



Nuclear Innovation
North America LLC
4000 Avenue F, Suite A
Bay City, Texas 77414

October 3, 2011
U7-C-NINA-NRC-110119

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

South Texas Project
Units 3 and 4
Docket Nos. 52-012 and 52-013

Request for Exemption From the Requirements of 10 CFR 70.22(b), 70.32(c), 74.31, 74.41, and 74.51

A request for exemption from the requirements of 10 CFR 70.22(b), 70.32(c), 74.31, 74.41 and 74.51 is included in this submittal as Attachment 1. Attachment 2 contains a description of the STP 3 & 4 Special Nuclear Material (SNM) Material Control and Accounting Program.

As stated in the South Texas Project (STP) Units 3 & 4 Combined License Application (COLA). Part 1, Section 1.0, Nuclear Innovation North America LLC (NINA) is the lead applicant and lead licensee responsible for the design and construction of STP Units 3 & 4 until the date on which the Nuclear regulatory Commission makes a finding that acceptance criteria are met under 10 CFR 52.103(g), at which point, STP Nuclear Operating Company (STPNOC) will be the lead licensee responsible for operations.

The COLA markups contained in this submittal are shown in shaded text and will be made in the next routine COLA update.

There are no commitments in this submittal.

If you have any questions, please contact Scott Head at (361) 972-7136 or Bill Mookhoek at (361) 972-7274.

DO91
NRJ
STI 32956502

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 10/3/11



Mark McBurnett

Senior Vice President, Oversight & Regulatory Affairs
Nuclear Innovation North America LLC

rhs

Attachments:

1. Exemption Request
2. SNM MC&A Program

cc: w/o attachment except*
(paper copy)

Director, Office of New Reactors
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064

Kathy C. Perkins, RN, MBA
Assistant Commissioner
Division for Regulatory Services
Texas Department of State Health Services
P. O. Box 149347
Austin, Texas 78714-9347

Alice Hamilton Rogers; P.E.
Inspection Unit Manager
Texas Department of State Health Services
P. O. Box 149347
Austin, Texas 78714-9347

*Steven P. Frantz, Esquire
A. H. Gutterman, Esquire
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Ave. NW
Washington D.C. 20004

Stacy Joseph
Two White Flint North
11545 Rockville Pike
Rockville, MD 20852

(electronic copy)

*George F. Wunder
Charles Casto
Stacy Joseph
U. S. Nuclear Regulatory Commission

Jamey Seely
Nuclear Innovation North America

Peter G. Nemeth
Crain, Caton and James, P.C.

Richard Peña
Kevin Pollo
L. D. Blaylock
CPS Energy

Exemption Request

Nuclear Innovation North America LLC (NINA) and STP Nuclear Operating Company (STPNOC) will develop and implement a Special Nuclear Material (SNM) Material Control and Accounting (MC&A) Program that meets the general reporting and recordkeeping requirements of Subpart B to 10 CFR Part 74. The COL application will describe this MC&A program. However, NINA requests an exemption from the requirements of 10 CFR 70.22(b) and, in turn, 70.32(c), 74.31, 74.41, and 74.51. Section 70.22(b) requires an application for a license for special nuclear material to contain a full description of the applicant's program for material control and accounting (MC&A) of special nuclear material under 10 CFR 74.31, 74.33, 74.41, and 74.51¹. However, sections 70.22(b), 74.31, 74.41, and 74.51 contain exceptions for nuclear reactors licensed under 10 CFR Part 50. A request for exemption similar to the exceptions for nuclear reactors licensed under 10 CFR Part 50 is described in the Associated COLA Revisions section below. In accordance with the requested exemption, the requirements of 10 CFR Part 74, Subpart B, 74.11 through 74.19, excluding 74.17, will be applied to the SNM MC&A program.

All non-irradiated SNM for the ABWR units is identified as Category III, SNM of low strategic significance, as defined in 10 CFR 74.4. No SNM at an ABWR nuclear facility will exceed a uranium-235 isotope enrichment of 10 percent. The quantity of SNM will be documented, controlled, and communicated to the NRC as required in 10 CFR 74.13, 10 CFR 74.15, and 10 CFR 74.19(a) and (c).

