MARCH 1995

Los Alamos National Laboratory

DECOMMISSIONING SUMMARY SITE PLAN

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Revised
March 13, 1995

Environmental Management/Environmental Restoration
Los Alamos National Laboratory
Los Alamos, New Mexico

12587

DECOMMISSIONING SUMMARY SITE PLAN

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1.0 MISSION NEED AND OBJECTIVES

1.1 Mission Need

The U.S. Department of Energy (DOE) Environmental Restoration Program provides for environmental restoration (ER), surveillance and maintenance (S&M), and decommissioning of any DOE-owned, contractor-owned, or privately owned facilities and sites that are inactive or surplus and that have been wholly or partly contaminated with radioactive, hazardous, or mixed wastes or substances because of DOE nuclear program activities. Within DOE Environmental Management (EM), the Facility Transition Planning Group (EM-60) manages the transition of all DOE surplus facilities and sites to the Office of Environmental Restoration (EM-40). EM-40 is responsible for environmental restoration and/or decontamination and decommissioning (Decommissioning) of all DOE surplus facilities and sites. Facilities are considered for acceptance by EM-40 when they are made surplus and inactive and need remedial action or Decommissioning. However, up to a 3-year transition period may be required to allow appropriation of funds for the cleanup and to ensure the orderly integration of the facility into a condition that complies with EM-60 requirements for turnover to EM-40. Final cleanup activities are scheduled on a priority basis that is incorporated into the EM-40 Environmental Restoration 5-Year Plan. See Attachment 1 for completed Decommissioning activities at Los Alamos National Laboratory (LANL).

1.2 Project Objectives

The LANL Decommissioning Program is administered as part of the Laboratory's ER Program. The program provides S&M and Decommissioning services for surplus or abandoned facilities according to guidelines established by the DOE EM Programs. The major objectives of the Decommissioning Program are listed below. All Decommissioning activities will be performed to achieve the following objectives:

- Complete decommissioning activities at all facilities currently designated or that may be designated as surplus facilities in the future, ensuring that decommissioning activities are performed to all applicable standards, regulations, and codes with the most current technology available.

- Maintain surplus facilities awaiting decommissioning in safe and secure states to eliminate potential hazards to the public and the environment.

- Conduct cost-effective S&M and decommissioning activities.

- Identify surplus facilities, equipment, materials, and other property that could be recommissioned for other programmatic use.
- Plan and support decommissioning research and development (R&D).
- Disseminate decommissioning technical information and experience among other United States (U.S.) Government agencies and commercial industry.
- Participate in appropriate national and international activities to support DOE agreements for technology transfer and exchange.

1.3 Project Baseline

Project baselines will be established for each activity data sheet (ADS) submitted. Specific baselines can be found in each Decommissioning project management plan—e.g., TA-21, Buildings 3 and 4 South, Decommissioning Project Management Plan (PMP) (LANL 1993). ADSs 1055, 1054, 1051/1051B, and 2136 (LANL 1992, 1081; LANL 1992, 1082; LANL 1992) are the only FY95 funded work. Brief descriptions of ADSs can be found in Attachment 2.

1.3.1 Performance Objectives

Work assignments shall be measurable in terms of performance and should identify verifiable events, outcomes, or deliverables that mark progress. The work authorization shall contain, directly or by reference, the following elements:

- a brief narrative description of what is to be done;
- a statement of current fiscal year funds to be provided and a citation of the funding source;
- for work assignments that have completion points, the total required funding estimate;
- the expected period of performance;
- clean up standards and goals;
- the schedule for the effort; and
- measurable results or products expected from the effort.

Funds necessary to support work authorizations shall be provided through the existing financial plan process.

1.3.2 Schedule Objectives

Activities will be planned to provide resource leveling with priorities to reduce risks to human health and the environment. Other factors considered are regulatory drivers (i.e., operable unit interface), support of economic development, feasibility of performing Decommissioning, waste management considerations, and resource availability. LANL will integrate and coordinate work with Field Project Leaders to optimize efforts and minimize costs on overlapping decommissioning and remedial action activities.

1.3.3 Cost Objectives

Cost optimization will include the following elements:

- Use established project control and baseline change procedures to gauge progress against an approved cost and schedule baseline.
- Actively seek ways to shorten schedules to reach sound decisions and take action in less time, demonstrating a bias for action.
- Institute programmatic, regulatory, and technical innovations. LANL supports the tools, techniques, systems, procedures, and new technologies that yield expedited results for the project.
- Implement cost-effective removals, interim remediation, and other cleanup activities that expedite cleanup of contaminants from the environment, even when such actions result in only partial compliance but mitigate further migration of contamination within or around the Installation.
- Actively seek cost-effective technical and management approaches to investigations and problem solving. These approaches may involve project management, policy, procedures (characterization design or design-construct contracts), technology, or technique (value engineering, fixed-bid packages, performance specifications).
- Implement new technologies.

2.0 TECHNICAL PLAN

2.1 Project Scope

This section lists facilities that may undergo Decommissioning and generic technical approaches to perform Decommissioning of the facilities. Specific technical plans will be prepared during the characterization (assessment) phase for each facility or project. Limited characterization data is currently available, and further characterization work is required to better define or assess the radiological, chemical, or physical contamination/conditions.

2.2 Complete List of Operational and Excess Contaminated Facilities

See Attachment 5 for the current list of these facilities. The information provided is preliminary, and a quality check of the information (especially the list of all facilities) needs to be performed as part of the ongoing Decommissioning effort.

TA-21, Buildings 3&4 South, characterization information can be found in the PMP (LANL 1993). Building TA-21-3, South has been demolished.

2.2.1 Current Facility Conditions

Known information on potential Decommissioning facilities is provided in Attachment 5. Additional data are required and will be obtained under ADS 1051/1051B (LANL 1994). Site-specific or thorough characterization data gathering will be done as projects are turned over to the Decommissioning program.

2.2.2 Estimated Quantities of Radiological, Hazardous, and Mixed Waste to be Generated

See Attachment 5 for preliminary estimates. Future Decommissioning activities will also obtain this information.

2.2.3 Future Land/Building Use

The facilities at TA-21, Building 4 South; TA-16, High Explosives Facilities; and TA-35, Phase Separator Pit, are not currently in use. The facilities will be demolished. The land use will be dictated by LANL programmatic demands. Future land use has not been determined for the vacated sites.

2.3 Technical Approach

2.3.1 Radiological Criteria for Cleanup

A primary goal of the LANL Decommissioning program is to provide assurance that future programmatic use of the site or

facility is permitted without restriction. Radiological protection requirements and guidelines for cleanup of residual radioactive material, management of resulting wastes and residues, and release of property can be found in DOE Order 5400.5, Chapter IV, Residual Radioactive Material (DOE 1990, 0800).

2.3.2 Decommissioning Alternative Summary

Specific decommissioning alternatives will be performed on a site-specific project basis. Alternatives will include the following:

- No Action. This alternative leaves the buildings in their existing condition.

- Safe Storage (or "Mothballing"). This alternative consists of putting the facility into a state of protective storage. The facility is left intact except for the transport off-site to appropriate storage or disposal facilities of radioactive and other hazardous materials and wastes that can be readily removed. Monitoring, surveillance, and security procedures should be established to protect the health and safety of the public and to protect the environment.

- In-Place Entombment. This alternative consists of sealing all highly contaminated components within the structure after contaminated components, fluids, and wastes which can be readily removed are shipped off-site for appropriate disposition. The sealed structure should provide integrity over the time period during which significant quantities of radioactivity remain within the structure. An appropriate and continuing surveillance program will be established, and the effect of nonradiological hazards needs to be assessed.

- Removal of Contaminated Components, Decontamination, and Dismantling. All materials and components with contamination above accepted unrestricted levels should be removed from the site or decontaminated to acceptable levels. The site and components which have been decontaminated are now suitable for unrestricted release and use.

2.3.3 Project Phases

To complete decommissioning activities there is a three-stage, ten-phase project approach employed that encompasses all project activities from facility acceptance into the program to final project evaluation. LANL will complete the following general requirements for each phase.

