



September 23, 2013

Director, Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Document Control Desk  
11555 Rockville Pike  
Rockville, Maryland 20852 - 2738

Re: License renewal request for License SNM-95 (Docket: 070-0113)

Dear Sir or Madam,

The Pennsylvania State University requests the renewal of special nuclear material license number SNM-95, which expires October 31, 2013. NRC form 313 and supporting documentation, following the outline presented in 10 CFR 70.22, is attached to this letter. Where practical, the appropriate chapter in NUREG-1520 has been indicated to assist with your review of this application. No new radioactive material is requested within this application.

**§70.22(a)(1) Ownership (NUREG-1520 Chapter 1)**

The Pennsylvania State University (Penn State) is owned by the citizens of Pennsylvania and governed by a board of trustees. The University is a non-profit educational institution incorporated under the laws of the Commonwealth of Pennsylvania. Penn State's 32-member Board of Trustees is composed of the following: Five trustees serve in an *ex officio* capacity by virtue of their position within the University or the Commonwealth of Pennsylvania. They are the President of the University; the Governor of the Commonwealth; and the state secretaries of the departments of Agriculture; Education; and Conservation and Natural Resources. Six trustees are appointed by the Governor; nine trustees are elected by the alumni; six are elected by organized agricultural societies within the Commonwealth; and six are elected by the Board of Trustees representing business and industry endeavors.

The primary office of the University for this license is 304 Old Main, University Park, PA 16802.

Penn State does not have a parent company. At least 90 percent of total assets are located within the United States.

The possession and use of radioactive material under this license meets the criteria for exemption from licensing and inspection fees as per 10 CFR 170.11 (a)(4) for non-profit educational institutions.

**§70.22(a)(2) Purpose (NUREG-1520 Chapter 1)**

PSU will use special nuclear material for teaching, calibration and checks of instruments, and *research and development* as defined in 10 CFR 70.4. The material will be used at the Penn State campus in University Park, PA 16802. Work with this material for these purposes will be approved by Penn State's University Isotopes Committee (UIC or radiation safety committee) and the university's Radiation Safety Officer (RSO).

NMS501

§70.22(a)(3) Duration of License (NUREG-1520 Chapter 1)

Penn State requests a license renewal of ten years.

§70.22(a)(4) Names and Amounts of Materials Requested (NUREG-1520 Chapter 1)

Supplement A of this application details the name, amount, and specifications (including the chemical and physical form and, where applicable, isotopic content) of the special nuclear material that Penn State wishes to possess.

§70.22(a)(6) Technical Qualifications and Training (NUREG-1520 Chapters 2 and 11)

Supplement B provides information on Penn State's organizational structure, radiation safety committee, and radiation protection staff, and discusses the training programs. Supplement C describes the training of radiation workers.

§70.22(a)(7) Equipment and Facilities (NUREG-1520 Chapters 4 and 7)

Supplement D provides information on Penn State's equipment and facilities which will be used to protect health and minimize danger to life and property. This includes instrumentation, calibration, and personnel protective equipment.

§70.22(a)(8) Procedures to Protect Health and Minimize Danger to Life or Property (NUREG-1520 Chapters 4, 8 and 9)

Supplement E discusses Penn State's Radiation Protection Program. This includes the ALARA policy, handling procedures, training program, operational use procedures, air and effluent monitoring, and emergency response. Supplement F discusses PSU's waste management program.

§70.22(a)(9) Decommissioning (NUREG-1520 Chapter 10)

Supplement G provides information relevant to Penn State's plans for license termination and eventual decommissioning of these facilities.

§70.22(b) Control and Accounting (NUREG-1520 Chapter 11)

Penn State will possess less than one effective kilogram and is thus not required to submit a description of Penn State's program for control and accounting of special nuclear material. However, Penn State does maintain a control and accounting program, through our reactor license, which is discussed in Supplement H.

§70.22(g)(1) Transport of Special Nuclear Material (NUREG-1520 Chapter 8 [part of Chapter 3])

Penn State is not requesting authorization to deliver to a carrier for transport of strategic special nuclear material. Penn State will only transport special nuclear material by University owned or operated motor vehicles, or on foot by authorized and trained individuals, between the Radiation Science and Engineering Center (RSEC), the Academic Projects Building (APB) which is adjacent to the RSEC site, or to other laboratories on the University Park Campus that have been approved to use SNM by the UIC and RSO. In some cases, transport by forklift within the RSEC site will be done by trained RSEC individuals.

§70.22(h)(1) Physical Security of Special Nuclear Material (NUREG-1520 Chapter 7)

Under this license, Penn State does not possess formula quantity of strategic special nuclear material (defined in 10 CFR 70.4) or Category 1 or 2 sources (defined in 10 CFR 37.3 and 37.5) and is exempt from the physical security plan requirements of 10 CFR 37 under this license. For this license Penn State is also exempted in 10 CFR 73.6(c) because it possesses less than 350 grams of uranium-235,

uranium-233, and plutonium for use is in analytical, research, quality control, metallurgical, or electronic laboratories.

Regardless of the exemptions listed above, Penn State maintains a professional armed police force providing security services to meet all campus requirements. Acting as the local law enforcement agency, they are trained, able to respond to, and support the Breazeale Reactor, sources under increased controls, radioactive material and waste storage facilities, and general campus requirements.

§70.22(i) Criticality Alarm (NUREG-1520 Chapter 5)

Penn State is not requesting sufficient material to require criticality monitoring.

§70.22(j) Safeguards Contingency Plan

Not applicable to Penn State.

§70.22(k) Part 73 Physical Security Plan

Not applicable to Penn State.

§70.22(l) Protecting Safeguards Information

Not applicable to Penn State.

§70.22(m) Protecting Enrichment Equipment

Not applicable to Penn State.

§70.22(n) Enrichment Facility Insurance

Not applicable to Penn State.

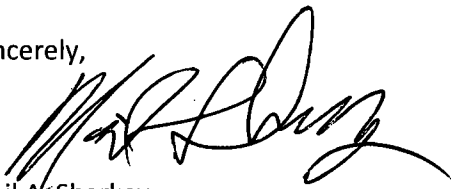
§70.60 Requirements for Integrated Safety Analysis (NUREG-1520 Chapter 3)

Penn State is not requesting authorization to possess a critical mass of material, so the regulations in §70.61 - §70.76 related to an integrated safety analysis do not apply to this application.

Thank you for your prompt attention to this request. Please contact Penn State's Radiation Safety Officer, Jeff Leavey (see contact information below) for correspondence or if you need any additional information.

Jeffrey Leavey  
201 Academic Projects Building  
Penn State University  
University Park, PA 16802  
814-863-3939  
JAL62@psu.edu

Sincerely,



Neil A. Sharkey  
Interim Vice President for Research

SNM-95 Renewal Application

**Attachment:**

**Application for Material License, NRC Form 313**

**Supplements:**

**Supplement A – Inventory and Isotopes Requested.**

**Supplement B – Technical Qualifications**

**Supplement C – Training of Workers**

**Supplement D – Equipment and Facilities**

**Supplement E – Radiation Protection Program**

**Supplement F – Waste Management**

**Supplement G – Decommissioning Plan**

**Supplement H – Control and Accounting Program**

**cc: Robert Paulson, Chair, University Isotopes Committee**  
**Maurine Claver, Director, Environmental Health and Safety**  
**Jeffrey Leavey, Radiation Safety Officer, Environmental Health and Safety (1 signed original)**