Thomas Smith - Case Study of Section 508 compliance challenges

From: David Austin <david.a.austin@snet.net>
To: "Thomas E. Smith" <tes@nrc.gov>
Date: 07/07/2007 9:36:49 PM
Subject: Case Study of Section 508 compliance challenges

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RULES AND DIRECTIVES BRANCH USNRC

Mr. Smith,
Good day sir.
The attached files provide a case study of a real world PDF that lacks compliance with Section 508.

Specifically, the NRC's PDF containing the new, combined guidance for electronic submittals. This particular PDF file showcases the challenges faced by both those
who submit to the NRC and the NRC (which unequivocally must comply with Section 508).

Attached files inventory:

"newGuidanceDoc.pdf" - NRC's PDF obtained from the NRC web site. Renamed for the accessibility study.

"newGuidanceDoc_AdobePDF.web" - This is the Acrobat 8 Professional full checker accessibility report. I have renamed the file extension to "*.web". If this file is place adjacent to the "newGuidanceDoc.pdf" file and the file extension renamed to "*.html" one can view
the report while viewing the "newGuidanceDoc.pdf" file (using Acrobat 8 Professional).

"Accessibility_Report_GuidDoc.pdf" - This document provides a transcription of the essential issues that render the NRC PDF non-compliant to Section 508. I have
made comments (the text within the brackets "[ ]").

The content of the third file is provided below.

Starting Note:

The closer one looks at publishing PDF files that are compliant to Section 508, the more apparent it becomes that the "tools" one must have and use are Adobe products (Acrobat Professional, Distiller, etc.) and that any third party plug-ins for rendering PDF files accessible are for the Adobe products.

From the Full Accessibility Report:

Initial Summary dialog box:

The checker found problems which may prevent the document from being fully accessible.

This document is not tagged; the reading order of the contents may be incorrect.

SUNSI Review Complete
Template = ADM-013

E-RIDS = ADM-03
Add = T. Smith (TES)

562 image(s) with no alternate text.
All of the text in this document lacks a language specification.
146 word(s) that contain characters with no reliable mapping to Unicode.

The Adobe Acrobat accessibility report identifies, by page, what defect exists and a link to each occurrence. The accessibility report also provides hints for repair.

CREATING PDF TAGS

This document is not tagged. To add tags, do one of the following:

Re-create the PDF file from the authoring application with tagging enabled.

[*The following requires Adobe Acrobat Professional.*]

Choose Advanced > Accessibility > Add Tags to infer the tags.
Chose Advanced > Accessibility > TouchUp Reading Order Tool to create the Tags tree manually using the TouchUp Reading Order Tool.
Create the Tags tree manually using the Tags panel.

[*Note: If using the first suggestion, post-processing will still be required, particularly for Tables of Content, Lists of Tables, etc.*]

ADDING ALTERNATE TEXT

Before repairing this problem, you must add tags to the document.
[*See Creating PDF Tags, above.*]
[*The following requires Adobe Acrobat Professional.*]
To add alternative text to an image, choose Tools > Advanced Editing > TouchUp Object Tool. Click on the image. Right Click and choose Properties... from the context menu. Click on the Tag tab and fill in the alternate text field. To add alternate text to tags in the tags panel, select the tag, choose Options > Properties, click on the Tag tab, and fill in the alternate text field.
[*Accomplishing the above is no small task. For example, the image used on page 41 (of the guidance document), for accessibility, contains not one image/figure requiring alternate text but, in fact,* ***278 discrete images/figures****. Each of the 278 require manually accessing each image and manually entering the alternate text or going to each and manually designating the image/figure as an "artifact".*]

SPECIFYING A LANGUAGE

[*Perhaps the easiest fix... regardless, manual intervention is required each time the PDF is created.*]
[The following requires Adobe Acrobat Professional]

Set the default language for the entire document by choosing File > Document Properties > Advanced tab and setting the Language field.

[Again, which language? English or English US? The guidance document fails to address this...]

Set the language for all the text in a subtree of the Tags tree by selecting the element at the root of the subtree, choosing Options > Properties, clicking on the Tag tab, and filling in the Language field.

Set the language of any amount of text by selecting the text in the Content panel, choosing Options > Properties, clicking on the Tag tab, and filling in the Language field.

PROVIDING MISSING UNICODE ENCODINGS

Missing character encodings cannot be repaired in Acrobat.
You will need to re-created the PDF file. When re-creating the file, the following tips may correct the problem:

Use a different font, preferably OpenType, in the original document.
Re-create the PDF file with a newer version of Acrobat Distiller
Use the latest AdobePS driver to create the PostScript file, then re-create the PDF file. (The latest version of AdobePS can be downloaded from www.adobe.com).

[*NOTE: Again, Adobe Products are required.*]
[*The guidance document utilized the standard symbol set. Microsoft, and others routinely utilized reserved values to provide end users symbols of various kinds. None of these will map to unicode (or mapping, in some cases, is not to the "real" symbol).*]
[Proper character/font use can be a challenge. As an example, witness the rather large population of "native format" PDF files in ADAMS that, for symbols, rely upon "WPIconic Symbol"...
Ironically, the majority of ADAMS users are using a "Microsoft" desktop OS and office suite and, thus, without WordPerfect installed, never view the "correct" symbol(s).]

About the file...
Note that, aside from Section 508 issues, the PDF file's usability suffers from a lack of bookmarks, internally designated links to sections/sub-sections that have no link and a table of contents that is not linked to the described content.

As can be seen from the analysis of this NRC PDF, the issues involved with Section 508 compliance do not have the simple resolution that is implied in Section 2.21 of the new Guidance Document.

Be well...
Dave Austin

Adobe Certified Expert - FrameMaker

Mail Envelope Properties (46903F9C.81B : 11 : 2075)

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From: David Austin <david.a.austin@snet.net>

Created By: david.a.austin@snet.net

Recipients
nrc.gov
TWGWPO02.HQGWDO01
TES (Thomas Smith)

Post Office	**Route**
TWGWPO02.HQGWDO01	nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	6217	Saturday, July 7, 2007 9:36 PM
TEXT.htm	7354	
newGuidanceDoc.pdf	719663	
Accessibility_Report_GuidDoc.pdf		117382
newGuidanceDoc_AdobePDF.web		181456
Mime.822	1351001	

Options

Expiration Date:	None
Priority:	Standard
ReplyRequested:	No
Return Notification:	None
Concealed Subject:	No
Security:	Standard

Junk Mail Handling Evaluation Results
Message is eligible for Junk Mail handling
This message was not classified as Junk Mail

Junk Mail settings when this message was delivered
Junk Mail handling disabled by User
Junk Mail handling disabled by Administrator
Junk List is not enabled
Junk Mail using personal address books is not enabled
Block List is not enabled

U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Guidance for Electronic Submissions to the NRC

June 6, 2007

Note: This document will not appear in the Code of Federal Regulations.

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1. Introduction

1.1 Background

This document consolidates several pre-existing documents that provide guidance for electronic submittals to the U.S. Nuclear Regulatory Commission (NRC). The result is a single guidance document, which addresses electronic submittals to the NRC. The following documents have been consolidated into this guidance document and are superseded: ① *Guidance for Submission of Electronic Docket Materials under 10 CFR Part 2, Subpart J,* ② *Guidance for Submission of Electronic Docket Materials (10 CFR Part 2, Subpart C, 10 CFR Part 13, 10 CFR Part 110)* and ③ *Appendix A, United States Nuclear Regulatory Commission (NRC), Guidance for Electronic Submissions to the Commission.*

The NRC plans to update this guidance periodically to reflect changes in technology and agency experience by posting the latest version of the document on the NRC's Web site at www.nrc.gov. (To locate the document, click on the "Business with NRC" button, then select "Electronic Submittals". Scroll to the bottom of the "Electronic Submittals" Web page. The document will be posted under "Related Documents".) While the Commission encourages submission of electronic documents, submission of paper in many instances remains acceptable.

1.2 Scope

This guidance document will provide direction for the electronic transmission and submittal of documents to the NRC. This includes large documents consisting of hundreds of pages of textual and graphic-oriented materials (e.g., maps, photographs, charts, handwritten documents) or other large or complex electronic objects (e.g., computer programs, computer simulations, spreadsheets, audio and/or video files, data files) with electronic file sizes more than several hundred megabytes (MB). Electronic transmission and submittal of documents can be accomplished via the following avenues: the Electronic Information Exchange (EIE) process available on the NRC's "Electronic Submittals" Web page, by Optical Storage Media (OSM) (e.g. CD-ROM, DVD), by facsimile or by e-mail.

The NRC has enhanced its electronic submittal capabilities with a robust system for facilitating the electronic transmission process. The NRC encourages its user community to use the electronic submittal method via the EIE process available on the NRC's "Electronic Submittals" Web page: http://www.nrc.gov/site-help/e-submittals.html.

Note: While the Commission mandates the submission of electronic filings, exemptions are available to submit paper documents if good cause is set forth by the requesting party.

Upon successfully submitting documents to the NRC, the documents are imported into the Agencywide Documents Access and Management System (ADAMS). Participants will have ready access to, and use of, such submittals, for example, in NRC adjudicatory proceedings via the Electronic Hearing Docket (EHD). Eventually, electronic submittals will be transferred to the National Archives and Records Administration (NARA), in accordance with 36 CFR 1228.270. All publicly available documents are imported into the Publicly Available Records System (PARS) Library, which provides access to the publicly available documentation submitted to the NRC.

NRC's Electronic Information Exchange (EIE) System was created to allow NRC customers and stakeholders to submit secure electronic data and document submissions to the agency. In effect, the system ensures the exchanged information is secure and that the person submitting the material is, in fact, the purported submitter. The EIE system is the software behind Internet forms used to submit information for the Adjudicatory Hearings Program, the Criminal History Program, and the General Form Submission Program.

The EIE system receives submitted documents and forwards them to the NRC's document processing center for processing. This system allows the NRC to exchange information related to official agency business with its customers and other Federal agencies across the Internet. The Electronic Information Exchange System uses a public key infrastructure and digital signature technology to authenticate documents and validate the identity of the person submitting the information. It requires the use of digital signatures and certain software plug-ins. Procedures for acquiring a digital ID certificate can be found in Section 3.1. Procedures for installing free software plug-ins can be found within Section 3.3.

This document does not address outgoing NRC communications.

1.3 Applicable Transactions

Documents or other information submitted under oath or affirmation, or other documents where secure transfer is either required or appropriate, should be submitted over the Internet using Electronic Information Exchange (EIE) or submitted on Optical Storage Media (OSM) (see Section 4.0). EIE can be easily accessed from the "Electronic Submittals" Web page.

1.3.1 Exceptions to Electronic Submissions

1.3.1.1 Submittal Exceptions for the EIE Process Available on the NRC's "Electronic Submittals" Web page

Communications with the NRC may be submitted electronically via the EIE process available on the NRC's "Electronic Submittals" Web page except for the following:

1. Classified information (e.g., National Security Information and Restricted Data), and Safeguards Information. This information may only be submitted electronically via OSM (see Section 4.0).

2. "Immediate" or "prompt" notifications to the NRC that NRC regulations require be made by telephone or telefax up to one week before or after an event (e.g., 10 CFR 30.50 or 30.55(c)).

3. Notice of filing of bankruptcy petition, whether voluntary or involuntary (e.g., 10 CFR 30.34(h)(1)).

4. Documents served on the NRC as a participant in Federal Court proceedings or in non-NRC administrative proceedings (such as administrative proceedings before the Merit Systems Protection Board, unless electronic submission is authorized by rule or order issued by a Federal Court or Agency).

5. NRC contractor proposals or invoices submitted in response to specific contractual requirements. (Because Federal Acquisition Regulation guidance as contained in

Section 30 of the Office of Federal Procurement Policy Act [41 USC 426] allows the Federal Government to use electronic commerce whenever practical, guidance for electronic submittal of proposals and invoices will be addressed in individual procurements. Further guidance for submission of these documents will be issued at a later date.)

6. Financial assurance instruments to meet decommissioning cost requirements and prescribed by regulation at 10 CFR 30.35(e) and (f), 10 CFR 40.36(d) and (e), and 10 CFR 70.25(e) and (f) (including surety bonds, letters of credit, lines of credit, and insurance).

7. Documents with special printing requirements (see Section 2.10). This information may only be submitted electronically via OSM.

8. Individual files >50 MB, which can not be segmented into smaller sized files. This information may only be submitted electronically via OSM.

1.3.1.2 Optical Storage Media (OSM) Submittal Exceptions

Communications with the NRC may be submitted electronically via OSM except for the following:

1. "Immediate" or "prompt" notifications to the NRC that NRC regulations require be made by telephone or telefax up to one week before or after an event (e.g., 10 CFR 30.50 or 30.55(c)).

2. Notice of filing of bankruptcy petition, whether voluntary or involuntary (e.g., 10 CFR 30.34(h)(1)).

3. Documents served on the NRC as a participant in Federal Court proceedings or in non-NRC administrative proceedings (such as administrative proceedings before the Merit Systems Protection Board, unless electronic submission is authorized by rule or order issued by a Federal Court or Agency).

4. NRC contractor proposals or invoices submitted in response to specific contractual requirements. (Because Federal Acquisition Regulation guidance as contained in Section 30 of the Office of Federal Procurement Policy Act [41 USC 426] allows the Federal Government to use electronic commerce whenever practical, guidance for electronic submittal of proposals and invoices will be addressed in individual procurements. Further guidance for submission of these documents will be issued at a later date.)

5. Financial assurance instruments to meet decommissioning cost requirements and prescribed by regulation at 10 CFR 30.35(e) and (f), 10 CFR 40.36(d) and (e), and 10 CFR 70.25(e) and (f) (including surety bonds, letters of credit, lines of credit, and insurance).

1.3.2 Electronic Forms and Payments

Each form referred to in NRC regulations can be found on the NRC Reading Room Web site at http://www.nrc.gov/reading-rm/doc-collections/forms/ in Portable Document Format (PDF) for viewing and printing.

