

# 3. Environmental Management and Reservation Activities

H. M. Braunstein

---

## **Abstract**

The law requires federal agencies and private-sector companies to investigate and remedy abandoned or uncontrolled hazardous waste sites where a release has occurred or may occur. A number of monitoring and cleanup activities are conducted on the ORR under the Environmental Management Program to meet the legal requirements. Additional activities, such as wildlife management and activities that encourage public involvement, are also conducted.

---

## **3.1 INTRODUCTION**

For nearly half a century, one of the primary missions of DOE and its predecessor agencies was the production of nuclear weapons for the nation's defense. Production of materials for nuclear weapons, which began on the ORR in 1943 as part of the Manhattan Project, also produced radioactive and hazardous wastes. In 1989, EPA placed the reservation on the NPL, which names waste sites across the country most in need of cleanup.

Once the reservation was added to the NPL, cleanup became subject to the process specified in CERCLA, more commonly known as Superfund. This law requires federal agencies and private-sector companies to investigate and remedy abandoned or uncontrolled hazardous waste sites where a release has occurred or may occur. It also requires public involvement to ensure that citizens are informed of and are involved in making cleanup decisions.

In 1990, DOE-HQ established the Office of Environmental Management, making DOE-ORO responsible for cleanup of the reservation; Lockheed Martin Energy Systems, Inc., served as its managing and operating contractor until the end of 1997, when responsibility was transitioned to Bechtel Jacobs Company LLC (see Sects. 1.4.2 and 1.4.3). The following sections highlight some of the environmental management activities for 1997 and some related activities carried out to ensure good stewardship of the reservation.

## **3.2 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT**

CERCLA activities continued throughout 1997 on the ORR under implementation of the ORR FFA (see Sects. 2.2.2 and 2.2.3). These activities take place at a CERCLA area, which is any inactive unit or area at which a release or threatened release of hazardous substances, pollutants, or contaminants exists. These sites are listed in Appendix C of the FFA under various names according to their remediation status. When remediation decisions for an area have been approved, the area becomes an operable unit (OU) in Appendix C of the FFA.

### **3.2.1 Oak Ridge Y-12 Plant**

The remedial action strategy at the Y-12 Plant integrates the numerous applicable federal and state regulations for efficient compliance on a watershed basis. CERCLA remedial actions at two watersheds or hydrogeologic regimes have been initiated at the facility: Bear Creek Valley and UEFFC.

The following CERCLA accomplishments were reported for 1997 [DOE/OR/01-1565/V1, V2, V3 and DOE/OR/01-1696/V1]: the record of decision (ROD) for the Bear Creek OU (spoil

## Oak Ridge Reservation

---

area 1 and SY-200) was approved, the action memorandum (AM) for the Y-12 decommissioning surveillance and maintenance (S&M) for Alpha 4 outside piping was approved, the Filled Coal Ash Pond Remedial Action was completed, and plans were made to hold the fourth in a series of workshops on the ORR watersheds in February 1998 to focus on the UEFPC watershed.

### 3.2.2 East Tennessee Technology Park

The remedial action strategy taken by DOE involves a watershed approach in the planning and implementation of the ETPP Sitewide ROD. The watershed approach will assist DOE in selecting consistent cleanup alternatives that optimally balance cost effectiveness and risk reduction by considering all contamination, including sources, groundwater, surface water, etc., within ETPP boundaries rather than focusing on one site or one pathway at a time.

Remedial action accomplishments for 1997 include removing RCRA hazardous waste from two release sites and submitting closure documentation for the K-1417/1419 RCRA closures. The decision documentation for the K-1070-C/D G-pit and concrete pad was revised and submitted to the regulatory agencies. A public meeting was held to discuss the ETPP K-1007 and K-901-A Ponds project decision documents. K-1070-C/D and Mitchell Branch Plumes Project accomplishments include data collection and evaluation, submission and approval of the Engineering Evaluation/Cost Analysis, Action Memorandum and Removal Action Work Plan, Design and Construction field mobilization and site preparation. K-1401 & K-1420 Sumps project activities include modifications to discharge from sumps in the basement of the two buildings at the ETPP to stop the collection of contaminated groundwater in basement sumps from discharging to storm drains. The new conveyance system will pipe the contaminated groundwater to the ETPP CNF. Major accomplishments for the K-25 Auxiliary Facilities Demolition Group I Buildings Project since the project was reauthorized on July 30, 1997, include issuing the Removal Action Work Plan to regulators,

