
**OFFICE OF
THE INSPECTOR GENERAL**

**U.S. NUCLEAR
REGULATORY COMMISSION**

Use of E-Mail at NRC

OIG-03-A-11 March 21, 2003

AUDIT REPORT



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March 21, 2003

MEMORANDUM TO: William D. Travers
Executive Director for Operations

FROM: Stephen D. Dingbaum/**RAI**
Assistant Inspector General for Audits

SUBJECT: USE OF E-MAIL AT NRC (OIG-03-A-11)

Attached is the Office of the Inspector General's audit report titled, *Use of E-Mail at NRC*. This report reflects the results of our review to assess (1) the adequacy of NRC's process in place for ensuring that appropriate e-mail records become official agency records, (2) the adequacy of NRC's policies and procedures covering the use of its e-mail system, and (3) whether employee and contractor usage of the e-mail system is consistent with agency policy.

Audit Results:

◆NRC has not implemented adequate controls for ensuring that appropriate e-mail records become official agency records. Specifically, the agency has not; updated agency guidance for identifying official records, finalized other documents that will provide valuable information to staff, or provided adequate training on these subjects.

◆NRC's policies and procedures for the personal use of e-mail are effective. NRC contractors, however, must adhere to a more stringent personal use of e-mail policy and procedures have not been put into place to ensure contractors follow this policy.

◆NRC employees generally use the e-mail system for official business, or limited personal use in accordance with agency policy. In contrast, NRC contractors do not follow the government-furnished information technology equipment usage policy, which prohibits their personal use of NRC's e-mail system. In addition, contracting and project officers neglected to include required clauses concerning contractor personal use of information technology equipment in NRC contracts.

At an exit conference held on March 5, 2003, NRC officials generally agreed with the report's findings and recommendations. The comments provided at the meeting have been incorporated into the report where appropriate.

If you have any questions, please contact Beth Serepca, at 415-5911 or me at 415-5915.

Attachment: As stated

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EXECUTIVE SUMMARY

BACKGROUND

Electronic mail (e-mail) is the term used to describe the process or result of sending and receiving messages via telecommunication links between computer terminals. E-mail has in many instances replaced the telephone and paper correspondence as the primary and preferred method of business communication because it is convenient, faster and inexpensive to use. While e-mail provides benefits for businesses, it also has risk. For example, important e-mail correspondence is not always preserved, thereby causing records management problems. Inappropriate employee use is another risk when employees access an organization's e-mail system for personal use.

PURPOSE

The objectives of this audit were to assess whether:

1. NRC has an adequate process for ensuring that appropriate items of e-mail correspondence become official agency records;
2. NRC has adequate policies and procedures covering the use of its e-mail system; and
3. NRC employee and contractor use of the e-mail system is consistent with agency policy.

RESULTS IN BRIEF

NRC has not implemented adequate controls for ensuring that appropriate e-mail records become official agency records. Furthermore, while NRC employees generally use the e-mail system for official business, or limited personal use in accordance with agency policy, contractors do not follow the more stringent e-mail usage policy applicable to them.

A. E-Mail As Official Agency Records

NRC management has not updated agency guidance for identifying official records and has not finalized other documents that will provide valuable information to staff. Furthermore, NRC has not provided adequate training to staff on these subjects. As a result, offices approach records management inconsistently and may be failing to capture all relevant record material. Non-compliance with Federal record archiving requirements could cost NRC millions of dollars to recover e-mail records that have not been effectively preserved.

B. Personal Use of NRC's E-Mail System

NRC's policies and procedures covering personal use of the e-mail system are generally effective for employees. Approximately 82 percent of the 2,718 items of e-mail correspondence reviewed during this audit was for official business. Approximately 18 percent of the e-mail correspondence was of a personal nature, but did not violate minimal-use limits prescribed by NRC policy. None of the 2,718 items of e-mail correspondence reviewed for this audit contained inappropriate or prohibited material.¹

In contrast, NRC contractors do not follow the policies applicable to them. Contractors mistakenly believe that the employee minimal-use policy applies to them rather than the more stringent, but less publicized, contractor-use policy, which prohibits their use. In addition, contracting and project officers neglected to include required clauses concerning contractor personal use of information technology equipment in NRC contracts. As a result, contractors are not in compliance with NRC policy, which was written to avoid recurrences of instances of inappropriate use of government-furnished information technology equipment by contractors.

RECOMMENDATIONS

The consolidated list of recommendations made to the Executive Director of Operations is on page 13.

