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WIPP File

Mr. Mark E. Weidler, Secretary
 New Mexico Environment Department
 P. O. Box 26110
 Santa Fe, NM 87502

Dear Mr. Weidler:

Enclosed is Revision 1 to the Implementation Plan for the FY-95 Annual Update of the Waste Isolation Pilot Plant (WIPP) Safety Analysis Report (SAR) for Disposal-Phase Operations. Revision 1 incorporates changes to the proposed WIPP SAR format resulting from the FY-95 annual update process. Also, the safety analysis process being utilized to develop the FY-95 Annual Update to the WIPP SAR is more fully described in Revision 1.

If you have any questions or comments regarding the document, please contact Richard Farrell of my staff at 234-8639.

Sincerely,

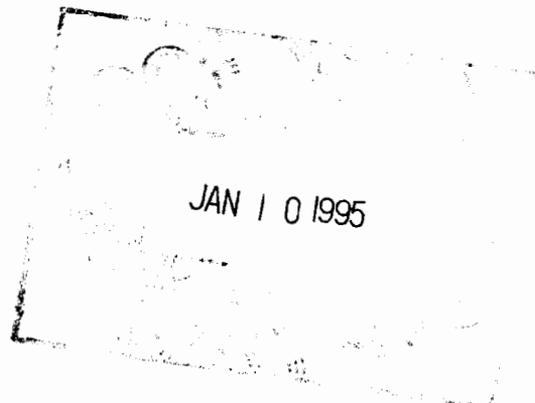
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IMPLEMENTATION PLAN

FOR THE

**FY-95 ANNUAL UPDATE OF THE WIPP SAFETY ANALYSIS REPORT
FOR DISPOSAL-PHASE OPERATIONS**

REVISION 1

DECEMBER 1994

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**IMPLEMENTATION PLAN
FOR THE
FY-95 ANNUAL UPDATE OF THE WIPP SAFETY ANALYSIS REPORT
FOR DISPOSAL-PHASE OPERATIONS**

1.0 INTRODUCTION

This Implementation Plan (IP) provides a detailed outline of major milestones, schedules, and planned actions required to complete the FY-95 Annual Update of the existing WIPP Safety Analysis Report (SAR) for Disposal-Phase (DP) Operations.

The WIPP SAR, originally issued in May 1990 following approval by the Department of Energy, Office of Environmental Restoration and Waste Management (DOE-EM), was prepared to satisfy: (1) the commitments in the Working Agreement for Consultation and Cooperation (Article III, Section C and Article IV, Section K, known as the Working Agreement) between the State of New Mexico and the U.S. Department of Energy; and (2) the requirements of DOE Order 5481.1B, *Safety Analysis and Review System*.

Since the original approval by DOE-EM, the WIPP SAR has been reviewed and updated: (1) in the Fiscal Year (FY)-92, FY-93, and FY-94 annual updates; and (2) to ensure compliance with the requirements of DOE Orders 5480.21, *Unreviewed Safety Questions*, 5480.22, *Technical Safety Requirements*, 5480.23, *Nuclear Safety Analysis Reports*, and 5480.24, *Nuclear Criticality Safety*. This IP provides the milestones, schedule, and work description to update the existing SAR in four primary areas: (1) the format will be modified to follow a more logical safety analysis flow path for the WIPP, a Hazard Category 3 facility, (2) the content will be focused on establishing the adequacy of the safety basis of the facility as opposed to "historical" documentation of WIPP activities, (3) the SAR will be updated with the most currently available final engineering design information on waste emplacement operations throughout the Disposal-Phase up to the point of permanent closure, and (4) the hazards and accident analysis methodology will be upgraded to currently accepted techniques to verify that the WIPP design ensures the protection of the public, worker, and environment.

An addendum to the WIPP SAR was created to specifically address the safety issues relating to the Bin-Scale Test activities. Based on the October 21, 1993 DOE decision not to proceed with radioactive waste tests at the WIPP facility, the SAR Addendum has been placed in abeyance and will not be included in this update effort.

Major milestones and the schedule for the FY-95 Annual Update of the WIPP SAR are included in Section 2.0 of this document. The IP work description is discussed in Section 3.0, major planned actions are detailed in Section 4.0, and the Work Breakdown Structure for those major planned actions is detailed in Section 5.0 and Attachment 1.

2.0 MAJOR MILESTONES AND SCHEDULE

The major milestones and the schedule for the FY-95 Annual Update of the WIPP SAR are provided in Table 1 below.