Financial payments required by regulations can be submitted electronically. To establish financial authorization electronically, complete NRC Form 628. Payments by credit card of civil penalties, Part 170 licensing and inspection fees, Part 171 annual fees, and other fees, may be done by completing NRC Form 629 (Authorization for Payment by Credit Card) included with the invoice or civil penalty.

1.3.3 Submissions Requiring Oath or Affirmation

Submissions requiring oath or affirmation may be submitted electronically using the EIE process available on the NRC's "Electronic Submittals" Web page or via OSM. These include the following:

1. Documents that by statute should be submitted under oath or affirmation (e.g., pursuant to section 182 of the Atomic Energy Act of 1954, as amended, 42 USC 2232). Generally, oath or affirmation requirements apply to applications for a license, amendments to a license, some licensee responses to Notices of Violation (NOV), and certain letters of transmittal. NRC's regulations in 10 CFR Parts 2, 50 and 52 implement these statutory requirements; certain regulations require an oath or affirmation for submission of documents (e.g., 10 CFR 50.54(f) and 10 CFR 50.30(b)).

2. Documents that should be sent by certified mail (e.g., 10 CFR Part 30, Appendix A II. C.2).

1.3.3.1 Oath and Affirmation for the EIE Process Available on the NRC's "Electronic Submittals" Web page

There are currently two acceptable methods for providing this oath when submitting via the EIE process available on the NRC's "Electronic Submittals" Web page:

1. Documents requiring oath or affirmation may use electronic submission via the EIE process available on the NRC's "Electronic Submittals" Web page, to digitally sign the affirmation on the document. Using this process, the document should conclude with a statement:

   > "I declare under penalty of perjury that the foregoing is true and correct. Executed on [date]."

   The electronic document should be digitally signed (by clicking on the Signed By button) by the person affirming this statement. This person may then transmit the document electronically directly to the NRC (by clicking on the Submit Document button) or may forward the document to someone else for transmission to the NRC. In the latter case, the transmitter should also sign the document to authorize the electronic transmission.

Except as set forth below, multiple documents requiring individual digital signatures by different persons cannot be sent in a single electronic transmission. The current electronic submission process only allows one or two persons to digitally sign a single transmission. (For instance, in the case of the EIE system for adjudicatory submittals, only one digital signature is available for signing a pleading or other transmission submission, meaning any oath or affirmation affidavits attached to a filing cannot be signed digitally.) Therefore, the NRC recommends that the method described below in item 2 be used for submissions that require multiple oath or affirmations affidavits.

Note: When digitally signing a document, the submitter is actually digitally signing the transmission form, not the document. Signing the form, however, is the equivalent of signing the document.

2. Oath or affirmation affidavits may also be signed with an "Executed in Accord with 10 C.F.R. § 2.304 (d)" designation. The NRC staff may use a typed in "/RA/" meaning "Record Approved" designation rather than "Executed in Accord with 10 C.F.R. § 2.304(d)."

   Note: Although there are other methods available to electronically sign documents using word processing and other software, these are not currently acceptable for use in signing documents for submission to the NRC because they do not provide the levels of authentication, certification, and non-repudiation that are present in the electronic submission process.

1.3.3.2 OSM Oath or Affirmation

For an OSM submission, the signed original paper transmittal letter should contain the oath and the signature of the person swearing to or affirming the accuracy of the information submitted. Specifically, the letter should include the following statement:

> "I declare under penalty of perjury that the foregoing is true and correct. Executed on [date]."

1.3.4 Other 10 CFR Part 2 Submissions

Rulemaking petitions, comments filed in rulemaking proceedings (10 CFR Part 2, Subpart H), and requests for enforcement action under 10 CFR 2.206 may be submitted electronically via the EIE process available on the NRC's "Electronic Submittals" Web page, via OSM, or e-mail. Other documents submitted pursuant to 10 CFR Part 2, Subpart B, "Procedure for Imposing Requirements By Order, or for Modification, Suspension, or Revocation of a License, or for Imposing Civil Penalties," may be submitted electronically via the EIE process available on the NRC's "Electronic Submittals" Web page or via OSM.

1.3.5 Freedom of Information Act (FOIA) and Privacy Act Requests

All FOIA and Privacy Act requests and appeals may be submitted electronically via the EIE process available on the NRC's "Electronic Submittals" Web page, OSM, facsimile, or e-mail.

2. Parameters for Electronic Files Submitted to the NRC

Unless otherwise noted, all electronic documents submitted to the NRC, including all enclosures or attachments that are documents, should meet the file format specifications delineated in this section.

Electronic Submittals may also contain other forms of electronic information including data files, computer models, and video or audio clips that are not considered documents. These files are not required to conform to the file format specifications established for documents. However, be aware that these non-conforming files should be readable either by commercial off-the-shelf (COTS) software, or by providing, where appropriate, executable programs that should be submitted via OSM along with the submitted files. Only those products that do not require the end-user to purchase a license to use the products are acceptable.

Note: Any electronic file that can be converted to PDF format (spreadsheets, slide presentations, etc.) is considered a "document" by the NRC and is subject to these specifications. When submittals contain information that should be made publicly available and information that is deemed sensitive, the public information and the sensitive information should be separated into different files.

2.1 Who Should Follow This Guidance

This guidance is intended for licensees, applicants, external entities (including Federal, state, and local governments), vendors, and members of the public who submit documents to the NRC.

2.2 Submittal Description Table

When utilizing either the EIE process available on the NRC's "Electronic Submittals" Web page or OSM, the NRC anticipates that electronic documentary submittals will fall into three general categories based on the submittal type, size, and characteristics. The following table describes these categories and summarizes the applicable submission methods.

Submittal Type	Document Submittal Size	File Characteristics	Method
Simple	File <50 MB	One or more textual or graphic-oriented electronic files in PDF.	Use OSM or a single electronic transmission to submit the file(s) with a transmittal letter (See Note within Section 2.7).
Large (Bundle)	File ≥50 MB	Textual or graphic-oriented electronic files in PDF that can logically be segmented (by chapters, sections, etc.) into files of ≤50 MB.	Use multiple electronic transmissions (bundle submission) with each file ≤50 MB. Submit the files individually with a transmittal letter.

Complex	Any	Any combination of the following electronic object categories: • Textual or graphic-oriented electronic files in PDF. • Electronic files that cannot be segmented into ≤50 MB. • Other electronic objects, such as computer programs, simulations, video, audio, data files, and files with special printing requirements. • Files that contain classified national security information or safeguards information.	Use multiple electronic transmissions as follows: Use one or more electronic transmissions (≤50 MB each) to submit a transmittal letter and **(if applicable)** single or multiple segmented PDF files or files that do not contain classified national security information or safeguards information. — ***and*** — Deliver the entire complex submission on OSM for a complete submission. **Note:** If adjudicatory material is only being submitted on OSM, a copy of the transmittal letter is submitted electronically via the EIE process available on the NRC's "Electronic Submittals" Web page.

2.3 File Formats

Electronic documents should be submitted in PDF or otherwise meet the specifications delineated in this section. The following table defines the particular PDF output file formats and their use when submitting electronic documents to the NRC:

Preferred PDF Output File Format:

File Format	Version	Filename Extension	Recommended Use
Adobe® Acrobat PDF Formatted Text and Graphics (formerly known as PDF Normal). Options should be set according to the settings described in Section 2.9.	Current or 2 previous *	pdf	Textual documents converted from native applications only ** ***
Adobe® Acrobat PDF Searchable Image (Exact) (formerly known as PDF Original Image with Hidden Text). Options should be set according to the settings described in Section 2.9.	Current or 2 previous *	pdf	Textual documents converted from scanned documents.
Adobe® Acrobat PDF Image Only. Options should be set according to the settings described in Section 2.9.	Current or 2 previous *	pdf	Preferred format for graphic-, image-, and forms-oriented documents (PDF Image Only ***cannot*** be used for textual documents because it is not Section 508 compliant. See Section 2.21).

* The acceptable versions of conversion software used to create PDF output files include the current market (non-beta) version distributed by the software vendor, the version distributed immediately prior to the current version, and the version distributed two versions prior to the current version.

Note: Adobe has a fourth PDF output file format (PDF Searchable Image (Compact)) that uses compression techniques to reduce file sizes of images. This is not an acceptable format for submission to the NRC because it uses lossy compression techniques that do not result in a true and accurate representation of the original document.

** Textual documents scanned from the original paper copies and converted into PDF Formatted Text and Graphics result in the capture of only a text file that contains Optical Character Recognition (OCR) conversion errors. This inaccurate representation of the original document is not acceptable for capture by the NRC as an archival record. If the native format of a document is not available for creating a PDF file, the NRC recommends that Searchable Image (Exact) PDF be generated from a scanned image of the document. This will create a PDF file that contains a 100% accurate representation of the original document which will be acceptable for transfer to the National Archives.

*** Adobe® PDF Formatted Text and Graphics files that contain embedded images of text will not be accepted. These files are usually a result of using word processing applications to cut and paste images of text instead of the text itself; from one document to another. This practice results in a picture (image) of the text being created that is not full text searchable. However, images of text that is intended as a graphical representation only and are not meant to convey the information contained in the text will be accepted.

Images originally created in a Tagged Image File Format (TIFF) that are primarily graphic-oriented in nature (non-textual) may be converted to PDF for submission to NRC using the PDF Image Only format as described above. Moreover, images embedded in a document may be converted to PDF using lossless JPEG2000 compression techniques, which NARA will accept.

The NRC recommends that the results of spreadsheet applications be converted to one of the acceptable PDF file formats. The NRC staff may also need the native file spreadsheet data to perform additional calculations/analyses. Spreadsheet data may be submitted using the following acceptable native file formats:

Acceptable Spreadsheet File Format Table:

Native File Format	Version	Filename Extension	Preferred Use
Microsoft® Excel	Current or 2 previous *	xls	Spreadsheet calculations
Corel® QuattroPro	Current or 2 previous *	wb3	Spreadsheet calculations
Lotus® 1-2-3	Current or 2 previous *	wk3/wk4	Spreadsheet calculations

*. The acceptable versions of spreadsheets include the current market (non-beta) version distributed by the software vendor, the version distributed immediately prior

to the current version, and the version distributed two versions prior to the current version.

2.4 Naming Convention

When electronically submitting documents to the NRC, the naming convention for each file should conform to ISO 9660 format. Filenames are limited to a total of 49 characters, which includes the ".", spaces and the three-character filename extension.

The 49-character limit is subject to the following criteria:

- The first three characters of the file name should always be used to identify the correct sequential order of the submitted files (e.g., 001, 002, 003).
- The filename should reflect, to the extent possible within the remaining characters, the chapter or section number (based on the logical breakpoint used for segmentation of the document as described in Section 2.18) and the title of the file/segment being submitted.
- The file should retain the default three-character file extension associated with the format.

Example: **001 Est of Long-Term Geochem Behavior Sec 1.pdf**

(Example explanation: **001** belongs to the first document attached to the submittal; therefore, the next document attached would begin with 002. **Est of Long-Term Geochem Behavior** is the title of the document. **Sec 1** is Section 1 of the document, therefore the next document attached would be Section 2. **.pdf** is the file extension of an Adobe® Acrobat document.)

File Naming Example Table:

Document Title	File Name
Multiple File Documents	
Chapter 1, Section 1 Estimate of Long-Term Geo-chemical Behavior	001 1.1 Estimate - Long-Term Geochem Behavior.pdf
Chapter 1, Section 2 Estimate of Long-Term Geo-chemical Behavior	002 1.2 Estimate - Long-Term Geochem Behavior.pdf
Appendix A Estimate of Long-Term Geo-chemical Behavior	003 ApA Estimate - Long-Term Geochem Behavior.pdf
Single File Documents	
Attachment II, CAL-EBS-NU-000017 Rev 003 Calculation, Radiolytic Specie Generation from Internal Waste Package Criticality	001 Att 2 CAL-EBS-NU-000017 R003.pdf
List and Schedule for Model Validation Reports related to Criticality	001 List-Schd for MVRs related to Criticality.pdf

Special Instructions for COLA only:
See Section 8.3.1 for the specific naming convention for COL Applications.

2.5 File Size Limitations

Large files create challenges for both the NRC staff and the public when viewed or

downloaded. Therefore, the NRC requests that submitters make every effort to limit the size of each file or the total size of all the files included with a single electronic submission to ≤50 MB.

Additionally, small files can be problematic. Large volumes of files require significant resources to capture and profile in electronic document management systems. Therefore, the NRC encourages submitters to combine files that are components of larger documents to create 50 MB files that can be more economically and efficiently managed.

The maximum size of the file(s) submitted to the NRC governs the acceptable method of transmission. For example, submitters may use a single transmission to electronically submit one or more PDF files and/or accepted spreadsheet files so that the total size of the submitted file(s) does not exceed 50 MB, including all attachments. Submitters should use the OSM transmission method in all other cases unless e-mail or facsimile is a more appropriate option.

The use of compression techniques (zipped files, downsized files, etc.) is not allowed for electronic files submitted to the NRC because they use lossy compression techniques that do not result in a true and accurate representation of the original document. The table below summarizes the size limitations based on the method of file transmission:

File Size Limitations Based on Transmission Method Example Table:

Method of Transmission	File Size Limitations
EIE process available on the NRC's "Electronic Submittals" Web page	≤50 MB *
OSM	≤50 MB per individual file on OSM **, ***
E-mail	≤10 MB *

* Total, combined size of message and attachments comprised of PDF file(s) and accepted spreadsheet format file(s). >50 MB files broken into segments of ≤50 MB (per file) can be sent using multiple electronic submissions (bundle submission).

Note: The General Submissions link (found on the EIE process available on the NRC's "Electronic Submittals" Web page) for processing non-adjudicatory submittals, can not support a bundle submission at this time.

Note: Oversize drawings and other files with special printing requirements (Section 2.11), regardless of the file size, should be provided on OSM.

** The total OSM capacity may be used but submitters are urged to limit individual files to ≤50 MB.

*** In some cases a single page document or object (e.g., oversize color drawing) may exceed the 50 MB file size limit. Submission of an oversize file (>50 MB limit) is allowed in these instances.

2.6 Security/Access Settings

Submissions should not contain any security settings, password protections, or any other attributes that would preclude full NRC access to and use of the files. NRC's internal security and archival processes will maintain the integrity of the materials that are submitted.

