



Department of Energy

Washington, DC 20585

June 27, 1996

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W.
Suite 700
Washington, D.C. 20004

Dear Mr. Chairman:

Enclosed is the "U.S. Department of Energy (DOE), Office of Waste Management, Project Management Plan, Revision 1, for the Defense Nuclear Facilities Safety Board (DNFSB) 94-2 Implementation Plan." This Project Management Plan is a deliverable pursuant to the commitment in Task Initiative III.C.1 identified in the DOE's Implementation Plan, Revision 1, for the DNFSB Recommendation 94-2.

This revision to the Project Management Plan was prepared to reflect changes in organizational assignments, approaches, and schedules associated with meeting DNFSB deliverables as a result of revisions to the DOE's 94-2 Implementation Plan. The Implementation Plan includes information about commitments, deliverables, milestones, and responsibilities for each task. This Project Management Plan provides additional information about the tasks described in the Implementation Plan, including schedules, risks, dependencies, assumptions, estimates, project teams, qualifications, and change control management.

The DOE has completed the actions identified under this commitment and proposes closure of the commitment.

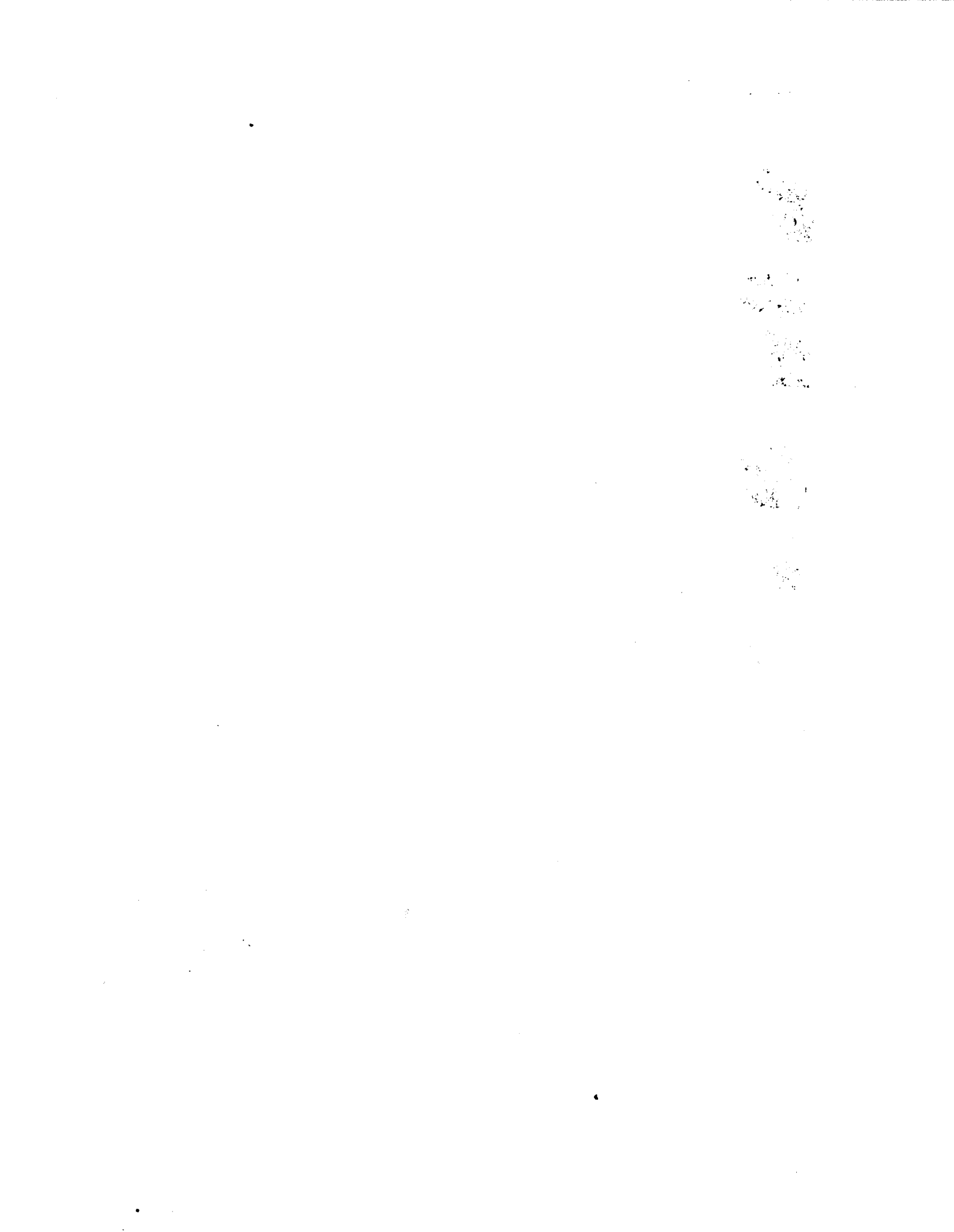
Sincerely,

A handwritten signature in cursive script, appearing to read "S. Cowan".

Stephen P. Cowan
Deputy Assistant Secretary
for Waste Management
Environmental Management

Enclosure





**U.S. Department of Energy
Office of Waste Management**

94-2 Implementation Plan

**Project Management Plan
Revision 1**

June, 1996



U. S. DEPARTMENT OF ENERGY

**Low-Level Waste Management Task Group
Deputy Assistant Secretary for Waste Management
Office of Environmental Management**



Title Page

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Approval:



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U.S. DEPARTMENT OF ENERGY

**Low-Level Waste Management Task Group
Deputy Assistant Secretary for Waste Management
Office of Environmental Management**



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Preface

Document Version Control: It is the reader's responsibility to ensure they have the latest version of this document. Questions should be directed to the document owner, see below.

This plan was generated by the Low-Level Waste Management Task Group (LLWMTG). The LLWMTG reports to the Assistant Secretary for Waste Management (EM-30) of the U.S. Department of Energy.

Approval: This plan has been approved by the Deputy Assistant Secretary for Waste Management, US Department of Energy

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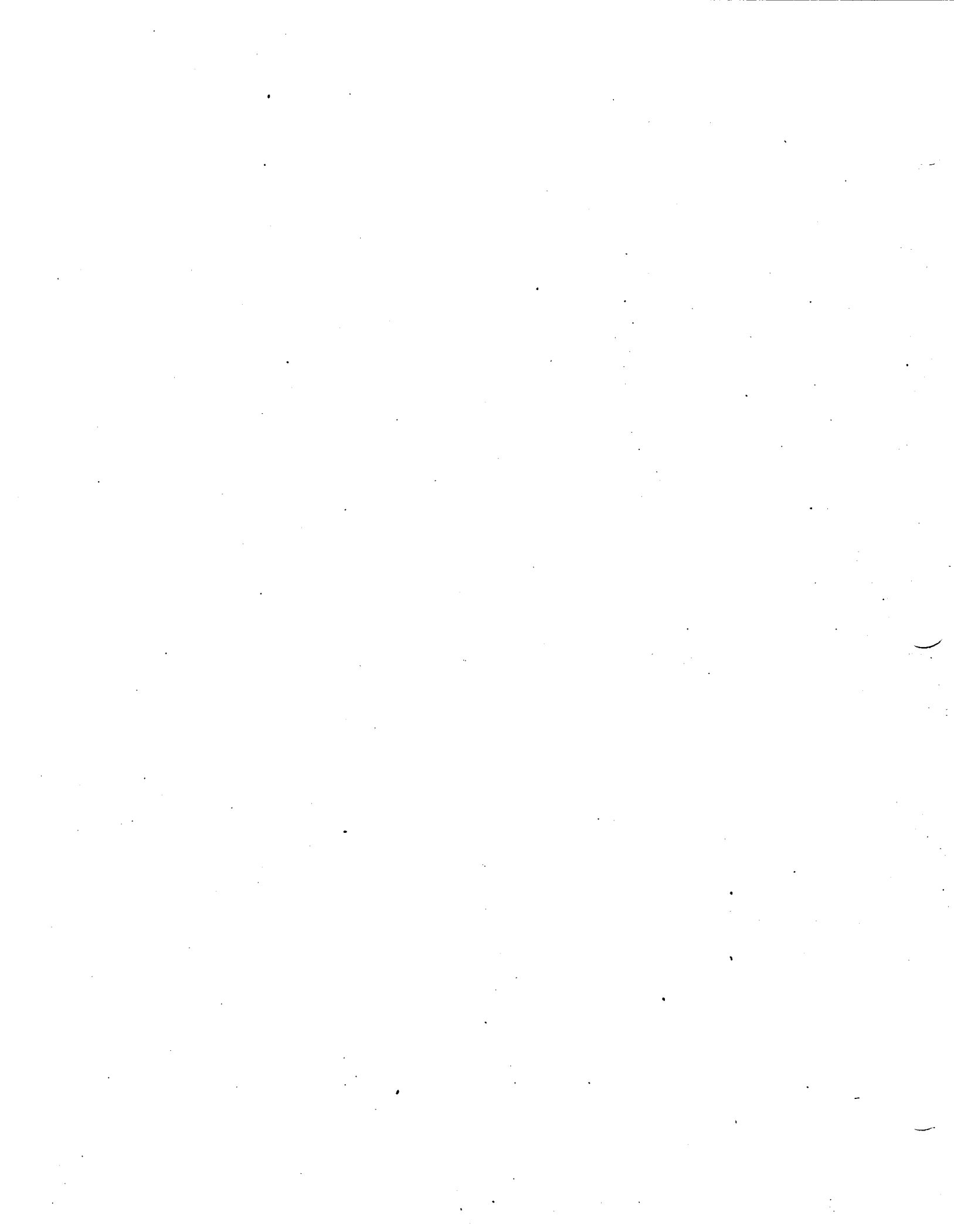
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Revision 1, (June, 1996) Revised to be consistent with the revision 1 of the DNFSB 94-2 Implementation Plan.



1. Introduction

Foreword

This Project Management Plan provides information about the tasks described in the Defense Nuclear Facilities Safety Board Recommendation 94-2 Implementation Plan, Revision 1 (94-2 Implementation Plan or Implementation Plan). The 94-2 Implementation Plan was prepared in response to Recommendation 94-2, "Conformance with Safety Standards at Department of Energy (DOE) Low-Level Nuclear Waste and Disposal Sites." The Implementation Plan includes information about commitments, deliverables, milestones, and responsibilities for each task. This Project Management Plan includes additional information about those items, and schedules, risks, dependencies, assumptions, estimates, project team, qualifications, and change management. This plan:

- Identifies activities to be performed and their schedules;
- Establishes schedule baselines;
- Identifies required resources;
- Identifies qualifications of personnel;
- Identifies activity interfaces; and
- Provides a basis for management tracking and control.

This plan may be revised at the end of each of the following task initiatives identified in the IP:

- Systems Engineering Approach for LLW Management;
- Complex-Wide Review;
- DOE Regulatory Structure and Process; and
- Radiological Assessments.

All changes will be recorded in the Preface section of revisions to this document.

Background

On September 8, 1994, the DNFSB issued Recommendation 94-2, "Conformance with Safety Standards at Department of Energy (DOE) Low-Level Nuclear Waste and Disposal Sites." The Department accepted Recommendation 94-2 on October 28, 1994. Revision 1 to the 94-2 Implementation Plan in response to Recommendation 94-2 was submitted to the DNFSB by the Department on May 7, 1996.

In making Recommendation 94-2, the DNFSB concluded that the Department of Energy (DOE) low-level waste (LLW) program had not kept pace with the evolution of commercial practices. The DNFSB also noted that no defense nuclear LLW disposal facilities had completed the radiological performance assessments required by DOE Order 5820.2A, Radioactive Waste Management. The DNFSB noted that LLW radiological performance assessments were not required to include all contributing source terms in the evaluations.

DNFSB 94-2 recommended that the Department conduct a complex-wide review to establish the dimensions of the LLW problem, take steps to complete the performance assessments, and in completing the performance assessments, include all of the radioactive source terms. DNFSB 94-2 also recommended that the 94-2 Implementation Plan include: issuance of new standards, requirements, and guidance for LLW management; studies to improve modeling capability, waste form, intruder, and radionuclide migration deterrence; studies of volume reduction; a program to improve volume projections and disposal capacity for LLW; and a study of the safety merits/demerits of privatization.

1.1 Current Situation

The Department has recently completed revision of the 94-2 Implementation Plan (revision 1). The need to revise the plan evolved from a recognition of the considerable complexity of the implementation plans, a reevaluation of the approach for ensuring that LLW and other radioactive sources at DOE sites do not threaten long-term public safety, and the need to do a better job of integrating and planning the task activities. Although the overall goals and objectives of the revised plan are largely the same as those in the original plan, DOE has made some mid-course corrections to its approach, as discussed below.

Elements of the Systems Engineering Task have been reorganized such that the same end products are developed, but in a more logical order than in the original plan.

The Complex-Wide Review Task has been completed following multiple interactions with Board staff, and corrective action plans are being prepared.

The Regulatory Structure and Process Task section was revised to reflect DOE's current plans for revising Order DOE 5820.2A, Radioactive Waste Management. The original plan assumed that a revised Order, including LLW requirements, would be completed in the summer of 1995. However, while Order revision efforts are underway, a draft for comment will not be completed until February 1997. Therefore, many of the task initiatives in this revision of the plan are intended to provide the technical basis supporting development of the LLW chapter of the revised draft Order and providing guidance for its ultimate implementation.

The commitments regarding assessments of the long-term impacts of LLW disposal have been revised based on the evolution in approach to disposing of waste originating from cleanups and to support decision-making regarding the myriad of radioactive sources at DOE sites. Commitments under the Radiological Assessments Task section recognize differences in the regulatory regimes for waste management disposal facilities and environmental remediation disposal cells. The commitments also distinguish between performance assessments, whose purpose is to ensure proper current disposal, and composite analyses, whose purpose is to aid in planning long-term site management by evaluating the impacts of the current disposal facility and other radioactive sources that contribute to the dose to a hypothetical member of the public.

The Waste Volumes Projection Task section clarifies that the disposal capacity report will evolve over time to include radiological capacity in addition to volumetric capacity. Pending

completion of the radiological assessments, sufficient information is currently not available to address radiological capacity.

The Research and Development Task now combines DNFSB-identified studies and other research and development activities rather than addressing them separately and sequentially. Additionally, the identification and cataloging of completed or ongoing research and development will follow, rather than precede, the identification of technical (R&D) needs, and will be an integral part of defining outstanding research and development needs.

1.2 Previous Activities

Previous activities that will be utilized in the conduct of the 94-2 Implementation Plan tasks are documented in:

- *The Waste Management Programmatic Environmental Impact Statement (WMPEIS);*
- *The Baseline Environmental Management Report (BEMR);*
- *The Low-Level Waste Current State System Description (CSSD);*
- *The Waste Type Report (internal draft); and*
- *The Complex-Wide Review report.*

1.3 Project Objectives

The overall objective of the 94-2 Implementation Plan is to improve the LLW management system and ensure that: performance assessments are approved that demonstrate that DOE LLW disposal facilities meet DOE Order 5820.2A radiological performance objective; the radiological assessments include all appropriate LLW as radioactive source terms in the evaluation; and LLW is disposed with a margin of safety in place to protect workers and the public and the environment in addition to conditions imposed based on the performance assessment. These objectives will be accomplished by:

- **integrating the LLW Management Program within the Department's Office of Environmental Management;**
- **establishing the technical basis for DOE's LLW management strategies;**
- **developing and implementing effective policies, requirements, and compliance criteria for managing LLW;**
- **completing technical studies to increase knowledge for appropriate decision making;**

- documenting program decisions, priorities, and strategies in upper-level management program documentation; and
- building on activities currently underway or already completed.

1.4 Project Scope and Approach

The scope of the commitments in this Implementation Plan not only respond to issues identified by the DNFSB in Recommendation 94-2, but also respond to weaknesses identified by the Department's own analysis, and address the root causes of the system problems. The commitments make improvements in the organization and management of the LLW system, implement technical studies to improve the technical basis for LLW management, and develop, issue, and implement new policies, guidance, standards to improve the regulatory structure for oversight of LLW management. In completing these commitments, the Department expects to achieve the future state of a fully integrated, technically-based, and standardized LLW management system.

