GPU Nuclear

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May 17, 1996

C301-96-2024

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Gentlemen,

Subject: Saxton Nuclear Experimental Corporation
Operating License No. DPR-4
Docket No. 50-146
SNEC Decommissioning Technical Specification

The purpose of this letter is to submit the proposed Saxton Nuclear Experimental Corporation (SNEC) Decommissioning Technical Specifications via Technical Specification Change Request Number 58. This is being done on behalf of SNEC an GPU Nuclear Corporation (GPU Nuclear) the co-licensees.

Also enclosed is the Certificate of Service for this request certifying service to the chief executives of Liberty Township and Bedford County, Pennsylvania, in which the facility is located, as well as the designated representative of the Commonwealth of Pennsylvania, Bureau of Radiation Protection. It also includes an oath affirming the accuracy of the information provided.

Sincerely,

G. A. Kuehn Jr.
Vice President, SNEC &
Program Director, SNEC Facility

210085

WGH
Attachments

1) Certificate of Service for the proposed Decommissioning Technical Specifications
2) Technical Specification Change Request 58
3) Proposed Revised License and Decommissioning Technical Specification pages

cc: Administrator, NRC Region I
NRC Project Manager NRR
NRC Project Scientist, Region I

A001 1/10

SAXTON NUCLEAR EXPERIMENTAL CORPORATION

SAXTON NUCLEAR FACILITY

Operating License No. DPR-4
Docket No. 50-146
Technical Specification Change Request 58

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF DAUPHIN)

This license amendment request is submitted in support of the Licensee's request to change Operating License DPR-4 for the Saxton Nuclear Experimental Corporation facility and Appendix A: the Technical Specifications. As part of this request, proposed replacement pages for the License and Appendix A are included.

I, G. A. Kuehn Jr., being duly sworn, state that I am the Vice President Saxton Nuclear Experimental Corporation (SNEC) and Program Director SNEC Facility; that on behalf of SNEC I am authorized by SNEC to sign, and file with the Nuclear Regulatory Commission, this Application to revise Appendix A and to amend the facility license; that I signed this Application as Vice President of SNEC and Program Director SNEC Facility; and that statements made and the matters set forth therein are true and correct to the best of my knowledge, information and belief.

SAXTON NUCLEAR EXPERIMENTAL CORPORATION

BY: G. A. Kuehn Jr.
Vice President, SNEC &
Program Director, SNEC Facility

Sworn and Subscribed to before me
this 17 day of May 1996.

Suzanne C. Miklosik
Notary Public

Notarial Seal
Suzanne C. Miklosik, Notary Public
Londonderry Twp., Dauphin County
My Commission Expires Nov. 22, 1999
Member, Pennsylvania Association of Notaries

Attachment 1

Certificate of Service for the Proposed License and
Decommissioning Technical Specification Change Request
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. 58 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: 5/17/96

Attachment 2

Technical Specification Change Request 58
20 Pages

I. Technical Specification Change Request No. 58

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

a) Replace in their entirety, the existing Technical Specifications (8 pages) with the proposed new Technical Specifications (TSs) (16 replacement pages).

b) 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 facility to proceed. 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.

1. Permission to perform decommissioning activities at the SNEC facility as described in the SNEC Facility Decommissioning Plan:

   Actions currently permitted at the SNEC facility are those specified by TS section A.3; decommissioning is not among the activities specified. The proposed change allows the decommissioning activities as identified in section 1.2.1 of the SNEC Facility Decommissioning Plan to be performed.

2. Establishing specific TS controls over decommissioning activities:

   a) Establishment of TS requirements for fire protection provisions: 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 un-manned 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. 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.

4. Specific authorization to use 10 CFR 50.59 to permit changes in decommissioning activities without receiving NRC approval if a change to the TSs or an unreviewed safety question is not involved:

   Since plant shutdown, during the un-manned, monitored period; revisions to the TSs and License minimized the principal activities permitted at the site and deleted reference to Section 50.59 respectively. Revision of both the License and TSs as proposed by this change would allow the licensee to make procedure and facility changes that meet the requirements of 50.59 without prior Commission approval.

5. Establishing Technical Specification (TS) requirements for 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 the 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 capabilities for reviews associated with SNEC facility decommissioning activities requires that 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.

7. Administrative changes associated with the proposed changes 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 proposed changes 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 or upon expiration of the SNEC corporate charter, whichever occurs first.

