

ATTACHMENT 3

NRC/DOE

Electronic Submissions

Technical Exchange



Las Vegas, Nevada
December 10, 2002



Agenda

- Introduction – NRC
- High-Level Waste (HLW) Information Architecture – NRC
- Electronic Information Exchange (EIE) Update – NRC
- Electronic Hearing Docket (EHD) Update – NRC
- Electronic Courtroom Update – NRC
- Technical Issues with a Potential Electronic License Application (LA) Submission and Other Large Documents Update – NRC
- Response to Action Items for June 2002 Electronic Submissions Technical Exchange – NRC
- DOE's Experience, Progress, and Solutions in Delivering Large Documents to the Public – DOE
- Status of NRC's Effort for Putting Its Documentary Collection Out on the Licensing Support Network (LSN) – NRC
- Sensitive Homeland Security Information Processing Controls – DOE



NRC/DOE Meeting on Electronic Submissions

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High-Level Waste (HLW) Information Architecture

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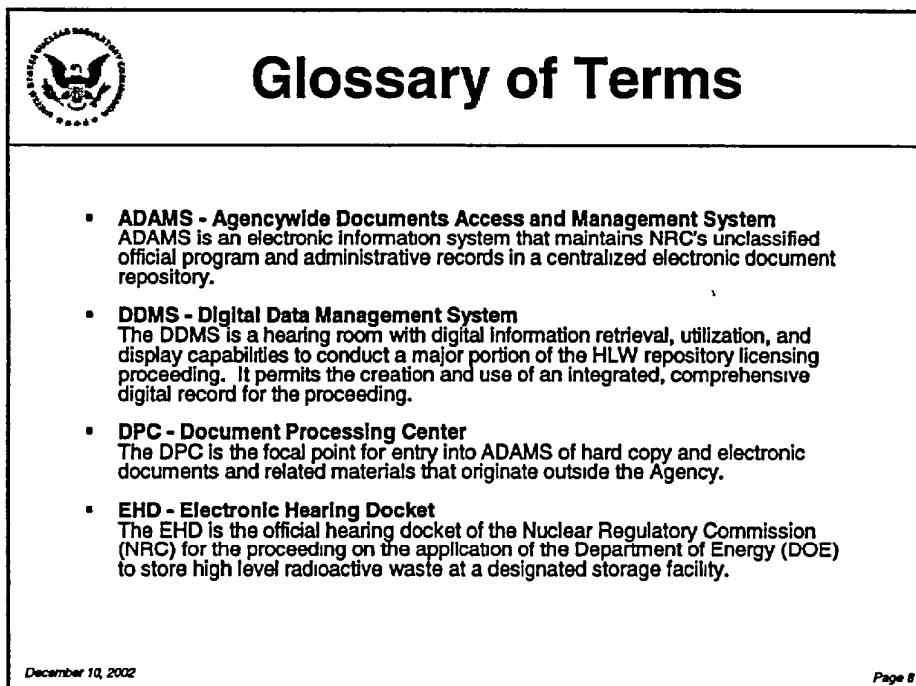
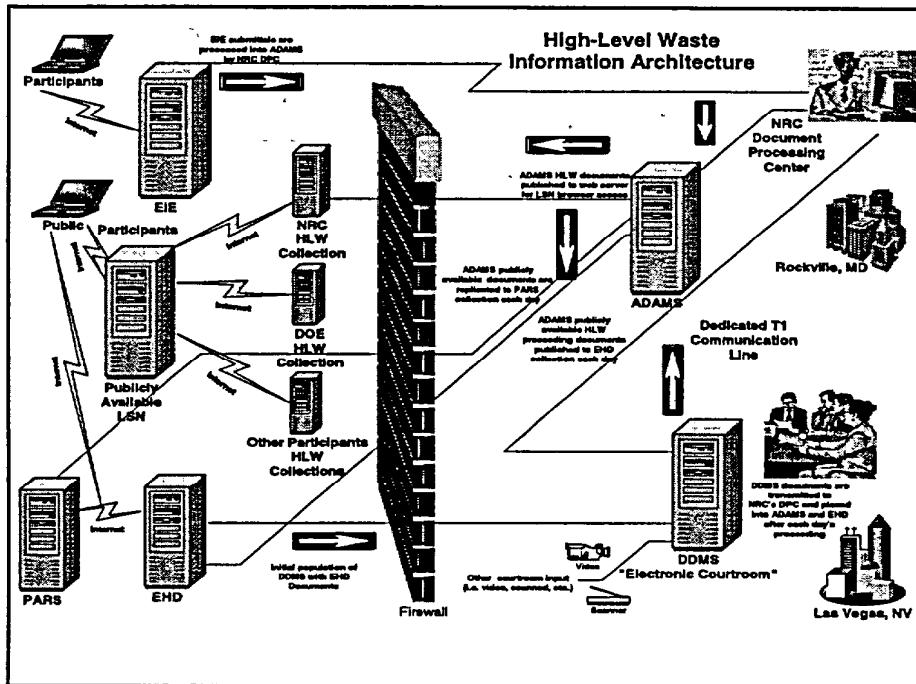


About This Presentation

Will provide a conceptual overview of the various information collections that will be used to support the HLW proceedings.

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Glossary of Terms (cont'd)

- **EIE - Electronic Information Exchange**
NRC's EIE allows NRC to exchange material related to official agency business with its customers and other Federal agencies across the Internet. The EIE system uses public key infrastructure and digital signaturing technology to authenticate documents and validate the person submitting the information.
- **HLW - High-Level Waste**
High-level radioactive wastes are the highly radioactive materials produced as a byproduct of the reactions that occur inside nuclear reactors.
- **LSN - Licensing Support Network**
The LSN provides a single place where the parties and potential parties to the licensing hearing can search for documents from any/all of participant collections in a uniform way.
- **PARS - Publicly Available Records System**
PARS is the public's version of ADAMS, an information system that provides access to all documents made public by the NRC since November 1, 1999. Several hundred new documents are added daily. Permits full text searching and the ability to view document images, download files, and print locally.

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Electronic Information Exchange (EIE) Update

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Presentation Outline

- Current EIE Environment
- New Activities
- Adjudicatory Pilot
- E-Rule Update
- Future Activities

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Current EIE Environment

Definitions

■ Electronic Information Exchange (EIE)

Allows NRC to exchange material related to official agency business with its customers and other Federal agencies across the Internet. The EIE system uses public key infrastructure (PKI) and digital signing technology to authenticate documents and validate the person submitting the information.

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Definitions (cont'd)

■ Portable Document Format (PDF)

- Adobe® PDF is a universal file format that preserves all the fonts, formatting, graphics, and color of any source document, regardless of the application and platform used to create it.

■ Tagged Image File Format (TIFF)

- A tag-based image format. TIFF is designed to promote universal interchanges of digital images.

■ Public Key Infrastructure (PKI)

- The architecture, organization, techniques, practices, and procedures that collectively support the implementation and operation of a certificate-based public key cryptographic system.

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Definitions (cont'd)

■ Digital Signature

- A transformation of a message using an asymmetric cryptosystem such that a person having the initial message and the signer's public key can accurately determine whether the transformation was created using the private key that corresponds to the signer's public key and whether the message has been altered since the transformation was made.

■ Digital Certificate

- An electronic verification that allows for PKI use. The certificate has security requirements that cannot be compromised by other than fraud.

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Regulatory Issue Summary

■ EIE implemented by Regulatory Issue Summary (RIS) 2001-05, "Guidance on Submitting Documents to the NRC by Electronic Information Exchange or on CD-ROM," dated January 28, 2001

■ The RIS:

- Allows for voluntary electronic transmission for Part 50 submittals
- Defines the current EIE system and alternate use of CD-ROM
- Gives guidance to licensees submitting regulatory documents electronically
- Does not apply to submittals in NRC adjudicatory proceedings

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EIE System

- Files limited to 15 megabytes (Mb) per transmission
- Allows option to submit larger documents (over 15 Mb) in CD-ROM
- No paper copy need accompany EIE or CD-ROM submittals
- Uses digital certificates and signatures
- Expanded to include some Part 40 and 70 submittals

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EIE Accepted Formats

- Adobe® PDF
- Corel® WordPerfect
- Microsoft® Word
- ASCII
- Multi-page TIFF
- Corel® Presentations
- Corel® Quattro Pro
- Microsoft® Excel
- Microsoft® PowerPoint

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EIE Preferred Formats

- PDF Image + Text
- PDF Normal
- PDF Image
- Multi-page TIFF

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EIE Parameters

- No more than 15 Mb per submittal
- No:
 - Classified material
 - Safeguards information
 - Privacy Act information
 - Other non-public documents
- Only acceptable browsers (see NRC web site for versions) are:
 - Netscape
 - Internet Explorer

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Digital Certificates

- Available online
- Submitters must be authorized and name provided on an Authorized Certificate List
- Digital certificate requests are reviewed and approved by the NRC
- Digital certificate is provided by the NRC

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Digital Signatures

- Required for documents submitted under oath and affirmation
- Not required for other submittals
- Each submittal must have a "secure transmittal authorization" by an individual who is on the Approved Certificate List

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http://www.nrc.gov

The screenshot shows the official website of the U.S. Nuclear Regulatory Commission. The top navigation bar includes links for "Home", "About Us", "What We Do", "Regulations", "Inspections", "Enforcement", "Public Involvement", "Newsroom", "Contact Us", and "Search". Below the navigation is a section titled "What's Happening" with a list of recent news items. A "Headlines" section follows, featuring two news stories from June 18, 2002, and June 17, 2002. To the right, there is a sidebar titled "NRC News and Documents" with a "Key Topics" list. The sidebar also includes links to "Glossary", "Regulatory Issues", "NRC Staff", "Media Safety", "Particular Issues", "Radiation Protection", "Radiation Sources", and "Transportation of Nuclear Materials".

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**http://www.nrc.gov/
site-help/eie.html**

This screenshot displays the "Electronic Information Exchange" help page. The top navigation bar is identical to the main NRC site. The main content area is titled "Electronic Information Exchange" and contains several sections: "Recent Users", "First Time Users", "System Components", "System Architecture", and "Administrative Portals". A detailed description of the EIE system follows, explaining its purpose as a secure platform for exchanging material between government agencies and industry. It highlights features like digital signatures, audit trails, and secure communication. A "Latest News" section provides updates on EIE milestones. A sidebar on the right is titled "EIE Home" and includes sections for "CHARTERED HISTORY", "PARTICIPANTS", "How to Use EIE", "System Components", "Currents", "Administrative Portals", and "Administrative Contact".

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General Submission Page

The screenshot shows a web-based form for submitting documents. At the top, there are buttons for 'Search', 'Submit', and 'Print'. Below this is a logo for the Nuclear Regulatory Commission and the text 'Electronic Information Exchange'. The form is divided into several sections:

- Document Information:** Includes fields for 'Document Name' (e.g., 'ABC Headquarters Document'), 'Type' (e.g., 'Report'), and 'Category' (e.g., 'Administrative').
- Author Information:** Fields for 'Last Name', 'First Name', 'Middle Initial', and 'Title'.
- Editor Information:** Fields for 'Last Name', 'First Name', 'Middle Initial', and 'Title'.
- Information Exchange:** A large text area containing detailed instructions about the document submission process.

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Adjudicatory Pilot Submittal Form

The screenshot shows a more complex document submission form. At the top, it says 'U.S. Nuclear Regulatory Commission'. The form is organized into several sections:

- Document Information:** Fields for 'Document Name' (e.g., 'ABC Headquarters Document'), 'Type' (e.g., 'Report'), and 'Category' (e.g., 'Administrative').
- Author Information:** Fields for 'Last Name', 'First Name', 'Middle Initial', and 'Title'.
- Editor Information:** Fields for 'Last Name', 'First Name', 'Middle Initial', and 'Title'.
- Information Exchange:** A large text area containing detailed instructions about the document submission process.

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Notification of Document Transmission

The screenshot shows an email client interface with a message titled "Subject: New document available for docset TEST-DOCKET". The message body contains the following text:

Subject: New document available for docset TEST-DOCKET
Sender: jas1@nrc.gov<jas1@nrc.gov>
From: "jas1@nrc.gov<jas1@nrc.gov>"<jas1@nrc.gov>
Date: Mon, Dec 16, 2002
To: "jwong@nrc.gov<jwong@nrc.gov>"
X-Mailer: Java 4.2.0 Free Version by Oracle
X-NHC-Advertisement: Item Deleted-Finalized in Std by admin user PAAC3725
As an individual on the receive list of interested parties for docset TEST-DOCKET, you are hereby notified of the availability of the document "Test Document". To review the document, please use the following URL:
<http://www.nrc.gov/readingroom/docset/TestDocument.html>
Please: File size is 10 KB

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Electronic Information Exchange

The screenshot shows a "Group Membership" page with the following fields:

User Info: John Skotzlas, jas1@nrc.gov

Group Name: EIE Administrators

EIE Managers:

EIE Users:

Member:

Buttons: Update | Cancel

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Electronic Information Exchange

Edit User	
Last Name	Skoczes
First Name	John
Email(exactly as it appears in certificate)	jes1@nrc.gov
Affiliation Code	NRC
Certificate ID	
Activation Date	
Expiration Date	
<input type="button" value="Update User"/> <input type="button" value="Cancel"/>	

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Electronic Information Exchange

Date Received	Document Title	Author	Email	Links Deleted
2002-11-29 07:25:09	NRC Response to Requester	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (I) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (O) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (P) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (Q) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (R) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (S) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (T) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (U) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (V) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (W) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (X) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (Y) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information (Z) of Q-QB-017 CCNPP	Damon E Turner	d.turner@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information for Q-QB-017 & Q-QB-018	Almoner S Witz	witz@nrc.gov	Not Deleted
2002-11-29 07:25:09	Proposed Information	Damon E Turner	d.turner@nrc.gov	Not Deleted

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Electronic Information Exchange

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Fingerprint Submission Form



U.S. Nuclear Regulatory Commission

Fingerprint Submission Form

Instructions: Fill out the entire form, attach a document, Digitally sign the form and then press Submit.

