

1

0

1

1

ORNL/ER-195

Energy Systems Environmental Restoration Program
ORNL Environmental Restoration Program

**Readiness Review Plan for the Interim Remedial Action on Surface
Debris in Waste Area Grouping 11 at Oak Ridge National Laboratory,
Oak Ridge, Tennessee**

Date Issued—October 1993

Prepared for
U.S. Department of Energy
Office of Environmental Restoration and Waste Management
under budget and reporting code EW 20

OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee 37831-7101
managed by
MARTIN MARIETTA ENERGY SYSTEMS, INC.
for the
U.S. DEPARTMENT OF ENERGY
under contract DE-AC05-84OR21400

MARTIN MARIETTA

db
DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

Readiness Review Plan for the Interim Remedial Action of Surface Debris
in Waste Area Grouping 11 at Oak Ridge National Laboratory,
Oak Ridge, Tennessee

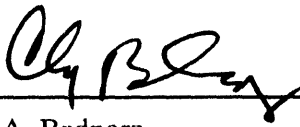
Approvals



D. L. Garrett,
WAG 11 Engineering Project Manager

10/26/93

Date



C. A. Bednarz,
WAG 11 Program Manager

10/26/93

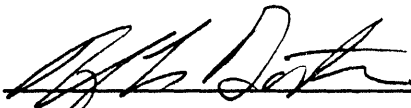
Date



A. J. Kuhaida, Chairman,
Readiness Review Board

10/26/93

Date



H. L. Boston, Manager
ORNL Environmental Restoration Program

10-26-93

Date

CONTENTS

ABBREVIATIONS	vii
EXECUTIVE SUMMARY	ix
1. INTRODUCTION	1
1.1 PLAN OVERVIEW	1
1.2 PLAN SCOPE	1
2. PROJECT SUPPORT	3
3. SITE BACKGROUND AND LOGISTICS OF REMEDIAL ACTION	4
4. PROGRAM MANAGEMENT	5
4.1 THE ENVIRONMENTAL RESTORATION READINESS REVIEW BOARD	5
4.1.1 The Readiness Review Board Charter	5
4.1.2 Environmental Restoration Program Site Readiness Review Board Members	5
4.2 THE READINESS REVIEW TEAM	5
4.2.1 Readiness Review Team Charter	5
4.2.2 Team Members	6
4.3 THE TEAM-BOARD INTERFACE	6
5. REVIEW METHODOLOGY AND CRITERIA	7
Appendix A. READINESS REVIEW TEAM CRITERIA	A-1
Appendix B. READINESS REVIEW BOARD CRITERIA	B-1

ABBREVIATIONS

CWP	Contract Work Plan
DOE	U.S. Department of Energy
ER	Environmental Restoration
HP	Health Physics
NEPA	National Environmental Policy Act
ORNL	Oak Ridge National Laboratory
P&E	Plant and Equipment Division
QA	quality assurance
RRB	Readiness Review Board
RRT	Readiness Review Team
SSHP	Site Safety and Health Plan
WAG	Waste Area Grouping

EXECUTIVE SUMMARY

This Readiness Review Plan was prepared by the Waste Area Grouping (WAG) 11 Site Project Readiness Review Team as an overview of the Interim Remedial Action on Surface Debris in WAG 11 project at Oak Ridge National Laboratory, including major readiness milestones, criteria development methodology, and a list of events to occur as part of the review process for determining readiness for each project phase.

Other subjects include project support, site background and logistics of remedial action, and program management.

1. INTRODUCTION

1.1 PLAN OVERVIEW

Martin Marietta Energy Systems, Inc., (Energy Systems) Policy GP-24, *Operation Readiness Process*, requires activities to follow a formal, focused, and comprehensive readiness process to determine the activity's readiness to proceed to the next increment of work when management determines that it is necessary. Policy GP-24 is aimed at reducing the risks that threaten mission success and requires a management-approved "readiness plan" to be issued that (1) describes the activity under review, (2) defines the scope of the process, (3) identifies the team members, (4) establishes organizational responsibilities, (5) defines the methodology and criteria to be used for determining readiness, and (6) defines the events that must take place to complete the process. The Waste Area Grouping (WAG) 11 Interim Remedial Action of Surface Debris project does not require the formal, focused, and comprehensive process, but will comply with the intent of GP-24 and Environmental Restoration Division Procedure ER/C-P1610, *Conducting Project Readiness Reviews*.

