

APPENDIX B

EM PROGRAM ASSUMPTIONS

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Assumptions that were no longer necessary or applicable based on stakeholder input were deleted. In the box below each assumption is the path forward for resolution of issues associated with that assumption. The issues, for the most part, are specific concerns that were noted during the dialogue with stakeholders attending the series of Oak Ridge Accelerating Cleanup Stakeholder Workshops on the assumptions held in January and February 1997; during the overview of the Paducah (PGDP) Discussion Draft given to the Site Specific Advisory Board and a general PGDP public workshop that included discussions about the Accelerating Cleanup Discussion Draft; during the Portsmouth (PORTS) workshop in February to discuss the Accelerating Cleanup strategy and PORTS assumptions; and during the Weldon Spring Site dialogue between the WSSRAP representatives and local citizens, including the Citizens Commission. The paths forward for other Stakeholder issues identified during the Accelerating Cleanup Discussion Draft stakeholder comment period will be addressed in the next issue of the Accelerating Cleanup Discussion Draft. Also, the current schedule for the path forward for as many of the issues as possible will be included in future updates of the plan.

I. ENVIRONMENTAL MANAGEMENT GENERAL PROGRAM ASSUMPTIONS

- A. Reindustrialization is a method of accomplishment for decontamination and decommissioning. All K-25 Site leasable facilities will be leased by 2006. The value of assets in the form of idle equipment, facilities, land, etc., will be provided to the private sector to offset some of the costs.

As revised based on Stakeholder Comment during the workshops. The paths forward for the resolution of any issues on this assumption are through the K-25 Site Wide Record of Decision, the NEPA process for Proposed Lease of Land and Facilities at the K-25 Site, the ORR End Use Working Group Meetings, Regulator Negotiations, and National Dialogue on State Equity A Reindustrialization Implementation Plan is being developed to define a road map for the reindustrialization efforts DOE-ORO will undertake.

- B. The use of innovative technologies is incorporated into planning for Environmental Management's accelerated cleanup.

No issues with this assumption were noted in the Stakeholder Workshops.

- C. The Environmental Management (EM) Program described in this version of the Discussion Draft addresses only current scope. Additional scope will require additional funding, which will be requested at the time the additional scope is made known.

As revised based on Stakeholder Comment during the workshops. The path forward for resolution of any issues on this assumption is a DOE Secretarial Policy Decision expected to address how DOE will handle "excess" or "transitioning" facilities.

- D. Current environmental standards are met unless there is a reasonable assurance that the dialog with the stakeholders/regulators will result in an acceptable alternate standard.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed Records of Decision, Regulator Negotiation and the ORR End Use Working Group Meetings.

- E. Financial and management responsibility of newly generated waste will be assumed by the site mission program by FY 2000, with the exception of transuranic (TRU) waste management, which will remain in EM until FY 2006. EM will continue to disposition legacy waste until inventory work-off is completed.

As Clarified based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the DOE Headquarters work with the Office of Management and Budget concerning the financial transfer; Pilot projects at five sites testing the effectiveness; Working groups at the ORO sites developing transition plans. Communication with the stakeholders concerning the transition are in the planning to occur.

- F. An on-site waste management facility is operational in FY 2000 for wastes generated by Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) actions.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process (A Record of Decision is to be prepared on the On-Site Waste Management Facility) the ORR End Use Working Group Meetings and the implementing requirements for the “Policy for Demonstrating Compliance with DOE Order 5820.2A for On Site Management and Disposal of ER LLW under CERCLA, 5/31/96”. The policy requires a roadmap to be developed for each on-site LLW disposal facility. The procedures requires a “Technical Review Process,” which includes regulators and stakeholders.

- G. A performance-based Management and Integrating (M&I) contract is the future method of accomplishment.

No issues with this assumption were noted in the Stakeholder Workshops.

- H. The Discussion Draft will comply with Executive Order 12898 and the U.S. Department of Energy–Oak Ridge Operations Office (DOE-ORO) Environmental Justice Strategic Plan to ensure that all people are treated equitably when considering environmental activities that may have an adverse impact on them.

As added based on Stakeholder Comment during the workshops.

- I. Use of the National Historic Preservation Act as applicable or relevant and appropriate requirements under the CERCLA process will appropriately protect historic interests.

As added based on Stakeholder Comment during the workshops.

II. ORR ENVIRONMENTAL RESTORATION

A. Program Assumptions

1. Scope

- a. A risk-based analysis will be performed on buildings suitable for potential reuse to determine whether the potential risk is acceptable for the intended use. Decontamination will be performed consistent with the intended use.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are Regulator Negotiation and the ORR End Use Working Group Meetings.

- b. Buildings that pose an unacceptable risk and/or are unsuitable for reuse will be demolished.

No issues with this assumption were noted in the Stakeholder Workshops.

- c. The primary regulatory framework for the Oak Ridge Reservation (ORR) contaminated sites and facilities is defined in the Federal Facility Agreement.

