

NRC INSPECTION MANUAL

DLR

INSPECTION PROCEDURE 71003

POST-APPROVAL SITE INSPECTION FOR LICENSE RENEWAL

Effective Date: 07/01/2016

PROGRAM APPLICABILITY: IMC 2515C, 2516

71003-01 INSPECTION OBJECTIVES

01.01 To verify the license conditions added as part of the renewed operating license, regulatory commitments, selected aging management programs (AMPs), time limited aging analyses (TLAAs), **license renewal activities** are implemented and/or completed, **and to verify age-related degradation is identified and corrected.**

01.02 To verify the updated final safety analysis report (UFSAR) includes any “newly identified” systems, structures, and components (SSCs) that should have been within the scope of the license renewal program and subject to an aging management review or TLAA evaluation, pursuant to **Title 10 of the Code of Federal Regulations (10 CFR) 54.37(b).**

01.03 To verify the description of the AMPs and related activities covered in §01.01 are, or will be, contained in the UFSAR and that the description of the programs is consistent with the programs implemented by the licensee.

01.04 To verify the licensee submitted a license amendment request to the U.S. Nuclear Regulatory Commission (NRC) in accordance with 10 CFR 50.90 for changes to a license condition for license renewal; managed changes to the UFSAR supplement in accordance with 10 CFR 50.59; and managed changes to regulatory commitments in accordance with Nuclear Energy Institute (NEI) 99-04, “Guidelines for Managing NRC Commitment Changes” as endorsed by regulatory issue summary (RIS) 2000-017.

71003-02 INSPECTION REQUIREMENTS

02.01 General Inspection Requirements.

- a. The post-approval inspections for license renewal verify, on a sampling basis, that the licensee adequately completed the actions necessary to comply with the license conditions and commitments for license renewal, and adequately implemented the AMPs and TLAAs as described in the safety evaluation report (SER) for license renewal. **Inspection procedure (IP) 71003 also verifies age-related degradation is identified and corrected.**

- b. The inspection verifies that the licensee identified, evaluated, and incorporated “newly identified” SSCs into the renewed license in accordance with 10 CFR 54.37(b).
- c. The inspection verifies the UFSAR supplement as revised was incorporated into the UFSAR. The UFSAR supplement describes the AMPs and TLAAs approved by the NRC in the SER for license renewal. **IP 71003** also verifies that the UFSAR supplement description matches the AMP or TLAA being implemented and that changes, caused by the inclusion of “newly identified” SSCs, were included in the UFSAR supplement. If the licensee has not submitted a UFSAR supplement update since implementing the program or TLAA, review the planned UFSAR supplement changes and verify that they are included in an appropriate tracking system.
- d. The inspection verifies the licensee adequately evaluated, and reported when necessary, changes to regulatory commitments from the SER for license renewal in accordance with NEI 99-04 as endorsed by RIS 2000-017; changes to AMPs, TLAAs and other license renewal activities incorporated as part of the UFSAR supplement in accordance with 10 CFR 50.59; and submitted license amendment requests in accordance with 10 CFR 50.90 for changes to license conditions that were added as part of the renewed operating license.

02.02 Inspection Schedule.

A majority of the **IP 71003** inspection is conducted before the licensee enters the PEO to support completion of the **NRC’s** review in sufficient time for licensees to make any necessary corrections to their AMPs before entering the PEO. Attachment 1 of **IP 71003** contains a listing of the expiration dates of the original operating licenses for all plants. **Since the implementation of this procedure is expected to occur at different time frames relative to the start of the PEO of each unit**, the inspection may be performed in **four** phases to accommodate the licensee’s implementation schedule, with the potential issuance of **four** separate inspection reports. Performing the **IP 71003** inspection using a **four**-phase approach is a recommendation and not a requirement.

- a. Phase I: This portion of the inspection is likely to occur during the second to last and/or last refueling outage before the licensee enters the PEO. The inspectors will observe the implementation of select AMPs and activities described in the license conditions, UFSAR supplement, TLAAs and regulatory commitments, as well as any testing or visual inspections of SSCs which are only accessible at reduced power levels. Those SSCs may be located inside the containment and other high radiation areas. **The Phase I** inspection may occur at each unit of a multi-unit site.
- b. Phase II: This portion of the inspection is likely to occur three months to a year prior to the licensee entering the PEO depending on the licensee’s implementation schedule of outages and license renewal activities. Phase **II** of the inspection is intended to be a one-time major team inspection per site. However, for multi-unit sites, subsequent Phase II inspections may be conducted, as deemed necessary by regional management. Subsequent Phase II inspections at multi-unit sites may not require the same level of effort as the Phase II inspection for the first unit.

The inspectors will assess the adequacy and effectiveness of the implementation and/or completion of the programs and activities described in the regulatory commitments, UFSAR supplement program descriptions, TLAAs, and license conditions, as well as evaluate the need for any additional follow-up inspections under the IP 71003 inspection procedure or as part of the reactor oversight program (ROP).

- c. Phase III: If it is deemed necessary at the conclusion of the Phase II inspection, the Phase III portion of the inspection would likely occur after the licensee enters the PEO in accordance with the implementation schedule for the license conditions, AMPs, TLAAs and commitments for license renewal. Phase III of the inspection is intended to review the implementation of license conditions, regulatory commitments, TLAAs and AMPs with implementation schedules that extend into the PEO. Additionally, Phase III may be implemented to review corrective actions for issues of concern identified during Phases I and II inspections.
- d. Phase IV: This portion of the inspection is likely to occur 5-10 years into the PEO to verify the licensee is managing aging effects in accordance with the aging management programs described in the updated final safety analysis report. Phase IV is intended to review the implementation of the aging management program elements during the PEO to ensure the SSCs have maintained their ability to perform their intended function.

