OCT 7 1980

Docket Nos. 50-250
and 50-251

The Honorable Lawton Chiles
United States Senator
State Office
Federal Building
Lakeland, Florida 33801

Dear Senator Chiles:

This is in response to your constituent's, Mr. D. P. Breland, letter dated June 2, 1980 in which he referred to problems with the Turkey Point Steam Generator Repair and requested Florida Power and Light Company (FPL) be urged to publish an evacuation plan to the customers within a 40-mile radius of the plant. Mr. Breland also asked:

1. What concerned Floridians can do to ensure continued safety to individuals and the environment,

2. What actions have been taken or will be undertaken to make sure Turkey Point does not become an unwarranted economic burden to the customers, and

3. What actions have been taken to see that our safety is secured and our future is not endangered because plans are not made now.

Regarding Mr. Breland's concerns about the repair of the Turkey Point steam generators, the NRC is preparing a detailed environmental impact statement and a safety evaluation of the entire program. These reports will address, among other things, the radiation exposure and effluent discharges which may result from this proposed activity as well as the cost/benefit analysis of the repair. These reports are expected to be issued in draft form in October 1980 and in the final form in February 1981. These documents when published may be seen by members of the public at the Local Public Document Room (LPDR) at the Florida International University. In addition, copies are also sent to the Homestead (Florida) Public Library. The repair work is scheduled to begin about October 1981, assuming that the hearing has been completed and the decision is favorable.

With regard to emergency plans (of which evacuation plans are a part), a final rule upgrading the Commission's emergency planning requirements was published in the Federal Register on August 19, 1980 (45 FR 55412). In anticipation of this rule, the NRC, together with the Federal Emergency Management Agency (FEMA), had been working with FPL on an improved emergency plan to meet the emergency planning criteria presented in NUREG-0654/FEMA-REP-1 (copy enclosed) and now reflected in the recently published rule.

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Members of the NRC staff, along with FEMA and the various State and local officials had a meeting on this subject in Homestead on February 27, 1980. At this meeting FPL was requested to update their plans to meet NUREG-0654. They submitted this new plan on June 16, 1980. These new (draft) plans may be seen in the Local Public Document Room at the Florida International University. In addition we have sent a copy of the draft emergency plan to the Homestead Public Library.

Details of the plan, such as the publication of evacuation routes, involve State and local officials as well as FPL and NRC. At the meeting in February, the State and local officials expressed some reservations about the publication of the evacuation routes. They have experience with such evacuations as they have been implemented in connection with hurricane emergencies, and they feel that publication of such plans would not necessarily be of substantive help. This specific point is under further evaluation by FEMA and the NRC.

We appreciate the concerns members of the public have regarding nuclear power. Our rules of practice specifically require accommodation of these concerns, consistent with accepted administrative controls. A member of the public, such as Mr. Breland, has available to him in his vicinity all the published documents pertaining to the issues involved. Public meetings and hearings in the vicinity of the site are held after prior public notification. Subject to certain requirements, active intervention in the proceedings themselves by members of the public can be made. All members of the public are afforded an opportunity to express their views regardless of whether they are formal intervenors or not. Public hearings will be held in the near future on the proposed steam generator repairs. In addition, the public meeting on emergency planning held on February 27 and 28, 1980 at the Holiday Inn, Homestead, Florida, which was advertised by press release to local newspapers also served to inform interested members of the public. I suggest that the forthcoming hearings to be held early next year on the steam generator repair will provide to Mr. Breland an opportunity to express his views. Notice of the hearing will be advertised in the local papers well in advance of the hearing date.

With regard to the economic aspects of the steam generator repair, our environmental impact statement will address this question and is one of the items to be reviewed by the hearing board in the forthcoming public hearings. Our impact statement will be available for public use well in advance of the hearing date.

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Finally, regarding Mr. Breland's concern regarding continued safe operation of Turkey Point, actions already taken and additional measures being implemented have as their objective the added assurance of the safe operation of Turkey Point and all nuclear power plants. As a result of our investigations of the Three Mile Island 2 accident, significant requirements have already been imposed on Turkey Point. These requirements are listed in the enclosed report, NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short Term Recommendations." Many of these requirements have already been implemented on Turkey Point with the remaining items scheduled for completion by January 1981. The full time NRC Resident Inspector assigned to Turkey Point will monitor the implementation of these requirements as well as the overall operation of the facility.

Additional longer-term requirements have been established in NUREG-0660 "NRC Action Plan Developed as a Result of the TMI-2 Accident." I am enclosing a copy of Volume 1 of this plan which lists the specific requirements applicable to operating reactors, gives a technical description of the items and the implementation schedules. All these documents, as well as copies of all of our actions regarding Turkey Point may be found in the Local Public Document Room at Florida International University in Miami.

