

APPENDIX B

**Bechtel Jacobs Company LLC
Corrective Actions In Response
to the
Independent Safety Basis Assessment
of
Bechtel Jacobs Company LLC
and
U.S. Department of Energy
Oak Ridge Operations Office**

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1a

Impose compensatory measures on the SMPs as provided in Table 4, with higher priority placed on FP and inventory control. (Note: Other SMPs are expected to be in place; however, the SMPs identified above are considered essential to ensure safe operations to prevent or mitigate significant radiological or toxicological accidents)

COMPENSATORY MEASURES LISTED IN TABLE 4 FOR FIRE PROTECTION:

SAFETY MANAGEMENT PROGRAM – FIRE PROTECTION

- Establish a site-wide combustible/ignition control program (e.g., elimination of waste storage on wooden pallets, hot work control permits, etc.)
- Perform a FP engineer or equivalent assessment of allowable combustible loading and combustible/ignition control verification on a prioritized basis for each facility as agreed to by ORO
- Commit to formal evaluation of FP, including the fire suppression and detection systems at BJC's facilities (and to include updating FHAs for all nuclear facilities)

DESCRIPTION OF CORRECTIVE ACTION:

- | | |
|--------------|--|
| BJC/SA1a-1. | Conduct Assessments of FP&EM SMP implementation to supplement SB flowdown. Document results. Define Corrective Actions and enter into I/CATS. |
| BJC/SA1a-2. | Conduct facility specific FP SME assessments of combustible loading and ignition controls as determined to be needed based on results from FP SMP Assessments. |
| BJC/SA1a-3. | Modify the M&I contract to incorporate DOE Order 420.1, Section 4.2, FP, into BJC contract WSS. |
| BJC/SA1a-4. | Issue a BJC Policy to describe management commitment to the FP SMP. |
| BJC/SA1a-5. | Revise BJC-FP-2001 FP Program Description to incorporate functional direction for combustible loading limitations and controls for ignition sources as well as integration of FHAs into DSAs, pre-fire planning, emergency response training and drills. |
| BJC/SA1a-6. | Develop an integrated DOE-ORO EM/BJC process and DSA guides for management of DSA documents for Category 2 and 3 facilities, consistent with 10 CFR 830 Subpart B requirements and other applicable requirements and standards. (These DSA guides will include an integrated hazards analysis process, and separate guides for Fire Hazards Assessments and EM Hazard Assessments) |
| BJC/SA1a-7. | Develop a company-wide procedure for conducting FPEA. |
| BJC/SA1a-8. | Evaluate the adequacy of FP requirements in BJC subcontract pro forma and revise pro forma as needed. |
| BJC/SA1a-9. | Obtain necessary resources to support FP SME to evaluate and disposition results from SMP assessments regarding combustible loading and ignition controls. |
| BJC/SA1a-10. | Develop a GM level Charter for Security, Fire, EM Functional Organization describing Roles and Responsibilities. |
| BJC/SA1a-11. | Reassess the SF&EM Organization and identify FY 2003 budget authority to staff organization for deploying FP program functional personnel to projects. |

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA1a-1.	Bruce Wilson
BJC/SA1a-2.	Bo Harris
BJC/SA1a-3.	Keith Bradley
BJC/SA1a-4.	Bo Harris
BJC/SA1a-5.	Bo Harris
BJC/SA1a-6.	Bruce Wilson
BJC/SA1a-7.	Bo Harris
BJC/SA1a-8.	Bo Harris
BJC/SA1a-9.	Bo Harris
BJC/SA1a-10.	Brenda Tilley
BJC/SA1a-11.	Brenda Tilley

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1a-1.	March 14, 2002
BJC/SA1a-2.	May 6, 2002
BJC/SA1a-3.	February 28, 2002
BJC/SA1a-4.	April 30, 2002
BJC/SA1a-5.	April 30, 2002
BJC/SA1a-6.	February 1, 2002
BJC/SA1a-7.	April 30, 2002
BJC/SA1a-8.	April 30, 2002
BJC/SA1a-9.	March 21, 2002
BJC/SA1a-10.	March 14, 2002
BJC/SA1a-11.	April 5, 2002

EXPECTED COMPLETION DATE:

BJC/SA1a-1.	April 30, 2002
BJC/SA1a-2.	August 30, 2002
BJC/SA1a-3.	February 28, 2002 (complete)
BJC/SA1a-4.	June 30, 2002
BJC/SA1a-5.	September 30, 2002
BJC/SA1a-6.	May 31, 2002
BJC/SA1a-7.	September 30, 2002
BJC/SA1a-8.	September 30, 2002
BJC/SA1a-9.	April 30, 2002
BJC/SA1a-10.	June 30, 2002
BJC/SA1a-11.	June 30, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

- BJC/SA1a-1. Copy of FP&EM SMP Assessments Summary Report
- BJC/SA1a-2. Completed FP checklists for those facilities determined to need SME assessments from SMP Assessment Summary Report
- BJC/SA1a-3. Letter from BJC GM to DOE COR putting DOE Order 420.1, Section 4.2 on the BJC contract
- BJC/SA1a-4. An approved FP Program Description published on the BJC Performance Document System web site
- BJC/SA1a-5. A revised FP Description published on the BJC Performance Document System web site
- BJC/SA1a-6. SB flow charts and copies of DSA Guides
- BJC/SA1a-7. An approved procedure for conducting FP Engineering Assessments published on the BJC Performance Document System web site
- BJC/SA1a-8. Revised *pro forma* containing updated FP requirements
- BJC/SA1a-9. A fully executed Work Release for subcontracted FP support
- BJC/SA1a-10. An approved Charter for Security, Fire, and EM published on the BJC Performance Document web site
- BJC/SA1a-11. A proposal for reorganizing SF&EM and a budget request to implement deployment of adequate support to BJC Projects in FY 2003

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

- BJC/SA1a-1. I/CATS A4365

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1a

Impose compensatory measures on the SMPs as provided in Table 4, with higher priority placed on FP and inventory control. (Note: Other SMPs are expected to be in place; however, the SMPs identified above are considered essential to ensure safe operations to prevent or mitigate significant radiological or toxicological accidents)

COMPENSATORY MEASURES LISTED IN TABLE 4 FOR INVENTORY CONTROL

SAFETY MANAGEMENT PROGRAM – INVENTORY CONTROL

Establish a formal inventory and waste (or material) acceptance control program which ensures that all facilities and activities remain within the bounds of the SB documentation and hazard categorization.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SA1a-12. Develop new BJC hazard identification, facility categorization, and inventory control procedure/document, compliant with governing standards.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA1a-12. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1a-12. January 1, 2002

EXPECTED COMPLETION DATE:

BJC/SA1a-12. July 1, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA1a-12. Copy of hazard identification, facility categorization, and inventory control procedure/document

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SA1a-12. DOE-ORO will provide input during procedure/document development via the SB Working Group sessions

LINK TO OTHER CORRECTIVE ACTION? (specify)

N/A

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1a

Impose compensatory measures on the SMPs as provided in Table 4, with higher priority placed on FP and inventory control. (Note: Other SMPs are expected to be in place; however, the SMPs identified above are considered essential to ensure safe operations to prevent or mitigate significant radiological or toxicological accidents.)

COMPENSATORY MEASURES LISTED IN TABLE 4 FOR PROCEDURES AND TRAINING

SAFETY MANAGEMENT PROGRAM – PROCEDURES AND TRAINING

- Update operating procedures following BJC’s verification of the flowdown of controls.
- Train personnel on the new/revised procedures.
- Verify qualifications and training of BJC, its subcontractors, and ORO personnel responsible for preparation, review, and oversight of SB documentation.

DESCRIPTION OF CORRECTIVE ACTION:

Discussion: Corrective actions for findings and observations from the SB flowdown assessment are being tracked to closure in the BJC I/CATS. These actions include those to update operating procedures (where needed) for flowdown of SB controls. Project personnel will be trained on revised procedures that implement SB controls. This action is covered in the fourteen-step training and qualification improvement plan. Refer to Section 5.3.

BJC/SA1a-13.	N/A
BJC/SA1a-14.	N/A
BJC/SA1a-15.	This action is covered by the corporate training and qualification improvement plan.
BJC/SA1a-15a)	Identify critical positions supporting BJC nuclear facilities
BJC/SA1a-15b)	Develop qualification requirements based on the identified roles and responsibilities for nuclear facility critical positions
BJC/SA1a-15c)	Upgrade Training Position Descriptions with the roles and responsibilities for BJC nuclear facility critical positions
BJC/SA1a-15d)	Complete required training and qualification documentation for nuclear facility critical position

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA1a-13.	N/A
BJC/SA1a-14.	N/A
BJC/SA1a-15.	Greg Vaughn

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1a-13.	N/A
BJC/SA1a-14.	N/A
BJC/SA1a-15.	January 7, 2002

EXPECTED COMPLETION DATE:

BJC/SA1a-13.	N/A
BJC/SA1a-14.	N/A
BJC/SA1a-15.	
BJC/SA1a-15a)	March 18, 2002 (complete)
BJC/SA1a-15b)	April 15, 2002
BJC/SA1a-15c)	April 25, 2002
BJC/SA1a-15d)	June 26, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA1a-13.	N/A
BJC/SA1a-14.	N/A
BJC/SA1a-15.	
BJC/SA1a-15a)	Copy of list of critical positions
BJC/SA1a-15b)	Copy of qualification requirements for critical positions
BJC/SA1a-15c)	Copy of Training Positions Descriptions for critical positions
BJC/SA1a-15d)	Copy of training and qualification documentation .

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA1a-13.	N/A
BJC/SA1a-14.	N/A
BJC/SA1a-15.	
BJC/SA1a-15a)	I/CATS A4785
BJC/SA1a-15b)	I/CATS A4786
BJC/SA1a-15c)	I/CATS A4787
BJC/SA1a-15d)	I/CATS A4788

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1a

Impose compensatory measures on the SMPs as provided in Table 4, with higher priority placed on FP and inventory control. (Note: Other SMPs are expected to be in place; however, the SMPs identified above are considered essential to ensure safe operations to prevent or mitigate significant radiological or toxicological accidents.)