Note: The discussion of project phases in Sections 2.3.3.1-3 below is, with the exception of substitutions such as "LANL" for "each institution," excerpted directly from the Environmental Restoration Program Project Management Plan, published by the DOE Albuquerque Field Office, Environmental Restoration Project Office, pp. 4-8 through 4-12 (DOE 1992, 1079).

2.3.3.1 Post-Operational Stage

LANL is responsible for placing inactive facilities in a safe storage condition, providing S&M, and either transferring facilities to another program or decommissioning those facilities in excess of programmatic needs (DOE 5820.2B, Chapter V). The Decommissioning Program has responsibility for managing and decommissioning inactive facilities accepted into the EM-40 program.

Facility Acceptance Phase (Key Decision 1)

- Before a facility can be accepted into the Decommissioning Program, specific administrative, physical, and technical requirements must be met in order for the Decommissioning Program to assume responsibility for safe management and ultimate disposition. A detailed explanation of this process and specific instructions for submitting candidate facilities are in Appendix K, EM-40 Policy for Acceptance of Facilities for Environmental Restoration.

- Once a facility is accepted into the Decommissioning Program, S&M of the facility will be in accordance with the agreement reached during the facility acceptance process until decommissioning can be accomplished. When a portion of a Decommissioning Program facility is used by another program (e.g., for storage or office space), it is expected that the LANL will offset S&M costs by imposing on the user program an appropriate "rent" that covers all utilities and attendant costs resulting from the user program's occupancy of the facility. The Decommissioning Program will not fund S&M at a higher level because of occupancy of a facility by another program. Interim usage of facilities should be limited to avoid increased decommissioning costs and must first be approved by the Environmental Restoration Program Office (ERPO). Additionally,

any increase in decommissioning costs resulting from interim usage of a facility by another program shall be borne by the user program.

Long-Range Planning Phase

- Following acceptance of a facility, there is generally a period of time before the initiation of physical decommissioning, when project scoping, planning, and decommissioning preparations are performed. In this phase, facilities are prioritized and grouped into projects as appropriate. During this time, the facility must be maintained in a safe condition in order to ensure that containment of contamination is adequate, in accordance with the requirements of DOE Order 5480.1B, and safety/security controls and surveillance of the facility are maintained to minimize potential hazards to the public.

- The site S&M plan will be updated or a new plan developed to reflect the latest site conditions, when required by changes in a site inventory of Decommissioning facilities or by revision of S&M requirements. The S&M activities are of two general types: baseline S&M and major maintenance. Baseline S&M represents the basic actions necessary to meet the standards listed above. It consists of such activities as painting, cleaning, vegetation control, minor structural repairs, filter changes, building system checks, physical inspections, and environmental and radiological monitoring. Many are routine tasks performed according to established S&M schedules. Major maintenance extends beyond baseline S&M to address major repairs. Examples of major maintenance are roof and perimeter fence replacement, building system and equipment overhaul, and building structural repairs.

Project Conceptual Planning Phase (Key Decision 2)

After acceptance, a Project Plan will be prepared by the installation. The Project Plan must be approved by ERPO prior to project start. The Project Plan will, at a minimum, include the following elements:

- technical scope, schedule, and cost estimate prepared in accordance with the requirements of this PMP;

- identification of major issues or uncertainties that may impact success;
- identification of other area site activities that may impact or be impacted by the candidate project;
- identification of research and development activities necessary to support the project;
- identification of anticipated contracts and permits required for the project; and
- identification of data collection and reporting requirements.

2.3.3.2 Project Stage

Characterization Phase.

- A physical, chemical, and radiological characterization will be conducted to support detailed engineering and to fulfill the requirements of National Environmental Policy Act (NEPA) reviews, Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Superfund Amendments and Reauthorization Act, and state or local requirements. This will include the following:
- drawings, photographs, and other available records reflecting the as-built and as-modified condition of the facility and grounds;
- the condition of all structures, existing protective barriers, and systems installed to ensure public, employee, and environmental safety;
- the type, form, quantity, and location of hazardous chemical and radioactive material from past operations at the area site; and
- information that could influence the selection of a method to perform the decommissioning and decontamination work.

Environmental Review Phase (Key Decision 3).

- The NEPA process must be initiated at the earliest possible time to ensure that planning and decisions reflect environmental values. During this phase, Decommissioning alternatives are analyzed and a final strategy selected. A conceptual cost estimate will be prepared for each alternative. In addition, value engineering (VE) will be performed along with a cost-effectiveness analysis to eliminate over-design, optimize cost efficiency, and assure selection of the best alternative. The record of decision documents the final Decommissioning strategy to be used.

Engineering Phase

- Detailed engineering activities cannot be finalized until the requisite environmental regulatory determinations are complete. However, integrating early technical planning and engineering with the environmental review process ensures ample opportunity to identify and consider environmental issues, alternative actions, and mitigating measures during the engineering process. Value engineering will be performed on the design to optimize cost efficiency. Once detailed engineering is complete, the Project Plan will be updated to include the approved design and activities to be performed in the decommissioning phase.

Decommissioning Operations Phase

- Before the start of physical decommissioning activities the installation will conduct a readiness review to ensure the adequacy of detailed engineering, Work Plans, and safety and quality assurance (QA) planning (Key Decision 4).

- Decommissioning operations will be conducted in accordance with the approved Project Plan.

- Decommissioning operations are considered waste generators and will meet generator requirements contained in DOE Order 5820.2A. Information on waste generation will be provided to ERPO annually for submission to the Oak Ridge National Laboratory Integrated Data Base program.

Post-Decommissioning Phase (Key Decision 5)

- Following completion of decommissioning activities, a final environmental review and radiation survey will be conducted. Additionally, for all projects remote to an installation, or for other special cases, an independent verification survey and a certification docket will be prepared to document satisfactory completion of decommissioning activities.

- Subsequent to the radiation surveys, the Final Report will be drafted and a project data package assembled in preparation for a Close-Out Review, to be conducted by the ERPO. The review will address the results of final surveys and post-decommissioning documentation. This information and a draft copy of the Final Report will be submitted to ERPO before the Close-Out Review.

- A project data package will be assembled to provide a complete documented history of the decommissioning project. A listing of all pertinent documentation to be included in the project data package will be included in the Project Plan. The completed project data package will be permanently retained. While the level of detail to be retained for a specific project must be determined by the installation, a recommended list of records and other information to be included in the final data package is as follows:

  - project title and identification;
  - project authorization;
  - characterization reports (both physical and radiological);
  - NEPA/CERCLA/RCRA documentation;
  - design documents and reviews;
  - safety evaluations;
  - waste management data;
  - detailed work procedures;

- readiness reviews;
- final radiological and hazardous chemical survey records;
- property disposition records;
- release criteria;
- special problems and solutions (memoranda);
- incident reports;
- cost and schedule status reports;
- QA documents/third party inspection reports;
- release restrictions;
- final report; and
- supporting engineering documents.

2.3.3.3 Transition Stage

Property Transfer Phase

- If DOE determines that there is another use for a facility that has been accepted into the Decommissioning Program before decontamination and decommissioning are completed, LANL and ERPO will be notified immediately. In such case, the installation and ERPO will take the appropriate action regarding ongoing Decommissioning activities to assure that further Decommissioning work is consistent with the objectives of the project. ERPO approval is required for any transfer if facility decommissioning has not been completed.

- The ERPO will evaluate and recommend approval or denial of the request to Headquarters (HQ). Following receipt of the request, evaluation, and HQ approval (if granted), ERPO will notify LANL of the evaluation results and any further actions required to complete transfer of the property to the identified organization. This organization will, on the effective date of transfer, assume full

responsibility for the property in accordance with DOE Order 5820.2A.

Project Evaluation Phase

- Following completion of the scheduled project activities, the Decommissioning Program's responsibility terminates. Any further oversight will be performed by the site landlord or another program designated by the installation.