preparing performance specification, and mobilizing a subcontractor to demolish K-724/K-725; preparing performance specification to D&D K-1131/K-1410/K-1031 and start site preparation for D&D of K-1131/K-1410/K-1031. Deposit Removal project personnel placed four deposits in the K-25 Building and one deposit in the K-29 Building into safe configuration.

#### 3.2.2.1 ETPP Record of Decision

The ETPP Sitewide ROD project is currently addressing facilities, buildings, and contaminated sites with either a remediation project or a determination that no action is required. More than 100 individual units at the ETPP have been identified as known or suspected sources of environmental contamination to the soil, groundwater, and surface water. A remedial investigation had been initiated during CY 1997 to characterize the nature and extent of contamination by using the document *Groundwater Remedial Site Evaluation for the Oak Ridge K-25 Site* (SAIC 1996) as the starting point for these activities. Methods for remediating contaminated areas that pose an ecological or human health risk are being evaluated in a feasibility study and proposed plan, due to be completed in 1999. Remediation strategies will be agreed upon in a ROD between the stakeholders, DOE, EPA, and TDEC. The CERCLA remedial actions listed in Sect. 3.2.2 are scheduled to be completed and reevaluated as part of the ETPP Sitewide ROD.

### 3.2.3 Oak Ridge National Laboratory

The cleanup strategy for ORNL involves two watersheds, or hydrogeologic regimes, WOC/Bethel Valley and WOC/Melton Valley.

The following CERCLA accomplishments were reported for 1997 [DOE/OR/01-1565/V1,V2,V3 and DOE/OR/01-1696/V1]: Approval was received from TDEC and EPA on the proposed plan for remediation of the surface impoundments, which consist of basins 3513, 3524, and 3539 and 3540, the ROD submitted for the action was signature approved, and these areas

were added to the OU category of Appendix C of the FFA; the approved AM for the ORNL Main Plant Inactive Tanks [liquid low-level waste (LLLW) tank W-14] was issued, and this area was added to the OU category of Appendix C of the FFA; the Gunitite and Associated Tanks (GAAT) project continued completing treatability studies to determine the most effective way to remediate sludges remaining in the tanks and initiated waste removal actions on tank W-4; and removal actions continued at the Molten Salt Reactor Experiment (MSRE) by trapping the reactive gases and chemical treatment of the blockages in the off-gas system.

### 3.2.4 ORR Boundary Areas

These areas are on the border of the ORR and help define the boundary of the ORR NPL area. They consist of the ORAU South Campus Area, the ClinchRiver/Poplar Creek Area, Lower Watts Bar Reservoir (LWBR), and Lower East Fork Poplar Creek (LEFPC).

The following CERCLA accomplishments were reported for 1997 [DOE/OR/01-1565/V1, V2, V3 and DOE/OR/01-1696/V1] in these areas: the signed ROD for the Clinch River/Poplar Creek and Union Valley areas was received, and they were added to the OU category of Appendix C of the FFA, and excavation of mercury-contaminated soil and restoration activities at the LEFPC Bruner and NOAA sites were completed.

### 3.3 ORR INTEGRATED WATER QUALITY MONITORING PROGRAM

The EM program established the Integrated Water Quality Program (IWQP) as a comprehensive approach to addressing the requirements for groundwater, surface water, and biological monitoring programs on the ORR. The purpose of the IWQP is to develop a consistent and watershed-based approach that will support watershed management decisions. The IWQP produces two annual reports: the IWQP Annual Monitoring

Report and the Remediation Effectiveness Report (RER). The RER (DOE/OR/01-1548&D2) was submitted on July 17, 1997, and approved by EPA and TDEC on August 15 and 17, 1997, respectively. Off-site residential drinking water quality is reported under this program.

