risk assessment will be completed by April 1981.

On September 5, 1980 in a letter to all licensees, we provided clarification of the TMI Action Plan requirements including modifications to the implementation schedules for certain items. These proposed changes included a delay in the scheduled implementation of post accident shielding until January 1, 1982. This schedule for the implementation of post accident shielding was subsequently approved by the Commission as indicated in NUREG-0737, "Clarification of TMI Action Plan Requirements." By letter dated October 14, 1980,

the staff responded to the licensee's request for this delay. Because the implementation date for these requirements has been delayed until January 1, 1982 for all licensees, as discussed above, we concluded that no additional delay specifically for the Big Rock facility is needed at this time.

As required by the staff, the licensee has completed a review of vital areas in which personnel occupancy may be limited by radiation during post-accident operations. Our safety evaluation of the implementation of "Category A" Lessons Learned requirements was issued on May 2, 1980 and stated that the control room, the interim Technical Support Center and the Operational Support Center are sufficiently shielded that they would remain accessible for continuous occupancy. The vital areas in which personnel occupancy may be limited are the backup emergency diesel, backup cooling water supply hose to the core spray heat exchanger and the emergency diesel general fuel supply. The licensee initiated work to implement changes for these three items, and two of them, the relocation of the backup emergency diesel and the modification to the emergency diesel general fuel supply, should be completed shortly. With respect to the third item, the licensee began implementation of the modifications but has recently informed us that preliminary results from the probabilistic risk assessment being conducted for the Big Rock Point plant could affect the need for the modification to the backup cooling water supply hose to core spray heat exchanger. Accordingly, they indicated that work on this third item has been stopped. Because of the delay in the implementation of additional shielding requirements until January 1, 1982, as discussed above, the licensee had additional time to further assess this modification.



The NRC design criteria assume a very severe accident with a very large radiation source term and assume that stringent limits on radiation exposure to personnel would be met.

Because of the staff safety evaluation which concluded that the control room, the interim Technical Support Center and the Operational Support Center would remain accessible under post accident conditions, and the steps already taken to protect two of the three remaining vital areas of concern, it is our judgment that a deferral of implementation of additional shielding protection requirements until 1982 will not result in exposure of plant personnel to significant risk from a loss-of-coolant accident or a greater risk to the public than previously evaluated, if such an accident should occur. However, we will require more immediate actions if further review indicates they are warranted.

Issue: "5. We demand that repetitive malfunction of their containment isolation valves CV/4096, CV/4097 be resolved."

Issue: "6. We demand that the repetitive malfunctions of valves CV/4027, CV/4117, CV/4105, W/7050 be resolved."

Response: Repetitive malfunctions have occurred in several containment isolation valves. Valve CV/4097 is a butterfly valve in the supply line of the containment ventilation system. The valve is a replacement valve installed in April 1974. Excessive leakage through this valve was reported March 31, 1975, June 5, 1975, May 3, 1976, July 2, 1976, February 1, 1978, September 12, 1978 and February 1, 1979. Our records indicate that with the possible exception of one test, the leak rate through the line during accident conditions would have been

acceptably limited by another operable insulation valve (CV/4096) in the same line. In one instance (LER RD-12-76 dated July 2, 1976) our readily available records do not indicate whether the leak rate through the line would have been acceptably low. In each case, the licensee took corrective action to bring the leakage back to within acceptable limits and after repetitive failures the licensee initiated a review with the vendor to bring about long term improvements. We will continue to monitor the test results on CV/4097 to determine if additional corrective actions are needed. Our records do not indicate repetitive failures of valve CV/4096.

MO/7050 is a main steam isolation valve. A failure of this valve to close was reported April 5, 1973. The licensee ordered a new type of valve packing as a long term corrective action. We will also continue to monitor the test results on this valve to assure that the corrective action taken is sufficient.

CV/4027 is an automatic isolation valve in the reactor and fuel pit drain line. Leakage in excess of technical specification limits for this line was reported by Licensee Event Reports (LERs) dated June 10, 1975, and September 27, 1978. In each instance, Valve CV/4117, which is redundant to Valve CV/4027, was operable and would have prevented excessive leakage through the line. The valve seats of CV/4027 have been machined to reduce the leak rate and the licensee has committed to installation of new valve seats. A recent LER dated October 17, 1980 reported through seat leakage in excess of technical specifications limits. Backup valve CV/4117 has been disabled in the closed condition until repairs can be made.

