

YMPO AUDIT CHECKLIST NO. 90-02-1

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(3) AUDIT ITEM NO.	(4) QUALITY ELEMENT & REFERENCE	(5) STANDARD QUALITY REQUIREMENTS AUDIT GUIDELINES	(6) RESULTS S, X, N/A	(7) SUMMARY OF INVESTIGATION	(8) PERSON CONTACTED
1-2	033-YMP-R1 Sect. 2.0	<p>The QA functions include assuring that an appropriate QA program is established, executed effectively, and verified by checking, auditing, surveillance and inspection, and assuring that activities affecting the quality functions are performed correctly. The persons and organizations performing QA functions have sufficient authority, access to work areas, and organizational freedom to identify quality problems; initiate, recommend, or provide solutions through designated channels; verify implementation of the solutions; and assure that further processing, delivery, installation, or use is controlled until proper disposition of a nonconformance, deficiency, or unsatisfactory condition occurs. This includes the ability to stop (or cause to be stopped) unsatisfactory work through established channels. Such persons or organizations have direct access to responsible management at a level where appropriate action can be effected and reported to a management level at which the required authority and organizational freedom are provided, including sufficient independence from cost and schedule.</p>			
1-2	033-YMP-QP 2.7 Para. 2.7.3	<ol style="list-style-type: none"> 1. Verify that when an occasion occurred that a Stop Work Order was required, the QA Manager monitored the provisions of this procedure to verify that the Stop Work Order and the appropriate corrective action was correctly implemented. 2. Review the Stop Work Order documentation which maybe stored as QA records when all effort is completed and the order has been rescinded and verify the records required by Para. 2.7.5 are in order. If there is not any records packages completed, review "in process" documentation. 			
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2-1	033-YMP-R2, Rev. 0 Sect. 1.0 033-YMP-QP 2.6, Rev. 0, Para. 2.6.4	<p>Management performs readiness reviews, as deemed appropriate. Readiness reviews apply to major schedule /planned activities which affect quality. Readiness reviews are used to verify that specified prerequisites and programmatic requirements are identified prior to starting a major activity.</p> <p>1. Verify that readiness reviews are conducted in accordance with the requirements of paragraph 2.6.4 which will include as a minimum the following:</p> <ul style="list-style-type: none"> a. The Deputy Project Leader identifies the need and assigns and schedules completion of the review. b. Readiness reviewers complete a readiness review checklist. c. When the readiness is complete and if acceptable, the reviewers will sign the check list. d. If exceptions cannot be readily resolved, the check list will be forwarded to the Deputy Project Leader for resolution. 			
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2-5 (cont)		<p>3. Verify that the effectiveness of the QA program is based on assessment of reviews of audit reports, nonconformance reports, surveillance reports, QA reports, project reports and interviews. Verify that assessments will evaluate:</p> <ul style="list-style-type: none"> - Status of training with respect to QA requirements - Assessment of the effectiveness of the QA program - The adequacy of resources provided to the QA program. <p>4. Verify that the assessment report will include as a minimum, the QA record documenting:</p> <ul style="list-style-type: none"> - The YMP Leader's memo designating the management assessment team members and approval of the assessment scope; - The management assessment worksheets; - The management assessment report; - The closure memo(s). 			
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2-6 (cont)	QP 2.10, Rev. 1, Para. 2.10.4.3 and Exhibit C	d. A Management Certification is performed per this requirement para. by completion of Exhibit C.				
	QP 2.10, Rev. 1, Para. 2.10.4.3	2. Verify that a Management Recertification was annually performed and Exhibit D was completed for ten (10) persons by five (5) managers/supervisors.				
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2-10	033-YMP_R3 Sect. 1.3.3	A peer review of the scientific investigations planning document is conducted when deemed necessary by the DOE Project Office.			
	033-YMP-R3 Sect. 4.0	A peer review is instituted, when applicable, to provide adequate confidence in work being reviewed. Peer reviews meet the requirements of NUREG-1297 "Peer Review for High-Level Nuclear Waste Respositories." These requirements are contained in 033-YMP-R Appendix 3.			
	QP 2.2, Rev. 0 Para. 2.2.5	Verify peer reviews are conducted in accordance with a peer review plan & comments & recommendations of the peer review report have been acceptably resolved or have been documented as unresolved in the final report of the work reviewed.			
	QP-2.2, Rev. 0 Para. 2.2.6	Verify that the documents required by Para. 2.2.6 were stored as QA records.			

