



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 10, 2020

Yuanqing Guo, Ph.D., CHP
Radiation Safety Officer
Environmental Health and Safety
The Pennsylvania State University
228 Academic Projects Building
University Park, PA 16802

SUBJECT: EVALUATION IN SUPPORT OF THE PENNSYLVANIA STATE UNIVERSITY
RADIATION FACILITIES, 2019 FINANCIAL TEST FOR A SELF-GUARANTEE
FOR DECOMMISSIONING FUNDING (EPID: L-2019-LLL-0037)

Dear Dr. Guo.

By letter dated December 19, 2019 (Agencywide Documents Access and Management System Accession No. ML19360A017), Pennsylvania State University submitted a self-guarantee letter to the U.S. Nuclear Regulatory Commission (NRC) demonstrating financial assurance for decommissioning, in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 50.75, "Reporting and recordkeeping for decommissioning planning," paragraph (e)(1)(iii)(C), and Appendix E to 10 CFR Part 30, "Criteria Relating to Use of Financial Tests and Self-Guarantee for Providing Reasonable Assurance of Funds for Decommissioning by Nonprofit Colleges, Universities, and Hospitals."

A copy of the NRC staff's evaluation is enclosed. If you have any questions, please contact me at (301) 415-1404, or by electronic mail at Xiaosong.Yin@nrc.gov.

Sincerely,

/RA/

Xiaosong Yin, Project Manager
Non-Power Production and Utilization Facility
Licensing Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

Docket No. 50-005
License No. R-2

Enclosure:
As stated

The Pennsylvania State University

Docket No. 50-005

cc:

Dr. Lora Weiss
Senior Vice President for Research
The Pennsylvania State University
304 Old Main
University Park, PA 16802

Director, Bureau of Radiation Protection
Department of Environmental Protection
P.O. Box 8469
Harrisburg, PA 17105

Test, Research and Training
Reactor Newsletter
Attention: Ms. Amber Johnson
Dept of Materials Science and Engineering
University of Maryland
4418 Stadium Drive
College Park, MD 20742-2115

Dr. Jeffrey Geuther
Associate Director for Operations
Radiation Science & Engineering Center
104 Breazeale Nuclear Reactor Building
University Park, PA 16802-1504

Dr. Kenan Unlu, Director
The Pennsylvania State University
Breazeale Nuclear Reactor
Radiation Science and Engineering Center
University Park, PA 16802-2301

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NRR-106

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DATE	6/22/2020	6/22/2020	7/8/2020	7/10/2020

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EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ANNUAL FINANCIAL TEST FOR A SELF-GUARANTEE

FOR DECOMMISSIONING FUNDING

RENEWED FACILITY OPERATING LICENSE NO. R-2

PENNSYLVANIA STATE UNIVERSITY

PENN STATE BREAZEALE REACTOR

DOCKET NO. 50-005

1.0 INTRODUCTION

By letter dated December 19, 2019 (Agencywide Documents Access and Management System Accession No. ML19360A017), Pennsylvania State University (Penn State) provided to the U.S. Nuclear Regulatory Commission (NRC) for review, the required documentation in support of its self-guarantee for demonstrating decommissioning funding assurance. This information was provided consistent with the guidance in NUREG-1757, "Consolidated Decommissioning Guidance; Financial Assurance, Recordkeeping, and Timeliness," Volume 3, Revision 1 and in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 50.75 "Reporting and recordkeeping for decommissioning planning," and Appendix E to 10 CFR Part 30, "Criteria Relating to Use of Financial Tests and Self-Guarantee for Providing Reasonable Assurance of Funds for Decommissioning by Nonprofit Colleges, Universities, and Hospitals." With its submittal, Penn State also provided accompanying financial statements, the Penn State Self-Guarantee Agreement and a decommissioning cost estimate for the Penn State Radiation Facility at University Park, Hershey Medical Center, and Related Campuses. With the information provided in these documents, Penn State indicates it "meets or exceeds" the financial test intended to provide assurance that Penn State can continue maintaining the \$16,622,391 (2019 dollars) in coverage for decommissioning funding assurance of the research and test reactor and related facilities located at Penn State in University Park, PA.

2.0 EVALUATION

The requirements of 10 CFR 50.75(e)(1)(iii)(C), state, in part, that "[f]or non-profit entities, such as colleges a guarantee of funds by the applicant or licensee may be used if the guarantee and test are as contained in appendix E to 10 CFR part 30." As a non-profit college, Penn State qualifies to use the self-guarantee as reflected in Appendix E. The NRC staff evaluated Penn State's submittal to determine whether its proposed guarantee and test criteria meet those as contained in Appendix E. The NRC staff reviewed Penn State's submittal pursuant to the elements specified in Appendix E, including the financial test requirements, self-guarantee requirements, and additional requirements, as contained in Section II, "Financial Test," and Section III, "Self-Guarantee," of Appendix E, and guidance contained in NUREG-1757.

