



CHANGE NOTICE

CN No.: 2.8-2-4

Effective Date: 09/03/92

Affected Document: QP 2.8, "Quality Assurance Grading"

J. Blink/D. Wolfe

Prepared by:

AJA
Approved by: (Technical Area Leader) Date

D. Wolfe 8/28/92
Approved by: (YMP QA Manager) Date

W. J. Blaine 8/28/92
Approved by: (YMP Leader) Date

Training Required: Yes No

Major Changes Minor Changes

Reason for Change:

This change clarifies definitions and addresses implementation prior to the issue of the new YMPO Q-List and MC List

1. Replace Pages 2 and 3. The definitions of QAL and PRL have been removed. The definition of Q-List has been clarified. A definition of Management Control List has been added.

2. Add Exhibit B-1 (Page 10a). Until the new Q-List and MC List are issued, the previously issued Q-List, QAL, and PRL will be used. The previous version of the form for Page 2 of the QA Grading Report (YMP 076 Rev. 1) may be used to document consideration of these lists (see Exhibit B-1).

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



CHANGE NOTICE

CN No.: 2.8-2-3

Effective Date: 8/24/92

Affected Document: QP 2.8, "Quality Assurance Grading"

D. Wolfe

Prepared by:

N/A D. Wolfe 8-13-92

Approved by: (Technical Area Leader) Date

Dean Wolfe 8/13/92

Approved by: (YMP QA Manager) Date

W. L. Leland 8/13/92

Approved by: (YMP Leader) Date

Training Required: Yes No

Major Changes

Minor Changes

Reason for Change:

Page change of approval signatures

Replace page 8 of 16

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CHANGE NOTICE

CN No.: 2.8-2-2

Effective Date: 8-04-92

Affected Document: QP 2.8, "Quality Assurance Grading"

J. Blink/D. Wolfe

Prepared by:

N/A

Approved by: (Technical Area Leader) Date

Dan Wolfe 7/31/92
Approved by: (YMP QA Manager) Date

W. L. Blaine 7/31/92
Approved by: (YMP Leader) Date

Training Required: Yes No

Major Changes Minor Changes

Reason for Change:

This change removes the requirement for YMPO-level grading packages.

Replace pages 2 - 6 & 8

Exhibit B has been changed, replace page 10 also.

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CHANGE NOTICE

CN No.: 2.8-2-1

Effective Date: 02/10/92

Affected Document: 033-YMP-QP 2.8 Quality Assurance Grading

Barbara Bryan/James Blink

N/A

Prepared by:

Approved by: (Technical Area Leader) Date

Approved by: (YMP QA Manager) Date 1/29/92

Approved by: (YMP Leader) Date 1/29/92

Management Only

Training Required: Yes [X] No []

Major Changes [X]

Minor Changes []

Reason for Change:

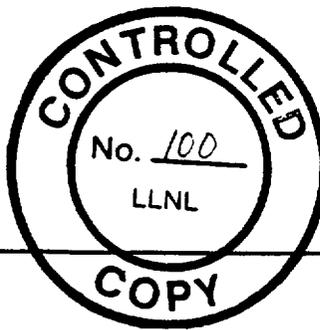
Clarification of training to grading.

- 1. Section 2.8.5.2.3: seventh paragraph. DELETE first sentence (second sentence is a duplicate). Add sentence to end of paragraph.

Replace page 7 of 16.

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

JCCA MOUNTAIN PROJECT



No.: 033-YMP-QP 2.8
Revision: 2
Effective Date: 11/13/91
Page: 1 of 16

Subject: QUALITY ASSURANCE GRADING

Training Required: Yes No

Comment:

This revision incorporates Change Notices 1 through 4 and allows the QAM to use a designee for certain responsibilities (paragraph 2.8.4.5).