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3-5	033-YMP-QP 3.0, Rev. 0, CN 3.0-0-2 A3.0 App. A	1. The content of Activity Plans will vary depending upon the nature of the activity and the appropriate level of planning and control as determined by the responsible Task Leader. Subjects for consideration in the Activity Plan are: SCIENTIFIC INVESTIGATION PLAN Activity Identity Quality Assurance Level Assignment Responsibilities Purpose and Objectives Activity Description Technical Reviews Hold Points Equipment Materials Special Environmental Conditions Special Training/Qualification Requirements Activity Closeout Precision and Accuracy Calibration Requirements Conditions Which May Adversely Affect Results In-Process Documentation Data Recording and Data Reduction Analysis Interfaces Schedule Technical Implementing Procedures Special Cases (Procurement) QA Requirements Specification Statement of Work Subcontractor Interface Control Materials/Equipment Provided Deliverables References Appendixes			
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3-11 (cont)		<p align="center">Exhibit A</p> <p align="center">Responsibilities for Review and Approval of YMP Work Planning Documents</p> <table border="0"> <tr> <td>Reviewer/Approver</td> <td>SIP</td> <td>SP</td> <td>Plan</td> <td>TIP</td> </tr> <tr> <td>YMP QA Manager</td> <td align="center">1</td> <td align="center">1</td> <td align="center">1</td> <td align="center">1</td> </tr> <tr> <td>YMP Project Leader</td> <td align="center">1</td> <td align="center">1</td> <td align="center">1</td> <td align="center">1</td> </tr> <tr> <td>TAL)s)</td> <td align="center">2</td> <td align="center">2</td> <td align="center">1</td> <td align="center">1</td> </tr> </table> <p>1 = Approval 2 = Review</p>	Reviewer/Approver	SIP	SP	Plan	TIP	YMP QA Manager	1	1	1	1	YMP Project Leader	1	1	1	1	TAL)s)	2	2	1	1			
Reviewer/Approver	SIP	SP	Plan	TIP																					
YMP QA Manager	1	1	1	1																					
YMP Project Leader	1	1	1	1																					
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3-12 (cont)	Para. 2.4.4.3	<p>The Task Leader or designee prepares a check list for the review board to consider during their technical review. As a minimum the check list addresses:</p> <p>a) Applicable Input - whether the selection of site characterization data criteria letters, design basis, performance and regulatory requirements, codes, standards, manufacturer's design data, and quality standards have been properly identified, approved, documented, and correctly applied to the design /scientific investigation.</p> <p>b) Input Changes - whether approved changes to the input have been identified, documented, and correctly applied to the design/scientific investigation.</p> <p>c) Investigation/Design - whether the investigation /design has been performed and documented in sufficient detail regarding purpose, method, assumptions, design/study input, references, and units to be understandable.</p>			
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3-12 (cont)	Para. 2.4.4.5	<p>The technical review is a detailed critical review process intended to provide assurance that the design /investigation is correct and satisfactory. As a minimum, the following are considered by the technical review board during the review and the results of the deliberations documented:</p> <ul style="list-style-type: none"> a) Whether the design/investigation inputs are correctly selected. b) Whether the assumptions necessary to perform the activity are adequately described and are reasonable. Where necessary, the assumptions are identified for subsequent reverifications when the detailed design /investigation activities are completed. c) Whether an appropriate method(s) has been used. d) Whether or not the design/investigation inputs are correctly incorporated into the activity. e) Whether the design outputs are reasonable when compared to the inputs. f) Whether the necessary design input and verification requirements for interfacing organizations have been specified in the study/design documents or in supporting procedures or instructions. g) Whether the computer programs for analysis are identified and verified in accordance with Procedure No. 033-YMP-QP 3.2, "Software Quality Assurance." 			
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3-12 (cont)	Para. 2.4.4.6	The Task Leader receives the review comments for consolidation. "No comment," is an acceptable response, but an explanation for this response must be included. The consolidation comments are distributed at the comment resolution meeting. The comments resolution meeting is chaired by the Technical Area Leader.			
	Para. 2.4.4.7	Comments that cannot be resolved during the review meeting are evaluated to the next management level (Project Leader) for disposition.			
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3-12 (cont)	Para. 2.4.4.8	<p>Each review board member signs one technical review approval sheet attesting that the applicable aspects of Section 2.4.4.5 have been considered. The intent is to produce a single document. Interim approval (or approval with qualification) may be given subject to technical revision.</p>			
		<p>The Technical Area Leader signs the review approval sheet signifying concurrence with the conclusions of the technical review board. The conclusions of the review board may be (1) the design/investigation is acceptable, and no changes are required, (2) the work to date is acceptable with the incorporation of recommended changes, or (3) the work to date is unacceptable and a revision to the work planning document must be made.</p>			
	Para. 2.4.5	<p>QA records include the following:</p> <ul style="list-style-type: none"> o Technical review approval sheet(s). o Review comment records. o Recommendations for future action. 			
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3-13	LLNL 033-YMP-QP, Rev. 0, P 3.0.4.1	<p>Verify Scientific Investigation Plans (SIPS) for the following WBS items. Describe:</p> <ul style="list-style-type: none"> o activities to be performed o overall purpose and objectives o applicable regulations and requirements o issues and information needs o performance criteria o factors and concerns important for planning and performance of the investigation o quality affecting activities o previous supporting work including QA controls applicable to the work o identification of activity numbers: WBS 1.2.1.4.2 - Waste Package Performance Assessment WBS 1.2.2.3.1 - Waste Form WBS 1.2.2.3.2 - Metal Barriers <p>NOTE: SIPS are to contain a level of detail which would enable an independent reviewer to determine the appropriate QA Level to be applied to each activity.</p>			