The approach to improving the LLW management system presented in the 94-2 Implementation Plan takes multiple paths which converge into an integrated program. The Department provides for a restructuring of management of the LLW program at Headquarters, and elevates the priority of LLW management. The new LLW management organization will be responsible for integrating the multiple tasks presented in the Implementation Plan into a structured program. The technical approach used by the LLW management program under this Implementation Plan is discussed more in Section 2.

1.5 Major Milestones

The following are the 94-2 Implementation Plan commitments, the Implementation Plan commitment number, and their due dates. Descriptions of the activities are provided in the Implementation Plan. Those commitments that have been completed are indicated. Additional detailed schedule and deliverables information is provided in Section 4 of this plan.

94-2 IMPLEMENTATION PLAN MILESTONES		
MILESTONE	COMMIT #	TARGET DATE
PROGRAM MANAGEMENT		
Update Project Management Plan	III.C.1	06/30/96 (completed)
Prepare Quarterly Progress Report	III.C.2	30 days after end of quarter

94-2 IMPLEMENTATION PLAN MILESTONES

MILESTONE	COMMIT #	TARGET DATE
SYSTEMS ENGINEERING		
Complete Systems Engineering Evaluation	IV.B.1	06/30/95 (completed)
Prepare Low-Level Waste Program Requirements Document	IV.B.2	04/30/96 (completed)
Prepare Low-Level Waste System Description Document	IV.B.3	09/30/96
Prepare Privatization Guidelines	IV.B.4	09/30/96
Prepare Low-Level Waste Program Management Plan	IV.B.5	03/31/97
Prepare Complex-Wide Corrective Action Plan	IV.B.6.B.1	07/31/96
Prepare Initial Site-Specific CWR Corrective Action Plans	IV.B.6.B.2	07/31/96
COMPLEX-WIDE REVIEW		
Establish Review Organization and Management	V.B.1	07/31/95 (completed)
Complete Site Evaluation Surveys	V.B.2	08/31/95 (completed)
Complete Independent Evaluation of 38 Facilities and Issue Report	V.B.3	05/17/96 (completed)
DOE REGULATORY STRUCTURE AND PROCESS		
Issue Directive on Pre-88 Sources and Composite Plumes	VI.B.1	05/31/95 (completed)
Issue Policy Strengthening LLW Regulatory Structure	VI.B.2.b.1	07/21/95 (completed)
Issue Revised Interim Policy Strengthening LLW Regulatory Structure	VI.B.2.b.2	07/31/96
Issue Policy and Guidance on Applicability of Order 5820.2A to CERCLA Sites	VI.B.3.b.1	05/31/96 (completed)

94-2 IMPLEMENTATION PLAN MILESTONES

MILESTONE	COMMIT #	TARGET DATE
Issue Policy and Guidance on Applicability of Order 5820.2A to RCRA Sites	VI.B.3.b.2	12/31/96
Complete Review of DOE and non-DOE Requirements and Standards	VI.B.4.b.1	12/31/95 (completed)
Complete Review of DOE and Selected International Requirements and Standards	VI.B.4.b.2	06/30/96 (completed)
Prepare Report Identifying Essential LLW Management Requirements	VI.B.5	02/28/97
Issue Implementation Guidance and Technical Standards to Support Essential LLW Management Requirements	VI.B.6	02/28/97
Complete Revision of the Radiological Assessment Approval Process and Include in Radioactive Waste Management Order	VI.B.7	02/28/97
RADIOLOGICAL ASSESSMENTS		
Issue Guidance for Conducting Composite Analyses	VII.B.2	05/31/96 (completed)
Publish PA Maintenance Guidance Document	VII.B.4.b.1	09/30/96
Issue a Description of the Process and Criteria for Headquarter's Review of Composite Analyses	VII.B.3	10/31/96
Issue Policies Addressing Critical Assumptions and Clarifications for PA	VII.B.1	01/31/97
Publish PA Format and Content, and Standard Review Plan Documents	VII.B.4.b.2	01/31/97

94-2 IMPLEMENTATION PLAN MILESTONES

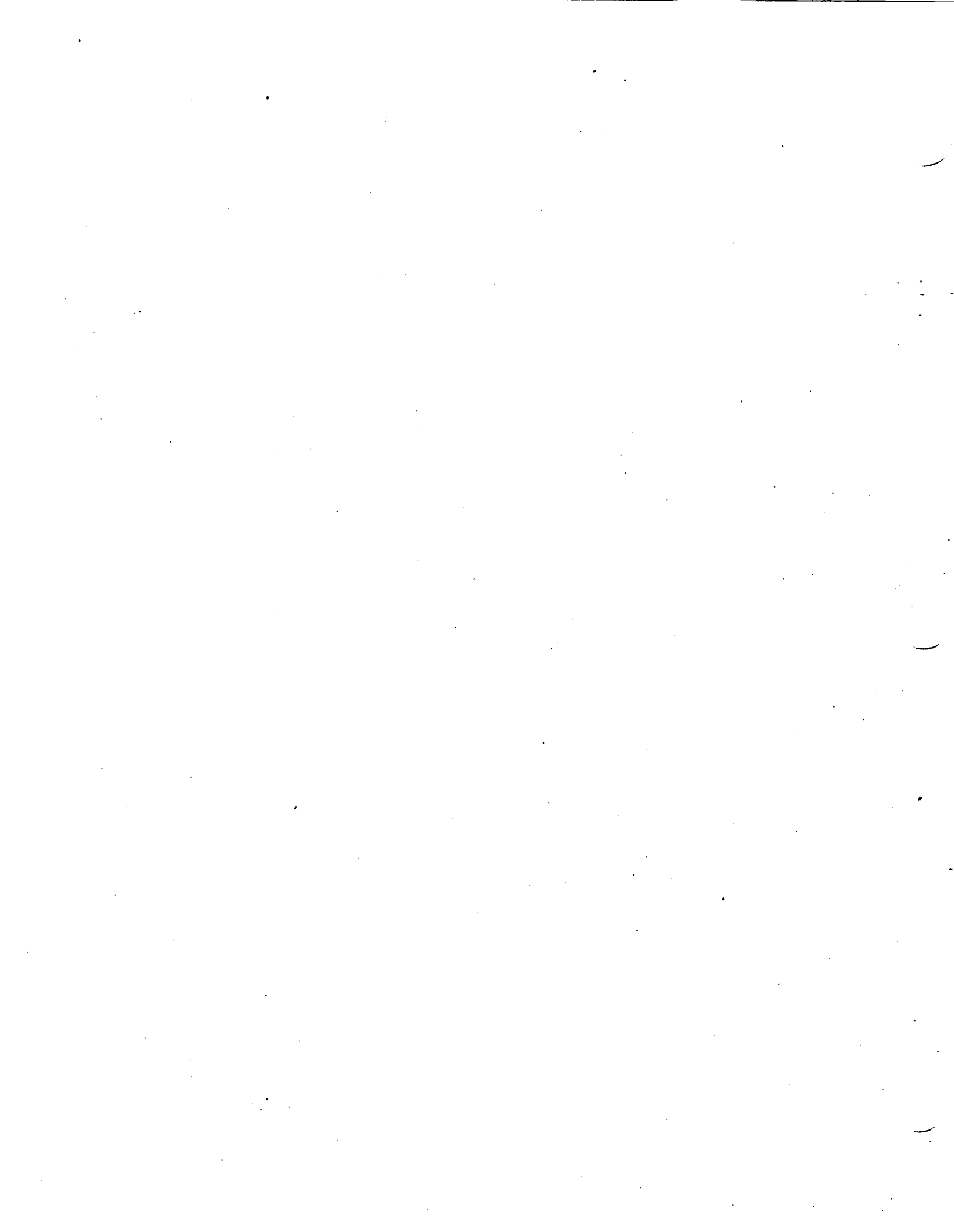
MILESTONE	COMMIT #	TARGET DATE
Specific Radiological Assessments	VII.B.5	
Los Alamos Area G Burial Ground	Complete PA	03/31/97
	HQ Review	12/31/97
	Complete Composite Analysis (CA)	12/31/97
	HQ Review	03/31/98
	Complete Disposal Authorization Stmt.	04/30/98
Idaho National Engineering Laboratory Radioactive Waste Management Complex	Complete PA	completed
	HQ Review	08/31/96
	Complete CA	01/31/98
	HQ Review	04/30/98
	Complete Disposal Authorization Stmt.	05/31/98
Nevada Test Site Area 5 Radioactive Waste Management Complex	Complete PA	completed
	HQ Review	08/31/96
	Complete CA	09/30/99
	HQ Review	12/31/99
	Complete Disposal Authorization Stmt.	01/31/00

94-2 IMPLEMENTATION PLAN MILESTONES

MILESTONE	COMMIT #	TARGET DATE
Nevada Test Site Area 3 Radioactive Waste Management Complex	Complete PA/CA	03/31/98
	HQ Review	11/30/98
	Complete Disposal Authorization Stmt.	02/28/99
Oak Ridge National Laboratory Solid Waste Storage Area 6	Complete PA	09/30/97
	HQ Review	01/21/98
	Complete CA	09/30/97
	HQ Review	12/31/97
	Complete Disposal Authorization Stmt.	06/30/98
Hanford Environmental Restoration Disposal Facility	Complete CA	12/31/97
	HQ Review	05/31/98
Hanford 200 West Area Burial Grounds (Composite analysis to be included in that for ERDF)	Complete PA	completed
	HQ Review	06/30/96
	Complete Disposal Authorization Stmt.	06/30/98
Hanford 200 East Area Burial Grounds (Composite analysis to be included in that for ERDF)	Complete PA	08/31/96
	HQ Review	04/30/97
	Complete Disposal Authorization Stmt.	07/31/98

94-2 IMPLEMENTATION PLAN MILESTONES

MILESTONE	COMMIT #	TARGET DATE
Savannah River E Area Vaults	Complete PA	completed
	HQ Review	completed
	Complete CA	09/30/97
	HQ Review	12/31/97
	Complete Disposal Authorization Stmt.	03/31/98
Savannah River Saltstone (Composite analysis to be included in that for E Area Vaults)	Complete PA	completed
	HQ Review	07/31/96
	Complete Disposal Authorization Stmt.	03/31/98
LOW-LEVEL WASTE PROJECTIONS		
Issue LLW Disposal Capacity Report, Revision 0	VIII.B.1.b.1	07/31/96
Issue LLW Disposal Capacity Report, Revision 1	VIII.B.1.b.2	09/30/97
Complete DOE LLW Projections Program Document	VIII.B.2	12/31/96
Document Evaluation and Strategy for LLW Minimization	VIII.B.3	08/31/96
RESEARCH AND DEVELOPMENT		
Issue Initial LLW R&D Activities Catalog	IX.B.1	06/30/95 (completed)
Issue LLW R&D Needs Statement	IX.B.2	03/31/97
Identify Outstanding R&D Needs	IX.B.3	06/30/97
Prepare Strategy to Address Outstanding LLW Technical and R&D Needs	IX.B.4	09/30/97



2. Technical Approach

Utilizing existing knowledge and work already underway, the revised 94-2 Implementation Plan calls for near-term tasks to provide direction to the sites and move towards bringing LLW disposal facilities into compliance with the DOE Order on Radioactive Waste Management (DOE Order 5820.2A), and to ensure plans are in place to address vulnerabilities identified by the Complex-Wide Review. In parallel with the execution of these near-term activities, the project is also addressing tasks in support of longer-term commitments in the following five technical task areas:

- Low-Level Waste Systems Engineering;
- DOE Regulatory Structure and Process;
- Radiological Assessments;
- LLW Projections; and
- Research and Development.

The five technical task areas, along with the Program Management and the Complex-Wide Review Tasks are shown in a work breakdown structure in Figure 2.1. The subordinate work breakdown levels provide an umbrella for the tasks committed to in the 94-2 Implementation Plan. A brief description of the work to be performed in each of the technical areas is provided in the following sections.

2.1 Program Management

Program management activities address the basic functions for which this project management plan is being prepared: cost, scope, and schedule. Activities include developing budget requests, defining work scope and arranging for the resources to complete the work, managing the completion of task initiatives and reporting on the progress of work.

2.2 Complex-Wide Review

A Complex-Wide Review of the DOE LLW generation, treatment, storage, and disposal activities at 38 sites has been conducted. The results of the review were documented in a report completed in May 1996. The complex-wide and site-specific vulnerabilities identified by the review are to be addressed under the systems engineering technical area.

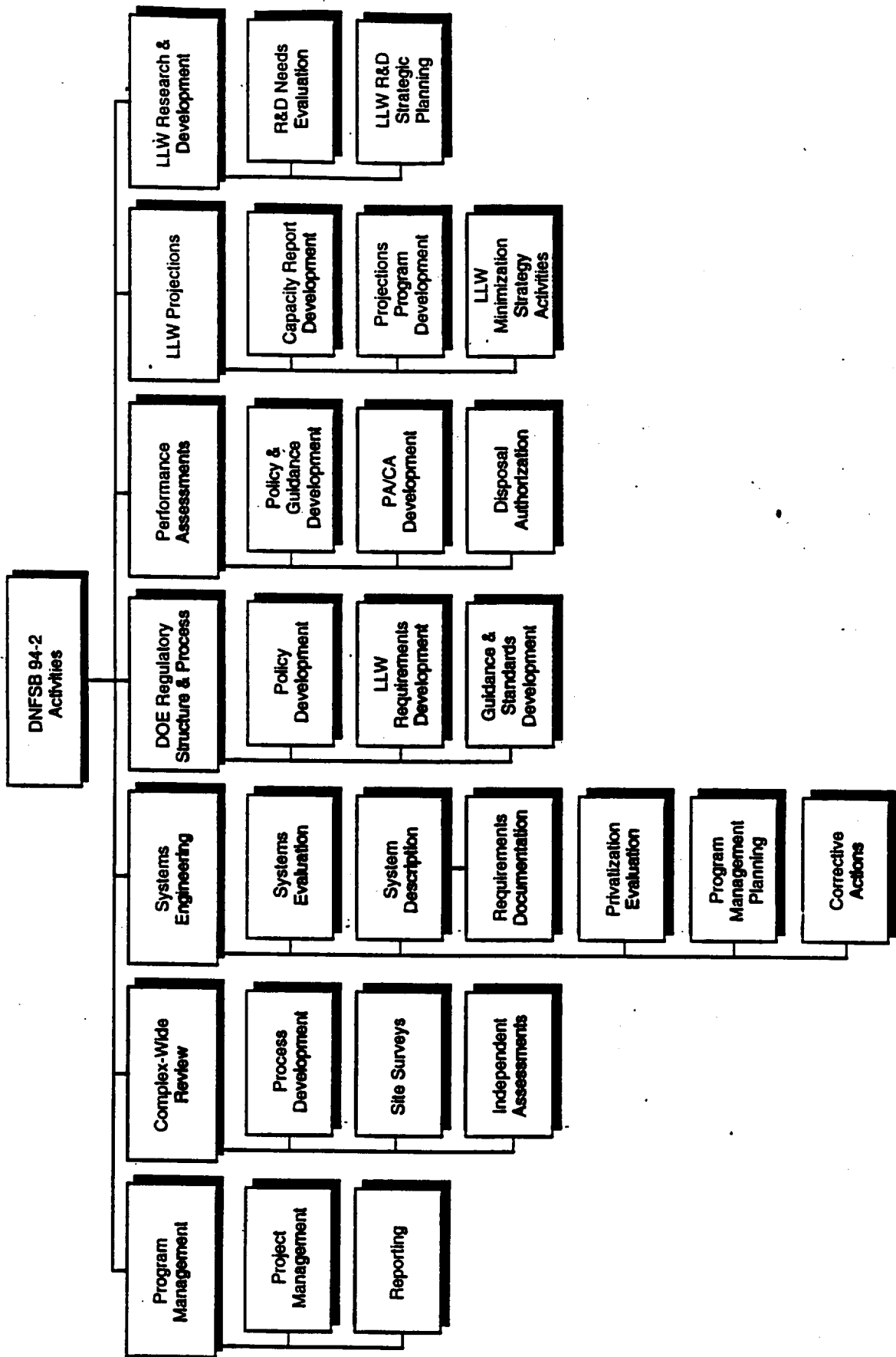


Figure 2.1: Work Breakdown Structure for 94-2 IP

2.3 Systems Engineering

A systems engineering approach is being employed to provide a technical basis with clearly identified interfaces for the management of the Department's LLW. The systems engineering effort involves Headquarters and field organizations in the development of program requirements, a system description document, and a program management plan that will include a strategy for management of DOE LLW. The Headquarters Systems Engineering Task Manager will direct the efforts of a small working group to develop material for these products based on the input and review of a larger group composed largely of DOE field personnel. Additionally, an evaluation of privatization of DOE LLW disposal will be conducted. The study will result in guidance to DOE sites on what safety factors should be considered in evaluating whether to privatize LLW disposal.