¹While no inappropriate or prohibited material, such as pornography or gambling, was found in the audit sample, isolated instances could exist.

ABBREVIATIONS AND ACRONYMS

ADAMS	Agencywide Documents Access and Management System
e-mail	electronic mail
IT	information technology
MD 2.7	Management Directive and Handbook 2.7
MD 3.53	Management Directive and Handbook 3.53
NARA	National Archives and Records Administration
NRC	U.S. Nuclear Regulatory Commission
OCIO	Office of the Chief Information Officer
OIG	Office of the Inspector General

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TABLE OF CONTENTS

EXECUTIVE SUMMARY i

ABBREVIATIONS AND ACRONYMS iii

I. BACKGROUND 1

II. PURPOSE. 1

III. FINDINGS 2

 A. E-MAIL AS OFFICIAL AGENCY RECORDS 2

 B. PERSONAL USE OF NRC'S E-MAIL SYSTEM 5

IV. CONSOLIDATED LIST OF RECOMMENDATIONS 9

V. AGENCY COMMENTS 10

APPENDIX

A. SCOPE AND METHODOLOGY 11

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I. BACKGROUND

Electronic mail (e-mail) is the term used to describe the process or result of sending and receiving messages via telecommunications links between computer terminals. E-mail has in many instances replaced the telephone and paper correspondence as the primary and preferred method of business communication because it is convenient, faster and inexpensive to use. While e-mail provides benefits for businesses, it also has risk. For example, important e-mail correspondence is not always preserved, thereby causing records management problems. Inappropriate employee use is another risk when employees have been given permission to access an organization's e-mail system for personal use.

Official Records

In the Federal Government, e-mail exchanges that lead to official action are part of agencies' official records and such correspondence must be preserved so that interested parties can follow the decisionmaking process and ascertain the intent behind decisions. Federal agencies are required to comply with regulations governing records management issued by the National Archives and Records Administration (NARA). The NARA regulations require adequate and proper documentation of the organization, functions, policies, decisions, procedures, and essential transactions of the agency.

Personal Use of E-Mail

NRC's policy governing employee personal use of e-mail, stated in Management Directive and Handbook 2.7 (MD 2.7), *Personal Use of Information Technology*, defines acceptable conditions for NRC employees' personal use of information technology (IT). This policy is based on the model recommended by the Federal Chief Information Officers Council, an interagency forum established by Executive Order to improve agency practices for managing information technology. The Federal Chief Information Officers Council model recommends that Federal employees be permitted limited use of information technology, including e-mail, if the use does not interfere with official business and involves minimal additional expense to the Government.

II. PURPOSE

The objectives of this audit were to assess whether:

1. NRC has an adequate process for ensuring that appropriate items of e-mail correspondence become official agency records;
2. NRC has adequate policies and procedures covering the use of its e-mail system; and
3. NRC employee and contractor use of the e-mail system is consistent with agency policy.

III. FINDINGS

NRC needs to improve its controls for ensuring that appropriate items of e-mail correspondence become official agency records. Furthermore, while NRC employees generally use the e-mail system for official business or limited personal use in accordance with agency policy, contractors do not follow the more stringent e-mail usage policy, which prohibits their use. Specifics on these matters are described in the following sections.

A. E-MAIL AS OFFICIAL AGENCY RECORDS

NRC has not implemented adequate controls to ensure that appropriate items of e-mail correspondence become official agency records. NRC has not updated agency guidance for identifying official records and has not finalized other documents that will provide valuable information to staff. Furthermore, the agency has not provided adequate training to staff on these subjects. As a result, offices approach records management inconsistently and may be failing to capture all relevant record material. Non-compliance with Federal record archiving requirements could cost NRC millions of dollars to recover e-mail records that have not been effectively preserved.

Policy on Official Agency Records

Management Directive and Handbook 3.53 (MD 3.53), *NRC Records Management Program*, specifies NRC's policy, objectives, and organizational responsibilities and delegations of authority pertaining to records management. MD 3.53 specifies that:

- ◆ The Office of the Chief Information Officer (OCIO) is responsible for developing and maintaining procedures for the organization, maintenance, use, and disposition of all NRC official records;
- ◆ NRC offices must have a designated Records Liaison Officer who administers records management policies, procedures, and programs to ensure that NRC's file maintenance system is being implemented within their offices; and
- ◆ NRC employees and contractors must preserve the official records that they create, receive, or access in accordance with MD 3.53.