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 in1972. In addition, the control rod blades and 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 were summarized in the SNEC Facility Decommissioning Plan submitted to the NRC by a letter dated February 16, 1996. To support decommissioning, the DSB will be built adjacent to the CV and connected to it to support decommissioning 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. Permission to perform decommissioning activities at the SNEC facility as described in the SNEC Facility Decommissioning Plan:

(a) Permission to conduct Decommissioning Activities:

Actions currently permitted at the SNEC facility are those specified by TS section A.3; decommissioning is not among the activities specified. The proposed change allows the decommissioning activities as identified in section 1.2.1 of the SNEC Facility Decommissioning Plan to be performed. Previously, activities were limited to those associated with possession, characterization and as otherwise approved by the NRC. The proposed revised wording would allow active decommissioning 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 their additional responsibility. 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 personnel positions. This proposed change eliminates the SNEC Organization chart, Figure 2, from the proposed TSs. The organization chart provided in the SNEC Facility Decommissioning Plan as Figure 2.3-1 and 2.3-2 and the previously identified documentation provide auditable organizational information superior to that previously provided by the SNEC Organization chart alone. 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 SNEC Facility Decommissioning Plan". 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 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 Decommissioning Plan 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.

The safety considerations associated with decommissioning have been reviewed and evaluated. Three licensing basis accidents apply to the facility:

i. Fire: Decommissioning the facility will involve the use of some additional combustible materials and some "hot work" associated with cutting piping or components and for the packaging of radioactive waste. Fire protection requirements are stated in TS section 3.7. These provisions provide assurance that the likelihood of a fire remains low and that capacity to extinguish fires is available.

ii. Flooding: with regard to flooding, the flood of record for the site occurred during March 1936 and reached a height of 809.5 feet. The Army Corps of Engineers has concluded that the flood level of 812 feet has a recurrence interval of 225 years. The predominate grade level for the decommissioning support structures is approximately 812.5 feet. The finished slab elevation of the DSB will be approximately 813.5 feet. This places the main structure and that portion subject to the effects of flooding above the 225 year flood recurrence elevation. Installation of utility and support services for the CV will use existing penetrations; all of which are above the referenced flood levels. Since the 225 year flood will have no effect on decommissioning activities, the design basis 100 year flood with a recurrence level of 811 feet will also have no effect.

Questions relative to potential buoyancy concerns with CV were first addressed in the "Saxton Decommissioning Plan and Safety Analysis Report" dated April, 1972. That report demonstrates the negative buoyancy of the containment vessel in its present configuration is assured up to a projected flood level of 826.7 feet. This flood level occurs with a projected frequency of approximately once every 3,500 years. The maximum observed

flood level at the site was 809.5 feet. The assurance of negative buoyancy under these conditions does not include the effects of soil adhesion in preventing upheaval and hence is very conservative.

During the facility decommissioning process, components and structural materials will be removed from the CV . In its present condition, the CV weight including all components and structural materials is 3,249 tons. At a postulated 100 year flood recurrence level of 811 feet, the buoyant force acting on the CV is 2,583 tons. This leaves a margin of 666 tons of negative buoyancy at the 100 year flood recurrence level.

Applying a safety factor of 1.1 as recommended by NUREG 0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants" , results in a weight of 2,841 tons needed to preclude floatation (1.1 x 2,583 = 2,841). This results in a negative buoyancy of 408 tons at the 100 year flood recurrence level (3,249 - 2,841 = 408 tons).

The total weight of all equipment associated with the CV is approximately 175 tons, therefore all equipment may be removed from the CV while still maintaining negative buoyancy at the 100 year flood recurrence level. This leaves an additional mass of 233 tons which could be removed from the CV with out risking floatation (408 tons of reserve buoyancy - 175 tons of equipment = 233 tons). Therefore, negative bouyancy of the CV is assured.

iii. Radioactive hazard: The reactor has been defueled and approximately 1500 curies of radioactive material remain. Of that 1500 curies, greater than 90% is attributable to material activation contained within the reactor vessel and not readily dispersible. Section 3.4 of the SNEC Facility Decommissioning Plan titled "Accident Analyses" addresses various scenarios which were postulated and examined. The calculated dose to an individual at the site boundary from the limiting accident scenario was determined to be less than 1.5 mrem to the whole body. The results demonstrate no adverse public health and safety or environmental impacts could occur during decommissioning operations.

