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BJC-ES-01, Section 21.0, Environmental Services Procedures Manual	ES-A-2100	REV. NO. 0
SUBJECT: ENVIRONMENTAL MANAGEMENT: HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT	EFFECTIVE DATE: 05-06-99	Page 1 of 5
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REVISION LOG		
Revision Number	Description of Changes	Pages Affected
0	Initial Release – provides overview of the following: 1. ER/C-S2001 <i>Risk Assessment Roles and Responsibilities</i> 2. ER/C-S2002 <i>Integrating Contractor Issues in Risk Assessment</i> 3. EMF/EM-P2009 <i>Verifying Calculations in Human Health and Ecological Risk Assessments</i> 4. EMF/EM-S2010 <i>Requirements for Conducting Human Health and Ecological Risk Assessments</i>	All

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PURPOSE This procedure presents the general, basic requirements for conducting human health and/or ecological risk assessments under the management of the Bechtel Jacobs Company LLC as the Managing and Integrating contractor for the United States Department of Energy (DOE), Oak Ridge Operations (ORO).

SCOPE This guidance applies to those Bechtel Jacobs Company LLC, Project Managers and designated technical staff who will oversee or perform this work in Oak Ridge, TN, Paducah, KY, and Portsmouth, OH, DOE-ORO facilities and associated project sites within the scope of the M&I Contract.

This procedure does not provide detailed technical requirements for conducting human health and/or ecological risk assessments. Additional technical guidelines and/or procedures needed to perform the work shall be provided by the Bechtel Jacobs Company LLC project or the Bechtel Jacobs Company LLC subcontractor performing these specific tasks. Such guidelines and/or procedures will be needed to ensure that permit and/or regulatory and technical requirements are satisfied and provided to conduct the task.

OTHER DOCUMENTS NEEDED None

WHAT TO DO **A. Planning for Conducting Human Health and Ecological Risk Assessments**

Manager of Projects or designee

1. Identify the project’s needs for conducting human health and/or ecological risk assessments.
2. Inform the Environmental Services Manager of the project’s needs for conducting human health and/or ecological risk assessments.

Environmental Services Manager or designee

3. Assist Project Manager with input for conducting human health and/or ecological risk assessments in project plans and decision documents.
4. Consult with the Project Manager on the need, purpose, and function of the human health and/or ecological risk assessments

Manager of Projects or designee

5. Develop plans consistent with the requirements of this procedure, project plans, and decision documents.
6. Ensure that the human health and/or ecological risk assessments are conducted in a manner that will provide interpreted, representative data, based on accepted calculations, methodology, and techniques.
7. Authorize any deviations from the specified human health and/or ecological risk assessment task and/or applicable procedure.

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B. Subcontract for Human Health and Ecological Risk Assessments

Manager of
Projects or designee

1. Prepare input for the statement of work and technical specifications for the subcontracted task that includes a reference to this procedure and any other implementing company procedures.
2. Perform other tasks related to the subcontract as specified in applicable Procurement Procedures on subcontracting.
3. Ensure that the selected subcontractor has the necessary technical skills, detailed technical procedures, and methods to conduct the human health and/or ecological risk assessments.
4. Review and approve the subcontractor implementation plan(s).

C. Initiation of Work

Subcontract
Technical
Representative

1. The appointed Subcontract Technical Representative (STR) is required to read and understand their responsibilities prior to initiation of work. These responsibilities can be found in the following procedures:
 - FS-A-0010 *STR Program plan*,
 - FS-A-0012 *STR Requirements for Subcontract Formation*
 - FS-A-0013 *STR Requirements for Subcontract Execution*
 - FS-A-0014 *Subcontract Closeout Procedure*
2. Read the subcontract to gain a complete understanding of the scope of work, technical specifications, and deliverables.
3. Verify that all deliverables required prior to initiation of work have been supplied (e.g., bonds and certificates of insurance) by the subcontractor and are acceptable.
4. Ensure that the subcontractor's personnel conducting the human health and/or ecological risk assessments have been properly trained, and are familiar with applicable procedures and guidance before initiating any work.

D. Human Health and Ecological Risk Assessments

Subcontractor

Note: Subcontractor requirements are established in the specific contract or task order. Subcontractor responsibilities stated here are for information only.

1. Perform the human health and/or ecological risk assessments according to approved implementing procedures, protocols, and accepted guidance.
2. Conduct human health and/or ecological risk assessments according to the technical specifications of the subcontract.
3. Contact the STR to obtain answers to any questions during performance of the subcontracted work.

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E. Completion of Subcontracted Work

Subcontractor

Note: Subcontractor requirements are established in the specific contract or task order. Subcontractor responsibilities stated here are for information only.

1. Transfer all contract closeout deliverables (e.g., data, logbooks, daily logs, computer models, codes, records and all applicable backup data/information) to the STR, as specified in the subcontract, prior to the contract closure.

RECORDS

Subcontractor

Note: Subcontractor requirements are established in the specific contract or task order. Subcontractor responsibilities stated here are for information only.

1. Develop and maintain all records and documents as specified in the subcontract in accordance with Bechtel Jacobs Company LLC record management procedures and transfer those records and documents to the STR at requested intervals or at the close of the subcontract.

SOURCE DOCUMENTS

- *An Approach and Strategy for Performing Ecological Risk Assessments for the U.S. Department of Energy's Oak Ridge Reservation: 1995 Revision*, ES/ER/TM-33/R2, Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee, 1995.
- *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA - Interim Final*, EPA/540/G-89/004, Office of Emergency and Remedial Response, October 1988.
- *Guidance for Conducting Risk Assessments and Related Risk Activities for the DOE-ORO Environmental Management Program*, ES-A-2510, 1999.
- *An Approach and Strategy for Performing Ecological Risk Assessments for the U.S. Department of Energy's Oak Ridge Reservation: 1995 Revision*, ES/ER/TM-33/R2, Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee, 1995.
- *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA - Interim Final*, EPA/540/G-89/004, Office of Emergency and Remedial Response, October 1988.
- *Guidance for Conducting Risk Assessments and Related Risk Activities for the DOE-ORO Environmental Management Program*, ES-A-2510, 1999.
- *Guidance for Data Usability in Risk Assessment - Interim Final*, EPA/540/G-90/008, Directive 9285.7-05, Office of Emergency and Remedial Response, October 1990.
- *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A)*, Interim Final, EPA/540/I-89/002, Office of

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Emergency and Remedial Response, December 1989.

- *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals)*, Interim, Publication 9285.7-01B, Office of Emergency and Remedial Response, December 1991.
- *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part C, Risk Evaluation of Remedial Alternatives)*, Interim, Publication 9285.7-01C, Office of Emergency and Remedial Response, December 1991.
- *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments)*, Interim, Publication 9285.7-01D, Office of Emergency and Remedial Response, 1998.
- *Risk Assessment Guidance for Superfund, Volume II, Environmental Restoration Manual - Interim Final*, EPA/540/I-89/001, Office of Emergency and Remedial Response, March 1989.

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Attachment A Acronyms

Acronyms

- **DOE** – Department of Energy
- **ORO** – Oak Ridge Operations
- **STR** – Subcontract Technical Representative