We have no record of failures on valve CV/4117. This valve was identified in several Licensee Event Reports noted above as the valve which provided redundancy to a valve with excessive leakage.

CV/4105 is an air operated isolation valve on the demineralized water line inside containment. Our records do not indicate a repetitive failure of this valve.

Based on our review of these valve malfunctions and the corrective actions taken by the licensee, it is our judgment that these events did not significantly affect the health and safety of the public. It is our further judgment that these valve malfunctions do not indicate a significant pattern of valve failures. Therefore, we conclude that these valve malfunctions do not require shutting down the Big Rock Point Plant.

Issue: "7 We demand evidence that the BRNPF could withstand the crash of a B-52 Bomber without disaster to surrounding environment."

Response: The concern with overflight of the Big Rock facility by aircraft began in 1963, when the Air Force installed an aircraft tracking station at Bayshore, Michigan, which is located approximately five miles from the Big Rock Point Plant. Following this installation, the Air Force began training the tracking station personnel in the detection of approaching aircraft. Concurrently, the Air Force was training the flight crews in avoiding detection by the radar station.

In the beginning it appeared that the Air Force was using the Big Rock Point Plant as a flight target, since there were many close overflights. Consumers Power Company management complained to the Atomic Energy Commission (AEC) regarding this matter, and an agreement was reached with the Air Force at that time to discontinue the direct low level overflights. Low level overflights in the near vicinity of the plant continued until 1970 when the Big Rock Point Plant insurer raised the insurance rates because of these training

flights in the near vicinity of the plant. At that time, the Consumers Power President, James H. Campbell, contacted Congressman Gerald Ford, requesting that these training flights in the near vicinity of the Big Rock Point Plant be discontinued. At about this same time, in January of 1971, a flight crashed into the Little Traverse Bay approximately two miles from shore and about two miles from the plant. As a result of these events the Air Force established a training corridor which misses the Big Rock Plant by three miles. Air Force charts were also marked to show that overflights of the Big Rock Point Plant were "Off-Limits" and all training flights were to be confined to the corridor. From that time until July 1979 no low level overflights have been observed by plant personnel. In July 1979 a low level overflight was observed and a complaint was registered by Consumers Power Company management. The Air Force stated that restrictions on overflights would also be added to the flight checklists.

We reviewed the risk associated with aircraft near Big Rock Point in the Systematic Evaluation Program. At the request of the NRC staff, the Air Force undertook a study to update an earlier analysis of the risk of a military aircraft on training route 1R 600/601 crashing into the plant. The study was based on recorded data on flight frequency, navigation error, and crash rate. The Air Force calculated that the probability of a crash at the plant (represented by a square target area 3.45 miles on a side) was approximately  $10^{-8}$  per year. The staff has reviewed the Air Force analysis and is in essential agreement with the methodology

employed and the finding that a military aircraft crash at the plant is an extremely remote event. Furthermore, in the course of this review, the staff was informed by the Air Force that permission had been requested from the Federal Aviation Administration (FAA) to adjust route IR 600/601 so that in effect it would be located at a greater distance from the plant. The staff was subsequently informed that the request had been approved and the Air Force has published the new route. The adjusted route will pass approximately 12 miles west of the plant. We conclude that the risk to plant safety of military aircraft on route IR 600/601 in its present configuration meets the acceptance criteria of section 2.2.3 of the NRC Standard Review Plan for new plants and is therefore acceptable.

Issue: "8. We demand that minimum requirements as established by the Nuclear Regulatory Commission for the Fire Protection System be met."

Response: By License Amendment No. 17, dated March 6, 1978, No. 25, dated April 4, 1979, and No. 32 dated March 27, 1980, we issued license conditions to assure that an acceptable level of fire protection is achieved at the Big Rock Point Plant. Amendments No. 17 and No. 25 added limiting conditions of operation and surveillance requirements to assure that existing fire protection equipment is operable and to require that modifications be made on a time schedule specified in Amendment No. 25 to further enhance fire protection at the plant. The staff safety evaluations associated with these amendments summarize our considerations in imposing these limiting conditions. Amendment No. 32 increased the number of fire brigade members from three to five. It is our judgement that sufficient measures have been taken to permit

continued plant operation prior to full implementation of all identified improvements identified in License Amendment No. 25.

In addition, the Commission published on November 19, 1980 (45 FR 76602), a revised Section 10 CFR 50.48 and a new Appendix R to 10 CFR 50 regarding fire protection features of nuclear power plants. The revised Section 50.48 and Appendix R will become effective February 17, 1981. A copy of this Federal Register Notice is enclosed. Appendix R and Section 10 CFR 50.48 contain provisions and implementation dates applicable to the Big Rock Point Plant.