Approved by: W. A. Selame 11/12/91 Yucca Mountain Project Leader Date
Approved by: [Signature] 11/13/91 YMP Quality Assurance Manager Date
4/12/91 REX

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2.8.1 PURPOSE

This procedure assigns responsibilities and describes the process to determine the Quality Procedures applicable to work performed in support of the LLNL Yucca Mountain Project (YMP).

2.8.2 SCOPE

This grading procedure applies to:

- an LLNL subcontractor performing work using LLNL QP's rather than their own LLNL-approved Quality Assurance Program Plan (QAPP).
- LLNL-YMP personnel

This grading procedure does not apply to an LLNL subcontractor performing work in accordance with its own QAPP that has been approved by LLNL-YMP (e.g., ANL, PNL); in this case, the subcontractor will use its own internal grading procedure. However, LLNL-YMP personnel performing work on the same activity must comply with the LLNL procedure (033-YMP-QP 2.8). Hence, these activities will usually have two grading packages, one for subcontractor work and another for LLNL work (such as publication review).

All technical activities are graded by the appropriate Task Leader and reviewed internally, using this procedure.

2.8.3 DEFINITIONS

Activity: Any work including, but not limited to, procurements, scientific investigations, or designs that is directed toward the achievement of the objectives stated in the WBS Dictionary.

Assessment Team (AT): A team composed of two groups, one for safety and one for waste isolation. The AT meets at YMPO to prepare the Q-List, QAL, and PRL. The groups include members from the project participants.

IITS: Items Important To Safety (Section 1 of the Q-List).

IITWI: Items Important To Waste Isolation (Section 2 of the Q-List).

Item: An all-inclusive term that is used in place of any of the following: appurtenance, assembly, component, equipment, material, module, part, structure, subassembly, subsystem, system, unit, and prototype hardware. This term includes magnetic media, and other materials that retain or support data.

Management Control List (MCL): The MC List is a tabulation of items that were evaluated for possible inclusion on the Q-List and determined not to be important to public radiological safety, or important to waste isolation.

The MC List and supporting documentation includes items which have been determined through an analysis/evaluation process to be non-Q items. Placement on the MC List does not exempt an item from the application of controls which meet the intent of direction which the Project Leader may promulgate.

QA Grading: A process that defines the specific QA requirements judged necessary to assure the quality of an item or activity.

QA Grading Reviewers: Personnel appointed by the Project Leader to review QA Grading of a particular item or activity.

Q-List: The Q-List is a tabulation of items which shall be subject to the quality assurance controls of the QARD. It includes both engineered and natural items which are relied upon to prevent or mitigate a 0.5 rem dose or greater at or beyond the controlled area boundary during the preclosure phase, and which are relied upon to meet the postclosure performance objectives of 10 CFR 60, Subpart E.

Quality-Affecting Activities and Items: Activities and items which are intended for use in relation to radiological health and safety or waste isolation, and which, when controlled by conformance to a set of requirements, result in services and products that are fit for their intended use.

2.8.4 RESPONSIBILITIES

This section describes the responsibilities for assigning quality procedures applicable to assure the quality of an item or activity.

2.8.4.1 General

Quality Assurance Grading assignments are made formally by the Task Leader and are agreed to by the appropriate Technical Area Leader, the Project Leader, and the LLNL-YMP Quality Assurance Manager (QA Manager). Specific responsibilities are fully described in Section 2.8.5, but an outline is given here for ease of reference.

2.8.4.2 Task Leader

The Task Leader is responsible for:

- assuring that all activities that fall within the scope of this procedure and for which the Task Leader has responsibility are subjected to QA Grading.
- defining the activity and completing the grading process.
- initiating the QA Grading Review and acting as a resource for the reviewers.
- assuring that all the required documentation is submitted to the QA Manager.

2.8.4.3 Technical Area Leader

The Technical Area Leader is responsible for participating in QA Grading Review.

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2.8.4.4 Project Leader

The Project Leader or designee is responsible for:

- assuring that this procedure is implemented and remains effective.
- **participating in QA Grading Review.**
- assuring that QA Grading is consistent.

