



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001**

August 13, 2001

The Nuclear Regulatory Commission has revised a corrective action plan issued by the agency in October 2000 on the continued use of its Agencywide Document Access and Management System (ADAMS) and issued a corrective action plan on its continued use. The revision reports progress in implementing activities under the plan. It also updates the schedule for implementing activities to accomplish the activities. Revision 1 of the Action Plan is available at the NRC external web site (<http://www.nrc.gov/NRC/ADAMS/plan0813.html>) or by entering accession number ML012270211 in ADAMS.

The Action Plan was developed as follow-up to an assessment to address stakeholder concerns regarding the efficiency and effectiveness of the ADAMS system.

The Action Plan targets ten Challenge Areas for improvement, with the following of primary interest for the public:

- document and data integrity (Area 2),
- search and retrieval (Area 3),
- October 30, 2000 functionality, performance, and reliability (Area 4),
- public access (Area 5), and
- communications program (Area 9).

A list of issues raised by the public, along with the suggested interim solutions and their status, are available at the NRC public Web site (<http://www.nrc.gov/NRC/ADAMS/issuesmatrix.html>). As indicated in the matrix, many of the issues have been resolved since the initial implementation of ADAMS in late 1999.

The corrective Action Plan issued by the NRC in October 2000 is available at the NRC external web site (<http://www.nrc.gov/NRC/ADAMS/plan1030.html>) or by entering accession number ML003764449 in ADAMS.

Inquiries regarding the revised plan may be directed to Lynn Scattolini, Office of the Chief Information Officer. She may be reached at 301-415-8730 and at e-mail address [lbs@nrc.gov](mailto:lbs@nrc.gov).

# **ADAMS ASSESSMENT ACTION PLAN**

**Office of the Chief Information Officer  
U. S. Nuclear Regulatory Commission**

Revision 1  
August, 2001

## Executive Summary

On May 22, 2000, Chairman Meserve ordered a two-phase assessment of issues that affect the effectiveness and efficiency of the Agencywide Documents Access and Management System (ADAMS). The Chairman directed that In Phase 1 each office identify the most important ADAMS problems it believes need to be addressed. The Chairman directed that in Phase 2 the Chief Information Officer (CIO) cluster the comments into challenge areas and develop an Action Plan to address each area.

To assist in the process, the CIO formed an ADAMS Steering Group of senior agency executives. The Steering Group focused on the nature and the significance of the problems identified by the offices, the timing and the actions required to address the most important problems, and the implications of alternative actions. Consensus was reached on ADAMS future direction with regard to "What Stays the Same" and "What Changes."

The Steering Group agreed that after completion of these steps, it would revisit other functional capabilities identified in the original ADAMS vision (e.g., electronic routing for review and concurrence) and recommend appropriate additional actions. The Steering Group presented its recommendations to the Executive Council on July 17 and obtained its endorsement. The Steering Group briefed the Chairman on July 18, 2000. Commissioner offices were briefed on the Steering Group results on July 18 and July 20, 2000. The Chairman completed his review of the ADAMS Assessment Action Plan on August 29, 2000, and then made it available to the NRC staff.

In coordination with the ADAMS Steering Group, OCIO will issue guidance to NRC Office Directors and Regional Administrators indicating when and how changes related to document entry, processing, and distribution will be implemented. Staff should continue to follow existing procedures for document entry, processing, and distribution until new guidance is issued.

### ADAMS Assessment Results

#### What Stays the Same

- ADAMS will continue as the agency's system for electronic records.
- ADAMS will continue to be used to make NRC's documents publicly available.
- ADAMS will continue to be used for receipt and electronic distribution of incoming mail.
- ADAMS will continue as the agency's search and retrieval system for the agency's official electronic records.

#### What Changes

- OCIO will be responsible for completing processing of final NRC-generated records into ADAMS, with offices providing minimal profile data, and the electronic files of created documents when they are available. OCIO will scan all paper components of NRC-generated documents, complete the document profile, declare submitted final documents as official agency records, and copy publicly available documents to the public access version of ADAMS.<sup>1</sup>

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<sup>1</sup>The mutual roles and responsibilities of the NRC staff and OCIO and procedures in processing these documents will be developed by OCIO in coordination with the offices and regions. This new approach will be phased in over several months, beginning in October 2000.

- OCIO will be responsible for ADAMS document and data integrity, relying on the electronic files and/or paper documents and minimal data provided to OCIO, which the staff should ensure are complete and accurate.<sup>2</sup>
- Documents will be entered into ADAMS when they are signed or issued unless management in an office determines that a document be entered into ADAMS earlier to support office business processes.
- Offices will suspend the use of ADAMS as the mechanism for electronic distribution of internally generated documents until business practices and software improvements have been accomplished.
- EDO/OCIO will sponsor a program to standardize business practices where possible across agency offices and regions and to identify where local office initiatives to improve individual office procedures and processes are appropriate.
- Human Resources/Professional Development Center (HR/PDC), in coordination with OCIO, will develop enhanced ADAMS training based on employee roles.
- OCIO will work with offices to implement an office-specific mentoring program.
- OCIO will continue to pursue key changes to the ADAMS software in order to correct performance, stability, and functional issues identified by end users.<sup>3</sup>and<sup>4</sup>

Ten challenge areas were identified by the OCIO as necessary to bring about the desired changes. A time frame of 12 to 18 months was identified as necessary to achieve all the necessary action steps associated with the challenge areas, with many significant actions being completed in the fourth quarter of FY 2000 and the first quarter of FY 2001. The areas are --

1. Transfer responsibility for completing the processing of NRC-generated documents to OCIO
2. Improve ADAMS document and data integrity
3. Improve ADAMS as a search and retrieval system
4. Improve ADAMS functionality, performance, and reliability
5. Improve public access to ADAMS
6. Improve electronic document distribution software and processes
7. Improve and standardize agency business practices
8. Improve ADAMS training and user support
9. Improve ADAMS communications program and agencywide guidance
10. Conduct "lessons learned"; chart longer term course

The Action Plan focuses on reducing the burden of the NRC staff in implementing an electronic document management system and accelerating the benefits of having electronic records available in a centralized repository for staff use. This goal is accomplished by having OCIO

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<sup>2</sup>OCIO will ensure that the document profile describing the document is complete and accurate to facilitate subsequent retrieval, refine ADAMS standards needed to improve data integrity, modify templates to reflect data standards, improve data entry software, and clean up the database.