2.7 Transmittal Letters

Each submittal of two or more files (regardless of size) should include a transmittal letter (which would be an additional file attached to the submittal) that provides explanatory information that will enable the NRC to ensure the completeness and integrity of the submission (see examples within Section 9.0).

On the first page of the transmittal letter, submitters should include the following information:

- Organization or individual name and the address of the author.
- Docket number (if applicable).
- Subject line (a non-sensitive, brief, but descriptive narrative of the subject of the submission).
- Any requests for withholding from public disclosure in accordance with 10 CFR 2.390, 2.1003 or 2.1006.

On the last page of the transmittal letter, submitters should provide:

- The name, mailing and e-mail addresses, and phone number of a point of contact who can resolve discrepancies in document submittals, should they arise.
- A complete listing of the components (electronic files and/or physical objects) that make up the submittal. The components should be listed in the order in which they are submitted. Additionally, if OSM is utilized, the component listing should include the total number of OSM that are being submitted by expedited delivery (same day or overnight courier) (see Section 4.0).
- A detailed statement describing any deviation among the submitted files from the use of PDF formatting.
- A disclaimer statement for each submitted file that may have links to another file(s) or to the Internet (see Sections 2.12.1 and 10.1 for examples).
- A list of parties served with the submission.

Each of the listed components should indicate the following information:

- The filename (as defined in Section 2.4, including file extension).
- The size of the file.
- Sensitivity level (e.g., publicly available, proprietary, classified, etc.) (see Sections 2.19 and 2.20).
- An indication of whether the component is being submitted electronically and/or submitted on OSM.
- A file that provides a non-sensitive description of all electronic components characterized as Binary Large Objects (BLOBs) or other physical objects.
- Any special instructions or information necessary to view or use the information, such as the use of the OSM, computer operating system, or software requirements for data files, computer models, etc.

Special Instructions for HLW Submittals only:
Any Licensing Support Network (LSN) numbers associated with documents filed with a pleading or other submission (e.g., LSN numbers associated with prefiled exhibits) should also be included in the transmittal letter.

Special Instructions for COLA only:
See Section 8.3.5 for the specific instructions regarding packing slips (a file describing the contents of the DVD or CD-ROM) which are provided with COL Applications.

2.8 Resolution

To comply with NARA Standards, PDF documents should be created using the following resolution guidelines:

- Bi-tonal (black and white) PDF resolution, not less than 300 dots per inch (dpi).
- Color PDF resolution, not less than 300 dpi.
- Grayscale PDF resolution, not less than 300 dpi.

Submittals under 10 CFR Part 2, Subpart J, may use the minimum effective resolution for color and grayscale images specified in that subpart.

Resolution Flexibility Table:

Special Situation	Bi-tonal Resolution	Color Resolution	Grayscale Resolution
A document created after January 1, 2004 contains an image scanned before January 1, 2004	300 dpi	150 dpi	150 dpi
A document created before January 1, 2004	300 dpi	150 dpi	150 dpi

In these cases, the submitter should maintain the integrity of the scanned image, the quality of the graphic presentation, and a readable representation of the original work capable of being duplicated and/or reproduced.

Note: A submitter can run a resolution test by using Preflight (bundled with Adobe® Acrobat 6/7 Professional ONLY). Preflight guidance can be found on the NRC's "Electronic Submittals" Web page (http://www.nrc.gov/site-help/e-submittals.html) under "Related Documents". This information is available in PDF document form and in video clips.

2.9 Settings for Creating PDF Formatted Text and Graphic Files

The NRC has established a custom optimization that strikes a balance between print and screen optimizations. This custom optimization provides adequate retrieval response time for online viewing while providing sufficient clarity and resolution for printing. The settings established for this custom optimization are listed below and should be used on all submittals to the NRC. The settings are specific to Adobe® Acrobat 8.0. However, when PDF creation software other than Adobe® Acrobat 8.0 is used, the PDF creation software should be configured with values equivalent to those listed below. All fonts should be embedded in the PDF file to ensure compliance with NARA guidelines.

Note: If you are using an Adobe® product, to maintain documents compatibilities and ensure all security vulnerabilities are resolved, we recommend that you check Adobe's website at http://www.adobe.com/downloads/updates periodically to get the latest revision updates for your Adobe® version.

Note: Additional guidance on PDF settings, as well as PDF generation, can be found on the NRC's "Electronic Submittals" Web page (http://www.nrc.gov/site-help/e-submittals.html) under "Related Documents". This information is available in PDF document form and in video clips to assist users in preparing PDFs in compliance with NRC guidelines. Additionally, there are pre-configured PDF-Distiller profiles for Adobe 5/6/7/8 (joboptions) available on the "Electronic Submittals" Web page.

Setting Example Table:

General Options	Recommend Optimal on Adobe® Acrobat 8.0.x
Compatibility	1.5
Optimize for Fast Web	X
Embed Thumbnails	N/A
Auto-Rotate	Off
Binding	Left
Resolution (dpi)	300

Compression Options		Recommend Optimal on Adobe® Acrobat 8.0.x
Color Images:	Downsample	Off
	For images above	300 dpi
	Compression	Zip
	Quality	8-bit
Grayscale:	Downsample	Off
	For images above	300 dpi
	Compression	Zip
	Quality	8-bit
Monochrome:	Downsample	Off
	For images above	450 dpi
	Compression	CCITT - Group 4
	Anti-Alias to Gray	Off

Font Options	Recommend Optimal on Adobe® Acrobat 8.0.x
Embed All Fonts[1]	X
Subset embedded fonts when percent of characters used is less than 100%	X
When Embedding Fails	Warn & Continue

[1]You should check the license(s) for any font(s) you intend to embed to verify that embedding is allowed. In some cases, the program will warn you if a font is not licensed for embedding, but this varies by vendor. Fonts should be embedded to comply with NARA guidelines.

Color Options	Recommend Optimal on Adobe® Acrobat 8.0.x
Setting File	None
Color Management Policy	Tag Everything for Color Management
Intent	Preserve
Gray	None
RGB	SRGB IEC61966-2.1
CMYK	US Web Coated (SWOP)v2
Preserve Overprint Settings	X
Preserve Under Color Removal	X
Transfer Function	Preserve
Preserve Halftone	

Advanced Options	Recommend Optimal on Adobe® Acrobat 8.0.x
Prologue ps & Epilogue ps	
Allow PS to Override Job Options	X
Preserve Level 2 Semantics	X
Save Job Ticket	X
Illustrator Mode	X
Gradients to Smooth Shades	X
ASCII Format	
Process DSC Comments	X
Log DSC Warnings	
Resize for EPS	X
Preserve EPS Info	X
OPI Comments	X
Preserve Doc Info from DSC	X

2.10 Use of Color

The NRC discourages the use of color because it significantly increases file size. If the use of color adds no value to understanding the information presented, its use should be avoided. If color is required to make the document understandable, its limited use is acceptable. Examples of color documents that meet these criteria are graphs, bar-charts, and engineering drawings that depend exclusively on the differences in color to understand the information and data being presented.

2.11 Files with Special Printing Requirements

Documents that contain electronic files with special printing requirements, such as oversize drawings or graphics that require a paper size larger than 11 inches by 17 inches, or documents that require the use of a plotter or other special equipment to print, or document that contain other enhancements such as 3D images, etc., should only be submitted electronically via OSM as separate files. If special software components (e.g., printer

drivers) are necessary, include those components, their configuration parameters, and any hardware configuration requirements on the same OSM.

2.12 File Linkages (Hyperlinks)

Links within a single electronic PDF file are acceptable if those links are created using PDF authoring software. Multiple linked PDF files may be combined into a single PDF file using utilities often included in PDF authoring software. On the other hand, if a large PDF file (>50 MB) containing internal links is broken into segments and transmitted via multiple electronic transactions then the links between segments will become inoperable within ADAMS and cannot be recreated.

Files containing objects (e.g., pictures, tables, spreadsheets, and images of text) using link protocols such as Object Linking and Embedding (OLE), Dynamic Data Exchange (DDE), or any other object linking between electronic files are not practicable for the NRC to accept because the relationships among links in multiple file submissions are lost when captured in ADAMS or other agency electronic record keeping systems.

Electronic submissions to the docket for placement on the EHD cannot rely on the use of any hyperlinks to other electronic files or web sites in order to generate additional documentary material. If the submittal contains such hyperlinks, then it should include a disclaimer to the effect that the hyperlinks are either inoperable or are not essential to the use of the filing (see Sections 2.12.1 and 9.0).

If the submittal relies on Internet-based material, then the Internet-based material should be submitted as part of the filing. If the submittal contains hyperlinks to material in another electronic file, and such hyperlinks are necessary to access that material, then either a reference to the material should be provided or the material itself should be submitted.

Special Instructions for COLA only:
See Section 8.3.2 for the specific direction on File Linkages in regards to COL Applications. Also, see the diagram within Section 10.2 for acceptable use of links within COLA submittals.

2.12.1 Required Disclaimers

For a submittal that consists of a ***single*** PDF document of <50 MB, include the following in the body of the submittal if the PDF document contains hyperlinks to other PDF documents or to the Internet:

> *This PDF file contains hyperlinks to other files or to the Internet. These hyperlinks are either inoperable or are not essential to the use of the filing. Any material referenced by hyperlinks to the Internet that was essential for use of this filing has been submitted as part of the filing. Any material referenced by a hyperlink to another PDF that was essential for the use of this filing has either been included by reference or submitted as part of this filing.*

For a submittal that consists of ***more than one*** PDF document, include the following in the transmittal memorandum if one or more PDF documents contain hyperlinks to other files or

to the Internet:

> *This submittal contains PDF files, one or more of which contains hyperlinks to other files or to the Internet. These hyperlinks are either inoperable or are not essential to the use of the filing. Any material referenced by hyperlinks to the Internet that was essential for use of this filing has been submitted as part of the filing. Any material referenced by a hyperlink to another PDF that was essential for the use of this filing has either been included by reference or submitted as part of this filing.*

Special Instructions for COLA only:
Disclaimers are required for hyperlinks contained within a COLA submittal. Although the links are operable, the disclaimer should be included to provide the exact location of the linked file along with all applicable information, such as the revision, chapter and version number, etc. (see diagram within Section 10.2).

2.13 Viruses

Files received by the NRC will be checked for viruses prior to acceptance. Any submission identified as having a virus will be rejected and returned to the submitter with an explanation for the rejection.

2.14 Macros

Macros in files such as Microsoft® Excel are sometimes detected as viruses. Therefore, the use of macros should be limited.

2.15 Copyrighted Information

Submitting information electronically to the NRC shall be deemed to constitute authority for the NRC to place a copy of the information on its public document database and for the NRC to reproduce and distribute sufficient copies to carry out its official responsibilities. NRC use of the information specified herein does not constitute authority for others to use the information outside the applicable requirements of copyright law.

2.16 Copies

Those submitting documents electronically do not need to send hard copies of the electronic documents. In instances where the NRC requires a paper copy for accessibility or other reasons, the NRC will make every effort to produce the copy using NRC resources. However, in those instances where the agency is unable to successfully generate an accurate paper copy from the electronic submittal, the NRC may require a paper copy from the submitter. This will be handled on a case-by-case basis.

Many NRC regulations require submission of copies of documents to multiple NRC locations (e.g., Headquarters, Regional Offices). This practice continues for submissions that are made on OSM. However, only a single copy of the OSM is required to be submitted to each location by the licensee or vender. Electronic submission via the EIE process available on

the NRC's "Electronic Submittals" Web page does not require submission to multiple locations.

2.17 Graphic-oriented and Large and Complex Electronic Objects

To the extent practical, textual files, graphic-oriented files, and other electronic objects (e.g., spreadsheets, audio and/or video files) should be submitted electronically as PDF files. In rare instances, PDF conversion may not be successful due to technical reasons (e.g., fatal hardware, software, or operating systems errors) that prevent completion of the conversion. In addition, if the applicable file size and resolution restrictions (see Sections 2.5 and 2.8) cannot be met for a given graphic-oriented file or other electronic object, users should not submit that file or object in PDF. Submission of non-PDF files should include a detailed statement for each file that explains why PDF submission is not practical.

The NRC recommends submitting oversize image files that do not successfully convert to PDF in a non-proprietary format that does not utilize lossy compression (e.g., tagged image file format, also known as TIFF). Similarly, the NRC recommends submitting video and audio files in a format compatible with COTS playback devices.

Electronic objects specific to highly specialized software applications, such as special-purpose computer programs, simulations, and data files, are acceptable in their native file format. Submission of specialized electronic objects that are COTS-specific should include the following information about the software:

- Software title and version.
- Compatible computer operating system.
- Hardware requirements (including the minimum recommended hardware configuration).
- A list of user-controlled parameters used with the software.

Submission of specialized electronic objects that are non-COTS specific should include: ① a freely distributable "run-time" version of all software components that the submitter used to create the files, and ② the following information:

- Compatible computer operating system.
- Software and hardware installation/configuration parameters.
- Hardware requirements (including the minimum recommended hardware configuration).
- Other information to ensure seamless access to and review, duplication, and printing of the files.

2.18 Segmentation of Large Documents

Large documents with file sizes >50 MB should be divided in file segments of ≤50 MB at logical breakpoints such as:

- Chapters
- Sections
- Subsections
- Appendices
- Exhibits or attachments
- Charts, tables, or formulae
- For large transcripts, the end of a witness' testimony or session recess

If the recommended file size cannot be achieved, consider moving the graphics (which are often large files) into an appendix or attachment. If, however, a graphic or other Binary Large Object (BLOB) that exceeds the 50 MB limit, but cannot logically be divided, it should not be segmented. In such a case, the graphic or BLOB should not be sent via the EIE process available on the NRC's "Electronic Submittals" Web page and should be provided on OSM in accordance with guidance in Section 4.0.

Note: Oversize drawings and other files with special printing requirements (see Section 2.11), regardless of the file size, should be provided on OSM.