### 3.4 THE DOE-ORO ENVIRONMENTAL MANAGEMENT RADIOLOGICAL SCRAP METAL PROGRAM

During CY 1997, the principal scrap metal recycle activities involved the definition and establishment of a national recycle program for metals and the development and award of fixed-price contracts for recovery and recycle of structural and miscellaneous metal from the demolition of facilities at the ETTP and the Y-12 Plant. The benefit arising from these activities will be a significant demonstration of methods and costs for the recycle of both contaminated and clean scrap metal. These methods can be used at other sites in future years as environmental cleanup continues. One recycle contract has been awarded by DOE, and two recycle subcontracts are anticipated to be awarded by Bechtel Jacobs Company. The first, a performance-based fixed-price contract, has been awarded to British Nuclear Fuels Limited (BNFL) for the removal of approximately 126,000 tons of uranium-contaminated process equipment from three large uranium enrichment process facilities. Two similar subcontracts are in the planning phase that include a combined total of 52,000 tons of uranium contaminated ferrous scrap metal from the Y-12 and ETTP sites.

The Oak Ridge National Scrap Metal Re-use/Recycle Program will also develop DOE policy for release of contaminated scrap metal and establish national procurements to maximize recycle of scrap metal and avoid burial when shown to be economically feasible. The Oak Ridge program has the lead for coordination with state and local regulators concerning any established policies and release criteria.

The Oak Ridge National Scrap Metal Re-use/Recycle Program is currently using the ORR as an incubator for the national program. The program is developing a business plan to identify opportunities and commitments at other sites. The program will move to establish commitments during the second half of FY 1998 and FY 1999.

### 3.5 REMEDIATION UNDER WAY FOR THE MOLTEN SALT REACTOR EXPERIMENT FACILITY

Remediation of the MSRE facility continued during 1997. The facility operated from 1965 to 1969. The reactor was fueled by molten uranium tetrafluoride salt and was cooled by molten salts of lithium and beryllium. After being shut down, the reactor was mothballed. The fuel was solidified in tanks for long-term storage, and surveillance and maintenance programs were initiated.

In subsequent years, a number of potential problems were found in the facility. Samples of off-gas revealed that fluorine and uranium hexafluoride gas were being emitted, leading to the discovery of a 7-lb deposit of uranium in a charcoal-bed off-gas filter. Because the charcoal bed was within a water-filled chamber, it raised a concern that a nuclear criticality was possible. In addition, the fluorine had reacted with the charcoal to form chemically unstable compounds. These discoveries led to the initiation of remedial actions, which began in 1994 and are currently ongoing.

The MSRE remediation project was initiated to reduce and eliminate three potential risks: a nuclear criticality accident, an explosive release of radioactive material, and a release of reactive and/or radioactive gases. Since 1994, the water was drained from around the charcoal bed, and the atmosphere was replaced with an inert gas (CO<sub>2</sub>); the charcoal bed was isolated from the off-gas system to prevent further migration of uranium and fluorine; and a hold-down ring was installed

to contain the radioactive and reactive gas if the events posed in a "worst-case scenario" were to occur.

A system to remove uranium hexafluoride was designed, fabricated, and installed during 1995 and 1996. The system, which began operation on November 21, 1996, contains chemical traps that adsorb gases emitted by the MSRE. The traps are being stored until equipment can be fabricated to process and package the material for long-term storage.

On June 28, 1996, DOE issued an action memorandum for a removal action for the uranium in the charcoal bed. Once the gases are eliminated from the MSRE, the solid uranium deposits will be removed. A mockup of the charcoal bed has been built, and prototype robotic tools are being fabricated.

During 1997, the removal action report, *Removal Action Report on the Molten Salt Reactor Experiment Time-Critical Removal Action at Oak Ridge National Laboratory, Oak Ridge, Tennessee* (DOE/OR/01-1623&D1) (DOE 1997c), was submitted to and approved by the regulators. Also, chemical treatment of the blockages was initiated and the reactive gas removal system was operated 62 times with the removal of a total of 6 kg of uranium (84% <sup>233</sup>U).

The final phase of the MSRE remediation project will involve removing the fuel and flushing salts from their storage tanks.

