Document Control and Records Management Process Description

PDG02-2010
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FOREWORD

In March 2009, an industry task force was chartered to develop an industry process description for document control and records management. The task force convened under the direction of the Nuclear Information Management Strategic Leadership (NIMSL) steering committee, a Community of Practice (CoP). NIMSL is a committee of NIRMA. This task force was composed of representatives from the NIMSL CoP and subject-matter experts from document control and records management in the industry.

This document describes processes nuclear facilities use to meet the requirements of 10 CFR 50 Appendix B Criteria VI and XVII, addressing document control and records management, respectively. This process description was compiled based on industry consensus on a standard process for document management. The document management process consists of document creation, document control and records management. This process description addresses aspects of all three subprocesses, but is primarily focused on document control and records management.

Many guidance documents have addressed aspects of the records management process. However, these have not provided the same level of information about the document control process. This process description provides such detail and also addresses the coordination with the records management process.

Because new technologies provide electronic access to existing material and electronic processing of new material, the document management processes have undergone extensive evolution. This process description addresses principles in the document management process. For special concepts regarding the electronic management of documents, see Nuclear Information & Records Management Association (NIRMA) Technical Guideline TG15, “Management of Electronic Records.”

The structure of an organization may dictate how these processes are organized within a company. This document is a process description and does not imply how a company may be organized to implement the process. Some organizational variances are as follows:

- centralized versus decentralized
- various combinations of document control, records management, and procedure control
- functions performed by originating groups instead of control groups
- combinations of nuclear records and corporate records

Whatever approach is taken, the role in developing an integrated software approach for document/records management cannot be underestimated. Often, selection of a software tool will have a major impact on how information management is organized.

Appendix A defines the terms used in this document.

A selection of both industrywide and diagnostic performance measures is provided in Appendix D. Industrywide performance measures are used for process performance comparison and as comparative analytical tools (plant to plant). Diagnostic measures are intended to be used as analytical tools by process owners when measuring the health of the process (internal use) and when performing self-assessments of the information management processes.

The PDG series of documents is for process description guidelines. Each process description guideline reflects the integration of experience gained from operating plants to processes under development for the operation of future standard plants. The “AP” annotation originally stood for “advanced plant”; however, the reference has come to refer to “advanced process.” Information management is an enabling process as described in PDG01, Information Management Process Description Guideline, and the Standard Nuclear Performance Model. Appendix I provides a history of the AP-907 series of documents, which are now the PDG series of NIRMA documents.
ACKNOWLEDGEMENTS

The NIRMA thanks the following utilities and industry organizations for providing the personnel and resources necessary to perform this project:

- Constellation Energy
- Exelon Nuclear
- FirstEnergy Corporation
- Nuclear Information Management Strategic Leadership (NIMSL)
- Ontario Power Generation
- STP Nuclear Operating Company

Organizations that participated in the developmental review process are as follows:

- Bruce Power
- Dominion
- PSEG Nuclear
- Tennessee Valley Authority

Appendix B lists task force members and reviewers.

Appendix E provides a list of references used in the development of this process description.
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1.0 PURPOSE

This process description provides a standard process for document control and records management.

Document control and records management are addressed in 10 CFR 50 Appendix B as follows:

VI. Document Control

Measures shall be established to control the issuance of documents, such as instructions, procedures, and drawings, including changes thereto, which prescribe all activities affecting quality. These measures shall assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is performed. Changes to documents shall be reviewed and approved by the same organizations that performed the original review and approval unless the applicant designates another responsible organization.

XVII. Quality Assurance Records

Sufficient records shall be maintained to furnish evidence of activities affecting quality. The records shall include at least the following: Operating logs and the results of reviews, inspections, tests, audits, monitoring of work performance, and materials analyses. The records shall also include closely-related data such as qualifications of personnel, procedures, and equipment. Inspection and test records shall, as a minimum, identify the inspector or data recorder, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted. Records shall be identifiable and retrievable. Consistent with applicable regulatory requirements, the applicant shall establish requirements concerning record retention, such as duration, location, and assigned responsibility.

Briefly stated:

Document control is the process used to maintain documents that control the design, operation, maintenance, and configuration of the site.

Records management is the process for providing evidence of those activities.

The utility quality assurance program will rely on N45.2.9/NQA-1 for records, but similar detailed guidance specifically related to document control is not found in the ANSI N45.2 standards. Document control is emphasized in the configuration management activities of INPO. Other 10 CFR 50 Appendix B criteria are dependent on the above criteria, especially III, IV, and V.

The following Venn diagram shows the relationships among documents.
Document control and records management are two separate processes. With the use of current software, these processes have become more closely intertwined. However, even in an integrated package these are still distinct functions.

PDG02 is intended to be used to establish the proper process for document creation, control, and management as records. This is one of the subprocesses that make up Information Management as presented in PDG01.

The SS003 subprocess is defined by the Standard Nuclear Performance Model. Figure 2 shows the subprocess model architecture.
Figure 2 – Standard Nuclear Performance Model (SNPM) Process Architecture
2.0 APPLICATION

This section describes the basic process elements for document control and records management. These elements are developed into flowcharts in Section 3. These flowcharts can be used to support continuous improvement or a review of the document control and records management functions.

2.1 Types of Documents and Records

Examples of documents are listed in Appendix F, Documents in Document Management System. Each facility will define what documents need to be controlled and entered into the document management system.

Types of records are provided in Appendix A of ANSI N45.2.9-1974.

Documents differ from records, as noted below.

- Controlled Documents
  - are revisable in accordance with approved processes
  - are usually distributed on a timely basis
  - have a defined status to reflect approval and use limitations
  - have integrated change control with configuration management
  - govern plant operations

- Records
  - has a secured index and storage location
  - are static and cannot be revised
  - can only be corrected or supplemented in accordance with approved processes

The metadata may be different between the document system and the records system. Often the document system contains more metadata fields than the records system. Additional data in a document system facilitates retrieval. Document metadata may be retained even after the document has been transmitted to records in order to facilitate retrieval. For example, document metadata for a drawing may include an elevation or a system number, whereas the records metadata may not include this information.

A single information management system may contain both documents and records, but a means of distinguishing them must be provided.