2.4 DOE Regulatory Structure and Process

The focus of work in the DOE Regulatory Structure and Process Task is on the development of the LLW portion of a revised DOE Order on radioactive waste management. In the near-term, policy statements and guidance will be developed and disseminated. The near-term tasks include updating a directive and policy issued previously to address the scope of performance assessments and the Headquarters approval process, and developing policy and guidance to address applicability of current LLW requirements to sites being cleaned up under the Resource Conservation and Recovery Act (RCRA) or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The above activities will flow into the principal task being addressed in this technical area, that is, the development of essential requirements for LLW management and the accompanying guidance. The intent is for the essential requirements to be the LLW section of a revision to the DOE order on radioactive waste management. A working group of DOE personnel knowledgeable in LLW management has been formed to direct the analysis and evaluation of requirements for management of LLW and identify those to be included in the Order. The working group comprises personnel from the Office of Waste Management (EM-30), the Environment, Health and Safety Office of Environmental Guidance (EH-41), and DOE Field Office representatives.

The following tasks will be performed to support the development of the essential requirements and implementing guidance. Major issues previously identified, or identified as a result of 94-2 Implementation Plan activities will be raised to the appropriate level of management for resolution. The work being conducted under the systems engineering tasks will be used to confirm that all facets of LLW management are being addressed in the development of requirements. Those vulnerabilities identified by the Complex-Wide Review will be evaluated to determine what requirements or guidance are appropriate to address the vulnerabilities. Requirements and standards, or regulatory concepts from internal and external sources will be evaluated and serve as a starting point for determining the appropriate requirements for the DOE system. This includes consideration of the current DOE Order, the previous draft revision,

Nuclear Regulatory Commission documents, Environmental Protection Agency draft proposals, state programs, and international and foreign country programs.

The working group will use the above information to identify gaps in requirements, determining the appropriate regulatory alternatives to be selected, and establishing a technical basis for and justifying the selection of the requirements to be included for LLW management.

2.5 Radiological Assessments

The tasks being conducted under this technical area address the need for documented guidance (or policy) regarding the preparation, review, and maintenance of LLW disposal facility performance assessments and composite analyses. The Task Manager will use a small cadre of personnel familiar with LLW performance assessments to develop information to be used by both preparers and reviewers of performance assessments and composite analyses. Additionally, the Task Manager for this technical area will direct and coordinate the Headquarters review of radiological assessments submitted by the field organizations.

For performance assessments, a number of policy papers are being developed that will address concepts that are key to the preparation of performance assessments. They may also affect the composite analyses. These are to address such topics as the time of compliance, the future control of land, intruder analyses, etc. (a more complete list is in the 94-2 Implementation Plan). In addition, three guidance documents will be prepared. A format and content guide and a maintenance plan are to provide field organizations with guidance on the original development and update of performance assessments, as well as the ongoing research that needs to be performed to confirm performance assessment assumptions and projections. A review plan will also be developed to provide a standard method for Headquarters' evaluation of performance assessments.

For composite analyses, a guidance document on their preparation has been prepared. That guidance document is to be supplemented with a description of the criteria and process that Headquarters will use in its review of the composite analyses.

All six of the DOE sites with active LLW disposal facilities have or will prepare performance assessments in compliance with DOE Order 5820.2A. In addition, each site with an active disposal facility will prepare a composite analysis to evaluate the potential offsite radiological impacts of the combination of the LLW disposal facility and other sources that are to be left at the site.

Headquarters will review both the performance assessment and composite analysis. Following review of the performance assessment, a memorandum of acceptance, if appropriate, will be prepared and transmitted to the site. Following Headquarters acceptance of both the performance assessment and the composite analysis, a disposal authorization statement will be issued to document the approval to operate and any conditions placed on the design, operation, or closure of the disposal facility.

2.6 Low-Level Waste Projections

A program for improving LLW volume and characteristics projections will be developed and implemented for all DOE programs and projects. The improved projections program, along with routine reports on disposal capacity, will allow DOE to ascertain whether there are potential future waste disposal capacity problems. Disposal capacity will initially be based on availability of land area or vault capacity for disposal. As information becomes available from the performance assessments and composite analyses, the capacity projections will be amended to account for the radiological characteristics of the expected waste.

A LLW minimization survey will be conducted to identify successful practices that have been instituted at DOE sites. From this information a strategy will be developed with the intent of extending to more sites those waste minimization practices that can reduce the volumes of waste requiring disposal.

2.7 Research and Development

The improvement of a research and development function for LLW management is to be effected by the DNFSB 94-2 effort. The approach is to first identify areas for which research and development is needed. As a starting point, the DNFSB recommendation identified certain studies that they felt were needed. These will be augmented with research and development needs identified by performance assessments and composite analyses, through the development of LLW requirements and guidance, from the Complex-Wide Review, and as a result of the systems engineering activities. The identified needs are to be evaluated against past and current research to determine which have been, or are being addressed, and identify those that remain outstanding. A strategic plan will be prepared to recommend a means of meeting the outstanding research and development needs.



3. Project Organization

3.1 Management Organization

The Department is committed to improving the low-level waste management system consistent with its acceptance of Recommendation 94-2. In order to ensure the needed attention is given to initiating and completing 94-2 implementation tasks, new and existing organizational groups, as shown in Figure 3.1, are to be used. Personnel responsible for accomplishing the task initiatives described in the 94-2 Implementation Plan will also utilize the resources and expertise of existing organizations within DOE.

3.1.1 Low-Level Waste Management Task Group

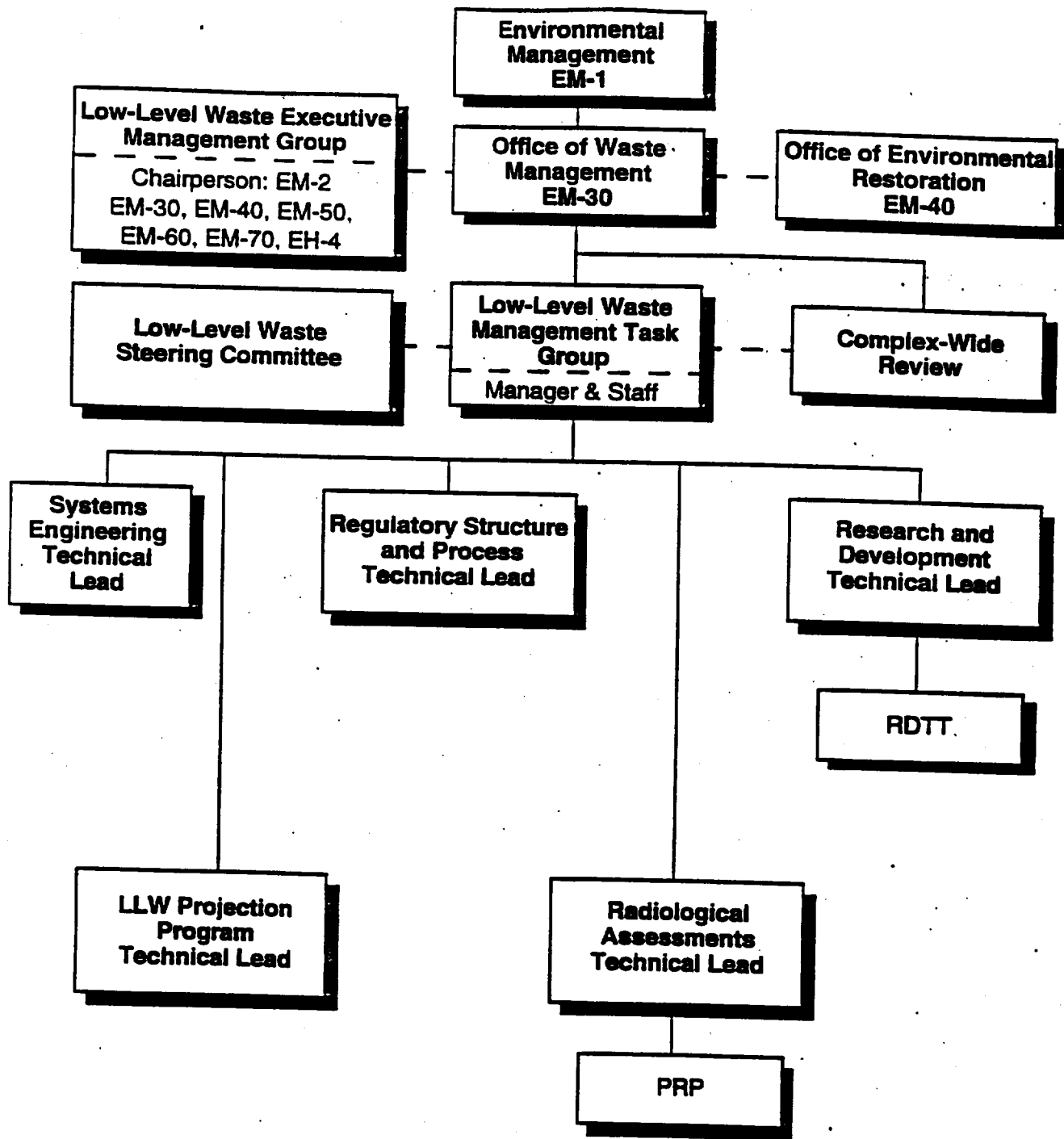
The Low-Level Waste Management Task Group is to perform the technical work required under the 94-2 Implementation Plan, to develop recommendations concerning policies, requirements, guidance, and other documents to be initiated by 94-2 task activities, and to manage the resources and staffing to meet the milestones described in the 94-2 Implementation Plan.

The LLW Management Task Group is composed of a Team Leader and four Task Managers who report to the Team Leader. The LLW Management Task Group Team Leader reports to an Office of Waste Management, Senior Management Officer. The Task Managers oversee the activities in five of the six 94-2 task initiative technical areas. The five technical areas are: systems engineering, DOE regulatory structure and process, radiological assessments, low-level waste projections, and research and development. For each of the technical areas there is a technical lead to assist the program manager with technical direction of the activities being undertaken. There is also an Office of Environmental Restoration counterpart for each technical area to ensure integration of activities with the cleanup programs.

At the time this Project Management Plan is being revised, the sixth technical area, Complex-Wide Review, has been completed. Vulnerabilities identified by the Complex-Wide Review are being addressed under the umbrella of systems engineering.

3.1.2 Low-Level Waste Executive Management Group

A Low-Level Waste Executive Management Group was established to assist the Deputy Assistant Secretary for Waste Management in matters of guidance and policy direction that require input from other Office of Environmental Management program offices or other Assistant Secretaries and their respective Program Offices. The Executive Management Group functions on an ad-hoc basis. Meetings are convened as needed to keep the group abreast of 94-2 Implementation Plan activities and to address issues identified by the staff working on the implementation activities.



Organizational Lines ———
 Interfaces - - -

PRP – PA Peer Review Panel
 RDTT – Research & Development Task Team

Figure 3.1: DOE Organization to Respond to DNFSB Recommendation 94-2

3.1.3 Low-Level Waste Steering Committee

The existing Low-Level Waste Steering Committee serves as the principal mechanism for staff level contact between DOE Headquarters and the DOE field organizations. The Low-Level Waste Steering Committee is composed of representatives from each of the DOE field organizations with Environmental Management responsibilities and from Headquarters offices involved with environmental management activities. Members of the Low-Level Waste Steering Committee or personnel they recruit from the field participate in the conduct of tasks identified in the Implementation Plan. The Low-Level Waste Steering Committee also serves as a review body for task initiatives with complex-wide applicability and recommendations concerning policies, requirements, guidance, and other documents.

3.2 Roles and Responsibilities

The following chart identifies the roles and responsibilities of the key personnel involved in the implementation of 94-2 task initiatives.

Role	Name	Org.	Responsibility
Deputy Assistant Secretary for Waste Management	Steve Cowan	EM-30	Overall responsibility for efforts described in the IP. Ensures that funding is committed and the required priority is placed on the task initiatives.
94-2 Implementation Senior Management Officer	Mark Frei	EM-34	Provides senior management direction of 94-2 implementation activities. Serves as the point of contact for raising issues to management attention and for securing needed resources.
Team Leader - Low-Level Waste Management Task Group	Martin Letourneau	EM-35	Manages and coordinates overall effort on a day-to-day basis, including allocation and use of resources. Resolves issues among technical areas of the 94-2 Implementation Plan. Identifies and requests resources necessary to accomplish commitments. Communicates with DNFSB staff on a regular basis.

Role	Name	Org.	Responsibility
Task Manager - Complex-Wide Review	Martin Letourneau	EM-35	Manages the complex-wide review task initiatives. Approves complex-wide review expenditures, deliverables and changes. Facilitates the work of technical personnel working on the complex-wide review activities.
Task Manager - Systems Engineering	Warren Black	EM-35	Manages the systems engineering task initiatives. Approves deliverables and changes. Directs the work of technical lead and others working on systems engineering activities. Acts as liaison between complex-wide review project manager and Task Group Manager.
Task Manager - DOE Regulatory Structure and Process	Julie Ayres	EM-32	Manages the DOE regulatory structure and process task, and R&D task initiatives. Approves deliverables and changes. Directs the work of technical lead and others working on regulatory structure and process activities.
Task Manager - Radiological Assessments	Virgil Lowery	EM-35	Manages the performance assessment task initiatives. Approves deliverables and changes. Directs the work of technical lead and others working on radiological assessment activities. Tracks progress of assessment completion commitments.
Task Manager - LLW Projections	Matt Zenkovich	EM-35	Manages the LLW projections task initiatives. Approves deliverables and changes. Directs the work of technical lead and others working on LLW projections.

Role	Name	Org.	Responsibility
Technical Lead - Systems Engineering	Bob Harris	LMIT	Provides technical leadership of the development of systems engineering evaluations and documents. Coordinates efforts of technical personnel working on systems engineering.
Technical Lead - DOE Regulatory Structure and Process	Ed Regnier	EH-412	Provides technical leadership to the development of regulatory structure and process evaluations and documents and coordinates work efforts of technical personnel.
Technical Lead - Radiological Assessments	Elmer Wilhite	WSRC	Provides technical leadership to the development of radiological assessment activities including development of guidance documents. Coordinates work efforts of technical personnel. Acts as liaison with Task Group to Performance Assessment Peer Review Panel (PRP).
Technical Lead - LLW Projections	Robert Fleming	EM-431	Provides technical leadership of the development of LLW projections policies, guidance, and documents. Coordinates efforts of technical personnel working on LLW projections.
Technical Lead - Research & Development	David Gallegos	SNL	Provides technical leadership of the development of LLW research & development assessment documents and strategies. Coordinates work efforts of technical personnel. Acts as liaison with Task Group to Research & Development Task Team (RDTT).

3.3 Issue Resolution

Issues are expected to arise during the course of completing the milestones identified in this plan. Personnel are to resolve issues at the lowest practical level and in a timely manner. Issues which cannot be resolved in a timely manner are to be raised to the next higher level for attention and resolution. The hierarchy for issue resolution is the Technical Lead, Task Manager, LLW Management Task Group Team Leader, Senior Management Officer, Deputy Assistant Secretary for Waste Management, and the Executive Management Group. Issues identified and resolved by Technical Leads and Program Managers are to be reported to the LLW Management Task Group Team Leader on a routine basis and documented.

4. Project Management

4.1 Management Approach

The Department is committed to meeting the milestones described in the 94-2 Implementation Plan on schedule. Therefore, strict management activities and controls will be used by the LLW Management Task Group Team Leader and staff to track and report on progress and ensure that milestones are met. The tracking will provide early indications of the possibility of missing a milestone and allow time to take appropriate action.