Based on these evaluations, decommissioning activities will not result in any adverse impact to the public.

(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 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 not required during decommissioning. 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 3.8.2.3. The change is administrative in nature.

2. Establishing specific Technical Specification controls over decommissioning activities:

   a) Establishment of TS requirements for fire protection provisions: section 3.7 was established 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 maintaining equipment such as fire extinguishers, portable hand lights, self contained breathing apparatus, turnout gear and an ambulance emergency kit available.

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 led to the stipulation of frequency and inspection content requirements in the TS. While the SNEC facility remained un-manned 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 would be 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 un-manned 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 un-manned 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 inappropriate during decommissioning since there are no longer any requirements for containment integrity.

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 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. 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 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. As proposed in section 1.3.2, the revised wording "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 monitored SAFSTOR 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 as previously discussed. This 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 monthly." 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 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.

4. Specific authorization to use 10 CFR 50.59 to permit changes in decommissioning activities without receiving NRC approval if a change to the TS or an unreviewed safety question is not involved:

   With the facility in its current condition (ie. shutdown and defueled, no fuel remaining on site, and radiological conditions as identified during the recent characterization activities), changing page 2 of the facility license to specifically identify §50.59 as a regulation that applies to the SNEC facility. It would allow GPU Nuclear to make procedural and facility changes that meet the requirements of §50.59 without prior Commission approval. The change as proposed is appropriate for the decommissioning of the facility.

5. Establisning TS requirements for 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 (GRCS) 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 requires that written reports of any occurence 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". The proposed revised wording identifies the period to be "30 days". The original 15 day period remained after industry reporting requirements were relaxed. The

proposed revised wording in section 3.8.1 will allow written reports of SNEC events consistent with regulation. 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 logs and 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 7 of the SNEC Facility Decommissioning Plan entitled 'Quality Assurance Provisions in Place During Decommissioning' 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	
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" to make use of the acronym and 2) replacing the article "the" with "a" before the word fence.
A.2	1.3	"Exclusion Area Controls" was changed to eliminate the description of the exclusion area since the information was moved to the proceeding section. The section is now limited to the description of the exclusion area controls. The change is editorial.
B.	3.0	"ADMINISTRATIVE CONTROLS" replaces the previously titled section "ADMINISTRATIVE AND PROCEDURAL CONTROLS". The prior descriptive paragraph was eliminated since the information contained therein has been incorporated in sections devoted to specific activities ie. 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.

Old Section Number	New Section Number	
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 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 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 change is editorial.
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". Thes changes are editorial.

Old Section Number	New Section Number	
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 the 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.
B.6.b.2	3.8.2.2	"Entry" was pluralized to correct prior poor grammar. The change is editorial.
B.6.b.4	3.8.2.4	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	3.8.2.5

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 associated with decommissioning activities, as described in the Decommissioning Plan.

Issuance of the proposed amendment would:

1. Not involve a significant increase in the probability or consequences of an accident previously evaluated because:

   a. With regard to fire:

      Administrative controls would be added that require training of "fire watches", procedural control of "hot work" and the availability of portable fire extinguishing equipment. These additional requirements provide assurance that no significant increase in the probability or consequences of fire will occur.

b. With regard to flooding:

The license basis flood is below the elevation of the grade level of the work floor of the DSB and openings made into the CV. Therefore, flooding will have no impact on decommissioning.

c) With regard to radiological hazard:

The reactor has been defueled and approximately 1500 curies of radioactive material remain. Of that 1500 curies, greater than 90% is attributable to material activation contained within the reactor vessel and not readily dispersible. Section 3.4 of the SNEC Facility Decommissioning Plan titled "Accident Analyses" addresses various scenarios which were postulated and examined. The calculated dose to an individual at the site boundary from the limiting accident scenario was determined to be less than 1.5 mrem to the whole body. The results demonstrate no adverse public health and safety or environmental impacts could occur during decommissioning operations.