The processes discussed are intended to be independent of whether documents or records are processed using old or new technologies. Many documents today are only processed as electronic files. In addition, many reviews and approvals are done in electronic workflows, where the progress of the document is managed in an electronic system. Some electronic workflows start at the creation of the document and continue until it is declared a record. Some electronic workflows control only a portion of that process. Whether a document is processed as an electronic file or in hard copy, the basic process principles addressed in this process description apply. Electronic systems take some planning and initial cost. However, they often provide more control over the process and reduce processing times. For further details on the use of electronic systems, see NIRMA TG15, *Management of Electronic Records*. 
New technologies will represent new challenges to electronic record management. Two specific challenges are as follows:

- use of collaboration systems that establish team repositories
- use of 3-D models

Collaboration systems provide a means of establishing an electronic team room in which documents can be worked on collectively. A typical use is that documents are drafted and revised until they are approved. When the documents are approved, they are transferred to the main document repository. Another use is for team rooms to provide access to a group of approved documents without providing access to the main repository. This is typically used for projects with an outside vendor. In this case, the room is largely populated with approved documents. Care must be exercised in the planning of such distributed systems to ensure that central document control is maintained. If the proper controls are not established between the central repository and the team repository, then the team may not be submitting documents to the central repository or could be using documents that are not current. Instead of enhancing availability of current documents, such an uncontrolled team room would be undermining this intent.

Newer plants are often using a 3-D modeling process in their design development. This provides an intuitive, integrated means for design development. However, consideration should be given to ensuring that document control and records requirements are still met. One option is to maintain a copy of the system and the data file to meet the records requirements. However, such technology may change rapidly; and retaining the equipment, software, and data may be more costly than keeping the information needed in a more sustainable format. Usually a determination is made as to what information needs to be kept for document control and records requirements. For example, a 3-D model of a piping system may be used in determining placement of piping, but a paper isometric drawing is used for construction in the field and an electronic file of the drawing is used for records storage. Proprietary formats are not considered sustainable. Some document formats have been made public and standardized, such as addressed in International Standard ISO 19005-1, Document management—Electronic document field format for long-term preservation—Part 1: Use of PDF 1.4 (PDF/A-1). In the future, sustainable electronic file types may be able to store 3-D models, but they are not available today.

2.2 Process Elements

The document control and records management process is part of an overall set of integrated processes for the operation and support of nuclear plants. The process is comprised of the elements described below:

- **Receive** - Receiving encompasses the identification and classification of documents. It includes the following:
  - Receive the information from the originator, ensuring that quality standards are used.
  - Use a document management system to index and store the information.

- **Store** - Storing considers the identification of the media, storage location, placement, maintenance, and protection of information.

- **Retrieve** - Retrieval is accessing the information stored, but may include an established set of access restrictions to determine whether the information can be removed, reproduced, or viewed.

- **Distribute** - Controlled documents are distributed in accordance with established lists or otherwise made available at the location where the activity is performed. Generally, records are not distributed, but may be to facilitate retrieval.

- **Destroy** - Information may be purged based on business, legal, and regulatory requirements in accordance with an approved process.
2.3 Performance Indicators

A selection of performance measures is provided in Appendix D. Diagnostic measures are intended to be used as analytical tools by process owners when measuring the health of the process (internal use) and when performing self-assessments of the information management processes.

3.0 PROCESS DESCRIPTION FLOWCHARTS

The document control and records management process is part of an overall set of integrated processes for the operation and support of nuclear facilities. It is one of the processes by which information important to the business is received, stored, retrieved, and ultimately destroyed.

The process model was developed based on discussions with experienced industry personnel. Their knowledge was captured through process flow diagrams. The resulting model consists of a four-tiered hierarchy of process documents, as follows:

- The Level 0 “Context” flowchart displays the data flow and requirements that interface with the overall process. This level shows significant input, controls, and outputs to the process (Section 3.1).

- The Level I process flowchart expands on the top-level diagram; presents all high-level process objectives; and contains the activities, inputs, and outputs necessary to deliver the products and services (Section 3.2). The high-level flowchart represents an overview of the major process activities and their relationships.

- Level II intermediate-level flowcharts expand on the Level I process activities and add the detail necessary to achieve the process objectives (sections 3.3 through 3.5).

- Level III detailed text descriptions describe the Level II flowchart elements and include input, process, and output descriptions. The Level III process text descriptions include control mechanisms, where applicable (Section 3.6).

For simplicity of presentation, feedback is not routinely shown on the flowchart. Rather, feedback is considered a natural and expected activity.

Continuous process improvement is not explicitly shown but is assumed to occur at every level of the process. Appendix C defines the conventions used in the flowcharts presented in this process description.
3.1 Context Flowchart – Level 0, Document Control and Records Management

The Level 0 flowchart displays the data flow and requirements that interface with the overall document control and records management process. At this level, significant inputs and outputs are illustrated. Detailed flowchart descriptions are given in Section 3.7.

Level 0 – Document Control and Records Management
3.2 Top-Level Flowchart – Level I, Document Control and Records Management

AP-907-002 Document Control and Records Management

- **Originator**
  - OR1-New information
  - OR2-Ensure quality
  - OR3-Controlled document?
    - Yes
    - No

- **Document Control**
  - DC1-Receive
  - DC2-Store
  - DC3-Is this a record?
    - Yes
    - No
  - DC4-Retrieve
  - DC5-Distribute

- **Records Management**
  - RM1-Receive
  - RM2-Store
  - RM3-Retrieve
  - RM4-Destroy
Note: In some organizations indexing is done by Document Control/Records Management instead of by the originator.
3.4 Flowchart – Level II, DC - Document Control

From OR

DC1.1-Verify quality

DC1.2-Index document, if needed

DC2.1-File hard copy and electronic copy

DC2.2-Update status in index

DC2.3-Maintain storage location

DC2.4-Assess storage maintenance

DC3.1-Is it defined as a record?

