

February 13, 1989

Docket Nos. 50-277/278

Mr. George A. Hunger, Jr.
Director-Licensing
Philadelphia Electric Company
Correspondence Control Desk
P. O. Box 7520
Philadelphia, Pennsylvania 19101

Dear Mr. Hunger:

SUBJECT: CONTROL ROOM CARBON DIOXIDE FIRE SUPPRESSION SYSTEM
(TAC NOS. 69288/69289)

RE: PEACH BOTTOM ATOMIC POWER STATION, UNIT NOS. 2 AND 3

The Commission has issued the enclosed Amendments Nos. 139 and 141 to Facility Operating License Nos. DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station, Unit Nos. 2 and 3. These amendments consist of changes to the Technical Specifications in response to your application dated August 26, 1988.

These amendments would authorize the removal of that portion of the carbon dioxide fire suppression system (CARDOX) which is installed in the control room due to the potential for unexpected releases of carbon dioxide in the control room.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

/s/

Robert E. Martin, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 139 to DPR-44
2. Amendment No. 141 to DPR-56
3. Safety Evaluation

cc w/enclosures:
See next page

[HUNGER LTR]

PDI-2/D
MButler
1/14/89

PDI-2/PM
REMartin:tr
1/14/89

OGC
1/21/89

PDI-2/D
WButler
2/13/89

CLP-1

DFOL
1/1

8902220246 890213
PDR ADOCK 05000277
P PDC

cc



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

February 13, 1989

Docket Nos. 50-277/278

Mr. George A. Hunger, Jr.
Director-Licensing
Philadelphia Electric Company
Correspondence Control Desk
P. O. Box 7520
Philadelphia, Pennsylvania 19101

Dear Mr. Hunger:

SUBJECT: CONTROL ROOM CARBON DIOXIDE FIRE SUPPRESSION SYSTEM
(TAC NOS. 69288/69289)

RE: PEACH BOTTOM ATOMIC POWER STATION, UNIT NOS. 2 AND 3

The Commission has issued the enclosed Amendments Nos. 139 and 141 to Facility Operating License Nos. DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station, Unit Nos. 2 and 3. These amendments consist of changes to the Technical Specifications in response to your application dated August 26, 1988.

These amendments would authorize the removal of that portion of the carbon dioxide fire suppression system (CARDOX) which is installed in the control room due to the potential for unexpected releases of carbon dioxide in the control room.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

Robert E. Martin
Robert E. Martin, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 139 to DPR-44
2. Amendment No. 141 to DPR-56
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. George A. Hunger, Jr.
Philadelphia Electric Company

Peach Bottom Atomic Power Station,
Units 2 and 3

cc:

Troy B. Conner, Jr., Esq.
1747 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

Single Point of Contact
P. O. Box 11880
Harrisburg, Pennsylvania 17108-1880

Philadelphia Electric Company
ATTN: Mr. D. M. Smith, Vice President
Peach Bottom Atomic Power Station
Route 1, Box 208
Delta, Pennsylvania 17314

Mr. Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
P. O. Box 2063
Harrisburg, Pennsylvania 17120

H. Chris Schwemm
Vice President, Production
Atlantic Electric
P.O. Box 1500
1199 Black Horse Pike
Pleasantville, New Jersey 08232

Mr. Albert R. Steel, Chairman
Board of Supervisors
Peach Bottom Township
R. D. #1
Delta, Pennsylvania 17314

Resident Inspector
U.S. Nuclear Regulatory Commission
Peach Bottom Atomic Power Station
P.O. Box 399
Delta, Pennsylvania 17314

Mr. Gary Mock
P. O. Box 09181
Columbus, Ohio 43209

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

Delmarva Power and Light Company
c/o Jack Urban
General Manager, Fuel Supply
800 King Street
P. O. Box 231
Wilmington, DE 19899

Mr. Bryan W. Gorman
Manager - External Affairs
Public Service Electric & Gas Company
P. O. Box 236, N28
Hancocks Bridge, New Jersey 08038

Mr. Tom Magette
Power Plant Research Program
Department of Natural Resources
B-3
Tawes State Office Building
Annapolis, Maryland 21401

Mr. Roland Fletcher
Department of Environment
201 West Preston Street
Baltimore, Maryland 21201



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

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 139
License No. DPR-44

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Philadelphia Electric Company, et al. (the licensee) dated August 26, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I.
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health or safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. DPR-44 is hereby amended to read as follows:

8902230179 890213
FDR ADCK 05000277
P PDC

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 139, are hereby incorporated in the license. PECO shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 13, 1989