The Project Leader is responsible for:

- appointing QA Grading Reviewers.
- approving the required documentation.

2.8.4.5 QA Manager

The QA Manager or designee is responsible for:

- obtaining an LLNL-QAG number from Document Control for each QA Grading Package.
- assuring that the Quality Procedures are correctly applied.
- participating in QA Grading Review.
- assuring that all necessary QA references are available to QA Grading Review participants.
- assuring that disagreements among QA Grading Reviewers are resolved.

2.8.5 PROCEDURE

This section describes the sequence of steps in quality assurance grading.

2.8.5.1 Identification of Activities by the Project Leader, Task Leader, or QA Manager

Each individual technical activity must be graded. Subordinate parts of these graded activities may be graded separately.

It is the responsibility of Task Leaders to assure that all technical activities in their areas of responsibility are QA Graded using this procedure. Ongoing technical activities which are on hold due to resource limitations must be graded prior to resumption of work. New technical activities must be graded prior to start of work.

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2.8.5.2 QA Grading by the Task Leader

QA Grading is documented by the Task Leader on forms such as those shown in Exhibits B, C and D. (If another format is used to document the process, all information on the sample exhibits must be addressed.) Then, QA Grading Review is initiated by the Task Leader using Exhibit A.

The Task Leader may divide an activity into subactivities. Each subactivity is defined so that it constitutes a coherent unit and is graded separately. Although there is no specified format, this division is documented, and the documentation is made available to the QA Grading Reviewers at the time of the review meeting.

2.8.5.2.1 Review of the YMPO Q-List and Management Control (MC) List

The Yucca Mountain Project Office has established **two** lists to assist participants in QA Grading. These lists were developed by the Assessment Teams for Safety and Waste Isolation and approved by the YMPO. The lists include the following:

Q-List, Section 1.0, Engineered Items Important to Safety and/or Waste Isolation

Q-List, Section 2.0, Natural Barrier Items Important to Waste Isolation

Management Control List, Section 1 - Items Not Selected as Important to Safety or as important to Waste Isolation

All items and activities on these lists (including the MCL) require grading, and they may require application of Quality Procedures.

These lists are of items, rather than activities. To grade an activity, it must be determined if the activity is directly related to the performance of an item.

The YMPO lists should be reviewed to obtain guidance for grading; the format for the review is provided in Exhibit B to this procedure. The guidance is not binding; the determination of whether an activity is Quality-Affecting is made during the LLNL-YMP QA Grading process.

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2.8.5.2.2 Determination if an Activity is Quality-Affecting

The format provided in Exhibit B is used to determine if an activity is Quality-Affecting. Section 2 of Exhibit B is used to document whether an **associated item** is on the Q-List or if it is on the **MCL**. This determination is insufficient to determine if the activity is Quality-Affecting since the activity being graded may only be a part of or a phase of a larger activity on the list.

Section 3 of Exhibit B directly asks questions to determine if the activity can influence quality. The section concludes with a determination of the timing of the activity. Preliminary activities do not require the same level of confidence and can be graded less conservatively than subsequent, planned efforts which will be carried out under the most rigorous controls of the LLNL-YMP quality assurance program. Examples of preliminary activities include:

- Precursory investigations
- Preliminary studies, assessments, analyses, and calculations
- Computer code prototyping
- Concept explorations and scoping studies
- Feasibility studies of equipment, instruments, and techniques.

The questions in Section 3 of Exhibit B are quite simple; however, the answers may not be readily apparent. Application of the following list of characteristics illuminates the issues. Documentation of this process is done using Exhibit C, and this documentation is mandatory.

REPRODUCIBILITY OR REPLACEMENT: The key factor in evaluating this characteristic is the existence of replacement items or alternative activities or the amount of time it takes to acquire a new item, return the original item to service, or reproduce the original activity. The fewer replacements or the greater the time necessary, the more likely the item or activity is Quality-Affecting.