A description of the SNM MC&A Program is provided in Attachment 2 for your information. The SNM MC&A Program, which will be developed for control and accounting of SNM in accordance with the applicable requirements of 10 CFR Part 74, Subparts A and B, will be based on guidance provided in ANSI N15.8-2009, "Material Control Systems - Special Nuclear Material Control and Accounting Systems for Nuclear Power Plants." The SNM MC&A Program will be implemented prior to receipt of SNM at the plant site and will remain in effect until it is shipped from the plant site. The procedures constituting the SNM MC&A Program will delineate the requirements, responsibilities, and methods of SNM control necessary to address the following programmatic elements:

1. Establish, maintain, and follow written material control and accounting procedures to account for SNM.
2. Maintain adequate records of the initial receipt or current inventory of SNM, including records of isotopic content, material received, material shipped, and material lost (material balance reports and physical inventory listing reports).
3. Develop adequate inventory procedures and maintain adequate perpetual inventory records.
4. Inventory SNM within the 12-month prescribed frequency.
5. Report SNM inventories on the applicable forms.
6. Establish an individual responsible for the control and accountability of SNM.
7. Report the loss of or inability to find SNM items in a timely manner.
8. Control access to SNM.
9. Control the shipping and transfer of SNM.

¹While not containing an explicit exception for Part 50 reactors, § 74.33 applies only to uranium enrichment facilities and thus is not directly implicated in this exemption request.

As a result of the above discussed evaluation, the associated COLA revisions identified below will be included in a future COLA revision.

This request is expected to be STANDARD for each S-COLA.

Associated COLA Revisions

1. COLA Part 2, FSAR Chapter 13, Section 13.4S, Table 13.4S-1 'Operational Programs Required by NRC Regulation and Program Implementation' will be revised by adding Item 21 as follows:

Table 13.4S-1 Operational Programs Required by NRC Regulation and Program Implementation

Item	Program Title	Program Source (Required By)	FSAR (SRP) Section	Implementation Milestone	Implementation Requirement
21	SNM Material and Accounting Program	10 CFR 74, Subpart B (74.11-19, excl. 74.17)	13.5.3.4.1	Prior to receipt of special nuclear material	License Condition

2. COLA Part 2, FSAR Chapter 13, Section 13.5.3.4.1(1), will be revised to add procedure requirements for SNM as follows:

- Special Nuclear Material (SNM) Material Control and Accounting Procedures

Specific wording from which exemption is requested

10 CFR 70.22(b), Contents of applications:

- (b) Each application for a license to possess special nuclear material, to possess equipment capable of enriching uranium, to operate an uranium enrichment facility, to possess and use at any one time and location special nuclear material in a quantity exceeding one effective kilogram, except for applications for use as sealed sources and for those uses involved in the operation of a nuclear reactor licensed pursuant to part 50 of this chapter and those involved in a waste disposal operation, must contain a full description of the applicant's program for control and accounting of such special nuclear material or enrichment equipment that will be in the applicant's possession under license to show how compliance with the requirements of §§ 74.31, 74.33, 74.41, or 74.51 of this chapter, as applicable, will be accomplished.

10 CFR 70.32 Conditions of licenses:

- (c) (1) Each license authorizing the possession and use at any one time and location of uranium source material at an uranium enrichment facility or special nuclear material in a quantity exceeding one effective kilogram, except for use as sealed sources and those uses involved in the operation of a nuclear reactor licensed pursuant to part 50 of this chapter and those involved in a waste disposal operation, shall contain and be subject to a condition requiring the licensee to maintain and follow:
- (i) The program for control and accounting of uranium source material at an uranium enrichment facility and special nuclear material at all applicable facilities as implemented pursuant to § 70.22(b), or §§ 74.31(b), 74.33(b), 74.41(b), or 74.51(0) of this chapter, as appropriate;
 - (ii) The measurement control program for uranium source material at an uranium enrichment facility and for special nuclear material at all applicable facilities as implemented pursuant to §§ 74.31(b), 74.33(b), 74.45(c), or 74.59(e) of this chapter, as appropriate; and
 - (iii) Other material control procedures as the Commission determines to be essential for the safeguarding of uranium source material at an uranium enrichment facility or of special nuclear material and providing that the licensee shall make no change that would decrease the effectiveness of the material control and accounting program implemented pursuant to § 70.22(b), or §§ 74.31(b), 74.33(b), 74.41(b), or 74.51(c) of this chapter, and the measurement control program implemented pursuant to §§ 74.31(b), 74.33(b), 74.41(b), or 74.59(e) of this chapter without the prior approval of the Commission. A licensee desiring to make changes that would decrease the effectiveness of its material control and accounting program or its measurement control program shall submit an application for amendment to its license pursuant to § 70.34.