### 3.6 GUNITE AND ASSOCIATED TANKS REMEDIATION

The GAAT are large underground storage tanks with a total capacity of approximately 1 million gallons that were constructed in the early 1940s to collect, neutralize, store, and transfer liquid radioactive and/or hazardous waste. They are located in the main facilities complex of ORNL in Bethel Valley and have been identified as a high priority for cleanup because of their radionuclide content and the age of the tanks. The GAAT comprise 16 tanks, 12 of which were constructed of gunite (gunite is a mixture of

cement, sand, and water sprayed through a nozzle over a steel reinforcing framework), and the remaining 4 are stainless steel. The tanks vary in capacity from 1500 to 170,000 gal each. With the exception of two tanks, they are located in the North and South Tank Farm sites in the center of ORNL on the north and south sides of Central Avenue, the main pedestrian and vehicular thoroughfare through the Laboratory, with research facilities, office buildings, and the cafeteria nearby.

The tanks have been divided into three groupings for the purpose of remediation: group 1 tanks, which contain no sludge and very little radioactivity; group 2 tanks (W-3, W-4, and TH-4), which have sludges with low radioactivity; and group 3 tanks (W-5 through W-10), which contain sludges with high radioactivity. At the start of the remediation, these tanks contained mixed transuranic waste with 68,000 Ci of radioactivity in 253,000 gal of liquid and 81,000 gal of sludge.

It was recognized early that remediation of the tanks by removal of the contents would be complicated by the high concentration of radionuclides in the sludge, the location of the tanks underground, and the fact that they are located in the middle of the ORNL complex. Therefore, it was determined that remotely operated systems would be required to handle some of the sludges to ensure worker safety.

The Radioactive Tank Cleaning System (RTCS), which is the first full-scale, remotely operated system to clean radioactive liquid, sludge, and other debris from large underground storage tanks, was developed as part of a CERCLA treatability study, which was designed specifically to support remediation of the GAAT. The treatability study involved a partnership between DOE, EPA Region 4, TDEC, local government, and stakeholders. In addition to a control system, the RTCS comprises a waste dislodging and conveyance system and confined sluicing to dislodge waste and clean the tank floors and walls; a modified light-duty utility arm to perform automated operations inside the tank; a plow blade to move sludge and other tools to pick up debris; a camera system to allow the operators to view the waste removal operations;

and a decontamination system to remove the majority of contamination from the equipment before it is brought to the surface.

In CY 1997, the first two of eight gunite tanks that contain approximately 40% of ORNL's transuranic sludge were successfully cleaned. The completion of waste removal operations in tanks W-3 and W-4 prove the RTCS is capable of removing thick, deep sludge. Approximately 96% of the contaminants contained in the tanks was removed by a combination of sludge mining and wall scarification. The amount of residual waste in each tank is estimated to be 100 gallons, which is 0.25% of the the total tank volume.

The experience gained during this remediation project and the proven operation of the RTCS have the potential to save hundreds of millions of dollars on the cleanup of similar tanks at DOE sites around the country. The goal of the remediation project is to remove the waste and stabilize the tanks to protect workers, the public, and the environment.

### 3.7 LAND APPLICATION OF SEWAGE SLUDGE

The city of Oak Ridge owns and operates a POTW that receives wastewater from a variety of industrial, commercial, and residential generators in Anderson and Roane counties. One of the chief contributors, with approximately 20% of the POTW's total influent, is the Oak Ridge Y-12 Plant. The POTW uses a standard activated-sludge process, in which biosolids from both primary and secondary sedimentation are fed into four anaerobic digesters. Under an agreement with DOE and the state of Tennessee, the city transports digested municipal sewage to approved sites on the ORR and applies the biosolids as a soil conditioner and fertilizer. The city of Oak Ridge has been applying biosolids at selected, state-approved sites on the ORR since 1983 (Fig. 3.1). The current biosolids land-application program uses six sites totaling approximately 190 acres on which about 432 tons (dry weight) of sewage sludge was applied in 1997. The sludge contains