The petition of November 4, 1979 included one concern not repeated in the petition of January 6, 1980. That item (concern number 4) is addressed below.

Issue: "4. We demand that all NRC requirements issued to Consumers Power Company regarding the Oyster Creek occurrence [sic] be implemented with no proposed changes, technical specifications or administrative control compromises allowed."

Response: Following a loss of feedwater event at Oyster Creek Nuclear Generating station on May 2, 1979, we determined that Big Rock Point was susceptible to a similar problem and would require a change in the technical specifications appended to the license prior to startup from the 1979 outage. Our evaluation indicated that two additional technical specifications were appropriate for Big Rock Point and these technical specifications were issued October 30, 1979 prior to plant startup. Amendment No. 30, which changed the technical specifications and a copy of the associated NRC Staff Evaluation was included with our Assessment dated March 5, 1980. It is our judgement that the changes made are appropriate for Big Rock Point and do not constitute any compromise of safety.

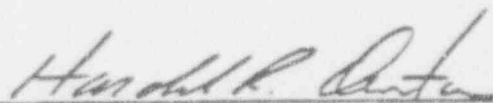


CONCLUSION

Based on the forgoing discussion and the provisions of 10 CFR §2.206, I have determined that there is no adequate basis for the issuance of an order to show cause why Facility Operating License No. DPR-6 for the Big Rock Point Plant should not be suspended. The requests of Ms. JoAnn Bier and Ms. Shirley Johns are, therefore, denied.

A copy of this decision will be placed in the Commission's Public Document Room at 1717 H Street, N. W. Washington, D. C. 20555 and the Local Public Document Room for the Big Rock Plant, located at the Charlevoix Public Library, 107 Clinton Street, Charlevoix, Michigan 49720. A copy of this decision will also be filed with the Secretary for further Commission review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

As provided in 10 CFR 2.206(c) of the Commission's regulations, this decision will constitute the final action of the Commission twenty (20) days after the date of issuance, unless the Commission, on its own motion, institutes a review of this decision within that time.

  
Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland  
this 18<sup>th</sup> day of December 1980

Attachment:  
Federal Register Notice  
dated August 19, 1980

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION  
HAROLD R. DENTON, DIRECTOR

In the Matter of

CONSUMERS POWER COMPANY  
(Big Rock Point Plant)

)  
)  
) Docket No. 50-155  
) (J. Bier and S. Johns)  
)  
)

ISSUANCE OF DIRECTOR'S DECISION UNDER 10 CFR 2.206

On December 11, 1979, notice was published in the Federal Register (44 FR 71489) that by petition dated November 4, 1979, Ms. JoAnn Bier and Ms. Shirley Johns, had requested that an order be issued to delay restart of the Big Rock Point Plant Unit 1. Seven alleged safety questions identified in the petition were resolved. Six of the seven issues identified in November 4, 1979, request were repeated with clarifications, in a request of January 6, 1980. Moreover, the eighth safety issue was added in the latter submittal. The petitions were not received by the Nuclear Regulatory Commission (the Commission) before restart of the facility. Consequently, the petitions have been treated as a request for an order to show cause why Facility Operating License No. DPR-6 issued to Consumers Power Company for the Big Rock Point Plant should not be suspended pending resolution of the issues raised.

The Commission's Director of Nuclear Reactor Regulation has treated these requests as requests for action under 10 CFR 2.206. Upon review of records pertinent to the issues raised by Ms. Bier and Ms. Johns, the Director has determined that the requests do not provide an adequate basis

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to issue an order to show cause why License No. DPR-6 for the Big Rock Point Plant should not be suspended. Accordingly, the requests have been denied.

Copies of the Director's decision are available for inspection in the Commission's Public Document Room, 1717 H Street, N. W. Washington, D. C., 20555 and at the Local Public Document Room for Big Rock Point, located at the Charlevoix Public Library, 107 Clinton Street, Charlevoix, Michigan 49720. A copy of this decision will also be filed with the Secretary for the Commission's review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

As provided in 10 CFR 2.206(c), the decision will constitute the final action of the Commission twenty (20) days after the date of issuance, unless the Commission, on its own motion, institutes a review of the decision within that time.

