

Transportation Safety & Operations Compliance Assurance Program Self-Assessment Review Document

1. General Management of Transportation and Packaging Programs

Standard: Management has developed and implemented a Quality Assurance Plan (QAP), a Transportation Safety Document (TSD), and if applicable, a Transportation Plan that includes directives, policies, and procedures to provide effective implementation of applicable international, federal, state, tribal, and local rules and regulations and DOE Orders and policy affecting transportation management.

Reference: DOE Orders 414.1c, 460.1B, 460.2A , Att. 1 (CRD) , DOE M 460.1-2, Att.2 (CRD),10 CFR Part 71 and 830 Subparts A & B.

Self-Assessment/Evaluation Actions	RESPONSE			Comments
	Y	N	N/A	
A. GENERAL QUESTION SECTION				
1. Do the following DOE Orders apply to your contract?				
a. DOE Order 414.1C, Quality Assurance				
b. DOE Order 460.1B, Packaging and Transportation Safety				
c. DOE Order 460.2, Departmental Materials Transportation and Packaging Management				
d. DOE M 460.2-1, Radioactive Material Transportation Practices Manual				
<i>If you answered "Yes" concerning any of the three DOE Orders above, please go to the appropriate section in this checklist and complete the questions for that section.</i>				
B. QUALITY ASSURANCE PROGRAM				
1. Has a written QAP been developed, approved, implemented, and maintained according to the criteria listed in DOE Order 414.1C, Contractors Requirement Document, Attachment 2? Does it include sufficient information about the following elements?				
2. Management				
a. Program				
1. Does the QAP describe the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing the work?				
2. Does the QAP describe management processes including planning, scheduling, and providing resources for				

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work?				
b. Personnel Training and Qualifications				
1. Is documentation available to show that personnel are trained, qualified, and capable of performing their assigned work?				
2. Is documentation available that shows continuous training of personnel to maintain job proficiency?				
c. Quality Improvement				
1. Have processes been developed and implemented to detect and prevent quality problems?				
2. Verify that documentation identifies, control, and correct items, services, and processes that do not meet established requirements.				
3. Verify that documentation identifies the causes of problems, and include prevention of recurrence as a part of corrective action planning.				
4. Verify that documentation is available that shows reviews of item characteristics, process implementation, and other quality-related information to identify items, services, and processes needing improvement.				
d. Documents and Records				
1. Have processes been developed to ensure documents must be prepared, reviewed, approved, issued, used and revised to prescribe processes, specify requirements or establish design?				
2. Is documentation available to ensure that records have been specified, prepared, reviewed, approved, and maintained?				
3. Performance				
a. Work Processes				

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1. Is documentation available that shows work is performed consistently with technical standards, administrative controls, and hazard controls adopted to meet regulatory or contract requirements using approved instructions, procedures, etc.				
2. Is documentation available to indicate that items are being identified and controlled to ensure their proper use?				
3. Is documentation available that shows that items are maintained to prevent damage, loss, or deterioration?				
4. Is documentation available that shows that equipment used for process monitoring or data collection is calibrated and maintained?				
b. Design				
1. Is documentation available to demonstrate that items and processes are designed using sound engineering/scientific principles and appropriate standards?				
2. Is documentation available to demonstrate that design activities have incorporated applicable requirements and design bases in design work and design changes.				
3. Is documentation available that shows the design interfaces are identified and controlled?				
4. Is documentation available to indicate that the adequacy of design products is being verified or validated by individuals or groups other than those who perform the work?				
5. Is documentation available to indicate that verification and validation activities are being completed before approval and implementation of the design?				
c. Procurement				

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1. Is documentation available to reflect that procured items and services meet established requirements and perform as specified?				
2. Is documentation available to indicate that prospective suppliers are evaluated and selected based on specified criteria?				
3. Is documentation available that shows established and implemented processes to ensure that approved suppliers continue to provide acceptable items and services?				
d. Inspection and Acceptable Testing				
1. Is documentation available to indicate that inspection and testing of specified items, services, and processes are conducted using established acceptance and performance criteria?				
2. Is documentation available to indicate that equipment used for inspections and testing is calibrated and maintained?				
4. Assessment				
a. Management Assessment				
1. Is documentation available that demonstrates managers are assessing their management processes and identify and correct problems that hinder the organization from achieving its objectives?				
b. Independent Assessment				
1. Is documentation available to indicate that independent assessments are planned and conducted to measure item and service quality that measures the adequacy of work performance and to promote improvement?				
2. Is documentation available to show that the group performing the independent assessments has sufficient authority and freedom from line management to carry				

