

SECURITY-RELATED ISSUES CONNECTED WITH MODERATOR EXCLUSION

Current spent fuel packages are designed and the contents limited so that the package will remain subcritical even if water enters the containment system.

Additionally, moderator exclusion may allow shipment of spent fuel casks with a larger capacity than currently certified designs.

The security

assessments would need to be evaluated when considering a change in policy regarding moderator exclusion to ensure that the orders continue to provide adequate protection.

Although 10 CFR 71.55(c) authorizes approval of transport with moderator exclusion as a regulatory exception, the basis is rooted in technical and safety considerations.

The following security-related issues should also be included in the regulatory options identified, the pros and cons of each option, and the resources associated with these options.

Option 1. Consider moderator exclusion for transport of commercial spent fuel under 10 CFR 71.55(e) for hypothetical accident conditions, as described in ISG-19; and on a shipment basis, as a 10 CFR 71.55(c) exception to the subcriticality requirement of 10 CFR 71.55(b).

Pros (no additional cons)

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No additional resources nor commitments are needed, based on security-related issues.

Enclosure 3

Option 2. Consider moderator exclusion in spent fuel cask-design approvals under the provisions of 10 CFR 71.55(c), with additional risk information.

Cons (no additional pros)

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RESOURCES:

This additional task could increase resources by approximately 0.1 full-time equivalent (FTE).

Option 3. Recommended option. Initiate rulemaking to codify the use of moderator exclusion for spent fuel transportation packages, while continuing current staff practices, as described under Option 1, in the interim.

Pros:

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Cons:

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RESOURCES:

increase resources by approximately 0.1 FTE.

This additional task could