Document ID:	No Docket
Document Title:	[Redacted]
Date of Submission:	[Redacted]
Attachment Type:	Checklist
New Attachment:	[Redacted]
Review Period:	\$0.00
Payment Method:	Select a Payment Type
Proceedings Filing:	[Redacted]
Print Statement:	All Docket Name in Attached Document
Submit Document	

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Security Response Form



U.S. Nuclear Regulatory Commission

Security Response Form

Instructions: Please enter your response to licensees regarding their original fingerprint submission. Fill out the following fields and click the "Submit Document" button at the bottom right.

Document Title: NRC Response to Fingerprint

Date of Response:

Comments:

Recipient Email Address: lsacm@ppd.com

Attachment Information:

NRC Signature Options: Click Here to Digitally Sign Form

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DOE Participation in EIE

- DOE may participate in the current EIE process
- Current process has number of constraints
- Submissions limited to 15 Mb
- Larger documents could be submitted via CD-ROM

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New Activities

- All EIE requirements are being revalidated and new requirements are being identified.
- Transmission of large documents is being tested.
- NRC is coordinating with GSA to identify the usefulness of being part of the Gateway Project.

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Adjudicatory Pilot

- The Adjudicatory Pilot has begun and documents have been sent and received.
- The administrative as well as the technical processes are being tested.
- Results will be published at the conclusion of the pilot.

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E-rule Update

- NRC issued a direct final rule titled "Electronic Maintenance and Submission of Information" (E-rule) on 9/6/02.
- The E-rule would have amended NRC's regulations to clarify when and how applicants, licensees, and other members of the public might communicate with the NRC electronically.

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E-rule Update (cont'd)

- The E-rule intended to bring the NRC further into compliance with the Government Paperwork Elimination Act (GPEA).
- NRC received significant comments on the rule.
- The NRC is withdrawing the direct final rule and will consider any comments received as comments on the companion proposed rule that was published at the same time.
- The comment period closed October 21, 2002.

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Future Activities

Changes to the current EIE environment will be made based on:

- New requirements identified
- E-rule comments
- Security
- New technologies identified

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Electronic Hearing Docket (EHD) Update

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Summary of NRC Efforts to Establish an Electronic Hearing Docket (EHD) for a Potential HLW Proceeding

- 10 CFR Part 2, Subpart J Compliance**
- EHD on the internet**
- New Developments for EHD**
- Future EHD Activity**

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10 CFR Part 2, Subpart J Compliance

■ Electronic Docket Establishment

- Secretary will establish an electronic docket for the HLW proceeding commencing with the docketing of the DOE application (10 CFR 2.1013(a))
- Secretary must determine that the application is accessible through the electronic docket (10 CFR 2.1012(a) and 2.1013(a))
- Electronic docket will also serve as the pre-application docket for filings in disputes on document availability during the pre-license application phase (10 CFR 2.1010(d))

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10 CFR Part 2, Subpart J Compliance (cont'd)

■ Document Submission Requirements

- Filings are to be submitted to the docket using a password security code for electronic submission (10 CFR 2.1013(c)(1))
- Filings are to be submitted in searchable full-text, or, if not suitable for submission in searchable full-text, by header and image as appropriate (10 CFR 2.1013(a)(2))
- Filings are to be served on the participants in the proceeding electronically (10 CFR 2.1013(c)(1))
- Proof of service of filings will be satisfied when the sender of the electronic document receives an electronic acknowledgement from the recipient (10 CFR 2.1013(c)(4))

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10 CFR Part 2, Subpart J Compliance (cont'd)

- Content of the Electronic Hearing Docket (EHD)
 - Filings that are typically found in an NRC adjudication (10 CFR 2.1013(a)(2)). A description of the contents of a docket for a typical proceeding is found on the NRC/EHD web site at <http://ehd.nrc.gov/EHDpublic/browser.asp>)
 - Orders of the Commission or Presiding Officers (10 CFR 2.1013(c)(5))
 - Transcripts of proceedings and hearing exhibits (10 CFR 2.1013(b))

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EHD on the Internet

- Located on the NRC web site (<http://www.nrc.gov/reading-rm/ehd.html>)
- Location allows direct access to the docket
- Contains folders
 - Folders will contain filings, orders, transcripts, exhibits, and protective order documents
- Search capability
 - Full-text
 - Document attributes
 - Scroll through folder content

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New Developments for EHD

- Pilot to test submittal of documents through EIE
 - Will test the submission of filings
 - Will test filing notification
 - Will test the service list function
- A web-based search interface with full-text search capability has been developed for ADAMS and will be applied to EHD

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Future EHD Activity

- Development of an EHD, EIE, ADAMS, and DDMS interface
- Further development of folder scheme for organizing HLW filings

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ACCESSING THE HIGH-LEVEL WASTE ELECTRONIC HEARING DOCKET

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Start at NRC Home Page

The screenshot shows the NRC Home Page with the following visible content:

- What's Happening:**
 - News and Information
 - Public Meeting Schedule
 - Live NRC Meeting Webcast
 - Current Rulemakings
 - Power Reactor Status Report
 - Event Notification Report
 - What's New at the Site
- Headlines:** June 18, 2002
- NRC Plans and Performance:**
 - Davis Besse/Reactor Vessel Head Degradation
 - High-Level Waste Disposal
 - Nuclear Security
- Key Topics:**
 - Davis Besse/Reactor Vessel Head Degradation
 - High-Level Waste Disposal
 - Nuclear Security

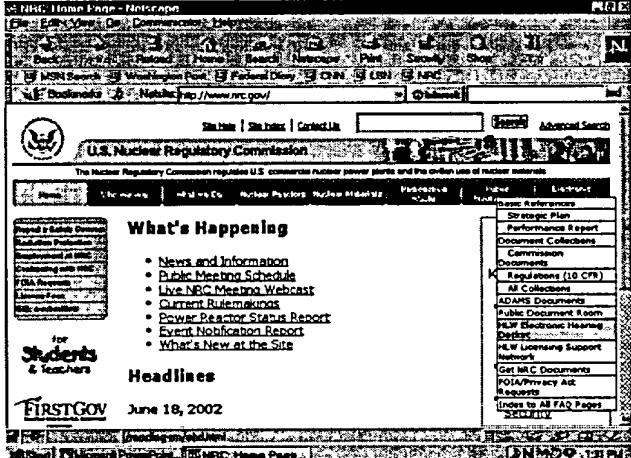
Figure 1

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Click on the Electronic Reading Room tab and select HLW Electronic Hearing Docket



The screenshot shows the official website of the U.S. Nuclear Regulatory Commission (NRC). At the top, there's a navigation bar with links like 'Home', 'About NRC', 'Public Notices', 'Nuclear Powerplants', 'Regulations', 'Public Reference', 'Commission', 'Documents', 'Regulations (10 CFR)', 'EAD', 'ADAMS Documents', 'Public Document Room', 'HLW Electronic Hearing Docket', 'HLW Licensing Support', 'Help', 'Get NRC Documents', 'FOIA/Privacy Act Requests', and 'Index to All FAQ Pages'. Below the navigation, there's a section titled 'What's Happening' with a list of news items. Further down, there's a 'Headlines' section and a 'FIRSTGOV' logo. On the left side, there's a sidebar for 'Students & Teachers' with various links.

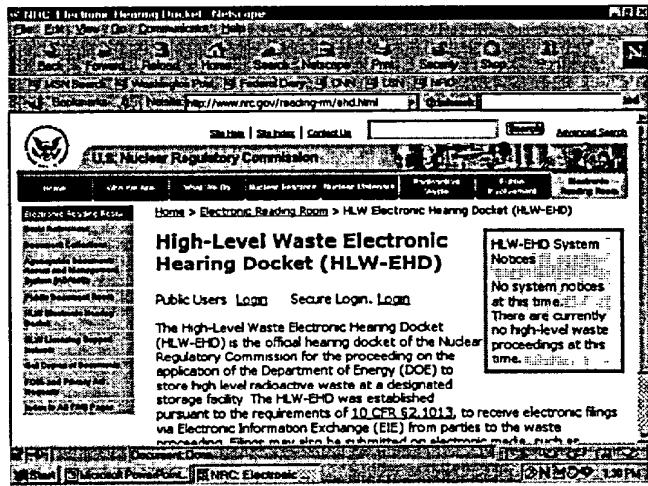
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Figure 2

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Click on Login for Public Users

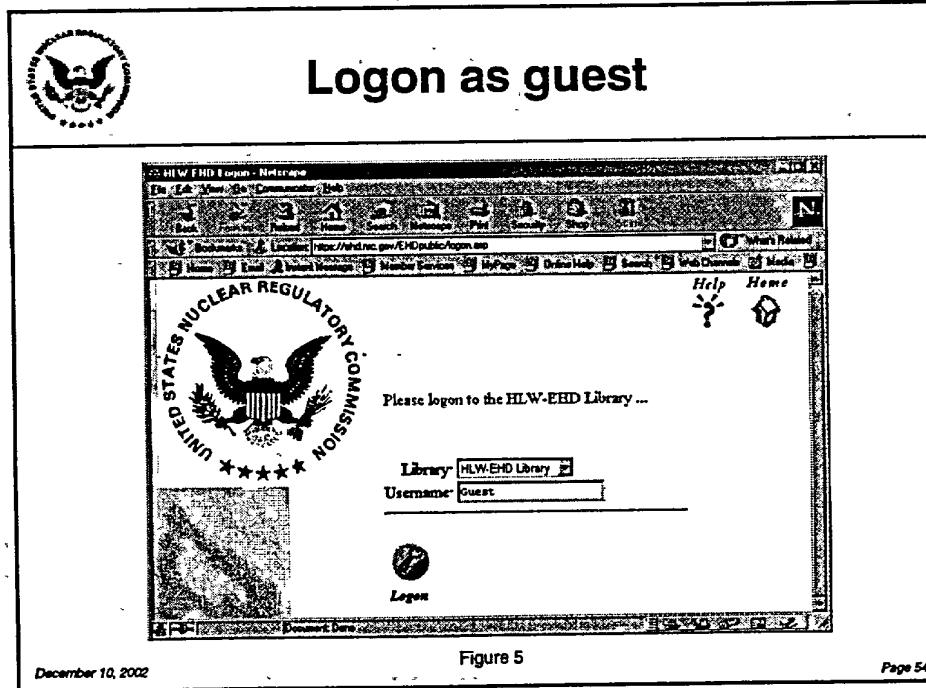
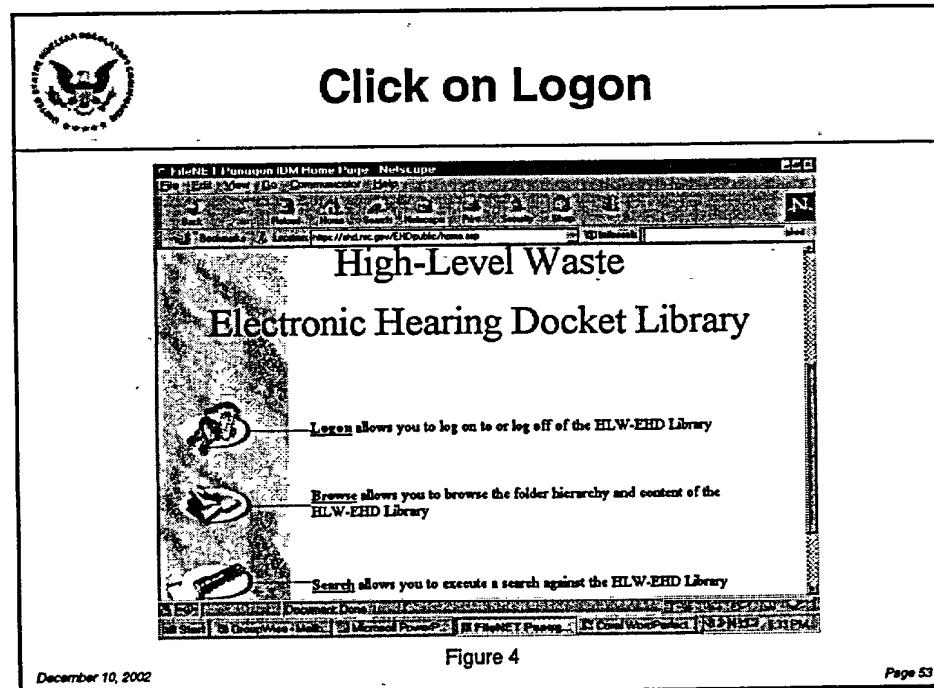


The screenshot shows the 'High-Level Waste Electronic Hearing Docket (HLW-EHD)' page. It features a 'Public Users Logon' and 'Secure Logon' link. A main text block explains the purpose of the HLW-EHD and how it receives filings via EIE. To the right, a box titled 'HLW-EHD System Notices' displays a message: 'No system notices at this time.' Below this, another message states: 'There are currently no high-level waste proceedings at this time. Information ...'. At the bottom, there are links for 'Document Control', 'Document Control Help', 'HLW-EHD Home', and 'HLW-EHD Help'.