Regarding the adequacy of Penn State's submittal and its proposed use of a self-guarantee, regulatory guidance contained in NUREG-1757, Section 4.3.2.6, "Self-Guarantees," states that a submittal used to satisfy the requirements of Appendix E will be acceptable if such submittal includes the self-guarantee agreement, the Chief Financial Officer's (CFO) Certification, the

independent Auditor's Report, and Financial Statements. In its submittal, the licensee provided: a letter from Penn State's (Office of the Corporate Controller) Associate Vice President for Finance and Corporate Controller, Senior Vice President for Finance and Business, and Treasurer containing the self-guarantee financial test; an independent auditor's report confirming Penn State's Office of the Corporate Controller letter and reconciling amounts with the licensee's financial statements; the licensee's audited financial statements for the most recent fiscal year; and the self-guarantee agreement (originally signed duplicate). The NRC staff also notes that Subsection II(C)(1) of Appendix E requires the licensee's independent certified public accountant to evaluate the licensee's off-balance sheet transactions and render an opinion on whether those transactions could adversely affect the licensee's ability to pay for decommissioning costs. The guidelines established by the American Institute of Certified Public Accountants prohibit an accountant from rendering such an opinion. In this regard, Deloitte and Touche LLP, the independent auditor retained by Penn State, stated, in part, "In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the University as of June 30, 2019 and 2018." The NRC staff concluded that Penn State's submittal, and the information provided in that submittal, is acceptable in support of the licensee's use of a self-guarantee for decommissioning funding.

Regarding financial test requirements, Appendix E requires a bond issuing licensee to have a "current rating for its most recent uninsured, uncollateralized, and unencumbered bond issuance of Aaa, Aa, or A (including adjustments of 1, 2, or 3) as issued by Moody's." As stated in the Penn State Self-Guarantee Agreement provided with its December 19, 2019, submittal, the Moody's bond rating for Penn State's most recent uninsured, uncollateralized, and unencumbered bond was rated "Aa1." The Moody's bond rating of Aa1, meets the test criteria of "Aaa, Aa, or A (including adjustments of 1, 2, or 3)" as provided in Appendix E.

The NRC staff notes that the NRC is currently addressing, through rulemaking, changes to its surety requirements used by licensees. These changes are responsive to the 2010, "Dodd-Frank Wall Street Reform and Consumer Protection Act" legislation (Dodd-Frank), which, among other things, seeks to have agencies remove reference to or requirements for reliance on credit ratings, and impacts NRC's financial tests for colleges, universities and hospitals who use self-guarantees for providing reasonable assurance of funds for decommissioning. As a result, the NRC staff would disallow reliance on use of credit ratings as a financial test for providing reasonable assurance of funds for decommissioning. In the case of a university or college currently relying on bonds ratings to qualify for use of a self-guarantee, such as Penn State, licensees would instead rely on the financial test in Appendix E, II.A.(2). This financial test requires that the applicant meet unrestricted endowment criteria consisting of assets located in the United States of at least \$50 million, or at least 30 times the total current decommissioning cost estimate, whichever is greater.

As provided in the Penn State Self-Guarantee Agreement submittal, the licensee's financial statements reflect total positive net assets of \$10,536,831,000 (June 30, 2019), and a cost to decommission the radiation facilities of \$16,622,391 (2019 dollars). Accordingly, the licensee's assets are greater than 30 times the total current decommissioning cost estimate and therefore meets the endowment criteria in Appendix E, II.A.(2).

Based on NRC staff's analyses, the licensee meets the financial test for use of a self-guarantee using either credit ratings or unrestricted endowment criteria. In consideration of the above, the NRC staff finds that Penn State has fulfilled the requirements for a university seeking to provide decommissioning funding assurance using a self-guarantee.

3.0 CONCLUSION

The NRC staff has reviewed the decommissioning financial assurance mechanism for the research and test reactor at Penn State. Based on its review, the NRC staff finds that the licensee provided complete documentation, including a letter from Penn State's Associate Vice President, Senior Vice President and Treasurer containing the self-guarantee financial test; an independent auditor's report confirming the Associate Vice President/Treasurer letter and reconciling amounts with the licensee's financial statements; and the licensee's audited financial statements for the most recent fiscal year. In addition, the NRC staff finds that the self-guarantee agreement meets the financial test criteria for a non-profit college that issues bonds, is sufficient for providing financial assurance (\$26,854,350 in 2019 dollars) for decommissioning of the Penn State facility and conforms to the NRC guidance. Therefore, the NRC staff concludes that Penn State meets the requirements of Appendix E to 10 CFR Part 30 and 10 CFR 50.75.

Principal Contributors: Nicole M. Newton, NMSS
Richard Turtill, NMSS
Xiaosong Yin, NRR

Date: July 10, 2020