Mr. Michael P. Gallagher
Director-Licensing
Exelon Corporation
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

Dear Mr. Gallagher:

By letter dated July 2, 2001, Exelon Generation Company, LLC (Exelon), submitted for Nuclear Regulatory Commission (NRC) review an application, pursuant to 10 CFR Part 54, to renew the operating licenses for the Peach Bottom Atomic Power Station, Units 2 and 3. The NRC staff is reviewing the information contained in this license renewal application and has identified, in the enclosure, areas where additional information is needed to complete its review. Specifically, the enclosed request for additional information (RAI) is from Section 3.5 Aging Management of Containment, Structures, and Component Supports.

Please provide a schedule by letter, or electronic mail for the submittal of your response within 30 days of the receipt of this letter. Additionally, the staff would be willing to meet with Exelon prior to the submittal of the response to provide clarification of the staff's request for additional information.

Sincerely,

Raj K. Anand, Project Manager
License Renewal and Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosure: As stated

cc w/encl: See next page

Mr. Michael P. Gallagher
Director-Licensing
Exelon Corporation
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

Dear Mr. Gallagher:

By letter dated July 2, 2001, Exelon Generation Company, LLC (Exelon), submitted for Nuclear Regulatory Commission (NRC) review an application, pursuant to 10 CFR Part 54, to renew the operating licenses for the Peach Bottom Atomic Power Station, Units 2 and 3. The NRC staff is reviewing the information contained in this license renewal application and has identified, in the enclosure, areas where additional information is needed to complete its review. Specifically, the enclosed request for additional information (RAI) is from Section 3.5 Aging Management of Containment, Structures, and Component Supports.

Please provide a schedule by letter, or electronic mail for the submittal of your response within 30 days of the receipt of this letter. Additionally, the staff would be willing to meet with Exelon prior to the submittal of the response to provide clarification of the staff's request for additional information.

Sincerely,

Raj K. Anand, Project Manager
License Renewal and Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosure: As stated

cc w/encl: See next page

DISTRIBUTION: See next page
Document Name:C:\MYFILES\Copies\Final RAI Sec 3_5.wpd

OFFICE	PM:RLSB	LA	SC: DE	SC:RLEP	PD:RLEP
NAME	RKAnand	EGHylton	K. Manoly/C. Munson	PTKuo	CIGrimes
DATE	01/ /02	01/ /02	01/ /02	01/ /02	01/ /02

OFFICIAL RECORD COPY

DISTRIBUTION:
HARD COPY
RLSB RF
E. Hylton

E-MAIL:
PUBLIC
J. Johnson
W. Borchardt
D. Matthews
C. Carpenter
C. Grimes
B. Zalcman
J. Strosnider (RidsNrrDe)
E. Imbro
G. Bagchi
K. Manoly
C. Munson
B. Elliott
W. Bateman
J. Calvo
C. Holden
P. Shemanski
S. Rosenberg
G. Holahan
B. Boger
D. Thatcher
G. Galletti
B. Thomas
J. Moore
R. Weisman
M. Mayfield
A. Murphy
W. McDowell
S. Droggitis
N. Dudley
RLEP Staff

Division of Regulatory Improvement Programs
COVER PAGE

DATE: January 28, 2002

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

ORIGINATOR: R. Anand

SECRETARY: S. Chey

●●●DRIP ROUTING LIST●●●		
	NAME	DATE
1.	R. Anand	/ /02
2.	E. Hylton	/ /02
3.	K. Manoly/ C. Munson	/ /02
4.	P. T. Kuo	/ /02
5.	C. Grimes	/ /02

DOCUMENT NAME: C:\MYFILES\Copies\Final RAI Sec 3_5.wpd

ADAMS ACCESSION NUMBER: **ML** DATE ENTERED: / /01

FORM 665 ATTACHED and filled out: **YES** **NO**

COMMITMENT FORM ATTACHED: **YES** **NO**

Peach Bottom Atomic Power Station, Units 2 and 3
cc:

Mr. Edward Cullen
Vice President & General Counsel
Exelon Generation Company, LLC
300 Exelon Way
Kennett Square, PA 19348

Mr. J. Doering
Site Vice President
Peach Bottom Atomic Power Station
1848 Lay Road
Delta, PA 17314

Mr. G. Johnston
Plant Manager
Peach Bottom Atomic Power Station
1848 Lay Road
Delta, PA 17314

Mr. A. Winter
Regulatory Assurance Manager
Peach Bottom Atomic Power Station
1848 Lay Road
Delta, PA 17314

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

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

Mr. Roland Fletcher
Department of Environment
Radiological Health Program
2400 Broening Highway
Baltimore, MD 21224

Correspondence Control Desk
Exelon Generation Company, LLC
200 Exelon Way, KSA 1-N-1
Kennett Square, PA 19348

Chief-Division of Nuclear Safety
PA Dept. of Environmental Protection
P.O. Box 8469
Harrisburg, PA 17105-8469

Board of Supervisors
Peach Bottom Township
R. D. #1
Delta, PA 17314

Public Service Commission of Maryland
Engineering Division
6 St. Paul Center
Baltimore, MD 21202-6806

Mr. Richard McLean
Power Plant and Environmental Review Division
Department of Natural Resources
B-3, Tawes State Office Building
Annapolis, MD 21401

Dr. Judith Johnsrud
National Energy Committee, Sierra Club
433 Orlando Avenue
State College, PA 16803

Manager-Financial Control & Co-Owner Affairs
Public Service Electric and Gas Company
P.O. Box 236
Hancocks Bridge, NJ 08038-0236