<sup>3</sup> (3a) Release schedules are identified in the ADAMS Action Plan. (3b) NRC needs for functional requirements not delivered in a current release of the vendors COTS software will primarily be pursued through initiatives with the Vendor's Product User Group.

<sup>4</sup>Software upgrades will also address public access issues.

perform all document scanning and completing the document profile using minimal data provided by staff, by providing modular training courses to NRC staff in such areas as search and retrieval, and by improving software and processes that support basic document functions. This approach will move NRC employees from feeding the system to finding and retrieving documents from the system that they need to perform their daily work.

OCIO presented information to the ADAMS Steering Group regarding its plans to (1) provide additional functionality to make ADAMS easier to use and to better ensure more effective and efficient support for agency business processes and public access, (2) improve system response time and availability, and (3) increase system stability and reliability.

These improvements will be brought about through the introduction of three new releases of the ADAMS product described in the Action Plan. The first release will fix the existing ADAMS custom code to address major ADAMS deficiencies identified during the first few months of actual production use by NRC staff and the public as well as provide for planned software enhancements. ADAMS Release 4.0 will replace outdated versions of the commercial off-the-shelf (COTS) products that ADAMS is built upon in order to take advantage of product improvements made by the vendor over the past 4 years. It will provide ADAMS performance and stability improvements. ADAMS Release 5.0 will take advantage of features in the newer versions of the COTS product and will provide Web browser support, which will allow for more efficient desktop support and public/remote access without needing to use CITRIX.

The Action Plan also includes tasks to set the long-term future direction of the agency's use of electronic document management technology. In accordance with the Chairman's direction, the agency will utilize the services of a consultant to conduct an independent assessment of ADAMS. The assessment will determine whether the NRC is on an appropriate pathway to establish an electronic document management system to meet its long-term needs. The assessment will be completed within the first six months of FY 2001 so that its results are available for Commission review prior to implementing ADAMS 4.0.

## **ADAMS Assessment Action Plan**

### **I. BACKGROUND**

On May 22, 2000, Chairman Meserve ordered a two-phase assessment of issues that affect the effectiveness and efficiency of the Agencywide Documents Access and Management System (ADAMS).

Chairman Meserve directed that in Phase 1 each office succinctly define the important ADAMS problems it believes need to be addressed. Review of the input indicated that two actions could address about 52 percent of the comments: (1) the planned release of ADAMS 3.0 that includes the software fixes and enhancements and (2) centralization of the processing of staff-generated documents into ADAMS.

The Chairman directed that in Phase 2 the Chief Information Officer (CIO) cluster the comments into challenge areas and develop an Action Plan to address each area. To assist in this process, the CIO formed an ADAMS Steering Group consisting of the following representatives:

Stuart Reiter, Acting CIO

Bruce Mallett, Deputy Regional Administrator, Region II

John Craig, Assistant for Operations, Office of the Executive Director for Operations

Margaret Federline, Deputy Director, Office of Nuclear Regulatory Research

Martin Virgilio, Deputy Director, Office of Nuclear Material Safety and Safeguards

Roy Zimmerman, Deputy Director, Office of Nuclear Reactor Regulation

Stephen Burns, Deputy General Counsel

Annette Vietti-Cook, Secretary of the Commission

Lynn Scattolini, Director, Information Management Division, Office of the Chief Information Officer

The role of the Steering Group was to - -

- Develop a consensus on the current and future direction of the ADAMS Program
- Prioritize issues
- Discuss tradeoffs and alternative deployment approaches
- Provide advice on the refinement of the ADAMS Action Plan
- Participate in the presentation of the Action Plan to the Executive Council and the Chairman

### **II. APPROACH**

The Steering Group first reviewed the input of the offices to the Chairman. The Steering Group discussed each major document management function. The Steering Group focused on the nature and significance of the problems, the timing and the actions required to address the most important problems, and the implications of alternative actions. Consensus was reached on ADAMS future direction with regard to "What Stays the Same" and "What Changes." Ten challenge areas were identified by the OCIO as necessary to bring about the desired changes. A time frame of 12 to 18 months was identified as necessary to achieve all the necessary action steps associated with the challenge areas, with many significant actions being completed in the fourth quarter of FY 2000 and the first quarter of FY 2001. The Steering Group agreed that

after completion of these steps, the Steering Group would revisit other functional capabilities identified in the original ADAMS vision (e.g., electronic routing for review and concurrence) and recommend appropriate additional actions.. The Steering Group presented its recommendations to the Executive Council on July 17 and obtained its endorsement. The Chairman was briefed on July 18, 2000. Commissioner offices were briefed on the Steering Group results on July 18 and July 20, 2000.

The Steering Group agreed that after completion of these steps, it would revisit other functional capabilities identified in the original ADAMS vision (e.g., electronic routing for review and concurrence) and recommend appropriate additional actions. The Steering Group presented its recommendations to the Executive Council on July 17 and obtained its endorsement. The Steering Group briefed the Chairman on July 18, 2000. Commissioner offices were briefed on the Steering Group results on July 18 and July 20, 2000. The Chairman completed his review of the ADAMS Assessment Action Plan on August 29, 2000, and then was made it available to the NRC staff.

In coordination with the ADAMS Steering Group, OCIO will issue guidance to NRC Office Directors and Regional Administrators indicating when and how changes related to document entry, processing, and distribution will be implemented. Staff should continue to follow existing procedures for document entry, processing, and distribution until new guidance is issued.