This plan was prepared by the Oak Ridge National Laboratory (ORNL) WAG 11 Site Project Readiness Review Team (RRT), which was established by the WAG 11 Program Manager to provide the ORNL Environmental Restoration (ER) Program Site Readiness Review Board (RRB) with information on the project team's plan for ensuring that construction activities associated with the project (as defined by the scope of this plan) will be ready to begin when the readiness review process is complete. This plan, along with progress reports on the project's readiness which are to be prepared by the review team, will enable the ER Program Site RRB to conduct its independent assessment of the project's readiness successfully and safely in accordance with the project's objectives.

This plan provides an overview of the project, the major milestones that must be accomplished for readiness, the methodology used to develop the criteria, and the events that must take place as part of the review process to determine readiness for each phase of the project. The readiness review schedule will be kept by the Engineering Project Manager, D. L. Garrett, and is available for review at the ORNL Project Engineering offices.

1.2 PLAN SCOPE

Before the project can be initiated, there must be documented evidence that

- the U.S. Environmental Protection Agency and the Tennessee Department of Environment and Conservation have approved the remedial action work plan;
- applicable permits and environmental documentation have been issued and procedures are in place specifically addressing the conduct of the project;
- Safety, Industrial Hygiene, Environmental Management, Health Physics, Engineering, Security, Quality Assurance (QA), Plant and Equipment (P&E), and Waste Management personnel have reviewed and their comments have been incorporated into the project specifications and plans;

- materials, facilities, and equipment to be used to perform the remedial action have been identified;
- a records system is in place; and
- all project documentation has been completed.

This plan has been prepared to ensure the safe and successful conduct of the project after these requirements have been satisfied.

2. PROJECT SUPPORT

Energy Systems support for this effort will consist of organizations from ORNL, including Health Physics, Safety, Industrial Hygiene, Plant Engineering, P&E, the ER Program, the Environmental Management Department, and the Waste Management Division.

3. SITE BACKGROUND AND LOGISTICS OF REMEDIAL ACTION

White Wing Scrap Yard (WAG 11), 1 mile east of the intersection of Highways 58 and 95, is in the McNew Hollow area just north of Pine Ridge. The site covers ~30 acres (12 ha). The scrap yard was used for aboveground storage of scrap and debris from the early 1950s through the mid-1960s. The Oak Ridge Gaseous Diffusion Plant (now the K-25 Site) used the northwest side of the site; the Y-12 Plant used the northeast side; and ORNL used the portion south of Hot Yard Road.

WAG 11 received a variety of sizes and types of equipment and material, such as steel tanks, vehicles, metal supports, glass, graphite, concrete, plastic, wood, and composite materials. The entire storage area was fenced during its active use; however, the fence was removed during cleanup operations which began in 1966. Most of the larger scrap was removed from the surface of WAG 11 during preparation for a road relocation in the late 1960s and early 1970s. The scrap, debris, and some soils that were removed from WAG 11 were disposed of in ORNL Solid Waste Storage Area 5. Some large pieces and a large quantity of small debris still remain scattered throughout the site. To exclude hunters from the site, the scrap yard was roped and placarded on November 10, 1989, with "Controlled Area" signs at 50-ft intervals and with Tennessee Wildlife Resources Agency safety zone signs at 100-ft intervals.

All of WAG 11 is thickly vegetated. A forest of small pine trees covers about 30% of the site, while the remaining area is covered by mixed grass, brush, and young hardwoods. Aerial photographs from 1967 and 1974 show that little vegetation was present during the cleanup activities of those periods.

Approximately 10,000 ft³ of debris will be manually collected from the surface of WAG 11. Lead surface debris (small pieces) and any vessels containing liquid will be segregated from the other debris. The remaining debris will then be segregated (detectable vs nondetectable radioactivity), collected and placed in covered dump trucks, boxes, or plastic bags and transported to WAG 6 for storage in Environmental Restoration underground silos.

4. PROGRAM MANAGEMENT

The ORNL ER Program Manager (H. L. Boston), the ORNL ER Program Quality Assurance Specialist (P. A. Schrandt), and the WAG 11 Program Manager (C. A. Bednarz) have identified a need for a readiness review of this project, as required in ER/C-P1610, *Conducting Project Readiness Reviews*. The RRT has been appointed and is directly responsible for monitoring the project's readiness for operation. The WAG 11 Program Manager is responsible for evaluating the readiness review plan, coordinating approval of the plan, and requesting that the ER Program Site RRB be convened to verify the project's readiness to proceed to the required remedial action work.