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out its responsibilities?				
3. Is documentation available to indicate that persons conducting independent assessments are technically qualified and knowledgeable in the areas assessed?				
4. Is there documentation showing that the DOE Contractor has implemented a Suspect/Counterfeit Item Prevention Process based on the requirements identified in DOE Order 141.1C, Contractors Requirements Document, Attachment 3.				
5. Is there documentation showing that the DOE Contractor has implemented a Corrective Action Management Program based on the requirements identified in DOE Order 141.1C, Contractors Requirements Document, Attachment 4.				
6. Is there documentation showing that the DOE Contractor has implemented the Safety Software Quality Requirements based on the requirements identified in DOE Order 141.1C, Contractors Requirements Document, Attachment 5.				
C. TRANSPORTATION SAFETY DOCUMENT				
1. Has the contractor prepared an on site hazardous materials TSD? [DOE Order 460.1B, CRD requirement 7]				
a. Does the TSD contain the following elements identified in DOE Guide 460.1-1 5.3 Preparation of Transportation Safety Documents.?				
1. Has the DOE Contractor identified in their TSD Purpose, Scope and Applicability (5.3.2(a)?				

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2. Has the DOE Contractor provided a section dealing with definitions and acronyms (5.3.2(b))?				
3. Has the DOE Contractor included in their TSD a site description (5.3.2(c))?				
4. Has the DOE Contractor identified in their TSD Organizational Responsibilities (5.3.2(d))?				
5. Has the DOE Contractor identified in their TSD external regulations (5.3.2(e))?				
6. Has the DOE Contractor identified in their TSD Site-Specific Standards, Procedures, and Instructions (5.3.2(f))?				
7. Has the DOE Contractor included in their TSD the safety assessment methodology (5.3.2(g))?				
8. Has the DOE Contractor identified in their TSD routine transfers (5.3.2(h))?				
9. Has the DOE Contractor identified in their TSD Non-routine Transfer (5.3.2(i))?				
10. Has the DOE Contractor identified in their TSD Personnel Qualification and Training (5.3.2(j))?				
11. Has the DOE Contractor identified in their TSD Documentation and Record Keeping (5.3.2(k))?				
12. Has the DOE Contractor identified in their TSD Purpose, Scope and Applicability Incident Reporting and Emergency Response (5.3.2(l))?				
13. Has the DOE Contractor identified in their TSD Transport Vehicle Operations (5.3.2(m))?				
14. Has the DOE Contractor identified in their TSD Appendices and Other Pertinent Information (5.3.2(n))?				
b. Has the TSD been approved by the cognizant DOE Field Element? <i>Approval</i>				

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<i>will constitute acceptance of the contractor's program as meeting DOE transportation safety requirements.</i>				
D. TRANSPORTATION PLAN				
1. Does the contractor ship spent nuclear fuel, high-level waste, tritium-bearing reactor components, or transuranic waste shipments to WIPP? If yes, answer the following questions.				
a. Has the contractor prepared a Transportation Plan in accordance with DOE Order 460.2, Att. 1, CRD, Para.2.				
1. Does the DOE Contractor use the ATMS System?				
2. Does the DOE Contractor self-insure all shipments unless under special circumstances as defined in 48 CFR 47.102.				
3. Does the DOE Contractor have identify on all commercial bills of lading, sir bills, and other commercial documents covering shipments made by or in behalf of DOE/NNSA must be identified as such.				
4. Any Shipment made using military aircraft the DOE contractor has obtained all applicable approvals prior to shipment.				
5. When special training services are required the DOE Contractor has obtained the appropriate approvals for then DOE Field office.				
Has the contractor prepared a Transportation Plan in accordance with DOE M 460.1-2, Att.1 CRD, Para.2a?				
b. Does the plan include the following:				
1. Organizational Responsibilities				
2. Description of the material(s) being shipped?				
3. Projected Shipping dates?				
4. Estimated number and weight of shipments?				

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5. Mode of transportation and carriers to be used?				
6. Preferred and/or alternative routes?				
7. Packaging used and description?				
8. Shipment pre-notification requirements?				
9. Safe parking arrangements and tracking system that will be used?				
10. Emergency preparedness and response plans and recovery and clean strategy?				
11. Cargo security arrangements if required?				
E. 10 CFR PART 830 REQUIREMENTS				
<i>If the contractor is a state agency or a political subdivision of a state agency and is normally exempt from the requirements found in 49 CFR or DOE Order 460.1A is not part of their contract, the following questions must be answered.</i> <i>Contractors who are required to comply with 10 CFR 830, Subpart B (Safety Basis Requirements) must comply with the following requirements.</i>				
1. 10 CFR 830.201 PERFORMANCE OF WORK				
a. Does the DOE Contractor perform work in accordance with the safety basis for a hazard category 1, 2, or 3 DOE nuclear facility and, in particular, with the hazard controls that ensure adequate protection of workers, the public, and the environment? [10 CFR 830.201]				
2. 10 CFR 830.202 SAFETY BASIS				
a. Regarding DOE nuclear facility categories 1, 2, or 3, has the contractor defined the scope of the work to be performed? [10 CFR 830.202(b)(1)]				
b. Has the contractor identified and analyzed the hazards associated with the work? [10 CFR 803.202(b)(2)]				
c. Has the contractor categorized the facility consistent with DOE-STD-1027-92? [10				