I believe this letter has been responsive to Mr. Breland's concerns. Please contact us again should you have further questions.

Sincerely,

(Signed) T. A. Rehm

William J. Dircks
Executive Director for Operations

Enclosures:
As Stated

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DATE ▶						

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Docket Files 50-250
and 50-251
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bcc: The Honorable Lawton Chiles
State Office
Federal Building
Lakeland, Florida 33801

No legal objection to this subject to included comments

OELD
08/15/80

EDO
WJDircks
07/ /80

OFFICE	DL:ORB1	DL:ORB1	DL:AD/OR	EPPO	DL	NRR
SURNAME	MGrotenhuis:jb	SAVarga	TNovak	JRoe	DGEisenhut	HRDenton
DATE	07/ /80	08/ /80	08/14/80	08/18/80	9/18/80	07/ /80

NRC FORM 318 (9-76) NRCM 0240 ☆U.S. GOVERNMENT PRINTING OFFICE:-1979-289-369

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DPCleary
SFeld

FEB 26 1980

Docket Nos.: 50-270, 50-287
50-302, 50-335
and ~~50~~-251

Mr. Richard E. Weiner, Director
Division of Power Supply and Reliability
Economic Regulatory Administration
Department of Energy
2000 M Street, N. W.
Washington, D. C. 20461

Dear Mr. Weiner:

You requested notification of our decisions in your February 1, and February 5, 1980 letters to Harold Denton that summarized the views of the U. S. Department of Energy regarding the electric system reliability impacts that may be associated with the implementation of the "Short-Term Lessons Learned" requirements in the Florida and Virginia-Carolinas (VACAR) subregions of the Southeastern Electric Reliability Council (SERC).

Enclosed is Mr. Denton's February 7, 1980 letter to Duke Power Company concerning Oconee Nuclear Station, Units 2 and 3. The modified Order requires that Unit 2 be shutdown after Unit 1 reaches full power, that Unit 3 be shutdown on or before March 15, 1980, and certain administrative controls. The Order may be modified if additional power reliability information is provided and we conclude that severe reliability impacts extend beyond March 15, 1980.

Enclosed, also, are two letters to the Florida Power and Light Company (FPL) and a letter to the Florida Power Corporation (FPC) concerning the Florida subregion of SERC. Mr. Denton's February 14, 1980 letter to FPL includes the modified Order requiring that St. Lucie, Unit No. 1, be shutdown on or before March 15, 1980 for completion of "Category A" requirements. Mr. Schwencer's February 22, 1980 letter to FPL amends the Turkey Point Plant, Unit 4, Technical Specifications to allow the unit to operate an additional four equivalent full power weeks, but not later than April 1, 1980. Mr. Reid's February 15, 1980 letter to FPC indicates that Crystal River, Unit 3, will be permitted to operate through March 31, 1980, with certain administrative controls.

These four enclosures provide you the present status of the actions associated with Oconee, Units 2 and 3; Crystal River, Unit 3; St. Lucie, Unit 1; and Turkey Point Plant, Unit 4.

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SURNAME➔						
DATE➔						

NRC FORM 318 (9-76) NRCM 0240 ☆ U.S. GOVERNMENT PRINTING OFFICE: 1976 - 269 - 769

8003100180

The assistance of the Division of Power Supply and Reliability with regard to the reliability and stability evaluations for Florida and VACAR is greatly appreciated.

Sincerely,

ORIGINAL SIGNED BY

B. J. Youngblood, Chief
Cost-Benefit Analysis Branch
Division of Site Safety and
Environmental Analysis

Enclosures:
As stated

OFFICE ➤	DSE:ET:CBAB					
SURNAME ➤	BJYoungblood/ls					
DATE ➤	2-25-80					

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

February 7,1980

Docket Nos. 50-270
and 50-287

Mr. William O. Parker, Jr.
Vice President - Steam Production
Duke Power Company
Post Office Box 2178
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Parker:

The Commission has issued the enclosed Order Modifying the January 2, 1980 Show Cause Order for Oconee Nuclear Station, Units 2 and 3. Your January 15, 1980 response requested that the sequential shut down of the Oconee units be allowed, based on power reliability, such that at no time prior to May 31, 1980, will two or more units be out of service as a result of the Order. We have determined that good cause has been shown to modify the Order to extend Unit 3 shutdown to March 15, 1980.

The modified Order requires that Unit 2 be shutdown after Unit 1 reaches full power, Unit 3 be shutdown on or before March 15, 1980, and a dedicated qualified person be stationed in the control room to monitor certain valves. The Order may be modified if additional power reliability information is provided and we conclude that severe reliability impacts extend beyond March 15, 1980.

A copy of this Order is being filed with the Office of the Federal Register for publication.

