

SAXTON NUCLEAR FACILITY

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Attachment 1

Certificate of Service for
Technical Specification Change Request 59

1 Page

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF
SAXTON NUCLEAR EXPERIMENTAL CORPORATION

LICENSE NO. DPR-4
DOCKET NO. 50-146

CERTIFICATE OF SERVICE

This is to certify that a copy of Technical Specification Change Request No. 59 to amend Appendix A and Operating License DPR-4 for the Saxton Nuclear Experimental Corporation facility as revised, have, on the date given below, been filed with executives of Liberty Township, Bedford County, Pennsylvania; Bedford County, Pennsylvania; and the Pennsylvania Department of Environmental Protection, by deposit in the United States mail addressed as follows:

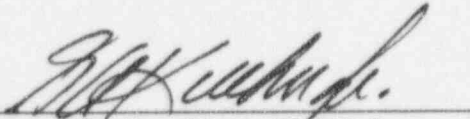
Mr. Donald Weaver, Chairman
Liberty Township Supervisors
R.D. #1
Saxton, PA 16678

Mr. Richard Rice, Chairman
Bedford County Commissioners
County Courthouse
203 South Juliana Street
Bedford, PA 15522

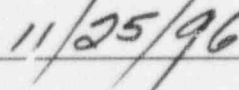
Director, Bureau of Radiation Protection
PA Department of Environmental Protection
Rachael Carson State Office Bldg., 13th Floor
P.O. Box 8469
Harrisburg, PA 17105-8469
Attn: Kenneth Singh

SAXTON NUCLEAR EXPERIMENTAL CORPORATION

BY:


Vice President, SNEC &
Program Director, SNEC Facility

DATE:



Attachment 2

Technical Specification Change Request 59

23 Pages

I. Technical Specification Change Request No. 59

GPU Nuclear requests that the following revision be made to License DPR-4 and the Saxton Nuclear Experimental Corporation (SNEC) Technical Specifications:

1. Replace in their entirety, the existing Technical Specifications (8 pages) with the proposed new Technical Specifications (TSs) (15 replacement pages).
2. Replace page 2 of the license with the replacement page.

II. Reasons for the Proposed Changes

The proposed changes are requested to allow decommissioning of the SNEC facility. The substantive proposed changes are itemized in the following section. Editorial changes are also proposed which clarify the TS and a renumbering of sections is included to improve organization. Specific reasons for the changes are:

1. Accommodating decommissioning activities at the SNEC facility.

Actions currently permitted at the SNEC facility specified by TS section A.3 are not broad enough to accommodate the decommissioning activities at the SNEC facility.

2. Establishing specific TS controls over decommissioning activities.

- a) Administrative controls are included in section 3.7 which will ensure that appropriate fire protection measures are implemented and maintained.

- b) Modification of the inspection requirements to reflect the changed state of the facility: inspection activities currently required by TS B.4.a.1 provide assurance that the radiological conditions at the unmanned facility have remained static. During active decommissioning, the site will be manned during the work week and the radiological conditions will be frequently monitored in accordance with procedural requirements. Other inspections in TS section B.4.a.2 reflect changes to the exclusion area. These sections have also been renumbered.

3. Establishing limiting conditions for performing decommissioning activities.

These changes will identify limiting conditions for the performance of decommissioning activities, operation of decommissioning support systems and establishment of inspection requirements.

4. Extending exclusion area controls to include the SNEC facility Decommissioning Support Building (DSB).

This change will assure that the exclusion area physical security controls, previously limited to the Containment Vessel (CV), are extended to the DSB at such time as direct passage between the buildings is permitted via the access cut through the CV wall.

5. Establishing Technical Specification (TS) requirements for a Radiological Environmental Monitoring Program, an Off-Site Dose Calculation Manual and a Process Control Program.

Due to the increase in work activity at the site from decommissioning, there is a need to identify the programs to be implemented to provide the methodology for monitoring releases of radioactive materials and/or estimating the types and amounts and radionuclide concentrations of radioactive waste generated during decommissioning. Descriptions and specific requirements of the programs have been included in proposed new TS sections 3.6.2.1, 3.6.2.2 and 3.6.2.3.

6. Establishing TS requirements for Technical and Independent Safety Reviews.

Initiation of 10 CFR 50.59 reviews of activities associated with SNEC facility decommissioning requires that a TS be established for the performance of those reviews. As a result, new sections specifying responsibility, scope of applicability and personnel qualification requirements were included in the proposed revised TS at sections 3.5.1 and 3.5.2.

A proposed revision to page 2 of the SNEC License at section 2.C specifically addresses the applicability of 10 CFR 50.59, 10 CFR 50 Appendix B. This action is consistent with the revision to 10 CFR 50.82 which allows licensees to perform activities that meet the criteria proposed in §50.59. The condition addressing dismantlement and disposal of the facility was deleted since approval of this TSCR will permit that action.

7. Administrative changes associated with the changes proposed above.

Due to the extensive changes proposed by this TS change request, numerous additional changes, most of an administrative nature, are necessary to upgrade otherwise unchanged sections to keep them consistent with the revised sections. These administrative changes are also addressed in the appropriate itemized section.