The sections below address the project management activities that aid in the management of the task initiatives in the 94-2 Implementation Plan and meeting the project's objectives. This includes the project schedule, resources, staffing, and reporting. There are also sections addressing the assumptions that are key to the project's success, quality assurance and quality control procedures, and National Environmental Policy Act (NEPA) compliance.

4.2 Project Tracking and Control

Commitments made by the Department to implement DNFSB Recommendation 94-2 are summarized in Section 1. Figure 4.1 provides a high-level, master integration schedule that shows the completion dates and major interfaces for key activities being addressed in this project management plan. A detailed resource-loaded schedule showing lower tier steps necessary to accomplish the plan commitments is provided as Appendix A.

The schedule provided in Appendix A is one of the working tools that will be used to track progress on completing task initiatives. Significant perturbations that affect the ability to meet milestone commitments will be evaluated for their impact on the schedule. If it is determined that the current schedule has become outdated because of significant changes, it will be updated with the approval of the LLW Management Task Group Team Leader and the Senior Management Official.

4.2.1 LLW Management Task Group Task Initiative Tracking

The project schedule (Appendix A) will be the basis for progress tracking. Task Managers are to report on progress relative to the schedule in weekly program management meetings. Significant accomplishments towards achieving milestones or issues are to be raised at the weekly program management meeting and documented in the Office of Waste Management weekly report. At the discretion of the LLW Management Task Group Team Leader, a status line will be scribed on the master interface schedule or the detailed schedule (Appendix A) to provide a visual indication of project status.

4.2.2 Departmental Representative Tracking System

The Office of the Departmental Representative (S-3.1) uses the Safety ^{Issues} Information Management System (SIMS) to track DNFSB recommendations. The task initiatives and commitments from the 94-2 Implementation Plan have been input into the tracking system. The LLW Management Task Group tracking of tasks will be used to provide the updates on the Departmental Representative's SIMS on a regular basis as set by the Departmental Representative.

4.2.3 Status Reporting

Quarterly

The LLW Management Task Group Team Leader will prepare a report summarizing progress on task activities, and scheduling and other issues for submittal to the DNFSB. This report will also be distributed to members of the Low-Level Waste Executive Management Group and DOE field organizations to keep them apprised of progress on the project. Quarterly reports are to cover each calendar quarter and are due to be completed one month following the end of the quarter. These reports will continue until the commitments in the 94-2 Implementation Plan are completed.

Monthly

The Technical Leads identified in each of the five technical areas in the LLW Management Task Group will prepare a monthly report summarizing progress on task activities. The report should be submitted on the 10th day of each month, and should summarize for the previous month for all personnel working on task activities: work accomplished; problems encountered; travel and meetings attended; and any other important information which should be reported to the LLW Management Task Group. The monthly report should include the necessary input to update the LLW Management Task Group task initiative tracking system discussed above in Section 4.2.1. The Technical Leads will submit the monthly report to their respective Task Manager in the LLW Management Task Group, who will submit it to the LLW Management Task Group Team Leader. The program managers will add cost performance information to the report submitted to the LLW Management Task Group Team Leader.

As needed

The LLW Management Task Group Team Leader may need status reports on specific task activities or deliverables for meetings with DOE management, DNFSB or DNFSB staff, or for other reasons. The Task Managers, the Technical Leads, and other personnel working on specific task initiatives, will provide the requested information upon request of the LLW Management Task Group Team Leader.

4.3 Assumptions

The scheduled completion of commitments in this Project Management Plan is based on assumptions regarding priority of this effort, resources, significant external influences, and a normal amount of time for management activities. If these assumptions become invalid, it may be necessary to revise the schedule or take other mitigating actions.

Assumption 1: Priority of 94-2 Implementation Plan Activities

The success of the efforts outlined in the 94-2 Implementation Plan relies on the activities remaining a high priority for the Department, both at Headquarters and in the field. The current schedule is based on Headquarters being the principal support of the resources necessary for the requirements, guidance, and programmatic activities. The field organizations provide resources to supplement those needed for the requirements, guidance, and programmatic activities and to complete the performance assessments and composite analyses. Identification of significant health or safety issues within the Department or at a specific site, or a significant reduction in the Department's budget could affect the priority of 94-2 implementation activities, the schedule, or both.

Assumption 2: No Major External Influences

Activities in the Implementation Plan are based on the regulatory scheme in effect as of April 1996. Although there is a recognition of the effort to impose external regulation on the Department's nuclear activities, and the task initiatives are considered to be consistent with this effort, it is assumed that this external regulation will not occur in the time that most of the activities in this plan are accomplished. It is also assumed that the Environmental Protection Agency effort to promulgate a generally applicable low-level waste standard will not negatively affect the DOE regulatory structure and the conduct of radiological assessments.

Assumption 3: No Dilution of Resources

The LLW Management Task Group assumes that there will be the normal press of bureaucratic business associated with accomplishing the 94-2 Implementation Plan tasks. This includes budgeting activities, a modest number of briefings, and an occasional response to outside inquiries. Due to the heavy amount of hands-on involvement by the LLW Management Task Group in completing task initiatives, significant changes in the amount of time to respond to these needs may negatively affect the schedule.

4.4 Risk Management

Risk Category: Schedule

The LLW Management Task Group has developed a project schedule that covers the anticipated span of the task activities detailed in the 94-2 Implementation Plan. This schedule is based on estimates for requirements identified to date. Due to the project being in the early stages, it is possible that problems may be identified as the project progresses which may result in additional effort required and changes to the current project schedule.

Risk Mitigation: If significant problems are identified and deemed necessary for the dedication of additional effort, the LLW Management Task Group Team Leader will brief the Waste Management Senior Management Officer at the earliest possible time with a recommended course of action, and obtain a decision as soon as possible.

Risk Category: Costs

The LLW Management Task Group has developed an estimate of resources for task initiatives and has funded the near-term task activities detailed in the 94-2 Implementation Plan. The estimate is based on anticipated requirements for time and resources identified to date to accomplish the described tasks. Due to the project uncertainty, it is possible that problems may be identified as the project progresses which may result in additional effort and resources being required, and result in changes to the costs of the current tasks.

Risk Mitigation: If significant problems are identified and deemed necessary for the dedication of additional resources, the LLW Management Task Group Team Leader will brief the Waste Management Senior Management Officer at the earliest possible time with a recommended course of action, and obtain a decision. Work efforts on tasks which have identified significant cost issues will be curtailed until the resolution of the issue is reached with management in order to save resources which may be needed to implement the mitigation plan.

Risk Category: Changing Requirements

As task initiatives progress and results from efforts are reported to DOE senior management and the DNFSB, there is the possibility that changes will be recommended, or required, for efforts described in the 94-2 Implementation Plan due to input from one or both of these groups.

Risk Mitigation: If a significant change to a task activity is recommended or required by DOE senior management or the DNFSB, the LLW Management Task Group Team Leader will brief the Waste Management Senior Management Officer at the earliest possible time with a recommended course of action, and obtain a decision as soon as possible.

For all of the risk categories and resolutions, the Office of Waste Management Senior Management Officer will obtain advice and input from the Low-Level Waste Executive Management Group, if necessary, to reach a decision. Also, for all the categories and resolutions, a change control process will be implemented if deemed necessary by the LLW

Management Task Group Team Leader to change due dates, deliverables, or other items that constitute commitments to the DNFSB under the 94-2 IP. The change control process is described later in this section.

4.5 Project Time Estimate

The time required to manage and perform the task initiatives in the 94-2 Implementation Plan are based on skill/experience levels as defined in the Staffing section of this Project Management Plan. The estimates include time for training, meetings, travel, conducting the task initiatives, performing management functions, interfacing with others involved in task initiatives, and all associated work activities to complete the commitments described in the 94-2 Implementation Plan.

4.6 Staffing

A variety of resources and skills are required to complete the task activities committed to in the 94-2 Implementation Plan. The staff for this project need to possess the following skill sets: project management, project planning, systems engineering, environmental audits and/or reviews, environmental regulation development and regulatory analysis, conduct and review of LLW radiological assessments, data and data base management, quality assurance and quality control, document preparation and review, and research program development and management.

4.6.1 Qualifications

The **Deputy Assistant Secretary for Waste Management** has responsibility for implementation of Recommendation 94-2 because the primary responsibility for low-level waste management resides under the Assistant Secretary for Environmental Management.

The **Senior Management Officer** must have demonstrated leadership ability over major efforts within the Department of Energy. This position requires access to high levels of Environmental Restoration management and the ability to represent the Department in discussions with outside organizations.

The **LLW Management Task Group Team Leader** must have demonstrated the ability to plan task initiatives, coordinate activities among various groups, coordinate the flow of work, conduct project meetings, and ensure issue resolution. This position will require supervisory skills, and will need very little supervision. This demonstrated ability will have been achieved in the Department of Energy, and must include involvement in radioactive waste management.

The **Technical Area Task Managers** must have demonstrated the ability to manage task activities involving multi-disciplinary teams and coordinating the activities of several persons. This person must be able to coordinate the flow of work, conduct project meetings, and ensure issue resolution. The Task Managers must have demonstrated the ability to deliver task

deliverables and ensure technical work is conducted appropriately. They must have experience with Department of Energy program management and experience in low-level or other radioactive waste management.

The **Technical Leads** in the technical task areas identified must have multiple years of experience directly in the technical area, or one which is closely related, and have demonstrated the ability to lead technical projects in the subject area. This experience must include time within the Department of Energy complex (DOE or contractor). The individuals must have demonstrated the ability to prepare technical reports and task deliverables within schedules and budgets. The technical leads must also have demonstrated ability to lead multi-disciplinary technical teams and coordinating the activities of several persons to produce technical documents.

The **Systems Engineering Technical Leads** must have multiple years of experience at systems engineering and/or systems analysis. This experience must include systems engineering for program activities.

The **Senior Regulatory Analyst** must have multiple years of experience in environmental regulation development, review, approval, or compliance at the federal or state level. This experience must have been gained in the regulation of low-level or other radioactive waste, mixed waste, hazardous or sanitary waste, and should have been gained in the Department of Energy Complex, or in the regulation of commercial industries with similar programs. The **Regulatory Analyst** must have experience at environmental regulation development, review, approval, or compliance at the federal, state, or local level. This experience should have been gained in the regulation of low-level or other radioactive waste, mixed waste, hazardous or sanitary waste.

The **LLW Management Specialist** must have multiple years of experience with management of low-level waste, including regulation and regulatory guide development, review, approval, or compliance at the federal or state level. This experience must have been gained in the management of low-level or mixed waste in the Department of Energy complex, or in the management or regulation of commercial nuclear industries.

The **Senior Radiological Assessment Analyst** must have multiple years of experience conducting performance assessments, risk assessments, or mathematical modeling. This experience must have been gained in doing performance assessments of low-level or other radioactive waste, and should have been gained assessing Department of Energy facilities, or commercial radioactive waste facilities. The **Radiological Assessment Analyst** must have experience conducting performance assessments, risk assessments, or mathematical modeling, or producing environmental documentation containing risk analyses. This experience should have been gained performing these activities associated with the management of low-level, or other radioactive waste, mixed waste, hazardous waste, or sanitary waste.

The **Performance Assessment Peer Review Panel Members** are selected by DOE Headquarters from nominees submitted by the Office of Environment, Safety and Health and the field offices. The Panel consists of eight members, one each representing each of the six DOE

sites disposing of LLW, one representing the DOE sites that generate LLW but do not dispose of it, and one representing DOE's Office of Environment, Safety, and Health. Candidates nominated by the Field Offices must have multiple years of experience with conducting or reviewing LLW or other radioactive waste performance assessments, LLW environmental standard or regulation development, or mathematical modeling.

The Senior Headquarters Performance Assessment Reviewer must have multiple years of experience reviewing performance assessments, risk assessments, or mathematical modeling. This experience must have been gained in review of performance assessments of low-level or other radioactive waste facilities, and should have been gained assessing Department of Energy facilities, or commercial radioactive waste facilities. **The Headquarters Performance Assessment Reviewer** must have experience reviewing performance assessments, risk assessments, or mathematical modeling, or environmental documentation containing risk analyses. This experience should have been gained performing these activities associated with the management of low-level, or other radioactive waste, mixed waste, hazardous waste, or sanitary waste.

Projections Analysts must have experience with inventory assessments, data collection and analysis, characterization, or data management systems. This experience should have been gained performing these activities associated with the management of low-level, or other radioactive waste, mixed waste, hazardous waste, or sanitary waste. This experience should have been gained in performing these activities associated with Department of Energy facilities.

Research Program Analysts must have experience with research program analysis or management including needs assessment. This experience should have been gained performing these activities associated with the management of low-level, or other radioactive waste, mixed waste, hazardous waste, or sanitary waste. This experience should have been gained in performing these activities associated with Department of Energy facilities.

The Research and Development Task Team (RDTT) Members will be selected by DOE Headquarters, Office of Waste Management from nominees submitted by the field offices. The RDTT will consist of ten members, a minimum of three representing the six DOE sites disposing of LLW and a minimum of three representing the DOE National laboratories, and at least one representing each of the DOE's Office of Environment, Safety, and Health and Office of Environmental Management. Candidates nominated by the Field Offices must have multiple years of experience with conducting, managing, or reviewing LLW research & development projects or other radioactive waste research & development projects with significant knowledge of LLW programs or problems.

4.7 Project Interfaces

Several project interfaces exist in accomplishing the task initiatives in the 94-2 Implementation Plan, where results of one task are to be utilized in accomplishing another task. Also, results of ongoing work under other projects will be used in accomplishing 94-2 task initiatives. These

interfaces are explained below. The responsibility to ensure that the results of other work are properly factored into 94-2 Implementation Plan task initiatives belongs to the Task Managers.

Federal Facility Compliance Act Disposal Work Group: The FFCAct Disposal Work Group has completed detailed evaluations and reviews of several operating DOE LLW disposal sites. These evaluations and reviews will be used in the Complex-Wide Review, and subsequent Tasks, as appropriate.

DOE Order 5820.2A: DOE Order 5820.2A, Radioactive Waste Management, is being revised with a draft due in February 1997. The DOE Regulatory Structure and Process technical area is to provide the low-level waste section of the revised order and the accompanying guidance. The Task Manager must remain cognizant of the other Order revision activities and ensure proper integration of the 94-2 task with the Order revision.

WMPEIS: Much data has been collected in the development of the Waste Management Programmatic Environmental Impact Statement (WMPEIS). This data will be used in developing the needed improvements to LLW projections, and subsequent tasks as appropriate.

BEMR: The Baseline Environmental Management Report (BEMR) has been completed and issued. Data which was collected to develop findings in the BEMR will be used in developing the needed improvements to LLW projections, and subsequent tasks as appropriate.

Mixed Waste Systems Engineering: The LLW systems engineering being performed under this project management plan must work with the mixed LLW systems engineering activity to define the interface between the two waste types and ensure the necessary interface controls are established.

LLW Waste Type Activities: It has already been noted that the LLW Steering Committee will be involved with the 94-2 implementation activities. As the task initiatives covered by this project plan are completed, they will be integrated into the LLW Waste Type planning activities.

4.8 Quality Assurance

The LLW Management Task Group will assure quality of technical work and products during the conduct of task initiatives under the 94-2 Implementation Plan. The following quality implementing processes and actions will be undertaken by the LLW Management Task Group.

4.8.1 Qualifications

The LLW Management Task Group Team Leader will ensure that personnel working in positions designated in the staffing map presented in section 4.6 meet the qualifications required for each position by obtaining a resume' or statement of qualifications from candidates for the positions and determining that the individual has the required qualifications of the position. Resume's and statements of qualifications along with the findings of the LLW Management Task Group Team Leader that the individual qualifies for the position being filled will be filed as

quality records. Any exceptions to required qualifications will be documented by the LLW Management Task Group Team Leader and an explanation included in the quality records as to the ability of the individual to serve in the position without the necessary experience.

4.8.2 Training

Training will be conducted for candidates to serve as new/changed members on a Peer Review Panel. The training for new PRP members will include participation in current Peer Review Panel meetings as observers and trainees, and records of attendance at current PRP meetings will be documented and preserved as quality records for the new members of the PRP. Other training needs will be determined by the LLW Management Task Group Team Leader. Records of training will be preserved as quality records along with the records of qualifications discussed in section 4.8.1.

