

DOUGLAS E. TRUEL
*Senior Vice President and
Chief Nuclear Officer*

1201 F Street, NW, Suite 1100
Washington, DC 20004
P: 202.739.8083
det@nei.org
nei.org



May 26, 2020

Mr. John Tappert
Director, Division of Rulemaking, Environmental, and Financial Support
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: NEI Concerns with the Alternative Physical Security Requirements for Advanced Reactors Rulemaking

Dear Mr. Tappert:

On April 22, 2020, representatives from the Nuclear Energy Institute (NEI)¹ and our members participated in an NRC public meeting to discuss the preliminary proposed rule text for the Alternative Physical Security Requirements for Advanced Reactors Rulemaking. During this meeting, the staff clarified that the draft rule text would not eliminate the requirement to interdict and neutralize the Design Basis Threat of radiological sabotage (the DBT) for facilities that have plant features, including inherent reactor characteristics, that alone can protect public health and safety in the event of an attack with characteristics up to and including the DBT. This letter follows up on our comments provided at the NRC public meeting and further describes our concerns with the preliminary proposed rule text.

The goal for the rulemaking should be to establish criteria that would encourage advanced reactor developers to incorporate security-by-design, consistent with the NRC 2008 policy statement (73 FR 60612; October 14, 2008) and the need to protect public health and safety. A security-by-design approach relies on plant features, including inherent reactor characteristics, to protect public health and safety from radiological sabotage. Thus, for these facilities, a dedicated armed response force is not needed to interdict and neutralize the DBT, and a more appropriate response would be to detect, assess and notify law enforcement agencies of the threat. To be clear, there would still be a security function at these facilities,

¹ The Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting its members, including the regulatory aspects of generic operational and technical issues. NEI's members include entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel cycle facilities, suppliers and nuclear materials licensees, nuclear medicine and radiopharmaceutical companies, companies using nuclear technologies in the agricultural, food, and industrial sectors, universities and research laboratories, law firms, labor unions, and international electric utilities.

the difference is that the role of the security function would be appropriate to the potential consequences from the DBT.

If facilities that are inherently able to protect against the DBT are also required to interdict and neutralize the DBT, then the final rule will not incentivize developers to incorporate security-by-design features. Incorporating security-by-design includes a higher up-front cost for the facility, and without the savings associated with eliminating the unnecessary requirement to interdict and neutralize, it is difficult to make a business case to pursue the alternative requirements. In other words, security staffing required at a facility is mainly driven by the requirement to interdict and neutralize the DBT, not by the prescriptive requirement to have 10 dedicated armed responders.

NRC SRM-SECY 18-0076, "Options and Recommendation for Physical Security for Advanced Reactors," approved a limited scope rulemaking (Option 3) that referenced the NEI white paper, "Proposed Physical Security Requirements for Advanced Reactor Technologies," dated December 14, 2016 (ADAMS Accession No. ML17026A474). We believe the NEI white paper was clear on the above point, and included a description of the desired outcome on page 6:

"The licensee would be required to maintain the capabilities to detect and assess threats up to and including the design basis threat of radiological sabotage, and to promptly summon local law enforcement assistance; the interdiction and/or neutralization of the threat would be performed by local law enforcement officers."

In SECY 18-0076, the NRC discusses the benefits of the Option 3 limited scope rulemaking as:

"(1) fewer exemption requests as compared to those made under current regulations, (2) fewer security staff or other security features compared to those currently required by 10 CFR 73.55 commensurate with offsite consequences and radiation risks to public health and safety, (3) consistent regulatory applicability in the review of physical security plans in accordance with 10 CFR Part 73, and (4) potential use of a more risk-informed, performance-based physical security framework."

If the alternative rule requires interdiction and neutralization for these facilities, then developers will either not pursue a security-by-design approach, or will be forced to request exemptions from the alternative requirements. Thus, we believe the NRC's stated advantages of the limited scope rulemaking would no longer be applicable. In SECY 18-0076, the NRC also referenced NEI data regarding the benefits of the rulemaking:

"NEI conducted a survey of its members and estimates the current requirement adds at least \$5 million per year to the operating costs of a nuclear power plant (ADAMS Accession No.

Mr. John Tappert
May 26, 2020
Page 3

ML18134A300). Additional savings could be realized in areas such as training programs, weapons, and administrative costs.”

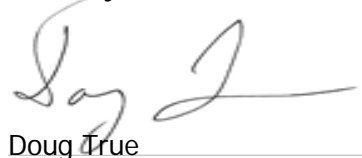
NEI’s estimated cost savings were based on eliminating the requirement to interdict and neutralize the DBT for facilities that provide security-by-design.

We would appreciate clarification from the NRC on whether the rulemaking scope will eliminate the requirement to interdict and neutralize the DBT for facilities that incorporate security-by-design. If the NRC does not plan to address this requirement in the rulemaking, then we believe the staff should reevaluate the costs/benefits and whether the rulemaking should continue.

In addition to the comments on the scope of the rulemaking, we also have comments to the draft rule text that we believe could provide additional clarity. However, due to the concerns with the scope and justification of the rulemaking, we will wait for clarity on the direction of the rulemaking before providing these comments.

If you have questions or require additional information, please contact me or David Young at (202) 739-8127 or dly@nei.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Doug True", is written over a thin black rectangular border.

Doug True

c: Mr. Ho Nieh, NRR, NRC
Mr. Brian Holian, NSIR, NRC
Ms. Theresa Clark, NMSS/REFS, NRC
Mr. Kevin Coyne, NMSS/REFS, NRC
Mr. John Monninger, NRR/DANU, NRC
Ms. Shana Helton, NSIR/DPCP, NRC
Mr. Brian Thomas, NSIR/DPCP, NRC