Yes

DC3.2-Transmit file to Records Management

No

DC3.3-File or destroy original

Do not send to Records Management

Go to RM

DC4.1-View and verify

DC4.2-Reproduce/export

DC5.1-Transmit

DC5.2-Acknowledge

DC5.4-Assess copyholders

DC5.3-Verify
3.5 Flowchart – Level II, RM - Records Management

RM – Manage Records

- From OR and DC
  - RM1.1-Verify quality
  - RM1.2-Index and transform record, if needed
  - RM2.1-Store hard copy/electronic record
  - RM2.2-Declare record
  - RM2.3-Distribute to retrieval locations
  - RM2.4-Maintain storage location
  - RM2.5-Assess storage maintenance
  - RM2.6-Migrate to new medium
  - RM2.7-Receive confirmation
  - RM2.8-Document the destruction

- Waste
  - RM3.1-View and verify
  - RM3.2-Reproduce/export
  - RM4.1-Identify records to be destroyed
  - RM4.2-Determine if records are on legal hold
  - RM4.3-Communicate intent to destroy
  - RM4.4-Originator destroys local copies

- RM4.5-Receive confirmation
  - RM4.6-Determine method of destruction
  - RM4.7-Perform destruction
  - RM4.8-Documented the destruction
### 3.6 Flowchart Text Descriptions – Level III, Document Control and Records Management Process

This section contains step-by-step instructions for carrying out the document control and records management process and describes the inputs and outputs associated with each activity.