2. Not create the possibility of a new or different kind of accident from any accident previously evaluated. Accident scenarios associated with decommissioning tasks were identified and evaluated as described in Section 3.4 of the Decommissioning Plan. The scenarios discussed in Section 3.4 evaluate different methods of dispersing radioactive material to the environment, loss of support systems, and external events. The different methods of dispersing radioactive material to the environment are equivalent to the radiological hazard considerations discussed in item 1 above and thus do not reflect a new or different kind of accident. Loss of support systems, as discussed in Section 3.4, 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. As 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 Analysys Report" dated April 1972, would remain safely contained. Natural decay of these radioactive materials since shutdown has resulted in approximately 1500 curies of radioactive material remaining at the facility.

These proposed decommissioning TSs were developed in order to ensure radioactive material is safely contained and disposed of and that the environment surrounding the facility is monitored to assure there are no adverse off-site effects during the active decommissioning of the facility. Thus ensuring there is no reduction in the margin of safety during decommissioning. 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 access.

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. The amendment will be fully implemented within 120 days of issuance.

Attachment 3a
Proposed Revised License- 1 Page
(as revised from the License Amendment
Request Submittal of November 11, 1995)

and

Attachment 3b
Proposed Decommissioning Technical Specifications
16 Pages

2) SNEC, pursuant to the Act and 10 CFR Part 50, is licensed to possess, but not to manage, use, maintain or operate, the Saxton facility at the designated location in Liberty Township, Bedford County, Pennsylvania, in accordance with the procedures and limitations set forth in the facility license; and

3) GPU Nuclear, pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability to Licensing of Byproduct Material", is licensed to possess, but not to separate, such byproduct material as may have been produced by operation of the Saxton facility.

C. This license shall be deemed to contain and be subject to the conditions specified in Part 20, Section 30.34 of Part 30, Sections 50.54 and 50.59 of Part 50, 10 CFR Chapter I, and to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect, and to the additional conditions specified below:

1) GPU Nuclear shall not reactivate the facility without prior approval of the Commission.

2) GPU Nuclear shall not dismantle or dispose of the facility or the property occupied by the facility without prior approval of the Commission.

3) The Technical Specifications contained in Appendix A as revised through Amendment No. 13 are hereby incorporated in the license. SNEC and GPU Nuclear shall possess the facility in accordance with the Technical Specifications.

3. This license is effective as of the date of issuance and shall expire at midnight on February 11, 2000, or upon expiration of the corporate charter of Saxton Nuclear Experimental Corporation, whichever occurs first.

1.0 SITE

1.1 Location

The Saxton Nuclear Experimental Corporation (SNEC) facility is on a 1.148 acre tract deeded from the Pennsylvania Electric Company to the SNEC. It is located within the property of the Pennsylvania Electric Company near the Borough of Saxton, Pennsylvania, in Liberty Township, Bedford County, Pennsylvania. The Pennsylvania Electric Company property consists of approximately 150 acres along the Raystown Branch of the Juniata River.

1.2 Exclusion Area Boundary

1.2.1 The exclusion area consists of that portion of the SNEC property enclosed within a fence and building boundaries as posted. See Figure 1.

1.3 Exclusion Area Controls

1.3.1 Except for authorized entry, access points to the exclusion area will be secured.

1.3.2 The Containment Vessel (CV) and the Decommissioning Support Building (DSB) shall be equipped with an intrusion alarm system. Intrusion alarms will be activated whenever the site is not manned. Operability shall be verified in accordance with section 3.5.3.1.b.

2.0 PRINCIPAL ACTIVITIES

Activities permitted at the SNEC facility shall include the routine and emergency inspections, maintenance associated with the possession of the SNEC facility, characterization activities and activities delineated in Section 1.2.1 of the SNEC Facility Decommissioning Plan.

3.0 ADMINISTRATIVE CONTROLS

3.1 Organization and Responsibilities

GPU Nuclear has the responsibility for safely performing decommissioning activities. Lines of authority, responsibility and communication are procedurally defined and established. The relationships shall be identified and updated, as appropriate, in organizational charts, departmental functional responsibility and relationship descriptions, job descriptions for key personnel positions, or in equivalent forms of documentation. The SNEC organization is depicted on Figures 2.3-1 and 2.3-2 of the SNEC Facility Decommissioning Plan.

3.1.1 The President GPU Nuclear is responsible for and provides full-time dedicated staff for the purpose of conducting all nuclear activities safely and effectively.

3.1.2 The Vice President Nuclear Services Division (NSD) assures that all division and corporate activities are performed in accordance with corporate policies, applicable laws, regulations, licenses and Technical Specifications (TSs).