At sites where inspectors have not completed Phases I, II and III, inspectors can perform the Phase IV inspection, not to exceed the resources allocated as described in the resource estimates section of IP 71003. Phase IV is intended to be a one-time inspection per site. However, the Phase IV inspection can be performed on each unit of a multi-unit site (where Phases I, II and III have not been completed) as deemed necessary by Regional management, but not to exceed the resources allocated as described in the resource estimates section of IP 71003.

At sites where inspectors have completed Phases I, II and III, the resources allocated for the IP 71003 inspection procedure are expended, and Phase IV is not required to be performed. However, the Regional Administrator may authorize the implementation of the Phase IV inspection in accordance with Inspection Manual Chapter 2515, Appendix C in response to events and to evaluate age-related degradation issues or emergent technical issues.

During the Phase IV inspection, inspectors are expected to review a minimum of six samples of a licensee's implementation of aging management programs. Phase IV inspections at each unit of a multi-unit site with similar designs may not require the same level of effort as the Phase IV inspection for the first unit. The inspectors should consider this and use discretion when determining the sample size at multi-unit sites. The inspectors should consider a review of the enhanced, new or plant-specific aging management programs. The inspectors may perform a review of corrective action program documents to determine if age-related degradation has been identified and corrected as part of their six samples.

71003-03 INSPECTION GUIDANCE

03.01 Document Review.

Inspectors should familiarize themselves with the requirements and guidance related to license renewal. The inspectors should also familiarize themselves with the specific license renewal application and associated SER for the plant being inspected. Attachment 2 of **IP 71003** describes the information that is typically contained within a license renewal SER. Attachment 2 also includes a table of information for plants with renewed operating licenses including the renewed operating license issuance dates and the ML numbers for the license renewal SERs. License renewal requirements and guidance documents that should be reviewed prior to an inspection include:

- 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants"
- The statement of consideration published with the revision to 10 CFR Part 54 in the Federal Register, Vol. 60, No. 88, Monday, May 8, 1995, pages 22461 to 22495
- The plant-specific renewed license and license conditions
- The SERs for the plant(s) to be inspected
- Appendix A of the SER, if applicable
- DLR memo for plants that did not have an Appendix A list of commitments in the license renewal SER (ADAMS Accession No. ML070640041)
- The UFSAR supplement as revised during the license renewal application review

03.02 Inspection Sample Attributes.

In selecting samples, consideration should be given to attributes such as:

- the risk significance of SSCs associated with the regulatory commitments, using insights gained from sources such as the NRC's "SDP Risk Informed Inspection Notebooks," Revision 2
- the extent of previous license renewal audits and inspections of AMPs
- the extent that baseline inspection programs will inspect an SSC or commodity group
- the amount of time since the renewed license was granted and beginning of the PEO
- the type and maturity of the AMP, for example, programs such as the selective leaching one-time inspection program, or infrequent inspection activities may take priority over long-standing programs such as the Steam Generator Tube Integrity Program, which are routinely inspected
- issues that were addressed in an Atomic Safety Licensing Board (ASLB) hearing or Advisory Committee on Reactor Safeguards (ACRS) committee meeting
- issues that were in the public domain at the time of the license renewal application review
- whether the licensee updated its AMPs as a result of recent operating experience since the issuance of its renewed license
- whether the licensee updated its AMPs as a result of updates to the Generic Aging Lessons Learned (GALL) Report or other approved guidance such as topical reports since the issuance of its renewed license

03.03 Level of Effort.

The number of AMPs, commitments, TLAAs and license conditions vary broadly from plant to plant depending on when the plant was relicensed and other factors. Therefore, the IP 71003 inspection procedure does not contain a predetermined sample size for each component of the inspection that would uniformly represent each plant. As such, the lead inspector will determine the sample size and extent of review of license conditions, AMPs, TLAAs and regulatory commitments prior to performing IP 71003 inspections. For Phase II, the lead inspector should ensure that the team comprehensively inspects a majority (recommended greater than 70%) of the number of AMPs, commitments, TLAAs and license conditions to assess the adequacy and effectiveness of the license renewal program. Some sites may not require the same level of inspection effort as others and may be inspected using a smaller sample size. Also some multi-unit sites may contain units with similar designs, and therefore may not require the same level of inspection at the additional units as was received for the first unit. The lead inspector should use discretion in determining the inspection sample size at multi-unit sites with similar designs between the units.

03.04 Inspection Sample Selection.

- a. Selection of License Conditions: The sample should include a review of selected conditions placed in the renewed operating license as part of license renewal.

A sample population of license conditions will be inspected to the extent necessary to determine that the license conditions were implemented as described in the SER and prior NRC approval was obtained for changes to license conditions. Inspection of license conditions should include a review of supporting documentation to determine if the licensee has taken the appropriate actions, including corrective action, to satisfy a particular license condition. Appropriate technical expertise should be requested from the license renewal program office if needed.

- b. Selection of Commitments: The sample should include a review of selected regulatory commitments which were accepted by the staff during the course of the license renewal application review and which describe a modification or enhancement to a program or future actions necessary for compliance with 10 CFR Part 50 or 10 CFR Part 54.