Sincerely,

Harold R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosure:
Order Modifying January 2, 1980
Show Cause Order

cc w/encl:
See next page

cc w/enclosure(s):
Mr. William L. Porter
Duke Power Company
Post Office Box 2178
422 South Church Street
Charlotte, North Carolina 28242

J. Michael McGarry, III, Esquire
DeBevoise & Liberman
700 Shoreham Building
806 15th Street, N.W.
Washington, D. C. 20005

Oconee Public Library
201 South Spring Street
Walhalla, South Carolina 29691

Honorable James M. Phinney
County Supervisor of Oconee County
Walhalla, South Carolina 29621

Director, Technical Assessment
Division
Office of Radiation Programs
(AW-459)
U. S. Environmental Protection Agency
Crystal Mall #2
Arlington, Virginia 20460

U. S. Environmental Protection Agency
Region IV Office
ATTN: EIS COORDINATOR
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Mr. Francis Jape
U. S. Nuclear Regulatory Commission
P. O. Box 7
Seneca, South Carolina 29678

Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Generation Division
Suite 420, 7735 Old Georgetown Road
Bethesda, Maryland 20014

Manager, LIS
NUS Corporation
2536 Countryside Boulevard
Clearwater, Florida 33515

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, North Carolina 27603

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
DUKE POWER COMPANY	)	Docket No. 50-270
(Oconee Nuclear Station, Units 2 and 3)	)	50-287

ORDER MODIFYING JANUARY 2, 1980
SHOW CAUSE ORDER

I

On January 2, 1980 Duke Power Company (the licensee) was issued an Order to Show Cause why it should not, by February 15, 1980, implement all "Category A" Lessons Learned requirements or shut down Oconee Nuclear Station, Units 2 and 3 unless among other things, a shutdown would severely impact the power reliability of the Virginia-Carolina (VACAR) subregion of the Southeastern Electric Reliability Council. The Order provided that it was temporarily effective pending further order.

II

The licensee answered the Order on January 15, 1980 requesting on the basis of power reliability that sequential shutdown of the Oconee units be allowed such that at no time prior to May 31, 1980 will two or more units be out of service as a result of the Order. A shutdown is necessary to meet the two outstanding requirements which pertain to direct indication of valve positions and containment isolation. The licensee has indicated that it could adopt compensatory measures consisting of a dedicated man to monitor valves in the control room until the outstanding requirements are met.

The Department of Energy has reviewed the power reliability for the VACAR area and concluded that there is a risk of severe system reliability impacts if two of the three Oconee units are shut down during the February 15, 1980 to March 15,

1980 period. If March is colder than expected, the potentially severe reliability impacts may extend until the end of March.

III

In view of the power reliability analysis conducted by DOE and the compensatory measures which the licensee could take, I find good cause shown to modify the January 2, 1980 Order. Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Parts 2 and 50, IT IS HEREBY ORDERED THAT the January 2, 1980 Order is modified as follows:

(a) Unit 2 shall be shut down for implementation of the Category A Lessons Learned requirements after Unit 1 reaches full power operation, but no later than March 15, 1980,

(b) Unit 3 shall be shut down for implementation of the Category A Lessons Learned requirements on or before March 15, 1980,

(c) Until Unit 3 is shut down the licensee shall provide a dedicated qualified person in the control room to monitor the PORV and safety valves, to close any valve that might be open in case a low reactor coolant system pressure signal is generated, and to notify control operator if any out-of-normal indications are noted, and

(d) The requirement that Unit 3 be shut down by March 15, 1980, may be modified if additional power reliability information is provided and NRC concludes that severe reliability impacts extend past March 15, 1980.

For the reasons given in the January 2, 1980, Order, I find that the public health, safety, and interest requires that this Modification Order be effective immediately.

IV

The licensee may file a written answer to this Order under oath or affirmation within twenty (20) days of the date of the Order. The licensee or any other person whose interest may be affected by this Order may request a hearing within twenty (20) days of the date of the Order. Any request for a hearing will not stay the temporary effectiveness of this Order. Any request for a hearing shall be addressed to the Director, Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission, Washington, D. C., 20555. If a hearing is requested by a person whose interest may be affected by this Order, the Commission will issue an Order designating the time and place of any such hearing. In the event a hearing is requested, the issue to be considered at such hearing shall be:

> whether the remaining "Category A" requirements and the compensatory measures should be implemented in accordance with the schedule prescribed by this Order.

Operation of the facility on terms consistent with this Order is not stayed by the pendency of any proceedings on the Order.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland
this 7th day of February, 1980

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

February 14, 1980

Docket No. 50-335

Dr. Robert E. Uhrig
Vice President
Florida Power & Light Company
Advanced Systems & Technology
P. O. Box 529100
Miami, Florida 33152

Dear Dr. Uhrig:

The Commission has issued the enclosed Order Modifying the January 2, 1980 Show Cause Order for the St. Lucie Plant, Unit No. 1. Your January 22, 1980 response, as supplemented February 11, 1980, stated that all "Category A" Lessons Learned requirements (excluding 2.1.7.a) would be implemented by February 15, 1980, except the valve position indication requirement of Item 2.1.3.a. Information on power reliability was provided by your letter of January 15, 1980. You requested that the shutdown of St. Lucie, Unit No. 1, for implementation of "Category A" Lessons Learned requirements be delayed until the March 15, 1980 refueling.

