

September 19, 1988

Docket No. 50-293

Mr. Ralph G. Bird  
Senior Vice President - Nuclear  
Boston Edison Company  
Pilgrim Nuclear Power Station  
RFD#1, Rocky Hill Road  
Plymouth, Massachusetts 02360

Dear Mr. Bird:

Enclosed for your information is a copy of a letter dated August 26, 1988 from the Director, Office of Nuclear Reactor Regulation to the Representative of the Ohio Citizens for Responsible Energy (OCRE). The letter (1) acknowledges receipt of a Petition filed by OCRE under 10 CFR 2.206 of the Commission's regulations, (2) responds in the negative respect to all Boiling Water Reactors (BWRs), and (3) states that the Petition is being treated under 10 CFR 2.206 of the Commission's regulations.

Please contact me if you have questions on this issue.

Original signed by:

Daniel G. McDonald, Project Manager  
Project Directorate I-3  
Division of Reactor Projects I/II

Enclosure:  
As stated

cc: See next page

Distribution:

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Mr. Ralph G. Bird  
Boston Edison Company

Pilgrim Nuclear Power Station

cc:

Mr. K. L. Highfill  
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RFD #1 Rocky Hill Road  
Plymouth, Massachusetts 02360

Mr. Ralph G. Bird  
Senior Vice President - Nuclear  
Boston Edison Company  
Pilgrim Nuclear Power Station  
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Leader  
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Braintree, Massachusetts 02184



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

August 26, 1988

Ms. Susan L. Hiatt  
Representative of Ohio Citizens for  
Responsible Energy, Inc.  
8275 Munson Road  
Mentor, OH 44060

Dear Ms. Hiatt:

This is in response to your Petition of July 22, 1988, requesting that the Director, Office of Nuclear Reactor Regulation (Director), take immediate action with respect to Boiling Water Reactors (BWRs) to relieve what you allege to be undue risks to the public health and safety posed by the thermal-hydraulic instability of boiling water reactors, as revealed by an event at LaSalle County Station Unit 2 on March 9, 1988.

The specific relief requested is to order all BWR licensees to (1) place their reactors in cold shutdown, (2) develop and implement specified procedures relating to the thermal-hydraulic instability issues, (3) demonstrate that certain specified training has been provided relating to these procedures, (4) demonstrate the capability of instrumentation related to power oscillations, (5) develop simulators capable of modeling power oscillations similar to those occurring at LaSalle and out-of-phase power oscillations, (6) report to the NRC regarding all past incidents in which recirculation pumps have tripped off, (7) submit to the NRC justification for continued operation of BWRs, and (8) submit a report to the NRC within one year demonstrating compliance with GDC 12. You also request that the Commission reopen Generic Issues B-19, B-59, the ATWS rulemaking and reconsider the use of End-of-Cycle Recirculation Pump Trip on BWRs.

Your request for immediate relief is denied because the allegations which form the basis for your Petition do not reveal any new operational safety issues which pose an immediate safety concern for continued BWR operation. The staff has determined that continued operation of BWRs is justified for the following reasons:

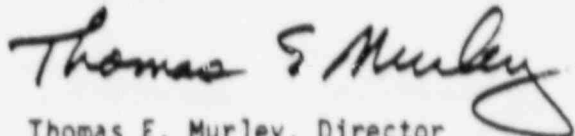
- (1) Current BWR Technical Specifications place restrictions on power operation of the reactor under conditions of natural circulation or single recirculation loop cooling such that operation in regions of low thermal-hydraulic stability is limited to infrequent, short-term transient conditions following anticipated operational occurrences.
- (2) Neutron flux oscillations are detectable with proper monitoring and can be easily suppressed by inserting control rods. If large oscillations should occur, and a manual scram is not initiated, it is expected that the high power level, Average Power Range Monitor (APRM) scram protection, which terminated the LaSalle event, would provide backup protection as was the case during the LaSalle event.

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- (3) The magnitude of neutron flux oscillations induced by thermal-hydraulic instability is considerably higher than the oscillations in the average cladding heat flux because of inherent delay in the transfer of heat through the fuel rods. The NRC Augmented Inspection Team (AIT) for the March 9, 1988 LaSalle event reported that the amplitude of the heat flux oscillations during the event were estimated to be less than 10% of the value for the neutron flux oscillations and that because of the smaller changes in heat flux, thermal limits for the fuel were not exceeded.
- (4) General Electric Company has provided BWR licensees with guidance on the proper methods to monitor for thermal-hydraulic instabilities and on the actions that should be taken to suppress such oscillations if they should occur. Most BWRs have implemented such methods in response to NRC Generic Letter 86-02 which provided for the technical resolution of Generic Issue B-19. The operating limitations which ensure compliance with GDC 12 are enforced by plant technical specifications.
- (5) Compliance with the recommendations in NRC Bulletin No. 88-07 will ensure that any licensed reactor operator or shift technical advisor performing shift duties at a BWR will have been thoroughly briefed regarding the LaSalle event; and that all BWR licensees will have adequate procedures and operator training programs in place to address power oscillations, regardless of the results of any previous thermal-hydraulic stability analysis. The NRC will perform inspections and take any necessary follow-up action to ensure that procedures and training programs acceptable to the technical staff have been put in place.