10 CFR 74.31, Nuclear material control and accounting for special nuclear material of low strategic significance:

- (a) General performance objectives. Each licensee who is authorized to possess and use more than one effective kilogram of special nuclear material of low strategic significance, excluding sealed sources, at any site or contiguous sites subject to control by the licensee, other than a production or utilization facility licensed pursuant to part 50 or 70 of this chapter, or operations involved in waste disposal, shall implement and maintain a Commission approved material control and accounting system that will achieve the following objectives:

10 CFR 74.41, Nuclear material control and accounting for special nuclear material of moderate strategic significance:

- (a) General performance objectives. Each licensee who is authorized to possess special nuclear material (SNM) of moderate strategic significance or SNM in a quantity exceeding one effective kilogram of strategic special nuclear material in irradiated fuel reprocessing operations other than as sealed sources and to use this material at any site other than a nuclear reactor licensed pursuant to part 50 of this chapter; or as reactor irradiated fuels involved in research, development, and evaluation programs in facilities other than irradiated fuel reprocessing plants; or an operation involved with

waste disposal, shall establish, implement, and maintain a Commission-approved material control and accounting (MC&A) system that will achieve the following performance objectives:

10 CFR 74.51, Nuclear material control and accounting for strategic special nuclear material:

- (a) General performance objectives. Each licensee who is authorized to possess five or more formula kilograms of strategic special nuclear material (SSNM) and to use such material at any site, other than a nuclear reactor licensed pursuant to part 50 of this chapter, an irradiated fuel reprocessing plant, an operation involved with waste disposal, or an independent spent fuel storage facility licensed pursuant to part 72 of this chapter shall establish, implement, and maintain a Commission-approved material control and accounting (MC&A) system that will achieve the following objectives:

Discussion

NINA requests an exemption from the requirements of 10 CFR 70.22(b) and, in turn, 70.32(c), 74.31, 74.41, and 74.51. Section 70.22(b) requires an application for a license for special nuclear material to contain a full description of the applicant's program for material control and accounting (MC&A) of special nuclear material under 74.31, 74.33, 74.41, and 74.51. Section 70.32(c) requires a license authorizing the use of special nuclear material to contain and be subject to a condition requiring the licensee to maintain and follow a special nuclear material control and accounting program, measurement control program, and other material control procedures, including the corresponding records management requirements. However, sections 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 contain exceptions for nuclear reactors licensed under 10 CFR Part 50. The regulations applicable to the MC&A of special nuclear material for nuclear reactors licensed under 10 CFR Part 50 are provided in 10 CFR Part 74, Subpart B, 74.11 through 74.19, excluding 74.17. The purpose of this exemption request is to seek a similar exception for this combined license (COL) under 10 CFR Part 52, such that the same regulations will be applied to the special nuclear material MC&A program as nuclear reactors licensed under 10 CFR Part 50.

Nuclear reactors licensed under Part 50 are explicitly excepted from the requirements of sections 70.22(b), 70.32(c), 74.31, 74.41, and 74.51. There is no technical or regulatory reason to treat nuclear reactors licensed under Part 52 differently than reactors licensed under Part 50 with respect to the MC&A provisions in 10 CFR Part 74. As indicated in the Statement of Considerations for 10 CFR 52.0(b) (72 Fed. Reg. 49352, 49372, 49436 (Aug. 28, 2007)), applicants and licensees under Part 52 are subject to all of the applicable requirements in 10 CFR Chapter 1, whether or not those provisions explicitly mention a COL under Part 52. This regulation clearly indicates that plants licensed under Part 52 are to be treated no differently than plants licensed under Part 50 with respect to the substantive provisions in 10 CFR Chapter 1 (which includes Parts 70 and 74). In particular, the exception for nuclear reactors licensed under Part 50, as contained in sections 70.22(b), 70.32(c), 74.31, 74.41, or 74.51, should also be applied to reactors licensed under Part 52.