The draft FY-95 Annual Update will be completed and released for external review on October 15, 1995. DOE approval for incorporation of the FY-95 Annual Update into all controlled SAR copies is planned for November 30, 1995. This will ensure that the WIPP site will be operating within a safe envelop from a current version of the SAR. Review comments from external reviewers not resolved prior to November 30, 1995 will be resolved either through a WIPP SAR revision, or as part of the FY-96 Annual Update, as determined by CAO. To facilitate a timely and thorough review of the update, the CAO will provide upon request draft FY-95 Annual Update SAR chapters to external groups as the chapters are completed.

3.0 WORK DESCRIPTION

3.1 SAR Format

The WIPP SAR is structured with 12 sections to satisfy the specific commitments made in the Consultation and Cooperation (C&C) Agreement. The format follows Regulatory Guide 3.26, *Standard Format and Content of Safety Analysis Reports for Fuel Reprocessing Plants* (1978).

The C&C format is different from the 20 chapter SAR concept of DOE Order 5480.23, and is also different from a number of recently developed SAR format and content guides and DOE standards such as DOE-STD-3009-94, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Safety Analysis Reports*. For this update effort, the current 13 section WIPP SAR format will be modified as shown in Table 2, to follow a more logical safety analysis flow path as discussed in Sections 3.2 and 3.3 of this document.

By applying the graded approach to the WIPP, a Hazard Category 3 Facility, 10 of the 20 DOE Order 5480.23 chapters will be consolidated into other identified chapters. This will result in a 10 chapter WIPP SAR format that would be similar to the existing FSAR/C&C Agreement format. This graded approach consolidation and reformatting is consistent with the discussion in DOE Order 5480.23 Attachment 1, Sections 4.f.(1)(c), and 4.f.(3)(d). The existing FSAR Chapter titles will be retitled to follow selected DOE-STD-3009-94 or DOE Order 5480.23 titles and to be consistent with their individual contents. Attachment 2 of this document provides a SAR section outline and description of contents for the revised 10 chapter WIPP SAR format.

Existing FSAR Chapter 8, Long-term Waste Isolation Assessment, will be removed for the FY-95 Annual Update. The SAR will only cover operations up to the point of permanent closure. This chapter subject is completely covered in the 40 CFR 191 Compliance Package scheduled for issuance about mid FY-95.

Table 1. Major Milestones and Schedule for the FY-95 Annual Update of the WIPP Safety Analysis Report for Disposal-Phase Operations

MAJOR MILESTONES	TARGET COMPLETION DATE
Draft Disposal-Phase SAR Data Needs Assessment Report completed.	2/14/95
Draft FY-95 Annual Update of the WIPP SAR completed for CAO review.	9/30/95
Distribute Draft FY-95 Annual Update of the WIPP SAR for external review.	10/15/95
FY-95 Annual Update of the WIPP SAR approved by CAO and incorporated into the controlled copy of the SAR.	11/30/95
Last date for submittal of external review comments on the Draft FY-95 Annual Update of the WIPP SAR.	1/15/96
Complete resolution of all review comments on Draft FY-95 Annual Update of the WIPP SAR.	4/15/96

Table 2. SAR Chapter Outline for the FY-95 Annual Update for Disposal-Phase Operations

FY-95 WIPP SAR	Existing FSAR	DOE Order 5480.23
Chapter 1, Executive Summary	Chapter 1, Introduction	Chapter 1, Executive Summary Chapter 2, Applicable Statutes, Rules, and Departmental Orders
Chapter 2, Site Characteristics	Chapter 2, Site Characteristics	Chapter 3, Site Characteristics
Chapter 3, Principal Design and Safety Criteria	Chapter 3, Principal Design Criteria	Chapter 6, Principal Health and Safety Criteria
Chapter 4, Facility Design and Operation	Chapter 4, Plant Design Chapter 5, Process Description	Chapter 4, Facility Description and Operation Chapter 7, Radioactive and Hazardous Material Waste Management Chapter 14, Human Factors
Chapter 5, Hazards and Accident Analysis	Chapter 7, Accident Analysis	Chapter 5, Hazards Analysis and Classification of the Facility Chapter 11, Analysis of Normal, Abnormal, and Accident Conditions
Chapter 6, Technical Safety Requirements	Chapter 10, Operational Safety Requirements	Chapter 16, Technical Safety Requirements
Chapter 7, Radiation, Hazardous Material, and Operational Safety	Chapter 6, Environmental, Safety, and Health Protection	Chapter 8, Inadvertent Criticality Protection Chapter 9, Radiation Protection Chapter 10, Hazardous Material Protection Chapter 17, Operational Safety
Chapter 8, Management, Organization, and Conduct of Operations	Chapter 9, Conduct of Operations	Chapter 12, Management, Organization, Institutional Safety Chapter 13, Procedures and Training Chapter 15, Initial Testing, Inservice Surveillance, Maintenance Chapter 17, Operational Safety Chapter 19, Emergency Preparedness
Chapter 9, Quality Assurance	Chapter 11, Quality Assurance	Chapter 18, Quality Assurance
Chapter 10, Decontamination and Decommissioning	Chapter 12, Decontamination and Decommissioning	Chapter 20, Decontamination and Decommissioning