As revised based on Stakeholder Comment during the workshops.

- d. Remediation of contaminated land areas will achieve cleanup consistent with the anticipated future land uses currently shown in the September 1995 Site Management Plan.

The paths forward for resolutions of any issues on this assumption are the Watershed Records of Decision, Regulator Negotiation and the ORR End Use Working Group Meetings.

2. Cost

- a. Effective April 1, 1998, a performance-based M&I contract is the method of accomplishment. The overall strategy is for the M&I contractor to execute the work, generally through competitively selected subcontracts. The M&I contractor is fully accountable for performance of all work, regardless of who performs the work.

As revised based on Stakeholder Comment during the workshops. The path forward for resolution of any issues on this assumption is the Federal Procurement Process.

- b. Project estimates are based on assumed remediation scenarios and contain the cost of the action, design, construction management, overhead, and assumed efficiencies. Contingency is not included in the current Discussion Draft.

As clarified based on Stakeholder Comment during the workshops. No issues with this assumption were noted in the Stakeholder Workshops.

- c. M&I contractor functions are limited to 8% of the annual budget. The M&I contractor is responsible for planning, integrating, managing, and executing the programs, projects, operations, and other activities of the EM Program.

No issues with this assumption were noted in the Stakeholder Workshops.

3. Schedule

- a. The ER Program projects are sequenced so that the following activities are dealt with initially:
- areas posing immediate environmental and/or human health risks are remediated;
 - groundwater plume growth is stopped;
 - surface water quality standards are achieved;
 - hot spots are remediated through removal or administrative controls;
 - sources of off-site contamination are remediated;
 - buildings that pose an unacceptable risk and are unsuitable for reuse are demolished, and buildings suitable for reuse are decontaminated; and
 - areas of land that are uncontaminated are identified and removed from the provisions of CERCLA and the Resource Conservation and Recovery Act (RCRA);

and the following activities are dealt with next:

- groundwater is remediated to a level appropriate for its intended use consistent with land use as determined through the CERCLA/RCRA process;
- remediation is performed to allow the use of surface water for its prescribed classification (use restriction may be required);
- buildings unsuitable for reuse are demolished; and
- soil contamination is remediated to a level consistent with land use as determined through the CERCLA/RCRA process.

No issues with this assumption were noted in the Stakeholder Workshops.

- b. For the purposes of the Discussion Draft, the operations and maintenance period is 5 years from completion of remedial action and decommissioning. The federal government will still have an obligation to oversee these lands and facilities in perpetuity.

As Clarified based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

B. ORR Assumptions

1. Scope

- a. The following five major Records of Decision (RODs) are prepared:
 - White Oak Creek: Melton Valley Watershed
 - White Oak Creek: Bethel Valley Watershed
 - Bear Creek Valley Watershed
 - Upper East Fork Poplar Creek Watershed
 - K-25 Site

As clarified based on Stakeholder Comment during the workshops.

- b. These RODs describe the major projects needed to meet the program objectives and identify the sequence in which they are to be performed based on risk priority and optimized construction contracts. Other CERCLA decision documents will be prepared in addition to watershed RODs.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

- c. Contaminated media, facility equipment, and construction debris preferentially are taken to the on-site waste management facility. Material that does not require disposal in a waste management facility can be disposed of in place. Other means of disposal may be considered and documented in the project assumptions. The on-site waste management facility accepts waste resulting from CERCLA activities.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process (A Record of Decision is to be prepared on the On-Site Waste Management Facility) the ORR End Use Working Group Meetings and the implementing requirements for the “Policy for Demonstrating Compliance with DOE Order 5820.2A for On Site Management and Disposal of ER LLW under CERCLA, 5/31/96”. The policy requires a roadmap to be developed for each on-site LLW disposal facility. The procedures requires a “Technical Review Process,” which includes regulators and stakeholders.

- d. Risk assessments for burial grounds are based on historical waste inventory information.

As revised based on Stakeholder Comment during the workshops.

- e. Remedial investigations are streamlined by maximizing the use of historical data, data quality objectives, and field screening techniques. As additional data are needed that require additional funding, this funding will be requested.

As revised based on Stakeholder Comment during the workshops.

- f. Areas of land that are uncontaminated will be identified and removed from the provisions of CERCLA. No Further Investigation decisions are made as part of the Footprint Reduction/Site Evaluations project. No Further Action (NFA) decisions are made as part of the five major RODs.

As revised based on Stakeholder Comment during the workshops.

g. **K-25 Site**

1. The existing K-25 Site infrastructure (e.g. sumps, drains) is providing collection of contaminated groundwater. It is assumed that this infrastructure will be maintained regardless of the change in building reuse. The Discussion Draft includes the budget for these activities through the Discussion Draft period. The federal government acknowledges its responsibility for these activities in perpetuity.

As revised based on Stakeholder Comment during the workshops.

2. Equipment is removed from buildings for metal recycle or reuse. Process equipment is decontaminated and recycled.

No issues with this assumption were noted in the Stakeholder Workshops.