COMPLEXITY: The key factor in evaluating this characteristic is the number of parts or processes involved in the acquisition of the item or performance of the activity. Complexity may involve the sequence in which the parts must be assembled or the processes must be performed; or it may involve the number of components in an item and its operating steps. Extensive detail associated with an item or activity should not be automatically interpreted as complexity. The greater the complexity, the more likely the item or activity is Quality-Affecting.

QUALITY HISTORY: Key factors in evaluating this characteristic are (1) evidence of previous difficulty in acquiring or using an item or conducting an activity, (2) information on failure rates, and (3) the length of time the particular item or activity, or similar items or activities, have been in service. The less the quality history, the more likely the item or activity is Quality-Affecting.

STANDARDIZATION: The key factor in evaluating this characteristic is the availability of an item or resources to perform an activity, or the number of standard sources that may supply the item or perform the activity. The less the availability or fewer the sources, the more likely the item or activity is Quality-Affecting.

AVAILABLE CODES AND STANDARDS: The key factor in evaluating this characteristic is the extent of coverage available from existing codes and standards. The less the coverage, the more likely the item or activity is Quality-Affecting.

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NEED FOR PROCESS CONTROL: Key factors in evaluating this characteristic are (1) the extent to which quality can be verified by inspection and/or testing of the finished item or activity, (2) the degree to which the proper sequence of operations is essential to success, and (3) the extent to which special processes are involved in the work. The greater the need for process control, the more likely the item or activity is Quality-Affecting.

SPECIAL HANDLING, SHIPPING, OR STORAGE: "Special" means those extraordinary precautions or actions that are required because of the sensitivity of an item, instrument, or tool; or because attention is required to assure preservation of shelf life or protective environments. Where items require extraordinary precautions, the more likely the item or activity is Quality-Affecting.

The final step prior to designating Quality Procedures to be used in controlling the activity is to determine if the activity is "Quality-Affecting." Such activities are subject to the full LLNL-YMP QA program. Other activities (those that are not designated as "Quality-Affecting") may also contribute to the license application, but in a more preliminary or peripheral manner. These other activities are usually graded to be subject to a subset of the QA program; the reduced level of QA control increases the pace of the research but also increases the degree of licensing risk if the results are eventually used to support the license application. Exhibits B and C provide information useful in the determination of whether an activity is quality-affecting; however, there is no formula to make the determination. The Task Leader (and the QA Grading Reviewers) must consider all of the information and make a judgment.

2.8.5.2.3 Determination of Quality Procedures to be Used for the Activity

Using Exhibit D, each activity (whether Quality-Affecting or not) will be QA Graded, i.e., the Quality Procedures applicable to the activity will be determined. Only three choices are possible for each QP:

Yes means that the QP (or parts of the QP) must be followed for the activity. If parts of a QP are to be used, the exempted parts must be indicated on Exhibit D or an attachment.

No means that the QP need not be followed for the activity.

N/A means that the QP's subject is not applicable to the activity (for example, the software QP is not applicable to an activity that doesn't use or develop software).

Short justifications for No and N/A selections are documented on Exhibit D or on an attachment (in any convenient format).

Some Quality Procedures must be used for all activities; these QPs are already indicated on the form. Quality procedures required for all activities are: QPs - 1.0, 2.0, 2.1, 2.3, 2.7, 2.8, 2.9, 2.10, 3.3, 6.0, 16.0, 16.1, 16.2, 17.0, 18.0, 18.1 and 18.2. Exceptions must be approved by the YMP Leader. For Quality-Affecting activities, all other QPs that could possibly apply to the activity must be used. For other activities, selection of other QPs is at the discretion of the Task Leader. Personnel are trained to only those procedures that apply to their work scope. The Technical Area Leaders are responsible for ensuring personnel are trained to the appropriate procedures before work begins.

For all but "Quality-Affecting" activities, Task Leaders have latitude in designation of required QPs. This flexibility is the essence of the QA Grading process. The appropriate level of control is determined by the importance and characteristics of the activity.