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3-17	LLNL 033-YMP-QP 3.3 Rev. 1, P 3.3.4, 3.3.5	<p>Verify technical documents (reports, abstracts, and summaries) have been processed through the following six review steps prior to release or publication:</p> <ol style="list-style-type: none"> 1. Technical Content - Review Coordinator; two (2) technical reviewers. 2. Technical Approval - Publications Manager; manager above Review Coordinator (i.e., TAL). 3. Project Approval - Publications Manager; Deputy Project Leader. 4. DOE Acceptance - Publications Manager; DOE (YMP) Project Office (responsible YMP Director not specified). 5. YMP Administrative Approval - Publications Manager; YMP Leader. 6. QA Procedure Approval - Publications Manager; QA Manager. <p>NOTE: QP 3.3 does not exclude QA Level III publications from the scope of the procedure.</p> <p>NOTE: QP 3.3 does not apply to periodic project status reports, abstracts, and summaries for internal use only, subcontractor letter reports, or LLNL YMP letter reports to the Project Office.</p>			
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4-1 (cont'd)		<p>3.2</p> <p>In developing QA requirements for test and other equipment, consideration is given to whether proper performance of that equipment can be determined during or after its use (i.e., whether failure or malfunction of the equipment can be detected).</p> <p>4. RIGHTS OF ACCESS</p> <p>At each tier of procurement, the procurement documents provide for access to the suppliers' facilities and records for inspection or audit by the LLNL-YMP, appropriate DOE Project Office personnel, or other DOE Project Office authorized representatives. DOE Project Office access to subtier contractor facilities is arranged through the LLNL-YMP.</p>			
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4-1 (cont'd)		<p>5. DOCUMENTATION REQUIREMENTS</p> <p>The procurement documents at all tiers identify the documentation required to be submitted to the LLNL-YMP. The time of submittal is established. If the LLNL-YMP require the supplier to maintain specific QA records, then the retention times and disposition requirements are specified in accordance with 033-YMP-R 17.</p> <p>6. NONCONFORMANCE</p> <p>The procurement documents prescribe the LLNL-YMP's requirements for reporting and approving disposition of nonconformances.</p>			
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4-1 (cont'd)		d. Right of Access - All procurement actions in support of Level of Quality Assurance I and II activities must provide for access to the supplier's facilities and to procurement-related records by LLNL personnel and its authorized representatives (see Exhibit B). Right of access assures access for the purposes of conducting inspections, audits, and surveillances of the supplier's facilities and quality-related records.			
		e. Maintenance Contracts - The terms of a maintenance contract may be made part of the procurement document.			
		f. Shipping - Instructions for handling, shipping, and storage are included if required.			
		g. Documentation Requirements - Instructions for identifying the documents required to be submitted to the LLNL-YMP, the time of submittal and information for maintaining and storing QA records are to be required.			
		h. Nonconformance - Requirements for reporting and approving disposition of nonconformances are required.			
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4-3 (cont'd)		3. Verify that a determination is made of the effect such changes have on the intent of the procurement and the quality of the item or service being procured. 4. Verify that both the requester and the buyer document their review and concurrence on all procurement changes and that this documentation is placed in the QA Records Package.			
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5-5	033-YMP-R 5, Rev. 0, Sect. 4.0	The LLNL-YMP provides the DOE Project Office Quality Assurance Manager with controlled distribution of all implementing procedures, plans and instructions used for QA Level I and II activities.			
	033-YMP-2.1, Rev. 1, Para. 2.1.6	Verify that the DOE Project Office QA Manager is on the controlled distribution of LLNL controlled documents.			
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7-1	033-YMP-R7, Rev. 0 Sect. 1.2	<p>1.2 SOURCE EVALUATION</p> <p>1.2.1 SELECTIONS OF SUPPLIERS</p> <p>The selection of suppliers is based on evaluation of their capability to provide items or services in accordance with the requirements of the procurement documents before the award of contract.</p> <p>1.2.2 SOURCE EVALUATION AND SELECTION MEASURES</p> <p>Procurement source evaluation and selection measures are implemented by the LLNL-YMP and provide for identification of LLNL-YMP's responsibilities for determining supplier capability.</p> <p>1.2.3 MEASURES FOR EVALUATION AND SELECTION OF PROCUREMENT SOURCES</p> <p>Measures for evaluation and selection of procurement sources, and the results thereof, are documented and include one or more of the following items:</p> <ul style="list-style-type: none"> o Evaluation of the supplier's history of providing an identical or similar product that performs satisfactorily in actual use. The suppliers's history reflects current capability. o Supplier's current quality assurance records supported by documented qualitative and quantitative information that can be objectively evaluated. 			
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7-1 (cont)	QP 4.0, Rev. 1 Para. 4.0.5.8	<p>o Supplier's technical and quality capability as determined by a direct evaluation of their facilities and personnel and the implementation of their QA program.</p> <p>1. Verify that the determination of the supplier's capabilities was conducted and documented prior to the award. The determination of the supplier's capabilities was based on one or more of the following:</p> <p>a. Evaluating the supplier's history of providing an identical or similar product that performs satisfactorily in actual use. Current capability of the supplier was evaluated;</p> <p>b. Conducting a pre-award survey of the supplier's technical and quality capabilities; and</p> <p>c. Evaluating the supplier's current quality assurance records supported by documented information that can be objectively evaluated.</p>				

