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# **Safety Evaluation Report**

Related to  
the License Renewal of  
Peach Bottom Atomic Power Station, Units 2  
and 3

Docket Nos. 50-277 and 50-278

Exelon Generation Company, LLC (Exelon)

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U.S. Nuclear Regulatory Commission

Office of Nuclear Reactor Regulation

February, 2003



## **ABSTRACT**

This document is a safety evaluation report regarding the application to renew the operating licenses for Peach Bottom Atomic Power Station, Units 2 and 3. The application was filed by the Exelon Generation Company LLC, (Exelon) by letter dated July 2, 2001. The Office of Nuclear Reactor Regulation has reviewed the Peach Bottom Atomic Power Station, Units 2 and 3, license renewal application for compliance with the requirements of Title 10 of the Code of Federal Regulations, Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," and prepared this report to document its findings.

In its submittal of July 2, 2001, the Exelon requested renewal of the Peach Bottom, Units 2 and 3, operating licenses (License Nos. DPR-44 and DPR-56, respectively), which were issued under Section 104b of the Atomic Energy Act of 1954, as amended, for a period of 20 years beyond the current license expiration dates of August 8, 2013, and July 2, 2014, respectively. The Peach Bottom Atomic Power Station is a two-unit nuclear power plant located in York County and Lancaster County in southeastern Pennsylvania. Each unit consists of a General Electric boiling-water reactor nuclear steam supply system designed to generate 3458 megawatts thermal or 1093 megawatts electric.

The NRC license renewal project manager for Peach Bottom, Units 2 and 3, is David Solorio. Mr. Solorio may be contacted by calling 301-415-1973 or by writing to the License Renewal and Environmental Impacts Program, U.S. Nuclear Regulatory Commission, Washington, DC 20555-001.

**TABLE OF CONTENTS**  
**PEACH BOTTOM, UNITS 2 AND 3**  
**SAFETY EVALUATION REPORT**

ABSTRACT .....	-ii-
ACRONYMS .....	-viii-
<b>1 INTRODUCTION AND GENERAL DISCUSSION .....</b>	<b>1-1</b>
1.1 Introduction .....	1-1
1.2 License Renewal Background .....	1-2
1.2.1 Safety Review .....	1-2
1.2.2 Environmental Review .....	1-4
1.3 Summary of the Principal Review Matters .....	1-5
1.3.1 Boiling Water Reactor Vessel Internals Project (BWRVIP) Topical Reports .....	1-6
1.4 Summary of Open Items .....	1-7
1.5 Summary of Confirmatory Items .....	1-7
1.6 Summary of Proposed License Conditions .....	1-8
<b>2 STRUCTURES AND COMPONENTS SUBJECT TO AN AGING MANAGEMENT REVIEW</b> .....	<b>2-1</b>
2.1 Scoping and Screening Methodology .....	2-1
2.1.1 Introduction .....	2-1
2.1.2 Summary of Technical Information in the Application .....	2-1
2.1.2.1 Scoping Methodology .....	2-2
2.1.2.2 Screening Methodology .....	2-6
2.1.3 Staff Evaluation .....	2-8
2.1.3.1 Evaluation of the Methodology for Identifying Systems, Structures, and Components Within the Scope of License Renewal .	2-8
2.1.3.2 Evaluation of the Methodology for Identifying Structures and Components Subject to an Aging Management Review . . .	2-13
2.1.4 Conclusions .....	2-14
2.2 Plant-Level Scoping Results .....	2-15
2.2.1 Introduction .....	2-15
2.2.2 Summary of Technical Information in the Application .....	2-15
2.2.2.1 Systems, Structures, and Components Within the Scope of License Renewal .....	2-16
2.2.2.2 Systems and Structures Not Within the Scope of License Renewal .....	2-17
2.2.3 Staff Evaluation .....	2-18
2.2.4 Conclusions .....	2-23
2.3 System Scoping and Screening Results Mechanical .....	2-23
2.3.1 Reactor Coolant System .....	2-23
2.3.1.1 Reactor Pressure Vessel and Internals .....	2-23
2.3.1.2 Fuel Assemblies .....	2-27