COMPENSATORY MEASURES LISTED IN TABLE 4 FOR CRITICALITY SAFETY

SAFETY MANAGEMENT PROGRAM – CRITICALITY SAFETY

- Complete the corrective action items in response to the HQs criticality safety assessment
- Review and approval of the ETTP site-wide R/CAAS TSR is required

DESCRIPTION OF CORRECTIVE ACTION:

- BJC/SA1a-16. Thirty-seven of 40 corrective actions have been completed. The remaining actions are being tracked in I/CATS and are tied to implementation of the Facility Authorization Tool-Container Analysis Tool (FATCAT) database. BJC has a NCS implementation plan and is on track to complete all actions by the close of FY 2002.
- BJC/SA1a-17. Completed February 12, 2002. DOE Safety Evaluation Report (SER) issued with “no conditions of approval”.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- BJC/SA1a-16. Bill Lee
BJC/SA1a-17. M’balia Tagoe

CORRECTIVE ACTION INITIATION DATE:

- BJC/SA1a-16. September 1, 2000
BJC/SA1a-17. November 12, 2001

EXPECTED COMPLETION DATE:

- BJC/SA1a-16. September 30, 2002
BJC/SA1a-17. February 12, 2002 (complete)

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

- BJC/SA1a-16. Letter report summarizing completion of the NCS CAP
BJC/SA1a-17. Copy of ETTP R/CAAS SER

DOE SUPPORT ACTION REQUIRED? (specify)

- BJC/SA1a-16. DOE-ORO is in the process of preparing their NCS CAP and forwarding the DOE-ORO and BJC CAPs to DOE-HQ for approval
BJC/SA1a-17. DOE review and approval of ETTP R/CAAS (complete)

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA1a-16.

I/CATS A3575

BJC/SA1a-17.

The implementation plan for the new TSR is I/CATS Source 8436

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted.)

RECOMMENDATION BJC/SA1a

Impose compensatory measures on the SMPs as provided in Table 4, with higher priority placed on FP and inventory control. (Note: Other SMPs are expected to be in place; however, the SMPs identified above are considered essential to ensure safe operations to prevent or mitigate significant radiological or toxicological accidents.)

COMPENSATORY MEASURES LISTED IN TABLE 4 FOR MAINTENANCE AND IN-SERVICE INSPECTION

SAFETY MANAGEMENT PROGRAM – MAINTENANCE AND IN-SERVICE INSPECTION

- Formally incorporate a surveillance and in-service inspection program for all safety significant Systems, Structures and Components (SSCs) identified in the SB documents (as amended through the flowdown verification)

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SA1a-18. Surveillance and inspection programs for SSCs are facility specific and are in place for the following BJC facilities: Portsmouth Criticality Accident Alarm System (CAAS), Paducah CAAS, ETTP R/CAAS, and Molten Salt Reactor Experiment (MSRE) compressed gas system relief valves. The Portsmouth and Paducah CAASs are maintained and inspected by United States Enrichment Corporation (USEC). The ETTP RCAAS maintenance activities are coordinated by the ETTP Park Shift Superintendent's office and tracked via BJC's safety analysis subcontractor. MSRE compressed gas system relief valves are bench tested by UT Battelle. Recent SB flowdown assessments checked current status of the surveillance and inspection programs and found no deficiencies. As part of the BJC ISMS, implementation of surveillance and inspections will continue to be performed in accordance with SB requirements. Maintenance and in-service inspection program requirements will be addressed in upgraded SB documents to comply with 10 CFR 830 Subpart B (reference I/CATS Action 4371). No further action is required.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA1a-18. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

N/A

EXPECTED COMPLETION DATE:

N/A

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

N/A

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA1a-18.

I/CATS A4371

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1a

Impose compensatory measures on the SMPs as provided in Table 4, with higher priority placed on FP and inventory control. (Note: Other SMPs are expected to be in place; however, the SMPs identified above are considered essential to ensure safe operations to prevent or mitigate significant radiological or toxicological accidents.)

COMPENSATORY MEASURES LISTED IN TABLE 4 FOR EMERGENCY RESPONSE

SAFETY MANAGEMENT PROGRAM – EMERGENCY RESPONSE

- Establish an effective emergency response program to ensure that personnel are trained and qualified to respond to essential alarm conditions (i.e. fire, criticality, and radioactive release).

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SA1a-19.	Conduct Assessments of FP&EM SMP implementation to supplement SB flowdown. Document Results. Define Corrective Actions and enter into I/CATS.
BJC/SA1a-20.	Conduct emergency management SME assessments as determined to be needed based on results from EM SMP Assessments.
BJC/SA1a-21.	Revise the BJC Emergency Management Program Description to include (1) the requirement for BJC Projects to see that occupants of facilities receive training on emergency alarm recognition, evacuation routes, and location of assembly stations, (2) the requirement that an annual building evacuation be conducted, and (3) integration of EMHAs with DSAs into emergency response training and drills.
BJC/SA1a-22.	Develop an integrated DOE-ORO EM/BJC process and DSA guides for management of DSA documents for Category 2 and 3 facilities, consistent with 10 CFR 830 Subpart B requirements and other applicable requirements and standards. (These DSA guides will include an integrated hazards analysis process, and separate guides for Fire Hazards Assessments and EM Hazard Assessments.)
BJC/SA1a-23.	Obtain necessary resources to support EM SME evaluate and disposition results from EM SMP Assessments.
BJC/SA1a-24.	Develop a GM level Charter for Security, Fire and EM Functional Organization describing Roles and Responsibilities (Duplicate #10).
BJC/SA1a-25.	Reassess the SF&EM Organization and identify FY 2003 budget authority to staff organization for deploying emergency management functional personnel to projects (Duplicate BJC/SA1a-11).

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA1a-19.	Bruce Wilson
BJC/SA1a-20.	Tony Hart
BJC/SA1a-21.	Tony Hart
BJC/SA1a-22.	Bruce Wilson
BJC/SA1a-23.	Tony Hart
BJC/SA1a-24.	Brenda Tilley
BJC/SA1a-25.	Brenda Tilley

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1a-19.	March 14, 2002
BJC/SA1a-20.	May 6, 2002
BJC/SA1a-21.	March 14, 2002
BJC/SA1a-22.	February 1, 2002
BJC/SA1a-23.	March 14, 2002
BJC/SA1a-24.	March 14, 2002
BJC/SA1a-25.	April 5, 2002

EXPECTED COMPLETION DATE:

BJC/SA1a-19.	April 30, 2002
BJC/SA1a-20.	August 30, 2002
BJC/SA1a-21.	June 30, 2002
BJC/SA1a-22.	May 31, 2002
BJC/SA1a-23.	April 30, 2002
BJC/SA1a-24.	June 30, 2002
BJC/SA1a-25.	June 30, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA1a-19.	Copy of FP&EM SMP Assessments Summary Report
BJC/SA1a-20.	Completed EM checklists for those facilities determined to need SME assessments from SMP Assessment Summary Report
BJC/SA1a-21.	An approved EM Program Description published on the BJC Performance Document web site
BJC/SA1a-22.	SB flow charts and copies of DSA Guides
BJC/SA1a-23.	A fully executed Work Release for subcontracted EM support
BJC/SA1a-24.	An approved Charter for Security, Fire, and EM published on the BJC Performance Document web site
BJC/SA1a-25.	A proposal for reorganizing SF&EM and a budget request to implement deployment of adequate support to BJC Projects in FY 2003

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA1a-22.	I/CATS A4365
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Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1a

Impose compensatory measures on the SMPs as provided in Table 4, with higher priority placed on FP and inventory control. (Note: Other SMPs are expected to be in place; however, the SMPs identified above are considered essential to ensure safe operations to prevent or mitigate significant radiological or toxicological accidents)

COMPENSATORY MEASURES LISTED IN TABLE 4 FOR HAZARDOUS MATERIAL PROTECTION

SAFETY MANAGEMENT PROGRAM – HAZARDOUS MATERIAL PROTECTION

- Develop procedures, training, and an institutional program to deal with activities or operations that meet the following:
 - Hazardous materials in quantities greater than 40 CFR 302 Threshold Quantities (TQs)
 - Reactive or explosive materials with hazard level ≥ 2 as defined by NFPA 45.B-2.3 or 49 CFR 173.2, Division 1.1, 1.2, 1.3, or explosives $>45g$ of Division 1.4 explosives in one area

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SA1a-26. Develop a SMP description for Hazardous Material Protection (see also SA1b).

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA1a-26. Roger Thompson

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1a-26. February 11, 2002

EXPECTED COMPLETION DATE:

BJC/SA1a-26. April 16, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA1a-26. Copy of Hazardous Materials Protection SMP description

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA1a-26. See SA1b

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1b

Besides the SMPs identified in Table 4, the implementation of an effective operational safety program that includes:

- A. Industrial safety and hygiene and
- B. Conduct of operations needs to be maintained
- C. Review the adequacy and effectiveness of procedures and training on handling and storage of hazardous materials, such as pressure vessels, activities with large quantities of hazardous materials and asphyxiants, and those high-hazard activities that could cause worker fatalities (e.g., UF₆ cylinder handling –see the facility write-up in Appendix E)

INDUSTRIAL SAFETY AND HYGIENE

DESCRIPTION OF CORRECTIVE ACTION:

- A.
BJC/SA1bA-27. Include in ES&H management assessment process provision for conduct of periodic scheduled management assessments of the industrial safety and Industrial Hygiene (IH) programs.
- BJC/SA1bA-28. N/A
- BJC/SA1bA-29. N/A

- B. See BJC/SA1bB-32 through 53 for Conduct of Operations corrective actions.