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7-4	033-YMP-R7, Rev. 0 Sect. 1.4.1 QP 4.0, Rev. 1 Para. 4.0.5.7.4	<p>The LLNL-YMP establishes measures to interface with the supplier. The measures include the following:</p> <ul style="list-style-type: none"> o Documentation of the understanding between the LLNL-YMP and supplier of the provisions and specifications of the procurement documents. o Requiring the supplier to identify planning techniques and processes to be utilized in fulfilling procurement document requirements. o Reviewing supplier documents that are generated or processed during activities fulfilling procurement document requirements. o Identifying and processing necessary change information. Measures to control changes in procurement documents are established, implemented and documented in accordance with the requirements of the LLNL-YMP QAPP. <p>1. Verify that the requester has included interface measures in the PRs.</p> <p>2. The QA Manager (or his designee) reviews the final procurement documents prior to release to assure consistency with the initial procurement memorandum request.</p> <p>NOTE: This requirement is not specifically in this procedure (QP 4.0, Rev. 1).</p>			
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7-6	033-YMP-R7, Rev. 0 Sect. 1.4.2.2	Activities to verify conformance to requirements of procurement documents are recorded. Source surveillances and inspections, audits, receiving inspections, nonconformances, dispositions, waivers, and corrective actions are documented. The LLNL-YMP assures that this documentation is evaluated to determine the supplier's QA program effectiveness. 1. Verify that the technical representative and the QA Manager prepare documentation of the in-process-monitoring activities.			
	QP 4.0, Rev. 1 Para. 4.0.5.7				
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7-7	033-YMP-R7, Rev. 0 Sect. 1.6.1.1	<p>When a certificate is used, the following minimum criteria are met:</p> <ul style="list-style-type: none"> o The certificates identifies the purchased material or equipment, such as by the purchase order number. o The certificate identifies the specific procurement requirements met by the purchased material or equipment, such as codes, standards, or other specifications. This is accomplished by including a list of the specific requirements or by providing at the point of receipt, a copy of the purchase order and the procurement specifications or drawings, together with a suitable certificate. The procurement requirements identified include any approved changes, waivers, or deviations applicable to the subject or equipment. o The certificate identifies any procurement requirements that have not been met, together with an explanation and the means by which to resolve the nonconformances. o The certificate is attested to by a person who is responsible for this QA function and whose function and position are described in the LLNL-YMP or supplier's QA program. o The certificate system, including the procedures to be followed in filling out a certificate and the administrative procedures for the review and approval of the certificates, are described in the LLNL-YMP or supplier's QA program. 			
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7-9 (cont)		3. Verify that receiving inspections are performed using written procedures that specify the requirements and criteria for acceptance of an item.			
		4. Verify that all receiving inspections are documented by the technical representative.			