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Figure 3

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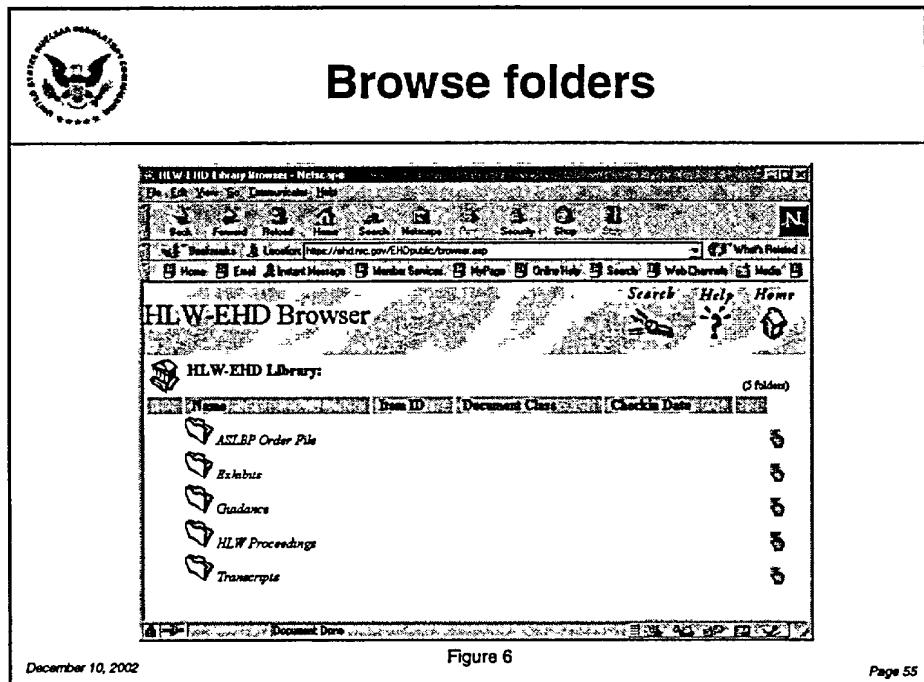


Figure 6

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The screenshot shows a web browser window titled "HLW-EHD Library Browser - Netscape". The main content area is titled "Samples of documents in Guidance folder" and displays a list of documents within the "Guidance" folder. The visible items are:

Document Name	Item ID	Document Class	Checkin Date	Action
RHD Guidance	00670019	General	3/7/02 3:03:30 PM	
RHD User Guide	00670024	General	4/10/02 3:13:15 PM	

At the bottom of the list, there is a link labeled "Document Done". The status bar at the bottom of the browser window shows the date "December 10, 2002".

Figure 7

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The screenshot shows a search interface titled "HLW-EHD Search". It features a "Simple Search" section with four input fields: "Document ID", "Title contains", "Comment contains", and "Added by user". Below these fields is a "Sort Order" dropdown set to "Item ID". The background of the search interface has a decorative pattern.

Figure 8

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-
- The screenshot shows a slide titled "Agenda" with a list of topics. The topics are listed in a bulleted format, each preceded by a small square icon.
- Introduction – NRC
 - High-Level Waste (HLW) Information Architecture – NRC
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 - **Electronic Courtroom Update – NRC**
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Electronic Courtroom Update

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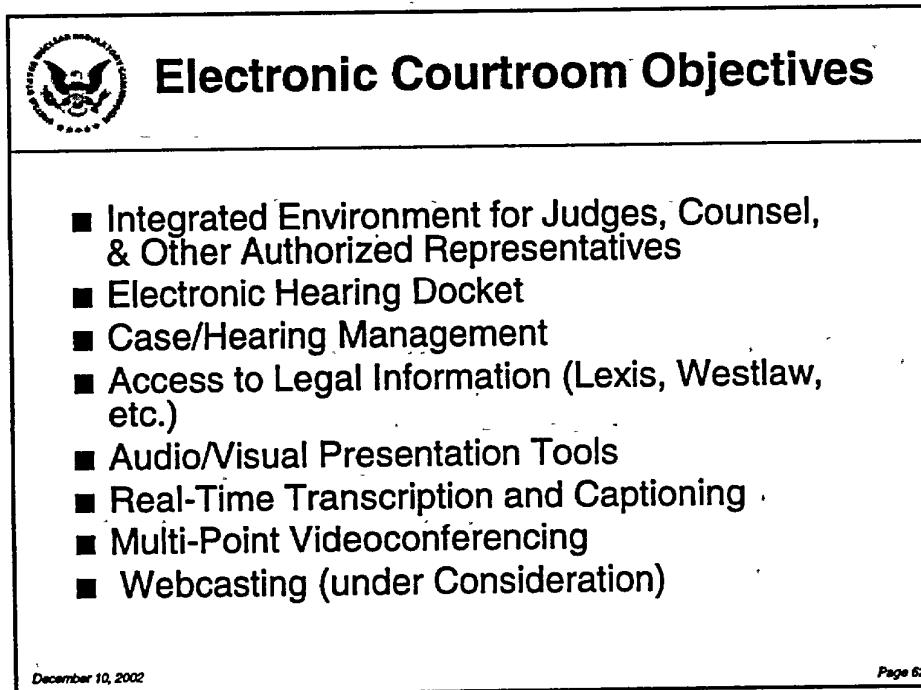
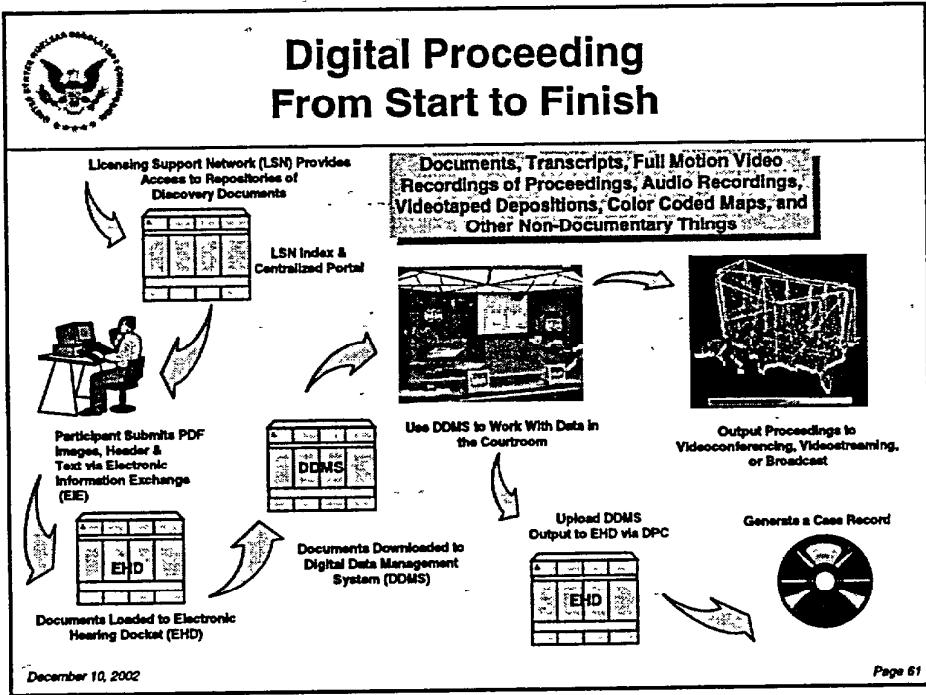


Guidance on the Electronic Courtroom

- Audio-Visual and Information Management Component Integration Scheduled for FY '04
- Guidance Will be Provided After Rockville Test & Acceptance (July 2003)
- Will be Issued by ASLBP
- See Courtroom 21 Sites for What You May Expect:
 - Courtroom 21: A Model Courtroom of the 21st Century
<http://www.ncsc.dni.us/ncsc/BULLETIN/v06n01.htm>
 - Courtroom 21: The Legal & Practical Implications
<http://www.ncsc.dni.us/ncsc/BULLETIN/v06n02.htm>

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NRC Plans for Digital Courtroom

- Provide Information Technology (IT) and Audio/Visual (A/V) capabilities in at least two hearing rooms:
 - One at NRC in Rockville, Maryland,
 - A second in Nevada.
- Enable the creation and use of an integrated, comprehensive digital record for the HLW repository licensing proceeding.
- Record, store, and display the text and image of documents presented in the hearing using pre-filed electronic documents from the Electronic Hearing Docket (EHD).
- Permit access and retrieval of the entire record:
 - documentary
 - audio
 - video presentations, exhibits, simulation models
 - recording of proceedings in an electronic format.

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Model for Implementation

- Vision Based on Existing Courtroom 21 (Law School of the College of William & Mary) & National Judicial College Operational Models
- Current Audio/Visual Technologies Installed in Courtrooms Across U.S.
- DDMS Proof of Concept Project Under Way
- Vendor Team Includes “Best of Breed” in Case Management, Hearing Support, and Document Management Software

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Vision

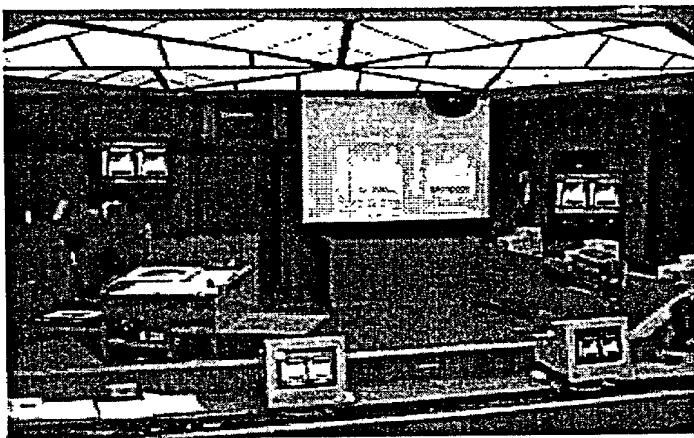


Photo of Courtroom 21 at the College of William & Mary
With Permission of Prof. F.J. Lederer

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Key Features

- Audio/Visual Presentation Devices to Leverage Electronic Documents
- Voice Activated Cameras/Microphones
- Video-Conferencing
- Recordation via Real-Time Court Reporter
- Recordation of Audio and Video Feeds
- Outputs to Other Media (Webcasting) are under consideration
- Daily Updates to Electronic Hearing Docket (EHD)
- General Docket Materials & Transcripts Searchable
- Protective Order Files Selectively Available & Similarly Searchable
- Docket File Contents Accessible in Courtroom and Remotely via Web
- Generation of Case Record for Appellate Review

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Operational Approach

- Prefiled Potential Exhibits Downloaded from EHD into the Courtroom Database
- Courtroom Database Updated with Markings for Prefiled Items as Introduced
- Items First Introduced in Courtroom Incorporated into and Marked in Courtroom Database
- Courtroom Database Uploaded Daily to Refresh EHD
- Transcripts Processed Overnight

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Electronic Media Issues

- Introduction of Large Documents
 - Full Document or
 - Sections or Pages of Documents
- Courtroom Retrieval and Use without Interrupting Flow of Proceedings
- Navigation within Document to Display Page(s) Counsel/Authorized Representative is Presenting
 - Quickly
 - With a Clear Image for Large Screen Projections
- Formats
 - To be Digitally Recorded for Case File
 - Must Meet Rules/Criteria for Evidence
 - Capable of Being Retired to National Archives
 - Courtroom Case Management & Documents to be Web Accessible (Download Issues)

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Electronic Media Issues Impacts

- Requires Skilled Clerk of Court & Paralegals
- New Paradigm for NRC Judges
- Parties' Counsel/Other Authorized Representatives Need to Become Familiar
- Training/Dry Runs/Shake-out During Pre-Hearings Are All Essential to Success

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Status of DDMS Current Planning Dates

- Proof of Concept Prototype Testing May 2003
- Readiness Review Assessment July 2003 & Demonstration
- "Go" Decision on Phase I August 2003 (Audio/Visual) & Phase III (Integration with Production Version IT)

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Future Components

*(Assuming POC Success, Approval for Later Phases,
and Availability of Funding)*

- Audio/Visual Component – Fall, 2003
- Rockville Hearing Room Operational – 2004
 - Available for Other Proceedings
 - Possibly Available for HLW Pre-Hearings
- Apply “Lessons Learned” to Nevada Hearing Room Implementation
- Nevada Hearing Room Operational – early 2005
- Training for Parties Early 2005

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- Response to Action Items for June 2002 Electronic Submissions Technical Exchange – NRC
- DOE's Experience, Progress, and Solutions in Delivering Large Documents to the Public – DOE
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Technical Issues with a Potential Electronic License Application Submission and Other Large Documents Update

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Topics

- Why are there challenges/technical issues?
- What are they?
- What is NRC's approach and status of addressing the challenges/technical issues?
- What should you expect?
- What are the expected file formats?

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Why are there challenges/technical issues?

- Documents are voluminous
- Documents are complex
- Documents need to be used by stakeholders for different purposes in varying IT environments

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What are the primary challenges/technical issues?

- Ability to transmit electronically through EIE
- Ability to capture document to ensure its fidelity and integrity and to store it as an official agency record
- Ability for users to search and navigate across the document in its entirety while still being able to view and download pages in a timely manner
- Ability to produce paper copies when requested

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Approach and status of addressing the challenges/technical issues

- Establish NRC working group of principal stakeholders and acquire technical assistance: completed
- Identify scope, characteristics, timing of very large submissions: assembled available data
- Identify needs of stakeholders and their different usages of documents and associated processes: completed

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Approach and status of addressing the challenges/technical issues (cont'd)

- Assess the current environment: completed
- Consider alternatives, select an interim solution (January) that will be in place by June: analysis underway
- Consider alternatives, select a long-term solution, and prepare action plan to implement: January – March 2003
- Implement long-term solution: date not yet established

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What should you expect?

- NRC plans to issue special guidance on the electronic submission of textual, graphical, and other documentary materials in the HLW proceeding in mid 2003
- We expect guidance to cover attributes such as: file format, resolution, segmentation, naming conventions, structure, storage media, etc. to address the technical issues/challenges previously discussed

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What are the expected file formats?