8. Editorial changes associated with the changes proposed above.

Various editorial changes are proposed to correct grammar and to provide additional clarity and/or readability.

III. Safety Evaluation Justifying Changes

The SNEC facility is a deactivated, pressurized water reactor (PWR), which was licensed to operate at 23.5 megawatt thermal (23.5 MWT). It is being maintained under a 10 CFR, Part 50 License and associated TSs. The license was amended to possess but not operate the SNEC facility reactor in 1972. The license expires on February 11, 2000.

The facility was built from 1960 to 1962 and operated from 1962 to 1972 primarily as a research and training reactor. The facility was placed in a condition equivalent to a status later defined by the NRC as SAFSTOR after it was shutdown in 1972. Since then, it has been maintained in a monitored condition.

All fuel was removed in 1972. In addition, the control rod blades and portions of the superheated steam test loop were shipped offsite. Following fuel removal, equipment, tanks, and piping located outside the CV were removed. Ion exchange resins and solidified liquid wastes have been removed. Only the CV, the components within a portion of the pipe tunnel and a septic system remain at the site. Characterization of the remaining radioactive materials was summarized in the SNEC Facility PSDAR. To support decommissioning, the DSB will be built adjacent to the CV and connected to it.

(a) Changes to permitted activities

The proposed changes to the TSs and the license will permit decommissioning of the remaining portion of the facility to proceed. The individual changes are discussed below.

1. Accommodate decommissioning activities at the SNEC facility:

Actions currently permitted at the SNEC facility specified by TS section A.3 are not broad enough to accommodate the decommissioning activities at the SNEC facility. Currently, activities at the facility are limited to those associated with possession, characterization and as otherwise approved by the NRC. The proposed revised wording would allow active decommissioning and dismantlement of the facility. The section numbering was changed to 2.0 as a result of reformatting.

With the proposed inclusion of decommissioning as a permitted activity, the responsibilities of management personnel were revised to reflect the increase in scope. Section B.1.a.2 as revised expands the responsibilities of the Program Director SNEC Facility to include decommissioning activities as well as satisfaction of license requirements. The revised text is consistent with the revision to the principal activities. The change more aptly describes the position's responsibilities. The proposed revised text is located in section 3.1.3.

The text in section B.1.c.2 was revised such that the Radiation Safety Officer (RSO) or a Group Radiological Controls Supervisor (GRCS) shall be present on site whenever radioactive waste management activities are in progress. The previous text addressed radioactive waste management activities within the CV only. The expanded work area (CV and DSB) involved in decommissioning activities necessitates the change. The revised text is located in section 3.2.2.

The responsibility statement in section B.1 was revised to include decommissioning activities. Previously, the text focused only on maintaining the CV and performing characterization activities. The revised text is consistent with the revision to the principal activities. Lines of authority, responsibility and communication are procedurally defined and established from management through staff organizational positions. The relationships shall be identified and updated as appropriate in organizational charts, departmental functional responsibility and relationship descriptions and job descriptions for key positions.

This proposed change also eliminates the SNEC Organization Chart, Figure 2, from the proposed TSs. The organization chart provided in the SNEC Facility PSDAR as Figure 2.3-1 and 2.3-2 and the previously identified documentation provide auditable organizational information superior to that previously provided in the TS by the SNEC Organization Chart alone. There has been no reduction in commitment or level of control as a result of this proposed change. Future changes of a similar nature will be reported in the annual report. The proposed revised text is located in section 3.1.

The text of section B.1.d.2 was revised to address "personnel performing decommissioning or associated activities and applicable requirements of the assigned task". The change was necessary to differentiate between the previously permitted activities (maintenance, inspection and characterization) and decommissioning activities being proposed by this TS change request. The proposed revised text is located in section 3.3.2.

A new section expands upon the prior specification of section B.1.d, by identifying that a GPU Nuclear training program is required for all personnel performing decommissioning work functions at the SNEC facility. The proposed revised text is located in section 3.4.

The proposed text of section 3.4 requires that training be performed as delineated by Section 2.4 of the SNEC Facility PSDAR and permits a competency demonstration in lieu of training, for performance of specialized tasks, techniques and equipment operation. These requirements are new and reflect the need for additional training requirements for performance of decommissioning activities.

GPU Nuclear has analyzed the decommissioning activities described in the PSDAR and the licensing basis accidents determined to apply to the facility during decommissioning were identified in the Updated Safety Analysis Report. The listed applicable accidents have been reviewed and evaluated. It was determined that the potential for accidental releases which could cause doses at the site boundary to be more than a small fraction of the EPA protective action guidelines (PAGs) would not be created. Summaries of the evaluations are provided below.

i. MATERIAL HANDLING ACCIDENT - DROPPED RESIN VESSEL

The worst case material handling accident was considered to be dropping a steel demineralizer vessel containing the remaining used resins during removal from the containment building. Calculated off-site doses as a result of this accident predict a whole body dose of less than 1.5 mrem to an individual standing at the site boundary for the duration of the event. Using the same meteorological assumptions and dose calculation methodologies as the analysis in Section 3.1 of the PSDAR, the whole body dose to an individual standing at the site boundary for the duration of the release is calculated to be less than 0.3 mrem. This is a small fraction of the EPA Protective Action Guide of 1000 mrem for the whole body. Therefore, the container drop accident poses no serious risk to the general public.