MO'Brien
1/19/89

PDI-2/DM
RE Martin:tr
01/17/89
+1/19

000
1/19/89

PDI-2/D
WButler
2/13/89

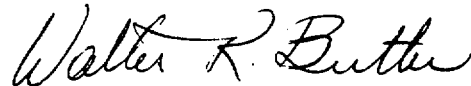
LB

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 139, are hereby incorporated in the license. PECO shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 13, 1989

ATTACHMENT TO LICENSE AMENDMENT NO.139

FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove

240g
240q

Insert

240g
240q

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS3.14.B C02 Fire Protection Systems

1. The HPCI room C02 Fire Protection System shall be operable when the HPCI system is required to be operable with the system comprised of:
 - a. a minimum inventory of 2400 pounds of C02 and a minimum pressure of 280 psig in the C02 storage tank,
 - b. an operable flow path to the HPCI room and
 - c. three heat detectors, except that one detector may be inoperable for a period not to exceed 7 days.
2. The C02 Fire Protection System serving the Cable Spreading Room, and Computer Room shall be operable with the system comprised of:
 - a. a minimum inventory of 11,000 pounds of C02 and a minimum pressure of 280 psig in the C02 storage tank(s) and
 - b. an operable flow path to each room.
3. The Diesel Generator C02 Fire Protection System shall be operable when the Diesel Generators are required to be operable with the system comprised of:
 - a. a minimum inventory of 2200 pounds of C02 and a minimum pressure of 280 psig in the C02 storage tank,

4.14.B C02 Fire Protection Systems

1. The C02 Fire Protection Systems testing shall be performed as follows:
 - a. C02 storage tank level and pressure-checked once every 7 days.
 - b. Simulated actuation test of valves, dampers, fans - once every 18 months.
 - c. Header and nozzle air flow test - once every 18 months.
 - d. Heat detector functional test - once every 6 months.

3.14 BASES

The water and CO₂ Fire Protection Systems provide fire suppression capabilities in those areas of the plant where protection of plant equipment is deemed necessary.

A. Water Fire Protection System

Two fire pumps supply water to sprinklers, manual hose stations, and hydrants in or surrounding the plant. One electrically driven pump is powered from an emergency power bus; the other pump is diesel driven. The capacity of each pump is in excess of the system design load.

In the event that both fire pumps become inoperable, immediate corrective measures are taken since this system is a major portion of the fire suppression capability of the plant. The requirement for a twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the plant.

B. CO₂ Fire Protection Systems

The CO₂ Fire Protection Systems provide fire suppression capability for the Cable Spreading Room, Computer Room, HPCI Rooms, and the Diesel Generator Rooms. The specified minimum quantities of CO₂ provide the capability to flood the Cable Spreading Room and Computer Room simultaneously, a HPCI room, or a Diesel Generator Room with sufficient CO₂ to meet concentration objectives.

In the event that portions of the CO₂ Fire Protection System are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the affected fire suppression equipment can be returned to service.

C. Fire Detection

Operability of the fire detectors ensures that adequate warning is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to plant equipment and is an integral element in the overall plant fire protection program. Table 3.14.C.1 specifies the minimum number of operable detectors in each room.

There are sixteen heat detectors in each diesel generator room, two detectors located in close proximity to each other at each of eight locations (each constituting a "zone"). Actuation of both detectors in any zone will initiate Cardox discharge in the room and a trip signal to the diesel generator in the room. One detector or both detectors in one zone of each diesel generator room may be inoperable for a period not to exceed seven days without compensatory measures being taken.



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

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 141
License No. DPR-56

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Philadelphia Electric Company, et al. (the licensee) dated August 26, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I.
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health or safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. DPR-56 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 141, are hereby incorporated in the license. PECO shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 13, 1989

PDI-2/D
WButler
1/14/89

PDI-2/PM
REMartin:tr
01/17/89

OGC

1/17/89

PDI-2/D
WButler
2/13/89

WB

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 141, are hereby incorporated in the license. PECO shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, reading "Walter R. Butler".