3. Decommissioning of the K-25 Gaseous Diffusion Plant facilities will commence in FY 1997 with the initiation of the Process Equipment Decontamination and Decommissioning (D&D) project as a privatization initiative and will continue through 2006.

No issues with this assumption were noted in the Stakeholder Workshops.

4. Leases are to be established with terms and conditions that Lessees and Enterprises are to assume full responsibility for all infrastructure costs such as utilities, maintenance, security, and fire protection. DOE is responsible for pre-existing conditions, and Lessees are responsible for any improvements or corrections that they need or cause, respectively. DOE is responsible for legacy contamination.

As revised based on Stakeholder Comment during the workshops.

5. Burial grounds will be hydrologically isolated to prevent contaminant release.

The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

6. Contaminated groundwater that poses an unacceptable human health or environmental risk will be intercepted and treated.

As clarified based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

7. Uranium deposits that present a criticality risk will be removed from process buildings to allow reuse of buildings and process equipment.

As revised based on Stakeholder Comment during the workshops.

h. **Oak Ridge National Laboratory (ORNL)**

1. Buried TRU waste is managed according to risk. Excavated TRU waste is packaged for disposal at the Waste Isolation Pilot Plant (WIPP).

As clarified based on Stakeholder comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

2. The existing ORNL site infrastructure (e.g. sumps, drains) is providing collection of contaminated groundwater. It is assumed that this infrastructure will be maintained regardless of the change in building reuse. The Discussion Draft includes the budget for these activities through the Discussion Draft period. The federal government acknowledges its responsibility for these activities in perpetuity.

As revised based on Stakeholder Comment during the workshops.

3. The gunite tanks will be stabilized in situ after removing the sludge. One scouring pass of walls and floor will be performed after sludge removal.

As revised based on Stakeholder Comment during the workshops. The path forward for resolution of any issues on this assumption is the CERCLA Process. The Feasibility Study/Proposed Plan is available for public review.

4. The following reactor facilities will be decommissioned:

- Homogeneous Reactor Experiment
- Molten Salt Reactor
- Oak Ridge Research Reactor
- Graphite Reactor
- Low-Intensity Test Reactor

The following reactors will be deactivated but not decommissioned:

- Bulk Shielding Reactor
- Tower Shielding Reactor

As added based on Stakeholder Comment during the workshops.

5. The burial grounds are isolated hydrologically to prevent contaminant release.

The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

6. Soil and sediment radiologically contaminated such that it poses an unacceptable risk to workers, the public, or the environment is excavated and transported to the on-site waste management facility. If it is not practical to excavate the contaminated soil and sediment, it is stabilized in place.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

7. The pits and trenches in which liquid low-level radioactive waste was disposed is remediated with in situ vitrification.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

8. The subsurface grout sheets are not remediated. Groundwater monitoring is performed to verify contaminants are not released from the grout sheets. All injection wells and some monitoring wells are plugged and abandoned.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

9. The Old Hydrofracture Tanks are emptied and left in place.

As added based on Stakeholder Comment during the workshops The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

i. **Y-12 Plant**

1. Mercury migration in plant effluent is reduced.

No issues with this assumption were noted in the Stakeholder Workshops.

2. Burial grounds will be hydrologically isolated to prevent contaminant release.

The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

3. Contaminated groundwater and surface water that pose an unacceptable human health or environmental risk is intercepted, collected, and treated.

As clarified based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

4. Soil and sediment radiologically contaminated such that it poses an unacceptable risk to workers, the public, or the environment is excavated and transported to the on-site waste management facility. If it is not practical to excavate the contaminated soil and sediment, it is stabilized in place.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

5. Building 9201-4 and the ORNL facilities at Y-12 do not pose an environmental or human health risk following stabilization activities.

Ultimate disposition will be determined in conjunction with the downsizing strategy for the Y-12 Plant.

No issues with this assumption were noted in the Stakeholder Workshops.

6. The sources of contaminated groundwater in Union Valley are remediated. The contaminated plume is not remediated and dissipates. Administrative controls remain in place in Union Valley to prevent the use of contaminated groundwater.

As added based on Stakeholder Comment during the workshops The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

2. Cost

- a. Minimal data collection is needed for the five major watershed RODs. Additional data collection is required for design purposes.

The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

- b. Remedial action surveillance and maintenance (S&M) costs decrease by 5% per year from FY 1997 through FY 2000. Decommissioning S&M costs decrease by 10% per year from FY 1997 through FY 2000. These decreases are based on historical trends.

As revised based on Stakeholder Comment during the workshops.

- c. All costs associated with design, construction, and operations of the on-site waste management facility are part of that project. Individual ORR remediation and decommissioning projects are responsible for characterizing, packaging, certifying, and transporting project wastes to the on-site waste management facility and for treating the wastes to meet waste acceptance criteria (WAC) and land disposal restrictions (LDR). Only waste from Oak Ridge CERCLA projects will be sent to the facility.