The selected commitments will be inspected to the extent necessary to determine that the commitments were implemented as described in the SER, and any modifications were completed in accordance with NEI 99-04 as endorsed by RIS 2000-017, or 10 CFR 50.59 for commitments that were incorporated into the UFSAR. The inspection team should determine there is reasonable assurance the commitment tracking program is effective. The inspection of regulatory commitments should include a review of supporting documentation to determine if the licensee has taken the appropriate actions, including corrective actions, to satisfy a particular commitment. Appropriate technical expertise should be requested from the license renewal program office if needed.

- c. Selection of AMPs: The sample should include a review of selected AMPs that are new or have been modified or enhanced.

The selected AMPs will be inspected to the extent necessary to determine that updates, modifications and implementation occurred as described in the SER. AMP activities, bases and acceptance criteria should be appropriately proceduralized. The license renewal program office recommends that the inspector include as part of his or her sample selection the Buried and Underground Piping and Tanks Program, the One-Time Inspection Program, and the Selective Leaching Program on the basis that these programs may involve new or unique inspection or testing activities that are being performed by the licensee for the first time or may identify inspection or test results that the licensee may not have experienced in the past. Appropriate technical expertise should be requested from the license renewal program office if needed.

- d. Selection of TLAAs: The sample should include a review of selected TLAAAs that have an associated AMP in accordance with 10 CFR 54.21(c)(1)(iii).

The inspector should verify that the AMP describes how the licensee will manage, update or refine the TLAA during the PEO. The inspector should verify that the AMP demonstrates how the licensee meets the acceptance criteria for the CLB. The AMP should contain the licensee's actions when the CLB acceptance criteria are exceeded. The licensee's actions may include taking the appropriate corrective actions to repair and/or replace impacted SSCs, recalculating the TLAA, or initiating additional inspection activities. AMP activities, bases and acceptance criteria that relate to TLAA acceptance under 10 CFR 54.21(c)(1)(iii) should be appropriately proceduralized. There are currently three programs that the inspector may want to include as part of his or her sample selection: the Fatigue Monitoring Program, the Concrete Containment Tendon Prestress Program, and the Environmental Qualification of Electric Components Program. However, the inspector may want to contact the license renewal program office to identify which TLAAAs were of significant interest during the license renewal application review for a particular plant to determine which TLAAAs will be reviewed for this portion of the inspection. Also, for questions or concerns by the inspector during the review of highly specialized TLAAAs, or for errors identified by the inspector to have significant impact on 10 CFR 54.21(c)(1)(i) or 10 CFR 54.21(c)(1)(ii), assistance should be requested from the license renewal program office.

- e. Inspection of Newly Identified Systems: Licensees may identify new SSCs that should be within the scope of their license renewal program at any time. Any "newly identified" SSCs will be inspected to the extent necessary to ensure that the licensee adequately evaluated and included applicable SSCs into their AMPs or TLAAAs, as required under 10 CFR 54.37(b). The NRC may also specify additional newly identified SSCs that one or more holders of a renewed operating license must evaluate and include in their next UFSAR update in accordance with §54.37(b). Newly identified SSCs are those SSCs that meet one of the two following conditions:

- 1. There is a change to the current licensing basis (CLB) that:
 - (a) Impacts SSCs that were not in scope for license renewal when the license renewal application was approved, and
 - (b) The SSCs would have been in the scope of license renewal based on the CLB change if §54.4(a) were applied to the SSCs;

2. SSCs installed in the plant at the time of the license renewal review that, in accordance with the plant's CLB at the time, should have been in the scope of license renewal per §54.4(a) but were not identified as in scope until after the renewed license was issued.

03.05 Dispositioning Issues of Concern.

Issues of concern associated with the implementation of license conditions, regulatory commitments, TLAAs and AMPs will be evaluated for NRC enforcement action using the guidance in IMC 0612, "Power Reactor Inspection Reports."

71003-04 RESOURCE ESTIMATES

The total resource expenditure of the IP 71003 inspection procedure is estimated to be approximately 1,120 hours for a one-unit site, 2,052 hours for a dual-unit site, and 2,850 hours for a three-unit site. The resource estimate includes the preparation and documentation weeks. The resource estimate does not include the time spent travelling to and from the site. It is expected that the four Regions will coordinate the scheduling of license renewal inspections and share resources so as not to exceed the total resources allocated per year for all license renewal inspections.

71003-05 REFERENCES

10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities"

10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants"

IMC 0308, "Reactor Oversight Process Basis Document"

IMC 0609, "Significance Determination Process"

IMC 0612, "Power Reactor Inspection Reports"

IMC 2515, "Light-Water Reactor Inspection Program – Operations Phase"

IMC 2516, "Policy and Guidance for the License Renewal Inspection Program"

Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-100, "Control of Licensing Bases for Operating Reactors"

NRR Office Instruction LIC-105, "Managing Regulatory Commitments Made by the Licensee to the NRC"

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses," Revision 1, September 2005

Nuclear Energy Institute (NEI) 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule," Revision 6, June 2005

NEI 99-04, "Guidelines for Managing NRC Commitment Changes" Revision 0, July 1999

NUREG-1568, "License Renewal Demonstration Program: NRC Observation and Lessons Learned," December 1996

NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants"

NUREG-1801, "Generic Aging Lessons Learned (GALL) Report"

U.S. Nuclear Regulatory Commission, "Nuclear Power Plants License Renewal; Revisions," Federal Register, Vol. 60, No. 88, Monday, May 8, 1995, pages 22461 to 22495

