

August 18, 2014

Mr. Scott Head, Manager
Regulatory Affairs
Nuclear Innovation North America, LLC
122 West Way, Suite 405
Lake Jackson, TX 77566

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 449 RELATED TO
SRP CHAPTER 1 FOR NUCLEAR INNOVATION NORTH AMERICA, LLC
(NINA) COMBINED LICENSE APPLICATION

Dear Mr. Head

By letter dated September 20, 2007, South Texas Project (STP) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U. S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond no later than **45** days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

S. Head

-2-

If you have any questions or comments concerning this matter, I can be reached at 301-415-6146 or by e-mail at Luis.Betancourt@nrc.gov.

Sincerely,

/RA/

Luis Betancourt, Project Manager
Licensing Branch 2
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking No. 7647

Enclosure:
Request for Additional Information

cc: William Mookhoek
Richard Scheide

S. Head

-2-

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Request for Additional Information

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NRO-002

OFFICE	LB2/PM
NAME	LBetancourt
DATE	08/18/14

***Approval captured electronically in the electronic RAI system.**

OFFICIAL RECORD COPY

Request for Additional Information 449

Issue Date: 08/18/2014

Application Title: South Texas Project Units 3 and 4 - Dockets 52-012 and 52-013

Operating Company: South Texas Project Nuclear Operating Co

Docket No. 52-012 and 52-013

Review Section: 01 - Introduction and Interfaces

Application Section: Chapter 1

QUESTIONS

01-26

Chapter 1 of the *Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants LWR Edition* (SRP), NUREG-0800 indicates that the application should include information on the type of license being requested. In Part 1, Section 1.1 of the Final Safety Analysis Report (FSAR), Nuclear Innovation North America LLC requests Class 103 combined licenses under 10 CFR Part 52 to construct, possess, and use South Texas Project (STP) Units 3 and 4 at the designated location in Matagorda County, Texas. STP Nuclear Operating Company requests Class 103 combined licenses under 10 CFR Part 52 to possess, use, and operate STP Units 3 and 4. These requests initially included a request for licenses to receive, possess, and use byproduct, source, and special nuclear material (SNM), pursuant to 10 CFR Parts 30, 40, and 70.

However, in a letter dated April 6, 2011 (ML110980614), the applicant proposed a revision to FSAR Section 1.1, removing the request to receive, possess, and use material under 10 CFR Parts 30 and 40, but retaining a request for licenses under 10 CFR Part 70 to receive, possess, and use at any time such quantities of source, byproduct, and special nuclear material as needed to construct and operate the facility. The changes to FSAR Section 1.1 were incorporated in FSAR Revision 6, and remain in the current version of the FSAR, Revision 10. The applicant stated that as it identified the need to procure radioactive materials for STP, it would then apply for the appropriate licenses to possess this material.

As a general matter, to the extent that the application discusses the applicant's proposed receipt, possession, and/or use of radioactive materials, the COL review of this information must include the licenses for the proposed activities. Separate and apart from this consideration, since a combined license is defined under 10 CFR Part 52 as a license to construct and operate a reactor, a Part 52 COL application must contain all of the information necessary to allow the NRC to find at the time of COL issuance that both construction and operation will be in accordance with all applicable requirements, including NRC regulations. Therefore, at COL issuance, a licensee must be licensed to conduct all activities required of them in order to construct and operate a reactor, such as receipt, possession, and use of sources for reactor startup, reactor instrumentation, and radiation monitoring equipment calibration, and the possession of SNM and byproduct material produced by the operation of the facility. The licensee need not be licensed for activities that can be performed by a licensed contractor or other licensed entity, such as work performed by a licensed radiographer during plant construction.

As an example, STP FSAR Subsection 12.2.1.2.9.6 discusses several sealed sources of radioactive material. These include sources for installed radiation monitoring system detectors and portable radiation detector calibration activities that are expected to be less than 100

millicuries. It further states that large sources used for radiography at STP will be under a license granted to (sic, should be 'by') the State of Texas. In addition, ABWR DCD Section 12.2 provides a description of the key component sources of radioactivity present in the ABWR. Included in this description is a reactor startup source. In order to receive, possess, or use this material, as appropriate, a license is required under 10 CFR 30.3 or 10 CFR 40.3. Since these sources are intrinsic to the operation of the reactor, the licensee must be licensed to receive, possess, and use Part 30 or Part 40 material, as appropriate, at the time of COL issuance.