When OSMs are submitted, use electronic folders to organize the contents at the chapter level consistent with the file name guidance outlined in Section 2.4. The numeric portion of the file name should be sequential across all folders. This means the following:

- Each chapter should have its own folder, which should then contain all files associated with that chapter, including sections, subsections, and graphics (either embedded within those sections/subsections or provided separately).
- The sections/subsections should be placed in logical sequential order within a folder.
- Separate folders may be created for appendices, exhibits, or attachments. Each item should have a file name that reflects the folder where it resides, if practical, in conjunction with complying with the file name guidance.

If multiple OSMs are submitted, place the table of contents for the entire submission on each OSM in the multi-set submission.

Special Instructions for COLA only:
See Section 8.3.3 for guidance on segmenting large documents within a COL Application.

2.19 Sensitive Information

This section does not apply to documents containing safeguards information, which are discussed in Section 2.20. If a document contains information that is deemed Sensitive Unclassified Non-Safeguards Information (SUNSI), it may be electronically submitted via the EIE process available on the NRC's "Electronic Submittals" Web page or on OSM. The document should be clearly marked within the header and the transmittal letter should indicate the sensitivity for each document.

If it is not practical to submit a large document containing SUNSI via the EIE process available on the NRC's "Electronic Submittals" Web page, submit the document via OSM. Submissions made on OSM should be accompanied by a transmittal letter that contains information regarding the sensitivity level of the transmitted documents (see Section 2.7). The transmittal letter should not have a SUNSI header unless SUNSI is contained in it.

When submitting documents via OSM that contain both publicly and non-publicly available files, all of the files should be included. In addition, separate OSM should be provided, containing only the publicly available files. Each OSM should be clearly labeled indicating its availability. Files contained on OSM labeled as "Publicly Available" will be released to the public.

If SUNSI, classified, or safeguards documents are appended to filings in the adjudicatory proceeding, the submitter shall seek an appropriate order from the presiding officer pursuant to 10 CFR Part 2, Subpart C, Part 13, or Part 110, or follow the procedures for Classified

Information in 10 CFR Part 2, Subpart I.

For additional information on the procedures for marking and control of SUNSI, the following documents are available on the NRC Public Web site (www.nrc.gov):

- NRC Regulatory Issue Summary 2005-26, "Control of Sensitive Unclassified Non-Safeguards Information Related to Nuclear Power Reactors", dated November 7, 2005
- NRC Regulatory Issue Summary 2005-31, "Control of Security-Related Sensitive Unclassified Non-Safeguards Information Handled by Individuals, Firms and Entities to NRC Regulation of the Use of Source, Byproduct and Special Nuclear Material", dated December 22, 2005
- NRC Regulatory Issue Summary 2007-04, "Personally Identifiable Information Submitted to the U.S. Nuclear Regulatory Commission", dated March 9, 2007

2.20 Classified or Safeguards Information

Documents containing Classified or Safeguards Information shall not be submitted via the EIE process available on the NRC's "Electronic Submittals" Web page.

OSM containing classified information should be processed and produced on systems approved under the provisions of 10 CFR 95.49. Each OSM should be clearly labeled as containing classified information. The mailing package containing OSM with documents comprised of safeguards, proprietary, or Privacy Act information should be processed, marked and transmitted in accordance with the requirements set forth in 10 CFR 2.390(b), 73.21(e), 73.21(g), and 73.21(h), as appropriate. OSM containing classified information (e.g., National Security Information or Restricted Data), should be packaged and submitted to the NRC in accordance with the requirements contained in 10 CFR 95.37, 95.39, and 95.41. If sensitive unclassified, classified, or safeguards documents are appended to filings in the adjudicatory proceeding, the submitter shall seek an appropriate order from the presiding officer pursuant to 10 CFR Part 2, Subpart C, Part 13, or Part 110, or follow the procedures for Classified Information in 10 CFR Part 2, Subpart I.

2.21 Accessibility

Section 508 of the Rehabilitation Act and the accessibility standards set forth in implementing regulations require that Federal Agencies' electronic and information technology be accessible to people with disabilities. Tools and plug-ins are now available to allow PDF files to comply with Section 508, but care should be taken in developing documents and converting them to PDF to ensure that the author has constructed the documents and used the appropriate tools with accessibility in mind. The submitter should consider accessibility issues during document authoring. The use of simple layouts, consistent application of styles, accessible table formats, and the inclusion of alternate text for images improves the ability of people with disabilities to use the information.

2.22 Living Document Updates

Historically, many large documents submitted to the NRC have been maintained as living documents and have used a page-replacement approach when updated. Paper submissions can still use this approach for providing updates to living documents.

However, revised sections of a document will not be accepted when the document is only

submitted electronically. If changes to the submitted document are necessary, the document (including all of the electronic files and electronic objects that comprise the document) should be re-submitted in its entirety on OSM, as that version will become a new document. The subsequent transmittal letter should indicate the part(s) (e.g., chapter, section, or graphic) that has been changed as well as the general scope of the change. The document should be identified as a new version and file identification information submitted accordingly. Each changed page should include both a change indicator (track changes) for the area changed (for example, a bold line vertically drawn in the margin adjacent to the portion actually changed), and a page change identification including either the date of change, a change number, or both.

Special Instructions for COLA only:
See Section 8.1 for specific instructions on the handling of submitting document updates for COL Application.

2.23 Rejection of Submissions

When electronically submitting documents to the NRC via any method, failure to comply with the guidance outlined in this document may result in a submittal being rejected. Resubmission of the submittal would then be required.

The NRC may reject any submittal if any inconsistencies are found and will inform the submitter of the rejection. The following issues will result in a submittal rejection:

- Inconsistencies between the description of the transmitted files or physical objects in the transmittal letter and the files or physical objects received
- Failure to apply additional sensitive information requirements (see Section 2.17) to a submittal in which the optical storage devices contain classified information (e.g., National Security Information and Restricted Data), sensitive unclassified information, or non-public documents
- Virus-infected files
- Compressed files
- Encrypted files
- Unknown file formats
- Incorrect naming conventions
- Corrupt/unreadable files
- Submittals not in compliance with Section 508
- Macros that are identified as potential viruses
- Disabled Fast Web View
- File formats other than those listed in Section 2.1 (except submittals may also contain other forms of electronic information including data files, computer models, and video or audio clips)
- OSMs that contain both publicly and non-publicly available files on a single OSM, unless a second OSM with only publicly available information is also provided
- OSMs containing OLE, DDE, or any other object linking
- E-mails with attachments that exceed the 10MB size requirement
- Fonts not embedded (originated by native apps such as MS® Word, PowerPoint, not from a scanned source)

3. Guidance for "Electronic Submittals" through NRC's EIE Process

The EIE process accessible through NRC's "Electronic Submittals" Web page is designed to ensure that electronic documents can be transmitted to the NRC via the Internet in a secure and unalterable manner. Submittals such as those that are required to be submitted under oath or affirmation (see Section 1.3.3.1) may be safely transmitted electronically through this process. To utilize the EIE process each individual must obtain a digital ID certificate. The digital ID certificate allows the submitter to digitally sign and submit the form used to transmit documents, and, in the case of adjudicatory submissions, to access the external server to retrieve documents. Additionally, there is a software plug-in that must be downloaded and installed and the computer or workstation must be set up properly (as described in Sections 3.2 and 3.3).

3.1 How to Register

The NRC provides for overall administration of a digital ID certificates program for its customers and stakeholders

To request an NRC digital ID certificate prospective participants must first determine which NRC program meets his/her needs. Each program area will want basic information from you including your name, email address, phone number, organization, role in the organization and reason for submitting documents to the NRC.

Criminal History Program participants should call (301) 415-6511 or send an email request to the NRC's Criminal History Program staff at: CrimHist@nrc.gov.

Adjudicatory Proceedings Program participants should call (301) 415-1679 or call (301) 415-1966 or send an email request to the NRC's Office of the Secretary staff at: HearingDocket@nrc.gov.

NRC General Form Program participants should call (301) 415-0439 or send an email request to the NRC's General Form Program staff at: GeneralForm@nrc.gov.

Program area personnel will provide a digital ID certificate approval code to the requestor. This approval code will be used during the digital ID certificate on-line enrollment process. Following acceptance of the enrollment request, the requestor will receive e-mail instructions on how to download the digital ID certificate.

3.2 What is Required to Participate

Participating individuals in the electronic submittal initiative may use their existing workstations with standard desktop configuration. The recommended workstation configuration requires a Pentium 133 MHZ (or higher) with a minimum of 32MB of RAM, 20MB of available disk space, and access to the World Wide Web (Web) through an Internet Service Provider (ISP). The operating system should be either Windows NT/2000, Windows 95, or higher. In addition, each workstation should be equipped with the browser software consisting of Microsoft® Internet Explorer 5.0 or higher.

3.3 How to Obtain Software Plug-ins

Users should download and install the required IBM Workplace Forms™ Viewer software plug-in. The software plug-in can be downloaded and installed from the "Electronic Submittals" Web page (http://www.nrc.gov/site-help/e-submittals.html) by clicking on the "Install the Workplace Forms Viewer" link under "First Time Users" and following the instructions provided for installing the Forms™ Viewer.

3.4 How to Submit Documents

The submission of documents to the NRC via the "Electronic Submittals" Web page will require the use of the NRC's EIE form. The EIE form is a document based on Extensible Mark-up Language (XML). It allows participants to sign, enclose, submit, and verify documents via the Internet. The document to be submitted or transmitted should be presented as an attachment to the form. The appropriate form can be accessed by going to the NRC Web site at http://www.nrc.gov/site-help/e-submittals.html.

Once the form is displayed, users will need to fill in the fields on the electronic form and attach the document(s) for submission to the NRC. Upon completion of the form with the documents attached, the form should be digitally signed.

In most cases, documents submitted via the EIE process do not need to be digitally signed by the author(s). They may be digitally signed by the person who transmits them, but the author(s) is accountable for the content of the document(s) submitted. Generally, the persons who will digitally sign documents and transmit them electronically to the NRC are the same persons who currently dispatch licensing documents through the mail to the NRC. However, specific rules apply to E-Filing submittals (see 10 CFR 2.304(d)), which must be digitally signed using a participant's representative's digital ID certificate. Specific rules also apply to digital signature for documents submitted under oath or affirmation (see Section 1.3.3.1). Licensees and vendors submitting documents via the EIE process do not need to send confirming hard copies of the electronic documents.

Documents transmitted to the NRC electronically via the EIE process will be time and date stamped when the last bit of the transmittal is received by the EIE server. In the case of a multi-part electronic transmission (bundle), which is available for Adjudicatory submittals, the time and date stamp will be applied when the last bit of the last transmittal is made. The time and date of the transmission will become part of the record in the NRC's ADAMS document management system. The time and date stamp will also constitute the official adjudicatory docket time and date stamp for the item submitted and will be captured by the Office of the Secretary in the official docket index for the relevant proceeding. The transmitter will be e-mailed a notice of receipt of the document. The notice will include the time and date the transmission was received at the NRC.

For more detailed information and step-by-step procedures on how to submit documents to the NRC via the EIE process see the "How to Submit Documents" on the NRC's "Electronic Submittals" Web page (http://www.nrc.gov/site-help/e-submittals.html), under Submittal Instructions.

3.5 Submittals to Regions (applicable to General Submissions)

Submissions intended for a specific Region should have the Region listed in the "Comment" field contained on the General Submission Form (see Section 11.2).

4. Optical Storage Media (OSM) Submission Guidance

4.1 OSM Submittal Criteria

Adjudicatory Filings:

OSM should be used in the following circumstances:

- The documentary material cannot be transmitted via the EIE process available on the NRC's "Electronic Submittals" Web page (e.g., file size, complex document).
- The file to be electronically submitted exceeds 50 MB.
- A document segment cannot be submitted via the EIE process available on the NRC's "Electronic Submittals" Web page although the remaining document portions could be transmitted electronically.
- The document contains sensitive unclassified information (e.g., Safeguards information) or classified information (e.g., National Security information or Restricted Data).
- An entire submission is contained on multiple OSMs, which consist of those files that were *submitted* through the EIE process available on the NRC's "Electronic Submittals" Web page and those files that *could not be submitted* via the EIE process available on the NRC's "Electronic Submittals" Web page.

Note: Place all files submitted through the EIE process available on the NRC's "Electronic Submittals" Web page on an OSM separate from the OSM containing the files that could not be submitted via the EIE process available on the NRC's "Electronic Submittals" Web page.

General Submissions:

Documents may be submitted via OSM except as noted in Section 1.3.1.2 above. As mentioned in Section 1, there are also documents that should only be submitted using OSM, such as large documents exceeding 50MB and documents that contain special printing requirements. Documents containing Classified Information (i.e., National Security Information and Restricted Data) and Safeguards Information may only be submitted electronically on OSM and not via the EIE process available on the NRC's "Electronic Submittals" Web page or e-mail.

4.2 How to Submit the OSM

Submitters should transmit the OSM, along with the signed paper transmittal letter, by expedited delivery service. Given the paramount importance of submittal and document integrity and fidelity, expedited delivery of the OSM is essential to ensure coordinated processing with the companion submittals transmitted via the EIE process available on the NRC's "Electronic Submittals" Web page. In addition, to ensure that all intended information has been received, the NRC will not deem a submittal complete, "in-hand," or ready for

further processing and staff review until the agency has received the last document.

For electronic submissions via OSM that contain classified information (e.g., National Security Information and Restricted Data), SUNSI information, or non-public documents, additional requirements apply as described in Sections 2.19 and 2.20.

4.2.1 OSM Content

Software used to produce the OSM should be configured to ensure that the OSM is "read only" prior to its delivery to NRC.

Large documents made up of multiple files, folders, etc., should generally be transmitted on an OSM that includes a search engine to facilitate navigation, search, and retrieval of the document. Including the search engine enables the user to access the material contained on the OSM without having to rely on other software in the user's resident environment. The NRC encourages submitters to include these search engines to facilitate using OSM materials in stand-alone mode.

4.2.2 Packaging/Labeling

The OSM should be labeled with the Transfer Media Configuration (e.g., drive transfer rate) as well as any numbering, exterior marking, or labeling used to reference the submittal as it is provided through electronic submission. If appropriate, the version number should also be included.