NRC approved Interim Staff Guidance positions relating to license renewal

RIS 2007-016, "Implementation of the Requirements of 10 CFR 54.37(b) for Holders of Renewed Licenses"

RIS 2000-017, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff"

Commitment Lists for Renewed Plants with No Commitment Appendix Attached to its Safety Evaluation Report for License Renewal, ADAMS Accession No. ML070640041

END

Attachment 1 – Expiration Dates of Original Licenses

The following provides a compilation of operating license expiration dates for inspection planning purposes. Plants are listed on an individual unit basis, by region and date the original operating license expires. Inclusion on **the** list does not mean that the plant has submitted a license renewal application to operate beyond the original operating license nor does it mean that the NRC has granted a renewed operating license. Prior to scheduling **the IP 71003** inspection, it is incumbent upon the Regions to determine if a renewed operating license has been approved and that the conditions for performing the inspection have been met.

Attachment 1.1 – Original Operating License Expiration Dates for Region I Plants

| <u>Plant Name</u> | <u>Expiration Date</u> |
|--|------------------------|
| Oyster Creek Generating Station | 04/09/09 |
| Nine Mile Point Nuclear Station, Unit 1 | 08/22/09 |
| Ginna Nuclear Power Plant | 09/18/09 |
| Vermont Yankee Nuclear Power Station | 03/21/12 |
| Pilgrim Nuclear Power Station | 06/08/12 |
| Peach Bottom Atomic Power Station, Unit 2 | 08/08/13 |
| Indian Point Nuclear Generating, Unit 2 | 09/28/13 |
| Three Mile Island Station, Unit 1 | 04/19/14 |
| Peach Bottom Atomic Power Station, Unit 3 | 07/02/14 |
| Calvert Cliffs Nuclear Power Plant, Unit 1 | 07/31/14 |
| James A. FitzPatrick Nuclear Power Plant | 10/17/14 |
| Millstone Power Station, Unit 2 | 07/31/15 |
| Indian Point Nuclear Generating, Unit 3 | 12/12/15 |
| Beaver Valley Power Station, Unit 1 | 01/29/16 |
| Calvert Cliffs Nuclear Power Plant, Unit 2 | 08/13/16 |
| Salem Nuclear Generating Station, Unit 1 | 08/13/16 |
| Salem Nuclear Generating Station, Unit 2 | 04/18/20 |
| Susquehanna Steam Electric Station, Unit 1 | 07/17/22 |
| Susquehanna Steam Electric Station, Unit 2 | 03/23/24 |
| Limerick Generating Station, Unit 1 | 10/26/24 |
| Millstone Power Station, Unit 3 | 11/25/25 |
| Hope Creek Nuclear Generating Station | 04/11/26 |
| Nine Mile Point Nuclear Station, Unit 2 | 10/31/26 |
| Beaver Valley Power Station, Unit 2 | 05/27/27 |
| Limerick Generating Station, Unit 2 | 06/22/29 |
| Seabrook Station | 03/15/30 |

Attachment 1.2 – Original Operating License Expiration Dates for Region II Plants

| <u>Plant Name</u> | <u>Expiration Date</u> |
|--|------------------------|
| H. B. Robinson Steam Electric Plant | 07/31/10 |
| Surry Power Station, Unit 1 | 05/25/12 |
| Turkey Point Nuclear Plant, Unit 3 | 07/19/12 |
| Surry Power Station, Unit 2 | 01/29/13 |
| Oconee Nuclear Station, Unit 1 | 02/06/13 |
| Turkey Point Nuclear Plant, Unit 4 | 04/10/13 |
| Oconee Nuclear Station, Unit 2 | 10/06/13 |
| Browns Ferry Nuclear Plant, Unit 1 | 12/20/13 |
| Browns Ferry Nuclear Plant, Unit 2 | 06/28/14 |
| Oconee Nuclear Station, Unit 3 | 07/19/14 |
| Edwin I. Hatch Nuclear Plant, Unit 1 | 08/06/14 |
| Brunswick Steam Electric Plant, Unit 2 | 12/27/14 |
| St. Lucie Nuclear Plant, Unit 1 | 03/01/16 |
| Browns Ferry Nuclear Plant, Unit 3 | 07/02/16 |
| Brunswick Steam Electric Plant, Unit 1 | 09/08/16 |
| Crystal River, Unit 3 | 12/03/16 |
| Joseph M. Farley Nuclear Plant, Unit 1 | 06/25/17 |
| North Anna Power Station, Unit 1 | 04/01/18 |
| Edwin I. Hatch Nuclear Plant, Unit 2 | 06/13/18 |
| North Anna Power Station, Unit 2 | 08/21/20 |
| Sequoyah Nuclear Plant, Unit 1 | 09/17/20 |
| Joseph M. Farley Nuclear Plant, Unit 2 | 03/31/21 |
| McGuire Nuclear Station, Unit 1 | 06/12/21 |
| Sequoyah Nuclear Plant, Unit 2 | 09/15/21 |
| Virgil C. Summer Nuclear Station | 08/06/22 |
| McGuire Nuclear Station, Unit 2 | 03/03/23 |
| St. Lucie Nuclear Plant, Unit 2 | 04/06/23 |
| Catawba Nuclear Station, Unit 1 | 12/06/24 |
| Catawba Nuclear Station, Unit 2 | 02/24/26 |
| Shearon Harris Nuclear Power Plant | 10/24/26 |
| Vogtle Electric Generating Station, Unit 1 | 01/16/27 |
| Vogtle Electric Generating Station, Unit 2 | 02/09/29 |
| Watts Bar Nuclear Plant, Unit 1 | 11/09/35 |
| Watts Bar Nuclear Plant, Unit 2 | 10/21/55 |