2.3.1.3	Reactor Pressure Vessel Instrumentation System	2-28
2.3.1.4	Reactor Recirculation System	2-29
2.3.2	Engineered Safety Features Systems	2-31
2.3.2.1	High Pressure Coolant Injection System	2-31
2.3.2.2	Core Spray System	2-33
2.3.2.3	Primary Containment Isolation System	2-34
2.3.2.4	Reactor Core Isolation Cooling System	2-36
2.3.2.5	Residual Heat Removal System	2-38
2.3.2.6	Containment Atmosphere Control and Dilution System	2-40
2.3.2.7	Standby Gas Treatment System	2-44
2.3.2.8	Secondary Containment	2-48
2.3.3	Auxiliary Systems	2-51
2.3.3.1	Fuel Handling Systems	2-51
2.3.3.2	Fuel Pool Cooling and Cleanup System	2-53
2.3.3.3	Control Rod Drive System	2-56
2.3.3.4	Standby Liquid Control System	2-58
2.3.3.5	High-Pressure Service Water System	2-59
2.3.3.6	Emergency Service Water System	2-62
2.3.3.7	Fire Protection System	2-64
2.3.3.8	Control Room Ventilation System	2-69
2.3.3.9	Battery and Emergency Switchgear Ventilation System	2-75
2.3.3.10	Diesel Generator Building Ventilation System	2-79
2.3.3.11	Pump Structure Ventilation System	2-81
2.3.3.12	Safety-Grade Instrument Gas System	2-84
2.3.3.13	Backup Instrument Nitrogen to ADS	2-88
2.3.3.14	Emergency Cooling Water System	2-91
2.3.3.15	Condensate Storage System	2-93
2.3.3.16	Emergency Diesel Generator (EDG)	2-96
2.3.3.17	Suppression Pool Temperature Monitoring System	2-99
2.3.3.18	Cranes and Hoists	2-101
2.3.3.19	Non-Safety-Related Systems Affecting Safety-Related Systems	2-105
2.3.4	Steam and Power Conversion Systems	2-112
2.3.4.1	Main Steam System	2-112
2.3.4.2	Main Condenser	2-116
2.3.4.3	Feedwater System	2-118
2.4	Scoping and Screening Results: Structures and Component Supports	2-121
2.4.1	Containment Structure	2-122
2.4.2	Reactor Building Structure	2-125
2.4.3	Radwaste Building and Reactor Auxiliary Bay	2-127
2.4.4	Turbine Building and Main Control Room Complex	2-129
2.4.5	Emergency Cooling Tower and Reservoir	2-132
2.4.6	Station Blackout Structure and Foundations	2-134
2.4.7	Yard Structures	2-136
2.4.8	Stack	2-140
2.4.9	Nitrogen Storage Building	2-141
2.4.10	Diesel Generator Building	2-142
2.4.11	Circulating Water Pump Structure	2-145

2.4.12	Recombiner Building	2-146
2.4.13	Component Supports	2-148
2.4.14	Hazard Barriers and Elastomers	2-150
2.4.15	Miscellaneous Steel	2-152
2.4.16	Electrical and Instrumentation Enclosures and Raceways	2-153
2.4.17	Insulation	2-155
2.5	Scoping and Screening Results: Electrical and Instrumentation and Controls	2-156
3	AGING MANAGEMENT REVIEW RESULTS	3-1
3.0	Common Aging Management Programs	3-1
3.0.1	Introduction	3-1
3.0.2	Program and Activity Attributes	3-2
3.0.3	Common Aging Management Programs and Activities	3-3
3.0.3.1	Flow-Accelerated Corrosion Program	3-3
3.0.3.2	Reactor Coolant System Chemistry Program	3-6
3.0.3.3	Closed Cooling Water Chemistry	3-11
3.0.3.4	Demineralized Water and Condensate Storage Tank Chemistry Activities	3-15
3.0.3.5	Torus Water Chemistry Activities	3-18
3.0.3.6	Inservice Inspection Program	3-22
3.0.3.7	Primary Containment Inservice Inspection Program	3-28
3.0.3.8	Primary Containment Leakage Rate Testing Program	3-32
3.0.3.9	Reactor Pressure Vessel and Internals Inservice Inspection Program	3-36
3.0.3.10	Inservice Testing Program	3-42
3.0.3.11	Maintenance Rule Structural Monitoring Program	3-45
3.0.3.12	Ventilation System Inspection and Testing Activities	3-51
3.0.3.13	Outdoor, Buried, and Submerged Component Inspection Activities	3-53
3.0.3.14	Door Inspection Activities	3-56
3.0.3.15	Generic Letter 89-13 Activities	3-60
3.0.3.16	Fire Protection Activities	3-63
3.0.3.17	Heat Exchanger Inspection Activities	3-72
3.0.3.18	Lubricating and Fuel Oil Quality Testing Activities	3-75
3.0.3.19	One-Time Piping Inspection Activities	3-82
3.0.3.20	Reactor Materials Surveillance Program	3-85
3.0.3.21	Torus Piping Inspection Activities	3-89
3.0.3.22	Fuel Pool Chemistry Activities	3-91
3.0.4	Quality Assurance Program	3-94
3.1	Aging Management of Reactor Coolant System	3-97
3.1.1	Reactor Pressure Vessel and Internals	3-97
3.1.2	Fuel Assemblies	3-104
3.1.3	Reactor Pressure Vessel Instrumentation System	3-104
3.1.4	Reactor Recirculation System	3-109
3.2	Aging Management of Engineered Safety Features Systems	3-115
3.2.1	High-pressure Coolant Injection	3-115
3.2.2	Core Spray System	3-127
3.2.3	Primary Containment Isolation System	3-132