3.1.3 The Program Director SNEC Facility is responsible for administration of all SNEC facility functions, for direction of all decommissioning activities, and for assuring that the requirements of License No. DPR-4 and these TSs are implemented.

3.1.4 The SNEC Facility Site Supervisor provides on-site management and continuing oversight of production activities.

3.1.5 The Radiation Safety Officer (RSO) is responsible for the conduct and oversight of all SNEC radiation safety activities through implementation of the Radiation Protection Plan. All radiological controls personnel shall have stop work authority in matters relating to or impacting radiation safety.

3.1.6 The Group Radiological Controls Supervisor (GRCS) directly supervises radiation safety activities.

3.1.7 Other GPU Nuclear personnel provide SNEC facility management with technical support, project management capabilities and manpower.

3.2 Facility Staffing Requirements:

3.2.1 At least two individuals, one of which must be knowledgeable in radiation monitoring and the radiological hazards associated with the facility, shall perform radiological surveys necessary to support planned activities within the Containment Vessel if the Containment has been secured (Containment Vessel is sealed except for the breather opening) for a period greater than 24 hours.

3.2.2 The RSO or a GRCS shall be present on site whenever radioactive waste management activities are in progress.

3.3 Facility Staff Qualifications

3.3.1 Each Radiological Controls Technician/GRCS shall meet or exceed the qualifications of ANSI N18.1-1971, paragraph 4.5.2 and 4.3.2 respectively or shall be formally qualified through an NRC approved radiological controls training program.

3.3.2 All personnel performing decommissioning or associated activities shall be briefed on the SNEC site specific conditions and applicable requirements of the SNEC Decommissioning Plan for the task assigned.

3.4 Training

GPU Nuclear shall maintain a training program for those personnel performing decommissioning work functions at the SNEC facility.

3.4.1 Job specific training shall be performed as delineated by Section 2.4 of the SNEC Facility Decommissioning Plan.

3.4.2 In lieu of training, performance of specialized tasks, techniques and equipment operation shall be permitted, provided competency is demonstrated to the Program Director SNEC Facility.

3.5 Review, Inspection and Audit

3.5.1 Technical Review

3.5.1.1 The Vice President of each division within GPU Nuclear shall be responsible for ensuring the preparation, review, and approval of documents required by the activities described in sections 3.5.1.2 and 3.5.1.7 within his functional area as assigned in the Review and Approval Matrix. Implementing approvals shall be performed at the cognizant manager level or above.

3.5.1.2 Each procedure required by section 3.6.1 and other procedures including those for tests and experiments and substantive changes thereto shall be prepared by a designated individual or group knowledgeable in the area of the affected procedure. Each procedure and substantive change thereto, shall be given a technical review by an individual or group other than the preparer, but who may be from the same organization as the individual who prepared the procedure or change.

3.5.1.3 Proposed changes to the TS shall be reviewed by a knowledgeable individual or group other than the individual(s) or group who prepared the change.

3.5.1.4 Proposed tests and experiments shall be reviewed by a knowledgeable individual or group other than the preparer but who may be from the same division as the individual who prepared the tests and experiments.

3.5.1.5 Proposed modifications to facility structures systems and components as described in the SNEC Facility Decommissioning Plan shall be designed by an individual/organization knowledgeable in the areas affected by the proposed modification. Each such modification shall be technically reviewed by an individual/group other than the individual/group which designed the modification but may be from the same group as the individual who designed the modification.

3.5.1.6 Investigation of all violations of the TS including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence, shall be reviewed by a knowledgeable individual/group other than the individual/group which performed the investigation.

3.5.1.7 All reportable events shall be reviewed by an individual/group other than the individual/group which prepared the report.

3.5.1.8 Individuals responsible for reviews performed in accordance with sections 3.5.1.2 through 3.5.1.7 shall include a determination of whether or not additional cross disciplinary review is necessary. If necessary, such reviews shall be performed by the appropriate personnel. Individuals responsible for reviews considered under sections 3.5.1.2 through 3.5.1.6 shall render determinations in writing with regard to whether or not 3.5.1.2 through 3.5.1.6 constitute an unreviewed safety question.