4.1 THE ENVIRONMENTAL RESTORATION READINESS REVIEW BOARD

4.1.1 The Readiness Review Board Charter

As specified in ER/C-P1610, *Conducting Project Readiness Reviews*, the ER Program Site RRB is an independent group appointed by the ORNL ER Program Manager. The group has been established to (1) provide independent oversight of the readiness review process, (2) verify the validity of the readiness process, (3) evaluate the risk of proceeding to the next work activity, and (4) recommend actions regarding proceeding that are supported by readiness criteria.

4.1.2 Environmental Restoration Program Site Readiness Review Board Members

The RRB members are

- D. E. Miller, Environmental Sciences Division;
- D. M. Carden, U. S. Department of Energy (DOE);
- A. J. Kuhaida, ORNL-ER Chairman; and
- G. R. Hudson, DOE.

4.2 THE READINESS REVIEW TEAM

4.2.1 The Readiness Review Team Charter

The RRT is a management-appointed multidisciplinary group that has been established to (1) evaluate the state of readiness for removal of surface debris at WAG 11 (to proceed to operation and maintenance activities); (2) identify and validate supportive, objective evidence of readiness; and (3) assist the WAG 11 Program Manager in presenting the evidence of readiness to the ER Program Site RRB.

Specific responsibilities include

- preparing the readiness review plan,
- using appropriate techniques to ensure full coverage of all activities,
- preparing the readiness criteria,
- identifying and verifying the visible objective evidence,

- monitoring and determining the state of readiness and reporting this information to the RRD and the ORNL ER Program Site Manager, and
- making presentations to the ER Site Program RRB on the state of readiness.

The team's activities will include review of the readiness of facilities and equipment, materials, personnel and training, plans, permits and procedures, and support services.

4.2.2 Team Members

The RRT members are

- C. A. Bednarz, ORNL ER WAG 13 Program Manager;
- S. N. Burman, Site Safety and Health Officer;
- P. M. Dawson, Engineering;
- L. Holder, Jr., Waste Management and Remedial Action;
- M. E. Garcia and R. L. Jeffers, Health Physics;
- D. L. Garrett, Engineering;
- R. B. Knott, Engineering Construction;
- G. R. Larson, Solid Waste Operations;
- G. L. Livengood, Transportations Operations Management System;
- S. D. McGhee, RAMSPAC;
- C. S. Mims, DOE;
- A. W. Saulsbury, Hazardous Waste Operations and Emergency Response/Industrial Hygiene;
- J. L. Sluder, P&E; and
- M. A. Woody, QA.

4.3 THE TEAM-BOARD INTERFACE

The RRT is responsible for providing the ER Program Site RRB with the verification data necessary to validate the readiness for proceeding to the next increment of work. The RRT will make this information available in progress reports and meetings held to review readiness.

The ER Program Site RRB will be responsible for reviewing the data, evaluating the risks associated with operation, and making recommendations regarding the project's readiness for initiation.

5. REVIEW METHODOLOGY AND CRITERIA

The readiness review process is a management tool that establishes and verifies the state of readiness of an activity. The process began with the creation of this plan and the identification of initial readiness criteria. Detailed criteria will be compiled by the team, approved by the RRB, and approved for field mobilization. The process concludes with the ER Program Site RRB's documented decision on the project's state of readiness for operation and any accompanying recommendations that need to be addressed by the program management.

The readiness review criteria are the standards by which the removal of surface debris from WAG 11 will be judged ready to start. The readiness review criteria are being defined according to their specific applicability to the activity, and the generic criteria have been defined for events that must be accomplished to achieve readiness.

The RRT has met on several occasions and has identified, discussed, assigned, and resolved action items from the review criteria listed in Appendix A. While the Appendix A criteria cover a broad spectrum, the actual readiness review will be restricted to critical pathway criteria listed in Appendix B. These criteria are the National Environmental Policy Act (NEPA), the QA Plan, the Waste Management plan, the Performance Specification, the Site Safety Health Plan, and transportation concerns.

Appendix A

READINESS REVIEW TEAM CRITERIA

Table A.1. Operational Readiness Matrix for WAG 11 Surface Debris Cleanup—Ready to Start