We have reviewed the power reliability information and the status of your implementation of "Category A" requirements and have determined that good cause has been shown to modify our January 2, 1980 Order to extend the St. Lucie, Unit No. 1 shutdown to March 15, 1980. The modified Order requires that St. Lucie, Unit No. 1, be shutdown on or before March 15, 1980, for completion of "Category A" requirements.

A copy of this Order is being filed with the Office of the Federal Register for publication.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosure: Modified Order

cc w/enclosure:
See next page

cc w/enclosure(s):
Robert Lowenstein, Esquire
Lowenstein, Newman, Reis & Axelrad
1025 Connecticut Avenue, N.W.
Washington, D.C. 20036

Norman A. Coll, Esquire
McCarthy, Steel, Hector & Davis
14th Floor, First National Bank Building
Miami, Florida 33131

Indian River Junior College Library
3209 Virginia Avenue
Fort Pierce, Florida 33450

Mr. Hamilton Oven, Jr., Administrator
Florida Department of Environmental Reg.
Power Plant Siting Section
Montgomery Building
2562 Executive Center Circle
Tallahassee, Florida 32301

Mr. Weldon B. Lewis
County Administrator
St. Lucie County
2300 Virginia Avenue, Room 104
Fort Pierce, Florida 33450

Director, Technical Assessment
Division
Office of Radiation Programs
(AW-459)
U. S. Environmental Protection Agency
Crystal Mall #2
Arlington, Virginia 20460

U.S. Environmental Protection Agency
Region IV Office
ATTN: EIS COORDINATOR
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Mr. Jack Shreve
Office of the Public Counsel
Room 4, Holland Bldg.
Tallahassee, Florida 32304

Bureau of Intergovernmental
Relations
660 Apalachee Parkway
Tallahassee, Florida 32304

Enclosure
7590-01

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Florida Power & Light Company	)	Docket No. 50-335
	)	
St. Lucie, Unit No. 1	)	

ORDER MODIFYING JANUARY 2, 1980
SHOW CAUSE ORDER

I

On January 2, 1980, Florida Power & Light Company (the licensee) was issued an Order to Show Cause (45 FR 2434, January 11, 1980) why it should not, by February 15, 1980, implement all "Category A" Lessons Learned requirements (excluding 2.1.7.a) or shut down St. Lucie, Unit No. 1 (the plant) unless among other things, a shutdown would severely impact the power reliability of the Florida subregion of the Southeastern Electric Reliability Council. The Order provided that it was temporarily effective pending further order.

II

The licensee answered the Order on January 22, and February 11, 1980, stating that all "Category A" requirements would be implemented by February 15, 1980, except the valve position indication requirements of Item 2.1.3.a. Information on power reliability was provided by the licensee on January 15, 1980. Completion of the in-containment work associated with this item necessitates a plant shutdown which the licensee has requested be deferred until the March 15, 1980 refueling outage. The bases for this request are power reliability, existing position indication for the subject relief valves and compensatory measures consisting of a dedicated man to monitor the relief valves in the control room until the outstanding requirements are met.

The Department of Energy (DOE) has reviewed the power reliability for Southeastern Florida and concluded that there is a risk of severe system reliability impacts if one of the licensee's three units (St. Lucie 1 and Turkey Point 3 and 4) is shut down during February 1980 or if two of these units are shutdown during March 1980. Currently, Turkey Point 4 is required by its license to shut down on February 26, 1980, for steam generator tube inspections which will extend into the first half of March.

III

In view of the power reliability analysis conducted by DOE and the compensatory measures which the licensee could take, I find good cause shown to modify the January 2, 1980 Order. Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Parts 2 and 50, IT IS HEREBY ORDERED THAT the January 2, 1980 Order is modified as follows:

(a) St. Lucie, Unit No. 1, shall be shut down for implementation of the "Category A" Lessons Learned requirements (excluding 2.1.7.a) on or before March 15, 1980, and

(b) Until implementation of "Category A" Item 2.1.3.a is complete, unless St. Lucie, Unit No. 1 is shut down, the licensee shall provide a dedicated, qualified person in the control room to monitor the power operated relief valve and the safety valve positions and to notify the control room operators if any out-of-normal indications are noted.

For the reasons given in the January 2, 1980 Order, I find that the public health, safety, and interest require that this Modification Order be temporarily effective as of this date.