The criteria for determining which e-mail correspondence should be maintained as official agency records are the same that applies for every other type of media. Electronic record material includes e-mail correspondence concerning agency business — its functions, policies, decisions, procedures, and operations — or other activities of the Government. Furthermore, e-mail record material could include correspondence pertaining to policy, rationale for a decision, sense of direction, or guidance above and beyond that documented in the official files. An

e-mail from one NRC manager to another approving funding for a program represents an example of correspondence that should be saved as a record. In contrast, non-record material includes extra copies of documents kept for convenience of reference and informal e-mail messages from an individual to other individuals in the agency that do not relate to agency business.

Agency Guidance

MD 3.53 is incomplete because it fails to describe NRC's current methods for preserving e-mail records in the Agencywide Documents Access and Management System (ADAMS). ADAMS became an official recordkeeping system on April 1, 2000. Last revised in June 1995, MD 3.53 lacks any reference to the role of ADAMS. According to the *ADAMS Desk Reference Guide*, employees are to identify which e-mails constitute official agency records and then follow the necessary steps to place the e-mails into ADAMS. The *ADAMS Desk Reference Guide* states that the e-mail message, its transmission and receipt data, and any attachments to the message are to be preserved. Yet, MD 3.53 contains no information about e-mail procedures specifically relevant to ADAMS.

Draft Guidance

While MD 3.53 holds OCIO responsible for developing and maintaining procedures for managing official records, the office has yet to finalize guidance it drafted and circulated for review. This comprehensive guidance is contained in a collection of documents² that describe office responsibilities and quality assurance procedures for ensuring that offices maintain complete record collections. On May 22, 2002, OCIO distributed these documents to NRC headquarters management officials, whose offices are responsible for the largest record collections that reside in ADAMS, and requested their feedback. On June 6, 2002, OCIO distributed these documents to NRC regional office management officials and also requested their feedback. While OCIO received and incorporated feedback, OCIO has not finalized this package or issued it to all offices as planned.

Records Management Web Site

OCIO has developed, but not fully deployed, an extensive records management Web site to assist staff in identifying official agency records. NRC's records management Web site will describe employee responsibilities for official records and include links to other sources of related guidance, including key NRC management directives and NARA's database. Although access to the Web site was provided to one NRC office during a special training session requested by that office, the link is not yet available on NRC's internal home page for agencywide use.

²Titles include, *NRC Office Responsibilities for Ensuring the Integrity of Agency Record Collections*; *Records Management Guideline No. 02-02*, *Responsibilities of Records Liaison Officers in the ADAMS Environment*; *Records Liaison Officers*; and *Sample Searches for Monitoring ADAMS Document Input Based On Organizational Structure and Document Type*.

Records Management Training

NRC does not provide adequate training for records management to the agency staff. NRC employees have expressed concern that staff need clearer direction and training to better determine which items of e-mail correspondence need to be saved as official agency records. For example, Records Liaison Officers advised that employees have varying levels of understanding about which e-mails should be saved. In addition, Records Liaison Officers, who are required by MD 3.53 to administer records management procedures, have received only limited training on the subject.

E-Mail Purge

Although the NRC Network Operations Center performs an agency e-mail purge every 180 days and notifies system users in advance of this procedure, the agency has not taken these opportunities to clearly communicate specific information on the preservation of record e-mails. While the e-mail purge notification reminds employees of their requirement to meet NARA and NRC regulations, it fails to specifically indicate:

- ◆ where to review NRC policy and procedures identifying which records should be preserved as official agency records,
- ◆ how to archive documents,
- ◆ where to review NARA requirements, and
- ◆ how to save e-mail as official agency records.

Specific guidance on how to fulfill these requirements is located in MD 3.53, the Groupwise training manual, and the *ADAMS Desk Reference Guide*.

Management Priorities

OCIO management and staff explained that a primary reason for failing to finalize draft documents or clarify guidance identifying records management control activities is because these projects have not been office priorities. According to an OCIO manager and staff, limited resources restrict their ability to complete the revisions to MD 3.53, correct Web site links, and offer training.

E-Mail Recovery Costs

Non-compliance with Federal record archiving requirements could cost NRC millions of dollars to recover e-mail records that have not been effectively preserved. An inconsistent approach to records management may cause a failure to capture all relevant record material. GAO Report, *Clinton Administration's Management of Executive Office of the President's E-Mail System*, GAO-01-446, April 2001, found that the Executive Office of the President did not implement adequate records management controls to ensure that all e-mail records generated

or received were preserved in accordance with applicable law and best practices. Several factors including, records management practices and miscommunication, contributed to the expected cost to restore omitted e-mail records, estimated to be \$11.7 million.