As clarified based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the CERCLA Process (A Record of Decision is to be prepared on the On-Site Waste Management Facility) the ORR End Use Working Group Meetings and the implementing requirements for the “Policy for Demonstrating Compliance with DOE Order 5820.2A for On Site Management and Disposal of ER LLW under CERCLA, 5/31/96”. The policy requires a roadmap to be developed for each on-site LLW disposal facility. The procedures requires a “Technical Review Process,” which includes regulators and stakeholders.

3. Schedule

- a. The five major ORR RODs will have received regulatory approval by the end of FY 2000.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

- b. The ORR on-site waste management facility will be operational in FY 2000.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process (A Record of Decision is to be prepared on the On-Site Waste Management Facility) the ORR End Use Working Group Meetings and the implementing requirements for the “Policy for Demonstrating Compliance with DOE Order 5820.2A for On Site Management and Disposal of ER LLW under CERCLA, 5/31/96”. The policy requires a roadmap to be developed for each on-site LLW disposal facility. The procedures requires a “Technical Review Process,” which includes regulators and stakeholders.

- c. ORR areas subject to CERCLA will be reduced by 85% by the end of FY 2000.

No issues with this assumption were noted in the Stakeholder Workshops.

- d. By the end of FY 2006, usable sites at the K-25 Site will be reindustrialized.

The Paths forward for the resolution of any issues on this assumption are through the K-25 Site Wide Record of Decision, the NEPA process for Proposed Lease of Land and Facilities at the K-25 Site, the ORR End Use Working Group Meetings, Regulator Negotiations, and National Dialogue on State Equity A Reindustrialization Implementation Plan is being developed to define a road map for the reindustrialization efforts DOE-ORO will undertake.

- e. The process for the regulatory review and approval of documents is streamlined.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the CERCLA Process and Regulator Negotiation.

III. ORR WASTE MANAGEMENT

A. General Assumptions

1. Waste projections from remedial actions, D&D, and facility stabilization are included in the specific project that creates the waste.

No issues with this assumption were noted in the Stakeholder Workshops.

2. Federal regulations/requirements for management of waste will not significantly change.

No issues with this assumption were noted in the Stakeholder Workshops.

B. Hazardous Waste

1. Sufficient funding will be available to manage all newly generated certified hazardous waste.

As revised based on Stakeholder Comment during the workshops.

2. Hazardous wastewaters sent directly to mixed wastewater treatment facilities are not segregated for treatment. These quantities of wastewater are included under the mixed low-level wastewaters.

No issues with this assumption were noted in the Stakeholder Workshops.

3. The majority of DOE-ORO hazardous waste will be dispositioned at commercial facilities, and no residues are to be returned to the ORR.

As revised based on Stakeholder Comment during the workshops.

4. Some DOE-ORO hazardous waste may be treated at on-site treatment facilities, such as the Toxic Substances Control Act (TSCA) Incinerator, to take advantage of availability of capacity, meet the burden-of-proof schedule requirements, and reduce the treatment cost.

As revised based on Stakeholder Comment during the workshops. The path forward for resolution of any issues on this assumption is the TSCA Permit Renewal Process.

5. The disposition of new waste resulting from transfers of recharacterized waste from other waste type projects will be funded by the project originating the waste transfer. For example, for those legacy wastes determined to be nonmixed, but hazardous only, funding for treatment and/or disposal will be provided by the Mixed Waste Type Project.

As revised based on Stakeholder Comment during the workshops.

6. No additional as low as reasonably achievable (ALARA) analyses or performance assessments (PAs) will be required.

No issues with this assumption were noted in the Stakeholder Workshops.

7. There is no out-of-state hazardous waste targeted for the Oak Ridge Reservation.

No issues with this assumption were noted in the Stakeholder Workshops.

C. Mixed Low-Level Waste (MLLW)

1. The minimum schedule for MLLW workoff is defined by the state of Tennessee Commissioner's Order Site Treatment Plan and the ORR Polychlorinated Biphenyls Federal Facilities Compliance Agreement.

No issues with this assumption were noted in the Stakeholder Workshops.

2. The end-state (steady-state) for MLLW is projected to be achieved in FY 2008. The end-state condition is reflective of disposition of all stored legacy wastes and disposition of ongoing waste generation within regulatory time frames.

As clarified based on Stakeholder Comment during the workshops.

3. The financial and management responsibility for newly generated MLLW without a treatment and disposal option will be retained by Environmental Management until the end-state is achieved. It will then be transferred to the generators.

The paths forward for resolutions of any issues on this assumption are the DOE Headquarters work with the Office of Management and Budget concerning the financial transfer; Pilot projects at five sites testing the effectiveness; Working groups at the ORO sites developing transition plans. Communication with the stakeholders concerning the transition are in the planning to occur.

4. The following mass-to-volume conversion factors are used for MLLW management planning:
 - 1000 kg per m³ for MLLW liquids,
 - 1200 kg per m³ for MLLW sludges, and
 - 1500 kg per m³ for MLLW solids.