<table>
<thead>
<tr>
<th>Business Need: Document Control and Records Management</th>
<th>Document control provides information to be used in plant operations and maintenance. Records management provides long-term evidence of those activities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs: Internal information and external unmanaged information</td>
<td>Process: Generate or capture information and then review and approve, as needed. If the information is not accepted, the information is rejected. Outputs: Received information, waste</td>
</tr>
<tr>
<td>Inputs: Unmanaged information</td>
<td>Process: Classify information to ensure it is grouped within the correct context according to the established criteria. If information cannot be classified, it cannot be managed and will be rejected. Material is discarded, kept as reference material, or accepted as a document/record. Outputs: Received information, waste</td>
</tr>
<tr>
<td>Inputs: New or revised documents/records</td>
<td>Process: Prepare the document for review. This may include a transformation, as many utilities use an electronic workflow. Outputs: Received information</td>
</tr>
<tr>
<td>Inputs: Received information</td>
<td>Process: Review and authorize the information in accordance with established processes. Outputs: Authorized information</td>
</tr>
<tr>
<td>Inputs: Authorized information</td>
<td>Process: Ensure the information meets standards. Outputs: Verified information</td>
</tr>
<tr>
<td>Inputs: Authorized information</td>
<td>Process: Verify that the information meets quality requirements. See Appendix G. If it is not acceptable, work with the originating department to either fix the information or obtain conforming information. Outputs: Conforming information</td>
</tr>
<tr>
<td>Process</td>
<td>Inputs:</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>2.2-Transform document, if needed</td>
<td>Conforming information</td>
</tr>
<tr>
<td>OR2.2-Transform document, if needed</td>
<td>Determine whether the accepted information needs to be in a different medium or format. Standards are based on what format the information should be in for further processing and may also consider whether it needs to be in a sustainable file type. For example, some utilities only handle safeguards in hard copy. If a different format or medium is desired, then the information is transformed. This conversion process must ensure that the content and context of the information are not changed. Information is normally used in electronic format. A hard copy is kept if the information cannot be transformed properly or if it is needed for a future revision. In the latter case, an electronic file is still created.</td>
</tr>
<tr>
<td>3.1-Controlled document?</td>
<td>Verified information</td>
</tr>
<tr>
<td>OR3.1-Controlled document?</td>
<td>Identify, index, and submit controlled documents to Document Control (DC) and transmit records to Records Management (RM).</td>
</tr>
<tr>
<td>3.2-Index document</td>
<td>Unindexed documents</td>
</tr>
<tr>
<td>OR3.2-Index document</td>
<td>Determine if the information needs to become a controlled document. Refer to attachment F.</td>
</tr>
<tr>
<td>3.3-Submit to Document Control</td>
<td>Indexed documents</td>
</tr>
<tr>
<td>OR3.3-Submit to Document Control</td>
<td>Submit to Document Control in accordance with established the procedure for that type of document.</td>
</tr>
<tr>
<td>3.4-Index record</td>
<td>Unindexed records</td>
</tr>
<tr>
<td>OR3.4-Index record</td>
<td>Index the record per metadata standards for that record type.</td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| OR3.5-Transmit to Records Mgmt | Inputs: Indexed records  
Process: Transmit to RM in accordance with the established procedure for that record type. Completed records should be transmitted in a prescribed time frame. Usual practice is within 30 days, with some approved exceptions.  
Outputs: Transmitted records |
| DC1-Receive | Inputs: Submitted documents  
Process: Receiving the document includes verifying the document meets acceptance standards and indexing the document.  
Outputs: Indexed document |
| DC1.1-Verify quality | Inputs: Submitted documents  
Process: Check document for:  
- document number, and revision if applicable  
- document title  
- approval and date  
- completeness  
- legibility  
- if electronic, proper file type  
- special identification; for example, use level, proprietary/confidential, safeguards  
Deficiencies are resolved with the originating department.  
Outputs: Accepted documents |
| DC1.2-Index document, if needed | Inputs: Accepted documents  
Process: Index the document per document metadata standards for that document class, if not already indexed. The document should normally be provided in the proper format and not need transformation. Records considerations for activities such as dry cask storage and decommissioning may affect the way documents are indexed.  
Outputs: Indexed documents |
| DC2-Store | Inputs: Indexed documents  
Process: Documents are stored, the status is updated, and they are maintained and protected.  
Outputs: Stored documents |
| DC2.1-File hard copy and electronic copy | Inputs: Indexed documents  
Process: Hard copy documents are physically placed in storage, and electronic files are committed to electronic storage.  
Outputs: Stored documents |
| **DC2.2-Update status in index** | Inputs: Stored documents  
Process: The status is updated in the document management system. This means the document is the controlled document available for use in plant operations and maintenance.  
Outputs: Approved documents |
| **DC2.3-Maintain storage location** | Inputs: Approved documents  
Process: Monitor physical storage conditions, including the exclusion of activities that could harm the documents, such as eating, drinking, and smoking.  
Outputs: Maintained documents |
| **DC2.4-Assess storage maintenance** | Inputs: Maintained documents  
Process: Periodically assess the physical and electronic storage mechanisms to ensure documents are being properly maintained and protected. This would include monitoring for missing documents.  
Outputs: Assessment reports |
| **DC3-Is this a record?** | Inputs: Approved documents  
Process: Determine whether the document needs to be kept as a record. If so, prepare and transmit to RM.  
Outputs: Transmitted records, original documents |
| **DC3.1-Is it defined as a record?** | Inputs: Approved documents  
Process: Determine whether the document needs to be kept as a record. Refer to ASNI N454.2.9/ASME NQA-1 and Appendix F. Not all documents necessarily become records.  
Outputs: Identified records |
| **DC3.2-Transmit file to Records Management** | Inputs: Identified records  
Process: Transmit to RM in accordance with the established procedure for that record type. Completed records should be transmitted in a prescribed time frame. Usual practice is within 30 days, with some approved exceptions.  
Outputs: Transmitted records |
| **DC3.3-File or destroy original** | Inputs: Original documents  
Process: Determine if the original needs to be kept to enable creation of future revisions or if a hard copy needs to be kept for a backup to the electronic copy. If the original does not need to be kept, destroy it in accordance with any special requirements if applicable; for example, safeguards, proprietary. For most documents, a record will also exist; therefore, the document being destroyed is usually one that has only been kept for convenience, not to meet any retention requirements.  
Outputs: Filed original documents, waste |
| DC4-Retrieve | Inputs: Maintained documents  
Process: Locate and use the document needed.  
Outputs: Retrieved documents |
| --- | --- |
| Inputs: Stored documents  
Process: Information is located using metadata or content searches. Located information can be viewed subject to proprietary, confidentiality, or other access restrictions. Ensure the image matches the search criteria used.  
Outputs: Verified documents |
| Inputs: Verified documents  
Process: Located information may be reproduced depending on copyright, proprietary, and confidentiality restrictions. Controlled copies may have additional requirements; for example, some utilities require them to be stamped, initialed, and dated before use in plant operations. Copies are destroyed after use, unless used in another process that will use the document to create a record. Destruction must be in accordance with any special requirements if applicable; for example, safeguards, proprietary. Electronic files being exported may be required to have electronic information rights management (see NIRMA TG15) imposed.  
Outputs: Retrieved documents |
| DC5-Distribute | Inputs: Approved documents  
Process: New documents or revisions are incorporated into copyholder files, and follow-up occurs to ensure this is completed on a timely basis.  
Outputs: Updated files |
| DC5.1-Transmit | Inputs: Approved documents  
Process: When a new or revised document is updated in the document management system, a notification is generated to affected personnel as defined in a documented distribution list of copyholders. A hard copy or other medium would need to be sent, if any copyholder does not make a copy from the notification.  
Outputs: Notifications |
| DC5.2-Acknowledge | Inputs: Notifications  
Process: The copyholder:  
prints and files the new copies  
destroyes revised/superseded/cancelled copy in accordance with any special requirements, if applicable; for example, safeguards, proprietary  
returns a receipt notice, if required  
Outputs: Updated copyholder files |
<table>
<thead>
<tr>
<th>Process</th>
<th>Inputs</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DC5.3-Verify</strong></td>
<td>Receipt notice and transmittals</td>
<td>Reconciled receipts</td>
</tr>
<tr>
<td><strong>Inputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process:</strong></td>
<td>Compare receipts to transmittals, and work with the copyholder to ensure receipts are obtained on a timely basis.</td>
<td></td>
</tr>
<tr>
<td><strong>Outputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC5.4-Assess copyholders</strong></td>
<td>Updated files and listing of copyholder files</td>
<td>Assessment report</td>
</tr>
<tr>
<td><strong>Inputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process:</strong></td>
<td>Perform a review to ensure all remote reference files are identified on the list of copyholders, that the files they have match the distribution list, and that the files are current.</td>
<td></td>
</tr>
<tr>
<td><strong>Outputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RM1-Receive</strong></td>
<td>Transmitted records</td>
<td>Received records</td>
</tr>
<tr>
<td><strong>Inputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process:</strong></td>
<td>Records are checked against standards and are indexed and transformed as needed.</td>
<td></td>
</tr>
<tr>
<td><strong>Outputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RM1.1-Verify quality</strong></td>
<td>Transmitted records</td>
<td>Accepted records</td>
</tr>
<tr>
<td><strong>Inputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process:</strong></td>
<td>Inspect records against the list in the transmittal. Check the record for: record identification, subject title, approval (as applicable) and date, completeness, legibility, if electronic, then proper file application type, special access controls; for example, proprietary/confidential, safeguards.</td>
<td></td>
</tr>
<tr>
<td><strong>Outputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RM1.2-Index and transform record, if needed</strong></td>
<td>Accepted records</td>
<td>Indexed records</td>
</tr>
<tr>
<td><strong>Inputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process:</strong></td>
<td>If not already done, index record per metadata standards for that record type. The index process may be automated in the originating process. Verify the accepted record is on the desired medium and in the desired format. If not, then transform/migrate the record as required by the RM standards established. This conversion process must ensure that the content and context of the information are not changed. Upon completion of the transform process, the original record content may be destroyed. RM shall establish standards for final record format (electronic, microform, etc.) as a sustainable record media or file type. (Reference NIRMA TG15)</td>
<td></td>
</tr>
<tr>
<td><strong>Outputs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
<td>Inputs</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>RM2-Store</td>
<td>Store hard copy/electronic record</td>
<td>Indexed records</td>
</tr>
<tr>
<td>RM2.1-Store hard copy/electronic record</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM2.2-Declare record</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM2.3-Distribute to retrieval locations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM2.4-Maintain storage location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM2.1-Store hard copy/electronic record</td>
<td>Stored records</td>
<td></td>
</tr>
<tr>
<td>RM2.2-Declare record</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM2.1-Store hard copy/electronic record</td>
<td>Indexed records</td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td></td>
</tr>
</tbody>
</table>
| **RM2.2-Declare record** | **Inputs:** Stored records  
**Process:** The records management system applies security and retention times to the record. The record is now the legally controlled record of plant operations and maintenance activities.  
**Outputs:** Declared records |
| **RM2.3-Distribute to retrieval locations** | **Outputs:** Declared records  
**Process:** If needed, distribute copies to remote locations for retrieval. *In the past, this was done using film reels.*  
**Outputs:** Remotely stored records |
| **RM2.4-Maintain storage location** | **Inputs:** Declared records  
**Process:** Monitor physical storage conditions, including the exclusion of activities that could harm the documents, such as eating, drinking, and smoking. Maintain storage in accordance with the standards identified in Appendix E.  
**Outputs:** Maintained records |
| **RM2.5-Assess storage maintenance** | **Inputs:** Maintained records  
**Process:** Periodically assess the physical and electronic storage mechanisms to ensure records are being properly maintained and protected. Assessment should include disaster planning, data loss monitoring, and software retirement planning.  
**Outputs:** Assessment report |
| **RM2.6-Migrate to new medium** | **Inputs:** Maintained records  
**Process:** Establish plans for migration to newer media, software, and hardware. Migration activities occur as required. For example, data kept on storage tapes might need to be migrated every 10 years. Records stored on servers are to be migrated before end of life of the hardware.  
**Outputs:** Maintained records |
| **RM3-Retrieve** | **Inputs:** Maintained records  
**Process:** The record is retrieved for use.  
**Outputs:** Retrieved records |
| **RM3.1-View and verify** | **Inputs:** Maintained records  
**Process:** Information is located using metadata or content searches. Located information can be viewed subject to proprietary, confidentiality, or other access restrictions. Ensure the image matches the search criteria used.  
**Outputs:** Verified records |
RM3.2-Reproduce/export

