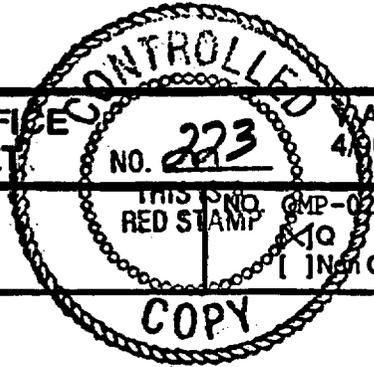


**YUCCA MOUNTAIN PROJECT OFFICE  
DOCUMENT APPROVAL SHEET**



AD-002  
4/90

Title: **QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING**

THIS IS NO RED STAMP  
CMP-02-09  
XIQ  
I JN H Q

APPROVAL

PROJECT MANAGER: Original signed by Edwin L. Wilmot 3/24/89  
Signature Date

DIRECTOR OF QUALITY ASSURANCE: James Blaylock 3/23/89  
Signature Date

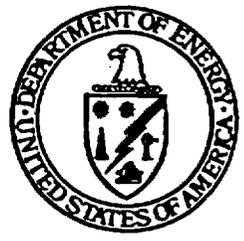
T&MSS Proj Mgr J. S. Treadwell 3/21/89  
(OTHER, AS REQUIRED) Signature Date

REVISION 0 EFFECTIVE DATE: 3/31/89

REVISIONS

INITIAL AND DATE

	REVISION 1	REVISION 2	REVISION 3	REVISION 4
PROJECT MANAGER:	<u>[Signature] 10/10/90</u>	_____	_____	_____
DIRECTOR, QA:	<u>[Signature] 10/16/90</u>	_____	_____	_____
<u>N/A</u> (OTHER, AS REQUIRED)	<u>N/A</u>	_____	_____	_____
EFFECTIVE DATE:	<u>10/17/90</u>	_____	_____	_____



# YUCCA MOUNTAIN PROJECT PROCEDURE

Y-AD-001  
4/90

**Title**

**QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING**

## 1.0 PURPOSE AND SCOPE

### 1.1 PURPOSE

This procedure establishes the standards and practices required for the development and conduct of training for activities affecting quality on the Yucca Mountain Project (Project).

### 1.2 SCOPE

The scope of this procedure includes (1) requesting training, (2) qualifying instructors, (3) developing training materials, (4) conducting training, and (5) documenting training for activities affecting quality.

## 2.0 APPLICABILITY

This procedure applies to training conducted by and for Yucca Mountain Project Office (Project Office) Technical and Management Support Services (T&MSS) staff, MACTEC, and U.S. Department of Energy/Nevada Operations Office (DOE/NV) matrix support personnel. All training and indoctrination developed and presented under previous procedural systems shall remain in effect and valid. This procedure does not apply to outside-acquired training.

## 3.0 DEFINITIONS

NOTE: Terms in this procedure are used as defined in the Project Glossary. The following additional definitions are adopted for the purposes of this procedure.

### 3.1 BRIEFING

A briefing is a form of indoctrination giving precise instructions or essential information.

### 3.2 INDOCTRINATION

Indoctrination is instruction or reading requirements to familiarize personnel in basic principles or elements or a fundamental skill.

### 3.3 INSTRUCTOR

An instructor is a person qualified to develop and/or conduct training to be presented.

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# YUCCA MOUNTAIN PROJECT PROCEDURE

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Title

QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

## 3.4 LESSON PLAN

A lesson plan is an approved instructional plan. Contents of the lesson plan shall include instructional objectives and a detailed outline of course contents.

## 3.5 TRAINING

Training is in-depth instruction provided to personnel to develop and demonstrate initial proficiency in the application of selected requirements and procedures, and to adapt to changes in technology, methods, or job responsibilities.

## 4.0 RESPONSIBLE PARTIES

The following Project Office individuals are responsible for activities identified in Section 5.0 of this procedure:

1. Supervising Managers
2. Training Manager
3. Training Coordinator
4. Instructor
5. Employee

## 5.0 PROCEDURE

NOTE: A flowchart of the following processes described in this procedure is attached as Figure 1.

RESPONSIBLE PARTY                      STEPS    PROCEDURE

### INDOCTRINATION

Supervising Managers

1. Assign and ensure employee receives indoctrination as appropriate in areas such as (a) general criteria, including applicable codes, standards, and company procedures; (b) applicable quality assurance program elements; and (c) job responsibilities and authority.