Mr. Frederick W. Polaski
Manager License Renewal
Exelon Corporation
200 Exelon Way
Kennett Square, PA 19348

Mr. Jeffrey A. Benjamin
Vice President-Licensing
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Mr. Charles Pardee
Senior Vice President
Mid-Atlantic Regional Operating Group
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-N
Kennett Square, PA 19348

Mr. John Skolds
Chief Operating Officer
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Mr. William Bohlke
Senior Vice President, Nuclear Services
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Mr. James Meister
Senior Vice President, Operations Support
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Mr. Alan Nelson
Nuclear Energy Institute
1776 I Street, Suite 400
Washington, DC 20006

REQUEST FOR ADDITIONAL INFORMATION
PEACH BOTTOM UNITS 2 AND 3

3.5 AGING MANAGEMENT OF CONTAINMENT, STRUCTURES, AND COMPONENT SUPPORTS

RAI 3.5-1 Considering the vulnerability of concrete components, the staff has required previous license renewal applicants to implement an aging management program to manage the aging of concrete components. The staff position is that cracking, loss of material, and change in material properties are plausible and applicable aging effects for concrete components inside containment as well as for other structures outside containment. For inaccessible concrete components the staff does not require aging management if the applicant is able to show that the soil/water environment is nonaggressive; however, for all other concrete components inspection through an aging management program is required. Provide justification for concluding that there are no applicable aging effects for each of the concrete components, including concrete block walls, listed in Section 3.5 of the LRA.

RAI 3.5-2 Considering the vulnerability of steel components, the staff has required all previous license renewal applicants to implement an aging management program to manage the aging of steel components. The staff position is that loss of material is a plausible and applicable aging effect for steel components inside containment as well as for other structures outside containment. For steel imbedded in concrete in inaccessible areas, the staff does not require aging management if the applicant is able to show that the soil/water environment is nonaggressive. Provide justification for concluding that there are no applicable aging effects for each of the following steel components:

1. all carbon steel components inside containment (i.e., structural supports, pipe whip restraints, missile barriers, and radiation shields)

2. all carbon steel components in outdoor, sheltered, buried, and water environments outside containment:
    a. reactor building (Table 3.5-2)
    b. radwaste building and reactor auxiliary bay (Table 3.5.3)
    c. turbine building and main control room complex (Table 3.5.4)
    d. emergency cooling tower and reservoir (Table 3.5.5)
    e. station blackout structure and foundation (Table 3.5.6)
    f. yard structures (Table 3.5.7)
    g. nitrogen storage building (Table 3.5.9)
    h. diesel generator building (Table 3.5.10)
    i. circulating water pump structure (Table 3.5.11)
    j. recombiner building (Table 3.5.12)
    k. component supports (Table 3.5.13)
    l. hazard barriers and elastomers (Table 3.5.14)
    m. miscellaneous steel (Table 3.5.15)
    n. electrical and instrumentation enclosures and raceways (Table 3.5.16)

RAI 3.5-3 No aging effects are identified in Table 3.5.1- 3.5.14 in the LRA for the components listed below:

1. Bronze/graphite pressure suppression chamber lubrite plates (Table 3.5-1)

2. Cast iron sluice gates in raw water (Table 3.5-11)

3. Grout (Table 3.5-13)

4. Bronze/graphite lubrite plates (Table 3.5-13)

5. Neoprene Reactor Building blowout panel seals (Table 3.5-14)

6. Silicone Reactor Building metal siding gap seals (Table 3.5-14)

Lubrite plates are susceptible to loss of mechanical function, cast iron sluice gates in raw water are susceptible to loss of material, grout is susceptible to cracking, and neoprene and silicone seals are susceptible to change in material properties and cracking. Provide justification for concluding that there are no aging effects for each of these components.

3.5.1 Containment Structure

RAI 3.5.1-1 The environment inside containment may accelerate the aging (i.e., cracking loss of material, change in material properties) of the structural steel and concrete components listed in Table 3.5-1 of the LRA. Please provide information regarding the operating temperature (range), humidity, cumulative radiation (neutron, gamma) and medium (nitrogen, water, etc) for all the components in Table 3.5-1.

RAI 3.5.1-2 The reactor pedestal, foundation, and floor slab support the reactor vessel, interior floors, equipment, and piping in the drywell. Since these concrete components are also subjected to the harsh environment of containment (i.e., high temperatures and radiation), the staff considers cracking and possibly change in material properties to be plausible and applicable aging effects. Please provide justification as to how their intended functions will be maintained without some type of aging management program during the period of extended operation.

RAI 3.5.1-3 The sacrificial shield wall performs the function of providing shielding as well as support for earthquake ties, which are required to stabilize the drywell during a postulated earthquake. The shield wall is subjected to varying temperatures (expansion and contraction), vibratory loads during SRV discharges (steam environment), and significant radiation. As such, the staff considers cracking, loss of material, and possibly change in material properties to be plausible and applicable aging effects for the sacrificial shield wall. Please provide justification as to how their intended functions will be maintained without some type of aging management program during the period of extended operation.

RAI 3.5.1-4 The columns, saddle supports, and seismic restraints associated with the pressure suppression chamber are affected by the expansion and contraction of the major diameter of the torus induced by SRV discharges and temperature transients. In one case, the staff has seen pullout of the anchor-bolts of the column supports due to such movements. The staff considers loss of material for the carbon steel components of the suppression chamber and loss of mechanical function of their associated lubrite plates to be plausible and applicable aging effects.

Please provide justification as to how their intended functions will be maintained without some type of aging management program during the period of extended operation.