3.2.4	Reactor Core Isolation Cooling System	3-135
3.2.5	Residual Heat Removal	3-139
3.2.6	Containment Atmosphere Control and Dilution System	3-146
3.2.7	Standby Gas Treatment System	3-148
3.2.8	Secondary Containment System	3-151
3.3	Aging Management of Auxiliary Systems	3-153
3.3.0	General	3-153
3.3.1	Fuel Handling System	3-157
3.3.2	Fuel Pool Cooling and Cleanup System	3-158
3.3.3	Control Rod Drive System	3-160
3.3.4	Standby Liquid Control System	3-163
3.3.5	High-Pressure Service Water System	3-166
3.3.6	Emergency Service Water System	3-169
3.3.7	Fire Protection System	3-172
3.3.8	Control Room Ventilation System	3-175
3.3.9	Battery and Emergency Switchgear Ventilation System	3-178
3.3.10	Diesel Generator Building Ventilation System	3-180
3.3.11	Pump Structure Ventilation System	3-182
3.3.12	Safety-Grade Instrument Gas System	3-184
3.3.13	Backup Instrument Nitrogen to the Automatic Depressurization System	3-185
3.3.14	Emergency Cooling Water System	3-187
3.3.15	Condensate Storage System	3-190
3.3.16	Emergency Diesel Generator	3-192
3.3.17	Suppression Pool Temperature Monitoring System	3-199
3.3.18	Cranes and Hoists	3-200
3.4	Aging Management of Steam and Power Conversion Systems	3-204
3.4.1	Main Steam System	3-205
3.4.2	Main Condenser	3-208
3.4.3	Feedwater System	3-209
3.5	Aging Management of Structures and Component Supports	3-211
3.5.1	Containment Structure	3-211
3.5.2	Reactor Building Structure	3-217
3.5.3	Other Structures	3-223
3.5.4	Component Supports	3-227
3.5.5	Hazard Barriers and Elastomers	3-231
3.5.6	Miscellaneous Steel	3-234
3.5.7	Electrical and Instrumentation Enclosures and Raceways	3-236
3.5.8	Insulation	3-238
3.6	Aging Management of Electrical and Instrumentation and Controls	3-239
3.6.1	Cables	3-240
3.6.2	Connectors, Splices, and Terminal Blocks	3-259
3.6.3	Station Blackout System	3-265
4	TIME-LIMITED AGING ANALYSES	4-1
4.1	Identification of Time-Limited Aging Analyses	4-1
4.1.1	Introduction	4-1
4.1.2	Summary of Technical Information in the Application	4-1

4.1.3	Staff Evaluation .....	4-3
4.1.4	Conclusion .....	4-5
4.2	Reactor Vessel Neutron Embrittlement .....	4-6
4.2.1	10 CFR Part 50 Appendix G Reactor Vessel Rapid Failure Propagation and Brittle Fracture Considerations: Charpy Upper Shelf Energy (USE) Reduction and RT <sub>NDT</sub> Increase, Reflood thermal shock analysis .....	4-6
4.2.2	Reactor Vessel Thermal Analyses: Operating Pressure-Temperature Limit (P-T Limit) Curves .....	4-10
4.2.3	Reactor Vessel Circumferential Weld Examination Relief .....	4-12
4.2.4	Reactor Vessel Axial Weld Failure Probability .....	4-14
4.3	Metal Fatigue .....	4-16
4.3.1	Summary of Technical Information in the Application .....	4-17
4.3.2	Staff Evaluation .....	4-18
4.3.3	Conclusions .....	4-25
4.4	Environmental Qualification .....	4-25
4.4.1	Electrical Equipment Environmental Qualification Analyses .....	4-26
4.4.2	GSI-168, Environmental Qualification of Low Voltage Instrumentation and Control (I&C) Cables .....	4-31
4.5	Reactor Vessel Internals Fatigue and Embrittlement .....	4-32
4.5.1	Summary of Technical Information in the Application .....	4-32
4.5.2	Staff Evaluation .....	4-33
4.5.3	Conclusions .....	4-34
4.6	Containment Fatigue .....	4-35
4.6.1	Fatigue Analysis of Containment Pressure Boundaries: Analysis of Tori, Torus Vents, and Torus Penetrations .....	4-35
4.6.2	Fatigue Analysis of SRV Discharge Lines and External Torus-Attached Piping .....	4-36
4.6.3	Expansion Joints and Bellows Fatigue Analyses: Drywell-to-Torus Vent Bellows .....	4-37
4.6.4	Expansion Joint and Bellows Fatigue Analyses: Containment Process Penetration Bellows .....	4-37
4.7	Other Plant-Specific TLAAs .....	4-38
4.7.1	Reactor Vessel Main Steam Nozzle Cladding Removal Corrosion Allowance .....	4-38
4.7.2	Generic Letter 81-11 "Crack Growth Analysis to Demonstrate Conformance to the Intent of NUREG-0619, BWR Feedwater Nozzle and Control Rod Drive Return Line Nozzle Cracking" .....	4-39
4.7.3	Fracture Mechanics of ISI-Reportable Indications for Group 1 Piping: As- forged Laminar Tear in a Unit 3 Main Steam Elbow Near Weld 1-B-3BC- LDO Discovered During Preservice UT .....	4-42
5	REVIEW BY THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS .....	5-1
6	CONCLUSIONS .....	6-1
	APPENDIX A, CHRONOLOGY .....	A - 1
	APPENDIX B, REFERENCES .....	B - 1