4.8.3 Recordkeeping

The LLW Management Task Group has established a quality recordkeeping system within the office of the LLW Management Task Group. The quality records will include: 1) personnel resume's and statements of qualification and training records for personnel working on the task initiatives in the 94-2 Implementation Plan, 2) reporting records such as monthly reports, quarterly reports, and other reports deemed quality records; 3) change control (see section 4.9) records; 4) task initiative tracking records; work products demonstrating completion of 94-2 Implementation Plan commitments, and; 5) performance assessment Peer Review Panel and Headquarters review and approval records.

4.9 Change Control

A change control process is established and used to track changes to the schedule for completing the commitments described in the task activities for the 94-2 Implementation Plan. Any changes that will result in a milestone indicated on the master schedule (Figure 4.2) being missed must undergo a formal change control procedure. Other types of changes that may impact task initiatives, such as cost, budgets, and personnel changes, do not have to undergo the formal change control process unless there is an impact on the schedule. The change control procedure must be initiated as quickly as possible following the realization that a milestone is likely to be missed, but in no case shall a change control be initiated later than *21 days* before the scheduled milestone due date.

4.9.1 Change Control Procedure

In order to formally change a milestone due date designated in the 94-2 Implementation Plan, the Deputy Assistant Secretary for Waste Management will route a letter through the Principal Deputy Assistant Secretary for Environmental Management for the Secretary of Energy's signature and transmittal to the DNFSB indicating the change in schedule and the reasons for the

change. The following steps must be taken in order to deliver a change notification to the DNFSB in a timely fashion:

- 1) The DOE Task Manager in charge of the technical task area informs the LLW Management Task Group Team Leader of the need for a change to a scheduled milestone;
- 2) The Task Manager drafts an action memorandum for transmittal to the Deputy Assistant Secretary for Waste Management with an attached letter from the Secretary of Energy to the DNFSB explaining the change in schedule and the reasons for the change;
- 3) The LLW Management Task Group Team Leader transmits the action memorandum with the attached letter to the DNFSB to the Deputy Assistant Secretary for signature and action;
- 4) The signed action memorandum is transmitted to the Principle Deputy Assistant Secretary for Environmental Management to forward to the Secretary; and
- 5) The Secretary signs the letter and transmits it to the DNFSB.

4.9.2 Responsibilities

It is the responsibility of the Technical Area Task Managers designated in this Project Management Plan to initiate the formal change control process to change a milestone due date in the 94-2 Implementation Plan. It is the responsibility of the LLW Management Task Group Team Leader to transmit the change control memorandum to the Deputy Assistant Secretary for Waste Management and provide any necessary briefings and information in order for a decision to be made concerning the proposed change. It is the responsibility of the Deputy Assistant Secretary for Waste Management to transmit the letter informing the DNFSB of the change to the Principle Deputy Assistant Secretary for Environmental Management and the Secretary of Energy's responsibility to sign the letter.

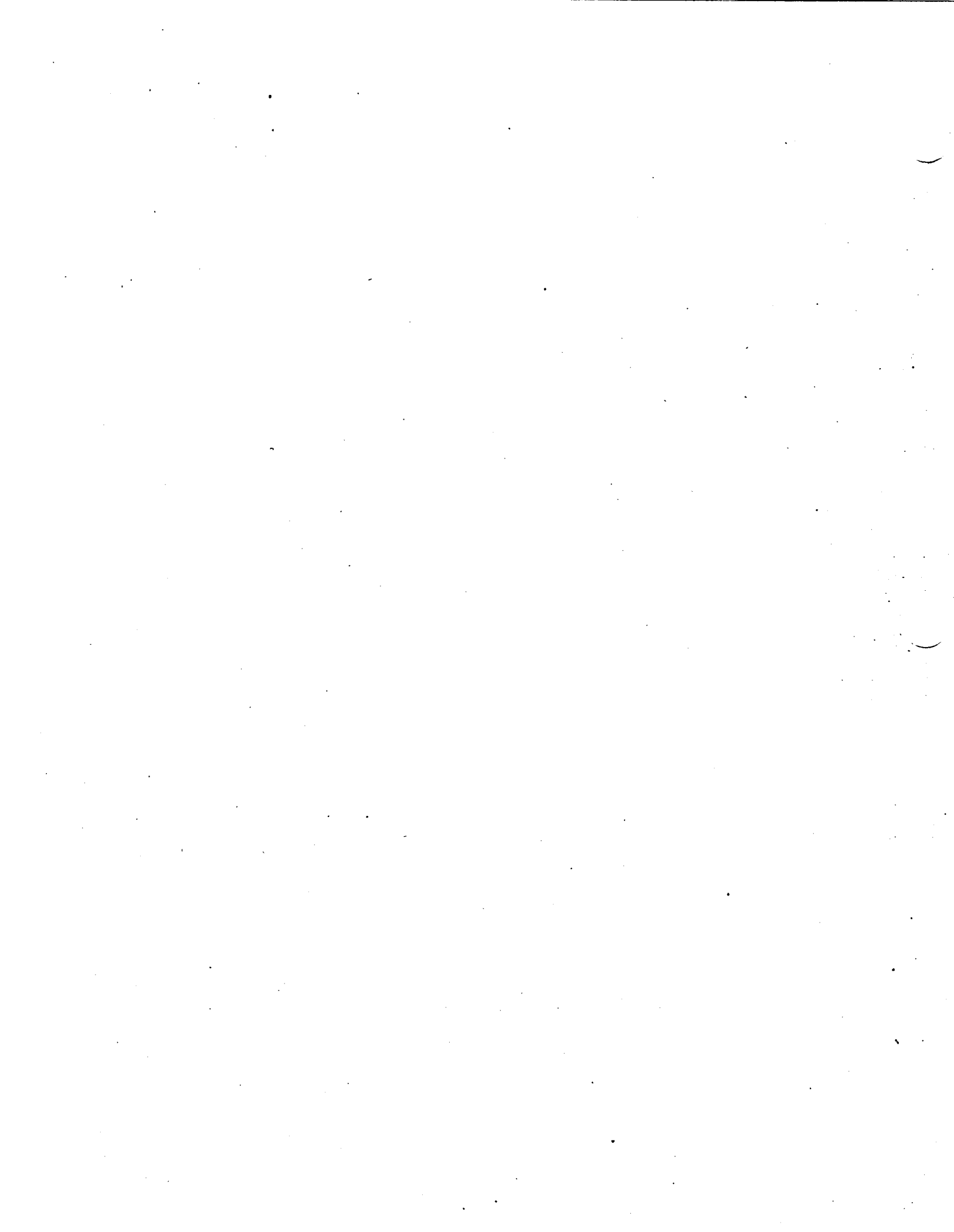
4.10 National Environmental Policy Act

The initiatives described in the 94-2 Implementation Plan will result in policies, requirements, technical documents, and program planning documents. These initiatives will improve compliance with DOE directives for existing and planned facilities which are or will be covered under existing or planned National Environmental Policy Act (NEPA) evaluations, as appropriate. The task initiatives in the 94-2 Implementation Plan will not directly result in new or redesigned facilities, or major Federal actions as defined under NEPA.

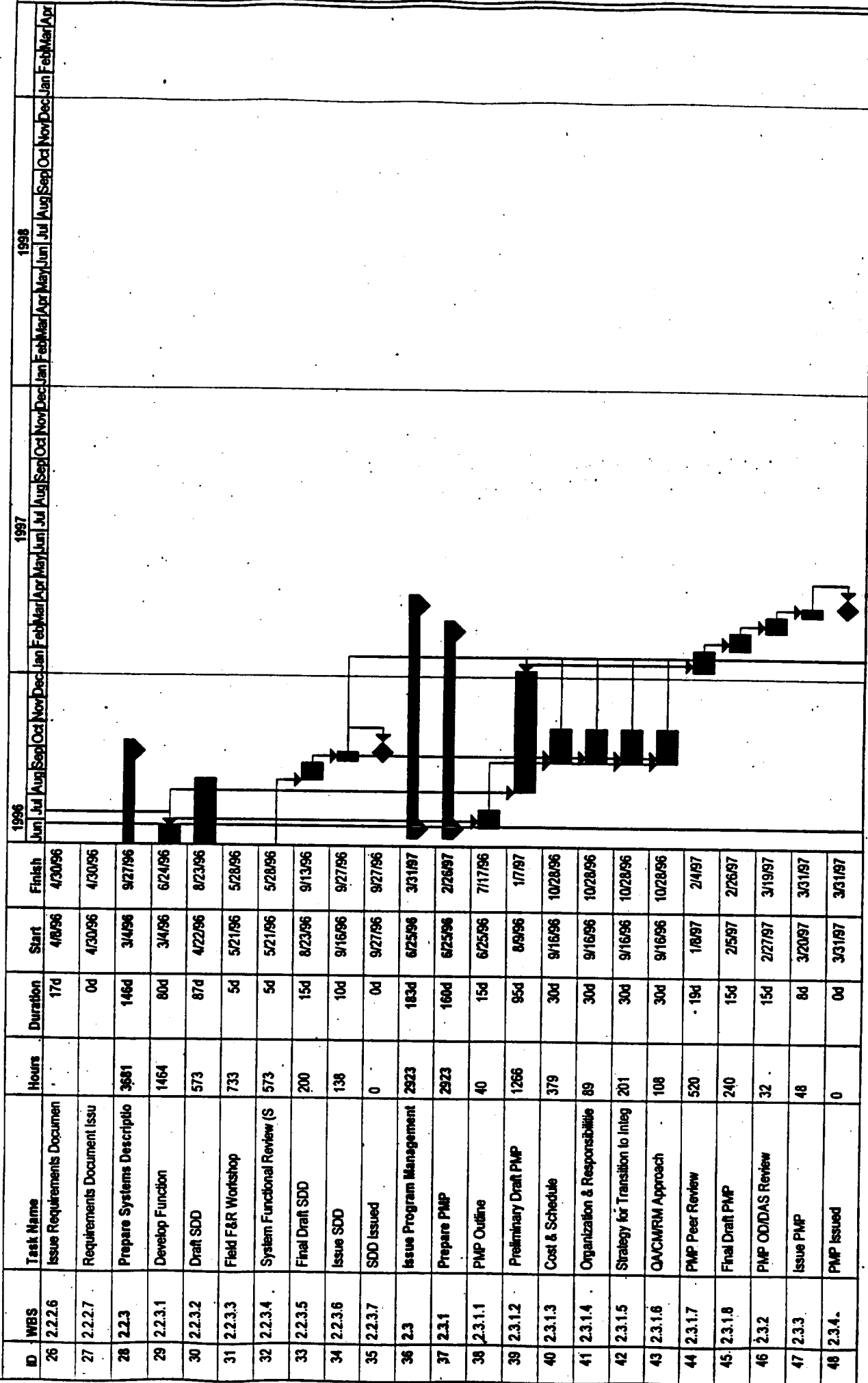
The implementation of proposed changes in the management of LLW described in the documentation prepared under the 94-2 Implementation Plan may result in operational changes or in facilities being built or modified. Such decisions however will not be made until the completion of any required analysis under NEPA. It is not expected that any of these decisions will be required of the LLW Management Task Group, and therefore procedures to address NEPA are not provided in the management approach in this Project Management Plan.

Appendix A

Detailed Schedule



**DNFSB 94-2 Schedule
6/26/96 9:09 AM**



DNFSB 94-2 Schedule
6/26/96 9:09 AM

ID	WBS	Task Name	Hours	Duration	Start	Finish
49	2.4	General Sys Eng g Support	1960	245d	3/4/96	3/5/97
50	2.5	Develop CWR Corrective Ac	100	66d	4/26/96	7/31/96
51	2.5.1	Draft	48	48d	4/26/96	7/3/96
52	2.5.2	Review CWR Corrective Actio	8	3d	7/8/96	7/10/96
53	2.5.3	Review Site-specific Correctiv	20	3d	7/8/96	7/10/96
54	2.5.4	Revision	16	5d	7/11/96	7/17/96
55	2.5.5	Concurrence and Approval	8	10d	7/18/96	7/31/96
56	2.5.6	Issue CWR Corrective Action	0	0d	7/31/96	7/31/96
57	2.6	Privatization Study	651	82d	6/3/96	9/27/96
58	2.6.1	Initial Draft	100	34d	6/3/96	7/22/96
59	2.6.1.1	Develop Framework for Evalu	60	28d	6/3/96	7/12/96
60	2.6.1.2	Data Collection & Evaluation	40	19d	6/24/96	7/22/96
61	2.6.2	Draft	535	27d	7/8/96	8/13/96
62	2.6.2.1	Prepare Report	471	10d	7/8/96	7/19/96
63	2.6.2.2	EM-30 Review	18	10d	7/22/96	8/2/96
64	2.6.2.3	Revision	48	7d	8/5/96	8/13/96
65	2.6.3	Final	16	19d	9/3/96	9/27/96
66	2.6.3.1	HQ Concurrence	8	10d	9/3/96	9/16/96
67	2.6.3.2	HQ Approval	8	9d	9/17/96	9/27/96
68	2.6.4	Issue Privatization Study	0	0d	9/27/96	9/27/96
69	3	Complex-Wide Review (CW		95d	12/6/95	4/25/96
70	3.1	CWR Planning Activities		25d	12/6/95	1/17/96
71	3.1.1	Planning Meeting		2d	12/6/95	12/7/95