Review criteria	Responsible individual	Date complete	Criteria description	Comments
1 Ready to start remediation				RRB to make recommendations on readiness
1.1 Personnel	J. Sluder, RRT		Appropriate P&E personnel have been identified and will be listed in CWP.	CWP to be issued
1.1.1 P&E Field Supervisor available	R. Wright, RRT		P&E will furnish field supervisor, and organizational chart will be in CWP.	CWP to be issued
1.1.1.2 Staffed	J. Sluder, RRT		P&E has staff available and committed to the project.	J. Sluder will supply documentation and key personnel list; will use CWP list.
1.1.1.3 Melton Valley Access	L. Holder, RRT		P&E truck drivers need access to WAG 6.	
1.1.1.4 Health Physics preparation	M. E. Garcia, RRT		ES provides HP coverage and personnel completed whole body counts and related items.	Covered in the SSHP. Energy Systems HP support for RA and loading boxes; R. Jeffers. (M. E. Garcia). Complete when SSHP is issued.
1.1.2 Engineering construction support	D. L. Garrett, RRT	9/3/93	Engineering construction support is identified and adequately staffed	Engineering XMTL WAG 11-19, dated 9/3/93
1.1.3 Title III support	R.B. Knott, RRT		Letter from Construction Engineering stating personnel are available	Letter needed from Construction Manager
1.1.4 Technical oversight support	C.A. Bednarz, D.L. Garrett		Environmental Restoration and Engineering will provide oversight.	Letter needed from ER

Table A.1 (continued)

Review criteria	Responsible individual	Date complete	Criteria description	Comments
1.1.5 Training Requirements Matrix	W.D. Davis, RRT		Training criteria have been identified for workers, visitors, inspectors, hauler, and supervisors (see SSHP).	Complete when SSHP issued
1.1.6 Health and safety support	W.D. Davis, RRT		Site Safety and Health Plan has been approved and issued.	
1.1.6.1 Industrial hygiene	M.S. Slater, A.Saulsbury, RRT, RRB		Industrial Hygiene has identified key personnel for oversight support.	Letter (E-mail) needed from AWS and MSS of IH
1.1.6.2 Health physics	M.E. Garcia, RRT, RRB		Health physics has identified key personnel who will support project	MEG/RLJ to send E-mail
1.1.7 Quality assurance	J. Sluder, RRT		Verification of P&E QA requirements and program	JLS to send E-mail stating work will be performed in accord with P&E QA program
1.2 Procedures and controls				
1.2.1 Health and Safety Work Requirements Checklist issued	R.B. Knott, RRT		Health and Safety Work Requirements Checklist has been released	R. B. Knott to provide checklist to P&E
1.2.2 NEPA* documentation	D.L. Garrett, RRT	9/8/93	NEPA maintenance CX has been approved and issued.	Engineering XMTL WAG 11-20, dated 9/8/93
1.2.3 Environmental review checklist summary complete	D.L. Garrett, RRT	9/8/93	Documentation checklist is complete and issued.	Engineering XMTL WAG 11-20, dated 9/8/93

Table A.1 (continued)

Review criteria	Responsible individual	Date complete	Criteria description	Comments
1.2.4 Project review summary letter issued	D.L. Garrett, RRT	9/8/93	Documentation checklist is complete and issued.	Engineering XMTL WAG 11-20, dated 9/8/93
1.2.5 Excavation/penetration permit	D.L. Garrett, RRT	9/7/93	Not required	No excavation nor penetrations > 12 in.
1.2.6 Davis-Bacon determination complete	D.L. Garrett, RRT	9/3/93	Davis Bacon form has been completed and issued.	Engineering XMTL WAG 11-19, dated 9/3/93
1.2.7 Project management plan issued	D.L. Garrett, RRT	8/25/93	Project Management Plan has been approved and issued.	Engineering XMTL WAG 11-14, dated 8/25/93
1.2.8 Risk assessment/plan issued	D.L. Garrett, RRT	3/31/93	Risk Assessment Plan has been approved and issued.	Engineering XMTL WAG 11-10, dated 3/31/93
1.2.9 Best management practice plan issued	D.L. Garrett, RRT	8/20/93	Best management plan has been approved and issued.	Issued as part of performance specification; Engineering XMTL WAG 11-93-6 (93-0496), dated 8/20/93
1.2.10 Site health and safety plan issued	W.D. Davis, RRT		SSHP has been approved and issued.	
1.2.11 Safety review issued	D.L. Garrett, RRT	8/4/92	Safety review has been approved and issued.	Engineering XMTL XSSE-436, dated 8/4/92
1.2.12 Project waste management plan issued	D.L. Garrett, RRT		Project Waste Management Plan has been approved and issued.	
1.2.13 Projects Records plan issued	D.L. Garrett, RRT	12/22/92	Project Records Plan has been approved and issued.	Engineering XMTL WAG 11-04, dated 12/22/93

Table A.i (continued)