- PDF formatted text and graphics (formerly known as PDF normal): text-oriented documents converted from native applications
- PDF searchable image (formerly known as PDF original image with hidden text): text-oriented documents converted from scanned documents
- PDF image only: graphic/image-oriented documents
(Source: Electronic Maintenance and Submission of Information Direct Final/Proposed Rule, Companion Guidance Document, published in *Federal Register* on 9/6/02)

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Response to Action Items for June 2002 E-Submissions Technical Exchange

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Generic Issues with DOE Submissions

- Transmittal letters may not have a complete description of enclosures, and it is at times unclear which enclosures are submitted in electronic form
- CD-ROMs may not include instructions on their use
- No "road map" to the construction of the CD-ROM
- File structures on some CD-ROMs are very complex
- Large number and size of individual files on CD-ROMs
- Some files won't open; require special software to open and view

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Generic Issues with DOE Submissions (cont'd)

- Problems with individual types of PDF
 - Use of PDF image only file format for capture of text
 - Creation of PDF normal from a scanned image rather than from the native application
 - Creation of PDF text with images of text inserted into the document

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Status of NRC's Effort for Putting Its Documentary Collection Out on the Licensing Support Network (LSN)

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Efforts Underway to Place Document Collection on LSN

- At this time, no NRC documents available to the LSN server
- Currently have majority of high-level waste documents in electronic format
- Some documents uncaptured electronically at NRC and the Center for Nuclear Waste Regulatory Analysis (CNWRA)
- Upcoming NRC & CNWRA document conversion and processing effort for uncaptured documents
- As a result of 9/11, NRC is screening documents prior to making them available to the LSN server

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Adding Documentary Material to Document Mgmt System

- Staff directed to expeditiously make their documents available to the LSN
- Staff directed to encourage other parties to expeditiously make their documents available to the LSN
- Staff is evaluating NRC and NRC contractor documents to determine what should be added to comply with Subpart J
- The documents under evaluation include graphic-oriented documents such as calibration records, data logs, scientific notebooks, and computer print-outs

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Screening for Sensitive Homeland Security Information

- NRC has re-examined existing policies on the dissemination of information routinely provided to the public
- The Commission approved screening criteria and policy for withholding sensitive homeland security information
- Based on Commission guidance, expect majority of documents to become available

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Summary

- NRC is taking steps to ensure compliance with the LSN requirements
- NRC will place documents on the NRC HLW server after screening for sensitive homeland security information

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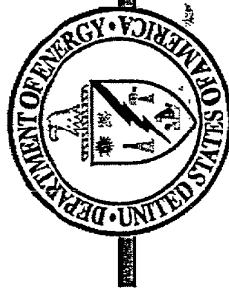


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- **Sensitive Homeland Security Information Processing Controls – DOE**

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U.S. Department of Energy
Office of Civilian Radioactive Waste Management



Sensitive Homeland Security Information Processing Controls

Presented to:

NRC/DOE Technical Exchange on Electronic Submissions

Presented by:

Dr. David R. Warriner

Office of Project Support, Information and Management Services Division
Office of Repository Development

U.S. Department of Energy

Dr. Kazem Taghiva; Dr. Tom Narker
University of Nevada Las Vegas Information Science
Research Institute

Dr. David R. Warriner
U.S. Department of Energy
Office of Civilian Radioactive Waste Management

Need for Operations Security

- Following the September 11 attacks, White House ordered all federal agencies to do an immediate review of all public documents and restrict access to potentially sensitive information
- Potentially sensitive information is any unclassified information, not otherwise protected from disclosure by law or regulation, which has been determined to cause an adverse consequence against DOE facilities or infrastructure

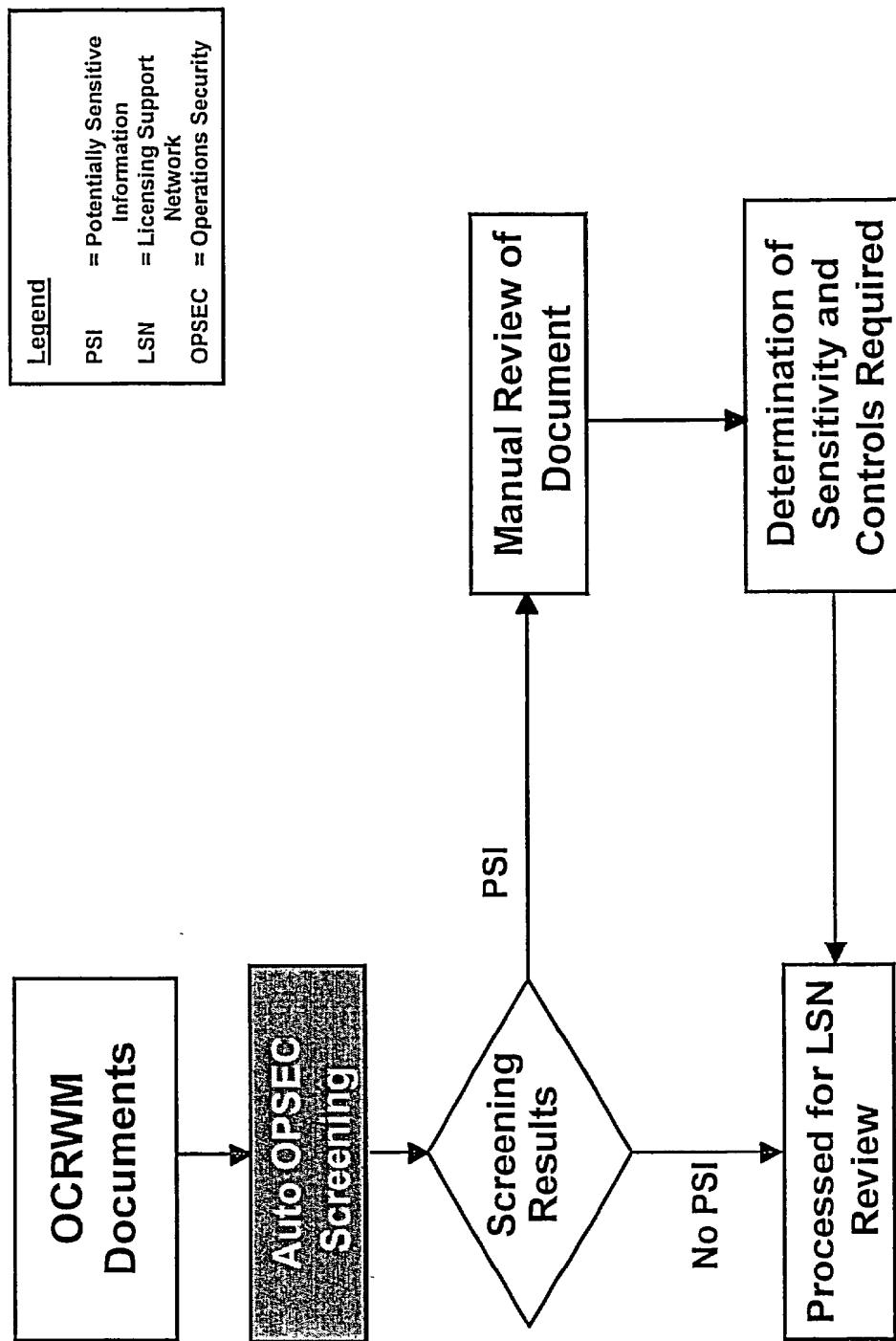


Approach for Potentially Sensitive Information Review of the Licensing Support Network

- Licensing Support Network development requires DOE to review a very large number of documents
- Manual reviews of potentially sensitive information are costly and time-consuming
- DOE is working with University of Nevada, Las Vegas Information Science Research Institute to develop an automated tool for Operations Security reviews



Planned Auto Operations Security Interface



Legend

PSI	= Potentially Sensitive Information
LSN	= Licensing Support Network
OPSEC	= Operations Security

Presenters

Dr. Kazem Taghva and Dr. Tom Nartker
University of Nevada, Las Vegas/Information Science
Research Institute



Automated Operations Security Screening

- University of Nevada, Las Vegas has developed software to aid general categorization tasks
- DOE provided documents (potentially sensitive information or non potentially sensitive information) to test our software for automating categorization
- DOE documents were used as a basis for automatic categorization
- We would like to present a description of the software, called *Ecdysis*, and report categorization test results



Steps for Operations Security Screening

- DOE documents are analyzed manually and automatically to extract knowledge
- Knowledge will be used by *Ecdysis* for the task of categorization
- *Ecdysis* categorizes documents as either potentially sensitive information or non potentially sensitive information using a greater threshold favoring potentially sensitive information
- Documents determined as potentially sensitive information are set aside for manual review

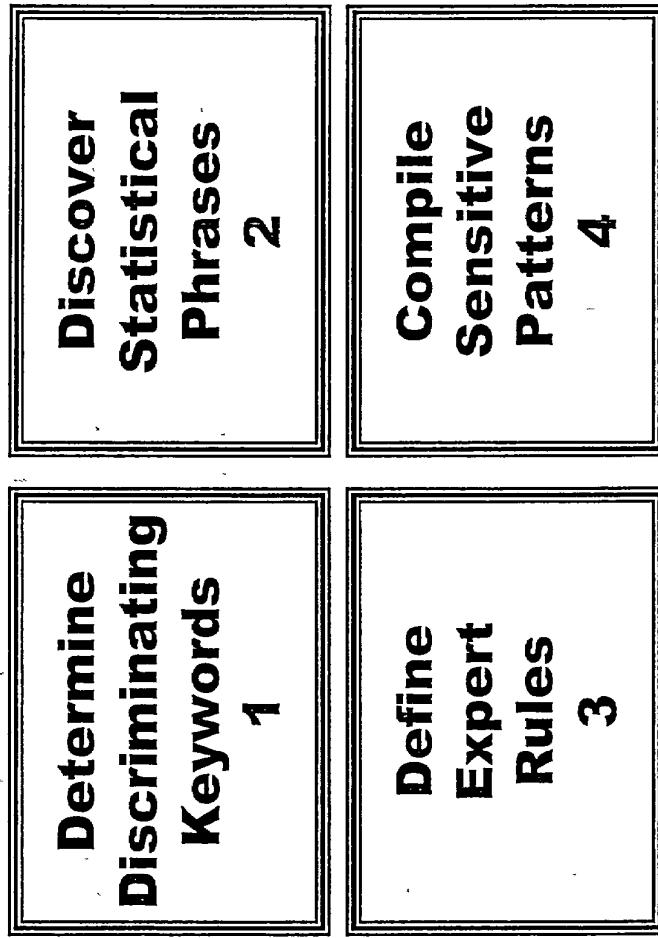


How Ecdysis Works

- Training the software
- Knowledge extraction
 - Identify features from known potentially sensitive information and non potentially sensitive information documents
 - Establish relationships between features and calculate probabilities
- Categorization
 - Extract features from the document that need to be categorized
 - Decide category (potentially sensitive information or non potentially sensitive information) based on the probabilities of these features



How Knowledge Extraction Works



Example Features

- **Discriminating Keywords (*Ecdysis* selects these automatically using training data)**
 - Sabotage
 - Crash
 - Airplane
- **Statistical Phrases (manually selected by experts)**
 - Certain aspects of barrier specifications
 - Certain aspects of cask specifications



Example Features

(Continued)

- Expert Rules (identified by experts, verified in training)
 - Document type such as correspondence
 - Document authors
- Sensitive Patterns (identified by experts)
 - Specific materials and thickness
 - Impact forces
 - Fuel supply volumes

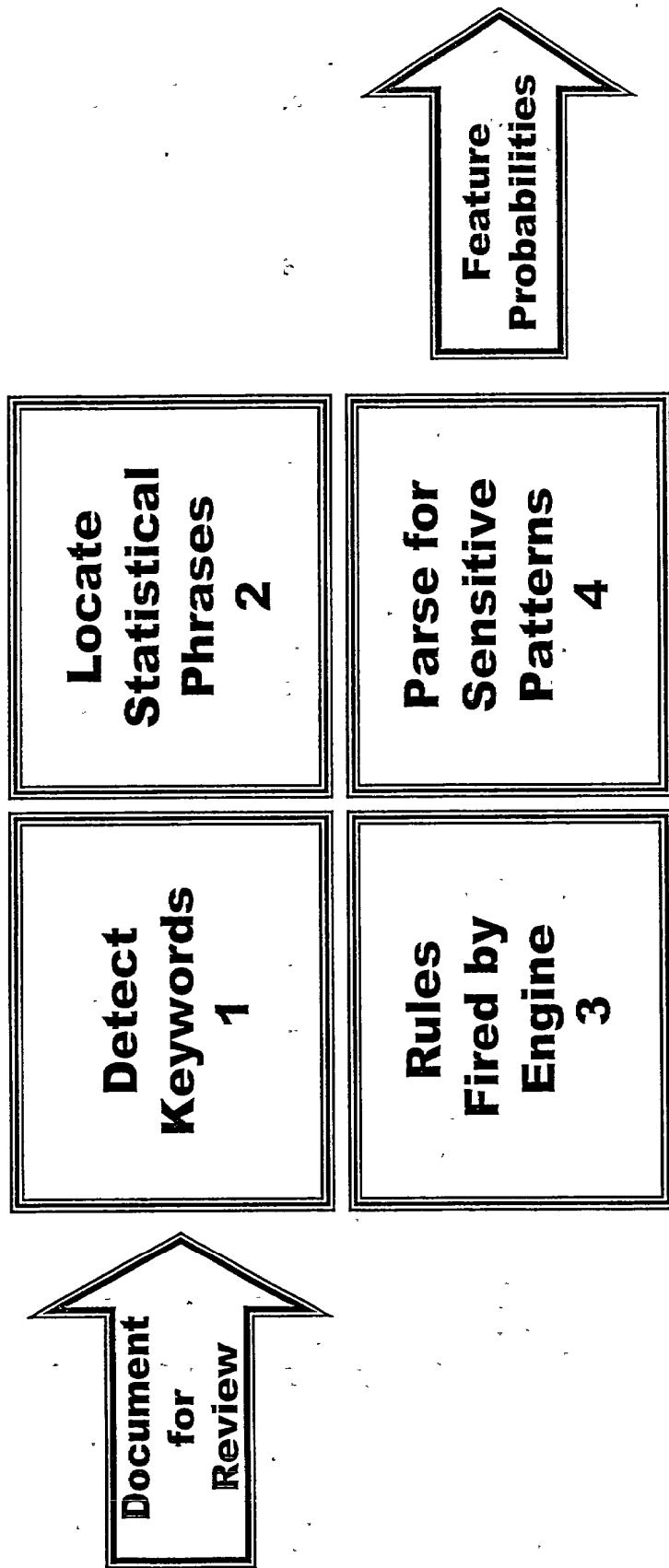


Building the Network

- Features are analyzed for relationships
- Probabilities are calculated for features in order to build the network
 - The network is typically 1000's of features and 10,000's of related probabilities