Note: Chapter 8 of the existing WIPP SAR, Long-term Waste Isolation Assessment, and Chapter 13, Acronyms and Abbreviations, will be removed.

3.2 SAR Content

The preparation methodology for the FY-95 Annual Update of the WIPP SAR is shown in Figure 1. The methodology focuses on updating the facility design and the hazards and accident analyses to thoroughly address the operational safety of the waste emplacement operations. The SAR format presented in Section 3.1 above, follows the preparation methodology shown in Figure 1.

Prior to the hazards and accident analyses update work element, a systematic and extensive review of the existing SAR WIPP design information on a systems basis will be completed. This work element will include the validation of existing SAR information found in Chapter 3, Design Criteria; Chapter 4, Design; and Chapter 5, Process Description with the most currently available design information as documented in the WIPP System Design Descriptions (SDDs). Chapters 4 and 5 of the existing SAR will be consolidated into a single chapter.

The scope/content for the WIPP SAR as defined in DOE 5480.23, Sections 1, 5.q, 8.b, 9.(a).(2), and Attachment 1 Section 3.a., will be to document and establish the adequacy of the safety basis of the facility, as opposed to providing a comprehensive historical documentation of WIPP activities.

DOE Order 5480.23 allows the application of the "graded approach" to development of SARs and DOE-STD-3009-94 further defines the graded approach. DOE Order 5480.23 and DOE-STD-3009-94 focus on hazards and accident analysis, and worker as well as public safety. Facility descriptive material focuses only on structures, systems, and components (SSCs) that are safety related. Programmatic chapters are presented only to define programs in place (such as occupational radiation protection), not to establish the adequacy of the programs.

The graded approach will be applied to ensure the SAR contains the DOE Order 5480.23 requirements at a level of detail for a Hazard Category 3 facility. This will be applied in the following manner for the WIPP SAR:

- 1) The intent of DOE Order 5480.23 is that detailed information on SSCs only be provided for those SSCs that are safety class and safety significant (For the WIPP, this is Design Class I, II, IIIA SSCs).
- 2) The facility description and remaining applicable Class IIIB SSCs will be discussed in a brief, integrated overview of the facility.
- 3) This will provide for a significant reduction in SAR text. Detailed text discussing Class IIIB systems (non-Class I, II, or IIIA) will be deleted.