- C.
BJC/SA1bC-30. Conduct assessment of chemical vulnerabilities in conjunctions with the BJC Chemical SMP initiative. This initiative includes following: BJC facilities that have or maintain hazardous materials in quantities greater than the threshold quantities identified in 40 CFR 302 and of facilities with hazard level ≥ 2 as defined by NFPA 45.B-2.3 or 49 CFR 173.2, Division 1.1, 1.2, 1.3 or explosives > 45 g of Division 1.4 explosives in one area
- BJC/SA1bC-31. Submit for DOE approval a prioritized chemical vulnerability list.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- BJC/SA1bA-27. Garry Suenkel – Industrial Safety; Roger Thompson – IH
- BJC/SA1bC-30, 31. Charles Satterwhite

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1bA-27.	October 1, 2001
BJC/SA1bC-30.	April 17, 2002
BJC/SA1bC-31.	April 17, 2002

EXPECTED COMPLETION DATE:

BJC/SA1bA-27.	March 12, 2002 (complete)
BJC/SA1bC-30.	January 31, 2002 (complete)
BJC/SA1bC-31.	April 2, 2002 (complete)

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA1bA-27.	Copy of assessment schedule
BJC/SA1bC-30.	Copy of assessment report
BJC/SA1bC-31.	Prioritized list of Chemical Vulnerabilities submitted to DOE

DOE SUPPORT ACTION REQUIRED? (specify)

Review and approval of chemical vulnerability list

LINK TO OTHER CORRECTIVE ACTION? (specify)

N/A

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1b

Besides the SMPs identified in Table 4, the implementation of an effective operational safety program that includes:

- A. Industrial safety and hygiene and
- B. Conduct of operations needs to be maintained
- C. Review the adequacy and effectiveness of procedures and training on handling and storage of hazardous materials, such as pressure vessels, activities with large quantities of hazardous materials and asphyxiants, and those high-hazard activities that could cause worker fatalities (e.g., UF₆ cylinder handling –see the facility write-up in Appendix E)

SA1b ITEM B CONDUCT OF OPERATIONS NEEDS TO BE MAINTAINED

DESCRIPTION OF CORRECTIVE ACTION:

- BJC/SA1bB-32. Complete a Conduct of Operations SME Qualifications package. The package provides documentation that the SME possesses unique experience and expert knowledge in selected technical, functional, and/or process areas.
- BJC/SA1bB-33. Communicate upcoming “Conduct of Operations” initiative to MOPs and FMs.
- BJC/SA1bB-34. Perform a crosswalk matrix between DOE Order 5480.19 and applicable BJC procedures, policies and pro-forma documents.
- BJC/SA1bB-35. Develop a Conduct of Operations Program Description Document. The Conduct of Operations Description document will address BJC Standards and expectations, Line management involvement in field activities and the BJC approach for achieving appropriate Rigor in all aspects of worked performed at BJC locations.
- BJC/SA1bB-36. Collect, review and provide feedback on Completed Applicability Matrices submitted by subcontractors to date. Communicate weaknesses and needed changes to affected MOPS and Deputies.
- BJC/SA1bB-37. Develop Conduct of Operations Awareness and orientation materials. Conduct of Operations Awareness session material will include the BJC and DOE expectations for Conduct of Operations and a review of the 18 Conduct of Operations elements. The review will help work groups interpret the intent of each specific Conduct of Operations element and provide assistance on the application of these elements. Key BJC and Subcontractor employees will attend awareness sessions.
- BJC/SA1bB-38. Develop a schedule for delivering Conduct of Operations Awareness sessions to Key BJC and subcontractor personnel at all BJC locations. Schedule will specify names (or positions) of attendees and the date, time and location of each session.
- BJC/SA1bB-39. Deliver “Conduct of Operations” Awareness Sessions to key BJC and subcontractor employees identified on schedule developed in BJC/SA1bB-35.
- BJC/SA1bB-40. Review and revise as necessary BJC procedure BJC-PQ-1710 “Discipline and Rigor In Operating Facilities” to ensure compliance with DOE Order 5480.19 “Conduct of Operations Requirements for DOE Facilities”.
- BJC/SA1bB-41. Review and Revise BJC subcontract Pro-Forma documents as necessary to flowdown applicable Conduct of Operations Requirements to subcontractors.

- BJC/SA1bB-42. Lead and Assist BJC projects and subcontractors during the Conduct of Operations Applicability Matrix Review and development of Conduct of Operations Improvement Plans. This specialized assistance will assure that a graded approach is used in the application of Conduct of Operations Principles to assure that the depth of detail required and extent of dollars expended are commensurate with the project's programmatic importance and potential ES&H impact.
- BJC/SA1bB-43. Review and approve each completed Conduct of Operations Applicability Matrix for subcontractors and self-performed projects within the MOP area of responsibility.
- BJC/SA1bB-44. Review and approve each completed Conduct of Operations Applicability Matrix for subcontractors and self-performed projects within the MOP area of responsibility.
- BJC/SA1bB-45. Review and approve each completed Conduct of Operations Applicability Matrix for subcontractors and self-performed projects within the MOP area of responsibility.
- BJC/SA1bB-46. Review and approve each completed Conduct of Operations Applicability Matrix for subcontractors and self-performed projects within the MOP area of responsibility.
- BJC/SA1bB-47. Review and approve each completed Conduct of Operations Applicability Matrix for subcontractors and self-performed projects within the MOP area of responsibility.
- BJC/SA1bB-48. Review and approve each completed Conduct of Operations Applicability Matrix for subcontractors and self-performed projects within the MOP area of responsibility.
- BJC/SA1bB-49. Review and approve each completed Conduct of Operations Applicability Matrix for subcontractors and self-performed projects within the MOP area of responsibility.
- BJC/SA1bB-50. Assess Conduct of Operations effectiveness. A Performance-based evaluation of ongoing activities will be conducted to determine if appropriate levels of rigor are being successfully applied to BJC Work activities.
- BJC/SA1bB-51. Determine a method for tracking Applicability Matrix actions to closure.
- BJC/SA1bB-52. Develop a process and Track "Conduct of Operations" performance measures.
- BJC/SA1bB-53. Conduct an integrated Conduct of Operations/ISM assessment.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- BJC/SA1bB-32. Dennis Stevenson
- BJC/SA1bB-33. George Gregory
- BJC/SA1bB-34. George Gregory
- BJC/SA1bB-35. George Gregory
- BJC/SA1bB-36. George Gregory
- BJC/SA1bB-37. George Gregory
- BJC/SA1bB-38. George Gregory
- BJC/SA1bB-39. George Gregory
- BJC/SA1bB-40. George Gregory
- BJC/SA1bB-41. Bob Lynch
- BJC/SA1bB-42. George Gregory
- BJC/SA1bB-43. M'balia Tagoe
- BJC/SA1bB-44. Greg Eidam
- BJC/SA1bB-45. Ed Trujillo

BJC/SA1bB-46.	Charlie Frye
BJC/SA1bB-47.	R.D. George
BJC/SA1bB-48.	Gilbert Drexel
BJC/SA1bB-49.	Gordon Dover
BJC/SA1bB-50.	George Gregory
BJC/SA1bB-51.	Cindy Daugherty
BJC/SA1bB-52.	George Gregory
BJC/SA1bB-53.	George Gregory

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1bB-32.	March 10, 2002
BJC/SA1bB-33.	April 1, 2002
BJC/SA1bB-34.	March 25, 2002
BJC/SA1bB-35.	April 1, 2002
BJC/SA1bB-36.	April 1, 2002
BJC/SA1bB-37.	March 25, 2002
BJC/SA1bB-38.	March 25, 2002
BJC/SA1bB-39.	May 1, 2002
BJC/SA1bB-40.	May 15, 2002
BJC/SA1bB-41.	May 15, 2002
BJC/SA1bB-42.	May 20, 2002
BJC/SA1bB-43.	May 20, 2002
BJC/SA1bB-44.	May 20, 2002
BJC/SA1bB-45.	May 20, 2002
BJC/SA1bB-46.	May 20, 2002
BJC/SA1bB-47.	May 20, 2002
BJC/SA1bB-48.	May 20, 2002
BJC/SA1bB-49.	May 20, 2002
BJC/SA1bB-50.	July 15, 2002
BJC/SA1bB-51.	May 20, 2002
BJC/SA1bB-52.	July 15, 2002
BJC/SA1bB-53.	October 1, 2002

EXPECTED COMPLETION DATE:

BJC/SA1bB-32.	March 21, 2002 (complete)
BJC/SA1bB-33.	April 1, 2002
BJC/SA1bB-34.	April 30, 2002
BJC/SA1bB-35.	April 30, 2002
BJC/SA1bB-36.	April 30, 2002
BJC/SA1bB-37.	April 30, 2002
BJC/SA1bB-38.	April 30, 2002
BJC/SA1bB-39.	May 15, 2002
BJC/SA1bB-40.	June 15, 2002
BJC/SA1bB-41.	June 15, 2002
BJC/SA1bB-42.	July 20, 2002
BJC/SA1bB-43.	July 31, 2002
BJC/SA1bB-44.	July 31, 2002
BJC/SA1bB-45.	July 31, 2002
BJC/SA1bB-46.	July 31, 2002