Inputs: Verified records

Process: Located information may be reproduced depending on copyright, proprietary, and confidentiality restrictions. Copies are destroyed after use. Destruction must be in accordance with any special requirements, if applicable; for example, safeguards, proprietary. Electronic files being exported may be required to have electronic information rights management imposed.

Outputs: Retrieved records

RM4-Destroy

Inputs: Maintained records

Process: Based on the retention schedule, records are destroyed.

Outputs: Identified records

RM4.1-Identify records to be destroyed

Inputs: Maintained records

Process: Based on the retention schedule, records are identified for destruction.

Outputs: Identified records

RM4.2-Determine if records are on legal hold

Inputs: Identified records

Process: Remove records from the destruction list if they have been put on hold to support legal proceedings.

Outputs: Identified records

RM4.3-Communicate intent to destroy

Inputs: Identified records

Process: Send destruction list to record owner/originating department for concurrence.

Outputs: Identified records

RM4.4-Originator destroys local copies

Inputs: Identified records

Process: Owner/originating department approves the list of records identified for destruction and destroys local copies. Local destruction would include known distribution points and records locations.

Outputs: Confirmation of local destruction list

RM4.5-Receive confirmation

Inputs: Confirmation of destruction list

Process: RM receives confirmation of local destruction.

Outputs: Retained confirmation of destruction list

RM4.6-Determine method of destruction

Inputs: Retained confirmation of destruction list

Process: Destruction method for the records identified is determined. Proprietary and confidential documents require destruction, not just disposal. Destruction is done in accordance with any special requirements, for example; safeguards, proprietary. Witnessing of destruction may be required.

Outputs: Destruction plan
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Inputs</th>
<th>Process</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>RM4.1 - Identify records to be destroyed</td>
<td>Maintained records</td>
<td>Based on the retention schedule, records are identified for destruction.</td>
<td>Identified records</td>
</tr>
<tr>
<td>RM4.2 - Determine if records are on legal hold</td>
<td>Identified records</td>
<td>Remove records from the destruction list if they have been put on hold to support legal proceedings.</td>
<td>Identified records</td>
</tr>
<tr>
<td>RM4.3 - Communicate intent to destroy</td>
<td>Identified records</td>
<td>Send destruction list to record owner/originating department for concurrence.</td>
<td>Identified records</td>
</tr>
<tr>
<td>RM4.4 - Originator destroys local copies</td>
<td>Identified records</td>
<td>Owner/originating department approves the list of records identified for destruction and destroys local copies. Local destruction would include known distribution points and records locations.</td>
<td>Confirmation of local destruction list</td>
</tr>
<tr>
<td>RM4.5 - Receive confirmation</td>
<td>Confirmation of destruction list</td>
<td>RM receives confirmation of local destruction.</td>
<td>Retained confirmation of destruction list</td>
</tr>
<tr>
<td>RM4.6 - Determine method of destruction</td>
<td>Retained confirmation of destruction list</td>
<td>Determined. Proprietary and confidential documents require destruction, not just disposal. Destruction is done in accordance with any special requirements, for example, safeguards, proprietary. Witnessing of destruction may be required.</td>
<td>Destruction plan</td>
</tr>
<tr>
<td>RM4.7 - Perform destruction</td>
<td>Destruction plan</td>
<td>The removed information is destroyed.</td>
<td>Waste</td>
</tr>
<tr>
<td>RM4.8 - Document the destruction</td>
<td>Destruction plan</td>
<td>The destruction of the records is kept as a record. The index is kept and annotated that the record is destroyed.</td>
<td>Record of destruction</td>
</tr>
</tbody>
</table>
APPENDIX A

Glossary of Terms and Definitions

Acceptance – the act of officially receiving information that has passed a verification process and been found to have met minimum allowable criteria for usability, such as appropriate review and approval

Access – right, opportunity, or means of finding, using, or retrieving information

Business Requirements – business-related needs such as budget, schedule, or resource restraints that necessitate actions in the information management process

Classification – systematic identification and arrangement of business activities and/or information into categories according to logically structured conventions, methods, and procedure rules represented in a classification system used for indexing

Confidential Information – information that is accessible only to those authorized to have access to it

Continuous Improvement – the ongoing betterment of a process based on constant measurement and analysis of results produced by the process, and use of that analysis to modify the process—Continuous improvement includes the act of monitoring and measuring processes and products against policies, objectives, and requirements for the product and reporting the results, as well as taking the appropriate actions to make adjustments to improve the processes and products.

Controlled Copy – a copy of a controlled document reproduced and verified as being the current revision at the time the copy was distributed

Controlled Copyholder – a person or organization responsible for maintaining complete copies of the current revision of controlled documents

Controlled Document – documents, including drawings, required to support plant operations and decision-making, which are subject to revision to ensure users have the most current information

Controlled Information – managed information that is controlled to meet regulatory, legal, insurance, or business requirements

Conversion – see Transform

Destroy – to eliminate or delete information beyond any possible reconstruction

Document – a unit of recorded information that describes, specifies, reports, certifies, requires, or provides data—This includes paper copies (procedures, manuals, etc.), electronic media (such as word processor files and computer databases), and any other source(s) of information used to design or operate the facility or make sound technical decisions.