ii. FIRE - COMBUSTIBLE WASTE STORED IN THE YARD

Combustible waste materials stored in the yard area of the SNEC facility was the worst case fire, since the waste is stored outside the containment building and releases would not be contained by building confines or HEPA ventilation systems. Using the same meteorological assumptions and dose calculation methodologies as the analysis in Section 3.1 of the PSDAR, the whole body dose to an individual standing at the site boundary for the duration of the release is calculated to be less than 0.3 mrem. This is a small fraction of the EPA PAG of 1000 mrem for the whole body. The fire accident poses no serious risk to the general public.

iii. VACUUM FILTER BAG RUPTURE

Using the same meteorological assumptions and dose calculation methodologies as the analysis in Section 3.1, of the PSDAR the whole body dose to an individual standing at the site boundary for the duration of the release from a vacuum filter bag rupture is calculated to be less than 0.09 mrem. This is a small fraction of the EPA PAG of 1000 mrem for the whole body. The vacuum filter-bag rupture accident poses no serious risk to the general public.

iv. SEGMENTATION OF COMPONENTS OR STRUCTURES WITHOUT OR DURING LOSS OF LOCAL ENGINEERING CONTROLS

Using the same meteorological assumptions and dose calculation methodologies as the analysis in Section 3.1 of the PSDAR, the whole body dose to an individual standing at the site boundary for the duration of the release from the segmentation of components or structures without or during the loss of local engineering controls is calculated to be less than 1.5 mrem. This is a small fraction of the EPA PAG of 1000 mrem for the whole body. The segmentation accident poses no serious risk to the general public.

v. OXYACETYLENE EXPLOSION

Oxyacetylene torches may be used to segment RCS piping systems and other piping systems within the containment building. Violent explosions can occur when acetylene and oxygen are incorrectly mixed. Using the same meteorological assumptions and dose calculation methodologies as the analysis in Section 3.1 of the PSDAR, the whole body dose to an individual standing at the site boundary for the duration of the release from such an explosion is calculated to be less than 0.05 mrem. This is a small fraction of the EPA PAG of 1000 mrem for the whole body. The oxyacetylene explosion accident poses no serious risk to the general public.

vi. EXPLOSION OF LIQUID PROPANE GAS (LPG) LEAKED FROM A FRONT END LOADER

Using the same meteorological assumptions and dose calculation methodologies as the analysis in Section 3.1 of the PSDAR, the whole body dose to an individual standing at the site boundary for the duration of the release from such an explosion is calculated to be less than 0.4 mrem. This is a small fraction of the EPA PAG of 1000

mrem for the whole body. The explosion of LPG accident poses no serious risk to the general public.

vii. **LIQUID WASTE STORAGE VESSEL FAILURE**

The accident was evaluated in response to question from the NRC (in letter C301-96-2038 dated August 18, 1996). It was assumed, that a tank at atmospheric pressure used to store 500 gallons of radioactive liquid waste developed a leak and all of the liquid was released. It was also assumed that a release fraction of $5E-5$ of the activity in the tank goes airborne. The assumption is highly conservative, since DOE-HDBK-3010-94 lists this as the bounding release fraction for a tank pressurized up to 50 psig.

The whole body dose to an individual standing at the site boundary for the duration of the release was calculated to be less than 5×10^{-3} mrem. This is a small fraction of the EPA PAG of 1000 mrem for the whole body. The liquid waste storage vessel failure accident poses no serious risk to the general public.

No liquid pathway evaluation was made, since the low volumes of liquid radwaste and their distance from the river would preclude direct entry into the river. Any entry into the river would be through the groundwater system. Any dose from this pathway would be insignificant since virtually all of the activity in the water would be bound up in the soil, and the release rate to the river via groundwater would be very slow.

viii **IN SITU DECONTAMINATION OF SYSTEMS**

Large scale chemical decontamination of systems is not anticipated as part of the SNEC facility decommissioning. However, limited application may be used on systems or tanks to reduce radiation dose rates prior to dismantlement or general area decontamination. Any radiological releases from accidents involving in situ decontamination of systems are considered bounded by the dropped vacuum and explosion events analyzed in Sections 3.3, 3.5, and 3.6 of the PSDAR.

ix **LOSS OF SUPPORT SYSTEMS**

Electric power, cooling water, and compressed air systems provide support to decommissioning activities. Loss of these systems could potentially affect work activities on systems and in many plant areas simultaneously.

Offsite power is used to energize tools, cranes, lighting and air filtering equipment used during decommissioning operations. A loss of power to plant ventilation and filtering systems could result in the disruption of airflow paths and effective utilization of HEPA filters. In the event of loss of offsite power, work activities with the potential for airborne contamination will be suspended.

A loss of offsite power could result in loss of power to material handling equipment. OSHA Regulations require that crane hoisting units be equipped with a holding brake. Although loss of power is not expected to result in crane or hoist failure, this event would be bounded by the material handling event analysis provided in Section 3.1 of the PSDAR.

