

SAFEGUARDS EVALUATION REPORT
U.S. NUCLEAR REGULATORY COMMISSION

Nuclear Fuel Services, Inc.
Physical Protection Plan
Revision 22

P.O. Box 337, MS123, Irwin, TN 37650
Docket Number 70-143
License Number SNM-124
CAC 000225/07000143/L-2019-SPR-0005

1.0 INTRODUCTION AND BACKGROUND

By letter dated July 22, 2019, Nuclear Fuel Services, Inc. (NFS) submitted Revision 22 of the "Physical Protection Plan for the Protection of Category 1 High Enriched Uranium (Strategic Special Nuclear Material)," (PPP) for review and approval by the U.S. Nuclear Regulatory Commission (NRC) in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 70.34 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML19207A007). On August 7, 2019, NRC staff and NFS participated in a phone call to discuss the submittal. As a result, NFS submitted supplemental information on September 17, 2019 (ADAMS Accession No. ML19268A078).

Revision 22 of the PPP, dated July 22, 2019, replaces Revision 21 in its entirety.

2.0 REGULATORY EVALUATION

The purpose of this review was to determine whether the changes made to Revision 22 of the NFS PPP, made under the provision of 10 CFR 70.34, would maintain the safeguards effectiveness of the facility's physical protection program.

3.0 TECHNICAL EVALUATION

3.1 NRC staff reviewed the revisions submitted per 10 CFR 70.34 for PPP Revision 22, dated July 22, 2019.

3.1.1 10 CFR 73.46(d)(9). The licensee shall control all points of personnel and vehicle access to material access areas, vital areas, and controlled access areas. At least two armed guards trained in accordance with the provisions contained in paragraph (b)(7) of this section and appendix B of this part shall be posted at each material access area control point whenever in use. Identification and authorization of personnel and vehicles must be verified at the material access area control point. Prior to entry into a material access area, packages must be searched for firearms, explosives, and incendiary devices. All vehicles, materials and packages, including trash, wastes, tools, and equipment exiting from a material access area must be searched for concealed strategic special nuclear material by a team of at least two individuals who are not authorized access to that material access area. Each individual exiting a

Enclosure 3

material access area shall undergo at least two separate searches for concealed strategic special nuclear material. For individuals exiting an area that contains only alloyed or encapsulated strategic special nuclear material, the second search may be conducted in a random manner.

Change # 1: Sections 2.1, 6.4.1, and 6.4.2. The licensee updated these sections and provided supplemental information to provide a description and justification of the alternative measure to be implemented.

In accordance with 10 CFR 73.46(a), the licensee may implement an alternative measure which does not reduce the safeguards effectiveness of the physical protection program.

- 3.1.2 By letter dated August 10, 2016 (ADAMS Accession No. ML16188A326), the NRC accepted commitments made by both BWXT Nuclear Operations Group – Lynchburg (BWXT NOG-L) and NFS to implement a security officer fatigue program into their PPP. This request was made by BWXT NOG-L and NFS via letter number 15-082, dated June 30, 2015 (ADAMS Accession No. ML15189A033).

Change # 2: Section 4.2.3. The licensee redefined a “day” for work hour controls.

Updating the definition of a day allows NFS the flexibility to manage their security force work hours effectively. Furthermore, it allows NFS to not be unfairly penalized (under certain situations), where officers are held over to maintain site security and after the officer completes their duties, the rest of that day cannot be counted as a day off. Therefore, updating a definition does not reduce the safeguards effectiveness of the physical protection program.

- 3.1.3 10 CFR 73.46(d)(1). A numbered picture badge identification subsystem shall be used for all individuals who are authorized access to protected areas without escort. An individual not employed by the licensee but who requires frequent and extended access to protected, material access, or vital areas may be authorized access to such areas without escort provided that he receives a picture badge upon entrance into the protected area and returns the badge upon exit from the protected area, and that the badge indicates, (i) Non-employee—no escort required; (ii) areas to which access is authorized and (iii) the period for which access has been authorized. Badges shall be displayed by all individuals while inside the protected areas.

Change # 1: Sections 2.1 and 6.1. The licensee updated these sections and provided supplemental information to provide a description and justification of the alternative measure to be implemented.

In accordance with 10 CFR 73.46(a), the licensee may implement an alternative measure which does not reduce the safeguards effectiveness of the physical protection program.

4.0 CONCLUSION

The NRC staff's review of the licensee's PPP, Revision 22, dated July 22, 2019, contains information that has been marked as "CONFIDENTIAL-NSI" by the applicant, pursuant to 10 CFR 95.

The methods and procedures outlined in NFS's PPP Revision 22, dated July 22, 2019, and the supplemental information, dated September 17, 2019, satisfy the performance objectives, systems capabilities, and reporting requirements specified in 10 CFR 73.45, 73.46, and all classified NRC Orders. Therefore, NRC staff finds that the NFS PPP Revision 22, dated July 22, 2019, is acceptable and provides reasonable assurance that the requirements for the physical protection of Strategic Special Nuclear Materials will be met.

5.0 REFERENCES

Title 10 of the *Code of Federal Regulations* (10 CFR) 73.45, "Performance capabilities for fixed site physical protection systems".

10 CFR 73.46, "Fixed site physical protection systems, subsystems, components, and procedures."

Process Control Limit Order, dated July 20, 2000 (C-NSI)

Interim Compensatory Measure Order number EA 02-CAT I, dated August 21, 2002 (S-NSI)

Interim Compensatory Measure Order number EA 03-DBT, dated April 29, 2003 (S-NSI)

B&W NOG-L and NFS Revised Security Officer Attentiveness Proposal Letter 15-082, dated June 30, 2015 (ADAMS Accession No. ML15189A033)

BWXT and Nuclear Fuel Service Revised Security Officer Fatigue Management Proposal Letter, dated August 10, 2016 (ADAMS Accession No. ML16188A326)

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