Therefore, the applicant is requested to update FSAR Section 1.1 to include a request for the materials licenses necessary to construct and operate the reactor. The applicant is also requested to correct the editorial error in FSAR subsection 12.2.1.2.9.6 (described above), and to correct the discussion in FSAR Section 1.1 regarding the parts under which licenses are requested (10 CFR Part 70 is for SNM, not for source or byproduct material). Although the applicant did not withdraw the application for Part 70, staff recommends that the applicant update, as necessary, that application when requesting the Part 30 and Part 40 licenses. When updating the license action requests in Part 1, Section 1.1, the applicant should ensure that the request in terms of Part 30 or Part 40 is consistent with the description of the byproduct and source material to be obtained as described elsewhere in the COLA.

To assist STP with providing the requested information, NRC staff has prepared the table below. Use of this table to supply the information will expedite the NRC staff review and ensure that all the required information is provided. Much of the requested information is already provided in the FSAR or other referenced documents and the NRC staff has identified the pertinent sections in the COLA where it believes the requested information may already exist. The applicant should confirm the location of this information and ensure that the information provided in those sections of the application is sufficient. The highlighted rows in the table below indicate information that has not been provided. Some of this information listed in the table may not be relevant for the STP application and therefore may not need to be included in STP's application.

The column titled "Regulatory Guidance" provides references to the primary guidance for an application to possess radioactive material under Parts 30, 40, or 70. NUREG-1556, *Consolidated Guidance About Materials Licenses*, is a multi-volume guidance series. It is intended for use by applicants, licensees, and NRC staff for materials license applications and the review of those applications. This NUREG series is available on the NRC public web site. Separate guidance for Parts 30, 40, or 70 material licensed for use in reactor facilities in conjunction with a Part 50 or Part 52 license has not been created. The applicant should utilize this guidance in preparing the request for the materials licenses. These requests may be modified as necessary to fit the planned use of the materials at the applicant's facility.

In addition, NRC staff will follow the policy and guidance memorandum issued on September 16, 1983 (ML063410482) regarding NRC/Agreement State jurisdiction over materials licenses connected with reactor construction and operation. This memorandum discusses the possession and use of radioactive materials at a reactor facility when the materials are directly connected with reactor construction and operation. The applicant should also review State Agreements (SA) Series procedure SA-500 (ML072610457), available on the NRC public web site under the 'National Materials Program' section and 'FSME Procedures.' SA-500 describes the process for resolving questions of jurisdiction between the NRC and Agreement States over the use of byproduct, source, and SNM.

**CROSS-REFERENCE OF REGULATIONS AND REGULATORY GUIDANCE IN
SUPPORT OF REVIEW OF PART 30/40/70 LICENSE APPLICATION VS. PART 52
COLA CONTENT**

	Review Area	Regulations	Regulatory Guidance	COLA Chapter
1	License Action Type	10 CFR Parts 30, 40, and/or 70	NUREG-1556, Volume 7, Section 8.1 and Appendix D.1, Item No. 1 OR Section 8.1 of Volume 17 (SNM)	Part 1, section 1.1
2	Legal Identity	10 CFR 30.32, 40.31, and 70.22	NUREG-1556, Volume 7, Section 8.2 and Appendix D.2, Item No. 2 OR Section 8.3 of Volume 17 (SNM)	Part 1, sections 1.0 & 1.2
3	Address	10 CFR 30.32, 40.31, and 70.22	NUREG-1556, Volume 7, Section 8.3 and Appendix D.3 Item Nos. 2 and 3 OR Section 8.3 of Volume 17 (SNM)	Part 1, section 1.2 (mailing address) Part 2, FSAR, section 1.1.7 (physical location)
4	Person to be Contacted About this Application	10 CFR 30.32, 40.31, and 70.22	NUREG-1556, Volume 7, Section 8.4 and Appendix D.4, Item No. 4 OR Section 8.4 of Volume 17 (SNM)	Part 1, section 1.2
5	Materials to be Possessed and Proposed Uses	10 CFR 30.4, 30.14, 30.15, 30.18, 30.19, 30.21, 30.32(g), 30.32(i), 30.33, 31.5, 31.8, 40.1, 40.3, 40.4, 40.32, 40.34, 40.35, 70.22, and 70.24	NUREG-1556, Volume 7, Sections 8.5.1, 8.6, Appendix C, and Appendix D.5, Item Nos. 5 and 6 OR Sections 8.5.1, 8.6, and Appendix C of Volume 17 (SNM)	Applicant must provide this information. Following the examples of other applications is recommended.
6	Financial Assurance and Recordkeeping for Decommissioning (if applicable)	10 CFR 30.35, 30.32(h), 40.31(i), 40.36, and 70.25	NUREG-1556, Volume 7, Section 8.5.2, Appendix C, and Appendix G OR Section 8.5.2, Appendix C of Volume 17 (SNM) AND NUREG-1757, Volume 3, Chapter 4 and Appendix A	Part 1, section 1.4 for the COLA addresses 10 CFR 50.75(c), but may not address the requirements for Parts 30/40/70 if any of the requested material exceeds the applicable thresholds.
7	Individual(s) Responsible for Radiation Safety Program and Their Training and Experience and Authorized User	10 CFR 20.1101 30.33(a)(3), 40.32(b), and 70.23(a)(2)	NUREG-1556, Volume 7, Sections 8.7.1, 8.7.2, Appendix C, and Appendix D.6, Item No. 7 OR Sections 8.7.1, 8.7.2, and Appendix C of Volume 17 (SNM)	Part 2, FSAR, Chapter 12