The mailing package containing OSMs with documents comprised of proprietary, personal privacy, or Official Use Only Information should be marked and transmitted in accordance with the requirements set forth in 10 CFR 2.390(b). Packages containing Safeguards Information should comply with the requirements of 10 CFR 73.21(e), 73.21(g), and 73.21(h), as appropriate. OSMs containing Classified Information (e.g., National Security Information or Restricted Data) should be packaged and submitted to the NRC in accordance with the requirements contained in 10 CFR 95.37, 95.39, and 95.41.

IMPORTANT NOTICE:
Subsequent to the anthrax mailings in late September 2001, incoming mail addressed to the Federal government may be irradiated prior to delivery. Irradiation of OSM may result in damage to the media and its contents. Therefore, packages containing OSM submission should be clearly marked "CONTENTS CONTAIN OPTICAL STORAGE MEDIA DO NOT IRRADIATE."

4.3 Where to Submit the OSM in Adjudicatory Proceedings

The following address is to be used for delivering OSM (along with the signed paper copy transmittal letter) to the NRC via courier, express mail, and expedited delivery services:

Office of the Secretary
Attention: Rulemakings and Adjudications Staff
U. S. Nuclear Regulatory Commission
11555 Rockville Pike

Rockville, Maryland 20852-2738

Parties making OSM filings should also serve copies of the OSM on the other parties on the Service List in accordance with any protective order governing the submission.

Special Instructions for COLA only:
See Section 8.1 for specific instructions on submitting the COL Application on OSM.

5. E-mail Submission Guidance

5.1 E-mail Content

Files sent via e-mail should be sent as an attachment to the e-mail message in order to retain the original formatting of the document(s). Multiple document e-mail attachments are acceptable. The e-mail message should include the name of a contact person who can respond to questions about the submission, along with the contact person's daytime phone number, physical mailing address, and e-mail address. The e-mail should also identify/describe each document attached to the e-mail message. The format used to generate each of the identified file(s) should also be listed (see example within Section 11.3).

5.2 Where to Submit E-mail

E-mail may be addressed to: ① specific individuals named as contacts or to the office specified in the regulation or communication specific to the document(s) being submitted, ② to addresses the NRC Web site (http://www.nrc.gov) provides (select "Contact Us" where a variety of e-mail communication contacts for the agency are listed), or ③ to the Office of Public Affairs (OPA@nrc.gov). The Office of the Secretary of the Commission may be contacted at 2206@NRC.GOV for 10 CFR 2.206 petitions or secy@nrc.gov for rulemaking comments and non-adjudicatory correspondence and hearingdocket@nrc.gov for hearing items and correspondence..

The sender will not be sent an e-mail confirmation of receipt of the e-mailed submission.

6. Facsimile (Telefax) Submission Guidance

6.1 Facsimiles (Telefaxes) Content

Telefaxes should include the name of a contact person who can respond to questions about the submission, along with the contact person's daytime phone number and physical mailing address or e-mail address.

6.2 Where to Submit Facsimiles (Faxes)

The NRC has established centralized receipt points for official submissions transmitted by fax to each of the Regional Offices and at NRC Headquarters. All official transmissions

should be sent to one of these official receipt points to ensure they are captured as official records of the agency.

Facsimile Locations and User Assistance Table:

LOCATION:	FAX NUMBER:	USER ASSISTANCE and VERIFICATION
Headquarters (24-Hour Operation)	301-415-7010 OR 301-415-7020	301-415-7000
Office of International Programs	301-415-2395	301-415-1787
Office of the Secretary	301-415-1101	301-415-1966
Freedom of Information Act and Privacy Act Officer	301-415-5130	301-415-7169
Region 1	610-337-5324	610-337-5270
Region 2	404-562-4900	404-562-4827
Region 3	630-515-9915	630-829-9556
Region 4	817-860-8210	817-860-8100

7. Additional Resources

7.1 User Assistance

To obtain instructional information in the form of PDF documents and video clips, navigate to the NRC's "Electronic Submittals" Web page (http://www.nrc.gov/site-help/e-submittals.html) under the heading "Related Documents".

To obtain general information about accessing documents filed electronically (viewing, printing, and downloading) or to discuss problems with making an electronic filing, contact the Public Document Room (PDR) during the NRC's normal business hours by any of the following means:

Telephone:	1-800-397-4209 or 301-415-4737
TTY (hearing impaired):	1-800-635-4512
Facsimile:	301-415-3548
E-mail:	pdr@nrc.gov
U. S. Mail:	Public Document Room, (O1F13) U. S. Nuclear Regulatory Commission Washington, DC 20555-0001
Onsite at the PDR:	One White Flint North 11555 Rockville Pike (First Floor) Rockville MD

Hours of PDR operation:

Reading Room:	7:45 a.m. - 4:15 p.m. EST, Federal workdays
Telephone Service:	8:30 a.m. - 4:15 p.m., EST, Federal workdays

Additional contact information:

For general help in finding the correct NRC point of contact, contact the Office of Public Affairs: OPA@nrc.gov

For general electronic submission help: EIE@nrc.gov
For PDF Document Formatting Assistance:
For digital ID certificate assistance: DigitalIDHelp@nrc.gov
For electronic submission program specific assistance:
Adjudicatory Submissions: HearingDocket@nrc.gov.
Criminal History: CrimHist@nrc.gov.
General Submissions: GeneralForm@nrc.gov.
Also, see our web assistance site at: http://www.nrc.gov/site-help/e-submittals/contact-us-eie.html

7.2 References

NRC, "Electronic Submittals" Web page: http://www.nrc.gov/site-help/e-submittals.html

The Code of Federal Regulations, Title 10 – Energy, which can be found on the NRC Reading Room Web page, under Document Collections (http://www.nrc.gov/reading-rm/doc-collections/). Select "Regulations (10 CFR)".

Freedom of Information Act, 5 U.S.C. 552

Privacy Act, 5 U.S.C. 552a

10 CFR Chapter I, RIN 3150-AH33, "Electronic Maintenance and Submission of Information", which can be found on the NRC's "Electronic Submittals" Web page: http://www.nrc.gov/site-help/e-submittals.html.

Section 508 of the Rehabilitation Act, http://www.section508.gov/

8. Special Guidance for Combined License Applications (COLA) Submittals

The specific guidance for COLA submissions provided in this section supersedes any other guidance provided within this document.

8.1 COLA Submission Media and Format

An alternate acceptable method exists for handling COLA submittals in OSM (e.g., DVD, CD-ROM).

The submission should contain folders, each of which contains files that compose the submission.

The submission should not contain any extraneous or additional files that are not an inherent and required part of the COL application or the related reference materials. Prohibited files include, but are not limited to autorun.exe, autorun.inf, readme.txt, and any other instructional information on how to access or use the submission.

Adobe® Acrobat PDF indexes may be included in the submission and packing slip (i.e., electronic transmittal letter).

8.2 Folder Specifications

The maximum length of a folder name is 32 characters. Folder names may contain letters, numbers, spaces, dashes, and commas. The submission should contain a folder corresponding to each "part" of the COLA. The folder names for various parts of the COLA, Design Control Document (DCD) and Early Site Permit (ESP) should be determined and agreed upon. For example COLA Parts may be:

- 01 General and Admin Information
- 02 Final Safety Analysis Report
- 03 Environmental Report
- 04 Technical Specifications
- 05 Emergency Plan
- 06 LWA-Site Redress Plan
- 07 Generic DCD Departures Rpt
- 08 Safeguards and Security Plans
- 09 Plant Specific PRA
- 10 ITAAC

A "document" is used to define submittal control. For COLAs, each part of the application is considered a "document" (i.e. FSAR, Environmental Report), the contents of which can reside in a separate folder. Each part (i.e., "document") may be made up sub-folders to represent "chapters", "sections", or other logical pieces, and eventually these logical pieces will be represented by individual PDF files. There is no limit on the number of levels of sub-folders that can be contained within each folder.

8.3 COLA Submittal Exceptions

The submitted files should conform to the guidelines set forth in this guidance document with the following notable exceptions:

8.3.1 Naming Conventions

File names for PDF files should follow some logic construct as an aid to users and should refer to the part, chapter or section to which they belong. They are not required to follow a specified format. A COL applicant should be prepared to explain its naming conventions to its NRC project manager.

8.3.2 File Linkages

- Inter-file and intra-file linkages are permissible within a COLA and should be specified as path-relative hyperlinks to a file contained on the submission media (see diagram within Section 10.2).
- The link path should be specified relative to the linking file's folder location on the media and may contain the folder names and the file name concatenated using the slash "\".
- All links should be fully qualified (i.e., the link should provide a textual reference to the target of the link so that if the link is broken, the reader can easily find the target by reading the link text.
- No hidden text should be allowed in any of the documents submitted.
- Links are only allowed for documents, page numbers within documents, or "named

destinations."

- Links to web pages or other http-based locations are not supported and may result in a rejection of the submittal.
- The target of a link may be one of the following:
  - ✓ Any file authored by the applicant that is contained in the submission.
  - ✓ Any document that is on the list of the allowable reference documents within ADAMS.

8.3.3 Segmentation of Large Documents

The guidance in this document (outlined in Section 2.18) regarding folder names and tables of contents are not applicable to COLA submissions.

Files should be broken into logical segments no larger than 50 MB. Single graphic images may be larger than 50 MB and can be submitted as an exception to this guidance.

8.3.4 Composition of OSM Submission

Each OSM submission should include a packing slip detailing the contents of the submission, and could include one or more of the following:

- A submission document, which is a document submitted for the first time or resubmitted due to a change.
- A reference document, which is any document that has already been submitted (and loaded into ADAMS as an Official Agency Record (OAR)) and has not changed from the previous submission.
- A reference record, which is a single PDF file that is represented by a single accession number in ADAMS. The submitter would reference this record as a pre-existing file that has already been loaded into ADAMS as an OAR.

8.3.5 Packing Slip Format

The OSM Submission should contain an XML packing slip in the root folder. The packing slip should comprehensively identify the contents of the submission and the contents of the submission media should, in turn, precisely match the packing slip. The format of the packing slip is determined by NRC, which will provide the tool for generating packing slips. The packing slip includes and supports the following sections and constructs:

- Submission Documents
- Reference Documents
- Reference Records
- XSD Schema

8.3.6 Document Updates

For Electronic Submission Revision (ESR) control, when part of a "document" is revised, all electronic files associated with the "document" are considered a new ESR and should be submitted. For example, if an FSAR chapter is revised, the whole FSAR is now a new ESR and must be resubmitted electronically with some type of revision descriptor for the reviewer). An individual FSAR chapter thus cannot be revised and submitted alone - all files that constitute the "document" (i.e., the FSAR) should be resubmitted

9. Transmittal Letter Submittal Examples

9.1 Simple Submittal Example

The following is an example of a simple transmittal letter for a public submittal, which would accompany an electronic submission.

State of Xxxx
Office of the Governor
12345 Main Street
Anywhere, XX 56789

September 23, 2005

United States Nuclear Regulatory Commission WM-00011(PRE)
Atomic Safety and Licensing Board
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Enclosed are the State of XXXX's Response to DOE Interrogatories 3 and 7 and Notice of Appearance for J. Doe, Esq.

Questions concerning this submittal may be directed to:
State of XXXX
Office of the Governor
Attn: Mary Smith (000) 555-xxxx
e-Mail: MESmith@stateofXX.us
12345 Main Street
Anywhere, XX 56789

Sincerely,
J. Doe
Attorney for the State of XX

cc: Provide list of parties served

Document Components:
001 State Transmittal Letter.pdf 1024 bytes
002 State Response to 3 &7.pdf, 15,683,112 bytes
003 Notice of Appearance-Doe.pdf, 1,056,011 bytes

9.2 Large (Bundle) Submittal Example

The following is an example of a transmittal letter for a large (bundle) public submittal, which would accompany an electronic submission. The document has been disaggregated and each constituent part would be electronically submitted separately.

Note: The General Submissions link (found on the "Electronic Submittals" Web page), used for processing non-adjudicatory document submittals, cannot support a bundle submission at this time.

United States Department of Energy
Office of the General Counsel
Hearing Division
Washington, DC 20585

September 18, 2005

United States Nuclear Regulatory Commission WM-00011(PRE)
Atomic Safety and Licensing Board
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Enclosed are DOE's Response to Interrogatories Related to Quality Control Procedures

Questions concerning this submittal may be directed to:
US Department of Energy
Hearing Division
Attn: S. Smith (202) 555-xxxx
e-Mail: SESmith@usdoe.gov
Washington, DC 20585

J. Doe, Attorney for DOE

cc: Provide list of parties served

Document Components:
001 DOE Transmittal Letter.pdf 1024 bytes
002 Evaluation Quality Control (1 of 4).pdf 48,321,678 bytes
003 Evaluation Quality Control (2 of 4).pdf 47,421,178 bytes, Proprietary
004 Evaluation Quality Control (3 of 4).pdf 49,223,167 bytes
005 Evaluation Quality Control (4 of 4).pdf 37,522,178 bytes

9.3 Complex (OSM) Submittal Example

The following is an example of a transmittal letter for a complex public submittal, which would accompany an OSM submission.

United States Nuclear Regulatory Commission
Office of the General Counsel
Hearing Division
Washington, DC 20555

September 30, 2005

United States Nuclear Regulatory Commission WM-00011(PRE)
Atomic Safety and Licensing Board
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Enclosed are NRC Motion in Support of DOE's Site Characterization Plan - Estimates on Groundwater Travel in Area 16 of the Yucca Mountain Facility and Notice of Appearance for J. Jones, Esq.