Categorization Phase

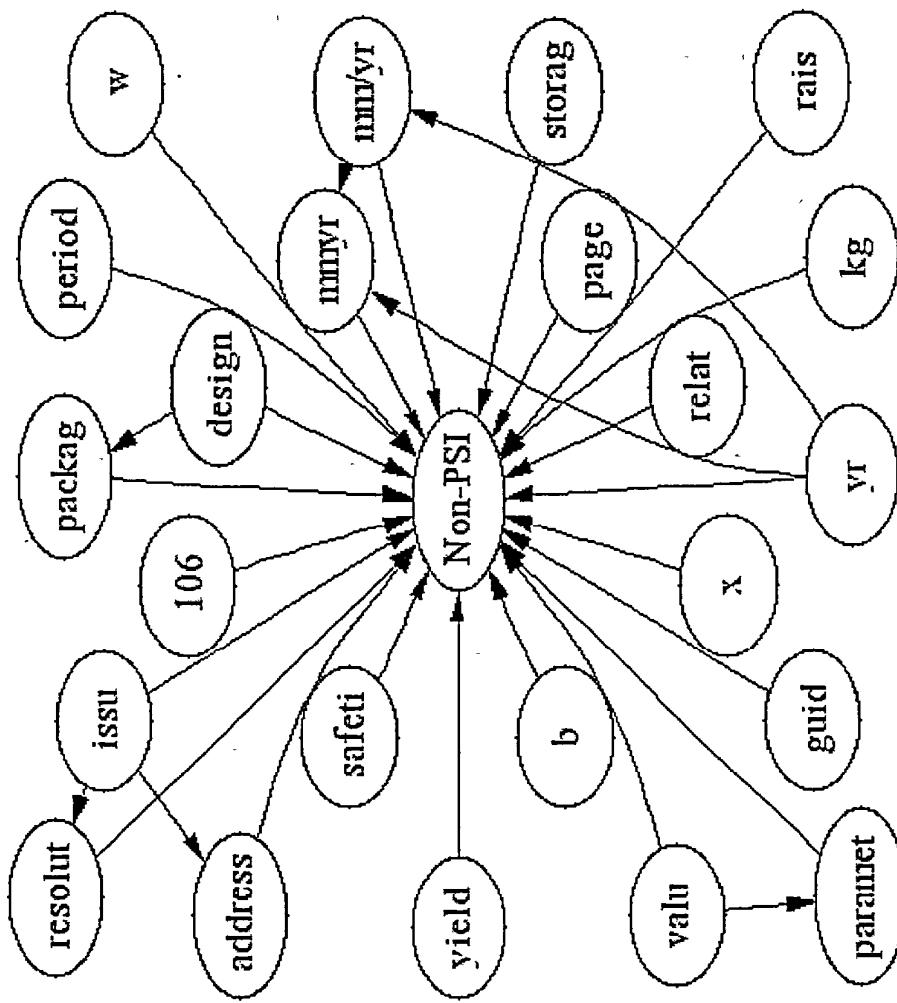


Example Page of a Document for Categorization

**Table 8.3.2.3-3. Parameters required for Issue 2.7 (repository design criteria for radiological safety)
(page 3 of 6)**

Related Performance Goal	Performance or Design Parameter	Parameter Descriptor	Tentative Parameter Goal	Needed Confidence	Expected Parameter Value	Current Confidence	SCP Section Providing Parameter
G4	Amounts of crops consumed	80 km radius	(d)	Medium	1×10^4 to 1×10^5 kg/yr	Medium	(c)
G4	Types of animals raised	80 km radius	(d)	Medium	(k)	Medium	(c)
G4	Amounts of animals raised	80 km radius	(d)	Medium	1×10^1 to 1×10^5 kg/yr	Medium	(c)
G4	Types of animals consumed	80 km radius	(d)	Medium	(1)	Medium	(c)

Network of Screening Features Selected by Software



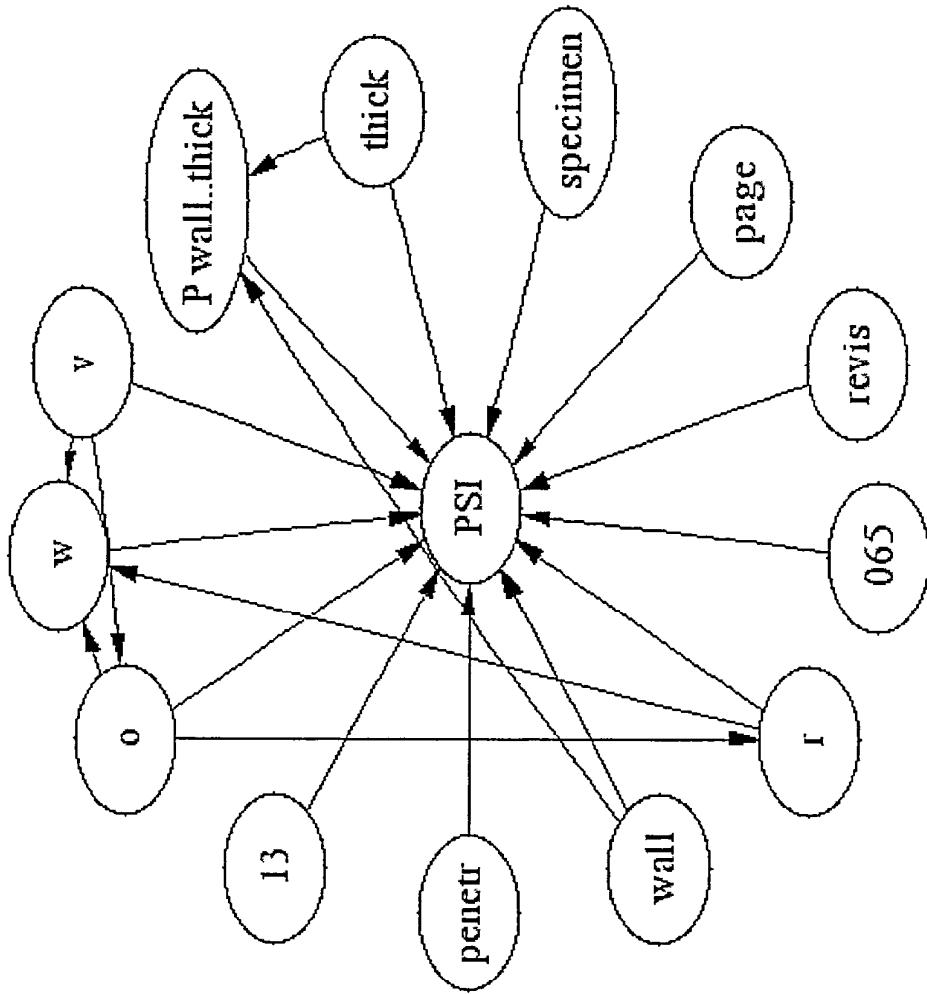
Non Potentially Sensitive Information Feature Network based on mathematical equations governing relationships

Document B

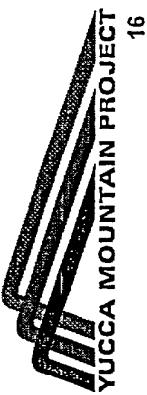


Network of Screening Features Selected by Software

Potentially Sensitive Information Feature Network based on mathematical equations governing relationships



Document A



Preliminary Operations Security Test

- **110 documents were used to test *Ecdysis***
 - 100 documents were non potentially sensitive information
 - 10 documents were potentially sensitive information
 - *Ecdysis* automatically identified 69 of the non potentially sensitive information documents and marked the rest for manual review



Automated Operations Security Categorization Goals

- Reduce by 70 percent the number of documents requiring manual review
- Identify potentially sensitive information for efficient interactive processing
- Remaining 30 percent will be reviewed using the interactive operations security tool
- Working on further refinement to reduce manual reviewed percentages



Interactive Operations Security Tool

The screenshot shows a software window titled "PSI-Tool (Build ID: 20020105103)". The menu bar includes File, Edit, View, Go, Bookmarks, Tools, Windows, Help. The toolbar has icons for Undo, Redo, Cut, Copy, Paste, Find, and Print. The address bar shows "http://www.istr.unlv.edu/research/classification/psi-tool". The main content area displays the following information:

Document MOL.20010615.0117 Page 9

Title: Scenario/Data/Roadmap Calculation/Analysis Documentation in Support of the Supplement to the Draft EIS for the Yucca Mountain Repository

Author: Jason Technologies Corporation, Las Vegas, NV

Date: June 2001

Below this is a navigation panel with three tabs: "PSI Decision", "Non-PSI Document Navigation", and "OK Cancel". To the right of the tabs are buttons for "First", "Prev", "Next", "Last", "First", "Prev", "Next", "Last", and "Cancel". A status bar at the bottom right indicates "Document Done (1421 pages)".

2.5 S&ER Flexible Design-Additional Considerations

As mentioned previously, each of the nine design/operation scenarios must be considered in combination with each applicable packaging-receipt scenario. The three packaging-receipt scenarios used in the Draft EIS are appropriate for the Viability Assessment design and were evaluated for these scenarios. The mostly rail dual-purpose canister scenario and the disposable canister scenario become almost the same with blending.

Analysts have considered natural ventilation, but the definition is incomplete and determination of the need for quantitative analysis is on hold. One design/operation scenario considered was the same as the maximum ventilation case through the completion of emplacement and the first 50 years of ventilation during the monitoring phase. After 50 years of ventilation there would be a transition to natural ventilation for about 250 years. Final closure would occur in 2310 after a 300-year prelosure period, composed of 50 years of ventilation and 250 years of natural ventilation cooling. Analysis assumed that the natural ventilation cases would be bounded by the forced ventilation cases.

Operations Security

Categorization Summary

- *Ecdysis* will reduce manual efforts by:
 - Automatically screening for potentially sensitive information
 - Identifying potentially sensitive information within documents
 - Providing an interactive tool for efficient document review





U.S. Department of Energy
Office of Civilian Radioactive Waste Management



OCRWM Experience, Progress, and Solutions in Delivering Program Documents to the Public

Presented to:

NRC/DOE Technical Exchange on Electronic Submissions

Presented by:

Tim Sullivan

Office of License Application and Strategy

U.S. Department of Energy

Office of Repository Development

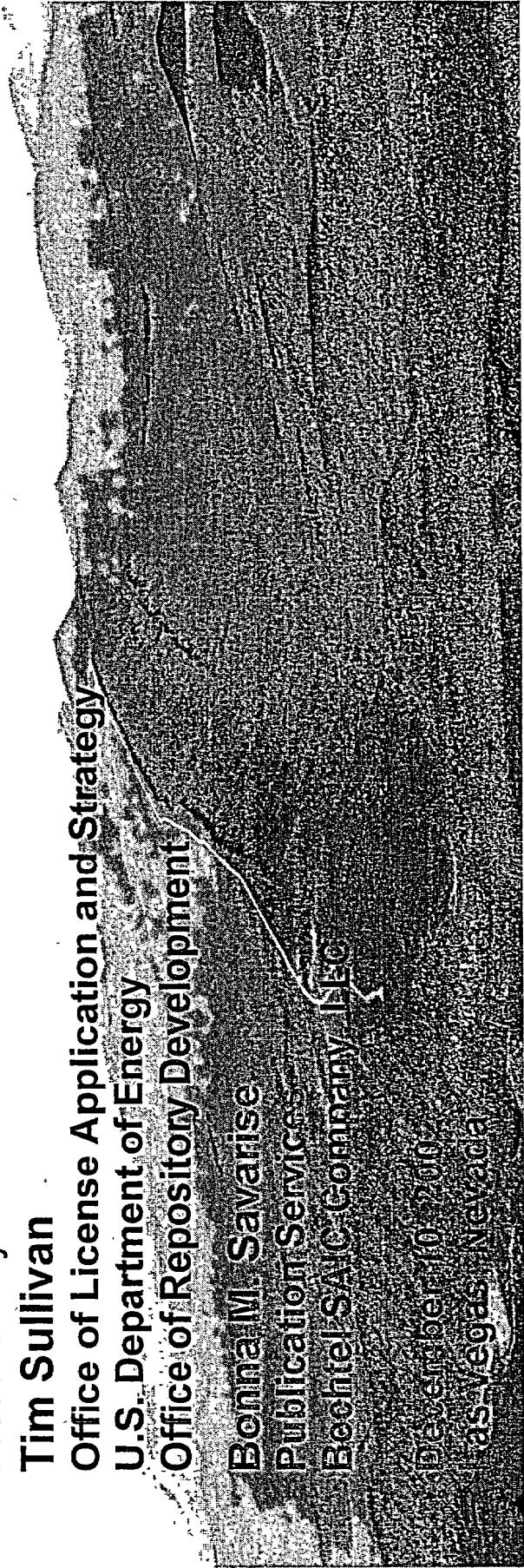
Bonna M. Savarise

Publication Services

Bechtel SAIC Company LLC

December 10, 2004

Las Vegas, Nevada



Introduction

- The federal government has been making documents available to the public for many years
- The Office of Civilian Radioactive Waste Management's (OCRWM's) goal is to do this with the most efficient and effective technology available including the Internet
- Improvements are based on evolving technology, and industry and programmatic lessons learned
- This effort will continue in the future
- In this presentation the focus is on past Internet distribution of program documents and the resulting lessons learned



Topics

- OCRWM program documents posted on the Internet
- Feedback from the public
- Electronic formats
- Lessons learned