SAR Content

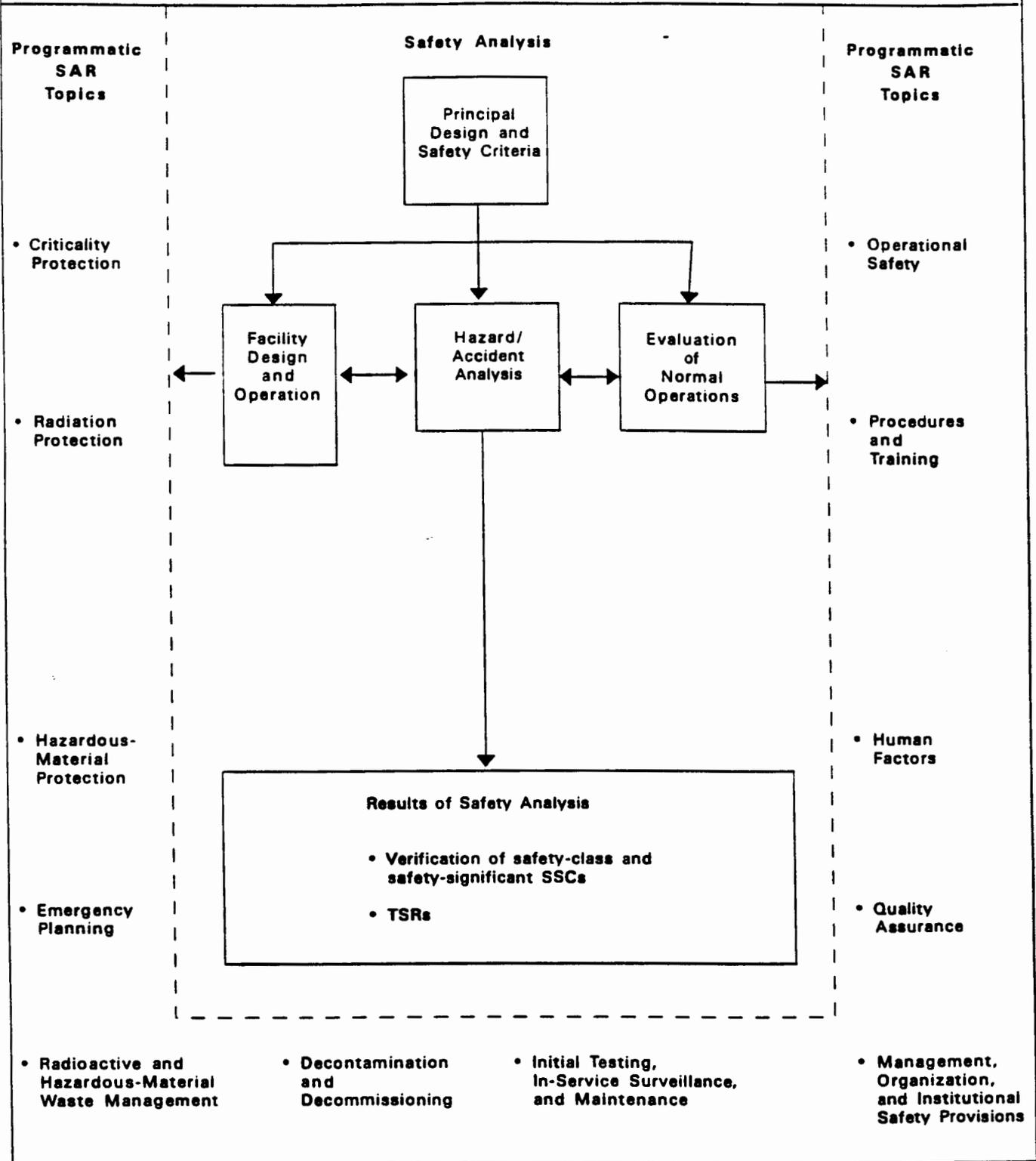


Figure 1. SAR scope and integration.

- 4) The focus of the SAR will then be on safety, not on providing a history of the WIPP. The focus of the SAR will be hazards/accident analysis, and validation of the design of the facility to provide the intended safety of the worker, public, and environment.
- 5) Safety programs will be discussed only to identify that these programs are in place to protect against the hazards identified in the hazards analysis. Thus the SAR will not be the vehicle for the determination of the adequacy of these programs. This is best illustrated in regards to radiation protection. The WIPP Radiological Control (RADCON) Manual will be referenced as necessary to demonstrate that worker protection for the radiation hazards identified in the hazards analysis has been considered. The details of the RADCON Manual will not be reproduced in the SAR. The adequacy of the program is determined by the RADCON Manual and implementing procedures, not the SAR.

3.3 Hazards and Accident Analysis Methodology

Prior to the hazards and accident analyses update work element, an assessment of the data needs for the FY-95 Annual SAR Update hazards and accident analyses will be completed. This effort will focus on the following hazards and accident analyses needs: (1) obtaining reliable gas generation and source term data; and (2) obtaining reliable drum, filter, and room seal leakage data.

The hazards and accident analysis update methodology as shown in Figure 2 will include: (1) a thorough review, verification, and update of the existing SAR hazards and accident analyses; (2) a review and resolution of stakeholder issues and concerns; and (3) the integration of the hazards and accident analyses into a single SAR chapter. Chapter 5 of the SAR will be titled "Hazards and Accident Analysis." This effort will utilize the results of the work elements for design and process description updates and data needs assessment for waste emplacement operations to verify through hazards and accident analyses that the facility design provides for: (1) the safe operation of the facility; and (2) the protection of the public, worker, and the environment.