Questions concerning this submittal may be directed to:
United States Nuclear Regulatory Commission
Office of the General Counsel
Hearing Division
Attn: Jane Doe, (301) 415-xxxx
e-Mail: xxx@nrc.gov
11555 Rockville Pike
Rockville, MD 20852

Jane A. Doe, Attorney for the NRC

cc: Provide list of parties served

Document Components:
001 NRC Transmittal Letter.pdf 1024 bytes
002 NRC Motion in Support of DOE Analysis.pdf, 15,679,411 bytes
003 Notice of Appearance for J. Jones, Esq.pdf, 1,056,911 bytes
004 Description Analytical Code DOE Site Plan.pdf, 142,846 bytes, Proprietary
005 Description Core Sample 3.pdf, 1,032,116 bytes, LSN-########
006 Description Video - Jan. 21, 2003.pdf, 156,936 bytes, LSN-########

OSM#1:
Located in the OSM root:
000 Table of Contents.pdf
Located in the "documents" folder:
001 NRC Transmittal Letter.pdf 1024 bytes
002 NRC Motion in Support of DOE Analysis.pdf, 15,679,411 bytes
003 Notice of Appearance for J. Jones, Esq.pdf, 1,056,911 bytes
004 Description Analytical Code DOE Site Plan.pdf, 142,846 bytes, LSN-########
005 Description Core Sample 3.pdf, 1,032,116 bytes, LSN-########
006 Description Video - Jan. 21, 2003.pdf, 156,936 bytes, LSN-########

OSM#2
Located in the OSM root:
000 Table of Contents.pdf
Located in the "Analytical Code" folder:
001 DOE Site Characterization Plan Analysis.exe 123,311,123 bytes, (Description submitted via the Electronic Submission Web page), Proprietary
Located in the "Video" folder:
002 Video Recording of Jan. 21, 2003 Meeting.wmv, 236,561,440 bytes, (Description submitted via the Electronic Submission Web page), LSN-########

9.4 Sample Files Describing "BLOBs" or Physical Objects

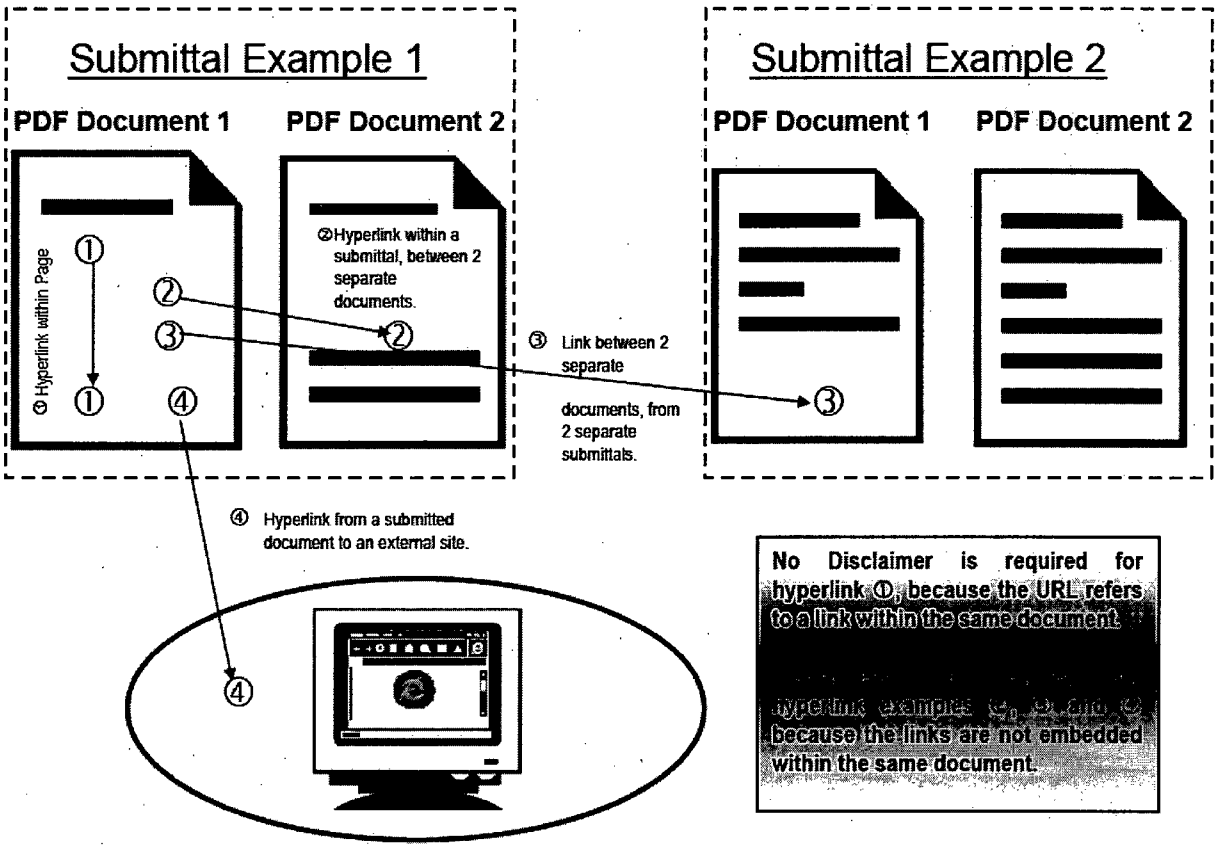
004 Analytical Code Used for DOE Site Characterization Plan, Chpt 4, Groundwater Level Analysis, (Description submitted via the EIE process available on the NRC's "Electronic Submittals" Web page) LSN-D4567823

This enclosure provides the Analytical Code used for the analysis of information presented in Chapter 4 of DOE's Site Characterization. Code is run on a UNIX PC utilizing abcd Operating system,
~~~
~~~

10. Hyperlink Examples and the Need for Disclaimers

10.1 Adjudicatory and Non-Adjudicatory Submittal Hyperlink Example

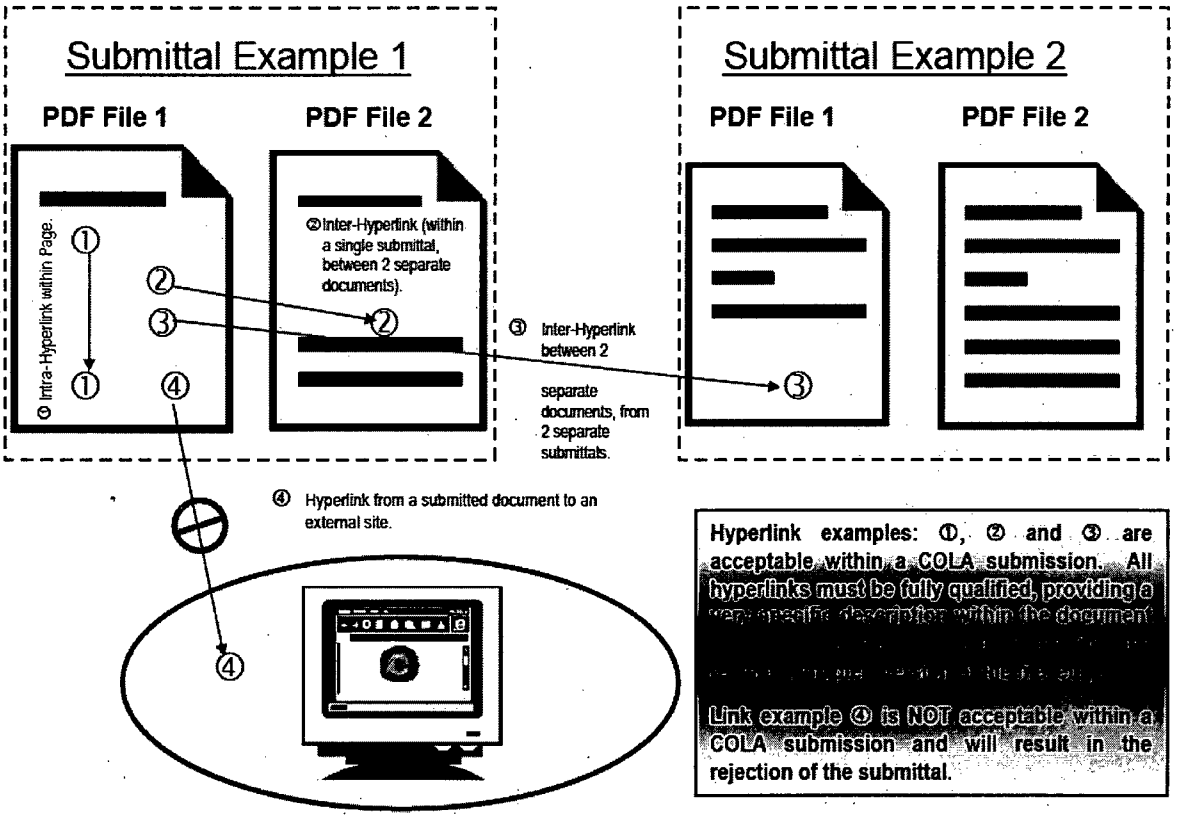
The following is a diagram explaining the acceptable methods of the use of hyperlinks within documents submitted electronically to the NRC.



Links within a single document will remain active and, therefore, require no disclaimer, while links within a document to other documents or to Internet Web sites are disabled and, therefore, ***do*** *require a disclaimer.*

10.2 COLA Submittal Hyperlink Example

The following is a diagram explaining the appropriate use of hyperlinks within a COLA submittal.



Intra-File Hyperlinks, which are links within a single PDF file and Inter-File Hyperlinks, which are links to a different PDF file, are acceptable uses of links within a COLA submittal. These links do require a detailed description as to the location, revision number, chapter number, version of the document, etc. to ensure the file can be accessed in the future.

Hyperlinks within a PDF file to an Internet Web site are unacceptable and will result in the submittal being rejected.

11. Internet EIE "Electronic Submittals" Web page Form Examples

11.1 Adjudicatory Submittal Form

11.1.1 Docket/Hearing Description Selection Screen

From the "Electronic Submittals" Web page, click on the "Adjudicatory Documents" link to navigate to the following submittal screen:

US Nuclear Regulatory Commission

Docket/Hearing Description Selection

Instructions
Please select the hearing to which you are directing this submission. You must also select a filing status before submitting.

Select Docket/Hearing Description:
GP_Test_C_52-2044-LA

Is this submission governed by a protective order or being submitted under seal?

○ **Yes, this submission can be viewed only by individuals selected by me from the hearing service list and/or those designated in a protective order.**

○ **No, this submission can be viewed by all participants and members of the public.**

Note: By default, the members and staff of the Atomic Safety and Licensing Board associated with this case and members of the staff of the NRC Office of the Secretary will receive notice of this submission. This is necessary for them to complete required case administration and docket management functions.

Next >>

Using the dropdown menu, the Docket/Hearing should be selected and there must be a designation whether the submission will be Public or Non-Public/Protective Order

11.1.2 Electronic Service List Recipients Screen for Protective Order File (POF) Submittals

US Nuclear Regulatory Commission

Electronic Service List Recipients

Instructions
Please select the name(s) of those who are to receive notice of this submission. At a minimum, the ASLBP, Hearing Docket, and the judges assigned to this docket must be checked

Service List for Hearing: GP_Test_C_52-2044-LA

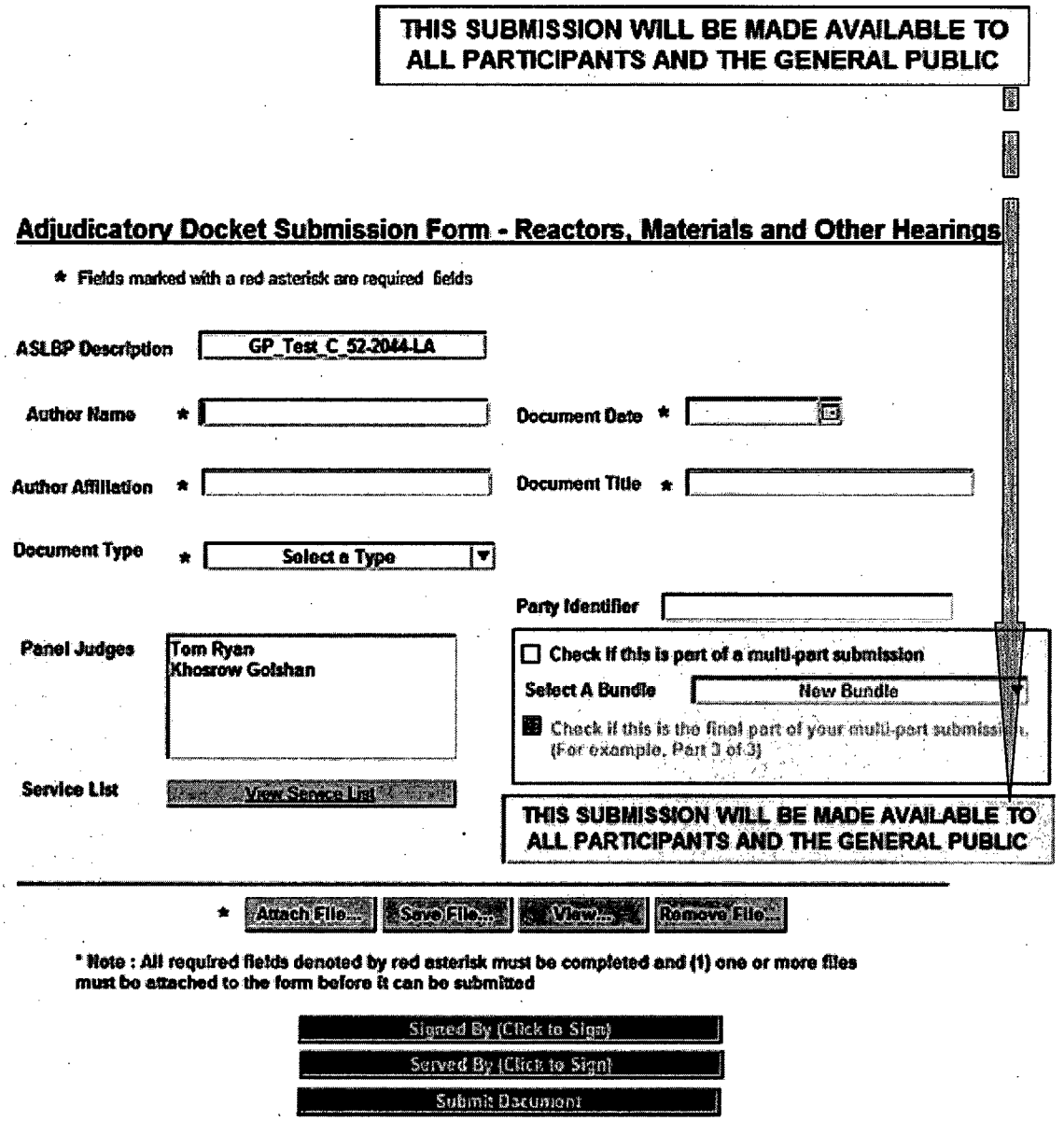
Last Name	First Name	Email	Notify
Atomic Safety and Licensing Board Panel		aslbp_hlw_adjudication@nrc.gov	☐
Awumah	Johnson	JKA@nrc.gov	☐
Bollwerk II	G P	gpb@nrc.gov	☐
Choudhury	Roy	arc@nrc.gov	☐
Crouse	Ray	rwc2@nrc.gov	☐
Fan	David	daf@nrc.gov	☐
Golshan	Khosrow	kxg@nrc.gov	☐
Gonzales	Carlos	cmg3@nrc.gov	☐
Hall	Pat	pth@nrc.gov	☐
Hearing Docket		hearingdocket@nrc.gov	☐
Julian	Emile	ej@nrc.gov	☐
Miller	Sandra	slm7@nrc.gov	☐
Pomykala	Dan	dpp@nrc.gov	☐
Ryan	Tom	tpr@nrc.gov	☐
Woods	Cameron	cjw2@nrc.gov	☐

<< Back Next >>

For Non-Public/Protective Order Submittals only, the submitter should select (☑) those who will receive a notification of the submittal via e-mail. Populating this screen is not an option for Public submittals.