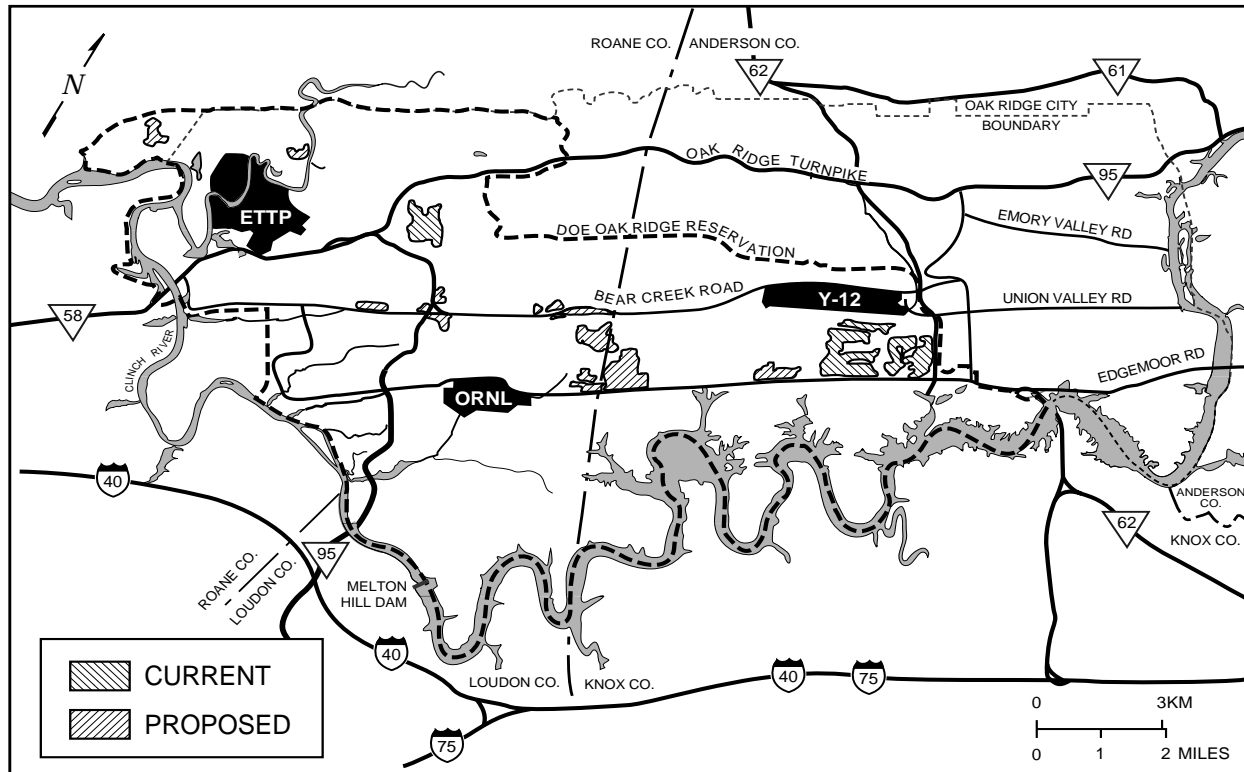


Fig. 3.1. Current and proposed sites for the land application of sewage sludge on the ORR.

trace quantities of heavy metals and radionuclides; however, it is not considered to be RCRA or radioactive waste and is regulated under the provisions of 40 CFR 503 of the CWA.

In 1997, the joint City of Oak Ridge/DOE-ORO Biosolids Land Application Program received one of only two Biosolids Management *Excellence Awards* from the Tennessee/Kentucky Water Environment Association, which is an organization comprising municipal and state government representatives from these respective states.

The highest detected levels of heavy metals detected in 1997 are compared with established limits in Table 3.1.

### 3.8 PARTNERS IN FLIGHT SURVEY

Partners in Flight (PIF) is an international program with partners from various governments, agencies, nongovernment groups, and volunteers collaborating in bird conservation and monitoring. ORNL is cooperating with TWRA in its monitoring program of breeding birds in Tennessee. Permanent plots on the ORR have been monitored by TWRA, ORNL staff, and volunteers from the Tennessee Ornithological Society for four years as part of the Tennessee PIF program. The Tennessee Conservation League is coordinating data compilation for TWRA. A manuscript about the

**Table 3.1. Highest levels of heavy metals detected in 1997 at the city of Oak Ridge POTW compared with limits established in 40 CFR 503.13 and 40 CFR 503.23**