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 13, 1989

ATTACHMENT TO LICENSE AMENDMENT NO.141

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove

240g
240q

Insert

240g
240q

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS3.14.8 CO2 Fire Protection Systems

1. The HPCI room CO2 Fire Protection System shall be operable when the HPCI system is required to be operable with the system comprised of:
 - a. a minimum inventory of 2400 pounds of CO2 and a minimum pressure of 280 psig in the CO2 storage tank,
 - b. an operable flow path to the HPCI room and
 - c. three heat detectors, except that one detector may be inoperable for a period not to exceed 7 days.
2. The CO2 Fire Protection System serving the Cable Spreading Room, and Computer Room shall be operable with the system comprised of:
 - a. a minimum inventory of 11,000 pounds of CO2 and a minimum pressure of 280 psig in the CO2 storage tank(s) and
 - b. an operable flow path to each room.
3. The Diesel Generator CO2 Fire Protection System shall be operable when the Diesel Generators are required to be operable with the system comprised of:
 - a. a minimum inventory of 2200 pounds of CO2 and a minimum pressure of 280 psig in the CO2 storage tank,

4.14.8 CO2 Fire Protection Systems

1. The CO2 Fire Protection Systems testing shall be performed as follows:
 - a. CO2 storage tank level and pressure-checked once every 7 days.
 - b. Simulated actuation test of valves, dampers, fans - once every 18 months.
 - c. Header and nozzle air flow test - once every 18 months.
 - d. Heat detector functional test - once every 6 months.

3.14 BASES

The water and CO₂ Fire Protection Systems provide fire suppression capabilities in those areas of the plant where protection of plant equipment is deemed necessary.

A. Water Fire Protection System

Two fire pumps supply water to sprinklers, manual hose stations, and hydrants in or surrounding the plant. One electrically driven pump is powered from an emergency power bus; the other pump is diesel driven. The capacity of each pump is in excess of the system design load.

In the event that both fire pumps become inoperable, immediate corrective measures are taken since this system is a major portion of the fire suppression capability of the plant. The requirement for a twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the plant.

B. CO₂ Fire Protection Systems

The CO₂ Fire Protection Systems provide fire suppression capability for the Cable Spreading Room, Computer Room, HPCI Rooms, and the Diesel Generator Rooms. The specified minimum quantities of CO₂ provide the capability to flood the Cable Spreading Room and Computer Room simultaneously, a HPCI room, or a Diesel Generator Room with sufficient CO₂ to meet concentration objectives.

In the event that portions of the CO₂ Fire Protection System are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the affected fire suppression equipment can be returned to service.

C. Fire Detection

Operability of the fire detectors ensures that adequate warning is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to plant equipment and is an integral element in the overall plant fire protection program. Table 3.14.C.1 specifies the minimum number of operable detectors in each room.

There are sixteen heat detectors in each diesel generator room, two detectors located in close proximity to each other at each of eight locations (each constituting a "zone"). Actuation of both detectors in any zone will initiate Cardox discharge in the room and a trip signal to the diesel generator in the room. One detector or both detectors in one zone of each diesel generator room may be inoperable for a period not to exceed seven days without compensatory measures being taken.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION SUPPORTING

AMENDMENT NOS. 139 AND 141 TO FACILITY OPERATING

LICENSE NOS. DPR-44 and DPR-56

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION, UNIT NOS. 2 AND 3

DOCKET NOS. 50-277 AND 50-278

1.0 INTRODUCTION

By letter dated August 26, 1988, Philadelphia Electric Company requested an amendment to Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station, Unit Nos. 2 and 3. The amendments would permit the removal of that portion of the Carbon Dioxide (CARDOX/CO₂) fire suppression system which is installed in the Control Room by revising the Limiting Condition for Operation of Technical Specification 3.14.B and Section 3.14 BASES to permit removal of that Cardox equipment.

2.0 EVALUATION

The NRC staff has reviewed the licensee's request and finds that the licensee has provided a thorough description of the proposed changes and a clear safety assessment which adequately addresses the issues. The technical reasons that support the licensee's request (constant personnel in attendance in the control room and safety hazards of rapid asphyxiation of personnel following an accidental release of CO₂ in the control room) are consistent with the cautions contained in SRP BTP 9.5-1 and NFPA No. 12, Standard on Carbon Dioxide Extinguishing Systems published by the National Fire Protection Association. The staff agrees with the licensee's appraisal of the existing conditions and the conclusions concerning the potential for unexpected release of CO₂ in the Control Room and the attendant unacceptable consequences of such release. The staff, therefore, agrees with the licensee's proposed removal of the CO₂ fire extinguishing system from the Control Room and finds the proposed changes to the Technical Specifications to be acceptable.

3.0 ENVIRONMENTAL CONSIDERATIONS

These amendments involve a change to a requirement with respect to the installation or use of a facility component located within the restricted

8902230183 890213
PDR ADDCK 05000277
P PDC

area as defined in 10 CFR Part 20. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of the amendments.

4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (53 FR 53095) on December 30, 1988 and consulted with the State of Pennsylvania. No public comments were received and the State of Pennsylvania did not have any comments.

The staff has concluded, based on the considerations discussed above, that:

- (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and
- (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: D. P. Notley

Dated: February 13, 1989