APPENDIX C, PRINCIPAL CONTRIBUTORS ..... C - 1  
APPENDIX D, COMMITMENT LISTING ..... D - 1



## **ACRONYMS**

AAC	alternate ac
AASHTO	American Association of State Highway and Transportation Official
ACI	American Concrete Institute
ACSR	aluminum conductor steel reinforced
ADS	automatic depressurization system
AMP	aging management program
AMR	aging management review
ANL	Argonne National Laboratory
AO	abnormal occurrence
APCSB	Auxiliary and Power Conversion Systems Branch
ARI	alternate rod insertion
ART	anticipatory reactor trip
ASCO	American Switch Company
ASME	American Society of Mechanical Engineers
ATWS	anticipated transient without scram
BESVS	Battery and Emergency Switchgear Ventilation Systems
BPT	Branch Technical Position
BWR	boiling water reactor
BWROG	boiling water reactor owners group
BWRVIP	Boiling Water Reactor Vessel and Internals Project
CAC	containment atmosphere control (system)
CAD	containment atmospheric dilution (system)
CASS	cast austenitic stainless steel
CCW	closed cooling water
CDF	core damage frequency
CFR	Code of Federal Regulations
CLB	current licensing basis
CRD	control rod drive
CRDHS	control rod drive housing supports
CRL	component record list
CRVS	control room ventilation system
CST	condensate storage tank
CUF	cumulative usage factor
DBA	design-basis accidents
DBD	design baseline document
DBE	design basis event
DGBVS	diesel generator building ventilation system
DRF	dose reduction factor
ECCS	emergency core cooling system
ECP	electrochemical potential
ECT	emergency cooling tower
ECW	emergency cooling water (system)
EDG	emergency diesel generator
EFPY	effective full-power years
EPDM	ethylene propylene diene monomer
EPRI	Electric Power Research Institute

EQ	environmental qualification
ESF	engineered safety feature
ESW	emergency service water (system)
FAC	flow-accelerated corrosion
FERC	Federal Energy Regulatory Commission
FMP	fatigue monitoring program
FPP	fire protection program
FSAR	final safety analysis report
FSSD	fire safe shutdown
GDC	general design criteria
GL	generic letter
GSI	Generic Safety Issues
HEDL	Hanford Engineering and Development Laboratory
HELB	high-energy line break
HEPA	high-efficiency particulate air
HPCI	high-pressure coolant injection (system)
HPSW	high-pressure service water (system)
HVAC	heating, ventilation, and air conditioning
HWC	hydrogen water chemistry
HX	heat exchanges
I & C	instrumentation and controls
IASCC	irradiation assisted stress corrosion cracking
ICEA	Insulated Cable Engineers Association
ICM	Instrument Control Monitor
IGSCC	intergranular stress corrosion cracking
ILRT	integrated leak rate test
IN	information notice
INPO	Institute of Nuclear Power Operations
IPA	integrated plant assessment
IPE	individual plant evaluation
IPEEE	individual plant examination of external events
ISI	inservice inspection
IST	inservice testing
LEFM	linear elastic fracture mechanics
LER	licensee event report
LLRT	local leak rate tests
LMFBR	Liquid Metal Fast Breeder Reactor
LOCA	loss of coolant accident
LPCI	low-pressure coolant injection (system)
LPRM	local power range monitor
LRA	license renewal application
LRC	level recorder controller
LWR	light-water reactor
MCC	motor control center
MCRE	main control room envelope
MCRE	main control room envelope
MIC	microbiologically influenced corrosion
MOV	motor-operated valve

MR	maintenance rule
MSIV	main steam isolation valve
MSRV	main steam relief valve
NCR	nonconformance report
NDE	nondestructive examination
NEI	Nuclear Energy Institute
NEMA	National Electrical Manufactures Associates
NFPA	National Fire Protection Association
NMCA	noble metals chemical addition
NPAR	nuclear plant aging research
NRC	Nuclear Regulatory Commission
NSAC	Nuclear Safety Analysis Center
NSR	non-safety related
NSSS	nuclear steam supply systems
NSW	normal service water
NUMARC	Nuclear Management and Resources Council
OE	operating experience
OFS	orificed fuel support
ORNL	Oak Ridge National Laboratory
P&ID	pipng and instrumentation diagram
PBAPS	Peach Bottom Atomic Power Station
PCIS	primary containment isolation system
PECO	Philadelphia Electric Company
PLI	project level instruction
PM	preventive maintenance
P-T	pressure-temperature
PSVS	pump structure ventilation system
PUA	plant-unique analysis
PWR	pipe whip restraint
QAP	quality assurance procedure
RAI	request for additional information
RBM	rod block monitor
RCIC	reactor core isolation cooling (system)
RCS	reactor coolant system
RG	Regulatory Guide
RHR	residual heat removal (system)
RMS	radiation monitoring system
RPS	reactor protection system
RPV	reactor pressure vessel
RRS	reactor recirculation system
RTNDT	nil-ductility transition reference temperature
RVID	reactor vessel integrity database
RWM	rod worth minimizer
RWCU	reactor water cleanup
RWST	refueling water storage tank
SBLC	standby liquid control (system)
SBO	station blackout
SCC	stress corrosion cracking