BJC/SA1bB-47.	July 31, 2002
BJC/SA1bB-48.	July 31, 2002
BJC/SA1bB-49.	July 31, 2002
BJC/SA1bB-50.	August 15, 2002
BJC/SA1bB-51.	June 1, 2002
BJC/SA1bB-52.	July 20, 2002
BJC/SA1bB-53.	November 8, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA1bB-32.	Approved SME Qualification Package for the Conduct of Operations SME
BJC/SA1bB-33.	Record of Attendance
BJC/SA1bB-34.	Completed and approved crosswalk
BJC/SA1bB-35.	Approved BJC Conduct of Operations Program Description document
BJC/SA1bB-36.	Spreadsheet that documents the number of matrices submitted and reviewed with the date weaknesses are communicated to responsible BJC manager
BJC/SA1bB-37.	BJC Conduct of Operations Awareness and Orientation material Package
BJC/SA1bB-38.	Detail schedule including participant names, time, date and location of each session
BJC/SA1bB-39.	Awareness Session attendance sheets
BJC/SA1bB-40.	Revised and updated BJC Procedure BJC-PQ-1710 "Discipline and Rigor in Operating Facilities"
BJC/SA1bB-41.	Revised and approved subcontract pro-forma Exhibits if changes are deemed necessary
BJC/SA1bB-42.	Approved Conduct of Operations Applicability Matrices and Conduct of Operations Improvement Plans from selected BJC projects and subcontractors
BJC/SA1bB-43.	Approved Conduct of Operations Applicability Matrices and Conduct of Operations Improvement Plans from selected BJC projects and subcontractors
BJC/SA1bB-44.	Approved Conduct of Operations Applicability Matrices and Conduct of Operations Improvement Plans from selected BJC projects and subcontractors
BJC/SA1bB-45.	Approved Conduct of Operations Applicability Matrices and Conduct of Operations Improvement Plans from selected BJC projects and subcontractors
BJC/SA1bB-46.	Approved Conduct of Operations Applicability Matrices and Conduct of Operations Improvement Plans from selected BJC projects and subcontractors
BJC/SA1bB-47.	Approved Conduct of Operations Applicability Matrices and Conduct of Operations Improvement Plans from selected BJC projects and subcontractors
BJC/SA1bB-48.	Approved Conduct of Operations Applicability Matrices and Conduct of Operations Improvement Plans from selected BJC projects and subcontractors
BJC/SA1bB-49.	Approved Conduct of Operations Applicability Matrices and Conduct of Operations Improvement Plans from selected BJC projects and subcontractors
BJC/SA1bB-50.	Conduct of Operations Assessment Report
BJC/SA1bB-51.	P/QA Approved closure process
BJC/SA1bB-52.	Set of Conduct of Operations Performance measures and tracking process approved by P/QA and Appropriate BJC Management
BJC/SA1bB-53.	Approved evaluation report

DOE SUPPORT ACTION REQUIRED? (specify)

- BJC/SA1bB-35. Requires DOE Review/Approval
- BJC/SA1bB-42. DOE Review and Approval may be required. DOE may opt to approve the BJC Conduct of Operations implementation process in lieu of reviewing and approving individual subcontractor Applicability Matrices and Improvement Plans. In this case, the DOE approval submitted for BJC/SA1bB-34 will suffice.
- BJC/SA1bB-43. DOE Review and Approval may be required. DOE may opt to approve the BJC Conduct of Operations implementation process in lieu of reviewing and approving individual subcontractor Applicability Matrices and Improvement Plans. In this case, the DOE approval submitted for BJC/SA1bB-34 will suffice.
- BJC/SA1bB-44. DOE Review and Approval may be required. DOE may opt to approve the BJC Conduct of Operations implementation process in lieu of reviewing and approving individual subcontractor Applicability Matrices and Improvement plans. In this case, the DOE approval submitted for BJC/SA1bB-34 will suffice.
- BJC/SA1bB-45. DOE Review and Approval may be required. DOE may opt to approve the BJC Conduct of Operations implementation process in lieu of reviewing and approving individual subcontractor Applicability Matrices and Improvement plans. In this case, the DOE approval submitted for BJC/SA1bB-34 will suffice.
- BJC/SA1bB-46. DOE Review and Approval may be required. DOE may opt to approve the BJC Conduct of Operations implementation process in lieu of reviewing and approving individual subcontractor Applicability Matrices and Improvement plans. In this case, the DOE approval submitted for BJC/SA1bB-34 will suffice.
- BJC/SA1bB-47. DOE Review and Approval may be required. DOE may opt to approve the BJC Conduct of Operations implementation process in lieu of reviewing and approving individual subcontractor Applicability Matrices and Improvement plans. In this case, the DOE approval submitted for BJC/SA1bB-34 will suffice.
- BJC/SA1bB-48. DOE Review and Approval may be required. DOE may opt to approve the BJC Conduct of Operations implementation process in lieu of reviewing and approving individual subcontractor Applicability Matrices and Improvement plans. In this case, the DOE approval submitted for BJC/SA1bB-34 will suffice.
- BJC/SA1bB-49. DOE Review and Approval may be required. DOE may opt to approve the BJC Conduct of Operations implementation process in lieu of reviewing and approving individual subcontractor Applicability Matrices and Improvement plans. In this case, the DOE approval submitted for BJC/SA1bB-34 will suffice.

LINK TO OTHER CORRECTIVE ACTION?

N/A

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1c

The SB flowdown assessment should incorporate/expand the criteria on the adequacy of controls and implementation of SMPs.)

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SA1c-54. Conduct SB technical adequacy assessment to supplement SB flowdown assessment, document results, define corrective actions, and enter actions in I/CATS.
BJC/SA1c-55. Conduct assessments of FP&EM SMP implementation to supplement SB flowdown, document results, define corrective actions, and enter into I/CATS.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA1c-54. Bruce Wilson
BJC/SA1c-55. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1c-54. February 4, 2002
BJC/SA1c-55. March 7, 2002

EXPECTED COMPLETION DATE:

BJC/SA1c-54. March 1, 2002 (complete)
BJC/SA1c-55. April 30, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA1c-54. Copy of technical adequacy assessment report
BJC/SA1c-55. Copy of summary report of FP&EM SMP assessments

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SA1c-54. The technical adequacy assessment was conducted jointly by BJC and DOE-ORO. Team members are listed in the assessment report. No additional support required.

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA1c-54. Similar to I/CATS A4742

Issue BJC/SA1: Systemic weaknesses in SMPs exist at the BJC corporate level for the five sites (e.g., there is no corporate FP program and therefore, some compensatory measures are warranted).

RECOMMENDATION BJC/SA1d

BJC's SB confirmation effort should be expedited for all Hazard Category 2 facilities and restricted operations. This needs to include a process to rapidly resolve findings and manage observations or recommendations.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SA1d-56. Conduct reviews of AB documents for all Category 2 and 3 nuclear facilities to assess flowdown of requirements into subcontracts and implementing documents, technical adequacy of AB documents, knowledge and understanding of BJC and subcontractor staff, and implement compensatory measures if needed.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA1d-56. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/SA1d-56. November 1, 2001

EXPECTED COMPLETION DATE:

BJC/SA1d-56. March 21, 2002 (complete)

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA1d-56. Copy of summary SB assessments report, as transmitted to DOE-ORO 2/18/02 and copy of I/CATS Source report(s) demonstrating coverage of the assessment findings and corrective actions by I/CATS

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA1d-56. Similar to I/CATS A4366

Issue BJC/SA2: The failure to (a) evaluate potential drum explosions that could cause fatalities serious injuries, or significant chemical exposures and (b) identify their preventive and mitigative controls, some of which may warrant a TSR, is one of the unresolved SER issues regarding the Paducah and Portsmouth Facility Safety Analysis Reports (FSARs), and it is also applicable to many other BJC facilities.

RECOMMENDATION BJC/SA2a

As an immediate action, the potential gas generation hazard from sealed containers (e.g., from U fission products, and waste drums) should be evaluated as soon as reasonably possible, and engineering controls (e.g., use of vent clips or HEPA-filtered lids) should be installed where the potential is likely to occur.

DESCRIPTION OF CORRECTIVE ACTION:

- | | |
|--------------|---|
| BJC/SA2a-57. | Suspend Waste Disposition Project drum handling opening activities as a result of two over pressurized waste containers. |
| BJC/SA2a-58. | Modify subcontractor-operating procedures to require: lid-retaining webs to be used for opening any non-vented open top drums. Drums in storage containing TRU waste were evaluated and determined to have HEPA filters installed to prevent over pressurization. |
| BJC/SA2a-59. | Evaluate waste characterization data (Form 2109s) for waste matrices that exhibit gas generation potential. For drums that are found to exhibit gas generation potential, prepare specific AHAs prior to opening. |
| BJC/SA2a-60. | Implement a safety stand down for all projects to review hazard controls for opening of waste containers. |
| BJC/SA2a-61. | Add evaluation of waste matrices to hazard screenings in SB documents. |
| BJC/SA2a-62. | Ensure open-top drum handling and opening requirements are consistent for all subcontractors performing these activities for BJC organizations that may perform these activities. (I/CATS 5030) |
| BJC/SA2a-63. | Ensure a process is in place to ensure corrective measures are instituted to address bulging/over-pressurized drums identified by any BJC organization or their subcontractor(s). (I/CATS 5031) |

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- | | |
|--------------|--------------|
| BJC/SA2a-57. | Mike West |
| BJC/SA2a-58. | Mike West |
| BJC/SA2a-59. | Mike West |
| BJC/SA2a-60. | Steve Houser |
| BJC/SA2a-61. | Bruce Wilson |
| BJC/SA2a-62. | Ed Najmola |
| BJC/SA2a-63. | Ed Najmola |

CORRECTIVE ACTION INITIATION DATE:

BJC/SA2a-57.	January 3, 2002
BJC/SA2a-58.	February 4, 2002
BJC/SA2a-59.	February 4, 2002
BJC/SA2a-60.	February 1, 2002
BJC/SA2a-61.	February 11, 2002
BJC/SA2a-62.	February 1, 2002
BJC/SA2a-63.	February 1, 2002

EXPECTED COMPLETION DATE:

BJC/SA2a-57.	January 28, 2002 (complete)
BJC/SA2a-58.	February 18, 2002 (complete)
BJC/SA2a-59.	February 18, 2002 (complete)
BJC/SA2a-60.	February 8, 2002 (complete)
BJC/SA2a-61.	May 31, 2002
BJC/SA2a-62.	May 31, 2002
BJC/SA2a-63.	June 14, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA2a-57.	Copy of suspension directive issued by Waste Disposition Procurement Representative to the Subcontractor
BJC/SA2a-58.	Copy of modified subcontractor procedures
BJC/SA2a-59.	Copy of subcontractor procedure
BJC/SA2a-60.	Copy of safety stand down instructions
BJC/SA2a-61.	Copy of hazard analysis DSA guide
BJC/SA2a-62.	Copy of excerpt from Proforma regarding drum handling requirements
BJC/SA2a-63.	Documentation of process to handle bulging/over-pressurized drums

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA2a-62.	I/CATS A5030
BJC/SA2a-63.	I/CATS A5031

Issue BJC/SA3: Numerous weaknesses were identified in BJC's SB documents, as well as supporting management systems, programs, and procedures. (Note: This is related to various findings throughout Section 5)

RECOMMENDATION BJC/SA3a

It is recommended that a new Price-Anderson Amendments Act NTS report or a revision to the existing one on the UOSV be issued to acknowledge the broader nature of the SB deficiencies, including the USQD problems noted as a result of not having up-to-date SBs. The team recognizes that the root cause analysis performed for the existing NTS report did identify a broad spectrum of causal factors that would apply to many other nuclear facilities. The NTS corrective actions, among other recommendations, must address how BJC is going to perform USQDs in the interim.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SA3a-64.	Perform root cause analysis and determine corrective action(s).
BJC/SA3a-65.	Conduct reviews of AB documents for all Category 2 and 3 nuclear facilities to assess flowdown of requirements into subcontracts and implementing documents, technical adequacy of AB documents, knowledge and understanding of BJC and subcontractor staff, and implement compensatory measures if needed.
BJC/SA3a-66.	Conduct assessments of FP&EM. SMP implementation to supplement SB flowdown document results, define corrective actions, and enter into I/CATS.
BJC/SA3a-67.	Submit updated BJC 10 CFR 830 Implementation Plan to DOE.
BJC/SA3a-68.	Submit update to NTS report to reflect information from SB flowdown assessments and DOE-HQ AB review with expanded corrective actions.
BJC/SA3a-69.	N/A

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SA3a-64.	Betty Dagley
BJC/SA3a-65.	Bruce Wilson
BJC/SA3a-66.	Bruce Wilson
BJC/SA3a-67.	Bruce Wilson
BJC/SA3a-68.	Betty Dagley

CORRECTIVE ACTION INITIATION DATE:

BJC/SA3a-64.	November 1, 2001
BJC/SA3a-65.	November 2, 2001
BJC/SA3a-66.	March 7, 2002
BJC/SA3a-67.	January 7, 2002
BJC/SA3a-68.	February 1, 2002

EXPECTED COMPLETION DATE:

BJC/SA3a-64.	November 2, 2001 (complete)
BJC/SA3a-65.	March 21, 2002 (complete) for SB flowdown
BJC/SA3a-66.	April 30, 2002
BJC/SA3a-67.	April 12, 2002
BJC/SA3a-68.	April 12, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SA3a-64.	Copy of NTS root cause analysis
BJC/SA3a-65.	Copies of SB flowdown and technical adequacy assessment reports
BJC/SA3a-66.	Copy of summary report on SMP FP&EM assessments
BJC/SA3a-67.	Copy of 10 CFR 830 DSAs implementation plan
BJC/SA3a-68.	Copy of updated NTS root cause analysis report

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SA3a-64.	I/CATS A4170
BJC/SA3a-65.	I/CATS A4366

Issue BJC/MG3: Processes, systems, and procedures used by ORO and BJC to prepare, review approve, and monitor nuclear facility SBs, as well as to track SB assessment findings and corrective actions, have been conducted very informally, if at all.

RECOMMENDATION BJC/MG3d

BJC should establish corporate expectations on “core” SMPs (e.g., FP, maintenance, training, etc.).

DESCRIPTION OF CORRECTIVE ACTION:

BJC/MG3d-70. Develop and issue BJC Nuclear Safety Assurance Policy to clarify expectations and to further define roles and responsibilities.
BJC/MG3d-71. Develop standard SMP descriptions.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/MG3d-70. Bruce Wilson
BJC/MG3d-71. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/MG3d-70. January 14, 2002
BJC/MG3d-71. February 21, 2002

EXPECTED COMPLETION DATE:

BJC/MG3d-70. April 1, 2002
BJC/MG3d-71. May 1, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/MG3d-70. Copy of approved Nuclear Safety Assurance Policy
BJC/MG3d-71. Copies of standard SMP descriptions

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/MG3d-71. Concur on final standard SMP descriptions

LINK TO OTHER CORRECTIVE ACTION? (specify)

N/A

Issue BJC/MG4: ORO and BJC managers have not been held accountable for their lack of performance in exercising their nuclear safety roles, responsibilities, and authorities.

RECOMMENDATION BJC/MG4a

Ensure that mechanisms are in place for holding BJC and ORO managers accountable for meeting their nuclear safety roles and responsibilities. This includes establishment of individual performance goals and evaluations and continued emphasis on nuclear safety within contract mechanisms such as fee evaluations.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/MG4a-72. Develop and issue BJC Nuclear Safety Assurance Policy to clarify expectations and to further define roles and responsibilities.
BJC/MG4a-73. Update BJC performance review process for line managers to include evaluation criteria for nuclear safety.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/MG4a-72. Bruce Wilson
BJC/MG4a-73. Tom Roosa

CORRECTIVE ACTION INITIATION DATE:

BJC/MG4a-72. January 14, 2002
BJC/MG4a-73. January 7, 2002

EXPECTED COMPLETION DATE:

BJC/MG4a-72. April 1, 2002
BJC/MG4a-73. July 31, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/MG4a-72. Copy of approved Nuclear Safety Assurance Policy
BJC/MG4a-73. Copy of revised performance review documents, including performance criteria for nuclear safety

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

N/A

Issue BJC/MG4: ORO and BJC managers have not been held accountable for their lack of performance in exercising their nuclear safety roles, responsibilities, and authorities.

RECOMMENDATION BJC/MG4b

Accountability mechanisms should flowdown to subcontractors, including a requirement that subcontractors meet BJC's corporate expectations.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/MG4b-74. Revise and issue proforma contract Exhibit E to make BJC procedures for Nuclear Safety and NCS mandatory for subcontractors.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/MG4b-74. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/MG4b-74. January 7, 2002

EXPECTED COMPLETION DATE:

BJC/MG4b-74. July 1, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/MG4b-74. Copy of revised Exhibit E

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/MG4b-74. Similar to I/CATS A4739, A4740, A4745, A4746, A4749, A4750

Issue BJC/MG5: Several factors have led the team to conclude that there has been an overall lack of management priority given to nuclear safety within both the ORO and BJC organizations.

RECOMMENDATION BJC/MG5c

BJC should ensure that all SB documents for the five sites (ETTP, ORNL, Y-12, Paducah, and Portsmouth) are collected and placed under centralized document control.

DESCRIPTION OF CORRECTIVE ACTION:

- | | |
|--------------|--|
| BJC/MG5c-75. | Develop and issue BJC Nuclear Safety Assurance Policy to clarify expectations and to further define roles and responsibilities. |
| BJC/MG5c-76. | Assign the Nuclear Facility Safety Functional Manager to report to the Deputy General Manager. |
| BJC/MG5c-77. | Establish a joint BJC-DOE-ORO SB Working Group. |
| BJC/MG5c-78. | Submit updated BJC 10 CFR 830 Implementation Plan to DOE. |
| BJC/MG5c-79. | Issue and obtain DOE approval of a single SB List identifying all SB documents for Category 2 & 3 Nuclear Facilities for the five sites. |
| BJC/MG5c-80. | Define and implement additional improvements to the document control and records management system for AB documents. |
| BJC/MG5c-81. | Verify that Nuclear Facility SB documents and the SB list are in the BJC records management center. |

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- | | |
|--------------|--------------|
| BJC/MG5c-75. | Bruce Wilson |
| BJC/MG5c-76. | John Lyons |
| BJC/MG5c-77. | John Lyons |
| BJC/MG5c-78. | Jeff West |
| BJC/MG5c-79. | Mike Taylor |
| BJC/MG5c-80. | John Jabaley |
| BJC/MG5c-81. | John Jabaley |

CORRECTIVE ACTION INITIATION DATE:

- | | |
|--------------|-------------------|
| BJC/MG5c-75. | January 14, 2002 |
| BJC/MG5c-76. | October 1, 2001 |
| BJC/MG5c-77. | February 1, 2002 |
| BJC/MG5c-78. | January 7, 2002 |
| BJC/MG5c-79. | November 1, 2002 |
| BJC/MG5c-80. | December 10, 2002 |
| BJC/MG5c-81. | November 2, 2001 |

EXPECTED COMPLETION DATE:

BJC/MG5c-75.	April 1, 2002
BJC/MG5c-76.	December 1, 2001 (complete)
BJC/MG5c-77.	February 15, 2002 (complete)
BJC/MG5c-78.	April 10, 2002 (complete)
BJC/MG5c-79.	December 12, 2001 (complete)
BJC/MG5c-80.	March 21, 2002 (complete)
BJC/MG5c-81.	April 30, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/MG5c-75.	Copy of Nuclear Safety Assurance Policy
BJC/MG5c-76.	Organization memo
BJC/MG5c-77.	Email establishing SB Working Group
BJC/MG5c-78.	Copy of update 10 CFR 830 Implementation Plan as transmitted to DOE-ORO
BJC/MG5c-79.	Copy of DOE-approved list of SB documents for Category 2 & 3 nuclear facilities
BJC/MG5c-80.	Copy of new procedure on management of SB documents
BJC/MG5c-81.	Copy of management assessment report on SB records management

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/MG5c-80.	Duplicate of I/CATS A4372 and similar to I/CATS A4370
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Issue BJC/MG6: The WSS included in the BJC contract did not fully invoke applicable nuclear safety requirements and standards.