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CFR 803.202(b)(3)]				
d. Has the contractor prepared a documented safety analysis for the facility? [10 CFR 803.202(b)(4)]				
e. Has the contractor established hazard controls on which to rely to ensure adequate protection of workers, the public, and the environment? [10 CFR 830.202(b)(5)]				
f. Has the contractor updated the safety basis to keep it current and to reflect changes in the facility, the work and the hazards as they are analyzed in the documented safety analysis? [10 CFR 830.02(c)(1)]				
g. Has the contractor annually submitted to DOE either the updated documented safety analysis for approval or a letter stating that there have been no changes in the documented safety analysis since the prior submission? [10 CFR 830.202(c)(2)]				
h. Has the contractor incorporated in the safety basis any changes, conditions, or hazard controls directed by DOE? [10 CFR 830.202(c)(3)]				
3. 10 CFR 830.203 UNREVIEWED SAFETY QUESTION (USQ) PROCESS				
<i>The contractor responsible for a hazard category 1, 2, or 3 DOE nuclear facility must establish, implement, and take actions consistent with a USQ process that meets the requirements of this section. [10 CFR 830.203(a)]</i>				
a. For existing DOE nuclear facilities (categories 1, 2, or 3), has the contractor submitted a procedure for their USQ process to DOE for approval? (April 10, 2001) [10 CFR 830.203(b)] <i>Pending DOE approval, the contractor must use its existing USQ procedure.</i>				
b. If the existing USQ procedure already meets the requirements, has the contractor notified DOE (by April 10, 2001) and requested DOE issue an approval of the existing				

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procedure? [10 CFR 830.203(b)]				
c. For new DOE nuclear facilities (categories 1, 2, or 3), has the contractor submitted for DOE approval a procedure for its USQ process on a schedule that allows DOE approval in a safety evaluation report issued pursuant to section 10 CFR 830.207(d)? [10 CFR 830.203(c)]				
d. Contractors responsible for a hazard category 1, 2, or 3 DOE nuclear facility must implement the DOE-approved USQ procedure in situations where there is a:				
1. Temporary or permanent change in the facility as described in the existing documented safety analysis. [10 CFR 830.203(d)(1)]				
2. Temporary or permanent change in the procedures described in the existing document safety analysis. [10 CFR 830.203(d)(2)]				
3. Tests or experiments not described in the existing documented safety analysis. [10 CFR 830.203(d)(3)]				
4. Potential inadequacy of the documented safety analysis because the analysis may not be bounding or may be otherwise inadequate. [10 CFR 830.203(d)(4)]				
e. The contractor responsible for a hazard category 1, 2, or 3 DOE nuclear facility must obtain DOE approval prior to taking any action determined to involve a USQ. [10 CFR 830.203(e)]				
f. The contractor responsible for a hazard category 1, 2, or 3 DOE nuclear facility annually submitted to DOE a summary of the USQ determinations performed since the prior submission. [10 CFR 830.203(f)]				
g. The contractor responsible for a hazard category 1, 2, or 3 DOE nuclear facility discovers or is made aware of a potential inadequacy of the documented safety analysis, they must:				

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1. Take action, as appropriate, to place or maintain the facility in a safety condition until an evaluation of the safety of the situation is completed. [10 CFR 830.203(g)(1)]				
2. Notify DOE of the situation. [10 CFR 830.203(g)(2)]				
3. Perform a USQ determination and notify DOE promptly of the results. [10 CFR 830.203(g)(3)]				
4. Submit the evaluation of the safety of the situation to DOE prior to removing any operational restrictions initiated to meet paragraph (g)(1). [10 CFR 830.203(g)(4)]				
4. 10 CFR PART 830.204 DOCUMENTED SAFETY ANALYSIS				
a. The contractor responsible for a hazard category 1, 2, or 3 DOE nuclear facility must obtain approval from DOE for the methodology used to prepare the documented safety analysis for the facility unless the contractor uses a methodology set forth in Table 2 of Appendix A to this Part.				
b. The documented safety analysis for a hazard category 1, 2, or 3 DOE nuclear facility must (as appropriate for the complexities and hazards associated with the facility):				
1. Describe the facility (including the design of safety structures, systems, and components) and the work to be performed.				
2. Provide a systematic identification of both natural and man-made hazards associated with the facility.				
3. Evaluate normal, abnormal, and accident conditions, including consideration of natural and man-made external events, identification of energy sources or processes that might contribute to the generation or				