IV

The licensee may file a written answer to this Order under oath or affirmation within twenty (20) days of the date of the Order. The licensee or any other person whose interest may be affected by this Order may request a hearing within twenty (20) days of the date of the Order. Any request for a hearing will not stay the temporary effectiveness of this Order. Any request for a hearing shall be addressed to the Director, Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555. If a hearing is requested by a person whose interest may be affected by this Order, the Commission will issue an Order designating the time and place of any such hearing. In the event a hearing is requested, the issue to be considered at such hearing shall be:

whether the remaining "Category A" requirements and the compensatory measures should be implemented in accordance with the schedule prescribed by this Order.

Operation of the facility on terms consistent with this Order is not stayed by the pendency of any proceedings on the Order.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland,
this 14 day of February, 1980

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

FEBRUARY 2 2 1980

Docket No. 50-251

Dr. Robert E. Uhrig, Vice President
Advanced Systems and Technology
Florida Power and Light Company
Post Office Box 529100
Miami, Florida 33152

Dear Dr. Uhrig:

The Commission has issued the enclosed Amendment No. 44 to Facility Operating License No. DPR-41 for the Turkey Point Plant Unit No. 4. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated January 23, 1980, supplemented February 1 and February 14, 1980.

The amendment permits continued operation of the Turkey Point Plant, Unit No. 4 for an additional four equivalent full power weeks from that authorized by Amendment No. 43 dated December 14, 1979 for a total of eight equivalent full power months plus four equivalent full power weeks from June 1, 1979 but not later than April 1, 1980, at which time the steam generators shall be inspected.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

A. Schwencer

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:
1. Amendment No. 44 to DPR-41
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
See next page

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

February 15, 1980

Docket No. 50-302

Mr. J. A. Hancock
Director, Nuclear Operations
Florida Power Corporation
P. O. Box 14042, Mail Stop C-4
St. Petersburg, Florida 33733

Dear Mr. Hancock:

On January 2, 1980, Florida Power Corporation was issued an Order to Show Cause why it should not, by February 15, 1980, implement all "Category A" Lessons Learned Requirements or shut down. On February 1, 1980, you were advised that the Commission accepted the justification provided with regard to installation of equipment necessary for the monitoring of PORV and safety valve position.

Your February 6, 1980 letter, identified a problem in completing the containment isolation installation while the plant is operating. In response to discussions with the staff on this matter, you identified in February 8, and 13, 1980 letters, administrative controls that will be instituted until such time as the containment isolation circuitry is installed.

The staff has reviewed the proposed administrative controls and such controls meet the Lessons Learned Requirement 2.1.4, Containment Isolation. Therefore, operation through March 31, 1980, will be permitted.

Sincerely,

Robert W. Reid

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

cc: See next page

FROM:	DATE OF DOCUMENT	DATE RECEIVED	NO.
Richard Heiner	2/1/80	2/13/80	NRR-5746

LTR:	MEMO:	PORT:	OTHER:
X			

TO:	ORIG.:	CC:	OTHER:
H. R. Denton	X		

ACTION NECESSARY	CONCURRENCE	DATE ANSWERED
NO ACTION NECESSARY ☐	COMMENT ☐	BY 2/27/80

CLASSIF.: POST OFFICE REG. NO.

FILE CODE.

DESCRIPTION: (Must Be Unclassified)

SUMMARIZES THE VIEWS OF THE U.S. DOE REGARDING THE ELECTRIC SYSTEM RELIABILITY IMPACT IN THE VIRGINA CAROLINAS SUB REGIONAL AREA OF THE SOUTHEASTER ELECTRIC RELIABLI LITY COUNCIL WHEN OCONEE NUCLEAR UNITS 2 and 3 ARE REQUIRED TO BE REMOVED

ENCLOSURES:

REFERRED TO	DATE	RECEIVED BY	DATE
D. Eisenhut	2/13		
Copies To:			
H. R. Denton			
~~E. G. Case~~			
H. Berkow/ W. Russell			
~~F. DeYoung~~			
D. Ross			
~~R. Hattson~~			

REMARKS:

U. S. NUCLEAR REGULATORY COMMISSION

MAIL CONTROL FORM

FORM NRC-326S (4-79)

Department of Energy
Washington, D.C. 20461

FEB 1 1980

Enclosure 4

NRC-Docket Nos. 50-270, and 50-287

Mr. Harold Denton
Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

This letter summarizes the views of the U.S. Department of Energy regarding the electric system reliability impact in the Virginia-Carolinas (VACAR) sub-regional area of the Southeastern Electric Reliability Council when Oconee Nuclear Units 2 and 3 are required to be removed from service simultaneously to implement the "Lessons Learned Short-Term" requirements. This simultaneous outage would occur for the three weeks beginning February 16, 1980.