RECOMMENDATION BJC/MG6a

The current ORO effort to re-evaluate the WSS against DOE nuclear safety requirements should be completed, and the WSS set should be modified to ensure that DOE requirements related to Hazard Category 2 and 3 facilities are adopted, as applicable.

DESCRIPTION OF CORRECTIVE ACTION:

- BJC/MG6a-82. Review 109 Orders of Interest to DNFSB against BJC Contract and submit to DOE.
- BJC/MG6a-83. Submit a Type 1 WSS revisions for applicable WSS sets based on the recommendations forwarded via 2 BJC Letters dated 2/28/02 and DOEs letter dated 3/8/02.
- BJC/MG6a-84. Submit a Type 2 WSS revisions for applicable WSS sets based on the recommendations forwarded via 2 BJC Letters dated 2/28/02 and DOEs letter dated 3/8/02.
- BJC/MG6a-85. Perform Management Assessment of the WSS Process and prepare CAP by 6/30/02.
- BJC/MG6a-86. Submit Implementation Plans to DOE.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- BJC/MG6a-82-86 Keith Bradley

CORRECTIVE ACTION INITIATION DATE:

- BJC/MG6a-82-86 October 15, 2001

EXPECTED COMPLETION DATE:

- BJC/MG6a-82. February 28, 2002 (complete)
- BJC/MG6a-83. March 31, 2002 (complete)
- BJC/MG6a-84. April 30, 2002
- BJC/MG6a-85. June 30, 2002
- BJC/MG6a-86. August 30, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

- BJC/MG6a-82. Copy of Orders Analysis (BJC Contract Letters)
- BJC/MG6a-83. Copy of letter of Type 1 submittal(s)
- BJC/MG6a-84. Copy of letter of Type 2 submittal(s)
- BJC/MG6a-85. Copy of Management Assessment Report and CAP
- BJC/MG6a-86. Copy of Implementation Plans submitted

DOE SUPPORT ACTION REQUIRED? (specify)

- BJC/MG6a-82. Approval of Type 2 WSS changes
- BJC/MG6a-83. Approval of Implementation Plans via COR signature

LINK TO OTHER CORRECTIVE ACTION? (specify)

N/A

Issue BJC/MG8: ORO and BJC have not established minimum nuclear safety competencies for program, project, and FMs.

RECOMMENDATION BJC/MG8a

See recommendation MG3a related to ORO. BJC should conduct a staffing analysis and ensure that sufficient numbers of qualified safety personnel are made available for preparation, review, and approval of SB documents. In addition, BJC should ensure that near-term compensatory measures are in place to address staffing deficiencies.

This is the action plan for MG8a, b, c, & d.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/MG8a-87. Complete Baseline Training and Qualification improvements. Refer to I/CATS Issue 55598 for a description of this plan and to SA1a Procedures and Training corrective actions.

BJC/MG8a-88. Conduct analysis of BJC nuclear safety staffing needs and initiate staffing actions.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/MG8a-87. Greg Vaughn
BJC/MG8a-88. John Lyons

CORRECTIVE ACTION INITIATION DATE:

BJC/MG8a-87. January 7, 2002
BJC/MG8a-88. January 7, 2002

EXPECTED COMPLETION DATE:

BJC/MG8a-87. October 1, 2002
BJC/MG8a-88. February 1, 2002 (complete)

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/MG8a-87. Objective evidence for closure of the 14 associated actions
BJC/MG8a-88. Copy of memo from the Deputy General Manager summarizing the results of the staffing analysis

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/MG8a-87. I55598 and associated 14 training and qualification improvement plan actions

Issue BJC/MG8: ORO and BJC have not established minimum nuclear safety competencies for program, project, and FMs.

RECOMMENDATION BJC/MG8b

Based on interviews and review of documents prepared since the BJC contract was awarded, it is clear that minimum training qualifications and experience need to be extended to subcontractors.

DESCRIPTION OF CORRECTIVE ACTION:

See MG8a

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

CORRECTIVE ACTION INITIATION DATE:

EXPECTED COMPLETION DATE:

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

DOE SUPPORT ACTION REQUIRED? (specify)

LINK TO OTHER CORRECTIVE ACTION? (specify)

Issue BJC/MG8: ORO and BJC have not established minimum nuclear safety competencies for program, project, and FMs.

RECOMMENDATION BJC/MG8c

BJC should ensure that DOE 5480.20A, *Personnel Selection, Qualifications, and Training Requirements for DOE Nuclear Facilities*, is included in the BJC WSS.

DESCRIPTION OF CORRECTIVE ACTION:

See MG8a

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

CORRECTIVE ACTION INITIATION DATE:

EXPECTED COMPLETION DATE:

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

DOE SUPPORT ACTION REQUIRED? (specify)

LINK TO OTHER CORRECTIVE ACTION? (specify)

Issue BJC/MG8: ORO and BJC have not established minimum nuclear safety competencies for program, project, and FMs.

RECOMMENDATION BJC/MG8d

BJC should ensure that revised procedures on technical qualifications are flowed down to subcontractors.

DESCRIPTION OF CORRECTIVE ACTION:

See MG8a

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

CORRECTIVE ACTION INITIATION DATE:

EXPECTED COMPLETION DATE:

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

DOE SUPPORT ACTION REQUIRED? (specify)

LINK TO OTHER CORRECTIVE ACTION? (specify)

Issue BJC/MG9: Subcontractors who conduct USQDs are not required to follow the BJC-NS-1001 procedure. In fact, four different procedures are being used by subcontractors at the five sites under BJC's jurisdiction. None of these procedures have been reviewed and approved by DOE.

RECOMMENDATION BJC/MG9a

Expedite resolution of previous ORO review comments on the BJC USQD procedure (BJC-NS-1001) and approve it per 10 CFR 840.203(b). Resolve whether BJC's subcontractor USQD procedures also need DOE approval.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/MG9a-89.	Obtain DOE-ORO approval of BJC USQD procedure and issue procedure.
BJC/MG9a-90.	Develop and issue revision to BJC Exhibit E technical specification to make BJC USQD procedure BJC-NS-1001 mandatory for use by BJC subcontractors.
BJC/MG9a-91.	Modify affected BJC subcontracts to incorporate revised Exhibit E technical specification (120 days after DOE-ORO approval of USQD procedure).

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/MG9a-89.	Bruce Wilson
BJC/MG9a-90.	Bruce Wilson
BJC/MG9a-91.	Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/MG9a-89.	April 1, 2001
BJC/MG9a-90.	April 1, 2001
BJC/MG9a-91.	April 1, 2001

EXPECTED COMPLETION DATE:

BJC/MG9a-89.	May 30, 2002
BJC/MG9a-90.	July 1, 2002
BJC/MG9a-91.	September 30, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/MG9a-89.	Copy of DOE-ORO USQD procedure approval letter and copy of approved procedure
BJC/MG9a-90.	Copy of Exhibit E technical specification
BJC/MG9a-91.	Copy of modified subcontracts or direction to use the USQD procedure

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/MG9a-89.	DOE-ORO approval of the USQD procedure
--------------	--

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/MG9a-89.

I/CATS A4745

BJC/MG9a-90.

I/CATS A4746 and A4750

Issue BJC/MG10: Very little SB-related training has been given to ORO and BJC personnel.

RECOMMENDATION BJC/MG10a

Both ORO and BJC should conduct an analysis of SB training needs based on specific job requirements and ensure that BJC and ORO develop minimum technical qualifications for program/project managers and nuclear safety managers and personnel that are inclusive of nuclear safety-related knowledge, skills, education, and training.

DESCRIPTION OF CORRECTIVE ACTION:

See Actions for MG8a

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

CORRECTIVE ACTION INITIATION DATE:

EXPECTED COMPLETION DATE:

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

DOE SUPPORT ACTION REQUIRED? (specify)

LINK TO OTHER CORRECTIVE ACTION? (specify)

Issue BJC/MG11: Many SB documents are being prepared by subcontractors with little oversight from BJC.

RECOMMENDATION BJC/MG11

BJC should ensure that adequate oversight is given to subcontractors preparing SB documents, including the flowdown and adherence to BJC's corporate SB expectations (as revised).

DESCRIPTION OF CORRECTIVE ACTION:

- BJC/MG11-92. Develop an integrated DOE-ORO EM/BJC process flowchart and DSA guides for management of DSA documents for Category 2 and 3 facilities, consistent with 10 CFR 830 Subpart B requirements and other applicable requirements and standards
- BJC/MG11-93. Revise BJC-NS-1002, "Safety Documentation for Nuclear Category 2 & 3 Facilities" to address programmatic assessment recommendations, process improvements, requirements for maintenance crosswalk, requirements for implementation plans, and to make the procedure mandatory for subcontractors.
- BJC/MG11-94. Revise BJC-NS-1002 to include joint DOE and BJC DSA review points:
- BJC/MG11-95. Revise and issue proforma contract Exhibit E to make BJC procedures for Nuclear Safety and Nuclear Criticality Safety mandatory for subcontractors.
- BJC/MG11-96. Issue directed change to subcontractors responsible for Category 2 and 3 Facilities to comply with the new Nuclear Safety Technical Specification, Exhibit E-1.