Heavy metal	Highest level detected in sludge (mg/kg) <sup>a</sup>	Limits (mg/kg) <sup>a</sup>	
		40 CFR 503.13, Table 1	40 CFR 503.23, Table 1
Arsenic	7.5	75	73
Cadmium	5.2	85	—
Chromium	92.5	<i>b</i>	600
Copper	570.0	4300	—
Lead	74.6	840	—
Mercury	20.0	57	—
Molybdenum	13.0	<i>b</i>	—
Nickel	42.0	420	420
Selenium	3.1	100	—
Zinc	1910.0	7500	—

<sup>a</sup>Dry weight basis.

<sup>b</sup>This limit has been excised by EPA.

PIF program is currently in press for 1998 publication in the journal *The Migrant*. This report contains historical records for occurrences of species of conservation concern from surveys conducted on the ORR since the early 1950s.

### 3.9 COMMUNITY HIKES ON THE OAK RIDGE NATIONAL ENVIRONMENTAL RESEARCH PARK

In May 1996, ORNL began sponsoring community hikes on the Oak Ridge National Environmental Research Park. The hikes allowed participants from the local community to explore areas of the reservation usually closed to the public. The purpose of the hikes was to strengthen the local community's sense of pride in the ORR and to help them recognize its regional value.

Building on the successful pilot community hikes in 1996, ORNL with the American Museum

of Science and Energy (AMSE) sponsored seven public wildflower and two public bird walks between April 26 and May 18, 1997. The walks were led by volunteers from ORNL, JACOR Environmental, and TWRA so that no cost accrued to participants, ORNL, or AMSE. A total of 70 persons participated; 49 people went on the six wildflower walks (one was rained out), and 21 people took the bird walks.

### 3.10 PUBLIC INVOLVEMENT ACTIVITIES

As part of its public involvement program, the DOE-ORO EM Public Involvement Plan for the ORR (DOE/OR/01-1552&D1) was submitted on January 14, 1997. In addition, DOE continued to hold regular stakeholder meetings in 1997 to solicit input and disseminate information on environmental management work on the reservation. DOE also hosted other workshops and public meetings.

## Oak Ridge Reservation

---

Some of the public involvement activities included the following:

- a public workshop to gather input on the Ten-Year Plan was held on January 9, 1997, and weekly work sessions with regulators and stakeholders to draft the plan were held from January 13, 1997, until it was successfully concluded on February 18, 1997;
- a public meeting was conducted on June 2, 1997, to receive comments on the Feasibility Study (FS)/Proposed Plan for remediating the GAAT at ORNL;
- a public workshop was held June 25, 1997, to discuss the draft report *Accelerating Cleanup: Focus on 2006, Discussion Draft*. This was the first of four follow-on workshops, which were held July 14, July 22, August 14, and August 25, 1997;
- a public meeting on the proposed plan for remediation of the ORNL main plant surface impoundments was held July 15, 1997;
- the second in a series of workshops on the ORR watersheds was held July 21, 1997, to discuss the Bear Creek Valley Watershed and waste disposal options, and a third workshop was held November 4, 1997, to discuss the Bethel Valley Watershed; and
- a public workshop was held December 15, 1997, to discuss EM prioritization and respond to a concern that not all DOE sites apply the same criteria to prioritization, resulting in more funding for some sites.

Meetings were also held on a variety of other topics.

### 3.10.1 Environmental Fair

The sixth annual Environmental Fair was held October 8–9, 1997, on the grounds of the AMSE in Oak Ridge. More than 300 DOE and contractor volunteers welcomed more than 3500 sixth-grade students each day for this 2-day fair. Sixth-graders from 19 counties in East Tennessee and from the Cherokee Reservation participated. This was the first 2-day fair, which enabled all of the targeted students to attend the same year.

More than 50 hands-on activities encouraged the students' interest in environment, science, and technology.

