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NL-19-1491

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Southern Nuclear Operating Company
Edwin I. Hatch Nuclear Plant Units 1 and 2
Update to the Snubber Program Plan for the Fifth Ten-Year Inservice Testing Interval

Ladies and Gentlemen:

In accordance with American Society of Mechanical Engineers Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code), Subparagraph ISTA-3200(a), Southern Nuclear is submitting for your information a copy of the updated Edwin I. Hatch Nuclear Plant Snubber Program.

This letter contains no NRC commitments. If you have any questions, please contact Jamie Coleman at 205.992.6611.

Respectfully submitted,

C. A. Gayheart
Regulatory Affairs Director

CAG/dsp/scm

ENCLOSURE: Edwin I. Hatch Nuclear Plant Units 1 and 2 Fifth Interval Snubber Program


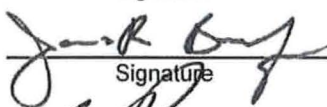

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Cc: Regional Administrator, Region II
NRR Project Manager – Hatch
Senior Resident Inspector – Hatch
RTYPE: CHA02.004

**Edwin I. Hatch Nuclear Plant Unit 1 and 2
Update to the Snubber Program Plan for the Fifth Ten-Year Inservice Testing Interval**

ENCLOSURE

Edwin I. Hatch Nuclear Plant Units 1 and 2 Fifth Interval Snubber Program

Edwin I. Hatch Nuclear Plant Units 1 and 2 5th Interval Snubber Program		
Version	Completion Date	Description
1.0	12/17/2015	Initial Issuance
2.0	12/5/2016	Revision to adopt OMN-13 Code Case for Visual Examination of Snubbers
3.0	10/30/2019	Revision to adjust the Defined Test Plan Groups for Lisega and Anvil Hydraulic Snubbers, and editorial changes.
Engineering Programs' Signatures		
Preparer:	<u>Mitchell Etten-Bohm</u> Print	/  Signature
Reviewer:	<u>James Bradford</u> Print	/  Signature
Approver:	<u>Sean Phillips</u> Print	/  Signature
Date:		<u>11/7/19</u>
Date:		<u>11/7/19</u>
Date:		<u>11/7/19</u>

Southern Nuclear Operating Company, Inc.
Post Office Box 1295
Birmingham, AL 35201-1295

Edwin I. Hatch Nuclear Plant
Docket 050-00321 (Unit 1) and 050-00366 (Unit 2)
11028 Hatch Parkway North
Baxley, GA 31513

Construction Permit Issue Date: 09/30/1969 (Unit 1)
12/27/1972 (Unit 2)

Commercial Service Date: 12/31/1975 (Unit 1)
09/05/1979 (Unit 2)

Edwin I. Hatch Nuclear Plant Snubber Program

Edwin I. Hatch Nuclear Plant has two boiling water reactors that have been operating for over 40 years. Commercial operation for Unit 1 and Unit 2 began in December 1975 and September 1979, respectively. Each unit currently produces 924 megawatts of electricity.

10 CFR 50.55a, "Codes and Standards," incorporates by reference which ASME Codes govern snubbers. Paragraph 50.55a(b)(3)(v)(B) requires the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code), Subsection ISTD be used to govern inservice examination and testing of dynamic restraints (snubbers) at nuclear power plants, with appropriate changes made to the Technical Specifications (TS) or licensee-controlled documents. Consequently, Edwin I. Hatch Units 1 and 2 (HNP-1/2) shall comply with the OM Code, Subsections ISTA and ISTD, for its Snubber Program.

The current HNP snubber program document was prepared in accordance with the requirements of ASME OM Code, 2004 Edition through 2006 Addenda as endorsed in the version of 10 CFR 50.55a issued July 19, 2011. Utilizing this edition of the OM Code aligns the snubber program with the IST pumps and valves program.

HNP-1/2 is beginning its Fifth 10-Year Interval. For this 10-year interval, this program will be updated concurrently with the Inservice Inspection (ISI) and Inservice Testing (IST) updates. This meets 10 CFR 50.55a requirements for program updates to the latest edition and addenda of the Code that it has endorsed 12 months before the start of the plant's next 120 month interval. The fifth 10-Year interval for HNP-1/2 snubbers will end on December 31, 2025. At that time, HNP 1/2 Snubber Program will be updated to the latest OM Code edition.

