

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555-0001

March 6, 2008

**NRC REGULATORY ISSUE SUMMARY 2008-06
PROTECTION AGAINST THE MALEVOLENT USE OF
VEHICLES WHEN UTILIZING LANDFORM OBSTACLES**

ADDRESSEES

All holders of operating licenses, construction permits or combined licenses for nuclear power reactors, research and test reactors, decommissioning reactors with fuel on site, Category I, II and III Special Nuclear Material (SNM) facilities, critical mass facilities, uranium conversion facilities, uranium enrichment facilities, independent spent fuel storage installations, certain other materials licensees and holders of certificates of compliance to operate gaseous diffusion plants.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to inform licensees and certificate holders of corrections to errors discovered in existing guidance on the use of natural or man-made landform obstacles (e.g., ditches and berms) as a means of protecting against the malevolent use of vehicles.

BACKGROUND

For those licensees and certificate holders that have a requirement for protecting against the malevolent use of vehicles, security features such as vehicle barrier systems must be in place to prevent threat vehicles from gaining access to the proximity of target areas.

For nuclear power reactors, vehicle barrier systems are required to ensure that the requirements in Title 10 of the *Code of Federal Regulations* (10 CFR), Section 73.55 "Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors Against Radiological Sabotage," (paragraphs (a), c(7), c(8) and c(9)) will be met. The threat of vehicles that nuclear power reactors are required to provide protection against is described in 10 CFR 73.1 paragraph (a)(1)(E). Regulatory Guide (RG) 5.69 "Guidance for the Application of the Radiological Sabotage Design Basis Threat in the Design, Development and Implementation of a Physical Security Protection Program that Meets 10 CFR 73.55 Requirements" (safeguards information) provides guidance on the type of vehicle characteristics that should be considered in determining the design capabilities of the licensee's vehicle barrier system.

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For other licensees, physical barriers are required by various regulations and orders such as:

- 10 CFR 73.45 "Fixed Site Physical Protection Systems, Subsystems, Components and Procedures,"
- 10 CFR 73.50 "Requirements for Physical Protection of Licensed Activities,"
- 10 CFR 73.51 "Requirements for the Physical Protection of Stored Spent Nuclear Fuel and High-level Radioactive Waste."

SUMMARY OF ISSUE

A sensitive unclassified summary of this issue is provided in Enclosure 1 (Official Use Only (OUO)).

Licensees and certificate holders are responsible for ensuring that landform obstacles, when used as vehicle barriers, are designed, implemented and maintained with the correct dimensions to deny access to applicable vehicle threats.

For NRC-licensed nuclear power reactors, the vehicle threat is described in the design basis threat of radiological sabotage as stated in 10 CFR 73.1 (a)(1)(iii), the requirement to protect against that threat is described as stated in 10 CFR 73.55 (a), detailed guidance on the threat is provided in RG 5.69 and guidance on how to use natural terrain (landform obstacles) as a vehicle barrier is provided in NUREG/CR-4250 "Vehicle Barriers: Emphasis on Natural Features," dated July 1985.

The NRC staff has identified errors in Sections 2.7 and 2.8 of NUREG/CR-4250. As such, when a licensee or certificate holder desires to perform hang-up or nose-in failure calculations found in Sections 2.7 and 2.8 of NUREG/CR-4250, corrected guidance found in PDC-TR 06-05 "Evaluating Adequacy of Landform Obstacles as Vehicle Barriers," August 2007 (OUO) (Enclosure 2), should be utilized. The remainder of NUREG/CR-4250 is correct and may be utilized.

Information on the maintenance of vehicle barrier systems may be found in PDC-TR-06-03 "Vehicle Barrier Maintenance Guide," dated February 24, 2007, which can be obtained from the NRC Agency-wide Documents and Access Management System by using accession number ML 070590251.

The revised RG 5.68 "Protection Against Malevolent Use of Vehicles at Nuclear Power Plants," will cite NUREG/CR-4250 and PDC-TR-06-05, as technical guidance for use when designing landform obstacles as vehicle barriers. The NRC staff plans to issue the revised RG 5.68 along with the final rulemaking for 10 CFR 73.55.

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BACKFIT DISCUSSION

This RIS has been provided to assist licensees in meeting the Commission's design basis threat requirements at 10 CFR 73.1. Portions of this RIS do not impose a new or different regulatory staff position interpreting the Commission's regulations. Therefore, pursuant to 10 CFR 50.109(a)(1), the backfit rule does not apply, and a backfit analysis is not required. To the extent that this RIS imposes any new or different regulatory staff positions interpreting the Commission's regulations, the NRC has determined that such regulatory actions are necessary to ensure adequate protection to the health and safety of the public and are in accord with the common defense and security. Consequently, pursuant to the exception in 10 CFR 50.109(a)(4)(iii), a backfit analysis is also unnecessary.

FEDERAL REGISTER NOTIFICATION

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because this RIS is informational.

CONGRESSIONAL REVIEW ACT

The NRC has determined that this RIS is not a major rule as designated by the Congressional Review Act (5 U.S.C §§ 801-886) and has verified this determination with the Office of Management and Budget (OMB).

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not contain information collection requirements subject to the Paperwork Reduction Act of 1995 (44 US.C. 3501 et. seq.). Existing requirements were approved by the OMB; approval number 3150-0002.

PUBLIC PROTECTION NOTIFICATION

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB number.

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CONTACT

This RIS requires no specific action or written response. If you have any questions about this summary, please contact the technical contact listed below.

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Enclosures:

1. Summary of Issue (OUO)
2. PDC-TR 06-05 "Evaluating Adequacy of Landform Obstacles as Vehicle Barriers," August 2007 (OUO)
3. List of recently issued FSME/NMSS Generic Communications
4. List of recently issued NRR/NRO Generic Communications

Note: NRC generic communications may be found on the NRC public Web site, <http://www.nrc.gov>, under Electronic Reading Room/Document Collections.

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