### **III. ADAMS ASSESSMENT -- RESULTS**

#### **What Stays the Same**

- ADAMS will continue as the agency's system for electronic records.
- ADAMS will continue to be used to make NRC's documents publicly available.
- ADAMS will continue to be used for receipt and electronic distribution of incoming mail.
- ADAMS will continue as the agency's search and retrieval system for the agency's official electronic records.

#### **What Changes**

- OCIO will be responsible for completing processing of final NRC-generated records into ADAMS, with offices providing minimal profile data, and the electronic files of created documents when they are available. OCIO will scan all paper components of NRC-generated documents, complete the document profile, declare submitted final documents as official agency records, and copy publicly available documents to the public access version of ADAMS.<sup>1</sup>
- OCIO will be responsible for ADAMS document and data integrity, relying on the electronic files and/or paper documents and minimal data provided to OCIO, which the staff should ensure are complete and accurate.<sup>2</sup>

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<sup>1</sup>The mutual roles and responsibilities of the NRC staff and OCIO and procedures in processing these documents will be developed by OCIO in coordination with the offices and regions. This new approach will be phased in over several months, beginning in October 2000.

<sup>2</sup>OCIO will ensure that the document profile describing the document is complete and accurate to facilitate subsequent retrieval, refine ADAMS standards needed to improve data  
(continued...)

- Documents will be entered into ADAMS when they are signed or issued unless management in an office determines that a document be entered into ADAMS earlier to support office business processes.
- Offices will suspend the use of ADAMS as the mechanism for electronic distribution of internally generated documents until business practices and software improvements have been accomplished.
- EDO/OCIO will sponsor a program to standardize business practices where possible across agency offices and regions and to identify where local office initiatives to improve individual office procedures and processes are appropriate.
- Human Resources/Professional Development Center (HR/PDC), in coordination with OCIO, will develop enhanced ADAMS training based on employee roles.
- OCIO will work with offices to implement an office-specific mentoring program.
- OCIO will continue to pursue key changes to the ADAMS software in order to correct performance, stability, and functional issues identified by end users.<sup>3</sup>and<sup>4</sup>

The timing of the implementation of these changes is provided in the ADAMS Assessment Action Plan. While all of the above actions will address user feedback on issues affecting the effectiveness and efficiency of ADAMS implementation, the combination of transferring responsibility for the processing of documents into ADAMS and for document and data integrity to OCIO and installation of ADAMS Release 3.0 will address approximately 50 percent of the comments received from the staff. These actions, except for completion of the cleanup of the ADAMS database, will be completed in the first quarter of FY 2001.

#### ADAMS Functionality, Performance, and Reliability

OCIO presented information to the ADAMS Steering Group regarding ADAMS functionality, performance, and reliability, discussing the current situation with the system and the improvements associated with moving to the vendor's most current COTS products upon which ADAMS is built. An expanded discussion of this topic is provided as part of addressing Challenge Area 4.

#### **IV. CHALLENGE AREAS**

Ten challenge areas are identified:

1. Transfer responsibility for completing the processing of NRC-generated documents to OCIO
2. Improve ADAMS document and data integrity
3. Improve ADAMS as a search and retrieval system
4. Improve ADAMS functionality, performance, and reliability

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<sup>2</sup>(...continued)

integrity, modify templates to reflect data standards, improve data entry software, and clean up the database.

<sup>3</sup>(3a) Release schedule are identified in the ADAMS Action Plan. (3b) NRC needs for functional requirements not delivered in a current release of the vendors COTS software will primarily be pursued through initiatives with the Vendor's Product User Group.

<sup>4</sup>Software upgrades will also address public access issues.

5. Improve public access to ADAMS
6. Improve electronic document distribution software and processes
7. Improve and standardize agency business practices
8. Improve ADAMS training and user support
9. Improve ADAMS communications program and agencywide guidance
10. Conduct "lessons learned"; chart longer term course

## **V. ACTION PLAN**

The ADAMS Action Plan discusses each challenge area and presents the timing of key tasks to achieve challenge area results.

## **CHALLENGE AREA 1: Transfer Responsibility for Completing the Processing of NRC-Generated Documents to OCIO**

This challenge area includes tasks related to transferring responsibility for completing the processing of NRC-generated documents from the offices and regions to OCIO. Exceptions will exist for documents that are to be entered into ADAMS sensitive libraries unless the owners of those libraries decide to allow OCIO document processing contractor staff access to their documents.

The mutual roles and responsibilities of the NRC staff and OCIO and the procedures for processing these documents (Concept of Operations) will be developed by OCIO in coordination with the offices and the regions. The process for the regions may differ as compared to headquarters as a result of logistics.

The approach taken will need to preserve the original WordPerfect electronic files so that they are available for subsequent cut and paste and retrieval by NRC users. Although the individual staff burden will be significantly reduced, there will be some ongoing staff involvement in the process. This will include providing profile data that only the NRC staff can know about a document, such as its availability, sensitivity, and viewer access rights; the electronic file where it exists; and special processing instructions, where applicable. OCIO will complete the profile, including creating a descriptive title, scan all paper pages for the staff, declare the document as an official agency record, convert the submitted file to PDF format, and copy the document to the public access version of ADAMS on the specified release date.

The plan also includes the development of an issue paper on who will be responsible for filing documents electronically.

OCIO will phase in the processing of NRC-generated documents. Phase 1 will begin during October 2000 and will provide for manning of the Document Processing Center (DPC) by the existing contractor staff to process NRC-generated documents within the current contract processing ceiling. Concurrent with this phase, OCIO will modify the contract that provides this service to acquire additional staff and will secure space and equipment to support an expanded operation. Assuming needed resources are secured on schedule, Phase 2 will begin during November 2000, thus enabling the DPC to begin processing the remaining NRC-generated documents on an ongoing basis. A schedule will be established with each office and region based on their timeline to modify their existing operating procedures and the DPC's capacity.

