



CHANGE NOTICE

CN No.: 10.0-0-3

Effective Date: 10/8/91

Affected Document: 033-YMP-QP 10.0, "Inspection"

J. Blink
Prepared by:

N/A
Approved by: (Technical Area Leader) Date

[Signature] 10/1/91
Approved by: (YMP QA Manager) Date

[Signature] 10/1/91
Approved by: (YMP Leader) Date

Training Required: Yes No

Major Changes

Minor Changes

Reason for Change:

Clarification, to permit use of the procedure for activities not designated "quality affecting".

1. Section 10.0.2, Change the section to read:

"This procedure applies to inspections of engineered items that are quality affecting. It is optional for other items."

NOTE: THIS CHANGE NOTICE IS TO BE FILED AT THE FRONT OF THE AFFECTED DOCUMENT



CHANGE NOTICE

CN No.: 10.0-0-2

Affected Document: 033-YMP-QP 10.0, "Inspection," Rev.0

Prepared by: Raymond E. Hamati

Approved by: N/A
(Technical Area Leader) (Date)

Approved by: *RK Hamati* 2-20-91
(YMP QA Manager) (Date)

Training Required:
Yes No

Approved by: *F. J. Jordan* 2/20/91
(YMP Project Leader) (Date)

Currently Read as Follows:

- 1. Section 10.0.2: As published

CHANGED TO READ:

- 1. Section 10.0.2: Replace "Quality Level I or II" with "quality affecting."

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CHANGE NOTICE

 CN No. 10.0-0-1

 Affected Document: QP 10.0, "Inspection"

 Revision: 0

 Prepared By Ronald Schwartz

 Approved By N/A

Technical Area Leader

Date

 Approved By *R. G. E. Schatz* 4/10/89
 YMP QA Manager Date

 Approved By *J. S. Seltan* 4/11/89
 YMP Project Leader Date

Currently Reads as Follows:

1. Section 10.0.4.2, add new third paragraph (see below).
2. Section 10.0.4.5, first paragraph:

When such Witness or Hold Points are established, work may not proceed without documented authorization by the responsible representative... Consent to waive any specified Witness or Hold Point is documented before work can be continued beyond the designated Point.

Changed to Read:

1. Section 10.0.4.2, first paragraph:

Inspectors are certified in writing in accordance with the applicable provisions of 033-YMP-QP 2.11, "Qualification and Certification of Inspection and NDE Personnel."

2. Section 10.0.4.5, first paragraph:

When such Witness or Hold Points are established, work may not proceed without documented authorization by the YMP Quality Assurance Manager or his designee. These Witness or Hold Points are identified in appropriate documents controlling the activity. The basis for waiving any specified Witness or Hold Point is documented before work can be continued beyond the designated point.

NOTE: THIS CHANGE NOTICE IS TO BE FILED AT THE FRONT OF THE AFFECTED DOCUMENT

NUCLEAR WASTE MANAGEMENT PROGRAM

CONTROLLED COPY NO. 0100

Subject:

INSPECTION

Approved:

Approved by:


 YMP Project Leader

Approved by:


 YMP Quality Assurance
 Manager

10.0.1 PURPOSE

This procedure establishes controls for the inspection of items produced for the Yucca Mountain Project (YMP). These controls are established to assure that items meet their stipulated requirements and that inspections are documented.

10.0.2 SCOPE

This procedure applies to inspections of engineered items that are Quality Level I or II.

10.0.3 RESPONSIBILITIES AND AUTHORITIES

The Task Leader (TL) whose activities warrant the use of this procedure is responsible for implementing the controls.

The method of implementation is by one or more administrative or technical procedures that are prepared, reviewed, and approved in accordance with procedure 033-YMP-QP 5.0, "Technical Implementing Procedures".

The YMP Quality Assurance (QA) Manager is responsible for supervising Quality Control inspections and monitoring the implementation of this procedure, and for assuring the continued effectiveness of the applicable controls specified in the procedure.

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10.0.4 PROCEDURE

10.0.4.1 Planning

Planning of inspection activities is accomplished and documented by inspection procedures, instructions, or checklists. Inspection procedures, instructions, or checklists provide for the following:

- o Criteria for determining when inspections are required.
- o Identification of characteristics to be inspected.
- o A description of the method of inspection.
- o Identification of the individuals or group responsible for performing the inspection, including the necessity for special expertise.
- o Acceptance and rejection criteria.
- o Identification of required procedures, drawings, and specifications and revisions.
- o Identification of the inspector and the results of the inspection.
- o Specification of the necessary measuring and test equipment, including accuracy requirements.