As shown in Figure 2, the hazard classification of the facility establishes the appropriate method of hazard evaluation. However, for this upgrade effort, a qualitative Hazard and Operability Study (HAZOP) will be performed for both above ground and below ground waste handling and emplacement operations. The analyses as presented in Chapter 7B, Reliability of the Waste Hoist at the WIPP, of the existing SAR will be upgraded to provide the hazard evaluation of the waste hoist system. These analyses will provide the basic set of accidents for: (1) accident selection for further detailed quantitative accident analyses and verification of safety-class SSCs as shown in Figure 2, and (2) to establish the worker safety, defense in depth, and environmental protection programs, and for verification of safety-significant SSCs.

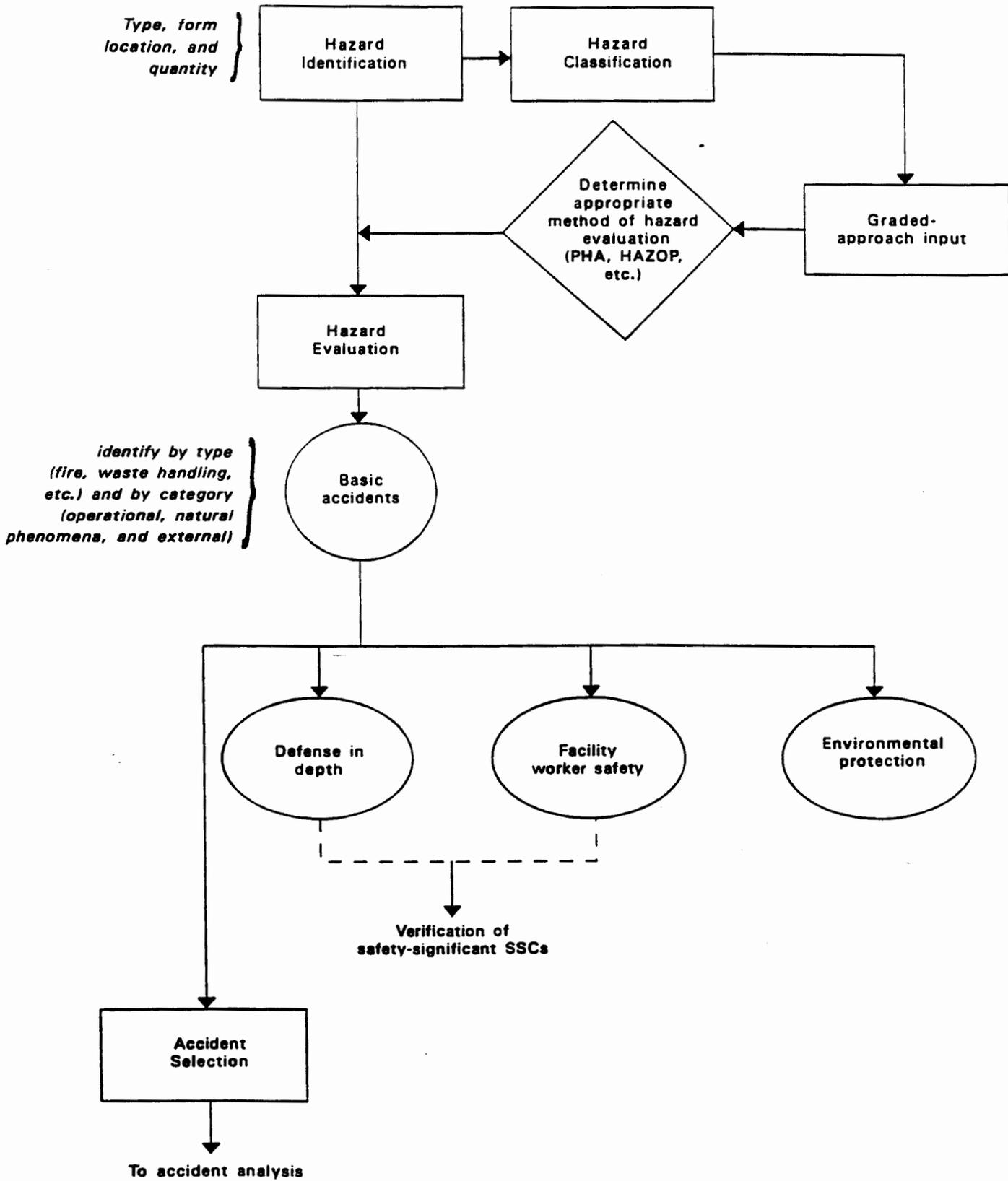


Figure 2. Flowchart for performing hazard and accident analysis

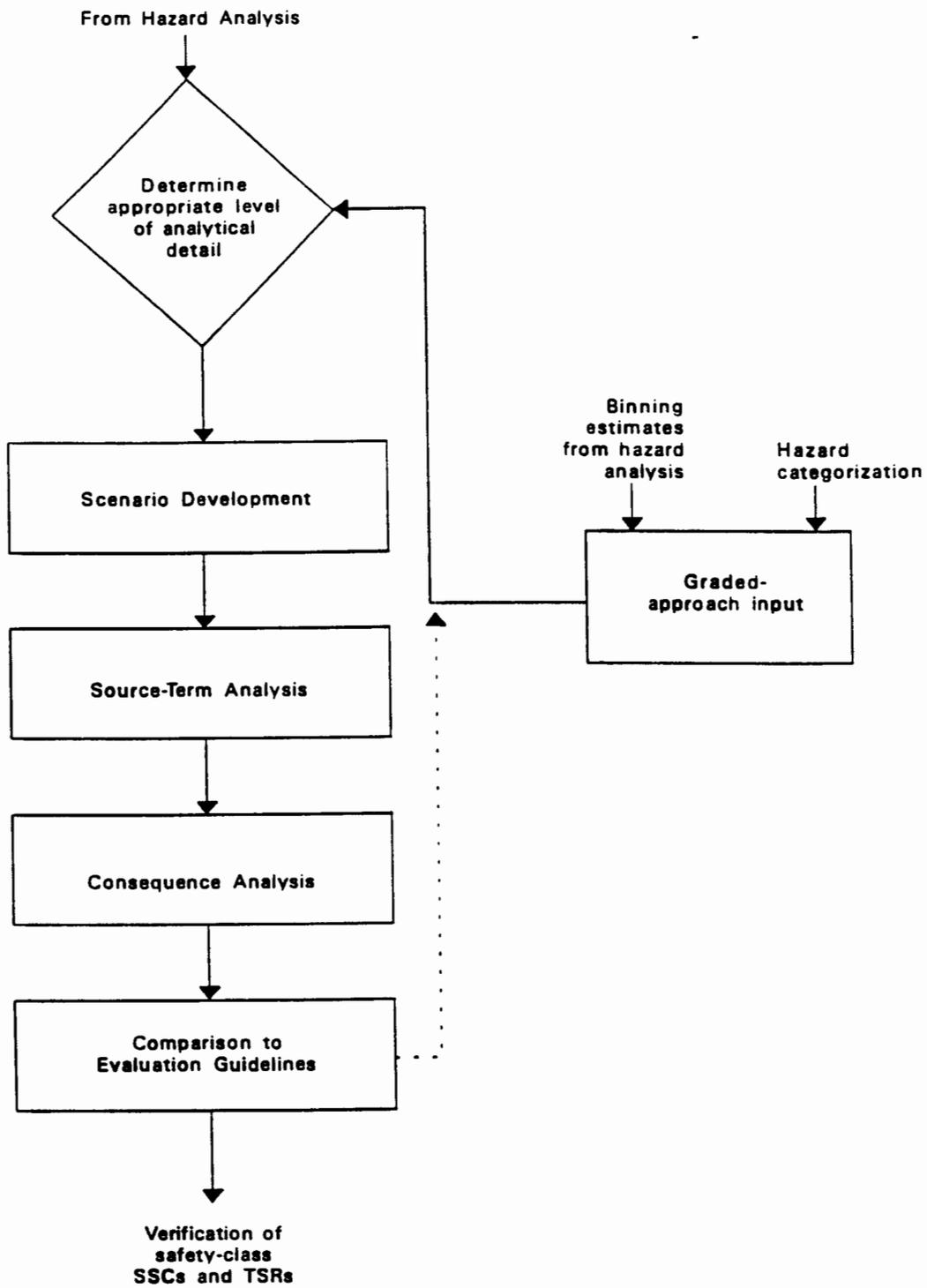


Figure 2. (Continued)

The accidents selected for additional detailed analyses will be subjected to detailed quantitative analyses using currently accepted techniques. The results of these accidents will be compared to accident acceptance criteria to verify the safety of the worker and general public and verify the selection of safety-class SSCs.