### **Progress**

An ADAMS Working Group comprising Headquarters and Regional staff analyzed several approaches for submitting NRC-generated documents to OCIO's Document Processing Center (the DPC). The recommended approach has been designed to reduce burden on the staff and improve ADAMS data integrity and was endorsed by the ADAMS Steering Group and the Executive Council. The process for submitting documents to the DPC at Headquarters differs slightly from those of the regions and were tested separately. The 32 testers from 18 Headquarters offices participated in a live test of the new approach, and the process was fine tuned as a result of their input. The Regions also conducted live tests and their input was factored into their process. Specialized training was provided to document submitters. All NRC organizations have implemented the new way of doing business. Refinements are being made

to the process based on operational experience. Overall feedback from those who submit documents has been favorable.

A Headquarter’s ADAMS Document Submission Guide (ML010390031, cover letter ML010450071) was issued that provides a description of the process, the roles and responsibilities of those involved with the process, and step-by-step procedures for submitting documents to the DPC. A similar guide was issued for the regions.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Develop and refine Concept of Operations in coordination with offices.	Q4, FY 2000	Complete
Develop procedures for handling complex documents.	Q4, FY 2000 - Q1, FY 2001	Complete
Phase 1 – DPC begins processing NRC-generated documents within current contractor processing ceiling.	October FY 2001	Complete
Phase 2 - OCIO modifies contract and secures equipment, space, and contractor staff to process additional documents. DPC begins processing remaining NRC-generated documents.	November, FY 2001	Complete
Analyze and determine who should file documents electronically.	Q4, FY 2000	Complete

## **CHALLENGE AREA 2: Improve ADAMS Document and Data Integrity**

The objectives of this challenge area are to improve the integrity of the ADAMS database for recordkeeping, access and retrieval purposes. OCIO will be responsible for completing the processing of final NRC-generated records into ADAMS, with offices providing minimal profile data, the electronic files of created documents when they are available, and properly completing a document submission form, when applicable. Offices should ensure that the electronic files and/or paper documents submitted to OCIO are a complete and accurate representation of the document that is distributed and that the minimal profile data they provide regarding document sensitivity, availability, and access rights are accurate.

In order to improve the reliability and consistency of the ADAMS database, OCIO will perform consistency checks of submitted profile data, complete the profile in accordance with a set of data standards, and QA all indexing, scanned images, and the PDF conversion process in ADAMS.

In coordination with the offices, OCIO will develop a refined set of data standards in order to improve the consistency and reliability of profiling for subsequent search and retrieval. Examples of data standards include rules for document unitization (when documents should be individually indexed and when the package feature should be used), document titling conventions (standard formats for describing different document types in the title field), and report number conventions (standard formats for constructing report numbers for different document types). In order not to delay phasing in centralized processing of staff-generated documents, OCIO will process new documents in accordance with the then-existing set of standards.

Other tasks in this challenge area involve improving the quality of the current database. The database will be cleaned up over a period of time as data standards become available.

Both OCIO and office management should provide oversight over the tasks they execute. OCIO will perform audits, provide feedback to offices on trends and areas of weakness, and concentrate its resources on improving quality and consistency in the areas of most significance to the staff and the public. To improve the completeness and timeliness of ADAMS, OCIO has developed several standard searches that it and the offices can execute to perform this role. This capability will be made available to offices and included in ADAMS training.

### **Progress**

The ADAMS Steering Group has agreed on a clear delineation of responsibilities for document and data integrity, assigning each office and the OCIO a clearly defined role (shared accountability). These responsibilities are delineated in the ADAMS Document Submission Guide.

ADAMS Version 3.3 has special features that are being used by the Document Processing Center (DPC) and the OCIO staff to improve ADAMS data integrity. These features include data consistency checks on certain values in the data record to resolve problems before a document is declared an official agency record. For example, the software will not allow completion of the record declaration process if a document has inconsistent values dealing with a document's availability and sensitivity. In addition, the DPC performs 100% independent quality control of all document profiles and document scanning as part of processing newly submitted NRC-generated documents now as well as externally-generated documents.

We also have an effort underway to review profiles of existing records and make corrections to data values where appropriate. We are in the process of creating standard author and recipient affiliation tables and modifying all data records to reflect the values in those tables as well as refining data standards.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Monitor the completeness and the timeliness of ADAMS as the agency's official recordkeeping system. (OCIO and offices)	Ongoing	Ongoing
Install and administer ADAMS Release 3.0 data quality management software.	Q1, FY 2001-ongoing	Software installed; administration-ongoing
Refine standards needed for data integrity.	Q4, FY 2000 - Q2, FY 2001	Q2, FY 2002
Clean up the existing database	Q2, FY 2001 - until completed	Underway, to be completed Q4, FY 2002

### **CHALLENGE AREA 3: Improve ADAMS as a Search and Retrieval System**

This challenge area includes tasks related to improving ADAMS as a search and retrieval system. These tasks are subsumed under several other challenge areas but are highlighted here because of the importance of improving ADAMS as a search and retrieval system from the perspective of the end user.

As indicated in Attachment 2, the next ADAMS release, Release 3.0, is scheduled for installation in November 2000 and has a number of software fixes and enhancements designed to improve ADAMS search and retrieval functionality in searching for, viewing, and printing documents. This list has been expanded to change the default view of the result set retrieved through simple find and the document manager to provide users with more meaningful information on the documents retrieved.

The plan references all of the tasks related to Challenge Area 2 since ensuring consistent and complete cataloging of documents in ADAMS is necessary to successfully retrieve them. Both the Professional Development Center (PDC) and the ADAMS Customer Support Center staff will provide training opportunities for improving staff skills in this area.

Further improvements in search and retrieval functionality and performance are discussed as part of Challenge Area 4.