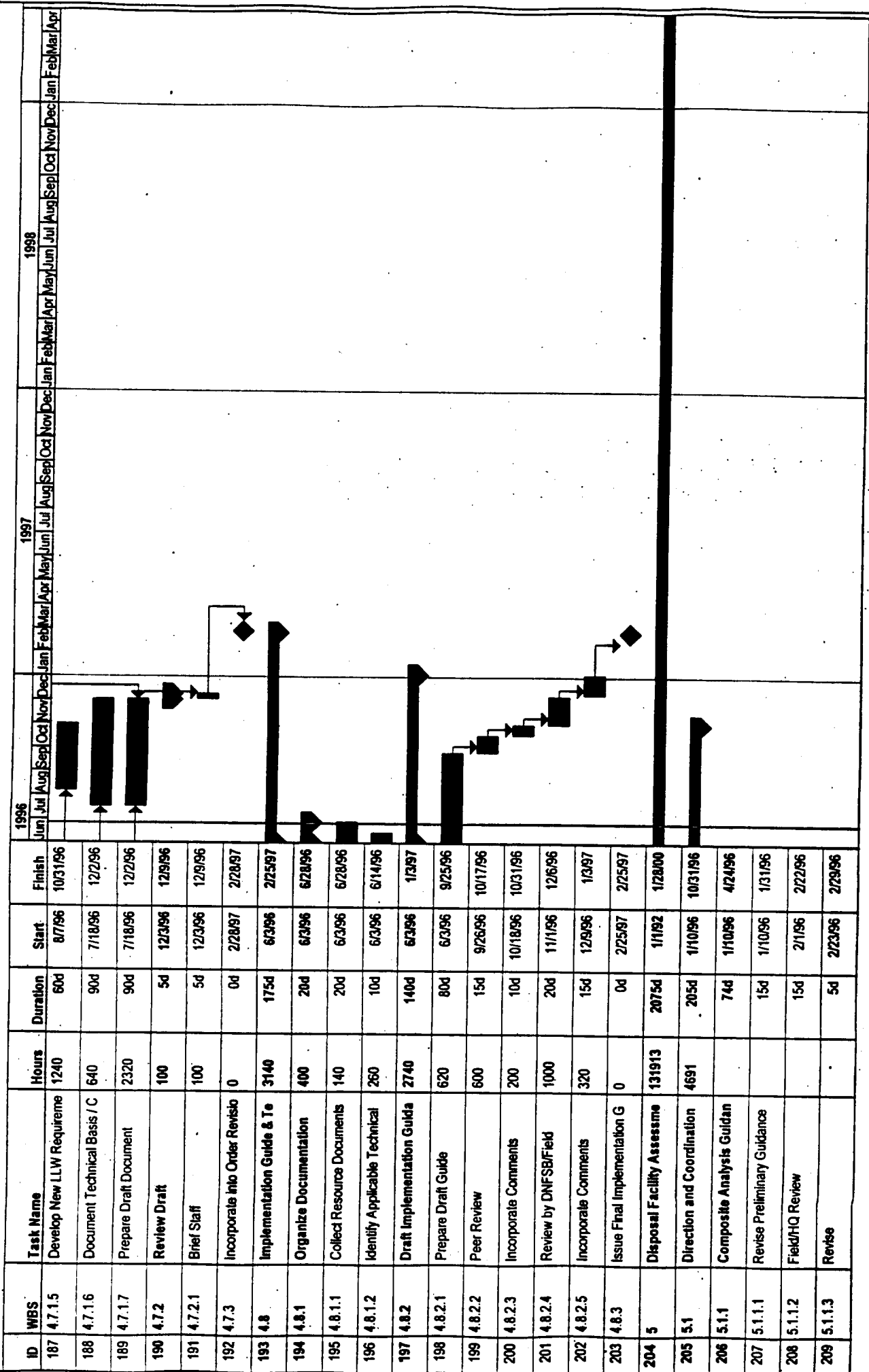
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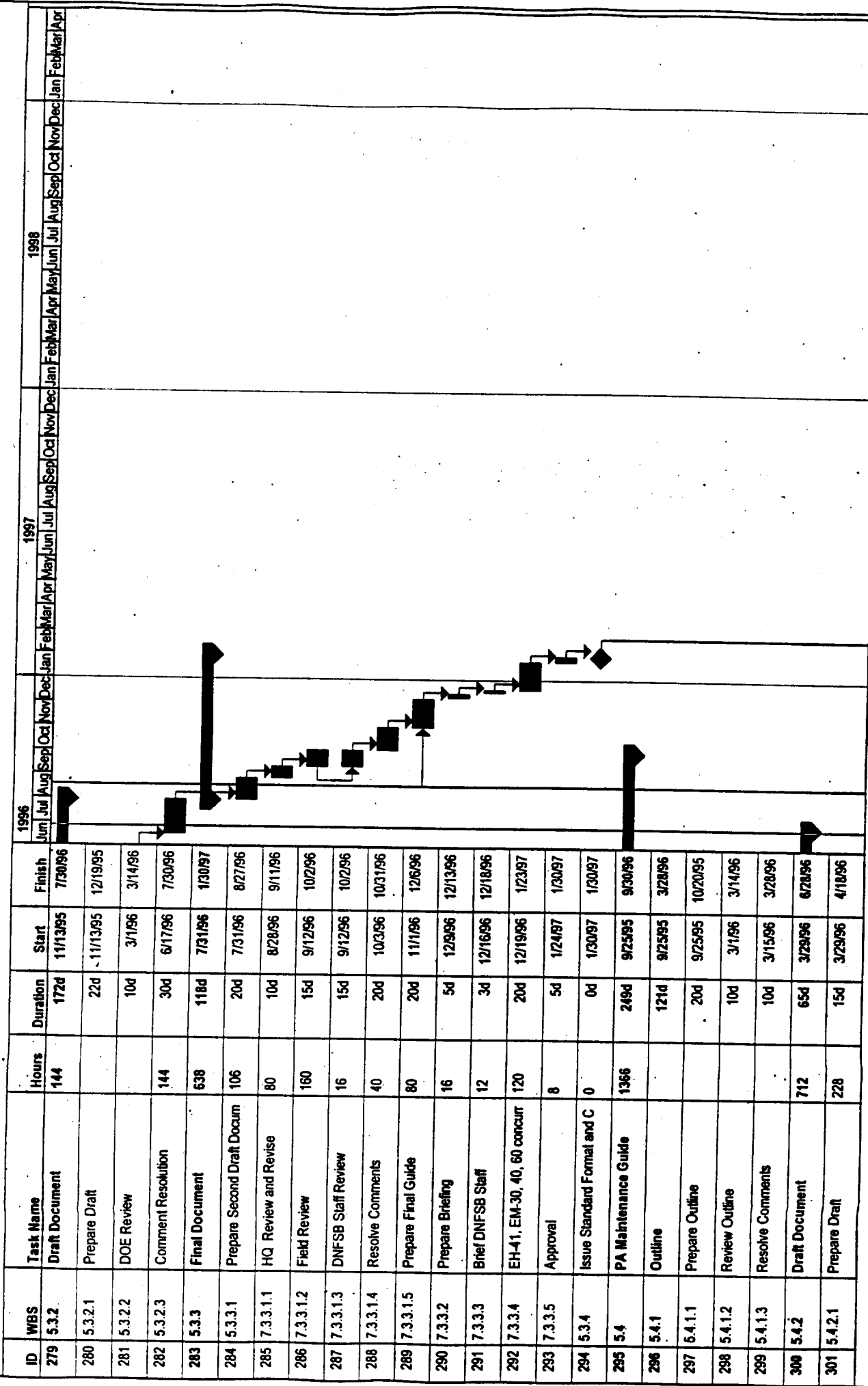
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Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr

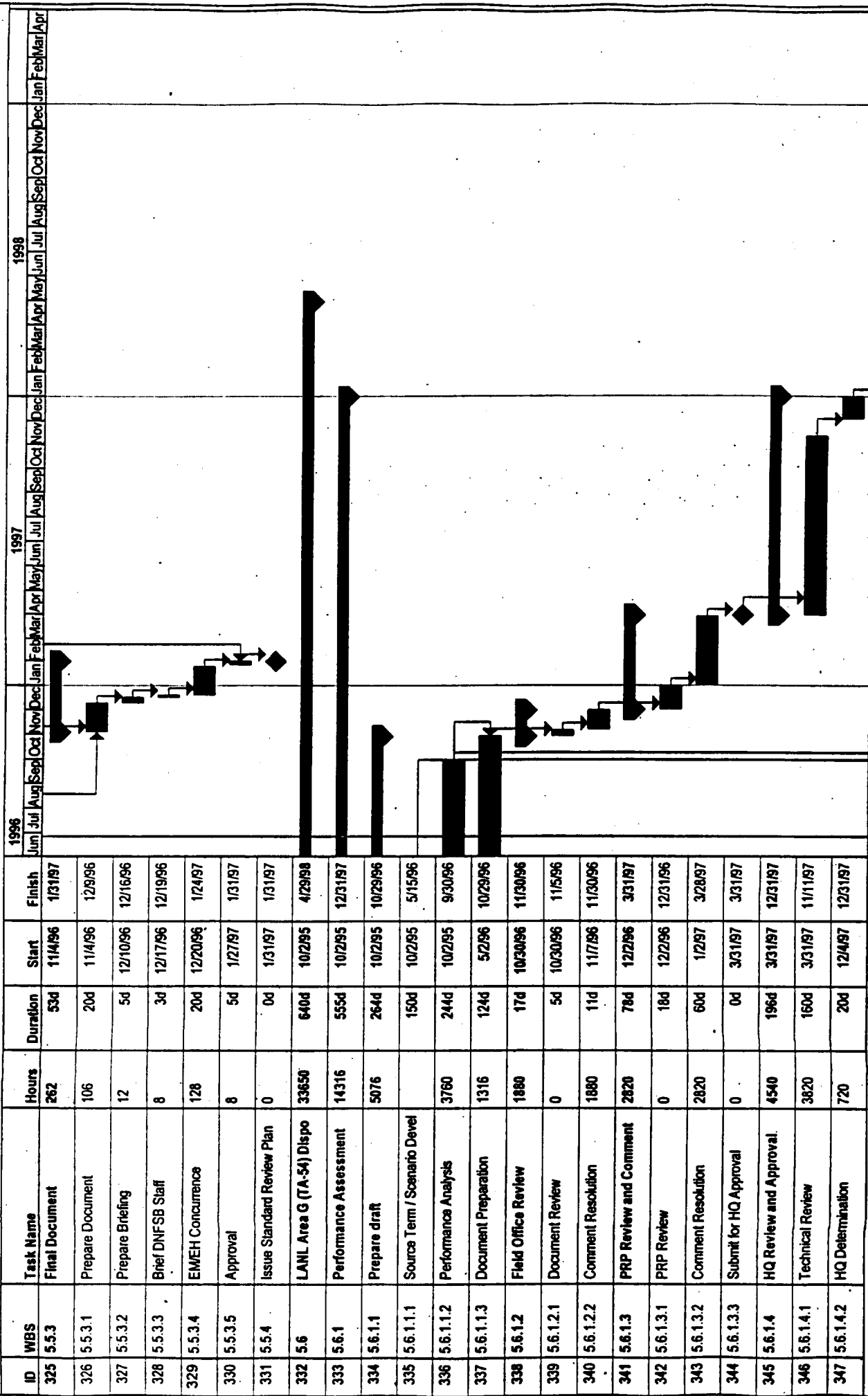
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6/26/96 9:09 AM



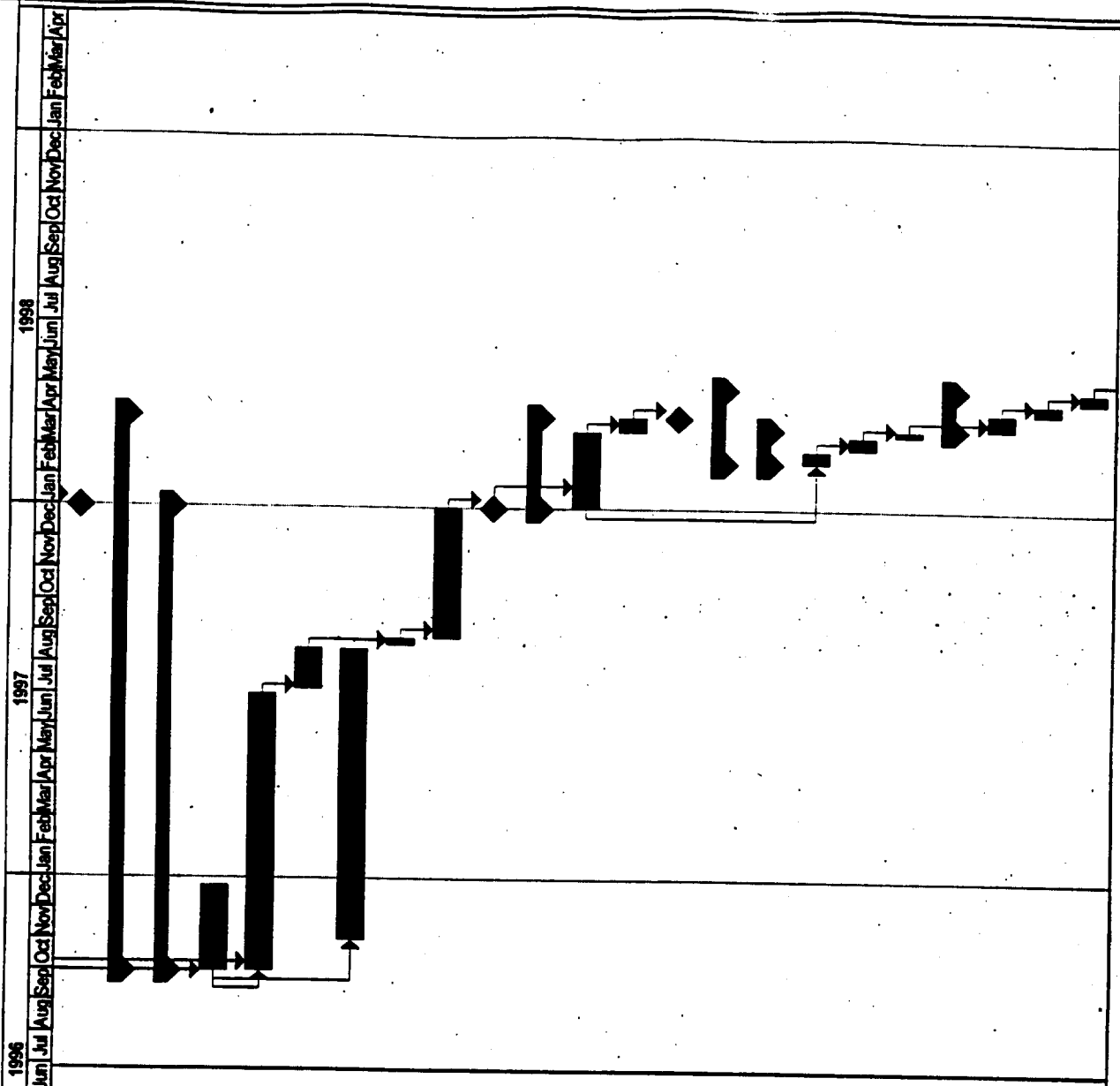
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DNFSB 94-2 Schedule
6/26/96 9:09 AM



**DNFSB 94-2 Schedule
6/26/96 9:09 AM**



ID	WBS	Task Name	Hours	Duration	Start	Finish
348	5.6.1.4.3	Issue HQ Memo	0	0d	12/31/97	12/31/97
349	5.6.2	Composite Analysis	18228	375d	10/1/96	3/31/98
350	5.6.2.1	Prepare Composite Analysis	17296	311d	10/1/96	12/31/97
351	5.6.2.1.1	Source Term/Scenario Develo	4700	53d	10/1/96	12/23/96
352	5.6.2.1.2	Analysis	4708	180d	10/1/96	7/1/97
353	5.6.2.1.3	Options Analysis	3760	30d	7/7/97	8/15/97
354	5.6.2.1.4	Document Preparation	1316	190d	11/1/96	8/14/97
355	5.6.2.1.5	Field Office Review	0	5d	8/19/97	8/25/97
356	5.6.2.1.6	Comment Resolution	2820	92d	8/26/97	12/31/97
357	5.6.2.1.7	Submit to HQ	0	0d	12/31/97	12/31/97
358	5.6.2.2	HQ Review	932	64d	1/1/98	3/31/98
359	5.6.2.2.1	Technical Review	720	54d	1/1/98	3/17/98
360	5.6.2.2.2	HQ Determination (EM-30/40)	212	10d	3/18/98	3/31/98
361	5.6.2.2.3	Composite Analysis Complete	0	0d	3/31/98	3/31/98
362	5.6.3	LANL Area G Disposal Auth	1106	53d	2/16/98	4/29/98
363	5.6.3.1	Draft Authorization Stateme	508	25d	2/16/98	3/20/98
364	5.6.3.1.1	Prepare Draft	148	10d	2/16/98	2/27/98
365	5.6.3.1.2	EM-30/40/EH-41 Review	240	10d	3/2/98	3/13/98
366	5.6.3.1.3	LANL Review	120	5d	3/16/98	3/20/98
367	5.6.3.2	Final Authorization Stateme	598	28d	3/23/98	4/29/98
368	5.6.3.2.1	Resolve Comments	310	12d	3/23/98	4/7/98
369	5.6.3.2.2	Prepare Final	180	8d	4/8/98	4/17/98
370	5.6.3.2.3	HQ Concurrence/Approval	108	8d	4/20/98	4/29/98