Employee

2. Complete indoctrination instruction as assigned by supervising manager.

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

<u>RESPONSIBLE PARTY</u>	<u>STEPS</u>	<u>PROCEDURE</u>
	3.	Document completion of indoctrination by signing required documentation (e.g., Special Training Assignment, Indoctrination and Training Matrix. Refer to QMP-02-01 for forms). Applicable documentation is returned to the supervising manager.
	NOTE:	Attendance rosters are collected by the instructor and are provided to the Project Training Center.
Supervising Managers	4.	Submit documentation of indoctrination to Project Training Center.
	NOTE:	Attendance of a briefing may be documented on a Project Training Attendance Record (Attachment 1).
Training Manager	5.	Enter documentation in Project Training Center records.

### REQUEST FOR PROFICIENCY TRAINING

Supervising Managers	6.	Determine the need to develop training to satisfy employee proficiency requirements (as described in QMP-02-01).
	7.	Submit request to develop training to Training Manager. The request should designate an instructor to develop and present the training.
Training Manager	8.	Assign a Training Coordinator to facilitate developing and scheduling of requested training.

### QUALIFICATION OF INSTRUCTORS

Instructor	9.	Attend Project Initial Instructor Training.
Training Manager	10.	Provide Project Initial Instructor Training. Instruction shall consist of instructional objectives, lesson plan preparation, and training documentation.

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

<u>RESPONSIBLE PARTY</u>	<u>STEPS</u>	<u>PROCEDURE</u>
Supervising Managers	11.	Complete employee's Project Instructor Qualification form (Attachment 2).
Training Manager	12.	Sign the Project Instructor Qualification form. File it with Project Training Center records.
<b>DEVELOP TRAINING MATERIALS</b>		
Instructor	13.	Schedule training dates with Training Coordinator and develop training materials.
	14.	As a minimum, develop training materials consisting of identified instructional objectives and an approved lesson plan. <ul style="list-style-type: none"> <li>a. Instructional objectives shall be a clear and concise statement of the performance expected of a student as the result of a learning experience.</li> <li>b. A lesson plan contains a detailed outline of the subject matter to be discussed in the training exercise. (Attachment 3).</li> </ul>
	15.	Attach instructional objectives and lesson plan to the Project Lesson Plan Approval (Attachment 4) and submit for specified approval signatures.
Training Coordinator	16.	Review all training materials for completeness. Provide Training Concurrence signature and submit to Training Manager.
Training Manager	17.	Review lesson plan and provide approval signature. Submit lesson plan and other training materials to Project Training Center records.

NOTE: Training shall not be conducted without an approved lesson plan on file in the Project Training Center.

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

<u>RESPONSIBLE PARTY</u>	<u>STEPS</u>	<u>PROCEDURE</u>
--------------------------	--------------	------------------

### REVISION OF TRAINING MATERIALS

- |                      |     |   |
|----------------------|-----|---|
| Instructor           | 18. | Document minor revisions to lesson plan and/or training materials on the Project Lesson Plan Revisions form (Attachment 5). Minor revisions are any revisions that do not change the intent of instruction. Submit form and revised copies of training materials to Training Coordinator. |
|                      | 19. | Submit to Training Coordinator a new lesson plan and training materials when significant revisions to training have been made.  |
| Training Coordinator | 20. | Submit revision form and training materials to Project Training Center records. Follow steps 13-17 of this procedure if a new lesson plan has been submitted.   |

### CONDUCT OF TRAINING

- |                      |     |  |
|----------------------|-----|--|
| Training Coordinator | 21. | Provide necessary training materials or items.   |
| Instructor           | 22. | Conduct training with approved lesson plan. <ul style="list-style-type: none"> <li>a. Administer examinations as prescribed by the instructor's lesson plan.</li> <li>b. Observe that students have satisfied training requirements prior to receiving credit for class completion.</li> <li>c. Complete the Project Training Attendance Record (Attachment 1).</li> </ul> |
| Employee             | 23. | Provide an evaluation of training effectiveness by submitting a Training Critique (Attachment 6) at the Training Manager's discretion.   |

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<u>RESPONSIBLE PARTY</u>	<u>STEPS</u>	<u>PROCEDURE</u>
Training Manager	24.	Monitor training critiques to evaluate training effectiveness (for example, closes Quality Assurance (QA) audit findings and performs trending analysis).
Instructor	25.	If training is not adequate as determined by the Training Manager, revise training materials and repeat review and approval process.
Training Coordinator	26.	Submit training documentation to the Project Training Center records.

NOTE: MACTEC Training Coordinator (or equivalent) shall maintain MACTEC training documentation for the Project Training Center.

### WAIVER OF TRAINING

Supervising Manager	27.	May submit a Training Waiver Form (Attachment 7) to exempt a staff member from part or all of a specified training requirement.
---------------------	-----	---

NOTE: The Training Manager may submit the waiver for Instructor Qualification Training.