10.0.4.2 Qualifications

Inspectors are qualified to perform the inspections to which they are assigned. Inspectors do not inspect work that they have accomplished, nor do inspectors report to personnel who are immediately responsible for the work. Inspectors have experience and/or training commensurate with the scope, complexity, or special nature of the inspection, including indoctrination concerning the technical objectives and requirements of codes and standards and the QA Program elements that are applicable.

Qualified individuals from outside the QA organization may be utilized for inspections when special expertise is necessary. However, the independence of the inspection function is maintained. Such individuals have sufficient authority, access to work areas, and organizational freedom to (1) identify quality problems, (2) initiate, recommend, or provide solutions to quality problems through designated channels, (3) verify implementation of solutions, and (4) assure that further processing, delivery, installation or use is controlled until proper disposition of a nonconformance, deficiency, or unsatisfactory condition has occurred. When individuals from outside the QA organization are used, the QA Manager verifies the independence and need for special expertise, and reviews and monitors the inspection activity.

10.0.4.3 Criteria and Documentation

Inspections are conducted using established criteria such as specifications, drawings, or those contained in other design documents. Acceptance or rejection criteria are based upon documented performance objectives.

10.0.4.4 Sampling

When sampling is used to verify acceptability of a group of items, the sampling procedures are based on recognized and documented standard practices.

10.0.4.5 Inspection Hold Points

Mandatory inspection Witness or Hold Points are established by the responsible TL, as necessary. When such Witness or Hold Points are established, work may not proceed without documented authorization by the responsible representative. These Witness or Hold Points are identified and defined in appropriate documents controlling the activity. Consent to waive any specified Witness or Hold Point is documented before work can be continued beyond the designated Point.

Methods of documenting inspection data and results that are obtained at these mandatory Hold Points are described in test plans and procedures, as are methods of data analysis.

10.0.4.6 Potential Sources of Error

The potential sources of uncertainty and error in inspection procedures are controlled and measured.

10.0.4.7 In-Process Inspection and Monitoring

Inspection of items during the manufacturing process (in-process) or while under construction is performed for work activities where necessary to verify quality.

If inspection of finished items is impossible or disadvantageous, indirect control is provided by monitoring of processing methods, equipment, and personnel. Where a combination of inspection and process-monitoring methods is used, these methods are applied in a systematic manner to assure that the specified requirements for control of the process and quality of the item are being achieved. Inspection and process monitoring are both used when other techniques cannot provide adequate control. Where required, controls are established and documented for coordinating and sequencing activities at established inspection points during successive stages of the manufacturing process or construction.

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10.0.4.8 Nonconformance and Final Inspection

Inspections include a review of all nonconformances identified during any previous inspections. For each nonconformance, there is a written resolution approved by the next higher level of management.

Nonconformances are processed in accordance with procedure 033-YMP-QP 15.0, "Nonconformances".

Final inspections include a method to arrive at a decision as to when conformance to specified requirements is reached. Completed items are inspected for completeness, markings, calibration, adjustments, protection from damage, or other characteristics, as required, to verify the item's conformance to the specified requirements. Quality Assurance records are examined for adequacy and completeness.

Modifications or repairs on items subsequent to final inspection, or their replacements, are reinspected, as appropriate, to verify acceptability.

10.0.4.9 Acceptance

Final acceptance is documented and approved by someone at least one management level higher than the individual who inspected the item.

10.0.4.10 In-Service Inspection

Required in-service inspections of structures, systems, or components are planned, documented, and monitored by the responsible Task Leader.

Inspection methods are established and executed to verify that the characteristics of an item remain within specific limits. Inspection methods include evaluation of performance capability of essential emergency and safety systems and equipment, verification of calibration and integrity of instruments and instrument systems, and verification of maintenance, as appropriate.

10.0.4.11 Contents of Inspection Reports

As a minimum, inspection reports identify the following:

- o A description of the item,
- o Date of the inspection,
- o Name(s) of individual(s) performing the inspection,
- o Name or names of personnel contacted during the inspection,
- o Description of the method of inspection,
- o Inspection criteria including identification of drawing, specification, etc. (and applicable revisions),

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- o Location of the item(s) inspected,
- o Organization responsible for production of the item(s),
- o Equipment used during the inspection,
- o Evidence of acceptability,
- o Acceptance statement.
- o References to information on action taken in connection with conditions adverse to quality, nonconformances and/or actions taken to resolve any discrepancies

10.0.5 RETAINED DOCUMENTATION

Quality assurance records created by the implementing procedures are collected, stored, and maintained in accordance with procedure 033-YMP-QP 17.0, "Quality Assurance Records."

Quality assurance records include the following:

- o Qualifications of persons assigned to perform inspections,
- o Inspection criteria and planning documents,
- o Nonconformance reports,
- o Acceptance documents,
- o Inspection reports.