No issues with this assumption were noted in the Stakeholder Workshops.

5. The projection of newly generated MLLW for the period FY 1997–FY 2008 is assumed at 1035 m3 per year. This projection excludes wastewaters.

No issues with this assumption were noted in the Stakeholder Workshops.

6. It is assumed that a small fraction of the current storage capacity will be needed to maintain the end-state condition beginning in FY 2009. Storage capacity consolidation and liquidation will be performed before 2009.

No issues with this assumption were noted in the Stakeholder Workshops.

7. No new on-site storage treatment or disposal facilities are planned for non-CERCLA-stored-legacy or newly generated mixed wastes for the life cycle plan.

As revised based on Stakeholder Comment during the workshops.

8. The Oil Landfarm Soils, Disposal Area Remedial Action Soils, East Chestnut Ridge Waste Pile at the Y-12 Plant, and the inactive tanks at ORNL will be handled by the ER Program.

No issues with this assumption were noted in the Stakeholder Workshops.

9. The TSCA Incinerator will operate as a national resource supporting the Discussion Drafts of other DOE sites. The only out-of-state DOE MLLW targeted for the ORR is for treatment at the TSCA Incinerator. No commercial MLLW is targeted for treatment at the TSCA Incinerator.

The paths forward for resolutions of any issues on this assumption are the TSCA permit renewal process, the National Dialogue on Stakeholder Equity and the National Issue Action Plan on the intersite transfer of waste.

10. Treatment of MLLW will be accomplished by a combination of on-site facilities and off-site commercial facilities. Commercial treatment will begin in FY 1998.

No issues with this assumption were noted in the Stakeholder Workshops.

11. The residues from the TSCA Incinerator, West End Treatment Facility sludge and Central Neutralization Facility sludge will meet the LDR treatment standards and will be disposed at a commercial facility without additional treatment.

As clarified based on Stakeholder Comment during the workshops.

12. The TSCA Incinerator residues will be disposed of at a commercial facility. Hanford is the alternative disposal facility for TSCA Incinerator residues that meet the LDR treatment standards but do not meet the radiological WAC for commercial disposal.

As clarified based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the National Dialogue on Stakeholder Equity and the National Issue Action Plan on the intersite transfer of waste.

13. There will be no disposal of stored legacy MLLW on the ORR. Commercial disposal will continue as the primary disposal option for legacy MLLW currently in inventory. Hanford will become a DOE (noncommercial) disposal option for the ORR and will be available to the ORR in FY 1998. (The planned on-site disposal cell will not accept legacy waste currently in inventory.)

As clarified based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the National Dialogue on Stakeholder Equity and the National Issue Action Plan on the intersite transfer of waste.

D. Sanitary/Industrial Waste Management Project

1. Solid sanitary/industrial waste is projected to be generated at a rate of 68,000 m³ per year. This waste includes newly generated and certified recharacterized sanitary industrial waste from other waste-type projects. This new waste projection excludes wastewater.

As clarified based on Stakeholder Comment during the workshops.

2. Sanitary/industrial wastewaters sent directly to mixed wastewater treatment facilities are not segregated for treatment. These quantities of wastewater are included under the mixed low-level wastewater. Not included in this assumption are sewage wastewaters, which are treated at site treatment facilities.

No issues with this assumption were noted in the Stakeholder Workshops.

3. The disposition of new sanitary/industrial waste from transfers of recharacterized waste from other waste-type projects will be funded by the project originating the waste transfer. For example, for those legacy mixed low-level wastes determined to be nonhazardous and nonradioactive (i.e., sanitary/industrial) funding for disposal will be provided by the Mixed Waste Type Project.

No issues with this assumption were noted in the Stakeholder Workshops.

E. TRU Waste

1. Beginning in FY 2000, newly generated contact-handled (CH) TRU solids and remote-handled (RH) TRU solids TRU waste will be certified for disposal at WIPP.

The paths forward for resolutions of any issues on this assumption are through the RCRA process and the contracting process for the Private Firm to process and certify waste for disposal at WIPP or NTS. Also under consideration is an alternative for mixed TRU Waste of Non-Defense origin to be processed to meet the LDR of RCRA.

2. FY 2006 is the target year for achieving the end-state (steady-state) for TRU waste. End state is condition where stored legacy waste is dispositioned.

As clarified based on Stakeholder Comment during the workshops.

3. TRU waste is projected to be generated for the period FY 1997–FY 2006 at the levels shown below.

<u>Waste Category</u>	<u>Waste (m3/year)</u>
CH solids	10
RH solids	5
RH sludges	5*

*No RH sludges generated after FY 1999

No issues with this assumption were noted in the Stakeholder Workshops.

4. TRU waste is projected to be generated beginning in FY 2007 as shown below:

<u>Waste Category</u>	<u>Waste (m3/year)</u>
CH solids	10
RH solids	5
RH sludges	0

No issues with this assumption were noted in the Stakeholder Workshops.