2.8.5.3 QA Grading Reviewers Appointed by the Project Leader

The Task Leader (TL) initiates the QA Grading Review by notifying the Project Leader (with TAL concurrence) that an activity has been QA Graded and requires QA Grading Review (Exhibit A).

QA Grading Review is accomplished by the appropriate Technical Area Leader (TAL), the Project Leader (PL) or designee, and the QA Manager (QAM). If the TL and TAL are the same person, QA Grading Review is accomplished by the PL or designee, and the QAM.

2.8.5.4 QA Manager Preparation for QA Grading Review

The QA Manager (QAM) coordinates with Document Control to assign the LLNL-QAG number used to identify the QA Grading package. The QAM assembles all the necessary QA references for QA Grading Review.

2.8.5.5 QA Grading Review

If the QA Grading Reviewers concur with the Task Leaders' QA Grading documentation, they may sign Exhibit A. If changes are made, the Exhibits can be modified (with TL initials) or redone. Only the "final" set of Exhibits is retained in the QA Grading package.

The Project Leader is responsible for assuring that, over a period of time, the deliberations and decisions of QA Grading Reviewers are consistent.

2.8.5.6 QA Grading Documentation and Approval

After the QA Grading Review has been completed, all necessary documentation is collected in a documentation package. The Project Leader or designee is responsible for assembling the documentation. Once all documentation is in final form, the QA Grading Reviewers sign and date Exhibit A.

The Project Leader reviews the document package to determine the acceptability of the QA Grading. If the Project Leader does not approve the package, then a meeting is convened to resolve the issues. Both the issues and their eventual resolution are documented, and the documentation is made part of the documentation package. The Project Leader then signs Exhibit A.

The entire package is submitted to the LRC. Controlled copies of Exhibit A are provided to the TL, TAL, PL and QAM.

2.8.6 QA GRADING CHANGES

Any changes to QA grading are handled through the same process used to perform the original grading.

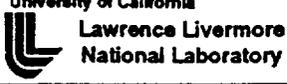
2.8.7 QUALITY ASSURANCE RECORDS

Quality assurance records created by this procedure are collected, stored, and maintained in accordance with Procedure No. 033-YMP-QP 17.0, "Quality Assurance Records."

Quality assurance records include Exhibits A through D with attachments.

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QUALITY-AFFECTING DETERMINATION FORM		Report: <u>LLNL-QAG-L</u> Rev.: _____											
<u>Section 1 - Activity and Reference Identification</u>													
WBS No.: _____ Activity No.: _____													
S.I.P. Identification: _____													
Activity Description: _____													
Q-List: _____ Rev: _____ Dated: _____													
Management Control List: _____ Rev: <u>P</u> Dated: _____													
<u>Section 2 - YMPO Lists Reviewed</u> (The answers to the questions in Section 2 influence, but don't dictate, whether the activity is Quality-Affecting.)													
	<table border="1" style="margin: auto;"> <tr> <td style="width: 50px; height: 100px; vertical-align: middle; font-size: 48px; font-weight: bold;">M</td> <td style="width: 50px; text-align: center;">YES</td> <td style="width: 50px; text-align: center;">NO</td> <td style="width: 50px; text-align: center;">ITEM ON LIST</td> </tr> <tr> <td style="text-align: center;"> Is this activity associated with an item on the Q-List Section 1.0, Engineered Items Important To Safety and/or Waste Isolation? </td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> </tr> <tr> <td style="text-align: center;"> Is this activity associated with an item on the Q-List Section 2.0, Natural Barrier Items Important To Waste Isolation? </td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> </tr> </table>	M	YES	NO	ITEM ON LIST	Is this activity associated with an item on the Q-List Section 1.0, Engineered Items Important To Safety and/or Waste Isolation?	---	---	---	Is this activity associated with an item on the Q-List Section 2.0, Natural Barrier Items Important To Waste Isolation?	---	---	---
M	YES	NO	ITEM ON LIST										
Is this activity associated with an item on the Q-List Section 1.0, Engineered Items Important To Safety and/or Waste Isolation?	---	---	---										
Is this activity associated with an item on the Q-List Section 2.0, Natural Barrier Items Important To Waste Isolation?	---	---	---										
<table border="1" style="margin: auto;"> <tr> <td style="width: 50px; height: 100px; vertical-align: middle; font-size: 48px; font-weight: bold;">A</td> <td style="width: 50px; text-align: center;">YES</td> <td style="width: 50px; text-align: center;">NO</td> <td style="width: 50px; text-align: center;">ITEM ON LIST</td> </tr> <tr> <td style="text-align: center;"> Is this activity associated with an item on the Management Control List Section 1.0, Items Not Selected as Important to Safety or as Important to Waste Isolation? </td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> </tr> </table>	A	YES	NO	ITEM ON LIST	Is this activity associated with an item on the Management Control List Section 1.0, Items Not Selected as Important to Safety or as Important to Waste Isolation?	---	---	---					
A	YES	NO	ITEM ON LIST										
Is this activity associated with an item on the Management Control List Section 1.0, Items Not Selected as Important to Safety or as Important to Waste Isolation?	---	---	---										