3.5.1.9 Responsible Technical Reviewers shall meet or exceed the qualifications of ANSI/ANS 3.1 of 1978 Section 4.6, or 4.4 for applicable disciplines, or have seven years of appropriate experience in the field of specialty. Credit toward experience will be given for advanced degrees on a one-to-one basis up to a maximum of two years. Responsible Technical Reviewers shall be designated in writing.

3.5.1.10 Records of the activities performed in accordance with 3.5.1.2 through 3.5.1.7 shall be maintained in accordance with section 3.9.

3.5.2 Independent Safety Review

3.5.2.1 The Vice President of each division within GPU Nuclear shall be responsible for ensuring the independent safety review of the subjects described in section 3.5.2.3 within his assigned area of review responsibility, as assigned by the Review and Approval Matrix.

3.5.2.2 Independent safety review shall be completed by an individual or group not having direct responsibility for the performance of activities under review, but who may be from the same functionally cognizant organization as the individual or group performing the original work.

3.5.2.3 GPU Nuclear shall collectively have or have access to the experience and competence required to independently review subjects in the following areas:

- Nuclear unit operations
- Electrical, Mechanical and Nuclear engineering
- Chemistry and radiochemistry
- Metallurgy
- Instrumentation and control
- Radiological safety
- Administrative controls and quality assurance practices
- Other appropriate fields such as radioactive waste management.

3.5.2.4 Consultants may be utilized as determined by the cognizant Vice President to provide expert advice.

3.5.2.5 The following subjects shall be independently reviewed by Independent Safety Reviewers in the functionally assigned divisions:

3.5.2.5.1 Written safety evaluations of changes in the facility and changes of procedures described in the Safety Analysis Report, and of tests or experiments not described in the Safety Analysis Report, which are completed without prior NRC approval under the provisions of 10 CFR 50.59(a)(1). This review is to verify that such changes,

tests or experiments did not involve a change to the TS or an unreviewed safety question as defined in 10 CFR 50.59(a)(2). Such reviews need not be performed prior to implementation.

3.5.2.5.2 Proposed changes in procedures, in the facility or tests or experiments, any of which involves a change in the TS or in an unreviewed safety question as defined in 10 CFR 50.59(c). Matters of this kind shall be reviewed prior to their submittal to the NRC.

3.5.2.5.3 Proposed changes to TS or license amendments shall be reviewed prior to submittal to the NRC for approval.

3.5.2.5.4 Violations, deviations and reportable events which require reporting to the NRC in writing. Such reviews are performed after the fact. Review of events covered under this subsection shall include results of any investigations to prevent or reduce the probability of recurrence of the event.

3.5.2.5.5 Written summaries of audit reports.

3.5.2.5.6 Any other matter involving the facility which a reviewer deems appropriate for consideration or which is referred to the independent reviewers.

3.5.2.6 The Independent Safety Reviewers shall either have a Bachelor's Degree in Engineering or the Physical Sciences and five years professional level experience in the area being reviewed or have nine years of appropriate experience in the field of specialty. An individual performing reviews may possess competence in more than one specialty area. Credit toward experience will be given for advanced degrees on a one-for-one basis up to a maximum of two years.

3.5.2.7 Records of reviews encompassed in section 3.5.2.5 shall be maintained in accordance with section 3.9.

3.5.3 Inspection

3.5.3.1 Facility inspections shall be performed in accordance with approved procedures. The inspection activities shall include:

a Verification that exclusion area access points are secured at the completion of each authorized entry.

b. Verification of the operability of the exclusion area intrusion alarms shall be performed monthly.

3.5.4. Audits

The audit function is independent of the SNEC facility management. Audits shall be performed by qualified individuals, as a minimum, for those activities designated within the scope of the SNEC facility's Quality Assurance Program. Audits are generally conducted biennially, however, frequency is based on the level of activity at the SNEC facility. Audits may also be performed at the request of the GPU Nuclear President. Audits are performed in accordance with the GPU Nuclear audit program procedures. The audit procedures identify areas which may be included in the audit scope. Audit reports shall be forwarded to the GPU Nuclear President within 60 days of completion of the audit.

3.5.5 Radiation Safety Committee

3.5.5.1 The Radiation Safety Committee shall report to the Vice President Nuclear Services Division (NSD). The Committee will consist of at least four members. Membership will be on the recommendation of the Vice President NSD. Three members shall constitute a quorum.