- Following completion of scheduled project activities and formal project close-out, LANL will complete an evaluation to identify aspects of the project that may be of importance in future planning for similar Decommissioning projects. The evaluation will also serve as a source of useful information on technology developments and lessons learned for dissemination as part of the Decommissioning Technology Exchange Program. The evaluation will address the following aspects of the project: (1) project efficiency in terms of cost, schedule, and quality; (2) results of data collection tasks identified during project authorization; (3) adequacy of project design/planning and appropriateness of decommissioning technology and techniques; (4) effectiveness of overall management control and information systems; and (5) lessons learned. A report reflecting the results of the evaluation will be prepared by the installation and provided to ERPO. Further follow-up actions may include either or both of the following courses: (1) revision of existing program or area site documentation and procedures, or (2) development and distribution of a special report on the subject. In any case, all pertinent project evaluation information will be input into the Decommissioning technology data base for future use.

2.3.4 Work Breakdown Structure

The work breakdown structure is currently being developed and worked into the LANL ER Program Management Information System format, as per DOE Order 4700.1 (DOE 1992; 0823) requirements. See Attachment 7 for a sample of the Work Breakdown Structure.

3.0 RISK ASSESSMENT AND MITIGATING MEASURES

3.1 Background

Decommissioning operations are conducted as voluntary cleanup actions by the DOE. Future planning and strategies will consider the LANL overall ER-Decommissioning and Remedial Actions:

- Coordinate and integrate Decommissioning and Remedial Action (legally driven) activities to optimize cleanup efforts and to avoid interference with regulatory cleanup schedule activities.
- Consider limitations of current waste disposal capacity at LANL. Waste disposal capacity of Area G is projected to be full in 2 to 3 years unless expansion occurs.
- Consider input from stakeholders and expand participation with stakeholders.
- Increase detail of project plans to allow possible Decommissioning (remediation) by outside contractors.
- Balance characterization activities to satisfy development of project plans and development of assessments and to provide satisfactory information to stakeholders and other LANL programs (e.g., ER-Remedial Actions).
- Optimize the tradeoff between the drive to reduce costs and the proliferation of documentation.
- Expand cleanup efforts and consider budget and resource constraints.

3.2 Regulatory and Programmatic Interfaces

The Decommissioning Program develops constructive relationships with various public and private interests and organizations external to LANL that are affected by, interested in, or have regulatory authority over the Decommissioning Program, as described in the Installation Work Plan (IWP), Annex V, Public Involvement Program Plan (LANL 1993, 1017).

3.2.1 Participants

3.2.1.1 Regulatory Interface

The regulatory interface in the Decommissioning Program ensures compliance with the various environmental laws, including but not limited to the Clean Water Act; the Clean Air Act; NEPA; the Toxic

Substances Control Act; the CERCLA; the National Emissions Standards for Hazardous Air Pollutants; the Historic Preservation Act; the Safe Drinking Water Act; and the Threatened and Endangered Species Act.

3.2.1.2 Public Interface

The public interface for the Decommissioning Program integrates the community relations needs of the Decommissioning Program with existing community relations and public affairs programs and policies at the Laboratory efficiently and cost-effectively. This function includes provisions for the following:

- informing the public in a timely manner of the technical activities of the Decommissioning Program;
- responding to communities' concerns about these activities;
- educating communities about Decommissioning technical activities, where needed, within the regulatory framework; and
- gathering public comment on these activities at appropriate times.

3.2.2 NEPA Compliance

NEPA requires that all federal agencies address environmental issues in the project planning process for any action being proposed. This process includes implementing regulations and establishing formalized review processes to ensure that environmental concerns are addressed early in the project planning cycle. NEPA establishes a process by which decisions that may affect the environment are made. It does not, however, establish environmental standards or criteria.

The RCRA or CERCLA process does not preclude having NEPA requirements imposed on a Decommissioning project. Also, RCRA and CERCLA requirements must be addressed even if the action is taken under NEPA.

3.3 Health, Safety, and Environmental Protection

Health, safety, and environmental (HSE) protection is a major objective of the Decommissioning Program. The Decommissioning Program is committed to working in ways that do not compromise the health and

safety of the workers at LANL or people in the surrounding areas. The work is also managed so that the environment is protected and incorporates procedures and activities described in the IWP, Annex III, Health and Safety Program Plan (H&SPP) (LANL 1993, 1017) and those established in the LANL Environment, Safety, and Health (ES&H) Manual (LANL, August 1992).

The H&SPP identifies, evaluates, and controls health and safety hazards and provides for emergency responses, hazardous waste characterization, and remediation operations. The H&SPP may take the form of Standard Operating Procedures (SOPs), operating instructions, operating procedures, or work permits.

The H&SPP addresses the following:

- organization structure,
- employee training,
- medical surveillance,
- monitoring in the field for ionizing radiation and respiratory hazards,
- access control measures,
- decontamination procedures,
- SOPs,
- waste procedures,
- emergency responses, and
- safety briefings for workers.

Individual tasks and projects may have a specific HSE plan that addresses the following:

- the hazards and risks at the location,
- appropriate personal protective equipment,
- specific decontamination procedures,
- names and telephone numbers that might be needed in an emergency, and
- emergency responses for the location.

Operations are conducted under the requirements of LANL manuals, particularly regarding the As-Low-As-Reasonably-Achievable Policy stated in the ES&H Manual (LANL, August 1992). See especially Technical Bulletin 302, therein: Alara Guide. Operations are audited to ensure that the H&SPP is implemented effectively.

4.0 MANAGEMENT APPROACH

Management of the LANL Decommissioning Program is consistent with the existing LANL ER Program, as detailed in the IWP, Annex I, Program Management Plan (LANL 1993, 1017), and the Decommissioning PMP (LANL 1993). Revisions to the Decommissioning PMP will be made to conform to internal LANL reorganization.

4.1 Organizational Responsibilities

4.1.1 Project Organization

The LANL Decommissioning Program is managed by the Environmental Restoration (ER) Program Manager. See Attachment 4 for the Environmental Management/Environmental Restoration Program Organization Chart.

The ER Program Manager reports to the Environmental Management (EM) Program Director, who has overall responsibility for the LANL EM Program. The ER Program Manager's responsibilities include the following:

- ensuring that the Decommissioning Program is consistent with the goals and objectives of the EM Program Director, DOE, Environmental Protection Agency, New Mexico Environment Department, and other applicable agencies;
- ensuring compliance with the environmental permits specific to the Decommissioning Program;
- ensuring compliance with change control procedures;
- performing cost, schedule, and performance measurements; and
- ensuring the establishment, implementation, and support of QA, HSE, and Records Management Programs.

For each Decommissioning project, a team is organized. A typical project has the following support staff: project leader, assistant project leader, and contractor job superintendent.

4.1.2 Decision Delegation

See Section 1.3, Project Baseline for Key Decisions. The programmatic responsibility lies with the ER Program Manager. General technical and programmatic direction is provided by the Decommissioning Programmatic Project Leader. Specific Project direction is provided by the individual Decommissioning Project Leaders. Management plans or planned activities can be found in the ADSs or in specific Project Management Plans.

4.1.3 Contractor Usage

Direct management of Decommissioning activities is provided by the Laboratory. Field work on actual Decommissioning is provided by the support services subcontractor or a contractor selected by competitive bidding procedure. Engineering and other planning support is provided by others through the Laboratory contract process.

4.2 Project Management Control System

The objective of project management in the LANL Decommissioning Program is to perform Decommissioning projects safely and cost-effectively by carefully preparing and adhering to the specific Project Plan in accordance with DOE Order 4700.1, Project Management System (DOE 1992, 0823).

The Project Plan guides participants in the operational phase of the project. Cost and schedule control plans are included. Applicable information from DOE EM planning documents is also included. Further information about preparing the Project Plan is in the Environmental Restoration Program Project Management Plan (DOE 1992, 1079). (See Section 1.3.1, Performance Objectives, for further information.)

5.0 ACQUISITION STRATEGY

The Decommissioning Program uses a uniform, systematic approach for the design, planning, and operations of all Decommissioning projects. These phases include procurement of services, equipment, and material to accomplish the project activities.