Attachment 1.3 – Original Operating License Expiration Dates for Region III Plants

| <u>Plant Name</u> | <u>Expiration Date</u> |
|---|------------------------|
| Dresden Nuclear Power Station, Unit 2 | 12/22/09 |
| Monticello Nuclear Generating Plant | 09/08/10 |
| Point Beach Nuclear Plant, Unit 1 | 10/05/10 |
| Dresden Nuclear Power Station, Unit 3 | 01/12/11 |
| Palisades Nuclear Power Plant | 03/24/11 |
| Quad Cities Nuclear Power Station, Unit 1 | 12/14/12 |
| Quad Cities Nuclear Power Station, Unit 2 | 12/14/12 |
| Point Beach Nuclear Plant, Unit 2 | 03/08/13 |
| Prairie Island Nuclear Generating Plant, Unit 1 | 08/09/13 |
| Kewaunee Power Station | 12/21/13 |
| Duane Arnold Energy Center | 02/21/14 |
| D. C. Cook Nuclear Power Plant, Unit 1 | 10/25/14 |
| Prairie Island Nuclear Generating Plant, Unit 2 | 10/29/14 |
| Davis-Besse Nuclear Power Station | 04/22/17 |
| D. C. Cook Nuclear Power Plant, Unit 2 | 12/23/17 |
| LaSalle County Station, Unit 1 | 04/17/22 |
| LaSalle County Station, Unit 2 | 12/16/23 |
| Byron Station, Unit 1 | 10/31/24 |
| Fermi Power Plant, Unit 2 | 03/20/25 |
| Perry Nuclear Power Plant | 03/18/26 |
| Clinton Power Station | 09/29/26 |
| Braidwood Nuclear Power Plant, Unit 1 | 10/17/26 |
| Byron Station, Unit 2 | 11/06/26 |
| Braidwood Nuclear Power Plant, Unit 2 | 12/18/27 |

Attachment 1.4 – Original Operating License Expiration Dates for Region IV Plants

| <u>Plant Name</u> | <u>Expiration Date</u> |
|---|------------------------|
| Fort Calhoun Station | 08/09/13 |
| Cooper Nuclear Station | 01/18/14 |
| Arkansas Nuclear One, Unit 1 | 05/20/14 |
| Arkansas Nuclear One, Unit 2 | 07/17/18 |
| San Onofre Nuclear Generating Station, Unit 2 | 02/16/22 |
| San Onofre Nuclear Generating Station, Unit 3 | 11/15/22 |
| Columbia Generating Station | 12/20/23 |
| Callaway Plant | 10/18/24 |
| Grand Gulf Nuclear Station | 11/01/24 |
| Diablo Canyon Power Plant, Unit 1 | 11/02/24 |
| Waterford Steam Electric Station, Unit 3 | 12/18/24 |
| Wolf Creek Generating Station | 03/11/25 |
| Palo Verde Nuclear Station, Unit 1 | 06/01/25 |
| Diablo Canyon Power Plant, Unit 2 | 08/26/25 |
| River Bend Station | 08/29/25 |
| Palo Verde Nuclear Station, Unit 2 | 04/24/26 |
| South Texas Project Electric Generating Station, Unit 1 | 08/20/27 |
| Palo Verde Nuclear Station, Unit 3 | 11/25/27 |
| South Texas Project Electric Generating Station, Unit 2 | 12/15/28 |
| Comanche Peak Steam Electric Station, Unit 1 | 02/08/30 |
| Comanche Peak Steam Electric Station, Unit 2 | 02/02/33 |

Attachment 2 – License Conditions, Regulatory Commitments, AMPs and TLAAs For License Renewal

NRR Office Instruction LIC-100, “Control of Licensing Bases for Operating Reactors,” describes the licensing bases hierarchy for nuclear power reactors as three categories:

- Obligations - conditions or actions that are legally binding requirements imposed on licensees through applicable rules, regulations, orders, and licenses (including technical specifications and license conditions). The imposition of obligations (sometimes referred to as regulatory requirements) during routine interactions with licensees should be reserved for matters that satisfy the criteria of 10 CFR 50.36 or are otherwise found to be of high safety or regulatory significance. The major distinction between obligations and other parts of the licensing bases is that changes generally cannot be made without prior NRC approval.
- Mandated Licensing Bases Documents - documents, such as the UFSAR, the quality assurance program, the security plan, and the emergency plan, for which the NRC has established requirements for content, change control and reporting. Information that should be included in these documents is specified in applicable regulations and regulatory guides. The change control mechanisms and reporting requirements are defined by regulations such as 10 CFR 50.59, 50.54, and 50.71.
- Regulatory Commitment - explicit statements to take a specific action agreed to, or volunteered by, a licensee and submitted in writing on the docket to the NRC. A regulatory commitment is appropriate for matters in which the staff has a significant interest but which do not warrant either a legally binding requirement or inclusion in the UFSAR or a program subject to a formal regulatory change control mechanism. Control of such commitments in accordance with licensee programs is acceptable provided those programs include controls for evaluating changes and, when appropriate, reporting them to the NRC.