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Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland  
this DEC 18 1980

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ATTACHMENT 4



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

HC

APR 25 1980

Docket No. 50-155

MEMORANDUM FOR: Commissioner Gilinsky

THRU: William J. Dircks (Signed) T. A. Rehm  
Acting Executive Director for Operations

FROM: Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

SUBJECT: COMMISSIONER GILINSKY'S REQUEST FOR ADDITIONAL INFORMATION  
REGARDING SECY-A-80-38 REVIEW OF DIRECTOR'S PARTIAL DENIAL  
(MATTER OF CONSUMERS POWER COMPANY OF MICHIGAN)

We have provided below the responses to three questions regarding the Big Rock Point Plant listed in the March 28, 1980 memorandum from S. J. Chilk to L. Bickwit, Jr.:

1. "What is the justification for permitting Big Rock Point to continuously purge the containment?"

The containment building for Big Rock Point Plant was designed and constructed on the basis that the containment would be continuously ventilated. This design was described in the Preliminary Hazards Summary Report and in the Final Hazards Summary Report and was reviewed by the staff prior to issuance of a construction permit and operating license.

Continuous purging of containment was reviewed again during our consideration of the generic issue of containment purging. On November 29, 1978, we issued a generic letter which requested that power reactor licensees terminate containment purging during normal operation or provide specific justification of the acceptability of such purging. By letter dated December 28, 1978, Consumers Power Company summarized the need for continuous ventilation as follows:

"Big Rock Point is designed to continuously ventilate the reactor containment building. Plant design utilizes continuous ventilation to provide contamination control for access to operating equipment and cooling to maintain critical equipment operable. During warm weather, the

continuous ventilation is essential to maintain the containment temperature within the limits described in the Final Hazards Summary Report for large break accident initial conditions. During winter months, inlet air must be heated to maintain containment temperature above the lower limit considered in the Final Hazards Summary Report."

By letter dated October 23, 1979, we requested Consumers Power Company to conform to our Interim Position for Containment Purge and Vent Valve Operability. By letter dated December 17, 1979, Consumers Power Company stated that they had taken actions to achieve full compliance with the interim position and provided a detailed tabulation and description of actions requiring containment entry. The list of actions included monitoring operation of equipment, obtaining samples for chemical and radioactive analysis, performing maintenance, maintaining consumable items at prescribed levels, changing recorded charts and performing required Technical Specification surveillance tests.

2. "To what extent do the malfunctions draw into question the ability to isolate the containment on demand?"

Repetitive malfunctions of each of the redundant isolation valves for a containment penetration would draw into question the ability to isolate containment on demand. The seriousness of the problem would depend on the magnitude of the leakage past the valves. One instance, as noted in our response to issue number 6, may have resulted in unacceptable containment leak rates. That instance involved valve CV/4097 which had repetitive malfunctions and its redundant valve CV/4096.

As discussed in our response to question 3, it appears the problem of repetitive malfunctions has been resolved. However, as stated in our reply to the petitioners, we intend to continue to monitor the test results of the isolation valves to determine if additional corrective actions are needed. In addition, several ongoing programs will enhance our capability to assess the containment isolation capability. The Systematic Evaluation Program will include a review of the containment isolation system. The licensee has proposed to perform an overall plant risk assessment this year. This risk assessment is likely to improve our capability to evaluate the significance of malfunctions at the Big Rock Point Plant. Third, we now have staff dedicated to the review of operational problems and we are in a better position to identify and correct repetitive problems.



3. "Why has the repetitive nature of the leakage not been corrected over a five-year period?"

Based on our records it appears that the repetitive nature of the leakage has been corrected. In accordance with the Technical Specifications for the Big Rock Point Plant, the licensee has been performing local leak rate tests of containment supply and exhaust ventilation valves (including CV/4096 and CV/4097) at least once every six months and has been performing local leak rate tests of valves CV/4027 and MO/7050 at least once every twelve months. These test frequencies are more stringent than required by 10 CFR Part 50 Appendix J which requires tests at each refueling shutdown but at intervals no greater than 2 years. Our records indicate there have been no reported instances of excessive leakage since those reported in the reply to the petition.

With respect to the ventilation supply valve CV/4097, the licensee performed a modification in early 1979 to improve the seal arrangement. The modification consisted of machining the valve disc and installing a new type rubber seat and retaining ring which eliminate the design feature that was causing the leakage. It is our understanding that the valve has been subjected to two routine local leak rate tests since the modification, each of which was successful.

Original Signed By *4/24/80*  
E. G. Case

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

cc: Chairman Ahearne  
Commissioner Kennedy  
Commissioner Hendrie  
Commissioner Bradford  
OPE  
OGC  
SECY