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uncontrolled release of radioactive and other hazardous materials, and consideration of the need for analysis of accidents which may be beyond the design basis of the facility.				
4. Derive the hazard controls necessary to ensure adequate protection of workers, the public, and the environment; demonstrate the adequacy of these controls to eliminate, limit, or mitigate identified hazards; and define the process for maintaining the hazard controls current at all times and controlling their use.				
5. Define the characteristics of the safety management programs necessary to ensure the safe operation of the facility, including (where applicable) quality assurance, procedures, maintenance, personnel training, conduct of operations, emergency preparedness, fire protection, waste management, and radiation protection.				
6. With respect to a nonreactor nuclear facility with fissionable material in a form and amount sufficient to pose a potential for criticality, define a criticality safety program that:				
a. Ensures that operations with fissionable material remain subcritical under all normal and credible abnormal conditions.				
b. Identifies applicable nuclear criticality safety standards.				
c. Describes how the program meets applicable nuclear criticality safety standards.				
5. 10 CFR PART 830.205 TECHNICAL SAFETY REQUIREMENTS				
a. A contractor responsible for a hazard category 1, 2, or 3 DOE nuclear facility must:				

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1. Develop technical safety requirements that are derived from the documented safety analysis.				
2. Obtain DOE approval of technical safety requirements and any changes to technical safety requirements prior to use.				
3. Notify DOE of any violation of a technical safety requirement.				
b. A contractor may take emergency actions that depart from an approved technical safety requirement when no actions consistent with the technical safety requirement are immediately apparent, and when these actions are needed to protect workers, the public, or the environment from imminent and significant harm. Such actions must be approved by a certified reactor operator or by a person in authority as designated in the technical safety requirements for nonreactor nuclear facilities. The contractor must report the emergency actions to DOE as soon as practicable.				
c. A contractor for an environmental restoration activity may follow the provisions of 29 CFR 1910.120 or 1926.65 to develop the appropriate hazard controls [rather than the provisions for technical safety requirements in paragraph (a) of this section], provided the activity involves either:				
1. Work not done within a permanent structure.				
2. Decommissioning of a facility with only low-level residual fixed radioactivity.				
6. 10 CFR PART 830.206 PRELIMINARY DOCUMENTED SAFETY ANALYSIS				
a. If construction begins after December 11, 2000, the contractor responsible for a hazard category 1, 2, or 3 new DOE nuclear facility or a major modification to a hazard				

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category 1, 2, or 3 DOE nuclear facility must:				
1. Prepare a preliminary documented safety analysis for the facility.				
2. Obtain DOE approval of:				
a. The nuclear safety design criteria to be used in preparing the preliminary documented safety analysis unless the contractor uses the design criteria in DOE Order 420.1A, Facility Safety.				
b. The preliminary documented safety analysis before the contractor can procure materials or components or begin construction, provided that DOE may authorize the contractor to perform limited procurement and construction activities without approval of a preliminary documented safety analysis if DOE determines that the activities are not detrimental to public health and safety and are in the best interests of DOE.				
7. 10 CFR PART 830.207 DOE APPROVAL OF SAFETY BASIS				
a. By April 10, 2003, a contractor responsible for a hazard category 1, 2, or 3 existing DOE nuclear facility must submit for DOE approval a safety basis that meets the requirements of Subpart B of 10 CFR Part 830.				
b. Pending issuance of a safety evaluation report in which DOE approves a safety basis for a hazard category 1, 2, or 3 existing DOE nuclear facility, the contractor responsible for the facility must continue to perform work in accordance with the safety basis for the facility in effect on October 10, 2000, and must maintain the existing safety basis consistent with the requirements of Subpart B of 10 CFR Part 830.				

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	Y	N	N/A	
c. If the safety basis for a hazard category 1, 2, or 3 existing DOE nuclear facility already meets the requirements of Subpart B of 10 CFR Part 830 and reflects the current work and hazards associated with the facility, the contractor responsible for the facility must, by April 9, 2001, notify DOE, document the adequacy of the existing safety basis, and request DOE to issue a safety evaluation report that approves the existing safety basis. If DOE does not issue a safety evaluation report by October 10, 2001, the contractor must submit a safety basis pursuant to Question 7.b above.				
d. With respect to a hazard category 1, 2, or 3 new DOE nuclear facility or a major modification to a hazard category 1, 2, or 3 DOE nuclear facility, a contractor may not begin operation of the facility or modification prior to issuance of a safety evaluation report in which DOE approves the safety basis for the facility or modification.				