The staff may have accepted regulatory commitments that may have been escalated to **implementing requirements** in the UFSAR to be managed in accordance with 10 CFR 50.59, or license conditions to be managed in accordance with 10 CFR 50.90.

The license conditions for license renewal can be found in the Introduction and General Discussion section of the SER. There are typically two generic conditions for license renewal:

- The licensee is required to include the UFSAR supplements required by 10 CFR 54.21(d) in the next UFSAR 10 CFR 50.71(e) update following the issuance of the renewed license, and the licensee may make changes to the UFSAR supplement in accordance with 10 CFR 50.59.
- The activities identified in the UFSAR supplements are required to be completed in accordance with the implementation schedule for AMPs and commitments appended to the SER.

There may be additional license conditions that are specific to a license renewal issue and contain explicit details regarding required inspection frequencies, analyses, and testing.

The regulatory commitments for license renewal are listed in the following locations:

| <u>Plant Name</u> | <u>Location</u> |
|--|-----------------------------|
| Arkansas Nuclear One, Hatch, Oconee, and Turkey Point | SER NUREG body ¹ |
| Calvert Cliffs | SER NUREG Appendix E |
| Catawba, McGuire, North Anna, Peach Bottom, St. Lucie, Surry | SER NUREG Appendix D |
| Fort Calhoun Station and all renewed licenses since January 2004 | SER NUREG Appendix A |

Time-limited aging analyses are described in Section 4.0 of the SER and are those licensee calculations and analyses that, in part, involve conclusions or provide the basis for conclusions related to the capability of SSCs to perform their intended functions as delineated in 10 CFR 54.21(c).

The following table provides a list of nuclear power plants that have been approved for renewed operating licenses. For more information on plants with renewed operating licenses, visit the following NRC external website link:

<http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html>.

¹ The commitments for Arkansas Nuclear One, Unit 1; Hatch; Oconee; and Turkey Point plants have been compiled and can be found in ADAMS ML070640041.

Table 2.1 – Plants with Renewed Operating Licenses

| Plant | Unit | Region | Renewed License Issuance Date | Start of the PEO Date | SER NUREG Number | ADAMS Accession Number for License Renewal SER |
|------------------------------------|------|--------|-------------------------------|-----------------------|------------------|--|
| Calvert Cliffs Nuclear Power Plant | 1 | I | 03/23/00 | 07/31/14 | NUREG-1705 | ML063620322 |
| Calvert Cliffs Nuclear Power Plant | 2 | I | 03/23/00 | 08/13/16 | NUREG-1705 | ML063620322 |
| Oconee Nuclear Station | 1 | II | 05/23/00 | 02/06/13 | NUREG-1723 | ML003695154 |
| Oconee Nuclear Station | 2 | II | 05/23/00 | 10/06/13 | NUREG-1723 | ML003695154 |
| Oconee Nuclear Station | 3 | II | 05/23/00 | 07/19/14 | NUREG-1723 | ML003695154 |
| Arkansas Nuclear One | 1 | IV | 06/20/01 | 05/20/14 | NUREG-1743 | ML011640099; ML011640177; ML011640217 |
| Edwin I. Hatch Nuclear Plant | 1 | IV | 01/15/02 | 08/06/14 | NUREG-1803 | ML020020307 |
| Edwin I. Hatch Nuclear Plant | 2 | II | 01/15/02 | 06/13/18 | NUREG-1803 | ML020020307 |
| Turkey Point Nuclear Plant | 3 | II | 06/06/02 | 07/19/12 | NUREG-1759 | ML021280541 |
| Turkey Point Nuclear Plant | 4 | II | 06/06/02 | 04/10/13 | NUREG-1759 | ML021280541 |
| Surry Power Station | 1 | II | 03/20/03 | 05/25/12 | NUREG-1766 | ML030280715 |
| Surry Power Station | 2 | II | 03/20/03 | 01/29/13 | NUREG-1766 | ML030280715 |
| North Anna Power Station | 1 | II | 03/20/03 | 04/01/18 | NUREG-1766 | ML030280715 |
| North Anna Power Station | 2 | II | 03/20/03 | 08/21/20 | NUREG-1766 | ML030280715 |
| Peach Bottom Atomic Power Station | 2 | II | 05/07/03 | 08/08/13 | NUREG-1769 | ML031010136 |
| Peach Bottom Atomic Power Station | 3 | I | 05/07/03 | 07/02/14 | NUREG-1769 | ML031010136 |
| St. Lucie Nuclear Plant | 1 | I | 10/02/03 | 03/01/16 | NUREG-1779 | ML032940205 |
| St. Lucie Nuclear Plant | 2 | II | 10/02/03 | 04/06/23 | NUREG-1779 | ML032940205 |
| Fort Calhoun Station | 1 | II | 11/04/03 | 08/09/13 | NUREG-1782 | ML033020438 |
| McGuire Nuclear Station | 1 | IV | 12/05/03 | 06/12/21 | NUREG-1772 | ML030850251 |
| McGuire Nuclear Station | 2 | II | 12/05/03 | 03/03/23 | NUREG-1772 | ML030850251 |