#### **Progress**

NRC's Professional Development Center has added a course on ADAMS search and retrieval to its course offerings and will be offering advanced search and retrieval training to NRC staff this fall. In addition, OCIO's Customer Support Center continues to provide individual ad-hoc training and training for small NRC office groups as requested. The Offices of Administration, Research, the Chief Information Officer, and the Office of the General Counsel are among those who have participated in group training sessions since the Action Plan was issued.

Full text search capability will be reenabled in the ADAMS Main Library for NRC staff by Q2, FY 2002.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Review user assessment input and determine whether any additional software changes should be included in ADAMS Release 3.0.	Completed	Completed
Fix full-text search feature in NRC staff version of ADAMS.	November, FY 2001	Q2, FY 2002
Execute all subtasks under "Implement Document and Data Integrity."	Q4, FY 2000 - ongoing	Continuing
Provide informal short training sessions on search and retrieval to office staff on an ad hoc basis. (ADAMS Customer Support Center staff)	Q4, FY 2000 - ongoing	On demand

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Deliver ADAMS Search and Retrieval courses. (Human Resources/ PDC)	Q2, FY 2001 - ongoing	Q1, FY 2002

## **CHALLENGE AREA 4: Improve ADAMS Functionality, Performance, and Reliability**

This challenge area includes tasks to (1) provide additional functionality to make ADAMS easier to use and to better ensure more effective and efficient support for agency business processes and public access, (2) improve system response time and availability, and (3) increase system stability and reliability.

These improvements will be brought about through the introduction of new releases of the ADAMS product. Three product releases have been identified at this time.

### **ADAMS Release 3.0**

Work is already well underway on the next major release of the system (ADAMS 3.0). This release will fix existing ADAMS custom code to address major ADAMS deficiencies identified during the first few months of actual production use by NRC staff and the public as well as provide for planned software enhancements. A detailed list of ADAMS 3.0 improvements is provided at Attachment 2.

### **ADAMS Release 4.0 and ADAMS Release 5.0**

ADAMS Release 4.0 will replace outdated versions of the COTS products that ADAMS is built upon in order to take advantage of product improvements made by the vendor over the past 4 years. OCIO's first goal is to achieve ADAMS performance and stability improvements. The results of the independent assessment of ADAMS referred to in Challenge Area 10 will be made available for Commission review prior to implementing Release 4.0.

ADAMS Release 5.0 will take advantage of features in the newer versions of the COTS product that will reduce the need for the current ADAMS custom code. ADAMS Release 5.0 will provide Web browser support, which will allow for more efficient desktop support and public/remote access without needing to use CITRIX. It should be noted that the Web browser provided by the newer version of the COTS product will still provide the same Windows "look and feel" that users see under the current ADAMS implementation. It will not satisfy those public stakeholders who prefer a Web application interface similar to Yahoo or Alta Vista. It does, however, provide the basic tools that would allow such an interface to be developed if required.

OCIO will accomplish these goals in three phases:

Phase 1: Migration Assessment - Perform a detailed assessment of what it will take to migrate Releases 4.0 and 5.0. This assessment will result in a more precise plan, schedule, and cost for meeting the goals.

Phase 2: ADAMS 4.0 - Replace existing COTS items with newer COTS products with little or no change to the custom code.

Phase 3: ADAMS 5.0 - Building on ADAMS 4.0, replace as much custom code with inherent COTS functionality as possible, streamline support, and improve public access.

### **Progress**

As a result of several steps taken, ADAMS performance and stability have improved dramatically on the NRC staff version of ADAMS. OCIO staff has developed test scripts to do performance testing against the Public Library and is employing software diagnostic tools to

assess the performance of ADAMS in the public environment. These efforts will further guide efforts to improve system response time and reliability of the Public Library.

OCIO has completed deployment of Version 3.3 of the ADAMS software to the NRC staff and the public. The upgrade fixes some of the software problems identified during early production use and incorporates high priority enhancements. Improvements include the ability to print page ranges of scanned (TIFF) files, the inclusion of a new viewer, and an added feature for on-line document ordering. Using this feature, the public can electronically mark documents of interest and transmit an order for them to the Public Document Room (PDR). The PDR staff has updated its on-line Users Guide to reflect the software changes.

Work is progressing well for ADAMS Version 4.0, scheduled for delivery in March 2002. Version 4.0 will move the NRC to the current version of the vendor's document management software that ADAMS uses. It will further improve system performance and availability and place NRC in a position to migrate in the future to a WEB-based user interface.

A Task Force is in place to conduct a root cause analysis of the recent inadvertent release of sensitive information to the public. In addition, OCIO is assessing the adequacy of existing system controls and identifying and implementing improvements as needed.

A new initiative has been added to improve public access that is discussed under Challenge Area 5.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Implement ADAMS 3.0: Correct problems with the existing custom code, implement planned enhancements, and include a limited number of software changes that address high-priority issues identified in the ADAMS User Assessment.	Q1, FY 2001	Complete
Migration Phase 1 - Assessment: Conduct migration study, leading to the development of detailed plans for a two-phased migration to newer versions of ADAMS COTS software (ADAMS 4.0 and ADAMS 5.0) and determine implementation schedule for ADAMS 4.0 and 5.0.	Q4, FY 2000	Complete
Migration Phase 2 - ADAMS 4.0: Replace existing COTS with latest vendor-supported versions to improve performance and stability.	FY 2001*	Q2, FY 2002
Migration Phase 3 - ADAMS 5.0: Use new COTS features (reduce reliance on custom code, assess advanced Web-enabling features).	TBD*	TBD

\*Implementation schedule will be determined by results of migration assessment

## **CHALLENGE AREA 5: Improve Public Access to ADAMS**

In the short term, implementation of ADAMS 3.0 will provide improvements to the public in terms of better performance and system reliability. It also will incorporate many of the software fixes requested by public users to the Public Document Room (PDR) librarians and will deliver planned software enhancements.