I want to reiterate the fact that a shutdown of large generating units, such as these, at a time other than planned, will pose a risk that the operating utility will have insufficient capacity to meet its consumer's demands. Available energy supply from the generating units remaining in service and fuel resources could be constrained or insufficient to supply customer energy requirements during the outage period.

The necessary margin of reserve generating capacity is variable for different operating systems, different areas of the country, and different times of the year. Electric utilities typically plan for a level of reserves that consider construction slippages, necessary or planned maintenance, or forced or unexpected outages. Operating reserves are normally provided to insure against the loss of the single largest power source on the system and for certain system operating needs. The analysis done of the anticipated VACAR situation is from the perspective of adequacy of operating reserves considering possible support from other electric systems.

The review of available information* regarding the simultaneous outage of two Oconee nuclear units in the February 15, 1980, to March 15, 1980, period indicates that the VACAR and Duke Power Company systems will stand the risk of severe system reliability impacts unless at least 1700 MW of power are assured in February and 700 MW of power are assured in March from neighboring systems. There has been no information presented for review that indicates a commitment of such an assured supply, although data reported to the DOE Monitoring Center indicates that some capacity may be available from the Southern Company, American Electric Power, and Pennsylvania-New Jersey-Maryland systems. Duke has indicated in phone conversations with DOE that, should two Oconee Units be simultaneously shut down in the latter part of March, the outages of two large fossil units planned for that time could be rescheduled to lessen the adverse reliability impacts. The power requirements of the VACAR region are very sensitive to the weather in the month of March. If this month is colder than expected, the potentially severe reliability impacts may extend until the end of the month.

DOE was informed on January 29, 1980, that the outage of Oconee Unit 1 will be extended until February 17. When Unit 1 returns to service, Unit 2 will be shut down for refueling and modification. The reliability of the VACAR and Duke Power Company systems will be inadequate if Oconee Units 2 and 3 are removed from service, as scheduled, prior to Unit 1 returning to service, even if a power supply from neighboring systems is assured.

The current analysis differs from the evaluation performed by DOE for NRC Docket No. 50-206 (San Onofre) in that the San Onofre data had already accounted for forced outages. As a result of this difference and differences in system configurations and locations, a direct comparison of the two evaluations is not possible.

The evaluation of the VACAR area during the month of February, with the simultaneous outage of two Oconee units, shows an operating reserve margin of 8.3 percent (2,160 MW). The lower loads projected for March would improve this operating margin to 12.0 percent (2,845 MW). These margins would be below the desired levels to provide reliable service without an assured power supply from neighboring regions.

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* Information utilized was that contained in the letter of January 15, 1980, from William O. Parker of Duke Power Company to Mr. Harold R. Denton and Mr. Richard Weiner; the letter of January 15, 1980, from Mr. Paul H. Mann of Duke Power Company to Mr. Richard Weiner; the Duke Power Company's answer to Order to Show Cause; the January 10, 1980, letter from Mr. William R. Brownlee of SERC to Mr. Harold Denton; the letter of January 17, 1980, from Mr. Robert Fischbach of the North Carolina Utilities Commission to Mr. Harold Denton; the January 17, 1980, letter from Mr. Henry G. Yonce of the South Carolina Public Service Commission to Mr. Harold Denton; and information periodically filed with the Department of Energy by electric utilities.

The VACAR utilities have a generation mix that includes approximately 3,000 MW of hydroelectric generation and 2,100 MW of combustion turbines. These types of resources cannot be depended upon to supply energy requirements over an extended period because of storage requirements. DOE has also reviewed some currently filed operating information for utilities in the VACAR region. This data indicates the amount of capacity on forced outage and capacity constrained by partial outages at the time of the monthly peak load. For the winter 1978-79 period, the forced outages averaged 3,000 MW while partial outages amounted to an average of 2,500 MW. The latest available data for December 1979 show a total of approximately 5,000 MW unavailable due to forced and partial outages. Based on this actual data, it appears that information presented by Duke Power Company may be too conservative and that an operating reserve margin in VACAR must be at least 15 percent to assure reliable service.

The only non-VACAR resources that are included in the above evaluation is a purchase of 114 MW by Duke Power Company from the Southeastern Power Administration. The VACAR region has substantial transmission ties to other regions and could continuously import up to 2,000 MW. An assured source of power from outside the region, when two Oconee units are shut down, will improve the VACAR reserve margin. Utilizing a significant portion of the region's transfer capability for continuous support limits the capability to import additional power should another unexpected event occur.

In order to have an adequate operating reserve margin of 15 percent in February, VACAR would need assured imports from other regions totaling 1,724 MW or 86.2 percent of their transfer capability. In March the requirements would be 721 MW which represents 36.1 percent of the capacity of the transmission ties.