Summary

NRC has not implemented adequate controls for records management. Management attention to the completion of tasks currently underway will help ensure that appropriate e-mail records become official agency records and could help NRC avoid incurring substantial costs that may result if the agency has to re-create official agency records.

RECOMMENDATIONS:

OIG recommends that the Executive Director for Operations:

1. Revise Management Directive and Handbook 3.53, *NRC Records Management Program*, to include current information about ADAMS.
2. Finalize and implement the guidance identifying office responsibilities for records management.
3. Finalize the records management Web site.
4. Develop and require records management training for Records Liaison Officers.
5. Develop and offer records management training for NRC staff.
6. Revise the network announcement regarding the e-mail purge to include links to records management guidance.

B. PERSONAL USE OF NRC'S E-MAIL SYSTEM

NRC's policies and procedures covering personal use of e-mail are generally effective for employees. Approximately 82 percent of the 2,718 items of e-mail correspondence reviewed during this audit was for official business. Approximately 18 percent of the e-mail correspondence was of a personal nature, but was within the minimal-use limits prescribed by NRC policy. None of the 2,718 items of e-mail correspondence reviewed contained inappropriate or prohibited material.³

³While no inappropriate or prohibited material, such as pornography or gambling, was found in the audit sample, isolated instances could exist.

In contrast, NRC contractors do not follow the policies applicable to them. Contractors mistakenly believe that the employee minimal-use policy applies to them rather than the more stringent, but less publicized, contractor-use policy, which prohibits their use. In addition, contract and project officers neglected to include required clauses concerning contractor personal use of IT equipment in NRC contracts. As a result, contractors are not in compliance with NRC policy, which was written to avoid recurrences of instances of inappropriate use of government-furnished IT equipment by contractors.

NRC Policy

MD 2.7, *Personal Use of Information Technology*, defines acceptable conditions for NRC employees' personal use of IT, including e-mail. The policy and guidance in MD 2.7 do not apply to NRC contractors. Personal use of e-mail by NRC employees is permitted when such use:

- ◆ involves minimal or no additional expense to the Government,
- ◆ is performed during employee non-work time,
- ◆ does not interfere with NRC's mission or operation,
- ◆ does not violate Federal Government Standards of Ethical Conduct, and
- ◆ is not prohibited by law.

MD 2.7 also affirms that personal use of agency IT is a privilege, not a right. Employees should not have the expectation of privacy while using agency IT systems. By using such systems, employees imply their consent to disclosing the contents of any files or information maintained in the systems. NRC's policy for the automated information systems security program requires that managers inform system users that their activities on the system are subject to monitoring. NRC computer systems are configured to display a warning banner to users upon first accessing NRC automated information resources. By clicking "ok" to clear the warning banner that appears upon login, users give consent to the monitoring of their activities and acknowledge awareness that violation of security regulations or unauthorized uses of NRC computer systems is subject to criminal prosecution and/or disciplinary action. In addition, NRC employees are required to take an online computer security awareness course that contains a module on personal use of Government equipment.

To prevent contractor abuse of IT equipment, NRC issued a new procurement instruction, which clarifies specific contractor responsibilities when utilizing NRC-furnished IT equipment, services, or access. *DCPM Instruction 02-01*, issued March 4, 2002, specifically prohibits personal use of e-mail by contractors. The policy was written to reinforce the fact that MD 2.7 does not apply to NRC contractors. *DCPM Instruction 02-01* states that the contractor must be held responsible for monitoring its employees, consultants, and subcontractors to ensure that NRC-furnished IT equipment and/or IT access are not used for personal use, misused, or used without proper authorization. To implement this policy, NRC's Division of Contracts requires inclusion of the clause entitled,

“Appropriate Use of Government Furnished Information Technology (IT) Equipment and/or IT Services /Access (March 2002),” in all solicitations/contracts or delivery orders that allow contractor staff access to NRC IT equipment and services.

E-Mail Activity at NRC

OIG reviewed approximately 3,000 e-mail messages sent by 183 system users over a 3-day period⁴ in October 2002 and found that none of the messages contained inappropriate content (e.g., sexually explicit materials or materials related to gambling, illegal weapons, terrorist activities, or “for-profit” business activity). Of the e-mail messages sent, approximately 82 percent was related to NRC business. The remaining 18 percent of the e-mail correspondence was personal messages. All employee personal e-mail messages were in accordance with NRC policy. In addition, OCIO management stated that the agency set a limit on the file size of e-mail and attachments to prevent situations where large files can degrade network performance.