The public access version of ADAMS was implemented using then-existing COTS Filenet document management software. Although the NRC Web site provides public access to ADAMS, ADAMS is not a Web-based application; it is a Windows-based client-server document management computer system, which currently requires the user to download and install a plug-in software (CITRIX) for communication. In instances in which the user is in a business environment that has a firewall, it requires that the business open up some ports in its firewall to allow for communication with NRC's server. Although most organizations have made the necessary changes, this action is undesirable and is problematic for some organizations.

Filenet now has both a client-server and a Web-based version of its COTS product. The Web-based version has the same Windows-based "look and feel" of the public access version of ADAMS today but will allow for public/remote access without needing to use CITRIX or modify firewalls. NRC's transition to the newer Filenet products is described under Challenge Area 4. NRC has received feedback that the public interface could be better designed and simplified. Additionally, although some members of the public expect the robust functionality of a document management system currently delivered by the public access version of ADAMS and the former PDR Bibliographic Retrieval System, others members of the public desire a look and feel similar to Yahoo or Alta Vista.

Moving to the new versions of Filenet software will position the NRC to revisit its solutions to public access of its information since it allows us to use, as appropriate, a complement of new additional Filenet software products. These products include Web publishing software and Web portal software.

To address this challenge, OCIO will build on the agency's current Web redesign initiative and will closely interact with ADAMS stakeholders to determine their requirements for accessing ADAMS via the Web.

### **Progress**

OCIO has formed an ADAMS Public User Group that held its first meeting in July 2001. The group will be an important forum for two-way communication regarding the ADAMS system.

OCIO also has been receiving regular feedback from the public since ADAMS was released in 1999 through comments at its web site, conferences, and interactions with the Public Document Room staff. The Public Electronic Reading Room (PERR) Web page, which is the gateway for access to the ADAMS application, provides a description of each issue, suggested actions or interim solutions to address the issue where appropriate, and its status. Substantial progress has been made in addressing or resolving many of these issues. The centralization of processing of all newly received and created documents has resulted in consistent indexing, facilitating search and retrieval of this information. Upgrades to the software that generates PDF files and additional guidance to staff have minimized the instances where files need to be fixed to address corruption problems.

The deployment of the public version of the ADAMS 3.3 software has corrected software

problems and provided enhanced functionality. Some of the major changes provided with the recent deployment of ADAMS Version 3.3 are the inclusion of a new viewer that increases print speed and permits users to print page ranges in a scanned document; provision of additional formats in generating customized reports; and activation of a single icon from the bottom of the tool bar to print PDF files. In addition, the release includes a new feature that allows the public to mark documents from a search, specify the desired output (for example, paper or CD-ROM) and send their request via e-mail to the PDR's copy service.

Two public concerns in particular that remain are ease of use (user interface) and the need to download software for communication (CITRIX) and open up additional ports if the organization accessing ADAMS has a firewall in place. While the ADAMS Action Plan envisioned that NRC would have to wait until ADAMS 5.0 to address these issues, an alternative approach for providing earlier WEB based access has been adopted. This approach allows for a WEB based search and retrieval engine to access documents from the repository. It will not require the use of CITRIX. The capability will be delivered as a prototype in early FY 2002, providing the public with another way to access NRC documents electronically in addition to the existing ADAMS system.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Improve functionality by delivering software fixes and enhancements in ADAMS 3.0 (see Challenge Area 4).	November, FY 2001	Completed
Establish an external stakeholder focus group and determine requirements to redesign the public access system (timing dependent on budget decisions)	Q4, FY 2001 - Q1, FY 2002	Focus Group-Completed; Requirements definition - TBD
Implement ADAMS 5.0 - Public access directly via Internet browser (no CITRIX), additional functionality (see Challenge Area 4)	TBD*	TBD

\*Implementation date will be established as part of migration assessment.

## **CHALLENGE AREA 6: Improve Electronic Document Distribution Software and Processes**

This challenge area includes tasks to improve electronic document distribution of (1) incoming mail and (2) NRC-generated documents that are being sent to NRC addressees and cc's. It also recognizes that being able to view and print a delivered document quickly and efficiently is an integral part of the document delivery process.

### **(1) Incoming Mail**

The plan begins by analyzing and refining the current processes of delivering documents to either individual E-RIDS mailboxes or organizational E-RIDS mailboxes based on distribution lists and the approach established by each organization. An integral part of that analysis will be identifying improvements to the software that support the process. Potential software improvements will be addressed as part of planned releases. The November release of ADAMS 3.0 includes a more complete description in the e-mail message of the document being distributed and a number of software fixes related to viewing and printing documents. OCIO also will be installing the next version of GroupWise in the fall, which will fix the "send to" problem.

Concurrent with these improvements, the plan includes an agency initiative to improve individual office procedures and processes for handling incoming mail while standardizing processes, where possible, across agency offices and regions. This task will be executed under Challenge Area 7.

### **(2) NRC-Generated Documents**

Use of ADAMS for internally distributing NRC-generated documents will be suspended and phased in at a later date. The tasks include analyzing NRC's document population to determine the appropriate method (e-mail, ADAMS) of efficiently distributing categories of documents and then redesigning the process. The earliest that software improvements could be considered for incorporation would be in ADAMS Release 4.0.

## **Progress**

OCIO installed a new version of GroupWise, which fixed a problem related to NRC staff sending a pointer of an ADAMS document electronically to internal agency recipients. With ADAMS Version 3.3, we changed software so that it provides a full description of an externally generated document being distributed electronically to NRC staff. The ADAMS Steering Group has endorsed an approach to improve the process for electronically distributing NRC-generated documents that will be implemented in fall 2001.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Improve software and processes to receive and distribute incoming mail.	Q1, FY 2001	Completed
Evaluate and refine existing agency and individual office E-RIDS implementations.	Q4, FY 2000 - Q1, FY 2001	

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Install next version of GroupWise, which will fix "send to" problem.	Fall, FY 2000	Completed
Evaluate and refine existing agency approach and recommend software improvements to support internal electronic distribution of NRC-generated documents.	Q2, FY 2001 - Q3, FY 2001	Q4, FY 2001 - Q1, FY 2002
Phase in electronic distribution by category using appropriate method (e-mail, ADAMS).	TBD	Q1, FY 2002

## **CHALLENGE AREA 7: Improve and Standardize Agency Business Practices**

This challenge area includes tasks related to analyzing and improving core NRC business practices to optimize the effective assimilation and utilization of electronic recordkeeping and distribution technologies (ADAMS and E-RIDS). It will be led by the Office of the EDO, with the participation of appropriate stakeholder offices and OCIO.