Procurement includes those activities associated with awarding contracts for decommissioning operations. Procurement is guided by an acquisition strategy that considers the options of using the management and operating contractor versus an outside contractor and using a fixed-price versus a cost-plus contract. The DOE EM Program promotes developing a broad base of contractors with capabilities and experience in Decommissioning work. Generally, the Decommissioning work should be performed under a fixed-price, competitive contract, unless it is in the best interest of the Federal Government to do otherwise. Procurement activities include preparing

requests for proposals and developing bidder's requirements. As contracted work is required, additional procurement activities include assembling contract technical documents; preparing bidder's lists; arranging pre-bid meetings; qualifying and certifying bidders; evaluating bids; selecting responsive bids; and negotiating, awarding, and maintaining contracts.

6.0 PROJECT SCHEDULE

6.1 Background

Current project starts include TA-21, Building 4 South, (operations or actual Decommissioning phase), TA-21, Buildings 146 & 324 (characterization phase), TA-35, Phase Separator Pit, (operations phase), and TA-16, 25 High Explosives (HE) contaminated buildings (remediation phase). Work is planned to continue on these projects. See Attachment 6 for Project Schedule information on all Decommissioning sites.

6.2 Scheduled Decision Points

See Section 2.3.3, Project Phases, for discussion on this topic.

6.3 Status

Currently (February 1995):

TA-21, Building 3 South has been demolished. TA-21, Building 4 South, characterization work is complete and the removal of the majority of equipment from Building 4 is nearly complete. TA-21, Buildings 146 & 324, characterization plans have been approved and work is expected to begin March, 1995. The TA-35 Phase Separator Pit Decommissioning project has completed the Planning Phase of the project and has begun operations; phase 1 of operations will be completed by June 1995 and an external contractor will begin phases 2-5 in mid-1995. Site characterization and Engineering Evaluation and Design is complete for the 25 HE contaminated buildings at TA-16. TA-16 remediation will start this year.

7.0 RESOURCE PLAN

7.1 Cost

See the various ADSs covering FY95 for cost and schedule. See Attachment 6 for Cost information on all Decommissioning sites. Decommissioning activities are performed as good management practices by DOE and is not currently regulated driven by RCRA and CERCLA. Work is performed according to DOE funding availability.

7.2 Staffing Requirements

Current LANL manpower fluctuates on a daily and monthly basis as activities dictate. The LANL Decommissioning staff estimate ranges from 8-12, direct program, and 2-4, indirect. The contract design support estimate range is 2-6 people. Direct field operation support for Decommissioning varies from 6-16 as activities dictate. Availability of technical and experienced Decommissioning personnel in the DOE complex is limited. A LANL in-house pool of personnel exists but is committed to other programs. A pool shortage of Radiation Control Technicians exists. A LANL pool of field-experienced Decommissioning Project Leaders is not readily available. Staffing for current programs has been slow. Future resource requirements are being assessed.

7.3 Facilities

Office space for the technical staff (mainly project leaders) is limited. Current efforts are ongoing to acquire additional space. The project staff at TA-21 has utilized Building 2 South to set up a field office. Change trailers have been borrowed from another program to provide a change room for the TA-21 Decommissioning workers. Change trailers have been purchased to accommodate the TA-35 Phase Separator Pit project. Additional change trailers will need to be purchased to accommodate future projects. Storage space is being sought to house Decommissioning equipment and material that is not being used.

8.0 CONTROLLED ITEMS/BASELINES

Decommissioning activities include the reporting, tracking, and costing and scheduling mechanisms described in DOE Order 4700.1, Project Management System (DOE 1992, 0823), EM-40 Management Policies & Requirements (DOE 1992, 1077), and the Environmental Restoration Program Project Management Plan (DOE 1992, 1079). These include input into the DOE Project Tracking System, use of the Cost and Schedule Control Systems Criteria for Contract Performance Measurement Work, and a Baseline Control Procedure to initiate, approve, and document baseline change. The ER Program Management Information System is used to accomplish these activities. The Decommissioning Program follows the Program Management Plan, Annex I, in the IWP (LANL 1993, 1017).

REFERENCES

DOE (US Department of Energy), June 5, 1990. "Radiation Protection of the Public and the Environment," DOE Order 5400.5 (Change 1), Washington, DC. (DOE 1990, 0080)

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LANL (Los Alamos National Laboratory), August 3, 1992. "Environment, Safety, and Health Manual," Los Alamos National Laboratory. (LANL, August 1992)

LANL (Los Alamos National Laboratory), August 26, 1993. "Project Management Plan TA-21, Buildings 3 and 4 South, Enriched Uranium Processing Facility Decommissioning," document control number DAD-EM13-93-004, Environmental Restoration Program, Los Alamos National Laboratory. (LANL 1993)

LANL (Los Alamos National Laboratory), December 1993. "Installation Work Plan for Environmental Restoration," Los Alamos National Laboratory Report LAUR-93-3987. (LANL 1993, 1017)

Attachment 1

Completed Decommissioning Activities at Los Alamos National Laboratory*

1. Disposition of a Plutonium-Contaminated Experimental Facility, TA-33-21 (1975).
2. Demolition of a Plutonium Filter Facility, TA-21-12 (1975).
3. Decommissioning of a ^{227}Ac-Contaminated Filter Building, TA-21-153 (1981).
4. Decommissioning of the Los Alamos Molten Plutonium Reactor Experiment (LAMPRE I), TA-35 (1981).
5. Decommissioning of a Tritium-Contaminated Laboratory, TA-35 (1981).
6. Removal of Contaminated Air Scrubbers, TA-35-7 (1981).
7. Decommissioning of a Plutonium-Contaminated Incinerator Facility, TA-42 (1981).
8. Decontamination of Plutonium Facility, DP West, TA-21 (1982).
9. Removal of Radioactive Liquid Waste Lines Parallel to Diamond Drive and Pajarito Road from TA-3 to TA-50 (1986).
10. Decommissioning of the Water Boiler Reactor, TA-2 (1991).
11. Decommissioning of the UHTREX Reactor Facility, TA-52 (1991).
12. Decommissioning of the Los Alamos Power Reactor Experiment (LAPRE II), TA-35 (1991).

*See Attachment 3 for general location of TA sites.

Attachment 2

Current Decommissioning ADSs in FY95-99 and FY96-00 Five-Year Plans*

ADS Number	Title	Brief Description
ALLA-1051	Project Management	Fund a LANL Decommissioning Program (staffing to provide management and oversight) that will identify excess Defense Programs facilities at LANL and their design and planning needs.
ALLA-1051B	Project Management	Fund a LANL Decommissioning Program (staffing to provide management and oversight) that will identify excess Non-Defense Programs facilities at LANL and their design and planning needs.
ALLA-1054	TA-35, Phase Separator Pit Decommissioning Project	Decommission underground structures that provided ventilation exhaust for the LAMPRE I and supporting structures, tanks, waste lines, and ventilation ducting. This project also includes relocating existing functioning ventilation equipment and razing structure TA-35-7.
ALLA-1055	TA-21, DP West	Decommissioning of TA-21, DP West site. This project encompasses several process buildings in which Pu-238, Pu-239, U-235, and U-238 were handled and the support buildings, such as those housing ventilation and filtration systems and storage buildings.
ALLA-2135	TA-33, Building 86, Tritium Facility	Decommissioning of TA-33, Building 86, a high-pressure tritium gas repackaging facility.
ALLA-2136	TA-16 (S Site), High Explosives Areas	Decommissioning of approximately 25 buildings and structures that were used in the research and development and storage of high explosives.