A parallel work element will be conducted to review and update as necessary the remaining "programmatic" SAR chapters. The final work element will be to revise and update the Chapter 1, Summary Safety Analysis based on the results of all of the above work elements.

Each SAR chapter will be revised as necessary and appropriate after the completion of each work element. A technical editing of each completed SAR chapter will be completed by the WID prior to submission to DOE-CAO for review. A final technical editing will be conducted prior to submission for external DOE-CAO review.

4.0 MAJOR PLANNED ACTIONS AND SCHEDULE

The WID Nuclear Safety major planned actions and schedule to complete: (1) the major milestones described in Section 2.0; and (2) the work description discussed in Section 3.0 for the FY-95 Annual Update of the WIPP SAR are provided in Table 3 below. This schedule is based on a starting date of October 1, 1994.

5.0 WORK BREAKDOWN STRUCTURE

Work Breakdown Structure (WBS) and the task sub-elements for the major planned actions identified in Sections 3.0 and 4.0 of this document are provided in detail in Attachment 1. Figure 3 provides the overall time lines for completing the WBS major elements.

Table 3. Major Planned Actions and Schedule for the FY-95 Annual Update of the WIPP Safety Analysis Report for Disposal-Phase Operations

MAJOR PLANNED ACTIONS	START DATE	TARGET COMPLETION DATE
Complete an assessment of the data needs for the FY-95 Annual SAR Update analyses. (Subcontractor)	10/3/94	2/14/95*
Develop draft Chapter 3, "Principal Design and Safety Criteria," and Chapter 4, "Facility Design and Operation."	10/3/94	2/14/95*
Develop hazards analysis contents of draft Chapter 5, "Hazards and Accident Analysis."	2/6/95	3/17/95
Develop accident analysis contents of draft Chapter 5, "Hazards and Accident Analysis." Develop draft Chapter 6, "Technical Safety Requirements (TSRs)."	3/20/95	5/30/95*
Develop draft update of Chapter 7, "Radiation, Hazardous Material, and Operational Safety."	3/20/95	5/30/95*
Develop draft Chapter 8, "Management, Organization, and Conduct of Operations," Chapter 9, "Quality Assurance," and Chapter 10, "Decontamination and Decommissioning."	5/30/95	6/26/95*
Develop draft Chapter 1, "Executive Summary."	6/19/95	7/10/95*
Compile all SAR revisions and incorporate into the working draft FY-95.	7/5/95	7/14/95
Resolve internal review comments on the working draft of FY-95. Transmitted from the WID to the CAO.	7/17/95	9/29/95
Submit draft FY-95 Annual Update SAR update for Disposal-Phase Operations for external review.	9/5/95	10/15/95

* The schedule to complete draft updated SAR chapters is identified in this table. As completed, the draft updated SAR chapters will be provided for external review upon request.

ATTACHMENT 1

**WORK BREAKDOWN STRUCTURE
FOR THE FY-95 ANNUAL UPDATE
OF THE WIPP SAFETY ANALYSIS REPORT
FOR DISPOSAL-PHASE OPERATIONS**

WORK BREAKDOWN STRUCTURE

1.0 REVIEW OF EXISTING SAR SYSTEMS INFORMATION

- 1.1 Complete an assessment of the data needs for FY-95 SAR analyses
- 1.2 Complete review/update of SAR Chapter 3, General Design Criteria
 - 1.2.1 Review/verify information in SAR Section 3.1, General Design Criteria by section as follows;
 - 1.2.1.1 Section 3.1.1, Waste Characterization
 - 1.2.1.2 Section 3.1.2, CH TRU Waste Handling, Emplacement, and Retrieval Criteria
 - 1.2.1.3 Section 3.1.4, Underground Development Criteria
 - 1.2.1.4 Section 3.1.5, Monitoring and Surveillance Programs
 - 1.2.1.5 Section 3.1.6, Facility Products and By-products
 - 1.2.1.6 Section 3.1.7, Classification of Structures, Systems, and Components
 - 1.2.2 Review/verify information in SAR Section 3.2, Structural and Mechanical Design Criteria
 - 1.2.3 Review/verify information in SAR Section 3.3, Safety Protection Criteria by section as follows;
 - 1.2.3.1 Section 3.3.1, Confinement Barriers and Systems
 - 1.2.3.2 Section 3.3.2, Air Handling
 - 1.2.3.3 Section 3.3.3, Fire and Explosion Protection
 - 1.2.3.4 Section 3.3.4, Nuclear Criticality Safety
 - 1.2.3.5 Section 3.3.6, Underground Mining Safety
 - 1.2.3.6 Section 3.3.7, WIPP Facility Control
 - 1.2.4 Review/verify information in SAR Section 3.4, Decontamination and Decommissioning
 - 1.2.5 Review/verify information in SAR Section 3.5, Development, Construction, and Startup