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7-10 (cont)		2. Verify that acceptance methods are performed by qualified personnel whose qualifications are determined and verified by the technical representative.			
		3. Verify that the technical representative documents the service acceptance.			

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7-11	033-YMP-R7, Rev. 0	<p>1.8 CONTROL OF SUPPLIER NONCONFORMANCES</p> <p>1.8.1 METHODS</p> <p>The LLNL-YMP and supplier establish and document methods for disposition of items and services that do meet procurement document requirements. These methods include the following provisions:</p> <p>1.8.1.1 EVALUATION</p> <p>Provisions for evaluation of nonconforming items.</p> <p>1.8.1.2 SUBMITTAL</p> <p>Provisions are established for submittal of nonconformance notice by the supplier to the LLNL-YMP. These submittals include supplier recommended disposition (e.g., use as-is or repair) and technical justification. Nonconformances to the procurement requirements or LLNL-YMP approved documents, which consist of one or more of the items listed below are submitted to the LLNL-YMP. Approval of the recommended disposition is in accordance with documented procedures.</p> <ul style="list-style-type: none"> o Technical or material requirements is violated. o Requirements in supplier documents, which has been approved by the LLNL-YMP, is violated. o Nonconformance cannot be corrected by continuation of the original manufacturing process or by rework. 			
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7-11 (cont)	QP 4.0, Rev. 1 Para. 4.0.5.10	<ul style="list-style-type: none"> o The item does not conform to the original requirements even though the item can be restored to a condition such that the capability of the item to function is impaired. 1.8.1.3 DISPOSITION Provisions for LLNL-YMP disposition of supplier recommendation. 1.8.1.4 VERIFICATION Provisions for verification of the implementation of the disposition. 1. Verify that the technical representative notifies the QA Manager that a nonconformance has been discovered and proposes a disposition. 2. Verify that technical representative and the QA Manager verify disposition implementation. 3. Verify that the technical representative documents the nonconformance, the disposition, and the verification of implementation. 			
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8-1 (cont'd)	Para. 8.0.4.1.2.	4. Identification markings are applied using materials and methods that provide clear and legible identification and do not adversely affect the function or service life of the item.			
	Para. 8.0.4.1.3	5. The correct identification of materials, parts, and components is verified and documented prior to release for use.			
	Para. 8.0.4.1.4	6. Identifiers which are damaged or have deteriorated are replaced. A record is kept of all damaged or deteriorated identifiers. This record contains: the location and type of environment of the item identifier; describes the damage or deterioration; what is being done to prevent that from reoccurring; date of the occurrence; date the identifier is replaced; signature, initials or stamp of individual replacing the identifier.			
	Para. 8.0.4.1.5	7. Items having limited shelf or operating life are identified and controlled to preclude use of items whose shelf life or operating life has expired.			
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8-1 (cont'd)	Para. 8.0.4.2.7	11. Actions to be taken where samples may have a maximum life expectancy while in storage are described. Controls are developed and implemented to assure that the identifiers for these samples specify the maximum life expectancy. A record of the identifiers is kept. This record contains: the sample name; sample type; sample identifiers; maximum life expectancy; and disposition of sample after maximum life expectancy is met.			
	Para. 8.0.4.2.8	12. Methods are developed and implemented to assure that like samples are not mixed. Physical segregation of samples is used to the maximum degree practical.			
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8-1 (cont'd)	Para. 8.0.4.3.1 Para. 8.0.4.3.3	<p>8.0.4.3 - IDENTIFICATION AND CONTROL OF DATA</p> <p>13. Identification of such data is provided in all documents, information systems, or both, in which the data appear.</p> <p>14. Identification of data includes a reference to the origin of the data (e.g. task, test, experiment, report, or publication) and the Quality Assurance Level assignment to the activity which produced the data.</p> <p>15. Where data are the results of the efforts of more than one organization, TIP's describing the organizational responsibilities for that data are developed and implemented. the data resulting from the scientific investigation involving more than one organization are annotated to show which organization produced what portion of the data.</p>			
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15-4 (cont)	033-YMP-QP 15.0, Rev. 0 Paras. 15.0.5.4 and 15.0.7	<ul style="list-style-type: none"> o If a change to reflect the as-built condition is appropriate, the the disposition addresses action to change the existing design documents, test plans or procedures, reports, etc. Any documents changed are cross-referenced on the NCR. o Disposition identifies and documents the correction as repair, rework, use-as-is, or reject/scrap. o Disposition identifies the people or organization responsible to implement the disposition. <p>In those cases where the proposed disposition is "repair". the DOE project Office approves the proposed disposition prior to implementation. In the case of a proposed disposition of "use-as-is," the NCR is forwarded to the DOE Project Office for approval after all actions necessary to support the technical justification of the disposition is completed. The appropriate DOE Project Office Branch Chief and the DOE Project Office Quality Assurance Manager approve NCR dispositions involving "repair" or "use-as-is" determinations and conditional release recommendations.</p> <ol style="list-style-type: none"> 1. Verify that personnel in charge of evaluating, dispositioning, and closing-out NCRs are those indicated in the QP 15.0 procedure. 2. Verify that proposed disposition(s) are returned to the Project Leader within 30 days. 			
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15-5 (cont)		3. In case of unacceptable corrective action, verify the method used to document it.			
		4. Verify that changes to approved disposition do meet procedure requirements for changes.			