### 6.0 REFERENCES

NOTE: Refer to the latest revision of the documents listed below unless otherwise stated.

#### 6.1 REQUIREMENTS DOCUMENTS

Project Management Plan, YMP/88-2

#### 6.2 INTERFACE DOCUMENTS

QMP-02-01, Qualification, Training, and Proficiency Evaluation of Personnel Matrixed to the DOE Yucca Mountain Project Office

QMP-17-01, Records Management: Record Source Implementation

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

## 7.0 FIGURES AND ATTACHMENTS

Figure 1, QMP-02-09 Flowchart

Attachment 1, Project Training Attendance Record

Attachment 2, Project Instructor Qualification Form

Attachment 3, Project Lesson Plan Content Sheet

Attachment 4, Project Lesson Plan Approval

Attachment 5, Project Lesson Plan Revisions

Attachment 6, Project Training Critique

Attachment 7, Training Waiver Form

## 8.0 RECORDS

The following documents used or generated in the implementation of this procedure have been identified as QA Records and shall be processed in accordance with QMP-17-01, Records Management: Record Source Implementation:

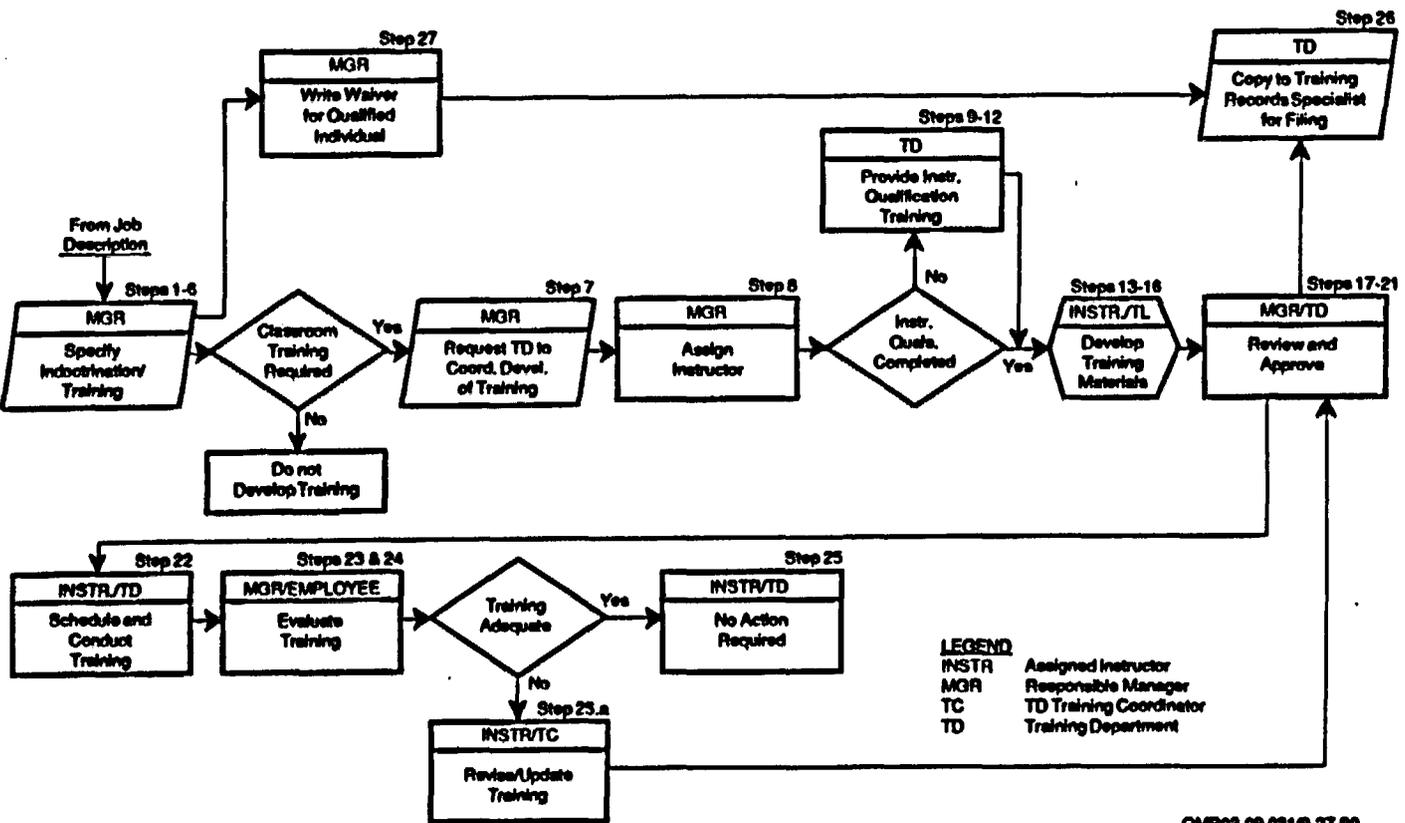
1. Project Instructor Qualification Form
2. Project Lesson Plan (and revisions)
3. Project Training Attendance Record