5. No out-of-state TRU waste is targeted for the ORR. The possibility exists that other DOE site's TRU waste may be treated at Oak Ridge.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the National Dialogue on Stakeholder Equity and the National Issue Action Plan on the intersite transfer of waste.

6. The TRU solids stored below grade in Solid Waste Storage Area 5N will not be retrieved for treatment. Instead, these wastes will be addressed as a CERCLA activity under EM-40.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the Watershed RODs, the CERCLA Process, Regulator Negotiation and the ORR End Use Working Group Meetings.

7. The two option paths for the TRU waste disposal are to (1) treat the waste to meet the WIPP WAC or (2) treat the waste to meet Nevada Test Site (NTS) WAC. The draft invitation for bid for treatment of Oak Ridge TRU waste allows for the contractor to treat the waste to either WIPP WAC or the NTS WAC. The treatment of waste to meet the WIPP WAC does not include the cost of transportation to or disposal at WIPP. The transportation and disposal costs associated with WIPP are included in the profile for the Carlsbad, New Mexico, site.

The paths forward for resolutions of any issues on this assumption are through the RCRA process, the National Dialogue on Stakeholder Equity, the National Issue Action Plan on the intersite transfer of waste, and the contracting process for the Private Firm to process and certify waste for disposal at WIPP or NTS. Also under consideration is an alternative for mixed TRU Waste of Non-Defense origin to be processed to meet the LDR of RCRA.

8. The treatment of RH TRU sludges will produce a 50% increase in the volume. The treatment of CH and RH solids will produce a 50% reduction in the volume.

No issues with this assumption were noted in the Stakeholder Workshops.

9. The treatment of TRU waste will be accomplished by a private vendor. The technology and process for the treatment of this waste will be defined as part of the vendor selection process.

No issues with this assumption were noted in the Stakeholder Workshops.

10. The treatment schedule for TRU is FY 2002 through FY 2006.

No issues with this assumption were noted in the Stakeholder Workshops.

F. Low-Level Waste (LLW)

1. The transfer of financial and management responsibility of newly generated LLW to generators will be completed by FY 2000 for LLW with a current disposal option. The transfer of financial and management responsibility for newly generated LLW without a disposal option will be completed in the fiscal year following completion of the inventory workoff.

The paths forward for resolutions of any issues on this assumption are the DOE Headquarters work with the Office of Management and Budget concerning the financial transfer; Pilot projects at five sites testing the effectiveness; Working groups at the ORO sites developing transition plans. Communication with the stakeholders concerning the transition are in the planning to occur.

2. New waste projections of LLW for the period FY 1997–FY 2006 are assumed at 3200 m³ per year.

No issues with this assumption were noted in the Stakeholder Workshops.

3. The generation of RH LLW will begin in late FY 1997. The new liquid LLW concentrate will be segregated and managed by the Low-Level Waste Project.

As clarified based on Stakeholder Comment during the workshops.

4. It is assumed that a small fraction of the current storage capacity will be needed to maintain the end-state condition beginning in FY 2011. Storage capacity consolidation will be performed by 2006.

No issues with this assumption were noted in the Stakeholder Workshops.

5. No new treatment, storage, or disposal facilities are planned for the period FY 1997–FY 2006).

As revised based on Stakeholder Comment during the workshops.

6. The target year for achieving the end-state (steady-state) condition LLW is FY 2010.

No issues with this assumption were noted in the Stakeholder Workshops.

7. The treatment of LLW will be accomplished on-site by DOE and off-site by commercial facilities. Commercial treatment technologies include compaction, thermal treatment, incineration, and metal smelting. On-site treatment includes wastewater treatment at the Process Waste Treatment Complex and the Liquid Low-Level Waste Evaporator Facility. The tanks at the waste evaporator can be successfully emptied without further remedial action.

As revised based on Stakeholder Comment during the workshops.

8. The Interim Waste Management Facility (tumulus disposal facility) is expected to be operational until FY 2003 for disposal of LLW.

No issues with this assumption were noted in the Stakeholder Workshops.

9. Disposal of LLW will be performed at DOE and commercial facilities. It is assumed that the NTS will become available to the ORR in FY 1997. This is dependent on issue of Programmatic Environmental Impact Statement ROD for the national disposal configuration.

As revised based on Stakeholder Comment during the workshops. The paths forward for resolutions of any issues on this assumption are the National Dialogue on Stakeholder Equity, the National Issue Action Plan on the intersite transfer of waste and the WM PEIS Process.

10. The treatment of LLW and disposal of the treated waste form will generally be completed in the same fiscal year.

No issues with this assumption were noted in the Stakeholder Workshops.

11. There is no out-of-state low level waste targeted for the Oak Ridge Reservation.

No issues with this assumption were noted in the Stakeholder Workshops.

IV. PROGRAM DIRECTION

A. Assumptions

1. This contains support for the federal employees.

No issues with this assumption were noted in the Stakeholder Workshops.