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16-1	033-YMP-R 16, Rev. 0 1.1 Significant Adverse Conditions	<p>CORRECTIVE ACTION</p> <p>For significant conditions adverse to quality, the identification, cause, and corrective actions taken to preclude recurrence are documented and reported to immediate management and upper levels of management for review and assessment. The LLNL-YMP assures that:</p> <ul style="list-style-type: none"> o Immediate actions are taken to remedy specific conditions. o Causative factors are determined. o Controls are reviewed, implemented, monitored, and revised, if necessary. o Affected managers at all levels are notified of adverse conditions and of lessons learned to improve conditions or avoid similar questions. <ol style="list-style-type: none"> 1. Verify that personnel understand the purpose of Section 16, "Corrective Action." 2. Verify that personnel are aware of their individual responsibilities in regard to immediate action, determination of causative factors, controls, and notification of management. 3. Verify that personnel can identify the procedures which implement Section 16. 			
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16-4	033-YMP-QP 16.1 Rev. 1 16.1.4.2.1 Processing and Closure	<p>PROCESSING AND CLOSURE OF EXTERNALLY ORIGINATED CORRECTIVE ACTION DOCUMENTS</p> <ol style="list-style-type: none"> 1. Verify that each externally originated correctively action document: <ol style="list-style-type: none"> a. has been entered into a status tracking system; b. has had a file established for collection of documentation; c. has had a Respondent appointed by the Project Leader to prepare the necessary response; d. has been given a due date which is the leaser of that specified by the document or thirty calendar days from the date of receipt by the QA Manager. 2. Verify that open Project Office originated corrective action requests are included in the LLNL Corrective Action System. 			
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16-10	033-YMP-QP 16.0 Rev. 1	CORRECTIVE ACTION			
	16.0.5.2.1 Tracking and Distri- bution	Verify that the Corrective Action Report has been transmittd to the Project Leader, individual responsible for corrective action, and the DOE Project Office.			
	16.0.5.2.2, Exhibit B Tracking and Distri- bution	Verify that the Corrective Action Logsheet has been completed has been completed with the specified information.			
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16-11	033-YMP-QP 16.0 Rev. 1	CORRECTIVE ACTION			
	16.0.5.6.1, Exhibit B Monitoring the Status	Verify that the QA Manager has indicated his performance of the required monthly status reviews of the Corrective Action Report on its Log sheet.			
	16.0.5.6.2 Monitoring the Status	Verify that the QA Manager issues a monthly summary of the status of open Corrective Action Reports to the Project Leader, Technical Area Leaders, and Task Leaders.			