SE	safety evaluation
SECY	Secretary of the Commission Office of the (NRC)
SER	safety evaluation report
SGIG	safety grade instrument gas (system)
SGTS	standby gas treatment system
SIL	Service Information Letter
SLC	standby liquid control
SOER	significant operating experience reports
SPOTMOS	suppression pool temperature monitoring system
SRM	source range monitor
SRP-LR	Standard Review Plan - license renewal
SRV	safety relief valve
SCs	structures and components
SSCs	systems, structures, and components
SV	safety valve
SSWP	Susquehanna Substation Wooden Pole
TID	total integrated dose
TLAAs	time-limited aging analyses
TTA	thetyltrifluoroacetone
UFSAR	updated final safety analysis report
UL	Underwriters Laboratories, Inc.
USAS	United States of America Standards
USE	upper-shelf energy
USI	unresolved safety issue
WRNM	wide range neutron monitor
XLPE	cross-linked polyethylene
XLPO	cross-linked polyolefin

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# 1 INTRODUCTION AND GENERAL DISCUSSION

## 1.1 Introduction

This document is a safety evaluation report (SER) on the application to renew the operating licenses for Peach Bottom Atomic Power Station, Units 2 and 3, filed by Exelon Generation Company, LLC, (Exelon) (hereafter referred to as Exelon or the applicant).

By letter dated July 2, 2001, Exelon submitted its application to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for Peach Bottom Atomic Power Station, Units 2 and 3, for an additional 20 years. The NRC staff reviewed the Peach Bottom license renewal application (LRA) for compliance with the requirements of Title 10 of the Code of Federal Regulations, Part 54 (10 CFR Part 54), "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," and prepared this report to document its findings. The NRC's license renewal project manager for Peach Bottom Atomic Power Station, Units 2 and 3, is David Solorio. Mr. Solorio may be contacted by calling 301-415-1973 or by writing to the License Renewal and Environmental Impacts Program, U.S. Nuclear Regulatory Commission, Washington, DC 20555-001.

In its application, Exelon requested renewal of the operating licenses issued under Section 104b of the Atomic Energy Act of 1954, as amended, for Peach Bottom Atomic Power Station, Units 2 and 3 (License Nos. DPR-44 and DPR-56, respectively) for a period of 20 years beyond the current license expiration dates of August 8, 2013 and July 2, 2014, respectively. The Peach Bottom Atomic Power Station is a two-unit boiling water reactor located in York County and Lancaster County in southeastern Pennsylvania. Each unit consists of a General Electric boiling-water reactor nuclear steam supply system designed to generate 3458 megawatts thermal or 1093 megawatts electric. Details concerning the plant and the site are found in the updated final safety analysis report (UFSAR) for each unit.

The license renewal process proceeds along two tracks: a technical review of safety issues and an environmental review. The requirements for these two reviews are stated in NRC regulations 10 CFR Parts 54 and 51, respectively. The safety review is based on Exelon's application for license renewal and on the applicant's answers to requests for additional information (RAIs) from the NRC staff. Exelon has also supplemented its answers to the RAIs in meetings and docketed correspondence. The public can review the LRA and all pertinent information and material, including the UFSARs, at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD 20852-2738. In addition, the Peach Bottom Atomic Power Station, Units 2 and 3, LRA and significant information and material related to the license renewal review are available on the NRC's Website at [www.nrc.gov](http://www.nrc.gov) through the NRC's electronic reading room.

This SER summarizes the findings of the staff's safety review of the Peach Bottom Atomic Power Station, Units 2 and 3, and describes the technical details considered in evaluating the safety aspects of its proposed operation for an additional 20 years beyond the term of the current operating licenses. The staff reviewed the LRA in accordance with the NRC regulations and the guidance presented in the NRC "Standard Review Plan (SRP) for the Review of License Renewal Applications for Nuclear Power Plants," dated July 2001.

## 1.2 License Renewal Background

Pursuant to the Atomic Energy Act of 1954, as amended, and NRC regulations, operating licenses for commercial power reactors are issued for 40 years. These licenses can be renewed for up to 20 additional years. The original 40-year license term was selected on the basis of economic and antitrust considerations, not technical limitations. However, some individual plant and equipment designs may have been engineered on the basis of an expected 40-year service life.

In 1982, the NRC anticipated interest in license renewal and held a workshop on nuclear power plant aging. That led the NRC to establish a comprehensive program plan for nuclear plant aging research (NPAR). On the basis of the results of that research, a technical review group concluded that many aging phenomena are readily manageable and do not involve technical issues that would preclude extending the life of nuclear power plants.

In 1986, the NRC published a request for comment on a policy statement that would address major policy, technical, and procedural issues related to life extension for nuclear power plants.

In 1991, the NRC published the license renewal rule in 10 CFR Part 54. The NRC participated in an industry-sponsored demonstration program to apply the rule to pilot plants and develop experience to establish implementation guidance. To establish a scope of review for license renewal, the rule defined age-related degradation unique to license renewal. However, during the demonstration program, the NRC found that many aging mechanisms occur and are managed during the period of the initial license. In addition, the NRC found that the scope of the review did not allow sufficient credit for existing programs, particularly for the implementation of the Maintenance Rule, which also manages plant aging phenomena.