See also, actions for MG3 and MG8.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- BJC/MG11-92. Bruce Wilson
- BJC/MG11-93. Bruce Wilson
- BJC/MG11-94. Bruce Wilson
- BJC/MG11-95. Bruce Wilson
- BJC/MG11-96. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

- BJC/MG11-92. February 1, 2002
- BJC/MG11-93. February 1, 2002
- BJC/MG11-94. February 1, 2002
- BJC/MG11-95. February 1, 2002
- BJC/MG11-96. February 1, 2002

EXPECTED COMPLETION DATE:

- BJC/MG11-92. May 31, 2002
- BJC/MG11-93. July 1, 2002
- BJC/MG11-94. July 1, 2002
- BJC/MG11-95. July 1, 2002
- BJC/MG11-96. July 1, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/MG11-92. Copies of integrated process flowchart and DSA guides
BJC/MG11-93. Revised BJC-NS-1002
BJC/MG11-94. Revised BJC-NS-1002
BJC/MG11-95. Revised Exhibit E technical specification
BJC/MG11-96. Copy of notice to subcontractors regarding mandatory Exhibit E-1

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/MG11-92. DOE-ORO participates in the SB Working Group. As such their input is incorporated into the overall SB improvement initiatives.

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/MG11-92. I/CATS A4365
BJC/MG11-93. Similar to I/CATS A4744
BJC/MG11-95. Similar to I/CATS A4745
BJC/MG11-96. Similar to I/CATS A4746

Issue BJC/SB1: Many SB documents do not adequately identify safety controls, either engineered or administrative. Safety significant SSCs are not always identified. Where relied on, they were not derived from the SB documents, nor are they forced to be maintained through the TSR or OSRs.

RECOMMENDATION BJC/SB1a

Activities relying on the new TSR controls for the Paducah Building C-410 and certain DOE Material Storage Areas (DMSAs) should not be restarted until the ORO NSD issues are resolved (see the facility report in Appendix E).

DESCRIPTION OF CORRECTIVE ACTION:

See also actions for MG-3 and MG-11 for overall SB process improvement initiatives.

- | | |
|--------------|---|
| BJC/SB1a-97. | Conduct SB technical adequacy assessment to supplement SB flowdown assessment, document results, define corrective actions, and enter actions in I/CATS. |
| BJC/SB1a-98. | Develop an integrated DOE-ORO EM/BJC process and DSA guides for management of DSA documents for Category 2 and 3 facilities, consistent with 10 CFR 830 Subpart B requirements and other applicable requirements and standards. |
| BJC/SB1a-99. | Develop a Paducah CAP and basis for remediation of nuclear criticality safety restricted areas in C-410. |

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- | | |
|--------------|--------------|
| BJC/SB1a-97. | Bruce Wilson |
| BJC/SB1a-98. | Bruce Wilson |
| BJC/SB1a-99. | Gordon Dover |

CORRECTIVE ACTION INITIATION DATE:

- | | |
|--------------|------------------|
| BJC/SB1a-97. | February 4, 2002 |
| BJC/SB1a-98. | February 1, 2002 |
| BJC/SB1a-99. | February 7, 2002 |

EXPECTED COMPLETION DATE:

- | | |
|--------------|---------------------------|
| BJC/SB1a-97. | March 1, 2002 (complete) |
| BJC/SB1a-98. | May 31, 2002 |
| BJC/SB1a-99. | March 12, 2002 (complete) |

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

- | | |
|--------------|--|
| BJC/SB1a-97. | Copy of SB technical adequacy assessment report |
| BJC/SB1a-98. | Copy of SB integrated process flowchart and copies of the DSA guides |
| BJC/SB1a-99. | Copy of the Paducah CAP for remediation of restricted NCS areas in C-410 |

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB1a-97. Concur with integrated process flowchart and DSA guides

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB1a-97. Similar to I/CATS A4742
BJC/SB1a-98. I/CATS A4365

Issue BJC/SB1: Many SB documents do not adequately identify safety controls, either engineered or administrative. Safety significant SSCs are not always identified. Where relied on, they were not derived from the SB documents, nor are they forced to be maintained through the TSR or OSRs.

RECOMMENDATION BJC/SB1b

USQD evaluations should be done against both the approved SB and pending revisions until the revised documents are approved.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SB1b-100. Define and implement additional improvements to the document control and records management system for AB documents.

Discussion:

USQD evaluations are performed against the approved (active) safety basis. USQDs issued after the cutoff date of the most recent submittal (pending DOE review/approval) are tracked as active changes until incorporated into the next update. These controls are being defined in procedure, BJC-NS-1011, "Control of Safety Basis Documents."

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SB1b-100. John Jabaley

CORRECTIVE ACTION INITIATION DATE:

BJC/SB1b-100. November 2, 2001

EXPECTED COMPLETION DATE:

BJC/SB1b-100. March 21, 2002 (complete)

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SB1b-100. Copy of new procedure, BJC-NS-1011

DOE SUPPORT ACTION REQUIRED? (specify)

N/A

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB1b-100. Duplicate of I/CATS A4372

Issue BJC/SB1: Many SB documents do not adequately identify safety controls, either engineered or administrative. Safety significant SSCs are not always identified. Where relied on, they were not derived from the SB documents, nor are they forced to be maintained through the TSR or OSRs.

RECOMMENDATION BJC/SB1c

See SB2a and SB2b

DESCRIPTION OF CORRECTIVE ACTION:

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

CORRECTIVE ACTION INITIATION DATE:

EXPECTED COMPLETION DATE:

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

DOE SUPPORT ACTION REQUIRED? (specify)

LINK TO OTHER CORRECTIVE ACTION? (specify)

Issue BJC/SB2: Technical deficiencies exist in the hazards and accident analyses, including, in some cases, the exclusion of certain hazards and accident scenarios.

RECOMMENDATION BJC/SB2a

The hazard analysis section of SB documentation should present the logical progression of the hazards, the risk posed by the current operations, appropriate control selection, and the basis for acceptability of the SB document.

DESCRIPTION OF CORRECTIVE ACTION:

- | | |
|---------------|---|
| BJC/SB2a-101. | Conduct SB technical adequacy assessment to supplement SB flowdown assessment, document results, define corrective actions, and enter actions in I/CATS. |
| BJC/SB2a-102. | Develop corporate level DSA application guides for use in development of 10 CFR 830 compliant DSAs and graded safety documents for less than category 3 facilities. |
| BJC/SB2a-103. | Submit updated BJC 10 CFR 830 Implementation Plan to DOE. |

Note: See also MG-3 actions for overall SB process improvements.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- | | |
|---------------|--------------|
| BJC/SB2a-101. | Bruce Wilson |
| BJC/SB2a-102. | Bruce Wilson |
| BJC/SB2a-103. | Jeff West |

CORRECTIVE ACTION INITIATION DATE:

- | | |
|---------------|------------------|
| BJC/SB2a-101. | February 4, 2002 |
| BJC/SB2a-102. | February 1, 2002 |
| BJC/SB2a-103. | January 7, 2002 |

EXPECTED COMPLETION DATE:

- | | |
|---------------|--------------------------|
| BJC/SB2a-101. | March 1, 2002 (complete) |
| BJC/SB2a-102. | May 31, 2002 |
| BJC/SB2a-103. | April 10, 2002 |

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

- | | |
|---------------|---|
| BJC/SB2a-101. | Copy of SB technical adequacy assessment report |
| BJC/SB2a-102. | Copies of DSA application guides |
| BJC/SB2a-103. | Copy of SB process flowchart and copies of DSA guides |

DOE SUPPORT ACTION REQUIRED? (specify)

- | | |
|---------------|---|
| BJC/SB2a-101. | DOE-ORO and BJC jointly performed the SB technical adequacy assessment. Also, DOE-ORO participates in the SB Working Group; as such reviews and concurs with the SB process improvements and the DSA application guides. No further action required by DOE-ORO. |
|---------------|---|

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB2a-101. Similar to I/CATS A4742
BJC/SB2a-102. I/CATS A4365

Issue BJC/SB2: Technical deficiencies exist in the hazards and accident analyses, including, in some cases, the exclusion of certain hazards and accident scenarios.

RECOMMENDATION BJC/SB2b

As part of the 10 CFR 830 implementation plan, consider the potential cost effectiveness of evaluating certain hazards (such as natural phenomena) and perhaps external events (such as an aircraft crash) at a site-wide level for each of the five BJC sites. Individual SB documents could then reference the site-wide assessment rather than consuming significant resources to evaluate such hazards when there are no expected benefits from a control perspective (e.g., would not expect seismic upgrading for BJC's facilities). However, if there are relevant feasible controls that should be implemented to mitigate such hazards (e.g., inventory controls on dispersible radiological materials), these should be considered in the individual facility SB document.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SB2b-104. Generic technical issues associated with DSA development will be addressed by the joint BJC/DOE SB Working Group, with guidance documents issued regarding DSA development as determined to be needed. This guidance will supplement the DSA guides being developed.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SB2b-104. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/SB2b-104. January 7, 2002

EXPECTED COMPLETION DATE:

BJC/SB2b-104. September 30, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SB2b-104. Guidance documents as determined by SB Working Group or memo from SB Working Group stating no guidance documents needed

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB2b-104. DOE-ORO is working with BJC on the SB Working Group and will concur with the process, guidance, and DSA guides

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB2b-104. Similar to I/CATS A4365

Issue BJC/SB3: Many SAR and BIO documents do not adequately reflect current organizations, activities, missions, and hazards.

RECOMMENDATION BJC/SB3a

Existing approved SARs and BIOs should meet 10 CFR 830.207(b) and 830.202(c) requirements for an annual update.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SB3a-105. Annual updates and/or 10 CFR 830 compliant upgrades are being processed to achieve compliance with the requirements of 10 CFR 830 Subpart B.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SB3a-105. Jeff West

CORRECTIVE ACTION INITIATION DATE:

BJC/SB3a-105. November 1, 2002

EXPECTED COMPLETION DATE:

BJC/SB3a-105. April 10, 2003

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SB3a-105. Copy of BJC to DOE-ORO letter summarizing the 10 CFR 830-compliant annual updates and overall 10 CFR 830 compliance status 4/10/03

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB3a-105. DOE-ORO participates in the SB Working Group, thus, provides input throughout the update and upgrade processes. DOE-ORO approval of the 10 CFR 830-compliant DSAs will be required following BJC's submittal of the new DSAs.