Key elements of this effort will be to:

- Define the functional areas for business process analysis and improvement efforts (e.g., mail handling and distribution, licensing, inspection). In large part, these areas may be drawn from the NRC Enterprise Model and supporting documentation.
- Collect, document, and analyze the “as-is” state for each process. The most meaningful or helpful “as-is” model may reflect the way the process was carried out before ADAMS. The analysis will emphasize identification of areas of potential or appropriate process standardization across some domain of organizational units.
- Develop improved processes, with the goal of consistency and standardization, and an approach to implement them in a phased manner.
- Identify and address critical change management issues to accomplish successful implementation.

### **Progress**

A Work Group of representatives from 10 key stakeholder offices reviewed two core agency business processes that require integration and use of ADAMS and one business process related to ADAMS support. The three processes were (1) the SECY-controlled Commission correspondence process, (2) the internal document distribution process, and (3) the ADAMS service request, response, and closure process. The group focused on—  
the similarities and differences in how individual offices carried out these processes, whether ADAMS was part of the process and, if so, whether issues or problems resulted from the use of ADAMS; and  
whether overall improvements can be made to resolve any problems resulting from use of ADAMS.

The report was released in May 2001.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Assemble agency team for initiative (OEDO).	Q4, FY 2000	Completed
Put contractor support in place.	Q1, FY 2001	Completed
Define the functional areas for business process analysis and improvement efforts.	Q1, FY 2001	Completed
Collect, document, and analyze the “as-is” state for each process area (evaluate current office practices).	TBD	Completed

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Redesign and document methods and procedures.	TBD	Pending guidance from ADAMS Steering Group
Address change management issues and make necessary changes to enable implementation of improved processes.	TBD	Pending guidance from ADAMS Steering Group
Implement improved processes.	TBD	Pending guidance from ADAMS Steering Group

## **CHALLENGE AREA 8: Improve ADAMS Training and User Support**

This challenge area includes tasks to improve ADAMS training and user support. In the training arena, it is designed to deliver short training modules covering both software and procedures that NRC users can register for on the basis of their roles. Building on the concept of roles, it also includes a task for offices to implement an office-specific mentoring program in which individuals who become experts in executing particular roles can provide onsite assistance to their colleagues.

The plan also provides for OCIO to incorporate many of the suggestions of offices in updates of the ADAMS Desk Reference Guide.

### **Progress**

Effective May 2000, NRC's Professional Development Center modified its initial course offerings for ADAMS for NRC staff. The offerings currently include a 1-day refresher course on ADAMS for new users, a half-day course on searching the main library, and a 1-day course on effectively using ADAMS. Training is also provided on using Foremost, the records management package, for records managers and the DPC staff who are electronically filing agency documents and performing other records management functions.

The PDR staff has updated the ADAMS User Guide to reflect changes in Version 3.3 of the ADAMS software, that was deployed in August 2001. The PDR continues to give on-demand one-on-one and group sessions on using the software at NRC's headquarters in Rockville, Maryland. In addition, the PDR provides toll-free telephone assistance to the public on how to use the ADAMS software and will act as a surrogate for the public, conducting searches on their behalf.

In support of the new approach for processing NRC-generated documents, OCIO developed and delivered a training program for Headquarters employees who submit documents. At their request, OCIO also provided training for document originators in offices. Regional staff received comparable training.

The OCIO and the Professional Development Center (PDC), in coordination with the ADAMS Steering Group, is developing employee role-based courses (e.g., the role of staff who enter documents into ADAMS or submit documents to the DPC) that will be offered in the fall and winter of 2001 and will replace the existing courses. These hands-on courses will take into account agency operational experience and be more focused in terms of audience and course content.

No work has yet been done on developing an office-specific mentoring program.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Provide onsite assistance to regions and headquarters offices in using the system effectively.	Ongoing	Ongoing
Refine and update the ADAMS Desk Reference Guide with each new planned software release.	Q1, FY 2001 - FY 2001	Complete for current release

Develop and deliver ADAMS record custodian training (Foremost).	Q4, FY 2000 - Q2, FY 2001	Complete
Design ADAMS refresher training modules on the basis of employee roles.	Q4, FY 2000	Complete
Develop and deliver training modules based on previous analysis (includes search and retrieval courses). Coordinate the schedule for providing training with other training initiatives, such as training on revised reactor oversight training.	Q4, FY 2000 - Q3, FY 2001; then ongoing	Q4, FY 2001 - Q2, FY 2002; then ongoing
Implement an office-specific mentoring program (offices).	Q2, FY 2001 - ongoing	On Hold

## **CHALLENGE AREA 9: Improve ADAMS Communications Program and Agencywide Guidance**

To date, OCIO has communicated with the NRC staff on the ADAMS Program through the PDC ADAMS Overview course, question and answer sessions in the auditorium, participation in local office ADAMS Working Group meetings, development of an internal Web site, and meetings with office-designated ADAMS representatives called ADAMS Partners. In addition, OCIO has sponsored or participated in several meetings with the public, the industry, and industry associations regarding public access to ADAMS and NRC's electronic information exchange program. The formation of the ADAMS Steering Group and the development and update of the ADAMS Action Plan represent other more recent vehicles for communicating within the NRC.