HNP-1/2's snubber program formally adopted the OM Code during the 4th Inservice Testing (IST) interval (LDCR 2010-038). The adoption of the latest OM Code for the snubber program does not affect HNP-1/2's inspection and testing interval. The following table provides current and previous 10-Year Interval dates.

	HNP Unit 1	HNP Unit 2
1st 10-year Interval	01/01/1975 to 12/31/1985	09/06/1979 to 12/31/1985*
2nd 10-year Interval	01/01/1986 to 12/31/1995	01/01/1986 to 12/31/1995
3rd 10-year Interval	01/01/1996 to 12/31/2005	01/01/1996 to 12/31/2005
4th 10-year Interval	01/01/2006 to 12/31/2015	01/01/2006 to 12/31/2015
5th 10-year Interval	01/01/2016 to 12/31/2025	01/01/2016 to 12/31/2025

* Hatch Unit 2 was optionally updated at the same time as Unit 1 for the 2nd 10 Year Interval in order to place both units on the same edition of the code.

OM Code subsection ISTA – 1100 requires the scope of the snubber program to include any snubbers having one or more of the functions listed below:

- required to perform a specific function in shutting down the reactor to the safe shutdown condition
- in maintaining the reactor's safe shutdown condition
- in mitigating the consequences of an accident
- or ensuring the integrity of the reactor coolant pressure boundary

The number of snubbers at HNP within the scope of ISTA is listed below:

UNIT 1			
	Accessible	Inaccessible	Grand Total
Snubbers	141	169	310

UNIT 2			
	Accessible	Inaccessible	Grand Total
Snubbers	187	170	357

Per ISTA-3200(a), this program plan shall be filed with the NRC.

Detailed information for each snubber is maintained by the site.

Roles, responsibilities, a site-specific procedures' list, and implementation instructions for the HNP snubber program are found in NMP-ES-057 and associated instructions.

TEST PLAN

1. Relationship with Licensing Documents

No conflicts between ASME OM Code 2004 through 2006 Addenda requirements and the requirements of HNP-1/2 Technical Specifications have been identified. As part of the process for adopting the AMSE OM Code, the HNP-1/2 Technical Requirements Manual 3.7.1 was reviewed and revised accordingly (HNP LDCR 2010038).

2. Quality Assurance

Subsection ISTA of the 2004 Edition through 2006 Addenda provides General Requirements applicable to OM Code activities. These requirements shall be applied to snubber program activities. The 10 CFR Part 50, Appendix B Quality Assurance Program applicable to HNP-1/2 will be used in conjunction with the OM Code requirements.

3. HNP-1/2 Safety Class Piping

HNP-1 safety class piping was designed to B31.7 and B31.1 requirements with additional NDE and QA requirements. HNP-2 safety class piping was designed to ASME Section III Class 1, 2, and 3 requirements. In addition, certain systems important to safety that were designed to ANSI B31.1 are currently included within the scope of ASME Section XI and treated as Class 2 or 3.

4. HNP-1/2 Snubber Classification

At HNP-1/2, snubbers falling under the scope of ISTA-1100 are classified as either safety related or safety significant.

Safety related snubbers are snubbers required to shut down/maintain shut down of a reactor, and mitigate consequences of an accident. These snubbers are attached directly to ASME Class 1, 2 or 3 piping. The Class 1, 2, or 3 safety-related scope is defined by plant boundary diagrams; a list can be found in the plant's Inservice Inspection (ISI) Plan.

Safety significant snubbers are snubbers needed to ensure the integrity of the reactor coolant pressure boundary. These snubbers are located on non-safety class systems whose failure could jeopardize class 1, 2, or 3 piping; specifically, non-safety piping between the safety class valve and the first anchor point. This piping is considered safety-significant because it must be structurally sound in case of a design basis event, so that the safety-class piping is not affected.

As allowed by ISTD-4220(a), snubbers are divided into inaccessible and accessible for examination. Inaccessible is defined as any snubber that cannot be reached during normal operation; such snubbers are located inside the drywell and condenser bay. Accessible is defined as any snubber located outside the drywell and condenser bay. At HNP, both inaccessible and accessible snubbers may be examined during the same refueling outage.