	Review Area	Regulations	Regulatory Guidance	COLA Chapter
8	Training for Individuals Working in or Frequenting Restricted Areas (Occupationally Exposed Individuals and Ancillary Personnel)	10 CFR 19.11, 19.12, 19.13, 20.1801, 20.1802, 30.7, 30.9, 30.10, 30.33(a)(3), 40.32(b), 70.22(a)(6), and 70.23(a)(2)	NUREG-1556, Volume 7, Section 8.8, Appendix C, and Appendix D.6, Item No. 8 OR Section 8.8 and Appendix C of Volume 17 (SNM)	Part 2, FSAR, Chapter 12
9	Facilities and Equipment	10 CFR 20.1101(b), 20.1406, 30.33(a)(2), 30.35(g), 40.32(c), 70.22(a)(7), and 70.23(a)(3)	NUREG-1556, Volume 7, Section 8.9, Appendix C, and Appendix D.6, Item No. 9 OR Section 8.9, Appendix C, and Appendix F of Volume 17 (SNM)	Part 2, FSAR, Chapter 1
10	Radiation Safety Program	10. CFR 20.1101, 20.2102, 21.21(a), 40.32(c), 70.22(a)(8), and 70.23(a)(4)	NUREG-1556, Volume 7, Section 8.10, Appendix C, and Appendix D.6, Item No. 10 OR Section 8.10 and Appendix C of Volume 17 (SNM)	Part 2, FSAR, Chapter 12
11	Waste Management	10 CFR 20.1904, 20.2001, 20.2002, 20.2003, 20.2004, 20.2005, 20.2006, 20.2007, 20.2108, 30.51, 61.52, and 70.51	NUREG-1556, Volume 7, Section 8.11, Appendix C, and Appendix D.6, Item No. 11 OR Section 8.11 and Appendix C of Volume 17 (SNM)	Part 2, FSAR, Chapter 11
12	Certification	10 CFR 30.32(c), 40.31(b), and 70.22(d)	Section 8.13 and Appendix B of NUREG-1556, Volume 7 OR Volume 17 (SNM)	October 29, 2013 letter for FSAR Revision 10 (ML13310A599)
13	Applications for Exemptions	10 CFR 19.31, 20.2301, 30.11, 40.14, and 70.17	Section 10 of NUREG-1556, Volume 7 OR Volume 17 (SNM)	Applicant to complete if there are any related exemption requests (none are currently specified in the COLA)
14	Material Control and Accounting (MC&A) SNM only	10 CFR 74, Subpart B 10 CFR 70.22(b) includes an exemption from a 10 CFR 74.31 FNMCP for SNM used at a Part 50 (but not Part 52) reactor site.	Section 8.10.3 of NUREG-1556, Volume 17	Applicant to complete if necessary (dependent on SNM sources requested)
15	Physical Security	10 CFR 70.22 (k), 73.55, and 73.67	Section 13.6.1 of NUREG-0800	May be covered by Part 2, FSAR, Chapter 13 (if SNM sources are requested)