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

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## YUCCA MOUNTAIN PROJECT TRAINING ATTENDANCE RECORD

N-AD-043  
8/21/89

Lesson Plan No. \_\_\_\_\_ Date/Time of Training \_\_\_\_\_  
 Title \_\_\_\_\_  
 Procedure/Rev. No. \_\_\_\_\_  
 Length of Training \_\_\_\_\_ Location \_\_\_\_\_  
 Instructor(s) \_\_\_\_\_ Participant Organization \_\_\_\_\_

PRINT NAME (Last, First, MI)	SIGNATURE	ORGANIZATION
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____
11. _____	_____	_____
12. _____	_____	_____
13. _____	_____	_____
14. _____	_____	_____
15. _____	_____	_____
16. _____	_____	_____
17. _____	_____	_____
18. _____	_____	_____
19. _____	_____	_____
20. _____	_____	_____
21. _____	_____	_____
22. _____	_____	_____
23. _____	_____	_____
24. _____	_____	_____
25. _____	_____	_____
26. _____	_____	_____
27. _____	_____	_____

Attachment 1 - Project Training Attendance Record

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

## YUCCA MOUNTAIN PROJECT INSTRUCTOR QUALIFICATION FORM

N-AD-078  
8/21/89

Instructor Name: \_\_\_\_\_

Subject Area: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Section I: Statement of Qualification as Subject Matter Expert

This individual is qualified to perform instructor duties in this subject area since he/she possesses sufficient knowledge and expertise in the subject as verified by:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Submitted by: \_\_\_\_\_

Manager Name

Signature

Title

Date

### Section II: Completion of Instructor Training

This individual completed T&MSS Instructor Training on \_\_\_\_\_ Date  
and is now qualified to instruct training in the identified subject

Print Name

Signature

T&MSS Training Manager

Title

Date

## Attachment 2 - Project Instructor Qualification Form

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# YUCCA MOUNTAIN PROJECT PROCEDURE

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

## YUCCA MOUNTAIN PROJECT LESSON PLAN CONTENT SHEET

N-AD-081  
7/90

Today's Date: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

TRAINER ACTIVITY	OUTLINE OF INSTRUCTION	TRAMEE ACTIVITY	OBJECTIVE ITEM #

Attachment 3 - Project Lesson Plan Content Sheet

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## YUCCA MOUNTAIN PROJECT LESSON PLAN INFORMATION SHEET

N-AD-085  
9/90

Lesson Plan Title:

Today's Date: \_\_\_\_\_ Page \_\_\_\_ of \_\_\_\_

Lesson Plan Number:

Requirement(s)

Lesson Objectives: Each student will be able to:

Lesson Length:

References:

Instructional Aids:

Presentation Methods:

Trainee Preparation:

Trainee Materials:

Attachment 3 - Project Lesson Plan Content Sheet (Continued)

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**YUCCA MOUNTAIN PROJECT  
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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

**YUCCA MOUNTAIN PROJECT  
LESSON PLAN APPROVAL**

N-AD-072  
8/28/89

Lesson Plan Title: \_\_\_\_\_

Lesson Plan Number: \_\_\_\_\_ Revision Number: \_\_\_\_\_

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ Department Division

Training Concurrence: \_\_\_\_\_ Date: \_\_\_\_\_

Requesting Manager  
Review and Approved: \_\_\_\_\_ Date: \_\_\_\_\_

Training Manager  
Review and Approved: \_\_\_\_\_ Date: \_\_\_\_\_

Attachment 4 - Project Lesson Plan Approval

Effective Date

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4/90

Title

QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

**YUCCA MOUNTAIN PROJECT  
LESSON PLAN REVISIONS**

9/28/89

Lesson Plan Title: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Lesson Plan Number: \_\_\_\_\_ Revision Number: \_\_\_\_\_

Update Number	Update Summary	Reference	Signature

**NOTE:** Signature of the Lesson Plan Preparer indicates that the lesson plan has been updated with necessary changes. When a significant number of updates have been made, a revision to lesson plan should be developed with concurrences and approval by the Requesting Manager and the Training Manager.