As allowed by ISTD-5252, HNP-1/2's snubbers are also classified by manufacturer, as seen in Section 6.

5. Snubber Visual Examination

All snubbers at HNP falling under the scope of ISTA – 1100 are subjected to the requirements of ISTD – 4000. Per ISTD-3110, the visual examination must be pin-to-pin (include everything between the snubber pin attachments). The initial and subsequent frequency of 100% visual examination is determined by OM Code Table ISTD-4252-1. HNP adopted code case OMN-13, "Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants", Revision 0, approved by Regulatory Guide 1.192, which requires 100% visual examination of Snubbers governed by OM Code within 10 years of the last completed 100% visual exam. The next planned 100% visual exam shall complete before conclusion of refueling outage 1R31 for Unit 1, and 2R27 for Unit 2.

In accordance with ISTD – 4100, newly installed snubbers shall be subjected to preservice examinations. In accordance with ISTD – 4200, periodic inservice visual examinations shall be performed on all snubbers.

The snubbers installed in HNP-1/2 that fall under the jurisdiction of ISTD – 4000 are listed in Owner Controlled Documents. The visual examination frequency of non-safety related, non-safety significant snubbers is discussed in Section 8.

6. Snubber Operational Readiness Testing

All snubbers at HNP falling under the scope of ISTA – 1100 are subjected to the requirements of ISTD – 5000.

In accordance with ISTD – 5100, new snubbers shall have been subjected to a site preservice operational readiness test before installation. Testing may be performed at the manufacturer's facility.

In accordance with ISTD – 5200, periodic inservice operational readiness testing shall be performed on all snubbers.

The Defined Test Plan Groups (DTPGs) are listed below:

DTPG I	Pacific Scientific (PSA)
DTPG II	Lisega and Anvil (Small Bore)
DTPG III	Lisega and Anvil (Medium Bore)
DTPG IV	Bergen Paterson (BP)

PSA snubbers are mechanical snubbers. Liseaga, Anvil, and Bergen Paterson snubbers are hydraulic snubbers. Each refueling outage a 10% initial sample of each DTPG will be tested in accordance with ISTD-5261(a). The initial sample plan will be selected in accordance with ISTD-5311. In the event any unacceptable snubbers are found, additional snubbers will be selected for testing during the same refueling outage to meet the requirements of ISTD-5320.

The frequency of functionally testing non-safety related, non-safety significant snubbers is discussed in Section 8.

7. Service Life and Snubber Seal Replacement Program

A snubber service life program in accordance with ISTD-6000 has been established for HNP-1/2. This service life program includes the requirements of the snubber seal replacement program required by ISTD. The specifics of the program are recorded in corporate and site procedures.

8. HNP-1/2 Non-Safety Related, Non-Safety Significant Snubbers

Owner controlled documents contain non-safety related, non-safety significant snubbers (snubbers that are not covered under the TRM 3.7.1 scope). As a good engineering practice, one-third of each unit's non-safety related, non-safety significant snubbers will be visually examined on the same frequency as the 100% visual examination of the subsection ISTA-1100 scope snubbers.

9. Plant Transients

When notified of a potentially damaging transient event, an examination shall be performed of all snubbers attached to affected systems. The visual examination of the system(s) shall be completed within 6 months following such an event.

In addition to satisfying the visual examination acceptance criteria, freedom-of-motion of mechanical snubbers shall be verified using at least one of the following:

- Manually induced snubber movement
- Stroking the mechanical snubber through its full range of travel.

The examination, including the freedom-of-motion verification, may be performed in accordance with procedure NMP-ES-024-203.

Results shall be included with the engineering evaluation.

10. Commitments

The following commitments are currently active for HNP Snubber Program:

SNC3 (1989300370)	SNC1887 (1990301423)	SNC1894 (1990301433)
SNC4 (1989300372)	SNC31 (1990301424)	SNC20025 (1993300054)
SNC5 (1989300374)	SNC1888 (1990301425)	
SNC1541 (1989300376)	SNC32 (1990301426)	
SNC1542 (1989300377)	SNC1889 (1990301427)	
SNC1543 (1989300378)	SNC1890 (1990301428)	
SNC1546 (1989300383)	SNC1891 (1990301429)	