3.5.5.2 It shall be responsible to review all matters with radiological safety implications relative to activities at the SNEC facility. The Committee will review proposed License and Technical Specification changes, decommissioning activities, special nuclear and radioactive material activities, facility changes, radiological conditions, audit reports and NRC Inspection reports and corrective actions for deficiencies identified.

3.5.5.3 Meetings shall be held at least annually to review and discuss the events of the preceding period.

3.5.5.4 Written minutes of all meetings shall be prepared and distributed to the Vice President NSD within 30 days of the meeting date.

3.6 Procedures, Programs and Manuals

3.6.1 Procedures

3.6.1.1 Activities which are designated as within the scope of the SNEC facility's Quality Assurance Program shall be prescribed by written, reviewed and approved procedures of a type appropriate to the circumstances.

3.6.1.2 Written procedures shall be established, implemented and maintained for the activities listed below:

3.6.1.2.1 Characterization, decommissioning and maintenance activities requiring Health Physics controls consistent with 10 CFR, Part 20 requirements.

3.6.1.2.2 Access control, emergency actions, facility inspections and audits.

3.6.1.2.3 Radiological exposure control, survey activities and radwaste shipping and handling.

3.6.1.2.4 Activities which could result in a measurable release to the environment.

3.6.1.3 These procedures shall require that the following actions be taken:

3.6.1.3.1 All decommissioning activities and maintenance work associated with the Containment Vessel and DSB under Health Physics control shall be consistent with 10 CFR, Part 20 requirements to minimize the radiation exposure of personnel and to prevent the release of radioactivity in excess of allowable limits to the environment.

3.6.1.3.2 All radiation surveys, tests, counting work, radiation exposure control measures and all other work performed in radiologically controlled areas shall conform with the requirements of the Radiation Protection Plan.

3.6.1.3.3 Facility inspections and access controls shall meet specific requirements of the TS.

3.6.1.4 These procedures and any subsequent revisions shall be prepared, reviewed and approved in accordance with the requirements of the applicable administrative procedure requirements prior to their initial use.

3.6.2 Programs

The following programs shall be established, implemented, and maintained during decommissioning activities:

3.6.2.1 Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR, Section 50.36a for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

3.6.2.1.1 Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation, including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;

3.6.2.1.2 Limitations on the concentrations of radioactive material released in liquid effluents to unrestricted areas conforming to 10 times the concentrations specified in 10 CFR 20, Parts 20.1001 - 20.2402, Appendix B, Table 2, Column 2;

3.6.2.1.3 Monitoring, sampling, and analysis of radioactive liquid, and gaseous effluents in accordance with 10 CFR, Part 20.1301 and with the methodology and parameters in the ODCM;

3.6.2.1.4 Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents released from each unit to unrestricted areas conforming to Appendix I to 10 CFR, Part 50;

3.6.2.1.5 Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days;

3.6.2.1.6 Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2% of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR, Part 50;

3.6.2.1.7 Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas at or beyond the site boundary to less than or equal to 1500 mrem/yr to any organ;

3.6.2.1.8 Limitations on the annual and quarterly doses to a member of the public from tritium, and all radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released to areas beyond the site boundary conforming to Appendix I to 10 CFR, Part 50;

3.6.2.1.9 Limitations on the annual dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR, Part 190.

3.6.2.2 Radiological Environmental Monitoring Program

3.6.2.2.1 A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide:

3.6.2.2.1 a. Representative measurements of radioactivity in the highest potential exposure pathways, and

b. Verification of the accuracy of the Effluent Monitoring Program and modeling of environmental exposure pathways.

3.6.2.2.2 The program shall (1) be contained in the ODCM; (2) conform to the guidance of Appendix I to 10 CFR, Part 50; and (3) include the following:

a. Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,

b. A Land Use Census to ensure that changes in the use of areas at and beyond the site boundary are identified and that modifications to the monitoring program are made if required by the results of this census, and;

c. Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the Quality Assurance Program for environmental monitoring.

3.6.2.3 Process Control Program (PCP)

The PCP shall contain the current formulas, sampling, analyses, tests, and determinations to be made to ensure that the processing and the packaging of solidified radioactive wastes will be accomplished to ensure compliance with 10 CFR, Part 20; 10 CFR, Part 61; and 10 CFR, Part 71; burial ground requirements and other requirements governing the disposal of solid radioactive wastes.