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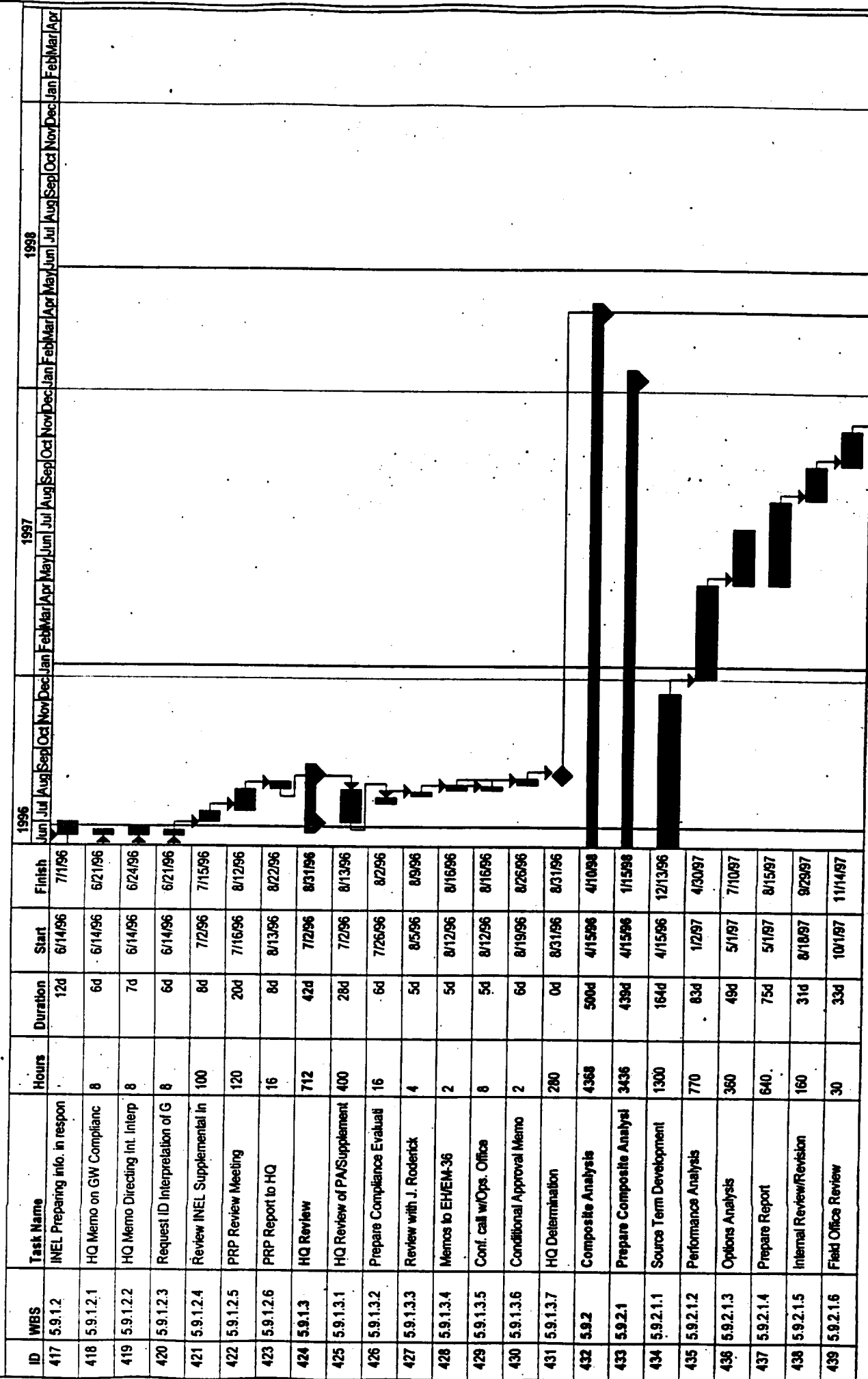
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ID	WBS	Task Name	Hours	Start	Duration	Finish
371	5.6.3.2.4	Issue Disposal Authorization	0	4/29/98	0d	4/29/98
372	5.7	Hanford 200-E Area Disposal	7144	3/20/95	845d	7/29/98
373	5.7.1	Performance Assessment	5988	3/20/95	520d	4/28/97
374	5.7.1.1	Prepare draft PA	255d	3/20/95	3/27/96	
375	5.7.1.1.1	Draft Text (completed)	232d	3/20/95	2/23/96	
376	5.7.1.1.2	PRP Preliminary Review	64d	12/20/95	3/27/96	
377	5.7.1.2	Prepare Final PA	1448	3/28/96	109d	8/30/96
378	5.7.1.2.1	Field Office Review	30d	3/28/96	30d	5/8/96
379	5.7.1.2.2	Comment Resolution / Revisit	1448	5/9/96	79d	8/30/96
380	5.7.1.2.3	Submit for HQ Approval	0	8/30/96	0d	8/30/96
381	5.7.1.3	HQ / PRP Review	4540	9/3/96	156d	4/28/97
382	5.7.1.3.1	Technical Review	3820	9/3/96	95d	1/30/97
383	5.7.1.3.2	HQ Determination	720	4/28/97	67d	4/28/97
384	5.7.1.3.3	Issue HQ Memo	0	4/28/97	0d	4/28/97
385	5.7.2	200-E Disposal Authorzatio	1156	5/28/98	45d	7/29/98
386	5.7.2.1	Draft Authorization Stateme	548	5/28/98	25d	7/1/98
387	5.7.2.1.1	Prepare Draft	128	5/28/98	10d	6/10/98
388	5.7.2.1.2	EM-30/40/EH Review	300	6/11/98	10d	6/24/98
389	5.7.2.1.3	Hanford Review	120	6/25/98	5d	7/1/98
390	5.7.2.2	Final Authorization Stateme	688	7/2/98	20d	7/29/98
391	5.7.2.2.1	Resolve Comments	320	7/2/98	10d	7/15/98
392	5.7.2.2.2	Prepare Final	180	7/16/98	5d	7/22/98
393	5.7.2.2.3	HQ Concurrence / Approval	108	7/23/98	5d	7/29/98

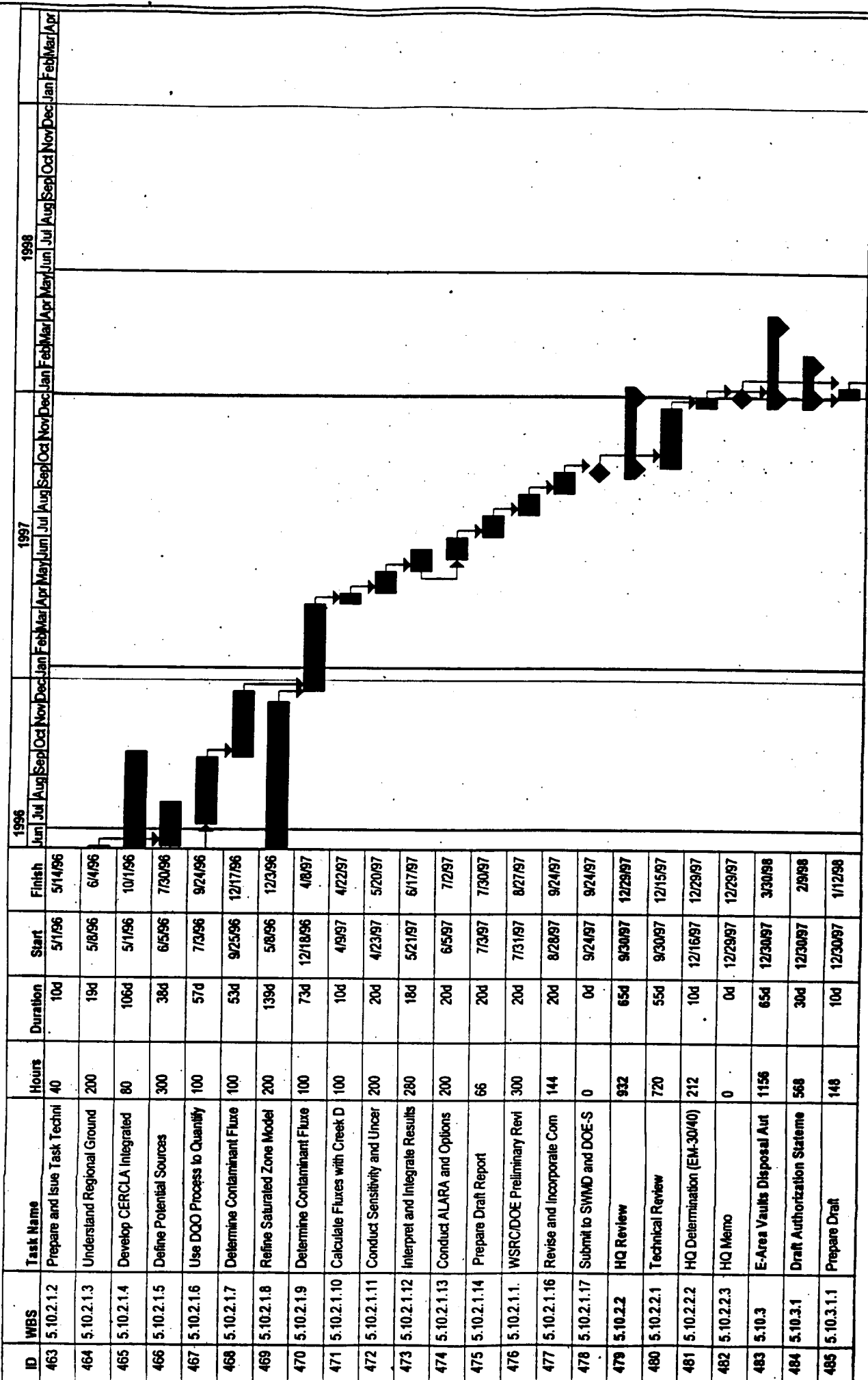
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ID	WBS	Task Name	Hours	Duration	Start	Finish
394	5.7.2.2.4	Issue Disposal Authorization	0	0d	7/29/98	7/29/98
395	5.8	Hanford 200-W Area Dispos	1186	545d	5/1/96	6/30/98
396	5.8.1	Performance Assessment	30	42d	5/1/96	6/28/96
397	5.8.1.1	HQ Review	30	42d	5/1/96	6/28/96
398	5.8.1.1.1	Complete HQ Review		25d	5/1/96	6/5/96
399	5.8.1.1.2	Complete PA Review		22d	5/1/96	5/31/96
400	5.8.1.1.3	Prepare Compliance Evaluati		10d	6/3/96	6/14/96
401	5.8.1.1.4	Draft Conditional Approval Me		5d	6/17/96	6/21/96
402	5.8.1.1.5	Obtain Concurrence	0	5d	6/24/96	6/28/96
403	5.8.1.1.6	Issue HQ Memo	30	0d	6/28/96	6/28/96
404	5.8.2	200-W Disposal Authorizati	1156	24d	5/28/98	6/30/98
405	5.8.2.1	Draft Authorization Stateme	568	11d	5/28/98	6/1/98
406	5.8.2.1.1	Prepare Draft	148	5d	5/28/98	6/3/98
407	5.8.2.1.2	EM-30/40/EH Review	300	3d	6/4/98	6/8/98
408	5.8.2.1.3	Hanford Review	120	3d	6/9/98	6/11/98
409	5.8.2.2	Final Authorization Stateme	588	13d	6/12/98	6/30/98
410	5.8.2.2.1	Resolve Comments	300	5d	6/12/98	6/18/98
411	5.8.2.2.2	Prepare Final	180	3d	6/19/98	6/23/98
412	5.8.2.2.3	HQ Concurrence / Approval	108	5d	6/24/98	6/30/98
413	5.8.2.2.4	Issue Disposal Authorization	0	0d	6/30/98	6/30/98
414	5.9	INEL RWMC Disposal Autho	6476	1011d	5/31/94	5/29/98
415	5.9.1	Performance Assessment	972	573d	5/31/94	8/31/96
416	5.9.1.1	PA Completed 5/94		1d	5/31/94	5/31/94

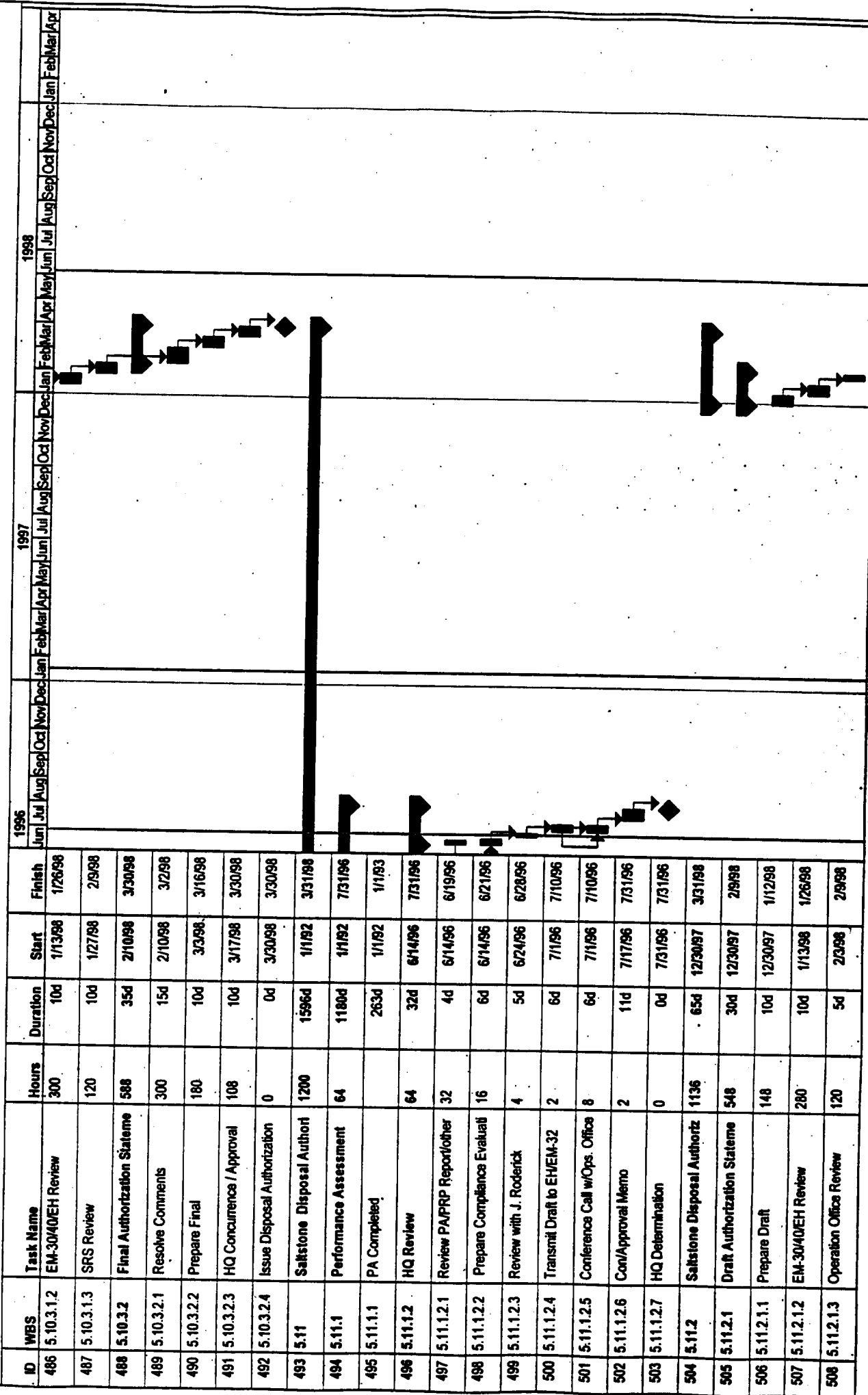
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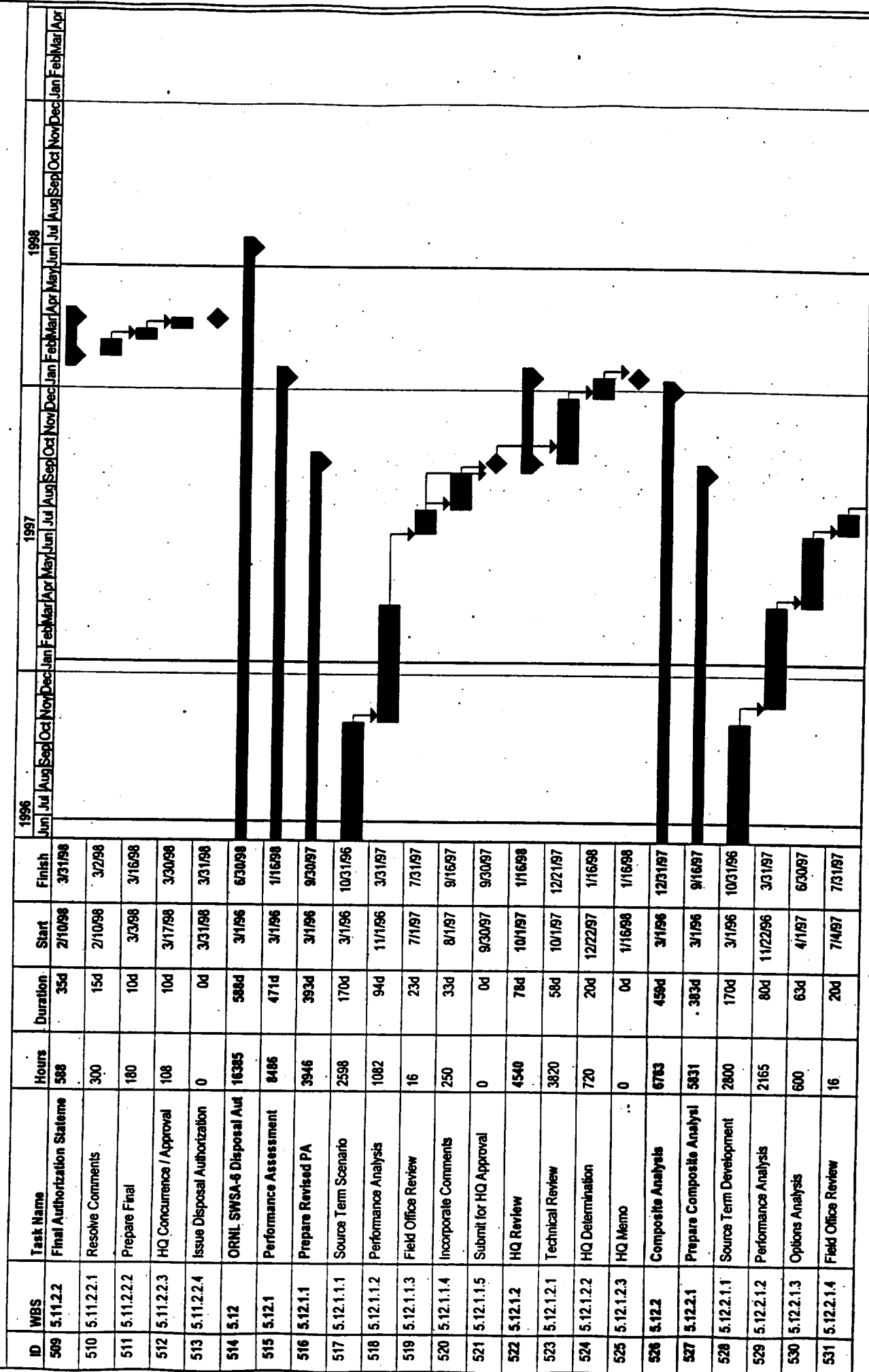