**Attachment 5 - Project Lesson Plan Revisions**

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# YUCCA MOUNTAIN PROJECT PROCEDURE

Y-AD-001  
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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

T&MSS TRAINING CRITIQUE		N-AD-055 2/89								
Course title: _____										
Lesson title: _____		LP#: _____								
Instructor: _____		Date: _____								
CRITIQUE ITEMS										
<small>Note: Please share a few moments of your time by critiquing the training you have just received. Your response and comments are important and appreciated. [SAT] = Satisfactory, [NI] = Needs Improvement. If [NI] checked, please note in "COMMENTS".</small>				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">Your opinion</th> </tr> <tr> <th style="width: 33%;">SAT</th> <th style="width: 33%;">NI</th> <th style="width: 33%;">N/A</th> </tr> </thead> </table>	Your opinion			SAT	NI	N/A
Your opinion										
SAT	NI	N/A								
1	Applicability of this training to your job									
2	Stating of objectives at beginning of lesson									
3	Training materials (handouts, etc.)									
4	Presentation of content (logical order)									
5	Use of training aids (clearly reinforce keypoints)									
6	Technical accuracy of lesson content									
7	Explanation of new terms/nomenclature									
8	Instructor's handling of questions									
9	Encouragement to share your ideas and viewpoints									
10	Instructor's knowledge of subject									
11	Pace of presentation									
12	Coverage of lesson objectives in the summary									
13	Quiz/test items coverage in lesson									
14	Overall opinion									
QUALITY ACTIVITIES CRITIQUE QUESTIONS				YES	NO	N/A				
Does this training affect quality related work?										
Are you responsible to perform the quality related work covered in this lesson?										
Will this training assist you in performing that work?										
Are there any other quality related activities this lesson should cover? (If "YES, please explain in "COMMENTS")										
COMMENTS										
ITEM #	Enter below any comments you have on the critique items, and/or the lesson in general:									
Use reverse side of this sheet for additional comments										
Your name (optional): _____										

Attachment 6 - Project Training Critique

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

## YUCCA MOUNTAIN PROJECT OFFICE/T&MSS TRAINING WAIVER

N-AD-075  
8/28/89

The requirement for \_\_\_\_\_ to take  
(Employee Name)  
\_\_\_\_\_ training is hereby waived.  
(Name of Course)

Justification for training waiver is as follows:

1. Person already has the requisite knowledge or skill as verified by :

---

---

---

---

---

---

---

---

2. Person shall acquire the requisite knowledge or skill by other means, e.g.:

---

---

---

---

---

---

---

---

3. Other (explain):

---

---

---

---

---

---

---

---

Submitted by: \_\_\_\_\_  
Print Name Signature  
\_\_\_\_\_  
Title Date

Instructions for completion on reverse

### Attachment 7 - Training Waiver Form

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# YUCCA MOUNTAIN PROJECT PROCEDURE

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QUALITY MANAGEMENT PROCEDURE: DEVELOPMENT AND CONDUCT OF TRAINING

## INSTRUCTIONS FOR PREPARATION OF YUCCA MOUNTAIN PROJECT OFFICE/T&MSS TRAINING WAIVER FORM N-AD-075

The manager to whom a staff member reports for supervision and assignments of work may submit a waiver of training to exempt a staff member from part or all of a specified training requirement. This form, when completed, will become part of the training file of the employee and will serve as the documentation that T&MSS personnel are qualified to perform quality affecting activities. When training is waived, adequate justification must be provided by the submitting manager. T&MSS Training Manager may submit the waiver for Instructor Training.

Fill in the name of the person and the course for which a waiver of required training is being submitted.

1. Justification for the waiver requires either documented or defensible objective evidence that the training requirement should be waived, e.g., Certificate of Instructor Training, demonstrated mastery or competence in a particular area, document or program author, or perhaps satisfactory performance at a specific task in a prior assignment. Repeat of some measurable objective evidence must be provided by the submitting manager.
2. Person will acquire skills or knowledge by other means. If the candidate for waiver will acquire the training as a module of some other requirement before performing a quality affecting activity then redundant training is not cost effective and may be adequate justification for waiver.
3. Other - Again, justification must be realistic and objective. Person will not or cannot perform task, e.g., change of job position, physical handicap, must be done under constant qualified supervision, etc.

Print name followed by signature and title of manager submitting waiver. Date waiver and forward to training. Waiver must be completed and transmitted to T&MSS Training Manager before the exempted employee can perform quality affecting work. Submitting manager accepts responsibility for the adequacy of any work performed by employees who have been exempted by the (managers) from required training.

Attachment 7 - Training Waiver Form (continued)

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