B. Program Direction Project

1. Program Directions

- a. DOE Direct

V. DIRECTED SUPPORT

A. Directed Support Projects

1. Directed Support

- a. Agreements in Principle
- b. Site Specific Advisory Board

VI. PADUCAH GASEOUS DIFFUSION PLANT (PGDP)

A. Assumptions

1. Scope

- a. The Operations and Maintenance period is assumed to be 30 years from the date of completion of the remedial action.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process, Regulator Negotiation and SSAB discussions.

- b. PGDP will continue to operate beyond FY 2010.

The path forward for resolution of any issues on this assumption is a DOE Secretarial Policy Decision expected to address how DOE will handle “excess” or “transitioning” facilities.

- c. Future land use for DOE property will remain mixed industrial/recreational, with cleanup standards being protective of
 - industrial workers inside security fence/buffer zone
 - recreational receptors on DOE property but outside security fence, and
 - residential receptors at the DOE property boundary.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process, Regulator Negotiation and SSAB discussions.

- d. Deed restrictions will be imposed on DOE property to prevent future residential development and use of contaminated groundwater.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process, Regulator Negotiation and SSAB discussions.

- e. Final actions for off-site groundwater plumes will include the following:
 - continue to provide an alternate water supply to potentially affected residents,
 - contain releases from on-site sources contributing to off-site groundwater contamination,
 - mitigate the high-concentration portion of the off-site groundwater plumes,
 - maintain off-site monitor well network to monitor the migration of the plumes, and
 - demonstrate groundwater discharges to the Ohio River will not result in statistical decreases in surface water quality.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process, Regulator Negotiation and SSAB discussions.

- f. Two-phased field investigations will be eliminated through better use of existing data; enhancing data quality objective process with regulators; and developing flexible work plans that maximize field-screening techniques.

The path forward for resolution of any issues on this assumption is the Regulator Negotiations.

- g. Adopt the federal TSCA PCB cleanup level of 25 ppm for industrial sites.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process and Regulator Negotiation.

- h. Conduct expanded site evaluations [preliminary assessment/site investigation (PA/SI) sampling] at
- eight waste area groupings (WAGs) to evaluate if risks are low enough to designate as NFA, prior to initiating the remedial investigation/feasibility study (RI/FS) process.
 - seven operational WAGs to evaluate if risks are low enough to pursue an early NFA or defer RI/FS activities until they cease operation.

No issues with this assumption were noted during the Stakeholder Involvement process.

- i. D&D of PGDP facilities that have a low reuse potential will be post-2010 activities (i.e., C-340, C-410 buildings).

No issues with this assumption were noted during the Stakeholder Involvement process.

- j. Costs for scrap metal recycling/disposal only includes characterization, packaging, and transportation; the K-25 recycling program will cover the remaining costs.

The path forward for resolution of any issues on this assumption is the NEPA Process.

2. Cost

- a. Estimates were developed by using a combination of RACER and historic costs as the basis.

No issues with this assumption were noted during the Stakeholder Involvement process.

- b. Costs of long-term S&M are included in each project through FY 1998. Long-term S&M costs for each project for FY 1999 and beyond are included in the long-term S&M line item.

No issues with this assumption were noted during the Stakeholder Involvement process.

3. Schedule

- a. Generic WAG Schedule was used as basis for planning future projects that have not yet initiated project-specific scoping (e.g., RI/FS work plan).

No issues with this assumption were noted during the Stakeholder Involvement process.

- b. As the time frame for implementation of an RI/FS for given project approaches, a project-specific schedule based on detailed scoping activities is developed to replace the Generic WAG Schedule.

No issues with this assumption were noted during the Stakeholder Involvement process.

- c. Remedial action projects have been prioritized for implementation in accordance with the Site Management Plan site priorities.

No issues with this assumption were noted during the Stakeholder Involvement process.

- d. Sources (WAGs/solid waste management units) contributing to groundwater or surface water contamination must be contained before final actions for groundwater (WAG 26) and surface water (WAGs 18 and 25):
- It has been assumed that releases from WAG 8 may be impacting Little Bayou Creek and certain outfall ditches (WAG 25). Therefore, remedial decisions/actions for WAG 25 are not scheduled until site evaluation data for WAG 8 is available.
 - It is assumed that the RI/FS for WAG 24 cannot be initiated until the scrap metal is removed from the surface at WAG 24, which is not scheduled until FY 2002–2004.
 - It has been assumed that releases from WAG 24 may be impacting Big Bayou Creek and certain outfall ditches (WAG 18). Therefore, remedial decisions/actions for WAG 18 are not scheduled until the remedial investigation report for WAG 24 is issued.
 - It is assumed that releases from sources (e.g., WAG 6, WAG 3) to groundwater must be addressed before remedial decisions/actions are scheduled for groundwater (WAG 26). Also, it is assumed that because surface water (WAGs 18 and 25) may impact groundwater, groundwater decisions must be coordinated with surface water decisions.

No issues with this assumption were noted during the Stakeholder Involvement process.