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17-9	033-YMP-R 17, Rev. 0	<p>Before the records are stored, a written storage procedure is prepared and responsibility assigned for enforcing the requirements of that procedure. As a minimum, this procedure includes the following:</p> <ol style="list-style-type: none"> 1. A description of the storage facility. 2. The filing system to be used. 3. The method for verifying that the records received are legible and are in agreement with the transmittal document. 4. The method of verifying that the records are those designated (see Paragraph 4.1). 5. The rules governing access to and control of the files 6. The method for maintaining control of and accountability for records removed from the storage facility. 7. A method for filing supplemental information (see Paragraph 9.0). <p>Verify that the above requirements are covered in procedure(s).</p>			
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18-8 (cont'd)	033-YMP-QP 18.1, Rev. 1, Para. 18.1.5.5.1, 18.1.5.5.2 and 18.1.6.1	1. Verify that surveillance records do contain the above requirements. 2. Verify that surveillance reports are submitted to the QA Manager within 5 working days after completion of the surveillance. 3. Verify that results of surveillances are reviewed and analyzed in accordance with procedure QP 16.2. 4. Verify that surveillance records are submitted to the LRC and within time limitations.							
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1	Technical General	Have new staff been added since the previous audit? If, so, who are they?			
2	▪	Are job descriptions available for any new staff? Are the minimum education and/or experience requirements established for each of these job positions?			
3	▪	Are the minimum education/experience levels consistent with the job responsibilities?			
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4	▪	Do the qualifications of the individuals meet the minimum education and/or experience requirements of the job description?			
5	▪	Have any new staff been trained in accordance with requirements for the position?			
6	▪	Were notebooks and other detailed technical documentation provided to any new staff? What was provided?			
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7	▪	Interview any new scientists to determine whether these materials were adequate for bringing new staff up to speed on the technical problems and solutions already found.			
8	▪	How is configuration management implemented with respect to activity I-20-20? Examine relevant documents, e.g. activity plans and procedures, and verify that procedures are being followed.			
9	▪	Check that the procedure for scientific notebooks is being followed, if not checked above.			
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10	▪	Are all necessary procedures readily available to staff doing controlled work?			
11	▪	What is the approval status of Scientific Investigation Plan 1.2.1.4.2? What changes, if any, have been made since November 22, 1989? Check dates on a controlled copy			
12	▪	Can the traceback from formal reports, journal articles, internal summaries, or other written documents to primary records, such as laboratory notebooks, be made? Check some examples.			
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13	"	In the opinion of the interviewees how easy would it be under the QA system for another person to take over completion of a task or to develop expert testimony based on work already accomplished? Ask for demonstration of how this would be done.			
14	"	Examine the relationship between PA staff and LLNL staff investigating the waste package and waste package environment. Does vigorous communication and feedback exist among these groups such that the results of one worker can be readily and promptly be incorporated into future work by others? How and how often does such communication take place?			
15	"	Examine the similar question for relations between LLNL and other participants, especially in respect to PA personnel at SNL.			
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16	SIP 1.2.1.4.2; Activity Plan, "Develop Scenario Identifi- cations"; Site Characterization Plan	Have all the credible far-field scenarios identified in the SCP been reviewed? Does this review include all scenarios in SCP Table 8.3.5.13-1 except scenarios 3, 4, and 12, all scenarios, or only scenarios 1, 2, and 10a through 11? Examine lab notebook.			
17	"	If only some of the scenarios have been, or will be, reviewed, on what basis was the selection made? Review lab notebook if applicable.			
18	"	Which participants and individuals were queried in respect to far-field scenarios? Examine lab notebook.			
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19	▪	Which previously excluded far-field scenarios have been reviewed, and who were interviewed? Examine lab notebooks.			
20	▪	How was the search for scenarios that may be due to near-field processes in addition to those developed by Issue 1.1 systematized, as required by SCP section 8.3.5.10.3.1.2? Examine lab notebook.			
21	▪	Did this search identify any additional scenarios? Examine lab notebook.			

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22	"	Were any outside experts queried in respect to the scenario identification efforts? If so, how were they chosen and what did they contribute? Examine lab notebooks.			
23	"	What decision criteria have been developed for separating scenarios into anticipated and unanticipated categories? Provide an overview of the classification of scenarios as "discrete-state probability and frequency-magnitude-relation types". Include an overview of decision criteria techniques and related matters. Examine lab notebooks.			
24	"	At what stage is the current development of the expert opinion methodologies? Provide an overview. Examine lab notebooks.			
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25	"	To what distance from the waste package are "the parameters of the near field environment", needed for sub-activity I-20-20c, required? Have there been, or will there be, developed any criteria, such as the outer edge of the zone of increased water saturation (e.g. no more than 5% change) arising from vapor condensation or the outer edge of the thermal disturbance?			
26	"	Have the Ross sequence numbers in Section 8.3.5.13 of the SCP and the additional sequence numbers (85 through 99) been used in the scenario identification task? If so, how? Will they be used in another sub-task of I-20-20? Check lab notebooks, if applicable.			
27	"	What technical directions have been given to the scenario task leader by the PA Technical Area Leader?			
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28	▪	What is the status of the preliminary report called for in Section 7 of the activity plan?			
29	▪	Has progress been reported monthly as specified in Section 5 of the activity plan? Examine relevant documents to confirm.			
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1	1.2.2.3.1 P.1 Par 1.3	Waste Form: Sub-activity D-20-45, Low-Temperature Oven Method for Spent Fuel Oxidation Testing Dr. Shaw is no longer PI. Have his and other persons names changed in the AP?			
2	P.3 Par 3.1	Describe number and extent of Technical Reviews between LLNL and PNL on this activity.			
3	P.4	How has LLNL verified that personnel performing work have been properly trained? Operator qualification confirmed?			
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4	P.4	How often is in-cell instrumentation calibrated or replaced?			
5	P.5	What interim storage methods are used for log books and other documentation?			
6	P.6	What is the current schedule for dissolution/leach testing on oxidized spent fuel?			
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7	-	PNL-6427 shows test duration for BWR fuel at 175C, 130C, and 110C for up to 2 years. What are test durations for PWR fuels?			
8	-	How has data collected been used to validate the spent fuel performance model?			
9	SFO-1-1 P.6.1	Step 7) permits fragment commingling. Will there be an attempt made to understand oxidation behavior as a function of fuel pellet radius? How does this sample variation affect variability of oxidation data?			
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13	HTA-3-1 P.1.0	What is PAP-501 and are exceptions to it major, minor, or editorial?			
14	P.4.5	"SEM analysis are kept in laboratory notebooks by hydrothermalrun number." How do these relate to the YMP?			
15	1.2.2.3.2 P.1	Metal Barriers: Sub-activity E-20-15, Establishment of Selection Criteria Under 3.0, what is the current status of the peer review process? The dates given in Section 7.0 do not reflect programmatic delays.			
				(9) Auditor Signature	(10) Date