Methods of Program Document Distribution to the Public

- OCRWM has distributed program documents through a wide range of methods, including:
 - Internet
 - Hand-delivered to elected officials and affected county representatives
 - Mailed to thousands of stakeholders on our mailing list
 - Public meetings and hearings
 - Exhibits at technical conferences and community events
 - Presentations to technical and nontechnical organizations
 - Science Centers (3)
 - Toll-free information line (1-800-225-6972)
 - Reading rooms (38)



Background on Posting Documents to the Internet

- To make the documents available to the public, OCRWM determined it would post selected technical documents on the OCRWM/Yucca Mountain Project (YMP) Internet (1998)
- Program documents such as the **Viability Assessment, Site Recommendation (SR), and Repository Environmental Impact Statements (EIS)** have been placed on the Internet
- For the draft EIS and initial SR documents, the Internet also provided a channel for receiving public comments
- Internet distribution enables OCRWM to comply with the federal Paperwork Reduction Act



Program Documents on the Internet

- *Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada*-August 13, 1999
- *Yucca Mountain Science and Engineering Report-*
May 7, 2001
- *Supplement to the Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada-*
May 11, 2001
- *Yucca Mountain Preliminary Site Suitability Evaluation*-August 21, 2001



Program Documents on the Internet

(Continued)

- SR documents posted to the Internet -
February 14, 2002
 - *Yucca Mountain Science and Engineering Report,
Revision 1*
 - *Yucca Mountain Site Suitability Evaluation*
 - *Final Environmental Impact Statement for a Geologic
Repository of Spent Nuclear Fuel and High-Level Waste at
Yucca Mountain, Nye County, Nevada*
- There are currently 1865 documents on the Internet



Feedback from Public on Posting of Program Documents

- In fiscal year 2002, there were 230,882 visits to the YMP Internet
- Through our public feedback channels (OCRWM toll-free information number, Internet comment page, Science Center staff), we have received approximately 100 comments about accessing the Final EIS on the Internet



Feedback from Public on Posting of Program Documents

(Continued)

- Issues raised about public availability of Internet access for documents include:
 - Not all people have access to the Internet
 - The length of time and amount of paper needed to print a document from a home computer was a problem
 - There was difficulty reading such a large document online
 - ♦ Document file sizes
 - ♦ Phone service providers
 - ♦ Age of computers
 - ♦ Lack of sophistication of hardware and software
- OCRWM has made hard copies available upon request

Summary

- OCRWM has been posting documents to the Internet since 1998
- The public has provided feedback
- Technical details and lessons learned to follow



Presenter

Bonna Savarise
BSC Publication Services



Choice of Electronic Formats

- Several electronic formats can be used
 - HTML (hypertext markup language)
 - PDF (portable document format)
 - Images scanned from hard copy (tif, gif, jpg)
 - ASCII (plain text)
 - Source files such as word processing, spreadsheet, and presentation documents



Electronic Formats

- OCRWM Web site uses industry standard **HTML, PDF, and images**
 - HTML is easier to read on screen and downloads quickly because it is text-based; available to anyone with a browser
 - PDF is easier to print and looks just like the printed version; available to anyone via a free reader
 - Images are used to post cited reference documents from the records system



Electronic Formats

(Continued)

- For example, SR and Final EIS documents
 - Initially posted in PDF for timely release
 - ♦ Divided by section regardless of size (see listing of file sizes in backup)
 - ♦ Two PDF types are available – smaller files for faster download and larger files for higher-quality printing
 - Also converted to HTML with links to cited references
- Focus has been on posting in HTML
 - In general, PDF files supplement HTML for users' ease of printing



Assumptions in 1998

- User has
 - Slowest machine
 - Slowest modem
 - Internet browser software capable of reading the Web page
- Drove OCRWM decision to favor HTML and to limit PDF file size to 3 MB or less



Lessons Learned

- Fragmenting the PDF document to small sizes (less than 3 MB) is more problematic than helpful
 - User might receive a one-page graphic after 15-minute download
 - User must stand by to download the next section or fragment
 - User must piece the document together
- Provide new capabilities as technology evolves
 - For example, optimize PDF files so that pages can be viewed as they are downloaded
- Be consistent with commonly accepted standards that users are accustomed to
 - Frames for navigation
 - Common browsers and interfaces



Lessons Learned

(Continued)

- Conversion for Internet must take into account increased capabilities of the software used to develop the documents
 - More complex graphics
 - Larger file sizes
- Offer multiple avenues for user to get help with problems
 - Within the document's Help screen
 - “Contact Us” link on the Internet home page and in the left frame so that it is visible on all pages



Lessons Learned

(Continued)

- Offer user alternative method(s) to obtain the documents
 - Toll-free number or e-mail address to request hard copy
- Post file sizes so users can determine whether they want to download the files
- Offer users a choice if possible
 - HTML
 - PDF with choice of resolutions (faster download/better printing)



Lessons Learned

(Continued)

- **Include navigation aids within PDF and HTML documents**
 - Links or bookmarks aid users
- **Provide more information to users**
 - Assumptions made about users' hardware/software
 - Information on download times by type of hardware (modem, cable, etc.)
 - Information on how to navigate the pages and documents



Assumptions in 2002

- Industry standards indicate that user community generally has more capable computers
 - Processor can handle large files
 - Sufficient hard drive space to download the largest file (53 MB)
- Internet browser software capable of reading the Web page
 - A 56K modem or cable modem, DSL, or T1-T3 line
- User understands how to access Internet pages and download files, including Adobe Acrobat (PDF reader)
- Or, user has access to library computer systems that have Internet access and human assistance



Comparison of Download Times

	3 MB file	53 MB file
14.4 K modem	~30 minutes	~9 hours
28.8 K modem	~15 minutes	~4 1/2 hours
56 K modem	~7.5 minutes	~2 hours
DSL	<40 seconds	<12 minutes
Cable, T1	< 30 seconds	~4 minutes

Calculated using Martindale's File Download
Time Calculator available at <http://www-sci.lib.uci.edu/HSG/AATimeCalc.html>



Summary

- OCRWMM approach to electronic distribution has evolved using lessons learned with the intent to improve overall efficiency, access, and quality
- OCRWMM experience with delivering large documents to the public has shown that the Internet is a valuable component of OCRWMM's information distribution system, which saves resources
- Other distribution methods continue to be used, including paper copies upon request



Backup



Portable Document File Sizes Posted on Internet

Draft Environmental Impact Statement 1999

Draft Environmental Impact Statement 1999
1,611 pages, 223 figures

File	Print Optimized Size in MB	Screen Optimized Size in MB
Main splash page	<1	n/a
Chapter 1	1.3	n/a
Chapter 2	3.8	n/a
Chapter 3	8.5	n/a
Chapter 4	<1	n/a
Chapter 5	<1	n/a
Chapter 6	1.6	n/a
Chapter 7	<1	n/a
Chapter 8	<1	n/a
Chapter 9	<1	n/a
Chapter 10	<1	n/a
Chapter 11	<1	n/a
Chapter 12	<1	n/a
Chapter 13	1	n/a
Chapter 14	<1	n/a
Chapter 15	<1	n/a
Foreword	<1	n/a
Summary	2.1	n/a
Appendix A	<1	n/a
Appendix B	<1	n/a
Appendix C	<1	n/a
Appendix D	<1	n/a
Appendix E	<1	n/a
Appendix F	<1	n/a
Appendix G	<1	n/a
Appendix H	<1	n/a
Appendix I	1.6	n/a
Appendix J	1.1	n/a
Appendix K	<1	n/a
Appendix L	<1	n/a

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Portable Document File Sizes Posted on Internet

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Final Environmental Impact Statement 2002

Final Environmental Impact Statement 2002 5,043 pages, 274 figures		
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Chapter 1	2.4	1.2
Chapter 2	20.2	6.2
Chapter 3	52.3	8
Chapter 4	3	1.7
Chapter 5	5.4-	<1
Chapter 6	9.9	5
Chapter 7	3.8	1.5
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Appendix N	<1	<1
Appendix O	5.3	5
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Response, Part 1		
Comment	7.8	4.8
Response, Part 2		
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Response, Part 3		
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Response, Part 4		

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Portable Document File Sizes Posted on Internet

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Site Recommendation 2002

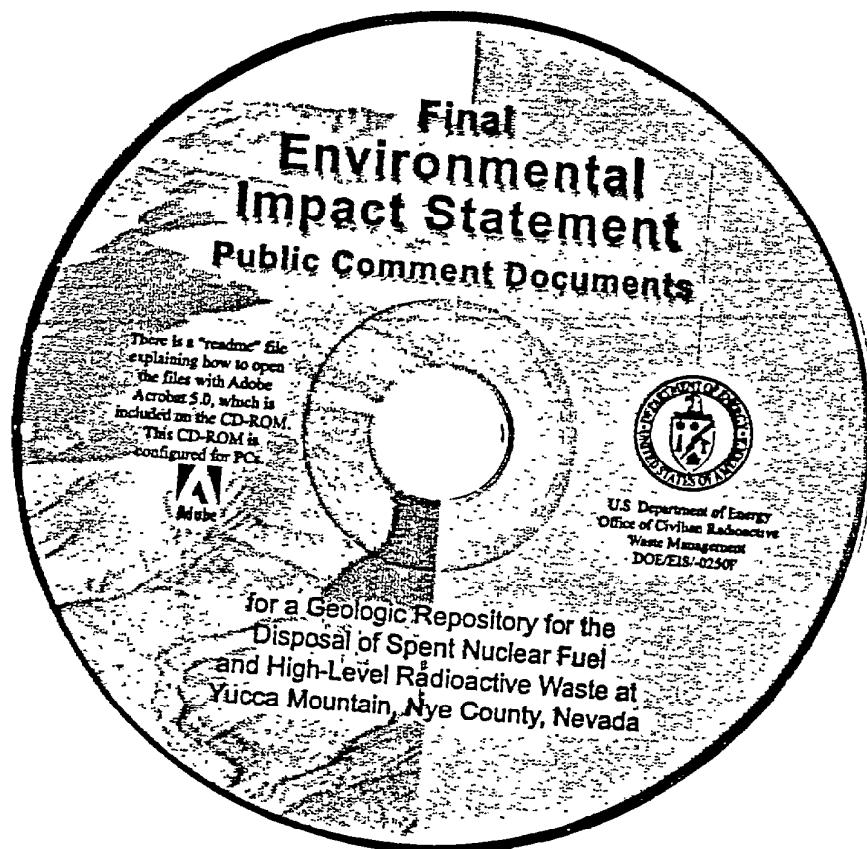
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903 pages, 324 figures		
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Section 1	16	3
Section 2, Part 1	20	3.7
Section 2, Part 2	22.3	3.8
Section 3	7.9	2.3
Section 4, Part 1	14	2.8
Section 4, Part 2	32	3.1
Section 4, Part 3	23.8	4.3
Section 4, Part 4	7	2.5
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Section 5	1.8	1.7
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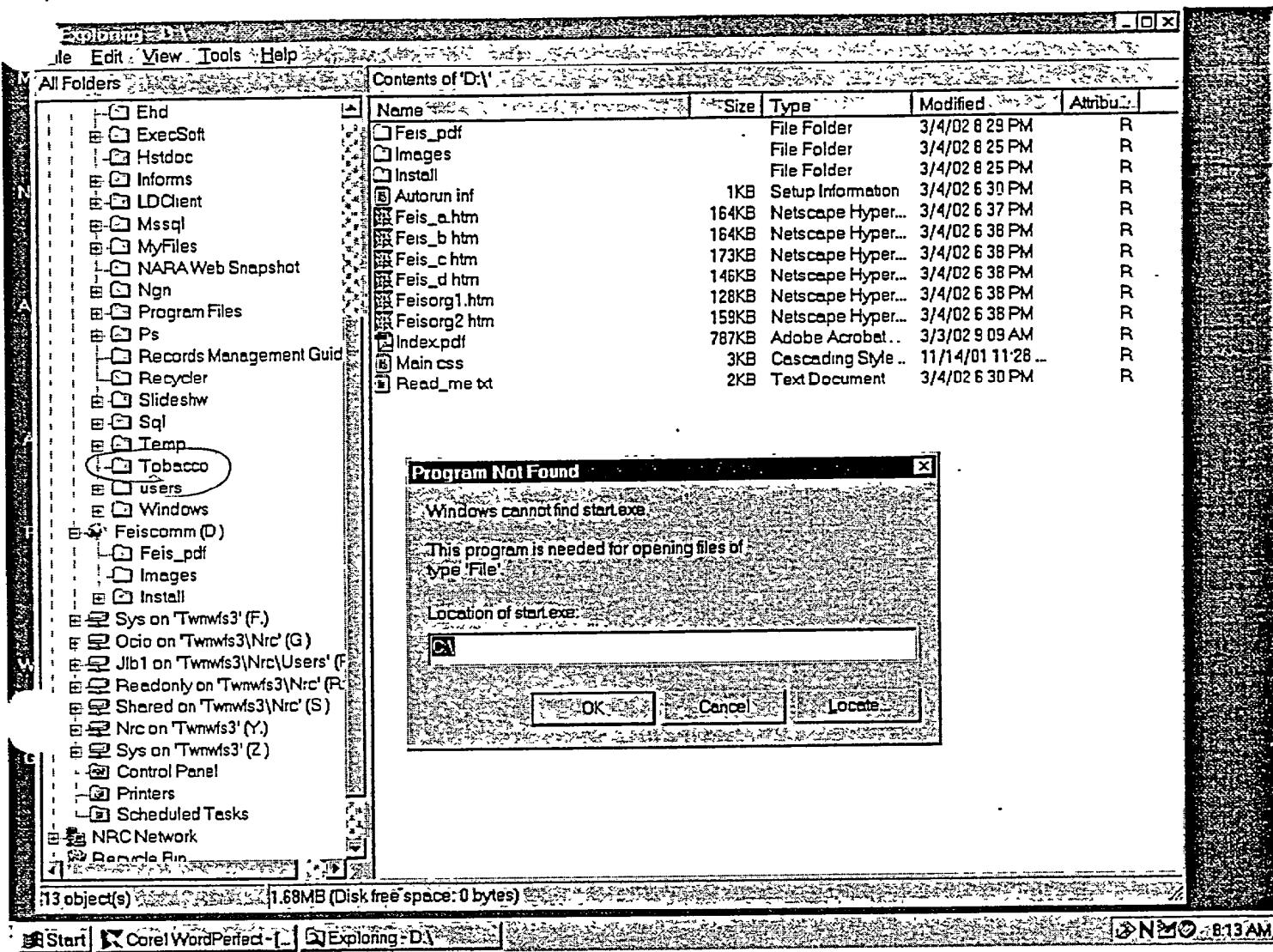