Identify – the act of assigning a unique designator, such as a number, to information

Index – to provide a separate collection of information arranged to make it easier to locate relevant information—This can be a manual or automated list arranged differently from the original information to speed retrieval of the original information or related information.

Information Management – the costs and activities that comprise the formal process by which information important to the business is generated, revised, received, stored, retrieved, distributed, and destroyed—In addition, the process as defined in the Standard Nuclear Performance Model includes office-related activities such as keying, filing, mail processes, maintaining office supplies, reproduction and fax services, and other administrative support activities.
Location – an identifier associated with the placement of information

Managed Information – information, including reference information, received and stored as part of the formal information management process

Maintain – the processes and operations involved in ensuring the security and integrity of information

Media – the vehicle for information, including microforms, paper, and electronic material such as CD ROMs, magnetic tape, and hard drives

Metadata – index data that describes the context, content, and structure of information

Native File – the file type used for the creation of a document—This may not be a sustainable format and conversion may be required for long-term storage. It may also not be acceptable for use for plant operations. An example would be a Word file.

Place – to put information in its designated storage location

Process – a sequence of behaviors or a series of steps designed to produce a product or service; tangible structures established to direct the behavior of individuals in a predictable, repeatable fashion as they perform various tasks

Process Owner – an individual who coordinates the various functions and work activities at all levels of a process, regardless of the functional organizations involved—Owners have the resource control and job skills to evaluate overall process operation and to evaluate potential process improvements. They design and manage the process end to end so as to ensure optimal overall performance. Process owners are responsible for ensuring that the total process is effective and efficient and that appropriate performance measures are in place to measure the process and ensure that performance is continually improved.

Proprietary Information – information that is used or made by one having the exclusive legal right of access

Protect – to ensure the security and integrity of stored information

Record – information, regardless of physical form or characteristics, appropriate for preservation as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the organization—Examples of where this information may reside are books, papers, maps, photographs, machine-readable electronic files, or other documentary materials.

Records Management – the discipline responsible for the efficient and systematic control, receipt, maintenance, use, and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records

Reference Material – information such as textbooks, engineering handbooks, and other sources of information that cover a broad scope of knowledge, which one can refer to for authoritative information

Revision – any alteration to the document, including significant changes, simple changes, and editorial corrections

SNPM – The Standard Nuclear Performance Model – A Process Management Approach—This is an industry guiding document that is the result of an effort by EUCG Inc. to publish and maintain a comprehensive performance model. It includes process descriptions, an aligned set of activity-based costing definitions for use in the submission of cost data to the EUCG Inc., and an aligned set of key performance indicators supported by industry process owners known as Communities of Practice.
**Transform** – the process of changing information from one medium to another or from one format to another — This is usually done to convert from a native format to a sustainable format (see NIRMA TG15).

**Unmanaged information** – information received from any source that has not yet been evaluated to determine how it will be managed.

**Waste** – the output of the destruction process.
## APPENDIX B

### Task Force List

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Position/Role</th>
<th>Phone Number</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill Clover</td>
<td>Exelon Nuclear</td>
<td>Nuclear Corporate Records Manager</td>
<td>(815) 458-7646</td>
<td><a href="mailto:william.clover@exeloncorp.com">william.clover@exeloncorp.com</a></td>
</tr>
<tr>
<td>Alan Rabe</td>
<td>FirstEnergy</td>
<td>Senior Consultant</td>
<td>(330) 701-4506</td>
<td><a href="mailto:awrabe@firstenergycorp.com">awrabe@firstenergycorp.com</a></td>
</tr>
<tr>
<td>Sue DeVito</td>
<td>Constellation Energy</td>
<td>Sup Document Control/Recs Mgmt</td>
<td>(585) 771-5420</td>
<td><a href="mailto:Sue.DeVito@constellation.com">Sue.DeVito@constellation.com</a></td>
</tr>
<tr>
<td>Shelley Tucker</td>
<td>Ontario Power Generation</td>
<td>Manager–Records/Controlled Documents</td>
<td>(905) 839-1151</td>
<td><a href="mailto:shelley.tucker@opg.com">shelley.tucker@opg.com</a></td>
</tr>
<tr>
<td>Amber Hedderman</td>
<td>Constellation Energy</td>
<td>Project Manager Configuration Mgmt</td>
<td>(585) 771-3758</td>
<td><a href="mailto:amber.hedderman@constellation.com">amber.hedderman@constellation.com</a></td>
</tr>
<tr>
<td>Sandra Laiche</td>
<td>Entergy (River Bend)</td>
<td>Superintendent, Admin Services</td>
<td>(225) 635-5168</td>
<td><a href="mailto:slaiche@entergy.com">slaiche@entergy.com</a></td>
</tr>
<tr>
<td>Gerald Lewis</td>
<td>STP Nuclear Operating Company</td>
<td>Supervisor Records Management</td>
<td>(361) 972-8338</td>
<td><a href="mailto:glewis@stpegs.com">glewis@stpegs.com</a></td>
</tr>
<tr>
<td>Ed Springer</td>
<td>PSEG Nuclear, LLC</td>
<td>Records Management</td>
<td>856-339-2048</td>
<td><a href="mailto:edgar.springer@pseg.com">edgar.springer@pseg.com</a></td>
</tr>
<tr>
<td>Patti MacKay</td>
<td>Bruce Power</td>
<td>Section Mgr - Doc Mgmt</td>
<td>866-748-4787</td>
<td><a href="mailto:patti.mackay@brucepower.com">patti.mackay@brucepower.com</a></td>
</tr>
<tr>
<td>Vicki Tillet</td>
<td>Dominion Nuclear CT</td>
<td>Sr, Records &amp; Information Analyst</td>
<td>860-444-5282</td>
<td><a href="mailto:Victoria.G.Tillett@dom.com">Victoria.G.Tillett@dom.com</a></td>
</tr>
</tbody>
</table>

### Reviewers

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Position/Role</th>
<th>Phone Number</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
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<tr>
<td>Patti MacKay</td>
<td>Bruce Power</td>
<td>Section Mgr - Doc Mgmt</td>
<td>866-748-4787</td>
<td><a href="mailto:patti.mackay@brucepower.com">patti.mackay@brucepower.com</a></td>
</tr>
</tbody>
</table>
APPENDIX C

Process Modeling and Flowchart Conventions

This process model is presented in standard flowchart methodology. The model consists of a four-tiered hierarchy of documents, as follows:

1. The Level 0 "Context" flowchart displays the data flow and requirements that interface with the overall information management (IM) process. At this level, significant input, controls, and outputs to the IM process are shown.