As a result, in 1995 the NRC amended the license renewal rule in 10 CFR Part 54. The amended rule established a regulatory process that is simpler, more stable, and more predictable than the previous license renewal rule. In particular, 10 CFR Part 54 was clarified to focus on managing the adverse effects of aging rather than on identifying all aging mechanisms. The rule changes were intended to ensure that important systems, structures, and components (SSCs) will continue to perform their intended function in the period of extended operation. In addition, the integrated plant assessment (IPA) process was clarified and simplified to be consistent with the revised focus on passive, long-lived structures and components (SCs).

In parallel with these efforts, the NRC pursued a separate rulemaking effort to amend 10 CFR Part 51 to focus the scope of the review of environmental impacts of license renewal, and fulfill, in part, the NRC's responsibilities under the National Environmental Policy Act of 1969 (NEPA).

### 1.2.1 Safety Review

License renewal requirements for power reactors are based on two key principles:

- (1) The regulatory process is adequate to ensure that the licensing basis of all currently operating plants maintains an acceptable level of safety, with the possible exception is the detrimental effects of aging on the functionality of certain SSCs during the period of

extended operation, and a few other safety issues may arise only during the period of extended operation

- (1) The plant-specific licensing basis must be maintained during the renewal term in the same manner and to the same extent as during the original licensing term.

In implementing these two principles 10 CFR 54.4 defines the scope of license renewal as including those plant SSCs (a) that are safety-related, (b) whose failure could affect safety-related functions, (c) that are relied on to demonstrate compliance with the Commission's regulations for fire protection, environmental qualification, pressurized thermal shock, anticipated transients without scram, and station blackout.

Pursuant to 10 CFR 54.21(a)(1), the applicant must review all SSCs that are within the scope of the rule to identify SCs that are subject to an aging management review (AMR). SCs that are subject to an AMR are those that perform an intended function without moving parts or without a change in configuration or properties and that are not subject to replacement based on a qualified life or specified time period. As required by 10 CFR 54.21(a), the applicant must demonstrate that the effects of aging will be managed in such a way that the intended function or functions of the SCs that are within the scope of license renewal will be maintained, consistent with the current licensing basis, for the period of extended operation.

Active equipment, however, is considered to be adequately monitored and maintained by existing programs. The detrimental effects of aging on active equipment are more readily detectable and will be identified and corrected through routine surveillance, performance indicators, and maintenance. The surveillance and maintenance programs and activities for active equipment, as well as other aspects of maintaining the plant design and licensing basis, are required to continue throughout the period of extended operation.

Pursuant to 10 CFR 54.21(b), each year following submittal the LRA and at least 3 months before the scheduled completion of the NRC review, an amendment to the renewal application must be submitted that identifies any change to the CLB of the facility that materially affects the contents of the LRA, including the FSAR supplement.

Another requirement for license renewal is the identification and updating of time-limited aging analyses. During the design phase for a plant, certain assumptions are made about the initial operating term of the plant, and these assumptions are incorporated into design calculations for several of the plants SSCs. In accordance with 10 CFR 54.21(c)(1), these calculations must be shown to be valid for the period of extended operation or must be projected to the end of the period of extended operation, or the applicant must demonstrate that the effects of aging on these SSCs will be adequately managed for the period of extended operation. Pursuant to 10 CFR 54.21(c)(2), each applicant must provide a list of the exemptions granted pursuant to 10 CFR 50.12 and still in effect that are based on the TLAAs as defined in 10 CFR 54.3. Pursuant to CFR 54.21(c)(2), each applicant must also provide an evaluation that justifies the continuation of these exemptions for the period of extended operation.

Pursuant to 10 CFR 54.21(d), each application is required to include a supplement to the FSAR. This supplement must contain a summary description of the programs and activities for managing the effects of aging, and the evaluation of TLAAs for the period of extended operation.



In July 2001, the NRC issued Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating License"; NUREG-1800, "Standard Review Plan for the Review of License Renewal Application for Nuclear Power Plants" (SRP-LR); and NUREG-1801, "Generic Aging Lessons Learned (GALL) Report." These documents describe methods acceptable to the NRC staff for implementing the license renewal rule, as well as techniques used by the NRC staff in evaluating applications for license renewals. The draft versions of these documents were issued for public comment on August 31, 2000 (64 FR 53047). The staff assessment of public comments was issued as NUREG-1739, "Analysis of Public Comments on the improved License Renewal Guidance Documents." The regulatory guide endorsed an implementation guideline prepared by the Nuclear Energy Institute (NEI) as an acceptable method of implementing the license renewal rule. The NEI guideline is NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54—The License Renewal Rule," Revision 3 issued in April 2001. The staff used the RG1.188, along with the SRP, to review this application and to assess topical reports on license renewal issues as submitted by industry groups.