Attachment 2 (continued)

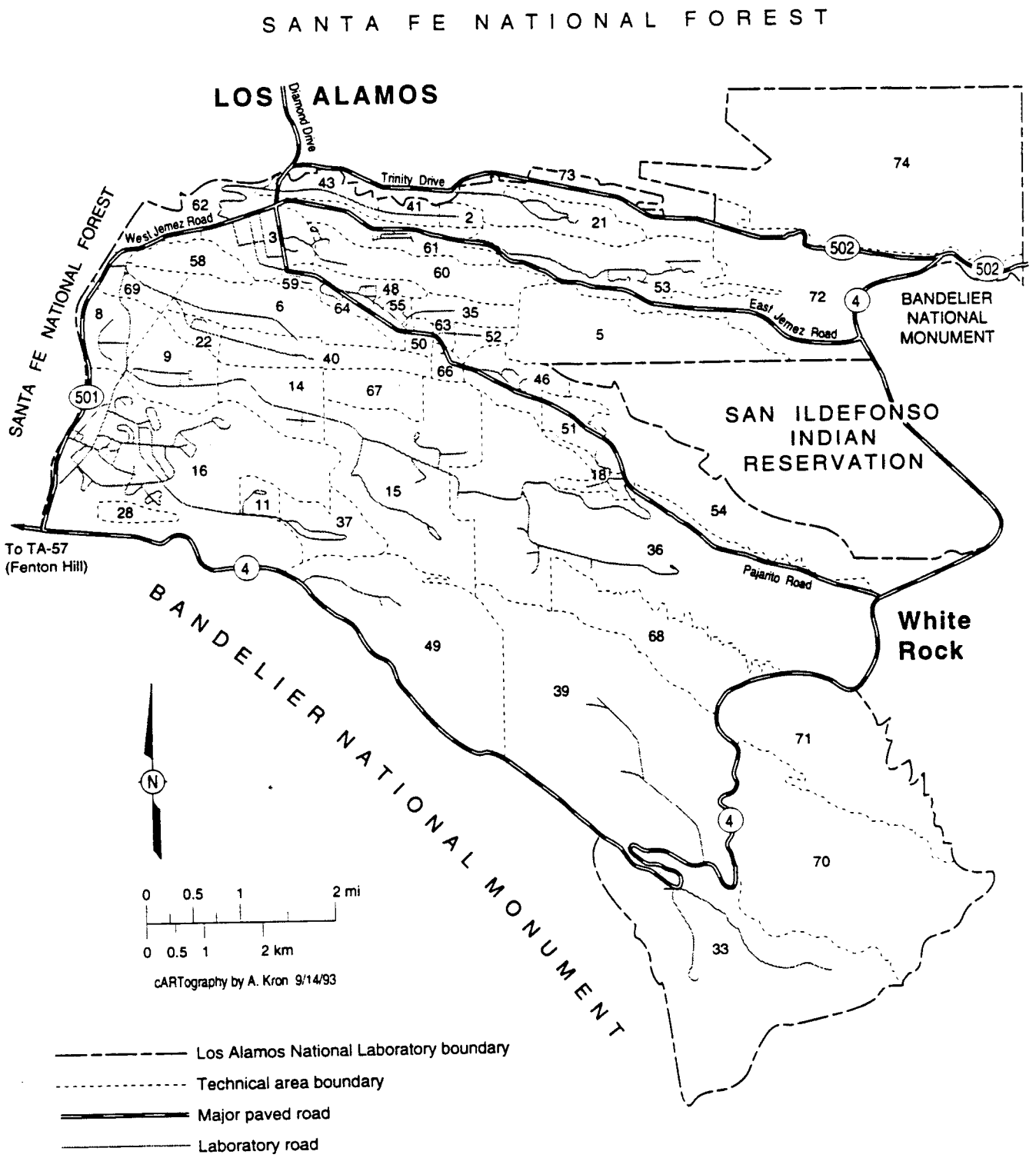
Current Decommissioning ADSs in FY95-99 and FY96-00 Five-Year Plans*

ADS Number	Title	Brief Description
ALLA-2137	Technical Support for Decommissioning	Supports the Decommissioning Program by applying equipment and technical expertise to the field projects. Equipment and techniques learned through active informational exchanges with other DOE Decommissioning activities are applied as appropriate.
ALLA-2138	Surveillance and Maintenance	Provides for S&M of Defense Programs facilities that were accepted into the EM-40 Decommissioning Program.
ADS 6101B	Transition Surveillance and Maintenance in FY-96	Provides for safe shutdown, S&M, and landlord activities. This ADS is funded through EM-60.

*See Attachment 3 for general location of TA sites.

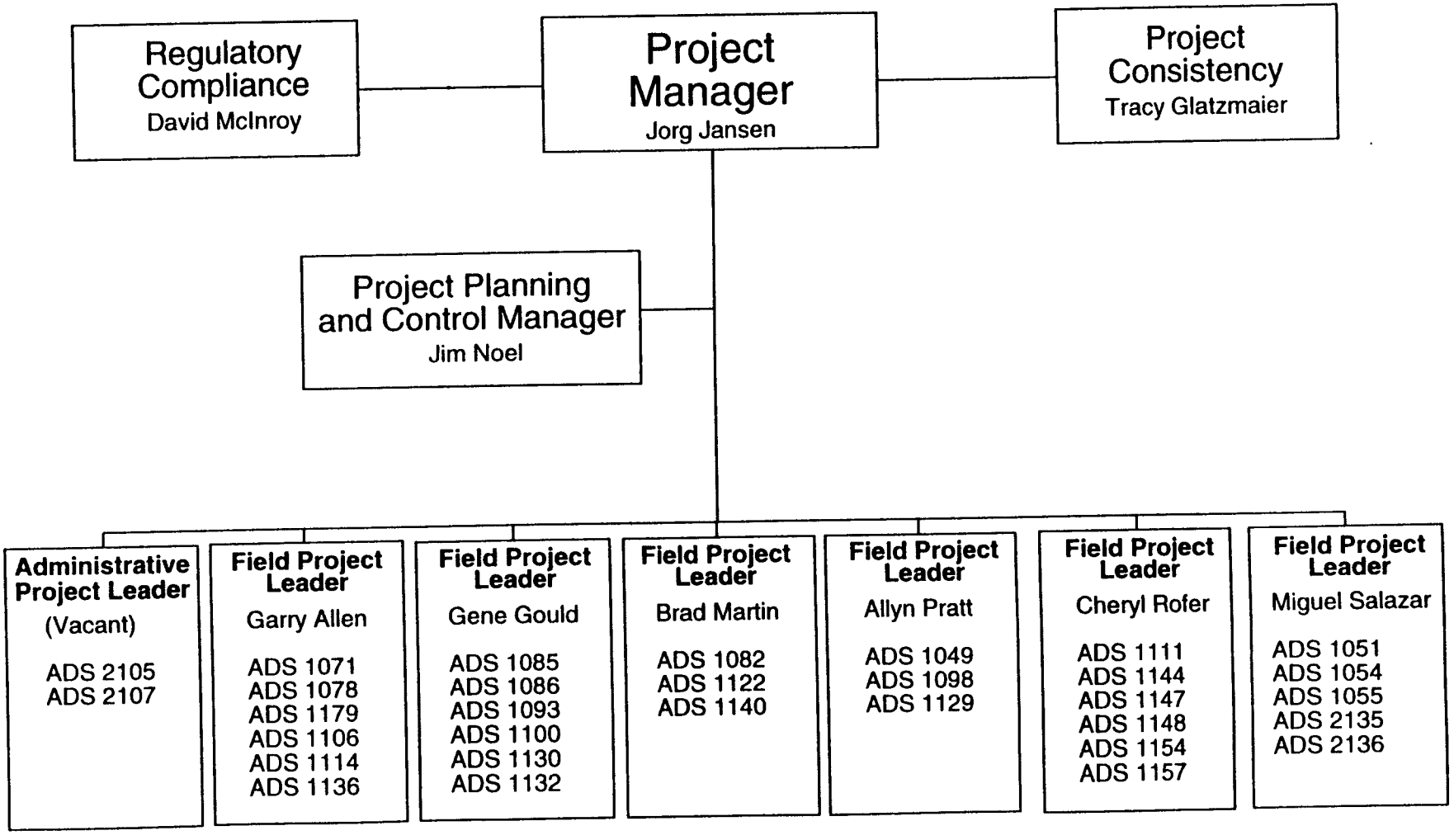
Attachment 3

Los Alamos National Laboratory Technical Areas (TAs)



Attachment 4

Environmental Management/Environmental Restoration Program Organizational Structure



Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
1054	TA-35-2	Laboratory	82,312	Tritium; Low-level Rad: Sr-90, Co-60, Cs-137/ Vol.TBD	Mercury	None	TBD	TBD	None	TBD	None	1995
1054	TA-35-3	Phase Sep. Pit	Conc./2150	Low-level Rad: Sr-90, Co-60, Cs-137/ Vol.TBD	Lead, Asb./TBD	Lead, Asb./TBD	TBD	TBD	None	2724	None	1996
1054	TA-35-4	Underground Storage Tank	1300 gal. Stainless Steel	Low-level Rad: Sr-90, Co-60, Cs-137/ Vol.TBD	TBD	Acids/ Solvents	TBD	TBD	None	TBD	None	1996
1054	TA-35-5	Underground Storage Tank	1300 gal. Stainless Steel	Low-level Rad: Sr-90, Co-60, Cs-137/ Vol.TBD	TBD	Acids/ Solvents	TBD	TBD	None	TBD	None	1996
1054	TA-35-6	Underground Storage Tank	1300 gal. Stainless Steel	Low-level Rad: Sr-90, Co-60, Cs-137/ Vol.TBD	TBD	Acids/ Solvents	TBD	TBD	None	TBD	None	1996

Attachment 5

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
1054	TA-35-7	Filter Building	Blk./8709	Low-level Rad: Sr-90, Co-60, Cs-137/ Vol.TBD	Asb/TBD	None	TBD	TBD	None	3857	None	1996
1055	TA-21-1	Office Vault Building	Conc./1416	Unknown	Asb./TBD	Asb./TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-2 (North)	Laboratory	Conc. Met./ 5700	Pu-238, Pu 239, Am-241; U/ 1470	Asb./15	Asb./15	TBD	TBD	4566	None	None	1999
1055	TA-21- 2 (South)	Laboratory	Conc. Met./ 5700	Pu-238, Pu 239, Am-241, U/ 1470	Asb./15	Asb./15	TBD	TBD	4566	None	None	1999
1055	TA-21- 3 (North)	Laboratory	Conc. Met./ 8800	Am-241, Th, Np-239, Pu-238, Pu-239/ 2269	Asb./23	Asb./23	TBD	TBD	7049	None	None	1993
1055	TA-21-4 (North)	Laboratory	Conc. Met./ 5600	U-238, U-235, Pu-238, Pu-239, Am-241/ 1445	Asb./14	Asb./14	TBD	TBD	4486	None	None	1994

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
1055	TA-21- 4 (South)	Laboratory	Conc. Met./ 4000	U-238, U-235, Pu-238, Pu-239, Am-241/ 1445	Asb./11	Asb./11	TBD	TBD	3204	None	None	1993
1055	TA-21- 5 (North)	Laboratory	Conc. Met./ 6700	Pu-239, Am-241, U/ 1727	Asb./18	Asb./18	TBD	TBD	5367	None	None	1997
1055	TA-21- 5 (South)	Laboratory	Conc. Met./ 6700	Pu-239, Am-241, U/ 1727	Asb./18	Asb./18	TBD	TBD	5367	None	None	1997
1055	TA-21-14	Instrumentation	Blk./3000	Unknown	Unknown	Unknown	TBD	TBD	TBD	None	None	TBD
1055	TA-21-18	Passageway	TBD/1550	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-21	Vault	Conc./3283	Pu-239, Am-241, U-235/ 1710	Unknown	Unknown	TBD	TBD	5207	None	None	1995
1055	TA-21-30	Paint Shop	Conc./1000	Unknown	Unknown	Unknown	TBD	TBD	TBD	None	None	TB D
1055	TA-21-31	Electronics	Frame/4000	Unknown	Asb./TBD	Unknown	TBD	TBD	TBD	None	None	TBD
1055	TA-21-46	Warehouse	Met./1000	Unknown	Asb./TBD	Unknown	TBD	TBD	TBD	None	None	TBD
1055	TA-21-80	Backflow Prevention Building	TBD/25	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
1055	TA-21-83	Backflow Prevention Building	TBD/25	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-86	Backflow Prevention Building	TBD/25	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-88	Backflow Prevention Building	TBD/25	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-110	Acid Tank	TBD/450	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-111	Acid Tank	TBD/450	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-112	Acid Tank	TBD/450	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-113	Acid Tank	TBD/450	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-116	Equipment Warehouse/ Conference Room	Sheet Metal/1885	Pu-238, Pu 239, Am-241	Asb.	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-143	Cooling Tower	TBD/900	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-144	Passageway	Wood Frame/272	Unknown	Asb.	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-146	Filter Bldg.	Blk./843	Pu-238, Pu-239, Am-241, U-235/387	Asb./8	Unknown	TBD	TBD	1202	None	None	1995

Attachment 5

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
1055	TA-21-148	Electric Substation	Conc.Slab/ TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-149	Corridor Structure	TBD/1720	Pu-238, Pu 239, Am-241, U-235	Asb.	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-150	Processing	Conc./14,919	Pu-238, Pu-239,/ 1580	Asb./32	Unknown	TBD	TBD	4908	None	None	2002
1055	TA-21-193	Electric Substation	Conc.Slab/ TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-210	Pu Research Support Building	Conc./ 20,851	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-212	Calcium Grinding Facility	Blk./455	None	None	None	TBD	TBD	TBD	None	None	1995
1055	TA-21-228	Storage	Stl./6161	None	None	Unknown	TBD	TBD	4005	None	None	2004
1055	TA-21-254	Guard House	Stl./100	Unknown	Unknown	Unknown	TBD	TBD	TBD	None	None	TBD

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
1055	TA-21-257	Waste Disposal Building	Stl./4229	Pu-238, Pu-239, Am-241, U-234, U-235, U-238/ 1031	Asb./21	Unknown	TBD	TBD	3204	None	None	2004
1055	TA-21-286	Storage	Stl./3578	Pu-239	Asb./26	Unknown	TBD	TBD	4005	None	None	2003
1055	TA-21-305	High Pressure Manifold	TBD	None	None	None	TBD	TBD	TBD	None	None	TBD
1055	TA-21-308	Electric Substation	Conc.Slab/ TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-309	Electric Substation	Conc.Slab/ TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-310	Telephone Substation	Conc.Slab/ TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-311	Telephone Substation	Conc.Slab/ TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-312	Corridor Structure	TBD/1528	Pu-238, Pu 239, Am-241	None	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-313	Corridor Structure	TBD/2580	Pu-239, Pu 238, Am-241, U-235	Asb.	TBD	TBD	TBD	TBD	None	None	TBD

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
1055	TA-21-314	Corridor Structure	TBD/410	Pu-239, Am-241, U, U-235	Asb.	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-315	Corridor Structure	TBD/2738	Pu-239, Pu 238, Am-241, U, U-235	Asb.	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-324	Filter Bldg.	Stl./1059	Pu-238, Pu-239, Am-241, U, U-235/903	Asb./18	Unknown	TBD	TBD	2804	None	None	1995
1055	TA-21-328	Materials Receiving Building	Conc.Blk/320	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
1055	TA-21-335	Containment Vessel	TBD/125	None	None	None	TBD	TBD	TBD	None	None	TBD
1055	TA-21-338	Electric Substation	Conc./TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
2134	TA-3-35	Press Bldg.	Met./TBD	U-235/ 1789	Lead, Asb., Mercury/ 76	Lead, Asb., Mercury/ 18	TBD	TBD	327	None	None	1997
2135	TA-33-86	Tritium Fac.	Conc./6300	Tritium/ 671	Lead, Asb., Mercury/ 28	Lead, Asb., Mercury/ 7	TBD	TBD	1229	None	None	1997