2. Top-level flowchart blocks are numbered 1.0, 2.0, 3.0 and so forth using the rectangle basic flowchart process icon. ALL blocks except terminators are numbered, unless combined with a decision block and highlighted (to indicate the decision process step).

3. Intermediate and lower-level flowchart blocks are numbered consistently with the corresponding higher-level block. For example, intermediate-level expansion of block 4.0 would be 4.1, 4.2, 4.3, and so forth.

4. Interface connections to another process are shown on the intermediate-level flowchart only, not the top level.

5. Process data blocks are used to show the processing of information/data between key points within a process. The text in such a block indicates an action to be taken within the process, such as "update equipment history."

6. Level III text discusses the inputs and the outputs, as well as the process itself:

   - Inputs represent material or information transformed or consumed by the process to produce an output.
   - Outputs represent materials or information produced by the activity.
APPENDIX D

Performance Measures

Industrywide Key Performance Indicators (KPIs)

These measures are universal in nature and provide useful information to compare performance among nuclear facilities. The following are the key performance indicators:

1. Total number of documents for the following types:
   a. procedures per unit (not including business practices/desk guides)
   b. drawings per unit
   c. calculations per unit
2. Total documents per unit
3. Total procedure revisions in a year per unit
4. Total number of records in index per unit
5. Total number records received in a year per unit
6. SS003 staff per unit (from EUCG)
7. SS003 cost per unit (from EUCG)
Process Diagnostic Measures for Information Management Process (NOT industrywide)

The following diagnostic measures are suggested indicators for assessing the document control and records management process. The measures provided are intended to be used as a menu of possible analytical tools that process owners can select and use for self-assessments of the document control and records management processes and for routine monitoring. The expectation is that measures will be selected based on the need of the organization. A good business practice is to have a minimum set of diagnostic measures for each Level II process area. It is recognized that some current systems may not support the measurement of all the diagnostic measures suggested.

1. periodic user feedback surveys
2. usage statistics on retrieval systems
3. trending information from the Corrective Action Program
4. retrieval time in seconds
5. time to enter a document into the system
6. time to enter a record into the system
7. time to return receipt acknowledgement
8. use of storage space
9. backlog of indexing
10. time between record completion and records transmittal
11. total distribution for procedures and drawings—If two procedures are distributed to 10 locations, then it is a count of 20.
12. number of changes to retention instructions in a year
APPENDIX E

Reference List

The following documents were used as resource materials in the development of PDG02.

- 10 CFR 50 Appendix B, Quality Assurance Criteria
- American National Standards Institute (ANSI) N18.7, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
- ANSI N45.2.9-1974, Requirements for Collection, Storage and Maintenance of Quality Assurance Records for Nuclear Power Plants
- ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspection by Attributes
- American Society of Mechanical Engineers (ASME) NQA-1, Quality Assurance Requirements for Nuclear Facility Applications
- Department of Defense 5015.2-STD, Design Criteria Standard for Electronic Records Management Software Applications
- International Atomic Energy Agency (IAEA) Safety Guide Q3, Document Control and Records
- Nuclear Energy Institute (NEI) AP-907, Revision 1, Information Management Process Description and Guideline, July 2003
- NEI/NIRMA SS003, Nuclear Records Management Benchmarking Report, March 2002
- Nuclear Information & Records Management Association (NIRMA), Process Description Guideline PDG01, Information Management Process Description Guideline
- NIRMA Technical Guideline TG11-2007, revision 2, Authentication of Records and Media
- NIRMA TG15-2009, Management of Electronic Records
APPENDIX F
Documents in Document Management System

This list is not exhaustive or mandatory.

<table>
<thead>
<tr>
<th>Document</th>
<th>Controlled</th>
<th>Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculations</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Correspondence</td>
<td>N¹</td>
<td>N¹</td>
</tr>
<tr>
<td>Drawings</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Engineering Change Package</td>
<td>Y³</td>
<td>Y</td>
</tr>
<tr>
<td>EQ package</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Equipment Data Sheets</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Forms</td>
<td>Y⁶</td>
<td>N</td>
</tr>
<tr>
<td>Instructions</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Native Files</td>
<td>Y⁴</td>
<td>N</td>
</tr>
<tr>
<td>Policies</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Business Practices/Desk Guides</td>
<td>Y⁷</td>
<td>N</td>
</tr>
<tr>
<td>Procedures</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Procurement</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Program Manuals/Plans</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Quality Classification List</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Radiation Protection Surveys</td>
<td>N²</td>
<td>Y</td>
</tr>
<tr>
<td>Records Transmittal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructions/Indexing Guide</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Regulatory Documents (Safety Analysis Report, Technical Specifications)</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Setpoints</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Specifications</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Training Documents</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Vendor Drawings</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Vendor Information</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

1. Certain correspondence is kept as a quality record. Some general correspondence may be kept in the document or records management system to facilitate retrieval.

2. Surveys are often kept in the document control system to facilitate retrieval; that is, indexed on location.

3. Engineering change packages are a record, but some individual parts may be kept as a document.

4. Native files are kept for ease of revision.

5. This column addresses the relationship of records to documents but is not a complete list of records.

6. Forms are blank documents. They do not provide independent process direction, but are a convenient format for collecting data.

7. Many utilities do not control desk guides.
APPENDIX G

STANDARDS AND TRANSFORMATION

DOCUMENT PREPARATION/ACCEPTANCE STANDARDS

General Criteria

- All documentation shall be legible, completely filled out, and uniquely identified. Documents shall be considered valid only if stamped, initialed, signed, or otherwise authenticated and dated by authorized personnel. Documents may be either the original or a reproduced copy. See ANSI N45.2.9 Section 3.2.1, NQA-1, and NIRMA TG11 Section 4.

- Acceptable methods for document approval include handwritten signatures or electronic authentication. Handwritten signatures should be legible or include additional clarification. Acceptable methods of signature clarification are employee identification number, name printed legibly, or title. All clarifications should be as close to the signature as practical.

- Page accountability is provided.

Criteria for Hardcopy Documents

- Correction fluid, white-out, and correction tape shall not be used on records.