DOE has also evaluated the effect of a simultaneous shutdown of two Oconee units on the Duke Power Company system. The expected February Duke operating reserve margin is a negative 1.0 percent with the simultaneous outage of two Oconee units. The March situation would only improve to an 8.5 percent operating reserve margin. These margins are not considered to be sufficient to provide adequate system reliability. The Duke situation is similar to the VACAR analysis in that an assured source of power from another utility, either outside VACAR or another VACAR member, could provide the necessary augmentation to internal reserves for Duke to provide reliable service to its customers.

This analysis deals only with electric system reliability and energy supply; it does not consider the need to reduce operating costs and conserve oil or natural gas. The simultaneous outage of Oconee Units 2 and 3 will probably result in increased costs to the consumers of electricity in the Carolinas because of the resulting increased use of oil and gas.

The above represents an analysis done utilizing the available data. Circumstances in this power study situation can change on a daily basis, but this evaluation recognizes the more probable variations. Any dramatic changes in the relevant time frame will require further evaluation.

I will appreciate notification of your decision regarding the shutdown of Oconee Units 2 and 3 to implement the TMI "Short-Term" Lessons Learned changes.

Sincerely,

Richard E. Weiner

Richard E. Weiner, Director
Division of Power Supply
and Reliability
Economic Regulatory Administration

3738

FROM	DATE OF DOCUMENT	DATE RECEIVED	NO
Richard E. Weiner, Director DOE	2/5/80	2/11/80	NRR-3738

LTR:	MEMO:	REPORT:	OTHER:
X			

TO:	ORIG:	CC	OTHER:
H. R. Denton	X		

ACTION NECESSARY	CONCURRENCE	DATE ANSWERED:
NO ACTION NECESSARY ☐	COMMENT ☐	BY 2/25/80

CLASSIF.: POST OFFICE REG. NO.:

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DESCRIPTION: (Must Be Unclassified)

RE: THE ELECTRIC SYSTEM RELIABILITY IMPACT IN THE FLORIDA SUBREGION

ENCLOSURES:

REFERRED TO	DATE	RECEIVED BY	DATE
D. Eisenhut	2/11		
Copies To:			
H. R. Denton E. G. Case			
H. Berkow/W. Russell R. DeYoung			
D. Ross R. Mattson			

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U.S. NUCLEAR REGULATORY COMMISSION — MAIL CONTROL FORM — FORM NRC 326S (4-79)

Department of Energy
Washington, D.C. 20461

FEB 5 1980

NRC-Docket Nos. 50-302 and 50-335

Mr. Harold Denton
Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

This letter summarizes the views of the U.S. Department of Energy regarding the electric system reliability impact in the Florida subregion of the Southeastern Electric Reliability Council of requiring the shutdown of more than one nuclear generating unit at the same time in February and March.

The following represents our understanding of the operating status of nuclear generating units in Florida. There are four nuclear generating units with operating licenses in Florida at the present time. These are Turkey Point Units 3 and 4 (697 MW each), located 25 miles south of Miami; St. Lucie Unit 1 (795 MW), located 100 miles north of Miami all on the Florida Power and Light system; and Crystal River Unit 3 (797 MW), located on the Florida Power Corporation system 60 miles north of Tampa. Turkey Point Unit 3 is currently undergoing start-up procedures, following a refueling outage during which the required off-line TMI "Lessons Learned Short-Term" modifications were made. This unit is expected to be operating at full capacity by February 9, 1980. Turkey Point Unit 4 is operating at full capacity and has also completed the off-line modifications. All remaining TMI "Lessons Learned Short-Term" modificaitons at the Turkey Point plant are supposed to be completed by February 15, 1980, and will not require any curtailment of the generation from these units. There is a requirement that Turkey Point Unit 4 be shut down every six months for a detailed steam generator inspection. The next inspection is scheduled for February 26 and is planned for one month. Florida Power & Light has requested a delay until late April when the refurbished turbine rotors will be available for installation, thus combining two required outages. St. Lucie Unit 1 and Crystal River Unit 3 still have to be shut down to implement "Lessons Learned Short-Term" requirements.

Conversations with the NRC staff have indicated that Crystal River Unit 3 has been granted a waiver of the shutdown order until March 1 due to late delivery of some necessary equipment. Should St. Lucie be shut down on February 16, as currently scheduled, it would return to service by the time Crystal River is to be taken off line. This situation would avoid having two nuclear units in Florida out of service at the same time in the latter half of February, providing Turkey Point Unit 4 is granted the extension on the steam generator inspection outage. The timing of these various nuclear units to be shut down is different from the schedule when the show cause order was written.

The DOE analysis of the rather complex relationship between the Florida transmission system, load center location, and nuclear unit location indicates that the system reliability in Florida will not be adequate if St. Lucie Unit 1 is taken out of service prior to the beginning of March. When Florida's loads decline in March, the outages of Crystal River Unit 3 and either St. Lucie Unit 1 or Turkey Point Unit 4 can be accommodated within adequate reliability limits. The simultaneous outage of St. Lucie Unit 1 and a Turkey Point unit in March would not provide reliable service to consumers in Southeast Florida.