LINK TO OTHER CORRECTIVE ACTION? (specify)

N/A

Issue BJC/SB3: Many SAR and BIO documents do not adequately reflect current organizations, activities, missions, and hazards.

RECOMMENDATION BJC/SB3b

Revise the implementation plan for updating existing SB documents (and, if necessary, request an extension for compliance with the 10 CFR 830 deadline) to address issues on the adequacy of existing SB documentation and expectations for implementing the safe harbor methods.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SB3b-106. Submit updated BJC 10 CFR 830 Implementation Plan to DOE.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SB3b-106. Jeff West

CORRECTIVE ACTION INITIATION DATE:

BJC/SB3b-106. January 7, 2002

EXPECTED COMPLETION DATE:

BJC/SB3b-106. April 10, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SB3b-106. Copy of updated DSA implementation plan

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB3b-106. DOE-ORO participates in the SB Working Group, thus, provides input throughout the update and upgrade processes. DOE-ORO approval of the 10 CFR 830-compliant DSAs will be required following BJC's submittal of the new DSAs.

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB3b-106. Related to I/CATS A4371

Issue BJC/SB3: Many SAR and BIO documents do not adequately reflect current organizations, activities, missions, and hazards.

RECOMMENDATION BJC/SB3c

ORO and BJC need to work together, with insights and guidance from the HQ program offices, to agree on the right balance (i.e., considering cost effectiveness and safety assurance) of SB documentation and approaches that reflect the nuclear facility hazards and operations at sites under ORO's jurisdiction.

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SB3c-107. Submit updated BJC 10 CFR 830 Implementation Plan to DOE.

Note: see also actions for MG-11 for overall SB process improvements.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SB3c-107. Jeff West

CORRECTIVE ACTION INITIATION DATE:

BJC/SB3c-107. January 7, 2002

EXPECTED COMPLETION DATE:

BJC/SB3c-107. April 10, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SB3c-107. Copy of updated 10 CFR 830 Implementation Plan

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB3c-107. DOE-ORO participates in the SB Working Group, thus, provides input throughout the update and upgrade processes. DOE-ORO approval of the 10 CFR 830-compliant.

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB3c-107. Related to I/CATS A4371

Issue BJC/SB3: Many SAR and BIO documents do not adequately reflect current organizations, activities, missions, and hazards.

RECOMMENDATION BJC/SB3d

Re-evaluate the policy with respect to safety documentation for radiological facilities (e.g., develop a format and content guide for an Auditable Safety Analysis [ASA] that is something like the 10 CFR 830 nuclear health and safety plan or other documentation of the of the hazard categorization determination, such as a checklist or a brief report).

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SB3d-108. Develop corporate level DSA application guides for use in development of 10 CFR 830 compliant DSAs and graded safety documents for less than category 3 facilities.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SB3d-108. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/SB3d-108. February 1, 2002

EXPECTED COMPLETION DATE:

BJC/SB3d-108. May 31, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SB3d-108. Copies of the DSA guides

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB3d-108. DOE-ORO participates in the SB Working Group, thus, provides input throughout the update and upgrade processes. DOE-ORO approval of the 10 CFR 830-compliant DSAs will be required following BJC's submittal of the new DSAs.

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB3d-108. Related to I/CATS A4371

Issue BJC/SB4: The ORO NCS Program still does not meet the intent of DOE Policy 450.5, *Line Environment, Safety, and Health Oversight*. ORO does not have an approved formal program in place, and the corrective actions for the open safety issues identified in May 2000 relative to this program have not been closed. Most of the BJC SARs and BIOs do not adequately describe the criticality safety program, not do they have the requisite commitments in the TSRs and OSRs.

RECOMMENDATION BJC/SB4b

As new SBs are developed per 10 CFR 830, provide the expected programmatic attributes in the SMP chapter and TSRs as recommended in the safe harbors (e.g., DOE-STD-3009).

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SB4b-109.	Develop corporate level DSA application guides for use in development of 10 CFR 830 compliant DSAs and graded safety documents for less than category 3 facilities.
BJC/SB4b-110.	Develop an integrated DOE-ORO EM/BJC process and DSA guides for Management of DSA documents for Category 2 and 3 facilities, consistent with 10 CFR 830 Subpart B requirements and other applicable requirements and standards.
BJC/SB4b-111.	Develop standard SMP descriptions.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SB4b-109.	Bruce Wilson
BJC/SB4b-110.	Bruce Wilson
BJC/SB4b-111.	Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/SB4b-109.	February 1, 2002
BJC/SB4b-110.	February 1, 2002
BJC/SB4b-111.	February 21, 2002

EXPECTED COMPLETION DATE:

BJC/SB4b-109.	May 31, 2002
BJC/SB4b-110.	May 31, 2002
BJC/SB4b-111.	May 1, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SB4b-109.	Copy of SB process flowchart, copies of DSA guides, and copies of generic SMP descriptions
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DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB4b-109.	DOE is working with BJC through the SB Working Group. The process flowchart, DSA guides, and SMP descriptions will have DOE concurrence.
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LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB4b-109. I/CATS A4365

Issue BJC/SB5: Technical deficiencies exist in the hazard categorization of nuclear and radiological facilities; therefore, some radiological facilities could be nuclear facilities and some Hazard Category 3 facilities may be Hazard Category 2.

RECOMMENDATION BJC/SB5a

Develop a hazard categorization review plan that includes (a) revising the procedures per DOE-STD-1027 and Environmental Health (EH) HQ interpretation memos, (b) validating the adequacy of previous hazard category determinations (including a prioritization for questionable facilities), and (c) developing a process to manage hazard categorization discrepancy discoveries (e.g., Building C-410 radiological facility and the Y-12 Old Salvage Yard) with nuclear criticality hazards, reclassification of radiological facilities to nuclear status, or reclassification of facilities from Hazard Category 3 to Hazard Category 2, etc.

DESCRIPTION OF CORRECTIVE ACTION:

- BJC/SB5a-112. Develop new BJC hazard identification, facility categorization, and inventory control procedure, compliant with governing standards.
- BJC/SB5a-113. For all BJC category 3 facilities, issue to DOE for approval an updated hazards assessment document with updated hazard categorization.
- BJC/SB5a-114. For "suspect" radiological facilities, issue to DOE for approval an updated hazards assessment document with updated hazard categorization.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

- BJC/SB5a-112. Bruce Wilson
- BJC/SB5a-113. Jeff West
- BJC/SB5a-114. Mike Taylor

CORRECTIVE ACTION INITIATION DATE:

- BJC/SB5a-112. February 1, 2002
- BJC/SB5a-113. February 1, 2002
- BJC/SB5a-114. February 1, 2002

EXPECTED COMPLETION DATE:

- BJC/SB5a-112. July 1, 2002
- BJC/SB5a-113. April 10, 2003
- BJC/SB5a-114. August 1, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

- BJC/SB5a-112. Copy of new procedure
- BJC/SB5a-113. Copy of submittal to DOE with updated hazards assessment document for Category 3 nuclear facilities
- BJC/SB5a-114. Copy of submittal to DOE with updated hazards assessment document for suspect radiological facilities

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB5a-112. DOE-ORO is working with BJC through the SB Working Group. Thus, DOE-ORO input will be provided on an ongoing basis through the hazards assessment documentation process.

LINK TO OTHER CORRECTIVE ACTION? (specify)

N/A

Issue BJC/SB6: The use of Alternate Release Fractions (ARFs) and Release Fractions (RFs) as part of the hazard analysis process may have led to underestimating the potential unmitigated consequences to the public for many of the postulated accident scenarios.

RECOMMENDATION BJC/SB6a

As new SBs are developed per 10 CFR 830, apply the DOE-HDBK-3010 bounding ARFs and RFs unless the DOE approval authority approves alternate values based on sufficient technical justification. (Note: This also applies to the use of alternate ARFs and RFs for hazard categorizations)

DESCRIPTION OF CORRECTIVE ACTION:

BJC/SB6a-115. Develop an integrated DOE-ORO EM/BJC process and DSA guides for management of DSA documents for Category 2 and 3 facilities, consistent with 10 CFR 830 Subpart B requirements and other applicable requirements and standards.

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

BJC/SB6a-115. Bruce Wilson

CORRECTIVE ACTION INITIATION DATE:

BJC/SB6a-115. February 1, 2002

EXPECTED COMPLETION DATE:

BJC/SB6a-115. May 31, 2002

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

BJC/SB6a-115. Copies of SB process flowchart and sample of DSA application guides

DOE SUPPORT ACTION REQUIRED? (specify)

BJC/SB6a-115. DOE-ORO participates in the SB Working Group, thus, provides input throughout the update and upgrade processes. DOE-ORO approval of the 10 CFR 830 – compliant DSAs will be required following BJC’s submittal of the new DSAs.

LINK TO OTHER CORRECTIVE ACTION? (specify)

BJC/SB6a-115. I/CATS A4365

Issue BJC/SB7: FHAs were found to be missing, out of date, or inconsistent with the SB documents (e.g., with respect to the combustible loading limits, maximum potential fires, status of fire systems, etc.).

RECOMMENDATION BJC/SB7a

BJC and DOE should ensure that the applicable portions of DOE O 420.1 are incorporated into the WSS and that FHAs are performed at BJC nuclear facilities and integrated into the SB documents.

Refer to SA1a FP SMP corrective action SA1a-3.

DESCRIPTION OF CORRECTIVE ACTION:

BECHTEL JACOBS COMPANY RESPONSIBLE PERSON:

CORRECTIVE ACTION INITIATION DATE:

EXPECTED COMPLETION DATE:

CORRECTIVE ACTION CLOSURE DOCUMENTATION REQUIRED:

DOE SUPPORT ACTION REQUIRED? (specify)

LINK TO OTHER CORRECTIVE ACTION? (specify)

1. Refer to SA1a-3 for WSS revision
2. SMP assessments SA1a-19 (Bruce Wilson)/Refer to I/CATS A4365 for FHA