Your Petition is being treated under 10 CFR 2.206 of the Commission's regulations. Appropriate action will be taken within a reasonable time. A copy of the notice that is being filed for publication with the Office of the Federal Register is enclosed for your information. Copies of this letter are being sent to those named on the service lists for facilities listed in Enclosure 2.

Sincerely,



Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation

Enclosures:

1. Federal Register Notice
2. List of Facilities for cc

[7590-01]

NUCLEAR REGULATORY COMMISSION

[DOCKET NO. 50-374]

COMMONWEALTH EDISON COMPANY

(LaSalle County Station, Unit 2)

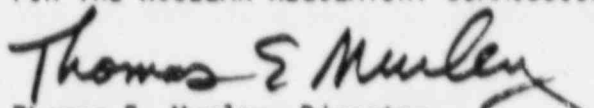
RECEIPT OF PETITION FOR DIRECTOR'S DECISION UNDER 10 CFR 2.206

Notice is hereby given that by Petition dated July 22, 1988, Ohio Citizens for Responsible Energy, Inc. requested the Director of Nuclear Reactor Regulation to take immediate action with respect to Boiling Water Reactors to relieve what Petitioner alleged to be undue risks to the public health and safety posed by an event at LaSalle County Station, Unit 2, in Illinois on March 9, 1988. Petitioner's request for immediate relief was denied because the allegations which form the basis of the Petition did not reveal any new operational safety issues which pose an immediate safety concern for continued BWR operation.

The Petition is being treated pursuant to 10 CFR 2.206 of the Commission's regulations. As provided by § 2.206, appropriate action will be taken on the Petition within a reasonable time.

A copy of the Petition is available for inspection in the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C. 20555 and in the local public document room for LaSalle County Station Unit 2 at Jacobs Memorial Library, Illinois Valley Community College, Rural Route One, Oglesby, Illinois 61348.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 26 day of August, 1988

82-025216 288

List of Facilities for cc

- BOSTON EDISON CO. (Pilgrim Nuclear Power Station, Docket No. 50-293)
- CAROLINA POWER & LIGHT CO. (Brunswick Station, Units 1 & 2, Docket Nos. 50-324 & 50-325)
- CLEVELAND ELECTRIC ILLUMINATING CO., ET AL. (Perry Nuclear Power Plant, Unit 1, Docket No. 50-440)
- COMMONWEALTH EDISON CO. (Dresden Nuclear Power Plant, Units 2 & 3, Docket Nos. 50-237 & 50-249); (Quad Cities Nuclear Power Plant, Units 1 & 2, Docket Nos. 50-254 & 50-265); (LaSalle County Station, Units 1 & 2, Docket Nos. 50-373 & 50-374)
- CONSUMERS POWER CO. (Big Rock Point, Docket No. 50-155)
- DETROIT EDISON CO. (Fermi Unit 2, Docket No. 50-341)
- GEORGIA POWER CO. (Hatch Nuclear Power Plant, Units 1 & 2, Docket No. 50-321 & 50-356)
- GULF STATES UTILITIES CO. (River Bend Station, Docket No. 50-458)
- ILLINOIS POWER CO. (Clinton Nuclear Plant, Docket No. 50-461)
- IOWA ELECTRIC LIGHT & POWER CO. (Duane Arnold Nuclear Power Plant, Docket 50-331)
- GENERAL PUBLIC UTILITIES (Oyster Creek Station, Docket No. 50-219)
- LONG ISLAND LIGHTING CO. (Shoreham Nuclear Power Plant, Docket No. 50-322)
- MISSISSIPPI POWER & LIGHT CO. (Grand Gulf Nuclear Station, Docket No. 50-416)
- NEBRASKA PUBLIC POWER DISTRICT (Cooper Station, Docket No. 50-298)
- NIAGARA MOHAWK POWER CORP. (Nine Mile Point, Units 1 & 2, Docket Nos. 50-220 & 50-410)
- NORTHEAST UTILITIES (Millstone, Unit 1 Docket No. 50-245)
- NORTHERN STATES POWER CO. (Monticello Nuclear Power Plant, Docket No. 50-263)
- PENNSYLVANIA POWER & LIGHT CO. (Susquehanna Steam Electric Station, Units 1 & 2, Docket No. 50-387 & 50-388)
- PHILADELPHIA ELECTRIC CO. (Peach Bottom Nuclear Station, Units 2 & 3, Docket No. 50-277 & 50-278); (Limerick Nuclear Power Plant, Unit 1, Docket No. 50-352)
- POWER AUTHORITY OF THE STATE OF NEW YORK (James A. Fitzpatrick Station, Docket No. 50-333)
- PUBLIC SERVICE ELECTRIC & GAS CO. (Hope Creek Generating Station, Docket No. 50-354)
- TENNESSEE VALLEY AUTHORITY (Browns Ferry Nuclear Station, Units 1, 2, & 3, Docket Nos 50-259, 50-260, and 50-296)
- VERMONT YANKEE NUCLEAR POWER CORP. (Vermont Yankee Nuclear Plant, Docket No. 50-271)
- WASHINGTON PUBLIC POWER SUPPLY SYSTEM (WNP Unit 2, Docket No. 50-397)