A loss of compressed air or cooling water being used for decommissioning will result in an interruption of work activities, but does not result in the release of radioactivity. Therefore, public health and safety are not adversely affected by a loss of cooling water event or by a loss of compressed air event.

x. EXTERNAL EVENTS

A review of external events as described in the Updated Safety Analysis Report (USAR) was performed to evaluate the effects of natural and manmade events on the radiological consequences of decommissioning activities. Public health and safety were determined not to be adversely affected by external events.

xi. OFFSITE RADIOLOGICAL EVENTS

Offsite radiological events related to decommissioning activities are limited to those associated with the shipment of radioactive materials. Radioactive shipments will be made in accordance with applicable regulatory requirements. The radioactive waste management program and the Operational Quality Assurance Plan assure compliance with these requirements. Compliance with these requirements ensures that both the probability of occurrence and the consequences of an offsite event do not significantly affect the public health and safety.

xii. CONTAINMENT VESSEL BREACH

During decommissioning operations it is possible that the containment vessel steel liner could be accidentally breached. A below grade breach will result in ground water intrusion which precludes the possibility of ground water contamination. Although the in-leakage is a nuisance, it can

be readily eliminated by plugging. An above grade breach would involve a minimal surface area (as compared to the penetration between the CV and DSB) and would be accommodated by the ventilation system. Air flow through a breach would be from the outside in and exhausted air would pass through the monitored HEPA filtration unit. Precautions will be included in procedures to minimize the chance that the CV could be challenged (either as a contamination barrier or as an intrusion barrier). For these reasons, penetration of the containment vessel liner is a low probability event which also carries a minimal consequence.

The accident analyses demonstrate that no adverse public health and safety or environmental impacts are expected from accidents that might occur during the SNEC facility's decommissioning operations. The highest calculated dose to an individual located at the site boundary would be less than 1.5 mrem to the whole body during a postulated materials handling accident. This scenario is described in section III (a) 1.i. The results of other on-site accidents are below this value. The limiting accident case represents less than 0.15% of the EPA lower whole body dose limit. Based on these accident analyses, it is concluded that there are no significant radiological consequences to the general public from postulated credible accidents during the planned decommissioning operations at the SNEC facility.

(b) Administrative changes:

The existing text in section A.3 was revised as section 2.0 to eliminate the description of the work performed by the Pennsylvania Electric Company Personnel since it addresses work exclusive to the Pennsylvania Electric Company personnel and property and does not involve the SNEC facility. This is an administrative change.

The text of existing sections B.3.B.1 and B.3.C.1 was revised to include decommissioning activities to be consistent with the revised text identifying the principal activities and extend controls to the DSB. The proposed revised text is located in sections 3.6.1.2.1 and 3.6.1.3.1 respectively. The change is administrative.

The proposed revision to section B.3.B.4 eliminates the words "impact containment integrity and/or could". Containment integrity is limited to those features of the CV liner required to serve as both a contamination barrier and an intrusion barrier. The proposed revised text in section 3.6.1.2.4 reads "Activities which could result in a measureable release to the environment." For the same reason, it is proposed that the existing text in section B.3.C.2 be eliminated. Radiological conditions will be surveyed and evaluated consistent with 10 CFR 20 requirements as stated in section 3.6.1.3.1. Since compliance is

accomplished via the previous requirement, it is redundant. The changes are administrative.

The existing text in section B.5.e was appropriate for maintaining the facility in its monitored condition. During decommissioning, it is appropriate to maintain "Records of reviews performed for changes made to procedures or equipment pursuant to 10 CFR 50.59". The proposed revised wording above, replaces the original text and is located in section 3.9.6. The proposed revised wording appropriately maintains the records which will result from decommissioning activities. The change is administrative in nature.

A proposed revision to section B.6.b.3 adds the word "Decommissioning" with "design and maintenance changes" as an item requiring a summary description of the activities performed. The addition will provide for a complete report of changes at the site during the past year. The proposed revised text is located in section 3.8.2.2. The change is administrative in nature.

2. Establishing specific Technical Specification controls over decommissioning activities:
 - a) Establishment of TS Section 3.7 requirements for fire protection provisions to identify specific requirements associated with fire protection. These provisions provide assurance that the likelihood of a fire remains low and that capacity to extinguish fires is available. Requirements for training of personnel standing "fire watch", procedures for "hot work" activities and fire fighting equipment have been incorporated. This includes establishing Fire Pre-plans, training Radiological Controls Technicians as escorts for fire company personnel entering the CV, and having available and maintaining equipment such as fire extinguishers, portable hand lights, self contained breathing apparatus, turnout gear and an ambulance emergency kit.
 - b) Modification of the inspection requirements to reflect the changed status of the facility:
 - (1) Inspection requirement modification:

Concerns regarding the physical and radiological status of the facility during monitored "SAFSTOR" equivalent condition led to the stipulation of frequency and inspection content requirements in the TS. While the SNEC facility remained unmanned with responsible management assigned off the site, the inspections provided assurance that the conditions at the facility were essentially static. With the move to change the status of the facility to active decommissioning, it is appropriate to propose elimination of those stipulations.