The available information* shows that, if St. Lucie Unit 1 is shut down for the last half of February, the resulting operating reserve margin for Florida would be 3,039 MW or 17.1 percent of the expected peak load. Included in this figure is maximum possible import of 330 MW from the Southern Company and the continued operation of Turkey Point Unit 4. The configuration of the Florida transmission system, the distribution of loads within the state, and the ability of the transmission ties to outside regions make this level of operating reserves inadequate to assure reliable service. Delay of the St. Lucie outage until the beginning of March, to occur simultaneously with the two-week shutdown of Crystal River, along with the lower projected load levels at this time, would leave an operating reserve of 4,830 MW (33.7 percent) with Turkey Point 4 operating. Should Turkey Point 4 also be shut down, the operating

* Information utilized was that contained in the letter of January 14, 1980, from Ms. Patsy Y. Baynard of Florida Power Corporation to Mr. Harold Denton; technical supporting documents supplied by Florida Power and Light Company, dated January 11, providing responses to the data requirements enumerated by NRC in the letter describing the DOE reliability analysis effort; the January 11, 1980, letter from Mr. Michael R. Gent of the Florida Coordinating Group to Mr. Richard E. Weiner; and the January 10, 1980, letter from Mr. William R. Brownlee of SERC to Mr. Harold Denton; and phone conversations with Florida Power & Light to update maintenance schedules on February 4.

reserve margin would be 28.8 percent (4,137 MW). These operating reserves also include a maximum import from outside the region (330 MW). Reserves of this magnitude would be adequate for Florida considered as a single entity. The loads in Florida are extremely sensitive to the weather at this time of year; and it would be possible to have March loads reach the February levels, especially in the early part of the month.

The Southeastern portion of Florida is a major load center located near the tip of the peninsula. Only four transmission lines connect this area to the rest of the state. The three Florida Power and Light nuclear units are in this area as well as other major generating plants. These sources of power are not sufficient to meet the peak demand in the area and are normally supplemented by power imports over transmission ties to the west and the north. These transmission ties provide an import capability of 1,500 MW. Reliable system operation requires that enough capacity be available on these transmission lines to absorb a load increase equal to the largest generating unit operating in Southeast Florida. This situation makes it necessary to further evaluate the impact of the shutdown of St. Lucie Unit 1 on Southeast Florida separately from the overall Florida reliability margin analysis.

The operating reserve margin in Southeast Florida in the second half of February will be a negative 2.1 percent (a deficiency of 127 MW) if St. Lucie is out of service. This margin considers a transfer into the area of 705 MW (almost the maximum that can be reliably imported). The maximum unreliable import of 1,500 MW would provide a reserve margin of 668 MW. This amount is insufficient to cover the outage of a Turkey Point nuclear unit and would, therefore, not be able to assure reliable service to consumers in this area. Load levels are expected to be considerably lower in March. This would leave an operating reserve margin of 21.1 percent (1,018 MW) if St. Lucie is taken out of service in the early part of the month, 705 MW are imported into the area, and Turkey Point Unit 4 remains in service. Should Turkey Point Unit 4 be shut down simultaneously with St. Lucie Unit 1, the operating reserve margin in March would be 321 MW (6.6 percent).

The above analysis shows that reliable service cannot be maintained in Southeast Florida during February if any nuclear units in this area (the Turkey Point units or St. Lucie) are out of service. Assuming normal March weather conditions, either St. Lucie Unit 1 or Turkey Point Unit 4 can be shut down at the beginning of March and not severely impact the reliability of this area of Florida. Should both of these units be out of service simultaneouly in March, the resulting operating reserves, including maximum reliable imports from the remainder of the state, would not be sufficient to insure reliable service to the consumers in Southeast Florida.

This analysis deals only with electric system reliability and energy supply; it does not consider the need to reduce operating costs and conserve oil or natural gas. The outage of any large non-oil generating unit in Florida results in increased costs to the consumers of electricity in the state because of the resulting increased use of oil-fired generation.

The above represents an analysis done utilizing the available data. Circumstances in the Florida power supply situation change on a daily basis, but this evaluation recognizes the more probable variations. Any significant changes, such as a need to remove either Turkey Point nuclear unit from service to complete TMI "Short-Term" modifications, will require further analysis.

I will appreciate notification of your decision regarding the shutdown of Crystal River Unit 3 and St. Lucie Unit 1 to implement "Lessons Learned Short-Term" changes and Turkey Point Unit 4 for its steam generator inspection.

Sincerely,

Richard E. Weiner

Richard E. Weiner, Director
Division of Power Supply
and Reliability
Economic Regulatory Administration