| Plant | Unit | Region | Renewed License Issuance Date | Start of the PEO Date | SER NUREG Number | ADAMS Accession Number for License Renewal SER |
|------------------------------------|------|--------|-------------------------------|-----------------------|------------------|--|
| Catawba Nuclear Station | 1 | II | 12/05/03 | 12/05/23 | NUREG-1772 | ML030850251 |
| Catawba Nuclear Station | 2 | II | 12/05/03 | 12/05/23 | NUREG-1772 | ML030850251 |
| H.B. Robinson Steam Electric Plant | 2 | II | 04/19/04 | 07/31/10 | NUREG-1785 | ML041810563 |
| VC. Summer Nuclear Station | 1 | II | 04/23/04 | 08/06/22 | NUREG-1787 | ML041040070 |
| Ginna Nuclear Power Plant | 1 | II | 05/19/04 | 09/18/09 | NUREG-1786 | ML041400502 |
| Dresden Nuclear Power Station | 2 | I | 10/28/04 | 12/22/09 | NUREG-1796 | ML043060581 |
| Dresden Nuclear Power Station | 3 | III | 10/28/04 | 01/12/11 | NUREG-1796 | ML043060581 |
| Quad Cities Nuclear Power Station | 1 | III | 10/28/04 | 12/14/12 | NUREG-1796 | ML043060581 |
| Quad Cities Nuclear Power Station | 2 | III | 10/28/04 | 12/14/12 | NUREG-1796 | ML043060581 |
| Farley Nuclear Plant | 1 | III | 05/12/05 | 06/25/17 | NUREG-1825 | ML051250126 |
| Farley Nuclear Plant | 2 | II | 05/12/05 | 03/31/21 | NUREG-1825 | ML051250126 |
| Arkansas Nuclear One | 2 | II | 06/30/05 | 07/17/18 | NUREG-1828 | ML043200228; ML051730233 |
| DC Cook Nuclear Power Plant | 1 | III | 08/30/05 | 10/25/14 | NUREG-1831 | ML052230442 |
| DC Cook Nuclear Power Plant | 2 | III | 08/30/05 | 12/23/17 | NUREG-1831 | ML052230442 |
| Millstone Power Station | 2 | I | 11/28/05 | 07/31/15 | NUREG-1838 | ML053270483; ML053290180 |
| Millstone Power Station | 3 | I | 11/28/05 | 11/25/25 | NUREG-1838 | ML053270483; ML053290180 |
| Point Beach Nuclear Plant | 1 | III | 12/22/05 | 10/05/10 | NUREG-1839 | ML053420129 |
| Point Beach Nuclear Plant | 2 | III | 12/22/05 | 03/08/13 | NUREG-1839 | ML053420129 |
| Browns Ferry Nuclear Plant | 1 | II | 05/04/06 | 12/20/13 | NUREG-1843 | ML061030027 |
| Browns Ferry Nuclear Plant | 2 | II | 05/04/06 | 06/28/14 | NUREG-1843 | ML061030027 |
| Browns Ferry Nuclear Plant | 3 | II | 05/04/06 | 07/02/16 | NUREG-1843 | ML061030027 |

| Plant | Unit | Region | Renewed License Issuance Date | Start of the PEO Date | SER NUREG Number | ADAMS Accession Number for License Renewal SER |
|-------------------------------------|------|--------|-------------------------------|-----------------------|------------------|--|
| Brunswick Steam Electric Plant | 2 | II | 06/26/06 | 12/27/14 | NUREG-1856 | ML061730126 |
| Brunswick Steam Electric Plant | 1 | II | 06/26/06 | 09/08/16 | NUREG-1856 | ML061730126 |
| Nine Mile Point Nuclear Station | 1 | I | 10/31/06 | 08/22/09 | NUREG-1900 | ML062890129; ML062890236 |
| Nine Mile Point Nuclear Station | 2 | I | 10/31/06 | 10/31/26 | NUREG-1900 | ML062890129; ML062890236 |
| Monticello Nuclear Generating Plant | 1 | III | 11/08/06 | 09/08/10 | NUREG-1865 | ML063050414 |
| Palisades Nuclear Power Plant | 1 | III | 01/17/07 | 03/24/11 | NUREG-1871 | ML070600578 |
| Fitzpatrick Nuclear Power Plant | 1 | I | 09/08/08 | 10/17/14 | NUREG-1905 | ML081510826 |
| Wolf Creek Generating Station | 1 | IV | 11/20/08 | 03/11/25 | NUREG-1915 | ML083090483 |
| Shearon Harris Nuclear Power Plant | 1 | II | 12/17/08 | 10/24/26 | NUREG-1916 | ML090060733; ML090020420 |
| Oyster Creek Generating Station | 1 | I | 04/08/09 | 04/09/09 | NUREG-1875 | ML071290023; ML071310246; ML083170611 |
| Vogtle Electric Generating Plant | 1 | II | 06/03/09 | 01/16/27 | NUREG-1920 | ML091320259; ML091320236 |
| Vogtle Electric Generating Plant | 2 | II | 06/03/09 | 02/09/29 | NUREG-1920 | ML091320259; ML091320236 |
| Three Mile Island Nuclear Station | 1 | I | 10/22/09 | 04/19/14 | NUREG-1928 | ML092950458 |
| Beaver Valley Power Station | 1 | I | 11/05/09 | 01/29/16 | NUREG-1929 | ML093020274; ML093000278; ML093140250 |
| Beaver Valley Power Station | 2 | I | 11/05/09 | 05/27/27 | NUREG-1929 | ML093020274; ML093000278; ML093140250 |