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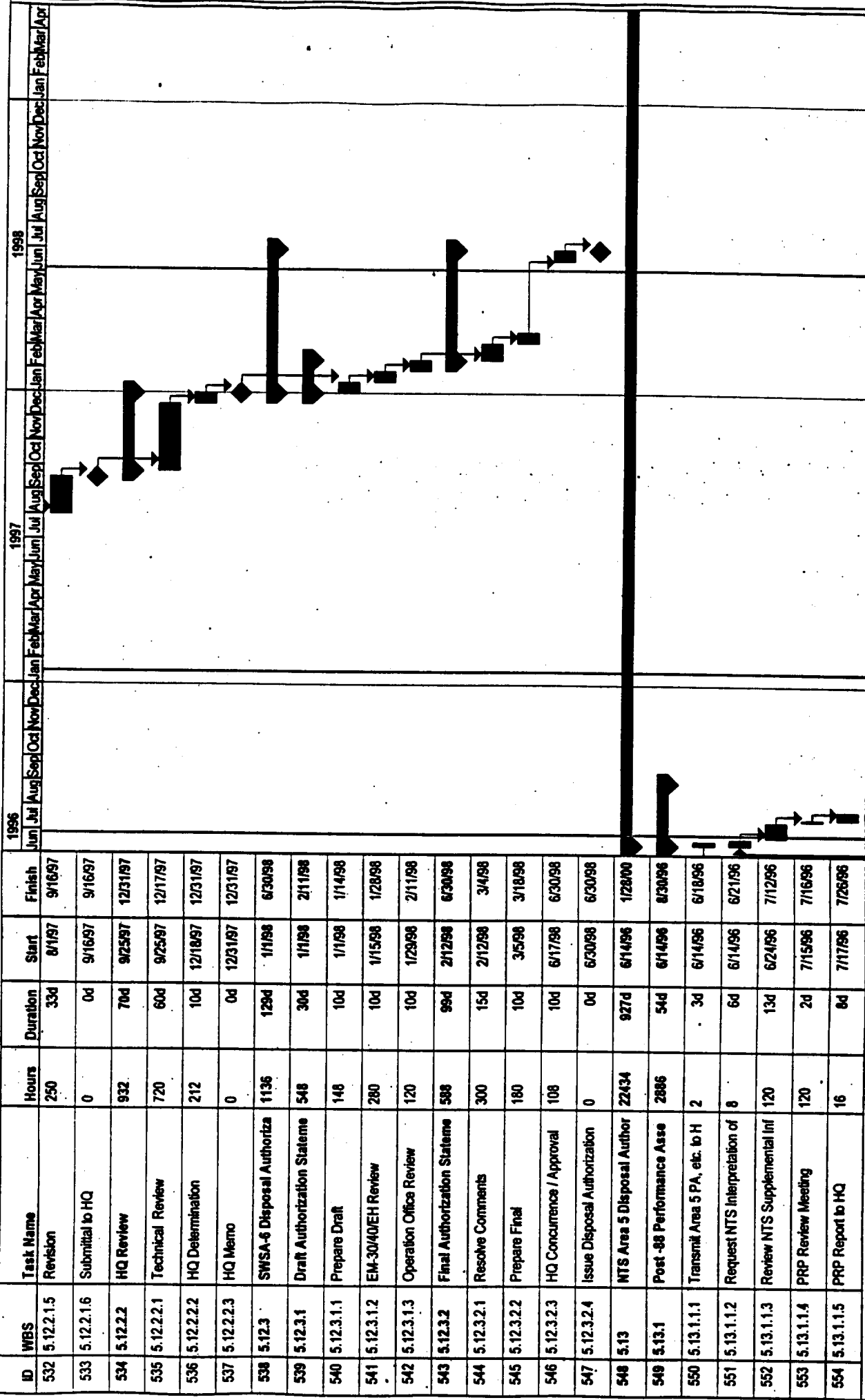


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486	5.10.3.1.2	EM-30/40EH Review	300	10d	1/13/98	1/26/98
487	5.10.3.1.3	SRS Review	120	10d	1/27/98	2/9/98
488	5.10.3.2	Final Authorization Stateme	588	35d	2/10/98	3/30/98
489	5.10.3.2.1	Resolve Comments	300	15d	2/10/98	3/2/98
490	5.10.3.2.2	Prepare Final	180	10d	3/3/98	3/16/98
491	5.10.3.2.3	HQ Concurrences / Approval	108	10d	3/17/98	3/30/98
492	5.10.3.2.4	Issue Disposal Authorization	0	0d	3/30/98	3/30/98
493	5.11	Saltstone Disposal Authori	1200	1596d	1/1/92	3/31/98
494	5.11.1	Performance Assessment	64	1180d	1/1/92	7/31/96
495	5.11.1.1	PA Completed		263d	1/1/92	1/1/93
496	5.11.1.2	HQ Review	64	32d	6/14/96	7/31/96
497	5.11.1.2.1	Review PAMP RP Report/other	32	4d	6/14/96	6/19/96
498	5.11.1.2.2	Prepare Compliance Evaluati	16	6d	6/14/96	6/21/96
499	5.11.1.2.3	Review with J. Roderick	4	5d	6/24/96	6/28/96
500	5.11.1.2.4	Transmit Draft to EHVEM-32	2	6d	7/1/96	7/10/96
501	5.11.1.2.5	Conference Call w/Ops. Office	8	6d	7/1/96	7/10/96
502	5.11.1.2.6	Con/Approval Memo	2	11d	7/17/96	7/31/96
503	5.11.1.2.7	HQ Determination	0	0d	7/31/96	7/31/96
504	5.11.2	Saltstone Disposal Authoriz	1136	65d	12/30/97	3/31/98
505	5.11.2.1	Draft Authorization Stateme	548	30d	12/30/97	2/9/98
506	5.11.2.1.1	Prepare Draft	148	10d	12/30/97	1/12/98
507	5.11.2.1.2	EM-30/40EH Review	280	10d	1/13/98	1/26/98
508	5.11.2.1.3	Operation Office Review	120	5d	2/3/98	2/9/98

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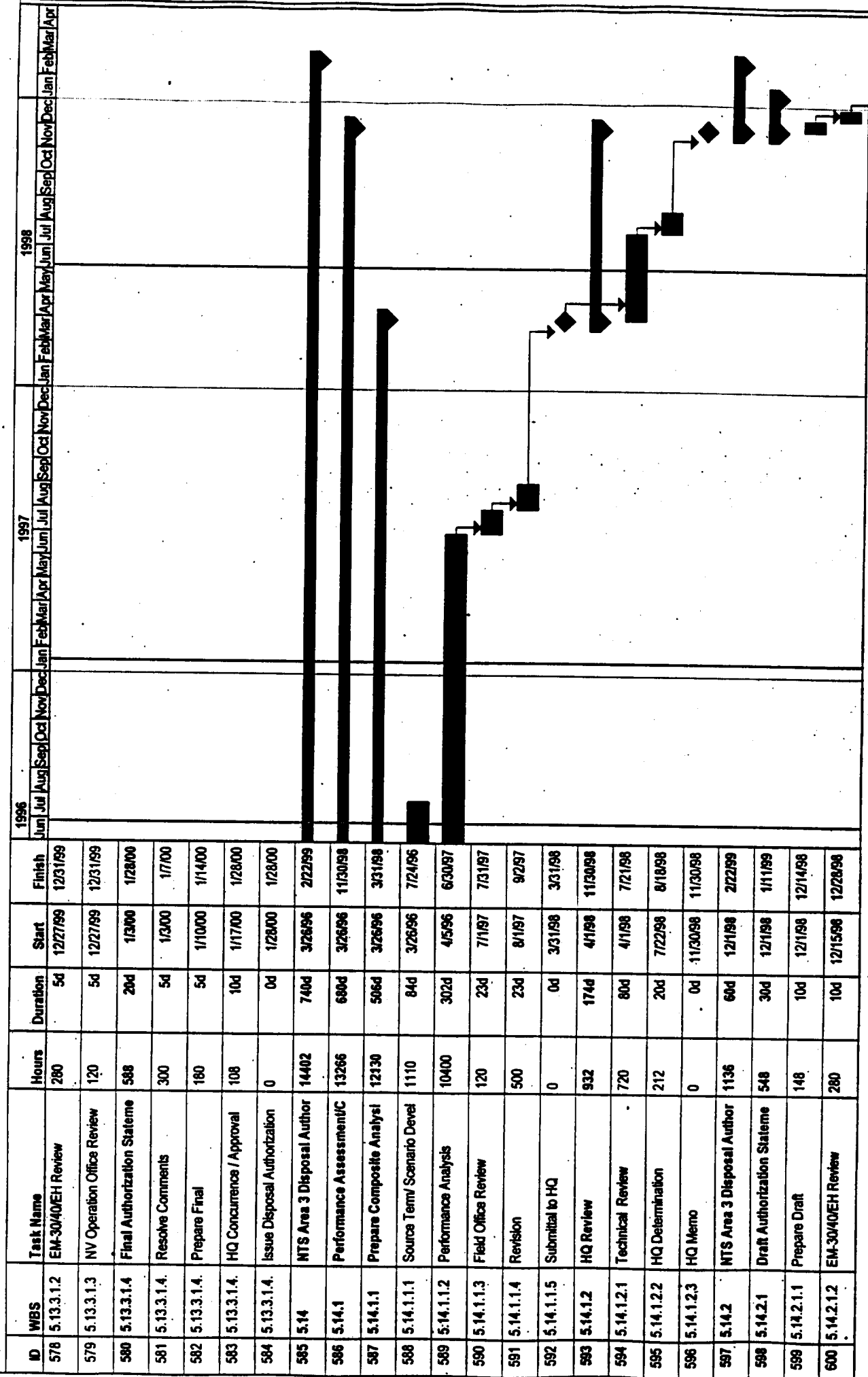
ID	WBS	Task Name	Hours	Duration	Start	Finish
532	5.12.2.1.5	Revision	250	33d	8/1/97	9/16/97
533	5.12.2.1.6	Submittal to HQ	0	0d	9/16/97	9/16/97
534	5.12.2.2	HQ Review	932	70d	9/25/97	12/31/97
535	5.12.2.2.1	Technical Review	720	60d	9/25/97	12/17/97
536	5.12.2.2.2	HQ Determination	212	10d	12/18/97	12/31/97
537	5.12.2.2.3	HQ Memo	0	0d	12/31/97	12/31/97
538	5.12.3	SWSA-6 Disposal Authoriza	1136	129d	1/1/98	6/30/98
539	5.12.3.1	Draft Authorization Stateme	548	30d	1/1/98	2/11/98
540	5.12.3.1.1	Prepare Draft	148	10d	1/1/98	1/14/98
541	5.12.3.1.2	EM-30/40EH Review	280	10d	1/15/98	1/28/98
542	5.12.3.1.3	Operation Office Review	120	10d	1/29/98	2/11/98
543	5.12.3.2	Final Authorization Stateme	588	99d	2/12/98	6/30/98
544	5.12.3.2.1	Resolve Comments	300	15d	2/12/98	3/4/98
545	5.12.3.2.2	Prepare Final	180	10d	3/5/98	3/18/98
546	5.12.3.2.3	HQ Concurrence / Approval	108	10d	6/17/98	6/30/98
547	5.12.3.2.4	Issue Disposal Authorization	0	0d	6/30/98	6/30/98
548	5.13	NTS Area 5 Disposal Author	22434	927d	6/14/96	1/29/00
549	5.13.1	Post-88 Performance Asse	2886	54d	6/14/96	8/30/96
550	5.13.1.1.1	Transmit Area 5 PA, etc. to H	2	3d	6/14/96	6/18/96
551	5.13.1.1.2	Request NTS Interpretation of	8	6d	6/14/96	6/21/96
552	5.13.1.1.3	Review NTS Supplemental Inf	120	13d	6/24/96	7/12/96
553	5.13.1.1.4	PRP Review Meeting	120	2d	7/15/96	7/16/96
554	5.13.1.1.5	PRP Report to HQ	16	8d	7/17/96	7/26/96

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ID	WBS	Task Name	Hours	Duration	Start	Finish
555	5.13.1.2	HQ Review	2620	48d	6/24/96	8/30/96
556	5.13.1.2.1	HQ Review P/Supplemental	1900	25d	6/24/96	7/30/96
557	5.13.1.2.2	Prepare Compliance Evaluat	16	5d	7/24/96	7/30/96
558	5.13.1.2.3	Review with J. Roderick	4	5d	7/31/96	8/6/96
559	5.13.1.2.4	Memos to E/EMA-36	2	5d	8/7/96	8/13/96
560	5.13.1.2.5	Conf call w/ Ops. Office	8	5d	8/7/96	8/13/96
561	5.13.1.2.6	Corc/Conditional Approval Me	2	10d	8/14/96	8/27/96
562	5.13.1.2.7	HQ Determination	720	0d	8/30/96	8/30/96
563	5.13.2	Composite Analysis	18412	588d	10/1/97	12/31/99
564	5.13.2.1	Prepare Composite Analysis	17480	521d	10/1/97	9/29/99
565	5.13.2.1.1	Source Term Scenario Develo	1080	89d	10/1/97	2/2/98
566	5.13.2.1.2	Performance Analysis	14880	200d	2/3/98	11/9/98
567	5.13.2.1.3	Options Analysis	400	120d	11/10/98	4/26/99
568	5.13.2.1.4	Field Office Review	120	56d	4/27/99	7/13/99
569	5.13.2.1.5	Revision	1000	56d	7/14/99	9/29/99
570	5.13.2.1.6	Submit to HQ	0	0d	9/29/99	9/29/99
571	5.13.2.2	HQ Review	932	67d	9/30/99	12/31/99
572	5.13.2.2.1	Technical Review	720	47d	9/30/99	12/5/99
573	5.13.2.2.2	HQ Determination	212	20d	12/6/99	12/31/99
574	5.13.2.2.3	Composite Analysis Complete	0	0d	12/31/99	12/31/99
575	5.13.3	NTS Area 5 Disposal Author	1136	35d	12/13/99	1/28/00
576	5.13.3.1	Draft Authorization Stateme	548	35d	12/13/99	1/28/00
577	5.13.3.1.1	Prepare Draft	148	10d	12/13/99	12/24/99

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