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 <b style="font-size: 1.2em; margin-left: 20px;">YUCCA MOUNTAIN PROJECT	Page: <u> 2 </u> Of: <u> 8 </u>				
QUALITY-AFFECTING DETERMINATION FORM					
Section 1 - Activity and Reference Identification					
WBS No.: _____ Activity No.: _____ S.I.P. Identification: _____ Activity Description: _____ Q-List: Rev: _____ Dated: _____ Quality Activities List: Rev: _____ Dated: _____ Project Requirements List: Rev: _____ Dated: _____					
Section 2 - YMPO Lists Reviewed					
(The answers to the questions in Section 2 influence, but don't dictate, whether the activity is Quality-Affecting.)					
	<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 0 10px;">YES</td> <td style="padding: 0 10px;">NO</td> <td style="padding: 0 10px;">ITEM ON LIST</td> <td style="padding: 0 10px;">ACTIVITY ON LIST</td> </tr> </table>	YES	NO	ITEM ON LIST	ACTIVITY ON LIST
YES	NO	ITEM ON LIST	ACTIVITY ON LIST		
Is this activity or its parent on the Quality Activities List?	<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 20px; border-bottom: 1px solid black;"></td> </tr> </table>				
Is this activity or its parent associated with an item on the Q-List Section 1, Items Important To Safety?	<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 20px; border-bottom: 1px solid black;"></td> </tr> </table>				
Is this activity or its parent associated with an item on the Q-List Section 2, Items Important To Waste Isolation?	<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 20px; border-bottom: 1px solid black;"></td> </tr> </table>				
Is this activity or its parent associated with an item on the Q-List Appendix A, Natural Barriers Important To Waste Isolation?	<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 20px; border-bottom: 1px solid black;"></td> </tr> </table>				
Is this activity or its parent on the Project Requirements List, Section 2, Activities Not Selected as Quality Activities?	<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 20px; border-bottom: 1px solid black;"></td> </tr> </table>				
Is this activity or its parent on the Project Requirements List, Appendix A, Exempt Items and Activities?	<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 20px; border-bottom: 1px solid black;"></td> </tr> </table>				