An exemption from the requirements of sections 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not mean that a MC&A program would be unnecessary or that the COL application would be silent regarding MC&A. To the contrary, the MC&A requirements in

Subpart B to Part 74 would still be applicable to the COL just as they are to licenses issued under Part 50. Additionally, the COL application will describe the MC&A program for satisfying Subpart B of Part 74.

This exemption request is evaluated under 10 CFR 52.7, which incorporates the requirements of 50.12. That section allows the Commission to grant an exemption if 1) the exemption is authorized by law, 2) will not present an undue risk to the public health and safety, 3) is consistent with the common defense and security, and 4) special circumstances are present as specified in 10 CFR 50.12(a)(2). The criteria in 50.12 encompass the criteria for an exemption in 10 CFR 70.17(a) and 74.7, the specific exemption requirements for Parts 70 and 74, respectively. Therefore, by demonstrating that the exemption criteria in 50.12 are satisfied, this request also demonstrates that the exemption criteria in 52.7, 70.17(a) and 74.7 are satisfied.

Evaluation Against Exemption Criteria

- 1) This exemption is not inconsistent with the Atomic Energy Act or any other statute and is therefore authorized by law.
- 2) An exemption from the requirements of 10 CFR 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not present an undue risk to public health and safety. The exemption would treat the COL applicants similarly to Part 50 license applicants, who are excepted from the regulations in question. Furthermore, the COL application will contain a description of the applicant's MC&A program under Subpart B to Part 74. Therefore, the exemption from 10 CFR 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not present an undue risk to public health and safety.
- 3) An exemption from the requirements of 10 CFR 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not be inconsistent with the common defense and security. The exemption would treat the COL applicants similarly to Part 50 license applicants, who are excepted from the regulations in question. Furthermore, the COL application will contain a description of the applicant's MC&A program under Subpart B to Part 74. Therefore, the exemption from sections 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 is consistent with the common defense and security.
- 4) The exemption request involves special circumstances under 10 CFR 50.12(a)(2)(ii). That subsection defines special circumstances as when "[a]pplication of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule." Since the Commission determined that the requirements in 10 CFR 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 are unnecessary for Part 50 applicants, those requirements are also unnecessary for Part 52 applicants.

As demonstrated above, the exemption complies with the requirements of 10 CFR 50.12, 52.7, 70.17, and 74.7. For these reasons, approval of the requested exemption is requested from the regulations of 10 CFR 70.22(b), 70.32(c), 74.31, 74.41, and 74.51, as described herein.

Special Nuclear Material (SNM) Material Control and Accounting Program Description

1.0 Purpose and Scope

- 1.1 This program description defines the requirements and delineates the responsibilities for the STP Special Nuclear Materials Control and Accountability Program. In order to possess and use Special Nuclear Material (SNM), the STP Nuclear Operating Company (STPNOC) as operator of STP must comply with federal regulations regarding control and accountability, reporting, and physical protection. These requirements are imposed by the U. S. Nuclear Regulatory Commission (NRC) in Title 10, Code of Federal Regulations (10CFR), Parts 70, 73, and 74. This program description and resulting implementing procedures are intended to satisfy these requirements.
- 1.2 This program applies to all organizations involved in the control and accountability of SNM.