### 1.2.2 Environmental Review

In December 1996, the staff revised the environmental protection regulations in 10 CFR Part 51 to facilitate environmental reviews for license renewal. The staff prepared a "Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants" (NUREG-1437) to document its evaluation of the possible environmental impacts associated with renewing licenses of nuclear power plants. For certain types of environmental impacts, the GEIS establishes generic findings that are applicable to all nuclear power plants. These generic findings are identified as Category 1 issues in 10 CFR Part 51, Subpart A, Appendix B. Pursuant to 10 CFR 51.53(c)(3)(i), an applicant for license renewal may incorporate these generic findings in its environmental report. Analyses of environmental impacts of license renewal that must be evaluated on a plant-specific basis are identified as Category 2 issues in 10 CFR Part 51, Subpart A, Appendix B. Such analyses must be included in an environmental report in accordance with 10 CFR 51.53(c)(3)(ii).

In accordance with NEPA and the requirements of 10 CFR Part 51, the NRC performs a plant-specific review of the environmental impacts of license renewal, including whether there is new and significant information not considered in the GEIS. Two public meetings were held near the Peach Bottom site on November 7, 2001, as part of the NRC's scoping process to identify environmental issues specific to the plant. The results of the environmental review and a preliminary recommendation on the license renewal action were documented in NRC draft plant-specific Supplement 10 to the GEIS, dated June 2002. Two additional public meetings have been conducted near the site on July 31, 2002 (during the 75-day comment period for draft plant-specific Supplement 10 to the GEIS). At the meetings, the staff described the environmental review and answered questions from members of the public to help them formulate their comments on the review. The Final Supplement 10 to the GEIS was issued on January 22, 2003.

The Final Supplement 10 to the GEIS presents the NRC's environmental analysis of the effects of renewing the Peach Bottom Units 2 and 3 operating licenses for up to an additional 20 years. The analysis considers and weighs the environmental effects and alternatives that are available

to avoid adverse environmental effects. On the basis of the analyses and findings in the GEIS, the environmental report submitted by the applicant, consultation with other Federal, State, and local agencies, its own independent review, and its consideration of public comments, the staff recommended in Supplement 10 that the Commission determine that the adverse environmental impacts of license renewal for Peach Bottom Units 2 and 3 are not so great that preserving the option of license renewal for energy planning decision-making would be unreasonable.

### 1.3 Summary of the Principal Review Matters

The requirements for renewing operating licenses for nuclear power plants are described in 10 CFR Part 54. The staff performed its technical review of the Peach Bottom Atomic Power Station, Units 2 and 3, license renewal application in accordance with Commission guidance and the requirements of 10 CFR Part 54. The standards for renewing a license are contained in 10 CFR 54.29.

In 10 CFR 54.19(a), the Commission requires a license renewal applicant to submit general information. Exelon submitted this general information in an enclosure to its July 2, 2001, application for renewed operating licenses for Peach Bottom Atomic Power Station, Units 2 and 3. The applicant supplemented this information in a letter dated August 23, 2001. The staff reviewed the enclosure and the supplemental information.

In 10 CFR 54.19(b), the Commission requires that LRAs include “conforming changes to the standard indemnity agreement, 10 CFR 140.92, Appendix B, to account for the expiration term of the proposed renewed license.” The applicant stated the following in its renewal application regarding this issue:

The current indemnity agreement for Peach Bottom Atomic Power Station, Units 2 and 3 states in Article VII that the agreement shall terminate at the time of expiration of the license specified in Item 3 of the Attachment to the agreement. Item 3 of the Attachment to the indemnity agreement, lists two license numbers, DRP-44 and DRP-56. Should the license numbers be changed upon issuance of the renewed licenses, Exelon requests that the conforming changes be made to Article VII and Item 3 of the Attachment, and to any other sections of the indemnity agreement as appropriate.

The staff will use the original license number for the renewed license. Therefore, there is no need to make conforming changes to the indemnity agreement, and the requirements of 10 CFR 54.19(b) have been met.

In 10 CFR 54.21, the Commission requires that each application for a renewed license for a nuclear facility must contain (a) an integrated plant assessment (IPA), (b) description of current licensing basis changes made during the NRC review of the application, (c) an evaluation of time-limited aging analyses (TLAAs), and (d) a final safety analysis report (FSAR) supplement. On July 2, 2001, the applicant submitted the information required by 10 CFR 54.21(a) and (c) in the Enclosure of its LRA.

In 10 CFR 54.22, the Commission states requirements regarding technical specifications. The applicant did not request any changes to the plant technical specification in its LRA.

The staff evaluated the technical information required by 10 CFR 54.21 and 54.22 in accordance with the NRC's regulations and the guidance provided in the SRP. The staff's evaluation of this information is documented in Chapters 2, 3, and 4 of this SER.

The staff's evaluation of the environmental information required by 10 CFR 54.23 is documented in the draft plant-specific supplement to the GEIS (NUREG-1437, Supplement 10), which states the considerations related to renewing the licenses for Peach Bottom Atomic Power Station, Units 2 and 3.