Explorer Screen Shots



Samples of Documents Submitted by DOE to NRC
Distributed at 12/10/02 Technical Exchange by Lynn Scattolini, NRC, for presentation of
"Response to Action Items for June 2002 Electronic Submissions Technical Exchange"

2,850 total Files 1,174 mb



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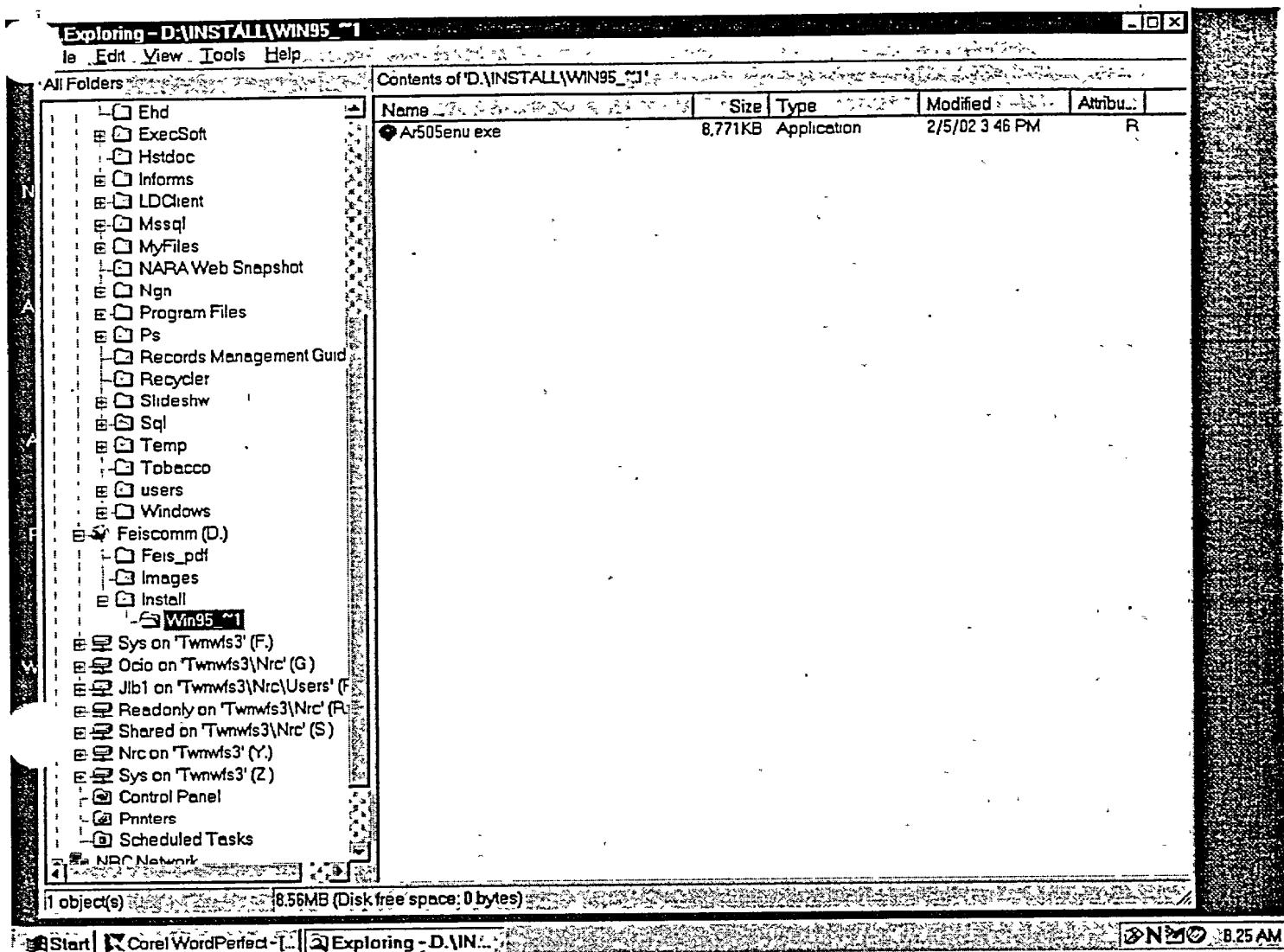
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**Final Environmental Impact Statement
for a Geologic Repository for the
Disposal of Spent Nuclear Fuel and
High-Level Radioactive Waste at Yucca
Mountain, Nye County, Nevada**

Volume III Comment Response
Document Images of Hearing
Transcripts and Public Comments

**Comments
(Indexed by Organization) (Indexed by Individual)**

A through M

N through Z

A through E

F through K

L through R

S through Z

U. S. Department of Energy
Office of Civilian Radioactive Waste Management
February 2002





Done

Department of Energy
Office of Civilian Radioactive Waste Management
Yucca Mountain Site Characterization Office
P.O. Box 30307
North Las Vegas, NV 89036-0307

QA. N/A

OCT 12 2001

OVERNIGHT MAIL

C. William Reamer, Chief
High-Level Waste Branch
Division of Waste Management
Office of Nuclear Materials Safety
and Safeguards
U.S. Nuclear Regulatory Commission
Two White Flint North
Rockville, MD 20852

TRANSMITTAL OF REPORTS ADDRESSING KEY TECHNICAL ISSUES (KTI)

This letter transmits the following KTI agreement items, due to be provided to the U.S. Nuclear Regulatory Commission (NRC) in the Fiscal Year (FY) 2001, on compact disc (enclosure 1) and in hard copy (enclosure 2).

ANL-EBS-GS-000001, Analysis and Model Report (AMR) - Geochemistry Model Validation Report: Material Degradation and Release Model (CLST.5.04, ENFE.5.03, RT.4.03). The report presents the model for estimating the long-term geochemical behavior of waste packages and waste forms, specifically (1) the extent to which criticality control materials remain in the waste package, (2) the extent to which fissile material will be carried out of the waste package by infiltrating water, and (3) the chemical composition and amounts of minerals and other solids left in the waste package. This model validation report incorporates the lessons learned from the recent model validation issues raised by NRC. X

ANL-EBS-GS-000002, AMR - Geochemistry Model Validation Report: External Accumulation Model (CLST.5.04, ENFE.5.03, RT.4.03). The External Accumulation Model predicts the accumulation of fissile material in fractures and voids in the rock beneath a degraded waste package. This model validation report incorporates the lessons learned from the recent model validation issues raised by NRC X

Added-10-18-01

1 91 292

NKSSON
10/18/01

OCT 12 2001

List and Schedule for Model Validation Reports related to Criticality (CLST.5.04, ENFE.5.03, RT.4.03). Note that the list of scheduled reports includes the original list of 17 reports (as provided to NRC at the October 2000 Criticality Technical Exchange), the new consolidated list of reports, and the expected delivery dates of the reports to the NRC. The estimated completion dates noted in the list are subject to change as a result of future planning.

CAL-EBS-NU-000017, Calculation - Radiolytic Species Generation from Internal Waste Package Criticality (CLST.5.05). This report addresses the development of information on accelerated corrosion rates for Zircaloy due to radiolytic chemical specie generation (primarily nitric acid) during postulated static criticality events. The focus of the calculation is increased nitric acid produced by a criticality. A white paper, included as an attachment to the current calculation, addresses the issue of how the nitric acid may effect corrosion rates. Based on the amount of nitric acid produced, scavenging effects in corrosion products are expected to prevent sufficient accumulation of nitric acid to significantly affect corrosion rates. A final assessment (geochemistry evaluation) will be performed prior to license application to confirm these expectations, as per the existing agreement (CLST 5.05).

✓ Letter Report – Excavation-Induced Failures (SDS.3.03). This report documents the * U.S. Geological Survey (USGS) observations of excavation-induced fractures in the Exploratory Studies Facility and the Enhanced Characterization of the Repository Block Cross Drift.

Five additional documents due in FY 2001 have been delayed. Four of these are in final review and are expected to be available in November 2001. These include:

Crushed Tuff Hydrothermal Column Experiment Report (ENFE.2.12)

Mean vs Median Justification (SDS.1.02, SDS.2.03)

ANL-EBS-MD-000049, AMR - Multiscale Thermohydrologic Model (TEF.2.09)

USGS Regional Model (USFIC.5.09)

The remaining document, ANL-EBS-MD-000030, AMR - Ventilation Model (RDTME.3.01, TEF.2.07), has been delayed to resolve technical issues, and expected to be available in January 2002.

C. William Reamer

-3-

OCT 12 2001

The above has been discussed with James W. Anderson, of your staff. Please direct any questions concerning this letter and its enclosures to Timothy C. Gunter at (702) 794-1343.



Stephan Brocoun

Assistant Manager, Office of

Licensing and Regulatory Compliance

OL&RC:TCG-0018

Enclosures:

1. CD Containing Criticality KTIs, Excavation
Induced Fractures ✓
2. Hard Copy of Enclosure 1

cc w/encl 1:

J. W. Anderson, NRC, Rockville, MD
M. M. Comar, NRC, Rockville, MD
D. D. Chamberlain, NRC, Arlington, TX
R. M. Latta, NRC, Las Vegas, NV
S. H. Hanauer, DOE/HQ (RW-2) FORS
B. J. Garrick, ACNW, Rockville, MD
Richard Major, ACNW, Rockville, MD
W. D. Barnard, NWTRB, Arlington, VA
Budhi Sagar, CNWRA, San Antonio, TX
W. C. Patrick, CNWRA, San Antonio, TX
Steve Kraft, NEI, Washington, DC
J. H. Kessler, EPRI, Palo Alto, CA
J. R. Curtiss, Winston & Strawn, Washington, DC
R. R. Loux, State of Nevada, Carson City, NV
John Meder, State of Nevada, Carson City, NV
Alan Kalt, Churchill County, Fallon, NV
Irene Navis, Clark County, Las Vegas, NV
Harriet Ealey, Esmeralda County, Goldfield, NV
Leonard Fiorenzi, Eureka County, Eureka, NV
Andrew Remus, Inyo County, Independence, CA
Michael King, Inyo County, Edmonds, WA
Mickey Yarbro, Lander County, Battle Mountain, NV
Jason Pitts, Lincoln County, Caliente, NV
L. W. Bradshaw, Nye County, Pahrump, NV
Geneva Hollis, Nye County, Tonopah, NV
Josie Larson, White Pine County, Ely, NV
Judy Shankle, Mineral County, Hawthorne, NV

C. William Reamer

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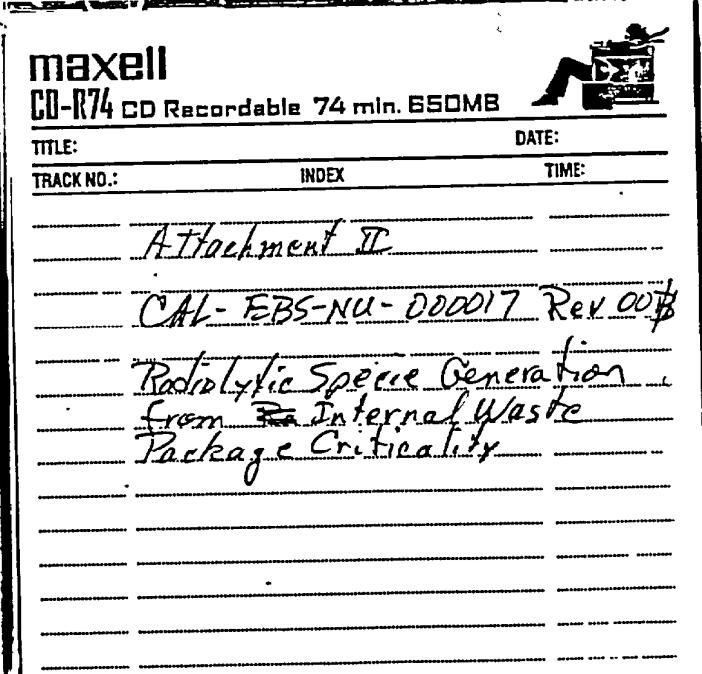
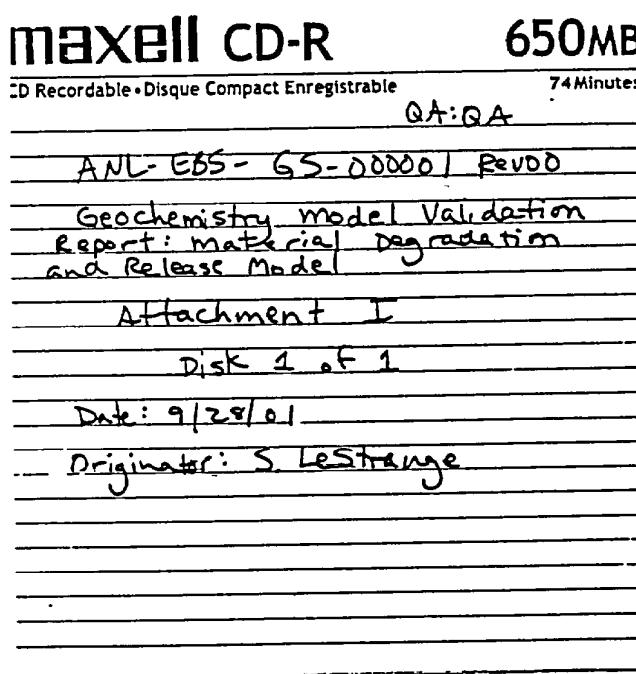
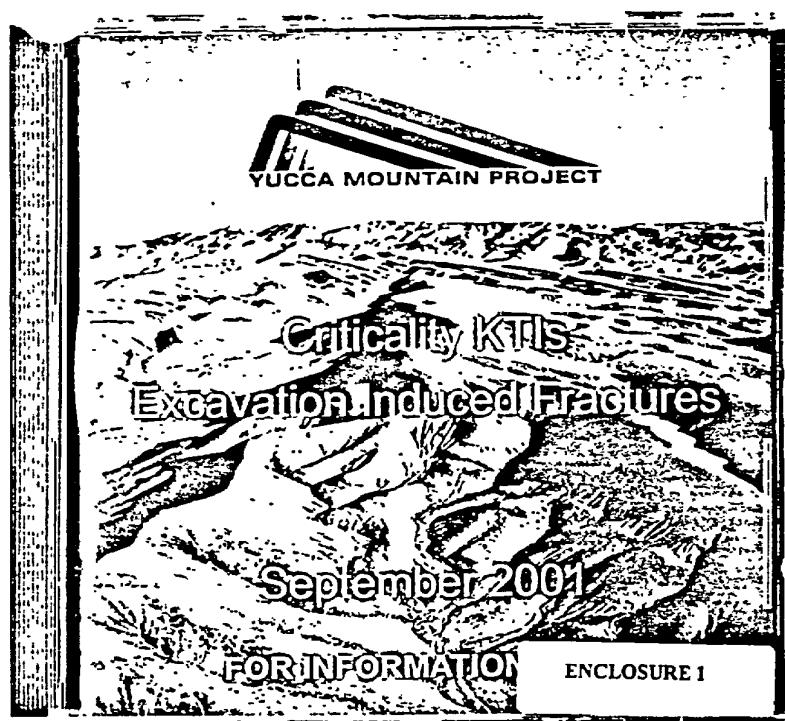
OCT 12 2001