Attachment 5

Summary Level Information For Decommissioning Projects
In FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
2136	TA-16-10	Warehouse	Frame/8136	None	Asb./ 62	None	TBD	TBD	4802	None	None	1994
2136	TA-16-27	Storage	Frame/8001	None	HE, Asb./ 154	None	TBD	TBD	4718	None	None	1994
2136	TA-16-59	Magazine	Frame/1200	None	HE, Asb./ 62	None	TBD	TBD	723	None	None	1994
2136	TA-16-61	Magazine	Frame/1227	None	Asb./62	None	TBD	TBD	742	None	None	1994
2136	TA-16-63	Storage	Frame/495	None	Asb./4	None	TBD	TBD	308	None	None	1994
2136	TA-16-73	Magazine	Conc./144	None	None	None	TBD	TBD	121	None	None	1994
2136	TA-16-75	Exp. Shed	Conc./300	None	None	None	TBD	TBD	196	None	None	1994
2136	TA-16-76	Magazine	Conc./300	None	None	None	TBD	TBD	196	None	None	1994
2136	TA-16-77	Magazine	Conc./300	None	None	None	TBD	TBD	196	None	None	1994
2136	TA-16-78	Magazine	Conc./300	None	None	None	TBD	TBD	196	None	None	1994
2136	TA-16-79	Magazine	Conc./300	None	None	None	TBD	TBD	196	None	None	1994
2136	TA-16-80	Magazine	Conc./300	None	None	None	TBD	TBD	196	None	None	1994
2136	TA-16-89	Processing	Frame/1684	None	HE, Asb./ 21	None	TBD	TBD	952	None	None	1994
2136	TA-16-90	Processing	Frame/2165	None	HE, Asb./ 16	None	TBD	TBD	1292	None	None	1994

Attachment 5

Summary Level Information For Decommissioning Projects In FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
2136	TA-16-91	Processing	Frame/1322	None	HE, Asb./ 13	None	TBD	TBD	793	None	None	1994
2136	TA-16-92	Inspection	Frame/1257	Low-level Rad: Unkn Isotope/ TBD	HE, Asb./ 12	None	TBD	TBD	760	None	None	1994
2136	TA-16-93	Processing	Frame/1627	None	HE, Asb./ 21	None	TBD	TBD	975	None	None	1994
2136	TA-16-99	Storage	Frame/892	None	HE, Asb./ 9	None	TBD	TBD	546	None	None	1994
2136	TA-16-101	Guard Station	Frame/185	Unknown	HE-Unkn Asb./2	Unknown	TBD	TBD	126	None	None	1994
2136	TA-16-515	Processing	Frame/3117	None	HE, Asb./ 32	None	TBD	TBD	1456	None	None	1994
2136	TA-16-516	Processing	Frame/640	None	HE, Asb./ 21	None	TBD	TBD	396	None	None	1994
2136	TA-16-517	Storage	Frame/318	None	HE, Asb./ 2	None	TBD	TBD	205	None	None	1994
2136	TA-16-519	Storage	Frame/728	None	HE, Asb./ 7	None	TBD	TBD	448	None	None	1994
2136	TA-16-520	Testing	Frame/656	None	HE,Asb./ 8	None	TBD	TBD	406	None	None	1994
2136	TA-16-1451	Guard Station	Reinf. Conc./187	None	ACM/1	None	TBD	TBD	TBD	None	None	1994
xxxx	TA-2-1	Omega West Reactor	21308	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
xxxx	TA-2-4	Storage Building	531	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-19	Gas Line House	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-21	Z Waterline Valve House C106413	61	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-30	Beam Trap	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-32	Underground Chamber	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-35	Drainage Basin	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-37	Rock Catcher 02-0037	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-44	Cooling System Building	1091	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-46	Surge Tank	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-47	Manhole	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD

Attachment 5

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
xxxx	TA-2-50	Storage Building	1000	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-53	Cont. Waste Pit	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-57	Z Valve House C113800	25	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-58	Stack Monitor Bldg	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-63	Boiler House	500	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-2-69	Guard Station #316	64	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-3-2137	Z Metal Shed	Steel Frame/456	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-6-1	Storage Building	Wood/1610	Unknown	Asb./ ACMs	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-6-2	Compressor Building	Wood/76	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-6-3	Fabrication Building	Wood/557	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
xxxx	TA-6-5	Storage Building	Wood/300	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-6-6	Storage Building	Wood/2285	Unknown	Asb./ ACMs/ PCBs/ Vol./ Chems	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-6-7	Storage Building	Reinf. Conc./228	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-6-8	Lab Building	Reinf. Conc./682	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-6-9	Firing Chamber	Reinf. Conc./195	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-8-1	Laboratory & Shop Building	Reinf. Conc./3330	Unknown	Asb./ ACMs/ Expl.	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-8-2	Shop & Storage Building	Reinf. Conc./408	Unknown	Asb./ ACMs/ Expl.	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-8-3	Laboratory Building	Reinf. Conc./602	Unknown	Asb./ ACMs/ Expl.	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-15-8	Storage Building	Wood/324	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
xxxx	TA-15-9	Firing Bunker	Reinf. Conc./297	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-15-22	Storage Building	Reinf. Conc./310	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-15-27	Control Building	Wood/560	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-15-44	Control Building	Reinf. Conc./508	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-15-138	Control & Blast Protection	Bunker/100	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-15-141	Blast Protection Building	Conc. Msry Blk/140	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-15-213	Platform	Wood/624	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-16-280	Inspection Building	Concrete/ 5423	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-16-285	Equipment Storage Building	Concrete/ 3928	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-16-380	HE "Power" Inspection Building	Concrete/ 3815	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD

Attachm . 5

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
xxxx	TA-22-1	Loading Building	7600	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-22-25	Process Building	TBD	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-33-1	Storage Building	Wood/450	TBD	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-33-2	Storage Building	450	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-33-24	Storage Building	1046	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-33-26	Storage Building	Reinf. Conc./161	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-33-88	Storage Building	Reinf. Conc./247	Unknown	TBD	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-33-89	Storage Building	Reinf. Conc./208	Unknown	TBD	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-40-43	Storage Building	Reinf. Conc./216	Unknown	Asb./ ACMs/ Expl.	None	TBD	TBD	TBD	None	None	TBD

Summary Level Information For Decommissioning Projects In FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
xxxx	TA-46-161	Accelerator Vault Building	2541	TBD	TBD	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-49-23	Bottle House	Reinf. Conc./256	Unknown	Asb./ ACMs/Vol/ Expl.	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-49-121	Cable Building	Wood/377	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-53-3	Lab Meson Facility	Steel Frame/ 316249	H-3; I-133; Eu-155; U-238; Co-60; Cs-134; Sr-90/Y-90; Cs 137; I-126; Eu-152; I-131; Eu-154; Be-7	Unknown	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-53-7	LANSCE/WNR Building	Conc. Msry Blk/29102	TBD	Unknown	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-53-8	Proton Storage Ring Facility	Conc. Msry Blk/9480	H-3; Co-60; Spallation	None	TBD	TBD	TBD	TBD	None	None	TBD
xxxx	TA-53-368	Pump Shed	PreFab Mod./ 315	H-3; Spallation	TBD	None	TBD	TBD	TBD	None	None	TBD

Attachment 5

Summary Level Information For Decommissioning Projects in FY95-99 AND FY96-00 Five-Year Plans

ADS No.†	TA No., Bldg. No.*	Building Use	Bldg. Type/ Sq. Ft.	Type of Contamination/ Volume of Waste (Cu. Yd)			Equipment		Costs ($K)**		Potential Building Use***	Proposed Turnover Date
				Rad	Haz	Mixed	Contam.	Noncont.	EW	EX		
xxxx	TA-53-369	WNR Target Cell #4	Conc. Msry Blk/315	TBD	TBD	None	TBD	TBD	TBD	None	None	TBD
xxxx	TA-61-16	Z Storage Building C112400	Wood/3420	Unknown	Unknown	None	TBD	TBD	TBD	None	None	TBD

† These ADS current for FY95.