The requirement of section A.2.d for personnel of the Line Department to maintain an active, daily surveillance of the facility condition is no longer warranted during decommissioning and is eliminated. This action is proposed since management and the decommissioning work force will be assigned to the site. Their presence in and around the facility during the work week will provide a capability to observe and assess conditions in a manner and to an extent not previously available to the Line Department personnel.

Activities verifying plant conditions will be performed in accordance with the requirements of applicable procedures. Aspects of the current inspection, as noted in section 3.5.3.1 which remain appropriate, will continue to be performed. Their frequency and the manner in which their results are documented will be in accordance with the associated approved procedures. This is a change in policy based on the manning and increased activity at the site.

"Quarterly" inspections were performed to provide a quarterly status of conditions at the unmanned site. Since the inspections will be performed in accordance with program requirements as proposed to be included in these TS, and not to the existing quarterly requirement, the text is being replaced with that in section 3.8.2. Since quarterly reports have been eliminated, the need to review such reports is no longer required. The proposed revised wording eliminates the review required by section B.2.a.2.

The existing text in section B.5.c was eliminated. The requirement to identify the dates of quarterly inspections was appropriate during the period of minimal activity. The inspection activities will no longer be performed as part of a "quarterly" inspection during decommissioning. The information will be retained but not in the previous format: i.e. inspection results will be evaluated and documented on forms associated with the appropriate procedure. Records of program evaluation results will be maintained as required by TS sections 3.9.9 and 3.9.10.

It is also proposed that sections B.4.a through B.4.a.1.c be eliminated. As proposed in section 3.6.1.3, the facility inspection and radiological surveys, performed in accordance with procedural requirements, will provide a more accurate assessment than could be obtained if the prior inspection program were maintained. The purpose of its inspection and radiation monitoring activities, identified by the inspection requirements, were performed to identify facility material and radiological conditions during the periods of infrequent

and restricted activity. A quarterly inspection of the type performed during the unmanned condition is no longer appropriate for decommissioning.

During the period of active decommissioning, to maintain control of changing plant conditions resulting from the full time assignment of decommissioning personnel to the site and the decommissioning actions they perform, it is necessary that observations previously performed quarterly be performed more frequently. Elimination of the previous requirements is therefore appropriate.

(2) Administrative changes:

The text of section B.6.a.2, requiring a 24 hour report of events affecting containment integrity is revised so that events or incidents that create the potential for uncontrolled release of radioactive materials will be reported in a manner consistent with 10 CFR 50.72 or 10 CFR 50.73.

Application of the prior inspection requirements is inappropriate during decommissioning operations since the reasons for performing the activities will be different: monitoring the condition of a facility in SAFSTOR equivalent condition versus evaluation of the effects of decommissioning. During the period of active decommissioning, radiological conditions will be continuously monitored, inspection activities will be performed at the frequency specified by procedures (more frequent than quarterly), and the site will be manned during the work week.

3. Establishing limiting conditions for performing decommissioning activities.

- a The CV/DSB ventilation system will be operable (capable of performing its intended function) during activities with the potential to produce airborne contamination. Activities with the potential to produce airborne contamination will be suspended if ventilation is lost (TS section 2.1.1).
- b The ventilation exhaust monitoring instrumentation and the CV/DSB ventilation system will be operated simultaneously. The ventilation system will be secured if the exhaust monitoring instrumentation is inoperable (TS section 2.1.2).
- c Verification by analysis that release criteria have been satisfied is required prior to making any batch release of liquid waste process effluent. All effluent release calculations will be in accordance with the Offsite Dose Calculation Manual (TS section 2.1.3).

4. Extending exclusion area controls to include the SNEC facility Decommissioning Support Building (DSB):

(a) Changes associated with the extension of exclusion area controls:

Words were added to section 1.2.1 to describe the exclusion area as consisting of "that portion of the SNEC facility property enclosed within a fence and building boundaries as posted." This change better defines the exclusion area and describes how it is to be recognized. The proposed change permits the exterior walls of the DSB to define the exclusion area when appropriate and allows the exclusion area to be dynamic: allowing alteration consistent with the requirements of the decommissioning activities in progress.

The existing text in section A.2.b, which read "Except for authorized entry the following access points shall be maintained locked:" was revised to read "Except for authorized entry, exclusion area access points shall be maintained secured." This proposed change eliminates two subsections; A.2.b.1, which addressed the gate to the exclusion area fence and A.2.b.2, which addressed the CV access door. In their place, a single subsection using the terminology "access points" and "direct access to the exclusion area" simultaneously accommodates the addition/removal of gates to the exclusion area fence and the CV modification to provide additional access points. Using the word "secured" allows the access points to be fixed in a closed position by other means than simply with a "lock".

Gates when closed and secured are considered equivalent to the fencing. The additional access to be made through the CV wall need not be considered in the exclusion area discussion since it is bounded by the exclusion area perimeter. As previously stated, access points will be maintained closed and secured except for authorized entry. The proposed revised text is located in section 1.3.1.