### 3.10.2 Site-Specific Advisory Board

The Oak Ridge Environmental Management Site-Specific Advisory Board (SSAB), formed in 1995, continued to advise DOE on environmental management issues such as recommendations for cleanup levels, technology development, and long-term waste management issues. Throughout 1997, the SSAB held regular board meetings as well as topic-specific meetings, and all meetings were open to the public. SSAB information, including meeting schedules, meeting minutes, membership, and recommendations to DOE, are available on the Web at [http://www.ornl.gov/doe\\_oro/em/ssab/hpage.htm](http://www.ornl.gov/doe_oro/em/ssab/hpage.htm).

#### 3.10.2.1 End Use Working Group

In response to the state of Tennessee's recommendation that broad public involvement should be part of final remediation decisions on the ORR, DOE asked the SSAB to develop a process for deciding remediation levels for contaminated areas. In January 1997, the SSAB sponsored a public meeting to form the Oak Ridge End Use Working Group (EUWG). The EUWG, which is a special project team of the SSAB, held its first official meeting February 20, 1997, and met 22 additional times in 1997. The EUWG, a citizens' group, is made up entirely of community volunteers operating under an open meeting process in which any member of the public is encouraged to join, participate, and contribute a viewpoint. The original goal of the EUWG, to provide informed stakeholder input to DOE on the future use of contaminated areas on the ORR, has expanded to include providing recommendations to DOE, which, at its discretion, may be adopted by the SSAB and submitted formally. In addition to recommendations, the EUWG continues to work on other issues of stakeholder concern, including development of a stewardship plan for the ORR,



which is expected to be completed in the summer of 1998.

### 3.10.3 Use and Reuse of Contaminated Land

To provide a consistent land-use approach that would involve stakeholders in remediation and reutilization of contaminated land on the ORR, a reservation-wide strategy had been developed under the EM program in 1994 and 1995. The Common Ground process was a stakeholder-driven process to determine preferred land-use options for the ORR so that cleanup operations would be based on the most likely and acceptable land uses (*Common Ground—Future Land Use Process for the Oak Ridge Reservation*, December 1995). Subsequent to the Common Ground process, and in response to requirements in DOE O 430.1, *Life Cycle Assets Management*, DOE-ORO established an integrated land- and facility-use process for land-use decision-making for proposed changes in land use outside the immediate plant boundaries. DOE O 430.1 requires DOE to involve stakeholders in land-use planning. Under the Integrated Plan, each site identifies and plans land- and facility-use changes based on programmatic need. The individual sites also ensure project review for various compliance issues. Any changes in land or facility uses in areas outside the sites must be approved by the process described in the Integrated Plan (see Sect. 3.11 for the Web address for the Integrated Plan). The review process includes the application of the following land-use priorities, which summarize stakeholder input from Common Ground and other citizen/stakeholder processes since 1994, including the EUWG of the ORREMSSAB (see Sect. 3.10.2.1):

- Priority 1—Preserve and protect land for meeting the requirements of existing and future DOE mission-related facilities and programs;

- Priority 2—Maintain land and facilities to promote sustainable economic development; and
- Priority 3—Protect the environment, meet the requirements of scientific and technical education, and support educational research opportunities on the ORR.

### 3.11 SOME WEB SITES AND A NEW TOLL-FREE NUMBER

Information on environmental cleanup and waste management in Oak Ridge, including the Public Involvement Calendar, is available at the following Web addresses:

- <http://www.doe.gov> reaches the national DOE Web site;
- <http://www.em.doe.gov> takes you to the national DOE environmental management Web site;
- <http://www.ornl.gov/emef/facts/public.htm> provides public involvement information for the environmental management program in Oak Ridge;
- <http://www-internal.ornl.gov/~dmsi/cip/cip.htm> gives you the Comprehensive Integrated Plan for the ORR;
- <http://www.ornl.gov/emef/facsheet.htm> gives you a list of fact sheets on each of the Oak Ridge environmental management projects;
- <http://www.ornl.gov> provides access to all ORNL home pages, plus home pages for the Y-12 Plant, the ETTP, ORAU, Energy Systems, and other sites of local interest; and
- [http://www.ornl.gov/doe\\_oro/](http://www.ornl.gov/doe_oro/) reaches the DOE Oak Ridge Operations Web site.

Stakeholders outside the local calling area may reach the Environmental Management Community Relations Office by calling toll-free 1-800-382-6938.