Personal Use of E-Mail

While personal use of the e-mail system was minimal and legal, both contractors and NRC staff did not always follow the agency policy and procedures contained in *DCPM Instruction 02-01*, which prohibits personal use of e-mail by contractors. In a judgmental sample of eight contractors with e-mail accounts, all used the e-mail system for personal use. In addition, 4 of 10 contracts that were executed after March 2002, and required the clause prohibiting contractor employees personal use of e-mail, did not contain the required clause.

Based on discussions with contractor employees, OIG concluded that contractors used the e-mail system for personal use because they were unaware that such use was prohibited. The contractor employees were familiar with NRC policy allowing limited employee personal use of the NRC e-mail system. The contractors were aware of MD 2.7 from a recent agencywide network announcement and presumed that the personal use policy pertained to them.

In addition, staff did not ensure that required language specific to contractor use of IT equipment or services appears in NRC contracts. For example, project officers did not ensure that the required clause restricting contractor staff access to NRC IT equipment/services was included in the statements of work for such contracts. Contract officers also neglected to place the “Appropriate Use of Government Furnished Information Technology (IT) Equipment and/or IT Services /Access” clause in several bid solicitations and/or contracts.

⁴As context, during a 1-week period in October 2002, which contained the 3 days sampled, NRC employees sent 48,243 and received 114,294 e-mail messages.

Personal use of the e-mail system by contractor employees is inconsistent with agency policies. Despite specific language in MD 2.7 that excludes contractors from the employee personal use policy and in *DCPM Instruction 02-01* that prohibits contractor personal use of the e-mail system, contractors use the e-mail system for personal use. Furthermore, because staff has not fully implemented office procurement policy and procedures, contractor employees are non-compliant with NRC policy.

Summary

NRC policies for personal use of e-mail are generally effective for employees, however, contractors do not follow the NRC policy prohibiting contractor personal use of NRC's e-mail system. Because staff did not ensure that required language specific to contractor use of IT equipment or services appears in NRC contracts, NRC has not fully implemented the measures written to prevent such use.

RECOMMENDATIONS:

OIG recommends that the Executive Director for Operations:

7. Develop a procedure that will implement the policy prohibiting contractor personal use of NRC-furnished information technology equipment.
8. Modify the contracts requiring NRC-furnished information technology equipment with the needed clause that prohibits contractor use of such equipment.

IV. CONSOLIDATED LIST OF RECOMMENDATIONS

OIG recommends that the Executive Director for Operations:

1. Revise Management Directive and Handbook 3.53, *NRC Records Management Program*, to include current information about ADAMS.
2. Finalize and implement the guidance identifying office responsibilities for records management.
3. Finalize the records management Web site.
4. Develop and require records management training for Records Liaison Officers.
5. Develop and offer records management training for NRC staff.
6. Revise the network announcement regarding the e-mail purge to include links to records management guidance.
7. Develop a procedure that will implement the policy prohibiting contractor personal use of NRC-furnished information technology equipment.
8. Modify the contracts requiring NRC-furnished information technology equipment with the needed clause that prohibits contractor use of such equipment.

V. AGENCY COMMENTS

At an exit conference held on March 5, 2002, NRC officials generally agreed with the report's findings and recommendations. While agency officials chose not to provide a formal written response for inclusion in the report, they did provide editorial suggestions, which have been incorporated where appropriate.

SCOPE AND METHODOLOGY

OIG reviewed the employee and contractor use of e-mail at NRC. To accomplish the audit objectives, OIG reviewed NRC Management Directives, office guidance, OIG reports, and outside agency documents. Auditors interviewed NRC contractor employees to determine their understanding of the personal use policy; Records Liaison Officers to gain insight on records management policies; NRC managers; and other staff. OIG performed an analysis of approximately 3,000 e-mail messages that NRC employees and contractors sent during a 3-day period in October 2002 to determine whether the messages were within established guidelines.

This work was conducted from September 2002 through December 2002 in accordance with generally accepted Government auditing standards and included a review of management controls related to the objectives of the audit.

The major contributors to this report were Beth Serepca, Acting Team Leader; Vicki Foster, Management Analyst; and Rebecca Underhill, Management Analyst.