The existing text in section A.2.c, which read "the Containment Vessel shall be equipped with an intrusion alarm to supplement the multiple physical barriers to intrusion" is to be revised to include the DSB. The proposed revised wording in section 1.3.2 states "The Containment Vessel (CV) and Decommissioning Support Building (DSB) shall be equipped with an intrusion alarm system."

The concept of "multiple physical barriers" previously contained in section A.2.c was appropriate during the period of the monitored SAFSTOR equivalent condition as an impediment to intrusion. Since the need for several of the barriers can no longer be demonstrated during decommissioning, other security measures are identified in the proposed

revised wording. First, establishing the DSB as an exclusion area boundary is considered necessary to control the physical security of the CV during decommissioning once direct access is possible via the opening made through the CV wall. Second, the requirement to maintain access to the exclusion area secured, except during authorized entry (section 1.3.1), and administrative controls requiring verification of the secure status of the accesses (section 3.5.3.1.a) remain.

The wording of section B.4.a.2.a was changed from "Verification that the locks at all entrances to the Containment Vessel exclusion area fence are locked." to "Verification that all exclusion area access points are secured at the completion of each authorized entry". The revised wording located in section 3.5.3.1.a adds the requirement for verification of status of exclusion area access points.

The wording of section B.4.a.2.b was changed from "Verification of the operability of the Containment Vessel intrusion alarm." to "Verification of the operability of the exclusion area intrusion alarms shall be performed quarterly." The revised wording located in section 3.5.3.1.b adds a requirement for verification of the operability of the intrusion alarm on the DSB and specifies the periodicity of the test.

The combination of access locks, intrusion alarms, administrative controls and near daily activity at the site are sufficient to assure the security of the exclusion area. Dealing with the security of the CV and DSB and modification of the exclusion area boundary in this manner is therefore consistent with the prior TS requirement and appropriate during facility decommissioning.

(b) Administrative change:

A new section, numbered 1.2, entitled "Exclusion Area Boundary" was added for the purpose of segregating the description and the controls established for the exclusion area. The proposed change is administrative in nature.

The changes as described above in the proposed TS which involve extending the exclusion area controls to the DSB and the control of the exclusion area during decommissioning are appropriate for the facility condition and consistent with regulation.

5. Establishing TS requirements for a Radiological Environmental Monitoring Program, an Off-Site Dose Calculation Manual and a Process Control Program:

Changes establishing TS descriptions and specific requirements of the Radiological Environmental Monitoring Program, an Off-Site Dose Calculation Manual, and a Process Control Program are incorporated into the proposed revised TS. This was done to identify the programs to be implemented to provide the methodology for monitoring releases of radioactive materials and/or estimating the types, amounts and radionuclide concentrations of radioactive waste generated during decommissioning.

A proposed new section, 3.6.2, identifies the programs established, implemented, and maintained during the decommissioning of the SNEC facility. These programs include the Modification Control Program, the Radioactive Effluent Controls Program, the Radiological Environmental Monitoring Program and the Process Control Program.

A proposed new section, 3.6.3, identifies the content of the Off-Site Dose Calculation Manual (ODCM) and the methodology to be used to make changes to the manual.

6. Establishing TS requirements for Technical and Independent Safety Reviews:

Two new sections were added to identify specifications for the responsibility, scope and qualifications of personnel performing technical and independent safety reviews of facility and procedure changes associated with the decommissioning of the SNEC facility. The proposed new text describing the review requirements are contained in sections 3.5.1 and 3.5.2.

The review requirements incorporated in the proposed new TS sections are necessary to satisfy requirements to evaluate changes and determine the need for NRC review and approval.

7. Administrative changes not specifically relating to the proposed changes above:

The description of the SNEC Facility Site Supervisor contained in section B.1.a.5 was revised to eliminate the specifics of reporting. The relationships are identified in organizational charts, functional descriptions of departmental responsibilities and relationships and job descriptions. The position still provides on-site management and continuing oversight of production activities. The revised text is contained in section 3.1.4.

The Group Radiological Controls Supervisor (CRCS) description contained in section B.1.a.4 was revised to eliminate the reporting relationship. It is identified in organizational charts, functional descriptions of departmental responsibilities and relationships and job descriptions. The position directly supervises radiation safety activities. The revised text is located in section 3.1.6.

The existing section B.2.b text identifies the audit function as independent of the SNEC facility management. The text was revised to identify that the audit function is provided by GPU Nuclear, which maintains the same independence. The proposed revised text is located in section 3.5.4.

Paragraph B.3.a was revised to include general criteria for the applicability of procedures and eliminating reference to the procedure control methodology. With GPU Nuclear as a co-licensee of the SNEC facility, GPU Nuclear personnel/groups supporting SNEC decommissioning activities will work within their procedure programs. The proposed revised text is located in section 3.6.1. These changes are administrative.

The text of section B.3.d which referenced the GPU Nuclear procedure control methodology was eliminated. GPU Nuclear acted as a contractor to SNEC prior to the approval of the license transfer approval and a differentiation between SNEC and GPU Nuclear procedure methodology was necessary. However, elimination of the reference is appropriate since GPU Nuclear, as a co-licensee, is connected directly to TS requirements. The proposed revised wording is located in section 3.6.1.4. The change is administrative.

