

NUCLEAR REGULATORY COMMISSION

Proposed Generic Communication

Emergency Response Data System Upgrade from Modem to Virtual Private Network

Appliance

NRC-2009-0317

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of opportunity for public comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is proposing to issue a regulatory issue summary (RIS) to notify current and future power reactor licensees of pending changes to the technology used to transmit data from power reactor facility sites to the emergency response data system (ERDS) server at NRC Headquarters (HQ) and to solicit licensees to transition voluntarily to the new technology.

The RIS is available through the NRC's Agencywide Documents Access and Management System (ADAMS) under accession number ML091350153.

DATES: Comment period expires [insert date that is 45 days after publication in the **Federal Register**]. Comments submitted after this date will be considered if it is practical to do so, but assurance of consideration cannot be given except for comments received on or before this date.

ADDRESSES: Submit written comments to the Chief, Rulemaking and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Mail Stop TWB 5B01M, Washington, DC 20555-0001, and cite the publication date and page number of this Federal Register notice.

FOR FURTHER INFORMATION CONTACT: Robert Stransky, Senior Emergency Response Coordinator, Operations Branch, Division of Preparedness and Response, Office of Nuclear Security and Incident Response, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Telephone: (301) 415-6411; fax number: (301) 415-6382; e-mail: Robert.Stransky@nrc.gov.

SUPPLEMENTARY INFORMATION:

NRC Regulatory Issue Summary 2009-XX

Emergency Response Data System Upgrade From Modem To Virtual Private Network Appliance

ADDRESSEES

All holders of operating licenses for nuclear power reactors under the provisions of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," except those that have ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

All holders of, and applicants for, nuclear power plant construction permits under the provisions of 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." All holders of, and applicants for, combined licenses under the provisions of 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants."

Intent

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to notify current and future power reactor licensees of pending changes to the technology used to transmit data from power reactor facility sites to the emergency response data system (ERDS) server at NRC Headquarters (HQ) and to solicit licensees to transition voluntarily to the new technology.

BACKGROUND

In Appendix E to 10 CFR Part 50, the NRC requires power reactor licensees to transmit ERDS data to a server at NRC HQ. Licensees currently use analog modulator/demodulators (modems) to establish point-to-point data connections. Although this technology was state of the art when ERDS was first implemented, it is now obsolete, and replacement equipment is no longer readily available. In addition, the use of modems inherently introduces a cyber security vulnerability to the systems to which they are attached.

As part of the NRC's current effort to modernize the ERDS infrastructure, the NRC has been working with individual licensees to develop an acceptable solution to replace the existing modems. The most promising technology explored was virtual private network (VPN) technology used to create a secure point-to-point data pathway between the licensee site and NRC HQ. This VPN technology is a current, stable, and reliable information technology industry standard. In addition, this technology will permit all ERDS-enabled facilities to connect to NRC HQ simultaneously, thus, enhancing the NRC's ability to respond to incidents that may affect multiple licensees simultaneously, such as grid instability events.

From September 2008 through December 2008, the NRC conducted prototype testing with several licensees (i.e., Exelon Nuclear Corporation, Progress Energy, and the Tennessee Valley Authority) to investigate the viability of using a VPN for the secure transmission of data from power reactor facilities to the ERDS server located at NRC HQ. The NRC provided VPN appliances and configuration support to these licensees. All major test objectives were met. Based on the success of the prototype testing and on the interest expressed by numerous licensees, the NRC intends to proceed with the replacement of existing analog modems with VPN devices. The purpose of this RIS is to solicit licensees to transition voluntarily to the VPN technology.

SUMMARY OF ISSUES

This RIS informs licensees of a voluntary program that they can participate in to upgrade the technology used to transmit plant information to the ERDS server in order to address the following two issues:

(1) The modem technology currently employed to transmit ERDS data from power reactor sites to NRC HQ is obsolete. In addition, replacement modems are no longer readily available.

(2) The use of modems inherently introduces cyber security vulnerabilities to the systems to which they are attached.

Based on the success of the prototype testing, the NRC has decided to enter into a voluntary program with individual licensees to replace the current NRC-supplied modem with an

NRC supplied VPN appliance. As of May 1, 2009, licensees representing 19 sites have already expressed interest in transitioning to the VPN solution.

Although ongoing implementation of the ERDS modernization project will change the device used to transmit data, it does not affect the criteria for transmitting ERDS data, the transmission frequency, the data point library, or any other aspect of ERDS implementation as described in 10 CFR 50.72(a)(4); Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50; and NUREG-1394, Revision 1, "Emergency Response Data System Implementation," published in June 1991. The NRC staff also notes that the use of an NRC-provided VPN appliance, when properly configured, is consistent with guidance provided in Regulatory Guide 5.71, "Cyber Security Programs for Nuclear Facilities," (Official Use Only-Security Related Information)

Licensees interested in participating in the voluntary program to replace their modems with an NRC-supplied VPN appliance are encouraged to contact the ERDS support desk by telephone at (301) 415-0467 or through e-mail at ERDS.Resource@nrc.gov. The NRC will support licensee requests in the order in which they are received.

BACKFIT DISCUSSION

The intent of this RIS is to inform stakeholders of a change to the data transmission technology for ERDS information. This change is a part of the continuing ERDS modernization project, and it will provide improved technology and cyber security for both licensees and the NRC. This RIS informs stakeholders of the change to the technology to transmit ERDS data to the NRC in accordance with 10 CFR Part 50 and to solicit voluntary participation by licensees in a program to replace obsolete technology with modern equipment.

This RIS provides licensees an opportunity to schedule a replacement of NRC-provided obsolete modems with NRC-provided VPN technology. The staff is not imposing any new positions on licensees. This RIS is not providing any new regulatory requirements. This RIS only conveys the NRC's plan to address issues with the current ERDS modem technology. No action is required on the part of any licensee; therefore, this document does not constitute a backfit under 10 CFR 50.109, "Backfitting." Consequently, the staff did not perform a backfit analysis.

FEDERAL REGISTER NOTIFICATION

Although this RIS is informational and does not represent a departure from current regulatory requirements, a notice of opportunity for public comment on this RIS was published in the *Federal Register* (74 FR 35208).

Congressional Review Act

This RIS is not a rule as designated by the Congressional Review Act (5 U.S.C. §§ 801–808) and, therefore, is not subject to the Act.

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not contain information collections and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501, et seq.).

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 current valid Office of Management and Budget control number.

CONTACT

Please direct any questions about this matter to one of the technical contacts listed below:

Glenn M. Tracy, Director
Division of Construction Inspection
and Operational Programs
Office of New Reactors

Timothy J. McGinty, Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Technical Contacts: Roberto Figueroa
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END OF DRAFT REGULATORY ISSUE SUMMARY

Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/NRC/ADAMS/index.html>. If you do not have access to ADAMS or if you have problems in accessing the documents in ADAMS, contact the NRC Public Document Room (PDR) reference staff at 1-800-397-4209 or 301-415-4737 or by e-mail to pdr@nrc.gov.
Dated at Rockville, Maryland, this 13th day of July 2009.

For The Nuclear Regulatory Commission,

/RA/

Martin C. Murphy,
Chief, Generic Communications Branch,
Division of Policy and Rulemaking,
Office of Nuclear Reactor Regulation.