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QUALITY-AFFECTING DETERMINATION FORM		Report: LLNL-QAC- Rev.: _____
Section 3 - Determination of Status		
	YES	NO
Are the results of this activity intended to be used to directly support a license application for a Mined Geologic Disposal System (MGDS)?	_____	_____
Are the results of this activity intended to be used to show that the MGDS isolates the radionuclides from the public after permanent closure?	_____	_____
Are the results of this activity intended to be used to show that the MGDS doesn't endanger the public safety prior to permanent closure?	_____	_____
Are the results of this activity intended to be used to show that the MGDS doesn't endanger worker safety prior to permanent closure?	_____	_____
Are the results of this activity intended to be used to show that the MGDS is operationally reliable?	_____	_____
Could this activity adversely affect a natural barrier?	_____	_____
Is this activity a part of performance assessment?	_____	_____
Is this activity a part of the site characterization?	_____	_____
If all of the above eight questions are answered NO, this activity should not be considered Quality-Affecting.		
What phase is this activity? (Scoping, conceptual design, advanced conceptual design, license application design, computer code prototype, final computer code, etc.) (More than one answer is allowed.)		
_____ prior to ACD.		
Based on its characteristics and timing in the MGDS development process, is this activity quality affecting?		
YES: _____ NO: _____		

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WORK SHEET FOR EVALUATION OF CHARACTERISTICS	
TITLE: REPORT NO.: LLNL-QAG- L _____	PAGE 4 OF 8 E
<u>CHARACTERISTIC</u>	<u>EVALUATION STATEMENT</u>
1. REPRODUCIBILITY OR EASE OF REPLACEMENT:	L
2. COMPLEXITY:	P
3. QUALITY HISTORY:	
4. STANDARDIZATION:	M
5. AVAILABLE CODES AND STANDARDS:	A
6. NEED FOR PROCESS CONTROL:	
7. SPECIAL HANDLING, SHIPPING AND STORAGE:	S

YMP 078 Rev.2

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GRADED QA CONTROL SPECIFICATION RECORD		Report: LLNL - <u> </u> Rev.: <u> </u>
<u>QP Use Required</u> YES NO* N/A*	<u>033-YMP-QP (X.X) and Title **</u>	<div style="font-size: 4em; font-weight: bold; margin: 0 auto;"> E L P M A S </div>
() () ()	QP 2.11 Qualification & Certification of Inspection & NDE Personnel	
() () ()	QP 3.0 Scientific Investigation Control	
() () ()	QP 3.1 Design Control	
() () ()	QP 3.2 Software Quality Assurance	
(X) () ()	QP 3.3 Review of Technical Publications	
() () ()	QP 3.4 Scientific Notebooks	
() () ()	QP 3.5 Control of Internal Technical Interfaces	
() () ()	QP 4.0 Procurement Control & Documentation	
() () ()	QP 4.1 Preparation of QA Requirements Specifications & Approval of Subcontractor QA Programs	
() () ()	QP 5.0 Technical Implementing Procedures	
(X) () ()	QP 6.0 Document Control	
() () ()	QP 7.0 Control of Purchased Items & Services	
() () ()	QP 8.0 Identification & Control of Items, Samples, & Data	

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GRADED QA CONTROL SPECIFICATION RECORD		Rev.: E
<u>OP Use Required</u> <u>033-YMP-QP (X.X) and Title **</u>		
YES NO* N/A*		
() () ()	QP 9.0 Control of Processes	L
() () ()	QP 10.0 Inspection	
() () ()	QP 11.0 Test Control	
() () ()	QP 12.0 Control of Measuring & Test Equipment	
() () ()	QP 13.0 Handling, Storage & Shipping	P
() () ()	QP 14.0 Inspection, Test & Operating Status	
() () ()	QP 15.0 Nonconforming Items	M
() () ()	QP 16.0 Corrective Action	
() () ()	QP 16.1 Processing of Externally Originated Corrective Action Documents	A
() () ()	QP 16.2 Trend Analysis	
() () ()	QP 17.0 Quality Assurance Records	
S		

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GRADED QA CONTROL SPECIFICATION RECORD (Continued)		Report: LLNL-DAG-L Rev.: _____
<u>QP Use Required</u> YES NO* N/A*	<u>033-YMP-QP(X,X) and Title**</u>	
(X) () () QP 18.0 Audits (X) () () QP 18.1 Surveillances (X) () () QP 18.2 Qualification of Quality Assurance Audit Personnel	L P M A S	

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