The text of section B.6.a which required that written reports of any occurrence of a possible unsafe condition relating to the facility or to the public be submitted to the Document Control Desk and the Administrator Region I within "15 days" was changed. The proposed revised wording identifies the period to be "30 days". The original 15-day period remained after industry reporting requirements were modified as specified in 10 CFR 50.73. The proposed revised wording in section 3.8.1 will allow written reports of SNEC events consistent with current regulations. The change is administrative.

The wording of section B.5 did not stipulate a retention period for records. As a result, the words "for the duration of the license" were added to the end of the existing sentence. The specificity was added to make the current proposed TS consistent with established guidelines for retention of records for nuclear plants. The proposed revised wording is located in section 3.9. The change is administrative.

Review of record keeping requirements identified that requirements for several record types needed to be included because of activities associated with decommissioning. The following sections are proposed for inclusion in the TS. These administrative changes are located in the new sections identified by the () numbers following each record description.

"Records of all reportable events submitted to the Commission;" was added to ensure such records are retained. (3.9.1)

"Records of principal decommissioning activities;" was added to ensure such records are retained. (3.9.2)

"Records of training and qualification of members of the facility staff;" was added to ensure such records are retained. (3.9.3)

"Records of Quality Assurance activities required by section 18 of the SNEC Facility Decommissioning Quality Assurance Plan which are classified as permanent records by applicable regulations, codes and standards;" was added to ensure such records are retained. (3.9.7)

"Records of reviews or audits required by Specification 3.5.4;" is the proposed addition to the existing text of section B.5 g. It includes the retention of records of reviews previously not addressed and corrects the reference to the appropriate section of the TS. (3.9.8)

The administrative changes proposed in the associated sections do not decrease requirements. The change in facility status warrants the changes made as described. The increase in activity during decommissioning has resulted in a commensurate increase in requirements.

8. Editorial changes associated with the proposed changes above.

Each proposed editorial change to the TS provides either a grammatical correction, a change for additional clarity or ease of readability, or a combination thereof. All changes identify both old and new section numbers applicable to the text.

Old Section Number	New Section Number	
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A.1	1.1	The term "Saxton" facility was replaced with "Saxton Nuclear Experimental Corporation (SNEC)" facility to make the reference to the name of the facility consistent. This is an editorial change.
A.2	1.2	The Exclusion Area Boundary description was changed by: 1) replacing "Saxton Nuclear Experimental Corporation" with "SNEC facility" to make use of the acronym and 2) replacing the article "the" with "a" before the word "fence". This is an editorial change.
A.2	1.3	" <u>Exclusion Area Controls</u> " was changed to eliminate the description of the exclusion area since the information was moved to the preceeding section. The section is now limited to the description of the exclusion area controls. The change is editorial.
B.	3.0	" <u>ADMINISTRATIVE CONTROLS</u> " replaces the previously titled section " <u>ADMINISTRATIVE AND PROCEDURAL CONTROLS</u> ". The prior descriptive paragraph was eliminated since the information contained therein has been incorporated in sections devoted to specific activities, i.e. procedures. This change is editorial.
B.1	3.1	The subsection title was changed from "Organization" to "Organization and Responsibilities". The lead paragraph was revised to address both organization and responsibilities of individuals associated with the SNEC facility decommissioning. The change is editorial.
B.1.a.1	3.1.1	The responsibilities of the President GPU Nuclear and Vice President Nuclear Services Division were separated into two separate

Old Section Number	New Section Number	
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		sections. "The" was added at the beginning of the sentence. The change is editorial.
B.1.a.1	3.1.2	The section contains the text identifying the responsibilities of the Vice President Nuclear Services Division previously contained in section B.1.a.1. The title of the Vice President Nuclear Services Division was changed to "Vice President Nuclear Safety and Technical Services Division" to reflect the recent company restructuring. The change is editorial.
B.1.a.2, B.1.a.3 and B.1.a.4	3.1.3, 3.1.5 and 3.1.6	"The" was added to the beginning of the sentence. The change is editorial.
na	3.3	Facility Staff Qualifications was formatted as a subsection title. The change is editorial.
B.1.d	3.4	The section was renamed "Training". "Personnel selection requirements", which were not addressed in the existing TS section were eliminated from the section title. The change is editorial.
B.2	3.5	The title was revised to incorporate reviews and inspections. Thus, "Review, Inspection and Audit". This is an editorial change.
B.2.b	throughout	"QA" was replaced with "Quality Assurance". The change is editorial.
B.2.a.1	3.5.5.1	The existing paragraph was divided to separate general information regarding the committee from its responsibilities and general meeting information. The title Vice President NSD was changed to Vice President NSTS. The change is editorial.