Effective communication represents the biggest challenge of the ADAMS Action Plan, particularly in light of the significant number of other tasks to be executed by OCIO as part of the plan. OCIO will refine its communication strategy and publish a Communications Plan that addresses continued communication with both the NRC staff and the public. The offices, as well as OCIO, must strive for effective two-way communication in order to ensure the effective use of ADAMS and must show leadership as change agents.

Currently, the PDR receives feedback from the public which is provided to the ADAMS Project Team. Followup e-mails are sent and meetings are held as appropriate to provide information and a response to specific feedback. The Action Plan expands this effort by establishing an ADAMS Public Users Group of public stakeholders. It also continues NRC's holding and participating in public meetings in which the public availability of NRC documents is discussed.

The plan includes a task for evaluating and refining the current approach of working with offices collaboratively through the ADAMS Partner structure. OCIO will be asking offices to suggest ways of strengthening this structure or replacing it with an alternative approach that may be more effective now that ADAMS is operational.

OCIO will continue to coordinate with ADAMS Partners, or the replacement structure, in executing many of the tasks under the Action Plan. Where appropriate, OCIO will endeavor to incorporate stakeholder input before making changes, although this goal will need to be balanced by the need to achieve progress in executing the tasks under the ADAMS Action Plan.

### **Progress**

The ADAMS Steering Group of senior level agency managers has continued to meet regularly to evaluate alternatives, recommend or endorse approaches, and develop consensus on the direction of the ADAMS program.

Today we have a number of mechanisms in place to communicate with target audiences. An initiative is underway to assess the effectiveness of existing communication mechanisms and develop a plan to improve communication regarding the ADAMS program. We anticipate at the ADAMS Steering Group will adopt a communication strategy/plan by Q2 FY 2002.

In the meantime, OCIO continues to communicate with managers and employees through its

internal ADAMS Web site, publication of the ADAMS newsletter, network announcements, specialized training, and meetings on discrete topics. The Public Document Room staff continues to act as the communications liaison with public users. Announcements to the public are posted on the public Web site. OCIO demonstrated use of ADAMS Version 3.3 at the Regulatory Information Conference and provided an update on ADAMS at a public confidence session. In addition, an ADAMS Public User Group has been formed and held its first meeting in July 2001.

We issued an updated ADAMS Desk Reference Guide to reflect changes and features of the ADAMS Version 3.3 software and underlying agency policies and procedures and updated the Public User Guide as well. Because of resource constraints, the OCIO has not yet revised applicable management directives.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Refine and publish communications plan.	Q4, FY 2000	Q2, FY 2002
Meet with offices/regions to discuss input to Chairman.	Q4, FY 2000 - Q2, FY 2001	Complete
Establish ADAMS Users Group of public stakeholders.	Q1, FY 2001	Complete
Meet with public stakeholders after implementation of ADAMS Release 3.0 to obtain feedback and to provide information on plans.	Q1, FY 2001	Q1, FY 2002
Evaluate and refine approach to working with offices collaboratively.	Q4, FY 2000	Q2, FY 2002
Communicate procedural changes resulting from implementation of Action Plan tasks to user community.	Ongoing	Ongoing
Provide quarterly progress reports to the Steering Group and the Commission.	Ongoing	Ongoing
Refine and update the ADAMS Desk Reference Guide with each new ADAMS software release.	Q1, FY 2001 - ongoing	Complete
Revise and update applicable directives (in lieu of updating the existing ADAMS Policy and Procedures Handbook) (OCIO). Revise and update applicable directives, as appropriate (other offices).	Q2, FY 2001 - ongoing	On Hold

## **CHALLENGE AREA 10: Conduct “Lessons Learned”; Chart Longer Term Course**

This challenge area will assist the ADAMS Steering Group in setting the long-term future direction of the ADAMS program and the agency’s use of electronic document management technology. This assessment will be performed with the assistance of an independent consultant.

The first task captures the ADAMS post-implementation/lessons learned review, which will be conducted as an integral part of the agency Capital Planning and Investment Control (CPIC) process. The purpose of this review is to --

- Examine the project execution and results compared with the baseline cost, staffing, schedule, and performance goals laid out in the ADAMS CPIC Analysis.
- Identify what modifications to the project are now warranted to obtain the originally projected benefits and what the estimated costs of the modifications are.
- Describe what problems have been encountered and how they were solved.
- Identify what the sponsor would have done differently.
- Identify what lessons were learned that might help future projects.
- Identify how the CPIC process can be improved to incorporate lessons learned.

The remaining tasks focus on charting the future direction of the agency in terms of its use of electronic document management technology. They will entail stepping back and examining the original ADAMS vision laid out in the CPIC, examining then-current operational experience, assessing the COTS vendors’ then-current products from a capability standpoint versus NRC’s requirements, and determining how NRC wants to proceed in further incorporating document management technology in its work environment. The agency will utilize the services of a consultant to conduct an independent assessment of ADAMS to determine whether it is on an appropriate pathway to establish an electronic document management system to meet its long-term needs. This assessment will be completed within the first 6 months of FY 2001 so that the results of the assessment are available for Commission review prior to implementing ADAMS Release 4.0.

### **Progress**

The OCIO conducted an post-implementation and lessons-learned review as an integral part of the agency’s Capital Planning and Investment Control (CPIC) process. The findings are being considered in the ongoing refinement of the agency’s CPIC process.

An independent consultant conducted an assessment of ADAMS to determine whether the agency is on an appropriate path toward establishing an electronic document management system to meet the NRC’s long-term needs.

<b>Tasks</b>	<b>Original Timing</b>	<b>Current Timing</b>
Conduct ADAMS CPIC post-implementation review/lessons learned and issue report.	Q1, FY 2001- Q2, FY 2001	Complete
Evaluate the use of electronic document management technology.	Q1, FY 2001 - Q2, FY 2001	Complete
Develop a phased implementation plan to address the results of the evaluation.	Q2, FY 2001 - Q3, FY 2001	Complete
Execute the phased implementation plan.	TBD	TBD