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16	P.2	Under 3.0, how were the "Pass-Fail" values and the "Quantitative Scores" determined and were they reviewed/amended by the peer review panel?			
17	P.2	Under 3.6, how were the peer review members chosen and how was the possibility of bias eliminated or reduced?			
18	P.3	Under 5.0, what methods are used to store and protect in-process documentation?			
			(9) Auditor Signature	(10) Date	

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19	P.1	<p>Sub-activity E-20-18a, Use of Linear Sweep Polarization to Determine Pitting Potential</p> <p>Under 3.0, concentrating "J-13" water leads to gel-like material that will probably not exist under repository conditions. How has the test matrix accommodated this? Also, has sensitivity studies on "bad actors" been included?</p>			
20	P.4	<p>Under 4.3, is the pH of the test solution measured as a function of time? Also, how is the carbonate/bicarbonate content of the solution controlled?</p>			
21	P.4	<p>Also under 4.3, has the test matrix been reviewed by a statistician to justify comment that "good statistics" will be established?</p>			
(9) Auditor Signature				(10) Date	

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22	P.5	Under 5.2, how will the acceptable value of the pitting potential be determined?			
23	P.6	Under 9.5, no deliverables are given. However, as input to material selection, data must be provided to the materials selection task. How is this accomplished?			
24	APP. 1	Do you plan on using ferritic Type 430 stainless steel standard material as an equipment check?			
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25	APP. 1	The standard test temperature is 30 C. What other test temperatures will be employed either as part of the screening process or during performance confirmation?			
26	APP. 2	What is the calibration time for key equipment? Do detailed procedures include internal calibrations?			
27	P.1	Sub-activity E-20-18c, Parametric Studies of Metal Degradation and Micro-structure: Measurement of Plane-Strain Fracture Toughness Dr. Ahluwalia is no longer PI. Have his and other persons names changed in the AP?			
				(9) Auditor Signature	(10) Date

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28	P.3	In 3.5, it states the atmosphere for testing. Under what atmosphere are the test specimens stored, particularly those that have been pre-cracked?			
29	P.3	In 4.0, are there ASTM standards that can be tested to "get a handle" on equipment precision and accuracy? Will you use them or some other "standard"?			
30	P.3	What calibration schedule will you adopt for the key M&TE noted in Section 4.1 and listed in the appendix?			
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31	P.4	Under 5.0, what methods are used to store and protect in-process documentation?			
32	P.4	Does the UCID report in 7.0 refer to the readiness review or a technical report? What is the current schedule?			
33	P.5	Is the procurement given in Section 9.0 still needed? Will other personnel be needed?			
				(9) Auditor Signature	(10) Date

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34	P.5	How is data provided to the materials selection task, as specified in Section 2.0?			
35	P.1	<p>Sub-activity E-20-18d, Parametric Studies of Metal Degradation and Micro-structure: Measurement of Threshold Stress Intensity for Stress Corrosion Cracking</p> <p>Dr. Ahluwalia is no longer PI. Have his and other persons names changed in the AP?</p>			
36	P.1	Under 3.0, what method was used to establish an acceptable threshold value for the embrittlement index?			
				(9) Auditor Signature	(10) Date

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37	P.2	Where is the schematic for the WOL method?			
38	P.4	Under 3.5, is the pH of the test solution measured as a function of time? Also, how is the carbonate/bicarbonate content of the solution controlled?			
39	P.4	Under 3.5, how will pre-cracked specimens, noted in Section 4.2, be protected prior to testing?			
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40	P.4	In 4.0, are there ASTM standards that can be tested to "ge a handle" on equipment precision and accuracy? Will you use them or some other "standard"?			
41	P.4	What calibration schedule will you adopt for the key M&TE noted in Section 4.1 and listed in the appendix?			
42	P.5	Under 5.0, what methods are used to store and protect in-process documentation?			
			(9) Auditor Signature	(10) Date	