Old Section Number	New Section Number	
B.2.a.1/2	3.5.5.2	The revised paragraph is a combination of the two paragraphs of text describing the responsibilities and activities of the committee. Also, "Saxton" was replaced with "SNEC" and "audit" was replaced with "audit report". These changes are editorial.
B.2.a.1	3.5.5.3	The new paragraph contains the description of committee meetings previously contained in the first paragraph. The change is editorial.
B.3	3.6	The section title was changed from "Procedures" to "Procedures, Programs and Manuals" to consolidate activity control documents in one section. This change is editorial.
B.3.a	3.6.1.1	The existing paragraph was revised by replacing "Saxton" with "SNEC". The change is editorial.
B.3.b.4	3.6.1.2.4	The requirement to report activities impacting containment integrity was deleted since there is no longer any requirement that integrity be maintained.
B.5.b	3.9.4	The text was revised to stipulate "entries into the Containment Vessel involving radiation work permits". These are the entries involving work in radiologically controlled areas.
B.6.a.1	3.8.1.1	The existing section was revised by the addition of the word "boundaries" to identify the area given consideration. The change is editorial.
B.6.b.1	3.8.2.1	The reference to the section containing information relating to management and supervisory positions was revised to reflect the appropriate new section; 3.1. This change is editorial.

Old Section Number	New Section Number
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B.6.b.2		The existing section was eliminated. The number of entries involved with active decommissioning make the requirement impractical. A summary of decommissioning work performed is required by section 3.8.2.2.
B.6.b.4	3.8.2.3	The section was revised to identify the programs, via reference to the appropriate Technical Specification sections, employed which provide the results of surveys of radioactivity levels and of water sample analyses. The change is editorial.

The numbering of the following sections was revised to conform to the new numbering format and to relocate the text to the new section. The text was not changed.

Old section number	New section number
B.1.a.3	3.1.5
B.1.c.1	3.2.1
B.1.d.1	3.3.1
B.2.a.3	3.5.5.4
B.3.b	3.6.1.2
B.3.b.2	3.6.1.2.2
B.3.b.3	3.6.1.2.3
B.3.c	3.6.1.3
B.3.c.3	3.6.1.3.2
B.3.c.4	3.6.1.3.3
B.5.d	3.9.5
B.6	3.8
B.6.b	3.8.2
B.6.b.5	3.8.2.4

IV. No Significant Hazards Consideration Analysis

SNEC permanently ceased operation at the SNEC facility in May of 1972. Subsequently, SNEC removed the fuel from the core and shipped it offsite. The proposed changes provide new requirements for decommissioning activities.

Issuance of the proposed amendment would:

1. Not involve a significant increase in the probability or consequences of an accident previously evaluated since accidents which might occur during the active decommissioning phase of the SNEC facility are bounded by the twelve accidents addressed in section 3.0 of the Updated Safety Analysis Report (USAR). The accident analyses addressed in the USAR demonstrate that no adverse public health and safety impacts are expected from accidents that might occur during decommissioning operations at the SNEC facility. The highest calculated dose to an individual located at the site boundary is less than 1.5 mrem to the whole body during a postulated materials handling accident. This was described previously in section III (a) 1.i, herein. The dose to an individual located at the site boundary for other on-site accidents is at or below this value. The limiting accident case represents less than 0.15% of the EPA lower whole body dose limit for radiological accidents. Based on the analyses of postulated credible accidents that might occur during the planned decommissioning operations at the SNEC facility, it is concluded that no significant increase in the probability or consequences of an accident previously evaluated would be involved.

2. Not create the possibility of a new or different kind of accident from any accident previously evaluated. There are three general categories of accidents. These scenarios evaluate different methods of dispersing radioactive material to the environment which include a loss of support systems and external events. The first includes accident scenarios associated with decommissioning tasks. These were identified and evaluated as described in Section 3.0 of the USAR. The radiological effects of these accident scenarios are discussed in item 1 above. They do not, therefore, reflect a new or different kind of accident previously evaluated.

The second category, loss of support systems, does not directly lead to an accident situation. Therefore, this category of event does not create the possibility of a new or different kind of accident.

The final category of accidents involves external events. Since these types of events can occur whether the SNEC facility is being decommissioned or not, the act of decommissioning does not create the possibility of a new or different kind of external event. Any potential radiological hazard that may occur as a result of an external event is addressed in item 1 above.

3. Not involve a significant reduction in a margin of safety. The TSs currently in place at the SNEC facility were developed to maintain a shutdown facility in a secured condition with occasional monitoring. These specifications were designed to ensure that the approximately 4 megacuries of radioactive material left on site following shutdown in 1972 as identified in the "Saxton Decommissioning Plan and Safety Analysis Report" dated April 1972, would remain safely contained. In the ensuing years, natural decay of these radioactive materials has resulted in a remainder of

approximately 1500 curies of radioactive material at the facility (93% of which is activation contained within the steel structures of the reactor vessel)..

These proposed decommissioning TSs were developed in order to ensure this remaining radioactive material is safely contained and disposed of and that the environment surrounding the facility is monitored. These actions will assure that there is no reduction in the margin of safety during the active decommissioning of the facility. The final result of these efforts will be the removal of any potential radiological hazard from the site and the release of the site for unrestricted use.

V. Implementation

It is requested that the amendment authorizing this TS change request be issued expeditiously and be effective as of the date of issuance.