2.0 Definitions

- 2.1 **ACCOUNTABILITY** - Those activities which encompass the measurement system, records, and reports to account for SNM and to promptly detect diversion, should it occur.
- 2.2 **BURNUP** - Changes in SNM due to irradiation and neutron exposure in a nuclear reactor. For this procedure, burnup is normally reported on an assembly by assembly basis.
- 2.3 **CALIBRATION SOURCES** - Small quantities of radioactive material containing Special Nuclear Materials used for calibration or standardization of radiometric devices.
- 2.4 **CONTROL** - Those activities which encompass the procedures and records used to specify SNM movements and to provide an accurate status of SNM quantities and locations.
- 2.5 **DIVERSION** - The intentional removal of SNM from uses permitted by license or law.
- 2.6 **FISSION CHAMBERS** - Neutron flux measurement instruments containing small quantities of highly enriched uranium 235.
- 2.7 **FUEL ASSEMBLY** - For purposes of this program, the term "fuel assembly" refers to new fuel assemblies, irradiated fuel assemblies, individual fuel rodlets, partial fuel rodlets, loose fuel pellets, the Fuel Rod Storage Rack (when fuel rodlets are stored within it), and containers (containing partial fuel rodlets or fuel pellets).

- 2.8 INSPECTION - An examination conducted to detect possible diversion of SNM or to confirm the probable absence of diversion.
- 2.9 INVENTORY - The quantity of SNM or the act of determining the quantity of SNM at the STP site.
- 2.10 ITEM CONTROL AREA (ICA) - Any defined area wherein SNM is stored, subject to control and accountability practices, and for which the introduction and removal of SNM is controlled. ICAs may be an inherent part of the facility (i.e. new fuel vault, spent fuel pool, or reactor core).
- 2.11 PHYSICAL INVENTORY - An inventory taken by physically ascertaining the presence of individual items, except for installed SNM items where final loading documentation or other verification methods will suffice.
- 2.12 PHYSICAL PROTECTION - The application of methods for preventing diversion; for example, physical barriers, access control, security officers, intrusion alarms, warning signs, etc.
- 2.13 RECEIPTS - SNM received into one of the STP units or an ICA during a specific time period.
- 2.14 RECORDS MANAGEMENT SYSTEM (RMS) - The STP organization responsible for quality record storage and retrieval.
- 2.15 REPORTING -
- 2.15.1 Periodic SNM transfer or status reports.
- 2.15.2 Steps taken to notify appropriate individuals or agencies of suspected or actual losses, diversions, or sabotage of SNM.
- 2.16 REPORTING IDENTIFICATION SYMBOL (RIS) - A three character symbol assigned by the U. S. Nuclear Regulatory Commission which is used to associate SNM with either a given location licensed to possess SNM ("For Possession") or an organization which has title to SNM ("For Financial Purposes").
- 2.17 SHIPMENTS - SNM moved to/from the STP plant site from/to an off-site licensed shipper/recipient.
- 2.18 SHIPPING CAMPAIGNS - A series of shipments of SNM having a common purpose such as for a refueling outage.
- 2.19 SPECIAL NUCLEAR MATERIALS (SNM) – (1) Plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235, and any other material the Nuclear Regulatory Commission determines to be Special Nuclear Material, or (2) any material artificially enriched by any of the foregoing but does not include Source Material.

- 2.20 SNM ITEM RECORD - Unique record for each item containing SNM, regardless of quantity that is or has been at the STP site.
- 2.21 SPECIAL NUCLEAR MATERIAL CONTROL AND ACCOUNTABILITY - A collective term used to denote those facets of possession and use of SNM dealing with physical protection, control, accountability, and reporting.
- 2.22 TAMPER INDICATION DEVICE (TID) - device designed to leave non-erasable, unambiguous evidence of unauthorized access.

3.0 Responsibilities

- 3.1 The Nuclear Fuel & Analysis Manager SHALL be responsible for:
 - 3.1.1 Development, implementation, and administrative control of procedures, instructions, and documentation as required by this program.
 - 3.1.2 Designation of Item Control Areas (ICAs) through procedures for on-site storage or use of SNM.
 - 3.1.3 SNM Control and Accountability program functions related to fuel assembly procurement and computation of SNM isotopics.
- 3.2 The Reactor Engineering Supervisor, or designee, SHALL be the SNM Custodian and be responsible for:
 - 3.2.1 Maintaining records and submitting all reports required by this procedure concerning acquisition, receipt, inventory, storage, disposal, and transfer of SNM in STP's possession.
 - 3.2.2 Preparation, review, verification, obtaining approval, and transmittal of the Shipper/Receiver DOE/NRC Form 741(s).
 - 3.2.3 Signing Material Status Reports (DOE/NRC Form 742), Physical Inventory Listings (DOE/NRC Form 742C), Nuclear Material Transaction Reports (DOE/NRC Form 741), and their transmittal letters.
 - 3.2.4 Restricting the movements and uses of SNM to locations and purposes authorized under the STP license(s) for possession of SNM.
 - 3.2.5 Performing physical inventories of SNM possessed at the STP site.