3.6.2.3.1 Changes to the PCP:

a. Shall be documented and records of reviews performed shall be retained as required. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluation justifying the change(s), and

2. A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of federal, state, or other applicable regulations.

b. Shall become effective after review and approval by the Program Director, SNEC Facility.

3.6.3 Manuals

3.6.3.1 Off-Site Dose Calculation Manual (ODCM)

3.6.3.1.1 Content:

a. The ODCM shall contain the methodology and parameters used in the calculation of off-site doses resulting from radioactive gaseous and liquid effluents, in the calculation of radioactive gaseous and liquid effluent monitoring alarm and trip setpoints, and in the conduct of the Radiological Environmental Monitoring Program; and

b. The ODCM shall also contain the Radioactive Effluent Controls Program and the Radiological Environmental Monitoring Program required by Specifications 3.6.2.1 and 3.6.2.2 respectively, and descriptions of the information that should be included in the Annual Radiological Environmental Monitoring Report required by Specification 3.8.10.

3.6.3.1.2 Changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained as required by Specification 3.9.10. This documentation shall contain:

1. Sufficient information to support the change together with the appropriate analyses or evaluation justifying the change(s), and

2. A determination that the change will maintain the level of the radioactive effluent control required by 10 CFR, Part 20.1301; 40 CFR, Part 190; 10 CFR, Section 50.36a; and Appendix I to 10 CFR, Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

b. Shall become effective after review and approval of the Program Director, SNEC Facility.

c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the areas of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

3.7 Fire Protection

3.7.1 Procedures will be established and implemented for fire prevention and responding to fires.

3.7.2 Portable fire extinguishing equipment shall be available to support decommissioning activities in progress.

3.7.3 Personnel standing fire watch will be trained and requalified on an annual frequency.

3.8 Reporting

In addition to those reports required by applicable NRC regulations (ie, violation of license or technical specification condition) SNEC shall submit the following:

3.8.1 A report of any occurrence of a possible unsafe condition relating to the facility or to the public. For each occurrence, SNEC shall promptly, within 24 hours of discovery, notify by telephone or telegraph, the Administrator of Region I, or designee, and the NRC Operations Center, and shall submit a written follow-up report to the Document Control Desk and the Administrator of Region I within 30 days, which describes the circumstances and the corrective action taken. These reports shall include:

3.8.1.1 Any unplanned or uncontrolled release of radioactive material beyond the facility boundaries.

3.8.2 An annual report shall be submitted to the Document Control Desk and the Administrator of Region I, within 6 months after the end of the calendar year, of the status of the deactivated facility including:

3.8.2.1 Information relating to changes in those management and supervisory positions designated in section 3.1 as being responsible for decommissioning the facility;

3.8.2.2 A summary of entries into the Containment Vessel involving Radiation Work Permits and reasons for the entries;

3.8.2.3 A summary of decommissioning, design, and maintenance changes made to the deactivated facility;

3.8.2.4 Results of surveys and monitoring performed in accordance with Specification 3.6.2.1 and .2;

3.8.2.5 A review of the performance of access control and surveillance measures;

3.9 Records

In addition to the records required by applicable NRC regulations, including Subpart L of 10 CFR, Part 20, 20.2101 through 20.2110 inclusive, GPU Nuclear shall retain records of the following for the duration of the license:

3.9.1 Records of all reportable events submitted to the Commission;

3.9.2 Records of logs and principal decommissioning activities;

3.9.3 Records of training and qualification of members of the facility staff;

3.9.4 Records of entries into the Containment Vessel involving radiation work permits and the reason for the entry;

3.9.5 Radioactivity releases or discharges into the air or water beyond the effective control of SNEC as measured at or prior to the point of such release or discharge;

3.9.6 Records of reviews performed for changes made to procedures or equipment pursuant to 10 CFR 50.59;

3.9.7 Records of Quality Assurance activities required by section 7 of the SNEC Facility Decommissioning Plan entitled "Quality Assurance Provisions in Place During Decommissioning" which are classified as permanent records by applicable regulations, codes and standards;

3.9.8 Records of reviews or audits required by Specification 3.5.4;

3.9.9 Records of analyses required by the Radiological Environmental Monitoring Program that would permit evaluation of the accuracy of the analysis at a later date; and

3.9.10 Records of reviews performed and changes made to the Offsite Dose Calculation Manual and the Process Control Program.

Figure 1

Saxton Nuclear Facility Layout