11.1.3 Adjudicatory Docket Submissions Form – Reactors, Materials and Other Hearings – Public Submittal Screen

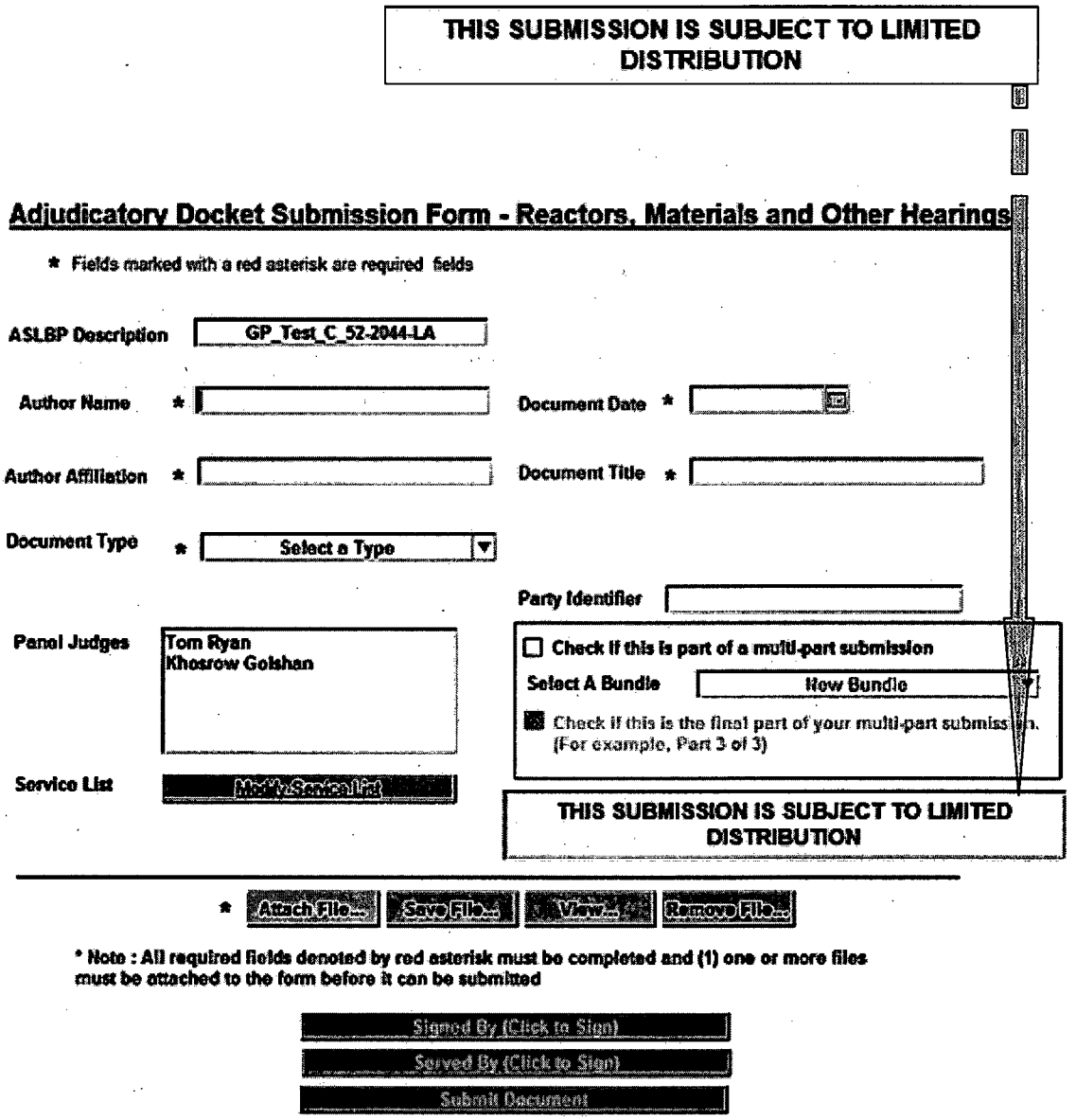
Notice the highlighted box on the Adjudicatory submittal screen, explaining that this submission is available to all participants and to the general public, meaning there are no restrictions as to who may view this type of submitted document.



All required fields should be populated and the file(s) attached in order to proceed. The submittal should be "signed by" and "served by" the same individual using his/her digital ID certificate, or two different individuals each having their own digital ID certificates, prior to completing the "Submit Document" task.

11.1.4 Adjudicatory Docket Submissions Form – Reactors, Materials and Other Hearings – POF (Protective Order File) Submittal Screen

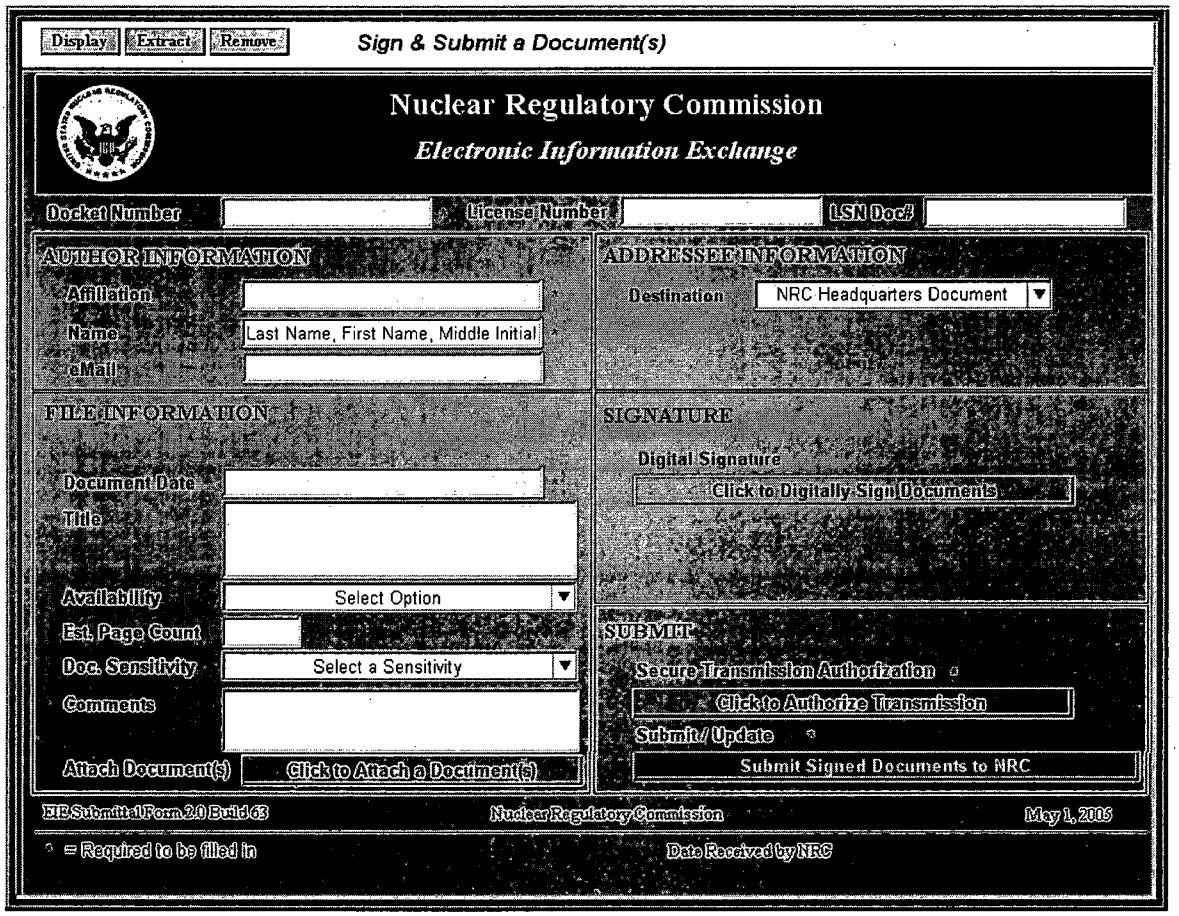
Notice the highlighted box on the Adjudicatory submittal screen, explaining that this submission is subject to limited distribution, meaning; only those individuals provided the rights to this document may view it. The general public will not be able to view this type of submitted document on the EHD.



All required fields should be populated and the file(s) attached in order to proceed. The submittal should be "signed by" and "served by" the same individual using his/her digital ID certificate, or two different individuals each having their own digital ID certificates, prior to completing the "Submit Document" task.

11.2 General Submittal Form (for Non-Adjudicatory Documents)

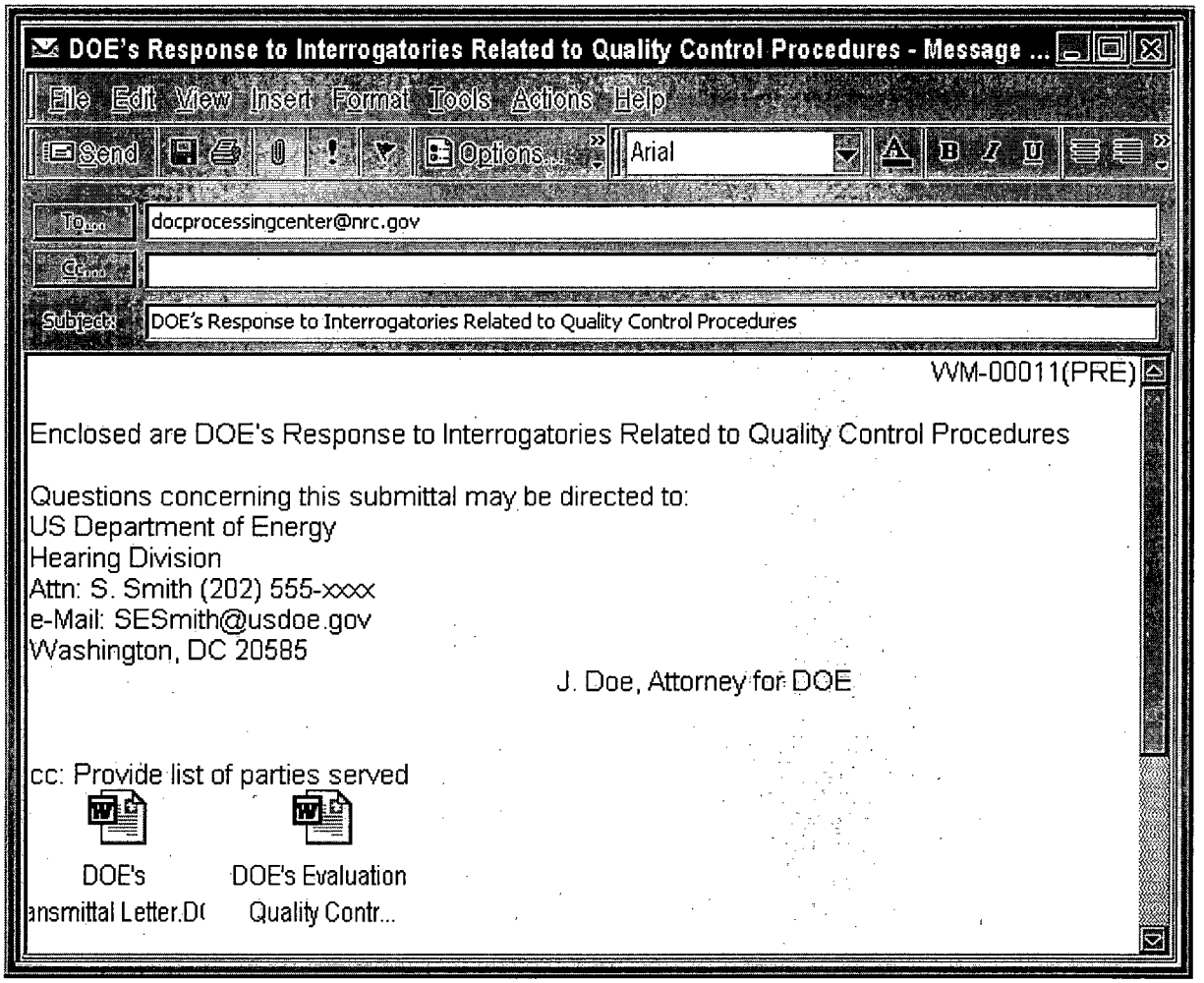
From the "Electronic Submittals" Web page, click on the "General Submissions" link to navigate to the following submittal screen:



All required fields should be populated and the file(s) attached in order to proceed. The submittal should be signed (by selecting the "Click to Digitally Sign Documents" button). The "Click to Authorize Transmission" button should be selected before the "Submit Signed Documents to NRC" button can be selected.

See Section 1.3.3.1 for instructions on the oath or affirmation statement to be included if the certifying individual or someone else in the certifying individual's organization is going to digitally sign the document submission.