- 3.2.6 Reviewing non-fuel SNM procurement requisition documents for inclusion of any necessary SNM special requirements.
- 3.3 The SNM Coordinator SHALL be designated by the Reactor Engineering Supervisor and SHALL be responsible for:
 - 3.3.1 Preparation, review, and transmittal of the Material Balance Reports and Physical Inventory Listing, and those Nuclear Material Transaction Reports required to support the Material Balance Reports.
 - 3.3.2 Monitoring SNM control and accountability, federal regulations, guides, and standards; and when necessary recommending revisions to this procedure.
- 3.4 The Health Physics Manager is responsible for providing assistance to the STP organizations regarding the radiological health aspects of SNM control and accountability.
- 3.5 The Licensing Manager SHALL be responsible for obtaining all necessary licenses to authorize the possession and/or use of SNM by STP organizations or facilities.
- 3.6 The Quality Manager SHALL be responsible for:
 - 3.6.1 Periodically auditing the implementation of the MC&A Program and implementing procedures.
 - 3.6.2 Auditing vendor SNM Control and Accountability systems at the request of the SNM Custodian.
- 3.7 The Plant Protection Manager SHALL be responsible for:
 - 3.7.1 Developing the physical security plan for the STP plant site.
 - 3.7.2 Ensuring that the security plans for the STP plant site meet the applicable physical protection requirements for SNM as delineated in 10CFR73.
- 3.8 Any STP organization initiating a non-fuel SNM item procurement SHALL:
 - 3.8.1 Identify the procurement as including SNM.
 - 3.8.2 Provide any necessary SNM special requirements.
 - 3.8.3 Obtain the SNM Custodian's review of the procurement requisition document.
 - 3.8.4 Perform contract administrator functions per Step 4.1.2 for non-fuel SNM.

4.0 Program Requirements

4.1 Shipping and Receiving SNM

4.1.1 Non-Fuel SNM Requisition

4.1.1.1 When requisitioning non-fuel SNM items, the responsible STP organization SHALL ensure that the procurement requisition document includes the following:

- a. Identification that the item(s) contain SNM.
- b. Any necessary SNM special requirements.
- c. The organization SHALL obtain the SNM Custodian's review of the procurement requisition document.

4.1.2 Shipping Campaigns

4.1.2.1 The appropriate contract administrator develops shipping campaign schedule(s) for each series of SNM shipments.

4.1.2.2 The contract administrator SHALL notify the SNM Custodian of shipping campaign schedule(s).

4.1.3 Verification of License To Possess SNM

4.1.3.1 Before SNM is shipped from the STP site or received at the STP site, the SNM Custodian or designee SHALL verify that the recipient has a license to possess the SNM. For shipments off-site, the verification SHALL be made in accordance with 10CFR70.42(d).

4.1.3.2 IF SNM arrives at the STP site and the SNM Custodian determines STP does not have a license to possess the particular SNM, THEN the SNM Custodian SHALL prevent delivery, and contact the Nuclear Fuel & Analysis Manager and the shipper in order to develop a plan of action to remedy the problem(s).

4.1.4 Shipments To/From Off-Site Locations

4.1.4.1 In the event STP arranges for transportation on its own behalf, procedures SHALL be prepared to ensure compliance with all applicable federal and state regulations governing transportation of SNM.