### 1.3.1 Boiling Water Reactor Vessel Internals Project (BWRVIP) Topical Reports

In accordance with 10 CFR 54.17(e), Exelon also incorporated by reference several BWRVIP topical reports into the Peach Bottom LRA. The purpose of the topical reports is to generically demonstrate that the aging effects for reactor coolant system components are adequately managed for the period of extended operation under a renewed license. Exelon incorporated the following BWRVIP topical reports into its application:

- BWRVIP-05, "BWR RPV Shell Weld Inspection Recommendations," September 1995
- BWRVIP-18, "Core Spray Internals Inspection and Flaw Evaluation Guidelines," July 1996
- BWRVIP-25, "BWR Core Plate Inspection and Flaw Evaluation Guidelines," October 1999
- BWRVIP-26, "Top Guide Inspection and Flaw Evaluation Guidelines," December 1996
- BWRVIP-27, "Standby Liquid Control System/Core Plate  $\Delta P$  Inspection and Flaw Evaluation Guidelines," April 1997
- BWRVIP-38, "Shroud Support Inspection and Flaw Evaluation Guidelines," September 1997
- BWRVIP-41, "BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines," October 1997
- BWRVIP-47, "BWR Lower Plenum Inspection and Flaw Evaluation Guidelines," December 1997
- BWRVIP-48, "Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines," March 1998
- BWRVIP-49, "Instrument Penetration Inspection and Flaw Evaluation Guidelines," March 1998
- BWRVIP-74, "BWR Reactor Pressure Vessel Inspection and Flaw Evaluation Guidelines," September 1999

- BWRVIP-75, "Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules (NUREG-0313)," October 1999
- BWRVIP-76, "BWR Core Shroud Inspection and Flaw Evaluation Guidelines," December 1999

All the BWRVIP reports listed above have been approved by the staff with the exception of BWRVIP-76. The staff is presently reviewing the responses from the Owners Group, and is expected to issue a safety evaluation report by the end of 2003. Because the staff's review is not complete the license will be conditioned as discussed below in Section 1.6.

The applicant committed to follow the BWRVIP reports as approved by the staff. The staff finds this commitment to be acceptable for aging management of the systems and components addressed in the subject BWRVIP reports.

#### 1.4 Summary of Open Items

As a result of its review of the license renewal application for the Peach Bottom Atomic Power Station Units 2 & 3, including the additional information submitted to the NRC through May 22, 2002, the staff identified 15 issues that remained open at the time this report was published previously as an SER with Open Items on September 16, 2002. An issue was considered open if Exelon had not presented a sufficient basis for its resolution. Each Open Item was assigned a unique identifying number, which identified the section in this report in which the Open Item was described. For example, Open Item 3.0-1 was discussed in Section 3.0 of this report. By letters dated November 26 and December 19, 2002, January 14, and January 29, 2003, the applicant responded to these Open items. The staff reviewed the responses and has closed all of the Open Items. The base for closing the Open Items can be found in the following Sections: 2.3.2.7.2, 2.3.2.7.2, 2.3.3.8.2, 2.3.3.8.2, 2.3.3.9.2, 2.3.3.18.2, 2.3.3.19.2, 2.4.7.2, 3.0.3.6.2, 3.0.3.11.2, 3.0.3.16.2, 3.1.3.2.1, 3.6.1.2.1, 3.6.1.2.2, and 4.5.2.

#### 1.5 Summary of Confirmatory Items

As a result of the staffs' review of Exelon's application for license renewal, including the additional information and clarifications submitted subsequently, the staff identified the confirmatory items listed below, as of the time this report was published previously as an SER with Open Items on September 16, 2002. Confirmatory Items were those for which Exelon had not yet provided adequate documentation. In addition, confirmatory items may include significant matters that need to be considered as possible license conditions or technical specification requirements, depending on the form of the resolution. Each Confirmatory Item was assigned a unique identifying number, which identified the section in this report in which the Confirmatory Item was described. For example Confirmatory Item 3.0-1 was discussed in Section 3.0 of this report. By letters dated November 26 and December 19, 2002, January 14, and January 29, 2003, the applicant responded to these Confirmatory Items. The staff reviewed the responses and has closed all the Confirmatory Items. The base for closing the Confirmatory Items can be found in the following Sections: 3.0.3.3.2, 3.0.3.11.2, 3.0.3.13.2, 3.0.3.14.3, 3.0.3.17.2, 3.0.3.19.2, 3.0.3.20.3, 3.0.4, 3.2.1.2.2, 3.6.1.2.2, 3.6.2.2.2, 4.1.2, 4.1.3, 4.1.3, 4.2.1.2, 4.2.3.2, 4.2.4.2 and 4.3.2.

## 1.6 Summary of Proposed License Conditions

As a result of the staffs' review of Exelon's application for license renewal, including the additional information and clarifications submitted subsequently, the staff identified 4 license conditions. The first license condition requires the applicant to include the UFSAR Supplement in the next UFSAR update required by 10 CFR 50.71 (e). The second license condition requires that, prior to operation in the renewal term, the applicant will notify the NRC of its decision to implement either the staff-approved reactor vessel integrated surveillance program, or a plant-specific program, and provide the appropriate revision to the UFSAR Supplement summary descriptions of the program. The third license condition requires that the future inspection activities identified in the UFSAR Supplement be completed before the beginning of the extended period of operation. The fourth license condition requires that, prior to operation in the renewal term, the applicant will notify the NRC of its decision to implement either the staff-approved core shroud inspection and evaluation guidelines program, or a plant specific program, and provide the appropriate revision to the UFSAR supplement summary description of the program.