11.3 E-mail Submittal Example



12. Acronyms and Abbreviations

- ACL - Authorized Certificate List
- ADAMS - Agencywide Documents Access and Management System
- BLOBs - Binary Large Objects
- CA - Certificate Authority
- CFR - Code of Federal Regulations
- COLA - Combined License Application (*also* Combined Construction Permit and Operating License Application)
- COTS - Commercial Off-The-Shelf
- DCD – Design Control Document
- DDE - Dynamic Data Exchange
- DPI - dots per inch (dpi)
- EHD - Electronic Hearing Docket
- EIE - Electronic Information Exchange
- ESP – Early Site Permit
- ESR - Electronic Submission Revision
- FOIA - Freedom of Information Act
- ISP - Internet Service Provider
- LRA - Local Registration Authority
- LSN - Licensing Support Network
- MB - Megabyte
- NARA - National Archives and Records Administration
- NOV - Notice of Violation
- NRC – U.S. Nuclear Regulatory Commission
- OAR - Official Agency Record
- OCR - Optical Character Recognition
- OLE - Object Linking and Embedding
- OPA - Office of Public Affairs
- OSM - Optical Storage Media
- PARS - Publicly Available Records System
- PDF - Portable Document Format
- PDR - Public Document Room
- PKCS - Public Key Certificate Services
- PKI - Public Key Infrastructure
- POF - Protective Order Files
- SUNSI - Sensitive Unclassified Non-Safeguards Information
- TIFF - Tagged Image File Format
- XFDL - Extensible Forms Definition Language
- XML - Extensible Mark-up Language

13. Glossary

Agencywide Documents Access and Management System (ADAMS) - ADAMS is the NRC's primary document management and electronic recordkeeping system that contains the bibliographic header (metadata), searchable text, and an electronic copy for recordkeeping purposes if applicable.

Bibliographic Header - A structured description of a document, file, or object.

Binary Large Object File (BLOB) - A large file, typically an image or sound file, that should be handled (e.g., uploaded, downloaded, or stored in a database) in a special way because of its size.

Bundle - A document that has been disaggregated by chapters, sections, etc. into smaller documents, each of which are ≤50 MB. Each constituent document should be individually submitted electronically and within the file name marked as Part 1 of X, Part 2 of X, etc. A bundle submittal is only permitted via the Adjudicatory link found on the "Electronic Submittals" Web page.

Commercial Off-The-Shelf (COTS) - A COTS product is an item (such as computer software), which is available and sold or traded to the general public from a vendor in the course of normal business operations at prices based on an established catalog or fair market value. COTS products are un-customized items.

Complex Document - A document that consists (entirely or in part) of electronic files having substantial portions of which are neither textual nor image in nature, and graphic or other Binary Large Objects that exceed 50 MB and cannot logically be divided.

Disclaimer - A statement added to a document to provide clarification.

Document - Written printed, recorded, magnetic, graphic-oriented matter, or other documentary material, regardless of form or characteristic.

Documentary Material - Any information upon which a party, potential party or interested governmental participant intends to rely and/or to cite in support of its position in a proceeding.

Electronic Hearing Docket (EHD) -. EHD is a Web site that provide access to an electronic data base that contains publicy available and non-publicly available materials submitted in the NRC's adjudicatory proceedings submission. It is located in the Electronic Reading Room, which is available at *http://www.nrc.gov/reading-rm/*. Some materials contained within EHD are not publicly available and require the user to have a digital ID certificate to gain access to that information.

Electronic Information Exchange (EIE) - Electronic Information Exchange is the electronic mechanism established by the NRC for the electronic transmission of documents to the agency via the Internet. The documents are transmitted in a verifiable and certifiable mode through the use of digital signatures. EIE is a Public Key Infrastructure (PKI) system using RSA Labs' 128-bit encryption, Verisign's Public Key Certificate Services (PKCS), and PureEdge's Extensible Forms Definition Language (XFDL) web form.

File Format - File format is data organizational layout of a file.

Hidden Text - Text that is visible to the search engines but is invisible to humans. It is mainly accomplished by using text in the same color as the background color of the page. It is primarily used for the purpose of including extra keywords in the page without distorting the aesthetics of the page. Most search engines penalize web sites which use such hidden text.

Length of Path (ISO 9660, Joliet Extension) - The Joliet Extension to ISO 9660 allows filenames of 64 characters in length and is the least restrictive interchangeable naming format. However, the ISO 9660 standard imposes a limit on the length of the path to each

file that cannot exceed 255 characters. Length of path is the sum of the lengths of all relevant directories, the length of the file name and extension, and the number of relevant directories.

Licensing Support Network (LSN) - The Licensing Support Network (LSN) is a web portal that provides access to multiple document collections pertaining to the HLW repository construction authorizing licensing proceeding. Using "crawler" technology to index the various collections, the LSN provides web-based access to the document collection that permits the search and retrieval of both structured information (bibliography) and unstructured information (content files, image files).

Lossy - A lossy image is one in which the after-compression image is different from the original image due to lost information. The use of lossy compression techniques is not allowed in connection with materials submitted to the NRC because they are not acceptable for transfer to the National Archives as official records.

Macro - A macro is any programming or user interface that, when activated, expands a single language statement or computer instruction into a number of instructions. The macro statement contains the name of the macro definition and usually some variable parameter information. Macros are especially useful when a sequence of instructions needs to be employed a number of times. For example, in Microsoft® Word and other programs, a macro is a saved sequence of commands or keyboard strokes that can be stored and recalled with a single command or keyboard stroke.

Optical Character Recognition (OCR) - Optical Character Recognition involves the recognition and translation of printed or written text characters into digital code that can be read by and stored on a computer. OCR involves photo scanning text character by character, analyzing the scanned-in image, and then translating the character image into computer-readable character codes, such as ASCII. During the OCR process, the scanned image is analyzed for light and dark areas to identify each alphabetic letter or numeric digit. Once a character is recognized, it is converted into an ASCII code. OCR can be accomplished either through software, or a combination of specialized hardware and software. NOTE: Documents converted using OCR technologies are not acceptable for submission as records to the NRC. OCR files are only acceptable for use for search and retrieval purposes and should be accompanied by the original file (Image) for recordkeeping purposes.

Optical Storage Media (OSM) - Storage media, such as the compact disc, that holds content in digital form written and read by a laser. This type of media includes all the various CD and DVD variations, as well as optical jukeboxes and autochangers. Optical media have a number of advantages over magnetic media such as floppy disks. Optical disk storage capacity ranges up to 6 gigabytes, or 6 billion bytes, compared to the 1.44 million bytes (1.44 MB) on a floppy disk. (One optical disk holds about the equivalent of 500 floppy disks worth of data.) Optical media generally are more durable as well, lasting up to seven times as long as traditional storage media.

Packing Slip - A packing slip is an electronic transmittal sheet, which is to be included on every Combined License Application (COLA) OSM Submission Media (CD/DVD) and provides a description of the contents of the media (Submission Documents and Reference Collections).

Portable Document Format (PDF) - Adobe® Systems, Incorporated's Acrobat document publishing software package output format. The current release is Acrobat 8.0. Though

proprietary to Adobe, the PDF standard has been published and is freely available so that the capability to create PDF documents has been integrated into many other software applications. Because PDF documents can be generated from any application that can generate Postscript printer files (a popular printing language standard), anything that can be printed can be represented in PDF. When files are converted from standard applications to PDF, the information and pagination are "locked down" for the general user, who can then access the content through the use of PDF viewer software. NOTE: The use of different types of PDF formats is restricted for recordkeeping purposes because of issues related to preservation. See guidance for the acceptable uses of each format type. The following definitions describe the principal types of PDF formatting:

Formatted Text & Graphics - Formerly known as "PDF Normal," this type of PDF is a popular output file format created when materials have been produced on a word processing or publishing system. It contains the full text of the page with appropriate coding to define font types, sizes, etc. The files are relatively small and the screen display and printed versions have comparable content readability.

Searchable Image (Exact) - Formerly known as "PDF Original Image with Hidden Text," when this type of PDF is used to create a document, the resulting file consists of two layers: a bit-mapped layer and a hidden text layer. The bitmapped layer maintains the visual representation of the original document, while the text layer is created through optical character recognition software (OCR). There are two "flavors" of this type of PDF:

Searchable Image (Exact) - Formally known as 'PDF Original Image + Hidden Text.," the Searchable Image (Exact) format preserves the look of the original scanned image, making it ideal for meeting legal requirements.

Searchable Image (Compact) - This format captures the same image as Searchable Image (Exact), but produces smaller file sizes. Although the general look and feel of the image is retained and is searchable, the quality is not as good as the Exact method because of the "lossy" compression routines used in conjunction with this format. Consistent with NARA guidance, the NRC will not accept any documents rendered in this format.

Image Only - This type of PDF is essentially a scanned image of the page in a PDF wrapper that contains no searchable text, and thus does not permit text searching within the document. The image quality is dependent on the quality of the source materials and the quality of the scanning operation.

(See Section 2.2 for the preferred PDF file formats.)

Publicly Available Records System (PARS) - PARS is an electronic library where all publicly available documentation submitted to the NRC can be accessed via the NRC Web site (www.nrc.gov) by clicking on the "Electronic Reading Room" button.

Section 508 - Section 508 refers to the section within the Rehabilitation Act, as amended by Congress in 1998, that requires Federal agencies to make their electronic and information technology accessible to people with disabilities, thereby eliminating information technology barriers, providing new opportunities for people with disabilities, and encouraging the development of technologies that will help achieve the goal of accessibility.

Segment - A segment is subpart or subunit of a document, usually created at a logical division such as a chapter, section, or subsection of a the document.

Sensitive Unclassified Non-Safeguards Information (SUNSI) - Any information which, if lost, misused, modified, or accessed without authorization, can reasonably be foreseen as causing harm to the public interest, the commercial or financial interest of the entity or individual to whom the information pertains, the conduct of NRC and Federal programs, or the personal privacy of individuals. SUNSI has been organized into the following seven groups:

- Allegation information
- Investigation information
- Security-related information
- Proprietary information
- Privacy Act information
- Federal, State, Foreign Government, and international agency controlled information
- Sensitive internal information

Submittal - An information package that is delivered to the NRC for a specific purpose and may consist of one or more documents.

Starting Note:

The closer one looks at publishing PDF files that are compliant to Section 508, the more apparent it becomes that the "tools" one must have and use are Adobe products (Acrobat Professional, Distiller, etc.) and that any third party plug-ins for rendering PDF files accessible are for the Adobe products.

From the Full Accessibility Report:

Initial Summary dialog box:

The checker found problems which may prevent the document from being fully accessible.
This document is not tagged; the reading order of the contents may be incorrect.
562 image(s) with no alternate text.
All of the text in this document lacks a language specification.
146 word(s) that contain characters with no reliable mapping to Unicode.

The Adobe Acrobat accessibility report identifies, by page, what defect exists and a link to each occurrence.

The accessibility report also provides hints for repair.

CREATING PDF TAGS

This document is not tagged. To add tags, do one of the following:

- Re-create the PDF file from the authoring application with tagging enabled.

[*The following requires Adobe Acrobat Professional.*]

- Choose Advanced > Accessibility > Add Tags to infer the tags.
- Chose Advanced > Accessibility > TouchUp Reading Order Tool to create the Tags tree manually using the TouchUp Reading Order Tool.
- Create the Tags tree manually using the Tags panel.

[*Note*: *If using the first suggestion, post-processing will still be required, particularly for Tables of Content, Lists of Tables, etc.*]

ADDING ALTERNATE TEXT

Before repairing this problem, you must add tags to the document.

[*See Creating PDF Tags, above.*]

[*The following requires Adobe Acrobat Professional.*]

To add alternative text to an image, choose Tools > Advanced Editing > TouchUp Object Tool. Click on the image. Right Click and choose Properties... from the context menu. Click on the Tag tab and fill in the alternate text field. To add alternate text to tags in the tags panel, select the tag, choose Options > Properties, click on the Tag tab, and fill in the alternate text field.

[*Accomplishing the above is no small task. For example, the image used on page 41 (of the guidance document), for accessibility, contains not one image/figure requiring alternate text but, in fact,* ***278 discrete images/figures****. Each of the 278 require manually accessing each image and manually entering the alternate text or going to each and manually designating the image/figure as an "artifact".*]

SPECIFYING A LANGUAGE

[*Perhaps the easiest fix... regardless, manual intervention is required each time the PDF is created.*]

[The following requires Adobe Acrobat Professional]

- Set the default language for the entire document by choosing File > Document Properties > Advanced tab and setting the Language field.

[Again, which language? English or English US? The guidance document fails to address this...]

- Set the language for all the text in a subtree of the Tags tree by selecting the element at the root of the subtree, choosing Options > Properties, clicking on the Tag tab, and filling in the Language field.
- Set the language of any amount of text by selecting the text in the Content panel, choosing Options > Properties, clicking on the Tag tab, and filling in the Language field.

PROVIDING MISSING UNICODE ENCODINGS

Missing character encodings cannot be repaired in Acrobat.

You will need to re-created the PDF file. When re-creating the file, the following tips may correct the problem:

- Use a different font, preferably OpenType, in the original document.
- Re-create the PDF file with a newer version of Acrobat Distiller
- Use the latest AdobePS driver to create the PostScript file, then re-create the PDF file. (The latest version of AdobePS can be downloaded from www.adobe.com).

[*NOTE: Again, Adobe Products are required.*]

[*The guidance document utilized the standard symbol set. Microsoft, and others routinely utilized reserved values to provide end users symbols of various kinds. None of these will map to unicode (or mapping, in some cases, is not to the "real" symbol).*]

[Proper character/font use can be a challenge. As an example, witness the rather large population of "native format" PDF files in ADAMS that, for symbols, rely upon "WPIconic Symbol"...

Ironically, the majority of ADAMS users are using a "Microsoft" desktop OS and office suite and, thus, without WordPerfect installed, never view the "correct" symbol(s).]

About the file...

Note that, aside from Section 508 issues, the PDF file's usability suffers from a lack of bookmarks, internally designated links to sections/sub-sections that have no link and a table of contents that is not linked to the described content.