- Erasures shall not be used to correct records.

- Corrections shall consist of a single line drawn through erroneous material and legible printing of the changes above it or at the end of that line where the corrections occur. The person making each change shall initial and date the change. See NIRMA TG11 Section 7.

- Document Control may only correct administrative errors after consultation with the originator.

- The record must be capable of producing a clear scanned image. Adjustments to contrast, color, or shading may need to be considered.

- The use of highlighting on original documentation is allowed only if it does not obliterate the information once scanned. Yellow highlighting will usually not appear on the scanned image; therefore, other methods of indicating special attention should be used (clouding, asterisks, and so forth).

- Notes or other annotations shall be relative and be completely legible. Notes or markings of any sort must not obscure other information.

Criteria for Electronic Files

- The image capture process shall not affect the content of the record. For example, do not use the de-speckle function when scanning an image.

- Resolution guideline is 300 dpi for black and white, grayscale, or color.

- Files should comply with the PDF/A standard and NRC document submittal requirements.
TRANSFORMATION

The transformation process should be governed by procedures or guidelines. The following considerations should be made:

- Equipment calibration is maintained regularly.

- Software conversions should have standard settings and be qualified in accordance with the software quality assurance program.

- Sampling shall be done to verify that the process is working. A change in hardware should change sampling. See ANSI/ASQC Z1.4-1993.

- Page counts may be done by scanners more accurately than manually.

- Microfilm created by third parties should be audited.

The conversion of files to PDF should consider the following:

- At one plant the conversion of a Word file to PDF resulted in an improper torque of bolting because a table was not properly formatted in Word to support the conversion.

- Flowcharts do not convert well.

- Some changes in word wrapping are acceptable.

- The process should be standardized so users do not apply an infinite variety of settings.
APPENDIX H

DOCUMENT STATUSES

IDENTIFYING DOCUMENT STATUS AND USE LIMITATIONS

Document Control ensures that document status is maintained for controlled documents. There are three general statuses for a document:

- Not yet approved
- Approved
- No longer approved

For retrievability and correlation with use, some further delineation of status designations has been established. The status is used as the basis for determining document use limitations. These statuses and limitations for use are identified below.

These are document statuses and not process status indications.

**H.1 Not Yet Approved**

Documents with this status shall generally not be used in support of plant operations.

**H.1.1 RESERVED** (includes draft, in-process) – identifies the assignment of a document identification number for documents under development—If a document is determined not to be needed, the status should be changed to VOIDED.

**H.1.2 AUTHORIZED** – a controlled document revision that is signed but not yet effective—The controlled document has been authorized and submitted by the releasing organization. However, the document is not authorized for use until completion of identified criteria; for example, pending effective date or mode change. Documents with this status may be used for training. Documents with this status can be used for plant modifications in a work package, but not for normal operations.

**H.1.3 REFERENCE** – a document that is entered into the document management system for ease of access, but whose revision may not be controlled by the utility—Although entered into the index, there is no assertion that the information is the latest available. Examples are standards, excerpts of engineering handbooks referenced in calculations, and vendor notices. These documents may be referenced in a maintenance order.

**H.1.4 NATIVE** – a document file that may be entered into the document management system in the native file format for preparing the next revision—These are not used by the field because (a) these files may require specific software and settings for use/viewing to produce consistent output, and (b) these might not be controlled for field use; for example, not quarantined if errors are discovered in the document.

**H.2 Approved**

This is the only category that allows documents to be used to support plant operations.

**H.2.1 APPROVED** (issued, effective) – a document revision that has been submitted by the releasing organization and that is authorized for use—There are special implications based on document type:

- A drawing with this status reflects plant configuration.
b. A procedure with this status is effective.

The use of documents may also be proscribed by configuration management processes; for example, consideration of installed unincorporated changes, temporary changes.

H.3 No Longer Approved

Documents with this status are not authorized for use except as historical reference.

H.3.1 QUARANTINED (on hold, suspended) – a document revision that was previously authorized for use and has been placed on hold; for example, the procedure cannot be performed as written—This is a temporary status. Documents with this status shall be revised, superseded or voided; or the reason for the hold shall be resolved and the document returned to the approved status.

H.3.2 SUPERSEDED – a document that has been replaced by another document—The new document is to be recorded in the index.

H.3.3 REVISED – a document revision that has been replaced by a subsequent revision of that document

H.3.4 VOIDED (canceled) – a document or revision that is no longer needed and there is no revision or superseding document—This would also be used for documents that have reached a predetermined expiration date, such as a temporary procedure.

H.3.5 CLOSED (archived) – a document for which the work has been completed
APPENDIX I

Revision History

Revision 0

The AP series of documents is for work process descriptions. Each process description reflects the integration of experience gained from operating plants to processes under development for the operation of future standard plants. The "AP" annotation originally stood for "advanced plant"; however, the reference has come to refer to "advanced process." Information management is an enabling process as described in the original AP-907 and the Standard Nuclear Performance Model. The following table provides an overview of the AP-907 series of documents, which are now the PDG series of NIRMA documents. In 2008, NIMSL reviewed the priorities of the group and established a road map for continued development of the AP-907 series of documents. This has been updated as follows:

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<th>Number</th>
<th>Title</th>
<th>Rev</th>
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<tr>
<td>NEI AP-907</td>
<td>Information Management Process Description Guideline</td>
<td>1</td>
<td>2003</td>
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<tr>
<td>NEI AP-907-001</td>
<td>Procedure Process Description (supersedes INPO AP-907)</td>
<td>0</td>
<td>2005</td>
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<tr>
<td>NIRMA PDG02</td>
<td>Document Control and Records Management</td>
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<td>2010</td>
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<td>2010</td>
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<tr>
<td>NEI AP-907-005</td>
<td>Procedure Writers' Manual</td>
<td>0</td>
<td>2007</td>
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<tr>
<td>INPO AP-907-006</td>
<td>Reference Libraries</td>
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<td>INPO AP-907-007</td>
<td>Procedure Use and Adherence (issued as Good Practice 09-04)</td>
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AP-907-001 and AP-907-005 will be maintained in the future by the Procedure Professionals Association.

Note that the prefix in the AP document number indicates the organization that originally published the document. Future PDGs or revisions will be by NIRMA.

This document was written in the style and format of PDG01. The flowcharts and description were modified to be specific to the document control and records management process.