| Plant | Unit | Region | Renewed License Issuance Date | Start of the PEO Date | SER NUREG Number | ADAMS Accession Number for License Renewal SER |
|---|------|--------|-------------------------------|-----------------------|------------------|--|
| Susquehanna Steam Electric Station | 1 | I | 11/24/09 | 07/17/22 | NUREG-1931 | ML093170786 |
| Susquehanna Steam Electric Station | 2 | I | 11/24/09 | 03/23/24 | NUREG-1931 | ML093170786 |
| Cooper Nuclear Station | 1 | IV | 11/29/10 | 01/18/14 | NUREG-1944 | ML103070009 |
| Duane Arnold Energy Center | 1 | III | 12/16/10 | 02/21/14 | NUREG-1955 | ML103070013 |
| Kewaunee Power Station | 1 | III | 02/24/11 | 12/21/13 | NUREG-1958 | ML110340147 |
| Vermont Yankee Nuclear Power Station | 1 | I | 03/21/11 | 03/21/12 | NUREG-1907 | ML081430109; ML081430109; ML092740567 |
| Palo Verde Nuclear Generating Station | 1 | IV | 04/21/11 | 06/01/25 | NUREG-1961 | ML11095A011 |
| Palo Verde Nuclear Generating Station | 2 | IV | 04/21/11 | 04/24/26 | NUREG-1961 | ML11095A011 |
| Palo Verde Nuclear Generating Station | 3 | IV | 04/21/11 | 11/25/27 | NUREG-1961 | ML11095A011 |
| Prairie Island Nuclear Generating Plant | 1 | III | 06/27/11 | 08/09/13 | NUREG-1960 | ML11235A622; ML11236A175 |
| Prairie Island Nuclear Generating Plant | 2 | III | 06/27/11 | 10/29/14 | NUREG-1960 | ML11235A622; ML11236A175 |
| Salem Nuclear Generating Station | 1 | I | 06/30/11 | 08/13/16 | NUREG-2101 | ML11166A135 |
| Salem Nuclear Generating Station | 2 | I | 06/30/11 | 04/18/20 | NUREG-2101 | ML11166A135 |
| Hope Creek Nuclear Generating Station | 1 | I | 07/20/11 | 04/11/26 | NUREG-2102 | ML11200A221 |
| Columbia Generating Station | 1 | IV | 5/22/2012 | 12/20/23 | NUREG-2123 | ML12139A300 ML12139A302 |

| Plant | Unit | Region | Renewed License Issuance Date | Start of the PEO Date | SER NUREG Number | ADAMS Accession Number for License Renewal SER |
|-------------|------|--------|-------------------------------|-----------------------|------------------|--|
| Pilgrim | 1 | I | 5/29/2012 | 06/08/12 | NUREG-1891 | ML073241016 ML11147A036 |
| Limerick | 1 | I | 10/20/14 | 10/26/24 | NUREG-2171 | ML14276A156 ML14276A160 |
| Limerick | 2 | I | 10/20/14 | 06/22/29 | NUREG-2171 | ML14276A156 ML14276A160 |
| Callaway | 1 | IV | 03/06/15 | 10/18/24 | NUREG-2172 | ML15068A342 |
| Sequoyah | 1 | II | 09/24/15 | 09/17/20 | NUREG-2181 | ML15187A206 ML15259A332 |
| Sequoyah | 2 | II | 09/24/15 | 09/15/21 | NUREG-2181 | ML15187A206 ML15259A332 |
| Byron | 1 | III | 11/19/15 | 10/31/24 | NUREG-2190 | ML15350A038 ML15350A041 |
| Byron | 2 | III | 11/19/15 | 11/06/26 | NUREG-2190 | ML15350A038 ML15350A041 |
| Davis Besse | 1 | III | 12/08/15 | 04/22/17 | NUREG-2193 | ML16104A207 ML16104A301 ML16104A350 |
| Braidwood | 1 | III | 01/27/16 | 10/17/26 | NUREG-2190 | ML15350A038 ML15350A041 |
| Braidwood | 2 | III | 01/27/16 | 12/18/27 | NUREG-2190 | ML15350A038 ML15350A041 |

Attachment 3 – Revision History for IP 71003

| Commitment Tracking Number | Accession Number Issue Date Change Notice | Description of Change | Description of Training Required and Completion Date | Comment and Feedback Resolution Accession Number |
|----------------------------|---|---|--|---|
| N/A | ML080440248 02/15/08 CN 08-008 | Revision history reviewed for the last four years. IP 71003 has been revised to address the concern that the previous IP as written was too broad and that it did not focus on the needed inspection activities. | N/A | N/A |
| N/A | ML083020087 10/31/08 CN 08-031 | Attachment 1- Expiration Dates of Original Licenses has been revised to address incorrect dates for the following plants: Indian Point Nuclear Generating Unit 3, Seabrook Station, Virgil C. Summer Nuclear Station, McGuire Nuclear Station Unit 2, Duane Arnold Energy Center, Diablo Canyon Power Plant Units 1 and 2, Palo Verde Nuclear Station Units 1, 2 and 3. | N/A | N/A |
| | ML12258A160 02/25/13 CN 13-006 | Revised objectives to separate from the first objective, into a separate objective, the inspection of changes to commitments, changes to the UFSAR supplement, and changes to license conditions against applicable requirements; Revised to include description of inspection phases; Revised to include guidance on how to select license conditions, commitments, AMPs and TLAA's for inspection; Revised to include definitions for obligations, commitments and licensing basis documents; Revised wording on resource estimates; Updated table of information for relicensed plants; Reformatted the procedure sections | N/A | ML13052A573 |
| N/A | ML16013A260 07/08/16 CN 16-015 | Added Phase IV inspection, updated Table 2.1 with latest license renewal information | N/A | ML16019A315 |