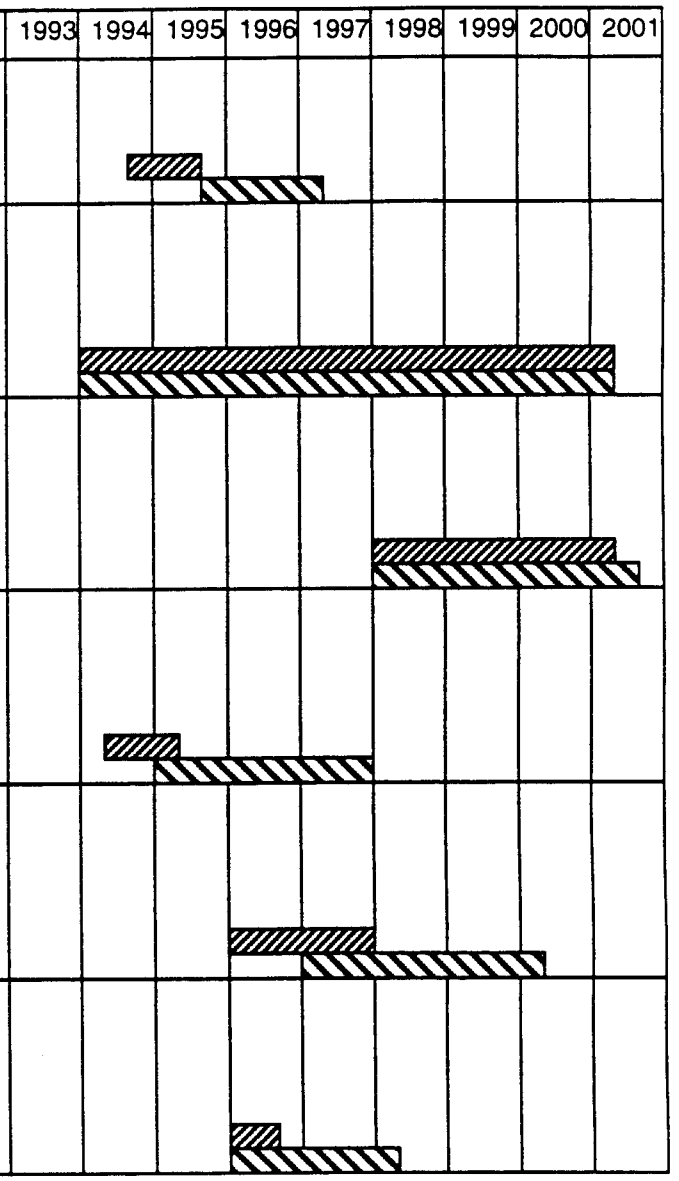
*See Attachment 3 for general location of TA sites.
**See ADS for year of expenditure and cost estimate details.
EW=defense funds; EX=nondefense funds.
***Potential building use has not been identified.

xxxx - No ADS exists yet; it will be developed.

Attachment 6

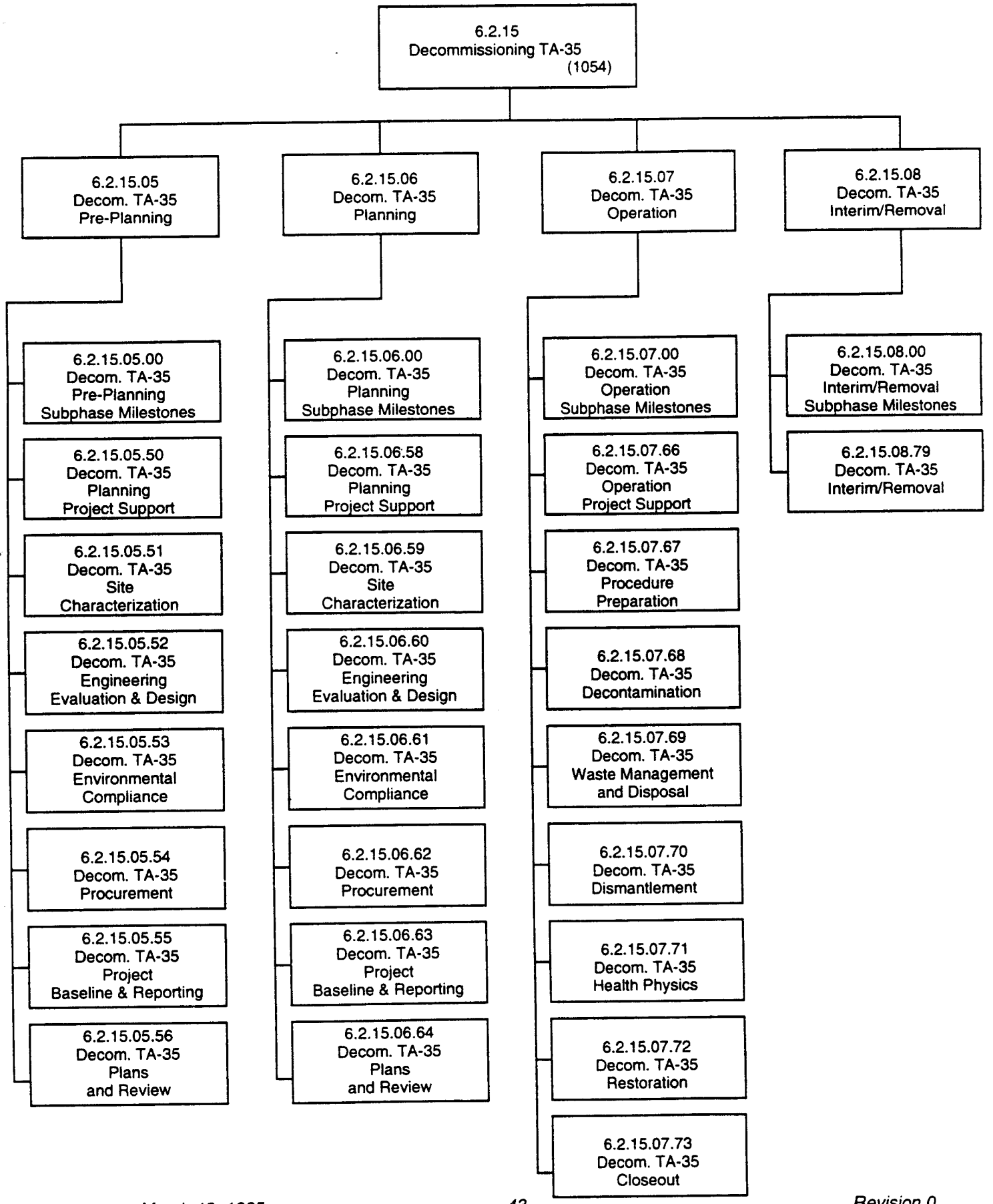
Planned Project Schedules and Costs for Contaminated Facilities at Los Alamos National Laboratory*

Los Alamos National Laboratory	Budget
Decommissioning TA-16 (2136) Pre-planning (FY-94 under 1051) Planning (10-01-94 to 09-20-95) Operations (09-21-95 to 05-15-97)	$ 4,289,000
Decommissioning TA-21 (1055) Pre-planning (FY-94 under 1051) Planning (01-01-94 to 01-01-01) Operations (01-01-94 to 01-01-01)	$48,210,000
Decommissioning TA-33 (2135) Pre-planning (FY-94 under 1051) Planning (01-02-98 to 03-27-01) Operations (01-02-98 to 08-02-01)	$12,616,000
Decommissioning TA-35 (1054) Pre-planning (FY-94 under 1051) Planning (03-01-94 to 01-01-95) Operations (01-01-95 to 12-31-97)	$ 5,971,000
Decommissioning TA-2 Pre-planning (FY-95 under 1051) Planning (01-01-96 to 12-31-97) Operations (01-01-97 to 01-01-00)	$23,760,000
Decommissioning Miscellaneous Sites** Pre-planning (FY-94 under 1051) Planning (01-01-96 to 04-04-96) Operations (01-01-96 to 01-01-98)	$ 8,500,000



Decommissioning Management: Defense (1051)	$ 4,644,570
Decommissioning Management: Non-Defense (1051-B)	$ 34,989

Legend: Planning
Operations

*Actual costs and schedules may differ according to the yearly appropriations and DOE guidance.
**Includes miscellaneous buildings at the following TA Sites: TA-3, 6, 8, 15, 16, 22, 23, 40, 46, 49, and 61.

Attachment 7
Work Breakdown Structure (Sample)