Review criteria	Responsible individual	Date complete	Criteria description	Comments
1.2.14 Regulatory concurrence obtained	C.S. Mims, RRT, RRB	8/31/93	Remedial Action Work Plan has been approved by both U.S. Environmental Protection Agency and Tennessee Department of Environmental Conservation.	Engineering XMTL WAG 11-18, dated 8/31/93.
1.2.17 Quality assurance plan issued	D.L. Garrett		QA Plan has been approved and issued.	
1.2.18 Verification and documentation methods defined	D.L. Garrett	8/20/93	Performance specification contains task completion verification.	Engineering XMTL WAG 11-92-6 (93-0496), dated 8/20/93
1.2.19 Lessons learned investigated	D.L. Garrett, RRT, RRB		Data base regarding excavations has been accessed.	Letter DLG to RRT dated
1.3 Facilities and equipment				
1.3.1 P&E equipment	J. L. Sluder, RRT		An equipment list has been compiled of applicable equipment.	W.D. Davis to provide in CWP
1.3.2 Industrial hygiene instrumentation	Brad Copeland, RRT, RRB		CWP identified air monitoring equipment	CWP to be issued by
1.3.3 Radiation instrumentation	M.E. Garcia, RRT, RRB		Energy Systems HP coverage	Letter needed to DLG listing equipment and personnel availability
1.3.4 Waste containers	B. McClelland, RRT, RRB			

Table A.1 (continued)

Review criteria	Responsible individual	Date complete	Criteria description	Comments
1.3.5 Waste staging facility (WAG 11)	C.A. Bednarz, RRT		Letter from Environmental Compliance establishing criteria for the construction of staging areas	C. Bednarz to provide letter to D. L. Garrett by
1.3.6 Support trailers	J. Sluder, RRT, RRB		Site layout map or plan illustrates location of trailers.	W. D. Davis to provide site plan in CWP
1.3.7 Decontamination equipment	J. Sluder, RRT, RRB		Decontamination equipment identified as being available	JLS to provide letter (E-mail to DLG stating temporary decontamination facilities will be available at staging area)
1.3.8 Personnel safety equipment	J. L. Sluder, RRT, RRB		SSHP is approved and issued; Lists PPE requirements	SSHP to be issued
1.3.9 Silo construction	B.McClelland, RRT, RRB			G. Larson to provide all silo info
1.3.11 Transportation	J. Sluder, RRT, RRB		P&E has resources and approvals to transport radioactive waste on public highways.	JLS to provide letter to DLG (e-mail) verifying resources and approvals
1.3.14 Tie-down plan	J. Sluder, RRT, RRB		Tie-down plan prepared and approved by committee and issued	Provide plan and approval letter to D. L. Garrett

CWP —contract work plan.
 SSHP —Site Safety Health Plan.
 P&E —Plant and Equipment.
 HP —Health Physics.

Appendix B

READINESS REVIEW BOARD CRITERIA

Table B.1. Readiness Review Board Criteria

Review criteria	Responsible individual	Date complete	Criteria description	Comments
1.1 Health and safety support				
1.2 NEPA documentation approved				
1.3 Project Waste Management Plan issued				
1.4 Sampling and Analysis Plan complete				
1.5 Quality Assurance Plan issued				
1.6 Transportation				
1.7 TOMS activities, transportation contract carrier				
1.8 Performance specification document				

DISTRIBUTION

1. C. A. Bednarz
2. H. L. Boston
3. S. N. Burman
4. P. M. Dawson
5. M. E. Garcia
6. D. L. Garrett
7. L. Holder, Jr.
8. L. D. Hyde
9. R. L. Jeffers
10. R. B. Knott
11. A. J. Kuhaida
12. G. R. Larson
13. G. L. Livengood
- 14-16. D. M. Matteo
17. S. D. McGhee
18. D. E. Miller
- 19-20. P. T. Owen
21. A. W. Saulsbury
22. P. A. Schrandt
23. J. L. Sluder
24. P. S. Wood
25. M. A. Woody
26. Central Research Library
- 27-29. ORNL ER Document Management Center—RC
- 30-32. Central ER Document Management Center
33. Laboratory Records Dept.
34. ORNL Patent Section
35. Office of Assistant Manager for Energy Research and Development, DOE Oak Ridge Operations Office, P.O. Box 2001, Oak Ridge, TN 37831-8600
36. R. C. Sleeman, DOE Oak Ridge Operations Office, P.O. Box 2001, Oak Ridge, TN 37831-8541
37. J. T. Sweeney, DOE Oak Ridge Operations Office, P.O. Box 2001, Oak Ridge, TN 37831-8541
38. D. W. Swindle, Radian Corporation, 120 South Jefferson Circle, Oak Ridge, TN 37830
- 39-40. Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831

**DATE
FILMED**

12 / 20 / 93

END