- e. PA/SIs will be conducted for WAGs identified as suspected sources of on-site contamination before the kick-off date to start the RI/FS work plan as specified in the schedule of compliance in the RCRA Permit. The goal is to NFA these sites before starting the RI/FS process.

No issues with this assumption were noted during the Stakeholder Involvement process.

VII. PORTSMOUTH GASEOUS DIFFUSION PLANT

A. Assumptions

1. Scope

- a. The Portsmouth Gaseous Diffusion Plant is operational beyond FY 2010 following the completion of remediation and waste disposal.

The path forward for resolution of any issues on this assumption is a DOE Secretarial Policy Decision expected to address how DOE will handle “excess” or “transitioning” facilities.

- b. For risk calculations, a residential receptor is located at the worst-case DOE property boundary. Recreational receptors are located on the reservation.

The paths forward for resolutions of any issues on this assumption are the RCRA Process, Regulator Negotiation and Future End Use Working Groups.

- c. Major sources of on-site contamination are contained and/or remediated. The emphasis is on sources that have a potential to affect off-site residents, the ecology, or on-site workers under an industrial land use scenario.

The paths forward for resolutions of any issues on this assumption are the RCRA Process, Regulator Negotiation and the Southern Ohio Diversification Initiative.

- d. Remediation goals for the uppermost water bearing unit under the site will be selected with consideration of natural background contamination levels, technical practicability of cleanup, and ALARA criteria.

The paths forward for resolutions of any issues on this assumption are the RCRA Process and Regulator Negotiation.

- e. The cleanup of PCBs in soils and sediments follows U.S. Environmental Protection Agency guidance for CERCLA cleanup (10–25 mg/kg).

The paths forward for resolutions of any issues on this assumption are the RCRA Process and Regulator Negotiation.

- f. Waste is treated or disposed of in accordance with the Site Treatment Plan. Legacy waste is that which is generated before September 30, 1996. After that, the generator assumes responsibility for treatment, storage, and disposal.

No issues with this assumption were noted during the Stakeholder Involvement process.

- g. Treatment, storage, and disposal of scrap metal and PCB waste generated after FY 2010 are not included in the current baseline.

The path forward for resolution of any issues on this assumption is a DOE Secretarial Policy Decision expected to address how DOE will handle “excess” or “transitioning” facilities.

- h. The Waste Management program will budget for the treatment, storage and disposal of wastes generated before October 1, 1996. Waste treatment, storage and disposal of wastes generated after October 1, 1996, are the budget responsibility of the generator.

No issues with this assumption were noted during the Stakeholder Involvement process.

- i. DOE property becomes “industrial” site per RCRA cleanup standards. RCRA Corrective Action Process results in the following decisions:
- Minimal cleanup of “metals” in soils and sediments.
 - With the exception of X-734, there will be no requirement to clean up “polycyclic aromatic hydrocarbons” before plant D&D.
 - Radiological contaminants are remediated to 35 pCi/g or ALARA cleanup levels; whichever is greater.

The paths forward for resolutions of any issues on this assumption are the RCRA Process, Regulator Negotiation and the Southern Ohio Diversification Initiative.

2. Cost

- a. By FY 2002, legacy waste storage costs are decreased by over 50%, and costs continue to decrease as waste is treated and disposed.

No issues with this assumption were noted during the Stakeholder Involvement process.

- b. Costs for characterization, relocation, and treatment/disposal of cascade chemical trapping material will be charged to DOE–Nuclear Energy programs.

The path forward for resolution of any issues on this assumption is a DOE Secretarial Policy Decision expected to address how DOE will handle “excess” or “transitioning” facilities.

VIII. WELDON SPRING

A. Discussion Draft Assumptions

1. The Weldon Spring Site Remedial Action Project (WSSRAP) will be funded by DOE at \$67.5M per year through FY2001 with an appropriate rampdown to project completion in FY 2004.

The path forward for resolution of any issues on this assumption is yearly Budget Request Cycle

2. No wastes will be accepted from distant sites for placement in the WSSRAP disposal facility.

No issues with this assumption were noted during the Stakeholder Involvement process.

3. The chemical plant site groundwater environmental documentation will result in a “no-action” ROD. (To be addressed through the CERCLA Process)

The paths forward for resolutions of any issues on this assumption are the CERCLA Process and Regulator Negotiation.

4. The quarry residuals environmental documentation will result in a “no-action” ROD.

The paths forward for resolutions of any issues on this assumption are the CERCLA Process and Regulator Negotiation.

B. End-State Land-Use Assumptions

1. Upon project completion a disposal cell and appurtenances will occupy approximately 62 acres of the WSSRAP Chemical Plant Site. The remaining 155 acres of the Chemical Plant Site will be released to the appropriate agency or agencies for unrestricted use. The 9-acre quarry will be released to the appropriate agency for recreational use.

The path forward for resolutions of any issues on this assumption is the National Plan for resolution of the issue of conflict with DOE Order 5820.2A concerning institutional control. A National Issues Action Plan has been prepared on this subject.