- 4.1.5 Receipt inspections
 - 4.1.5.1 SNM receipts SHALL be performed in accordance with approved plant procedures.
 - 4.1.5.2 The SNM Custodian or designee SHALL ensure that all SNM packages/containers/components are inspected in accordance with Station procedures.
 - 4.1.5.3 Any evidence or suspicion of missing SNM, or diversion or sabotage of SNM, SHALL be reported in accordance with the procedures established per Step 4.7.
- 4.1.6 Shipment Preparation
 - 4.1.6.1 SNM shipments off-site SHALL be prepared in accordance with approved plant procedures.
- 4.1.7 Shipment Documentation and Notification
 - 4.1.7.1 The SNM Custodian or designee SHALL document all SNM shipments in accordance with Station procedures.
- 4.2 SNM Movements within the STP Site Boundaries
 - 4.2.1 SNM movements (regardless of quantity) within the STP site boundary whether between ICAs (for all SNM) or within ICAs (for fuel assemblies only), SHALL be made in accordance with approved plant procedures which provide for authorization and documentation of the movements.
- 4.3 Reporting
 - 4.3.1 The Nuclear Material Transaction Report (DOE/NRC Form 741) SHALL be completed each time SNM containing one gram or more of contained uranium-233, uranium-235, or plutonium, or combination thereof, is physically transferred from one licensee to another, and to report SNM inventory changes including burnup, production, and decay. The DOE/NRC Form 741 is handled within STP in accordance with in accordance with Station procedures.
 - 4.3.2 Material Status Reports
 - 4.3.2.1 The SNM Coordinator SHALL be responsible for preparation, review, approval, and transmittal of the Material Balance Reports and the Physical Inventory Listings.

4.3.3 Foreign Obligation Reporting

- 4.3.3.1 The SNM Coordinator or designee SHALL prepare Nuclear Material Transaction Report (DOE/NRC Form 741(s)) showing any required changes in the SNM foreign obligations.

4.3.4 SNM Material Transfer Forms

- 4.3.4.1 SNM Material Transfer Forms (SNM MTF) are used to authorize and document completion of all SNM movements within the STP site.

4.4 Inventories

4.4.1 Isotopic Inventories

- 4.4.1.1 Nuclear Fuel & Analysis SHALL perform isotopic inventories periodically in support of the DOE/NRC Forms 742 and 742C production schedule.

4.4.2 Physical Inventories

4.4.2.1 Frequency

- a. The SNM Custodian or designee SHALL conduct a physical inventory of all SNM at the STP site, regardless of the amount contained in an item, at intervals not to exceed 12 months. This includes SNM housed in the Fuel Rod Storage Rack or SNM housed in containers.

4.4.2.2 Exceptions

- a. A Physical Inventory of SNM stored in a container with a Tamper Indicating Device(s) is NOT required from the time the TIDs are installed until the TIDs are removed or until unauthorized tampering is discovered or suspected. However, the SNM Custodian or designee SHALL confirm that the identification on the TIDs matches that which was recorded when the TIDs were applied.

- b. IF fuel assemblies have not been moved into or moved out of the Reactor Vessel since the last physical inventory.

4.4.2.3 Installed Fission Chamber Verification

- a. The SNM Custodian or designee can use installation documentation, verification of placement, or verification of a valid output signal to meet the physical inventory requirements in Step 4.4.2.1 for installed fission chambers.

4.5 Physical Controls

4.5.1 ICA Designations

- 4.5.1.1 The SNM Custodian or designee SHALL designate each ICA and describe the boundaries and storage locations within each ICA by issuing an approved plant procedure.

4.5.2 SNM Storage

- 4.5.2.1 All SNM, regardless of quantity, SHALL be stored in a previously designated ICA.

4.5.3 Physical Protection

- 4.5.3.1 The Nuclear Plant Protection Manager SHALL develop and maintain written procedures and/or instructions to implement the physical security plan(s).

4.5.4 Tamper Indicating Device (TID)

- 4.5.4.1 A TID should be applied to a container in a manner that ensure the contents cannot be removed from the sealed container without compromising the integrity of the seal or the container.

4.6 SNM Item Records

- 4.6.1 The SNM Custodian, or designee, SHALL prepare and maintain a SNM Item Record for each item containing SNM, regardless of quantity, that is or has been at the STP site.

- 4.6.2 A properly controlled database may be used to maintain these records.

4.7 Safeguards

4.7.1 The Nuclear Plant Protection Manager SHALL develop and maintain procedures or instructions which ensure whenever a diversion, theft, loss, or sabotage of SNM is discovered or suspected.

5.0 Documentation

5.1 All SNM records, other than SNM Item Records, SHALL be placed in RMS and have a "Life of Plant" retention period.