cc w/encl 1: (continued)

R. I. Holden, National Congress of American Indians, Washington, DC
Allen Ambler, Nevada Indian Environmental Coalition, Fallon, NV

cc w/o encls:

N. K. Stablein, NRC, Rockville, MD
D. J. Brooks, NRC, Rockville, MD
W. L. Belke, NRC, Las Vegas, NV
L. H. Barrett, DOE/HQ (RW-1) FORS
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R. A. Milner, DOE/HQ (RW-2) FORS
C. E. Einberg, DOE/HQ (RW-52) FORS
N. H. Slater, DOE/HQ (RW-52) FORS
S. J. Cereghino, BSC, Las Vegas, NV
N. H. Williams, BSC, Las Vegas, NV
K. M. Cline, MTS, Las Vegas, NV
R. B. Bradbury, MTS, Las Vegas, NV
R. P. Gamble, MTS, Las Vegas, NV
R. C. Murray, MTS, Las Vegas, NV
R. D. Rogers, MTS, Las Vegas, NV
Richard Goffi, BAH, Washington, DC
G. W. Hellstrom, DOE/YMSCO, Las Vegas, NV
S. P. Mellington, DOE/YMSCO, Las Vegas, NV
R. E. Spence, DOE/YMSCO, Las Vegas, NV
V. F. Iorii, DOE/YMSCO, Las Vegas, NV
Stephan Brocoum, DOE/YMSCO, Las Vegas, NV
D. R. Williams, DOE/YMSCO, Las Vegas, NV
A. V. Gil, DOE/YMSCO, Las Vegas, NV
T. C. Gunter, DOE/YMSCO, Las Vegas, NV
C. L. Hanlon, DOE/YMSCO, Las Vegas, NV
E. T. Smistad, DOE/YMSCO, Las Vegas, NV
K. D. Lachman, DOE/YMSCO, Las Vegas, NV
D. H. Coleman, DOE/YMSCO, Las Vegas, NV
J. T. Sullivan, DOE/YMSCO, Las Vegas, NV
C. A. Kouts, DOE/YMSCO (RW-2) FORS
R. N. Wells, DOE/YMSCO (RW-60) Las Vegas, NV
OL&RC Library
Records Processing Center = " "
(ENCLS = READILY AVAILABLE)



Exploring - D:\ANL-EBS-GS-000001\Attachment I-CD\databases

File Edit View Tools Help

All Folders

Contents of 'D:\ANL-EBS-GS-000001\Attachment I-CD\databases'

Name	Size	Type	Modified	Attribu...
data0yme	2,597KB	YME File	8/27/01 11 39 AM	R

011004_1508 (D)
 ANL-EBS-GS-000001
 Attachment I-CD
 databases
 Fuel2
 Glass
 j13wsf
 Minerals
 Pu 1999
 Pu 2001
 ANL-EBS-GS-000002
 Attachment I-CD
 10k
 15k
 18k
 21k
 23k
 5 2k
 6 7k
 7 4k
 8 5k
 Glass Valid
 transl
 1_Startng_Point
 2_Run_EQPT
 3_Check_watery
 4_Remove_Org
 5_Run_transl
 6_CorrectMANUAL
 CAL-EBS-NU-000017
 Attachment I-CD
 Install
 Mac
 WIN 95_NT
 List and Schedule

1 object(s) 2.53MB (Disk free space: 0 bytes)

Start GroupWise - Mailbox My Computer Corel WordPerfect - [.] Exploring - D:\ANL-EBS-GS-000001\Attachment I-CD\databases N M 4:08 PM

Exploring - D:\ANL-EBS-GS-000001\Attachment I-CD\Fuel2

File Edit View Tools Help

All Folders

011004_1508 (D)	
└ ANL-EBS-GS-000001	
└ Attachment I-CD	
└ databases	
└ Fuel2	
└ Glass	
└ j13wsf	
└ Minerals	
└ Pu1999	
└ Pu2001	
└ ANL-EBS-GS-000002	
└ Attachment I-CD	
└ 10k	
└ 15k	
└ 18k	
└ 21k	
└ 23k	
└ 52k	
└ 6.7k	
└ 7.4k	
└ 8.5k	
└ Glass Valid	
└ transl	
└ 1_Starting_Point	
└ 2_Run_EQPT	
└ 3_Check_watersy	
└ 4_Remove_Org	
└ 5_Run_transl	
└ 6_CorrectMANUAL	
└ CAL-EBS-NU-000017	
└ Attachment I-CD	
└ Install	
└ Mac	
└ WIN 95_NT	
└ List and Schedule	

Contents of 'D:\ANL-EBS-GS-000001\Attachment I-CD\Fuel2'

Name	Size	Type	Modified	Attribu...
elem_aqu bin	1KB	File	8/28/01 12:42 PM	R
elem_aqu txd	14KB	BIN File	8/23/01 11:46 AM	R
elem_m_a.txt	22KB	Text Document	8/23/01 11:46 AM	R
elem_min.txt	21KB	Text Document	8/23/01 11:46 AM	R
elem_tot.txt	21KB	Text Document	8/23/01 11:46 AM	R
j13fuel 6i	21KB	Text Document	8/23/01 11:46 AM	R
j13fuel_081001.xls	29KB	Microsoft Excel ...	8/28/01 1:32 PM	R
j13stuel 6i	39KB	Microsoft Excel ...	8/28/01 1:32 PM	R
j13stuel 6i 6o	31KB	6I File	8/23/01 11:34 AM	R
j13stuel 6i 6o	2,003KB	6O File	8/23/01 11:46 AM	R
j13stuel 6i 6p	33KB	6P File	8/23/01 11:46 AM	R
j13stuel 6i 6t	214KB	6T File	8/23/01 11:46 AM	R
j13stuel 6i 6tx	121KB	6TX File	8/23/01 11:46 AM	R
J13stuel bin	7,709KB	BIN File	8/23/01 11:46 AM	R
J13stuel tx0	46KB	TX0 File	8/27/01 8:54 AM	R
min_info.txt	42KB	Text Document	8/23/01 11:46 AM	R

16 object(s)

10.1MB (Disk free space: 0 bytes)

03:26PM

Start

GroupWise - Mailbox

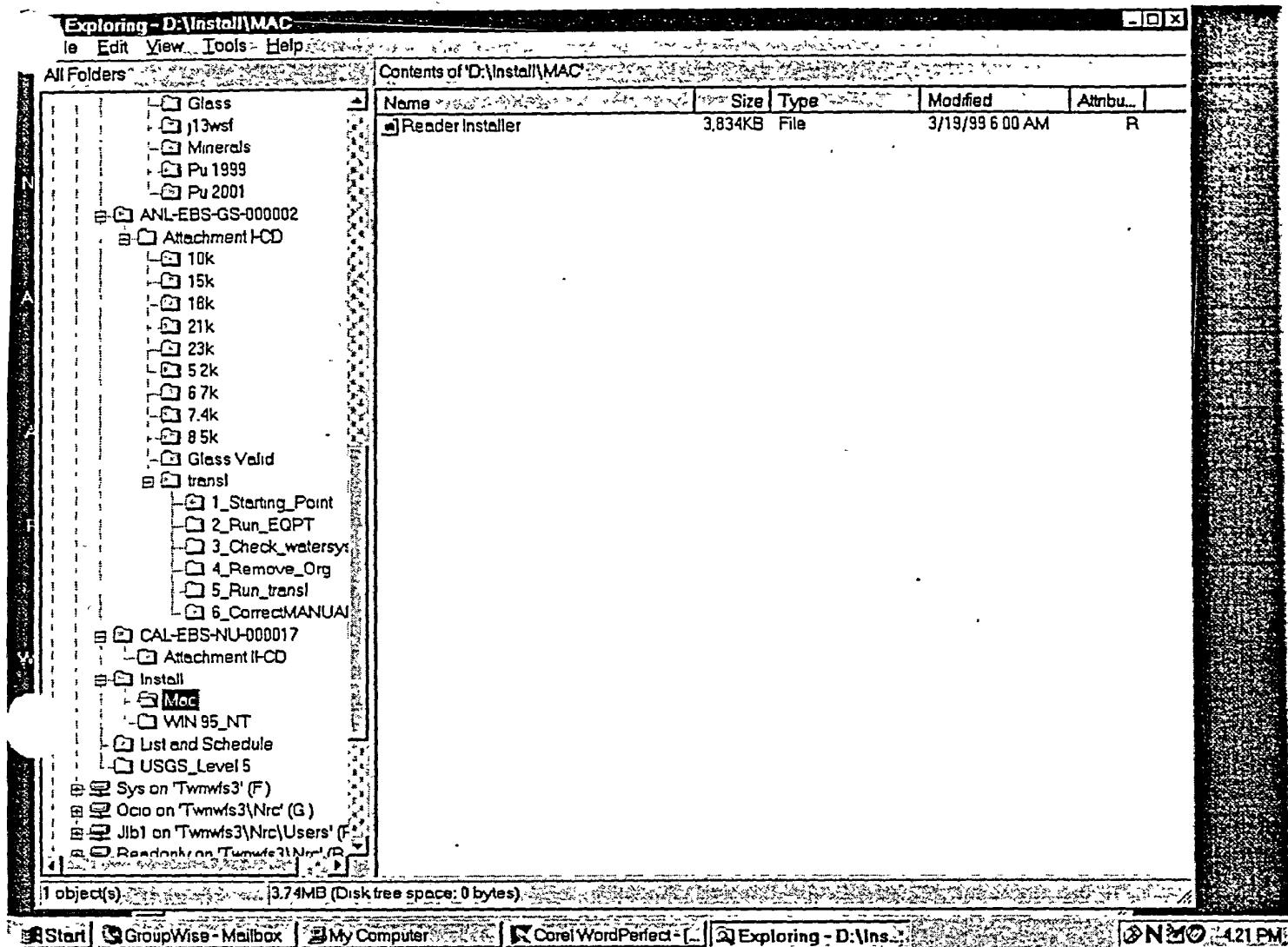
My Computer

Corel WordPerfect -

Exploring - D:\ANL...

NEMO

4:08 PM



Exploring - D:\transl\5_Run_trans!

File Edit View Tools Help

All Folders Contents of 'D:\transl\5_Run_trans!'

Name	Size	Type	Modified	Attrib...
data11.nuc	1,016KB	NUC File	4/26/01 9:37 AM	R
fix_redox.out	7KB	OUT File	6/18/01 11:32 AM	R
phreeqc.nuc_90	217KB	NUC_90 File	6/18/01 11:32 AM	R
s25.out	12KB	OUT File	6/18/01 11:32 AM	R
transl2.0.exe	257KB	Application	5/7/01 10:34 PM	R
watersys.dat	1KB	DAT File	9/11/99 11:21 AM	R
10k			2:07PM	
15k			2:31PM	
18k			2:48PM	
21k			3:16PM	
23k			3:10PM	
52k			3:10PM	
67k			3:21PM	
7.4k			3:25PM	
85k			3:54PM	
Glass Valid			3:18PM	
transl			6:23PM	
1_Startng_Point			6:43PM	
2_Run_EQPT			6:59PM	
3_Check_watersys.dat			7:34AM	
4_Remove_Org			8:00AM	
5_Run_trans!			8:29AM	
6_CorrectMANUALLY			9:01AM	
Sys on 'Twnwfs3' (F.)			9:07PM	
Ocio on 'Twnwfs3\Nrc' (G)			9:17PM	
Jlb1 on 'Twnwfs3\Nrc\Users' (F)			9:09PM	
Readonly on 'Twnwfs3\Nrc' (R)			03:26PM	
Shared on 'Twnwfs3\Nrc' (S)			03:52PM	
Nrc on 'Twnwfs3' (Y)				
Sys on 'Twnwfs3' (Z)				

6 object(s) 1.47MB (Disk free space: 0 bytes)

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