- 1.2.4 Identify additional information needs
- 1.2.5 Conduct information/data acquisition
- 1.2.6 Perform Chapter 3 SAR revisions as necessary
- 1.3 Complete review/update of SAR Chapter 4, System Design
 - 1.3.1 Review/verify information in SAR Section 4.1, Summary Description by section as follows;
 - 1.3.1.1 Section 4.1.1, Location and Facility Layout
 - 1.3.1.2 Section 4.1.2, Principal Features
 - 1.3.1.3 Section 4.1.3, Human Factors
 - 1.3.2 Review/verify information in SAR Section 4.2, Surface Structures by section as follows;
 - 1.3.2.1 Section 4.2.1, Waste Handling Building
 - 1.3.2.2 Section 4.2.2, Support Structures
 - 1.3.3 Review/verify information in SAR Section 4.3, Shafts and Subsurface Facilities by section as follows;
 - 1.3.3.1 Section 4.3.1, Shafts and Hoists
 - 1.3.3.2 Section 4.3.2, Subsurface Structures
 - 1.3.4 Review/verify information in SAR Section 4.4, Service and Utility Systems by section as follows;
 - 1.3.4.1 Section 4.4.1, Ventilation Systems
 - 1.3.4.2 Section 4.4.2, Electrical System
 - 1.3.4.3 Section 4.4.3, Fire Protection System
 - 1.3.4.4 Section 4.4.4, Water and Wastewater System
 - 1.3.4.5 Section 4.4.5, Salt Handling System
 - 1.3.4.6 Section 4.4.6, Radioactive Waste Systems
 - 1.3.4.7 Section 4.4.7, Transportation

- 1.3.4.8 Section 4.4.8, Safety Communications and Alarms
- 1.3.4.9 Section 4.4.9, Maintenance Provisions
- 1.3.4.10 Section 4.4.10, Compressed Air
- 1.3.4.11 Section 4.4.11, Underground Fuel System
- 1.3.5 Review/verify information in SAR Section 4.5, Waste Handling Emplacement and Retrieval Equipment by section as follows:
 - 1.3.5.1 Section 4.5.1, Surface Handling Equipment (CH TRU Waste)
 - 1.3.5.2 Section 4.5.3, Underground Handling Equipment (CH TRU Waste)
- 1.3.6 Review/verify information in SAR Section 4.6, Underground Mining Equipment
- 1.3.7 Identify additional information needs
- 1.3.8 Conduct information/data acquisition
- 1.3.9 Perform Chapter 4 SAR revisions as necessary
- 1.4 Complete review/update of SAR Chapter 5, Process Descriptions
 - 1.4.1 Review/verify information in Section 5.1, CH Waste Handling System
 - 1.4.2 Review/verify information in Section 5.3.1, Contact Handled Waste Retrieval
 - 1.4.3 Review/verify information in Section 5.4, Plant-Generated Radwaste System
 - 1.4.4 Review/verify information in Section 5.5, General Process Descriptions
 - 1.4.5 Review/verify information in Section 5.6, Underground Mining Operations
 - 1.4.6 Review/verify information in Section 5.7, Central Monitoring System
 - 1.4.7 Identify additional information needs
 - 1.4.8 Conduct information/data acquisition
 - 1.4.9 Perform Chapter 5 SAR revisions as necessary
- 1.5 Reformat Chapters 4 and 5 and combine integrate information to the outline and format identified in Attachment 2 of the IP

1.6 Retitle Chapters 4 and 5, Facility Design and Description

2. REVIEW AND UPDATE OF THE EXISTING SAR HAZARDS ANALYSES

2.1 Review/verify existing SAR Chapter 4 Failure Modes and Effects Analyses

2.2 Review/verify existing SAR Chapter 5 Failure Modes and Effects Analyses

2.3 Identify additional analyses needs

2.4 Update/perform additional analyses as required

2.5 Document all analyses performed

2.6 Perform SAR revisions as necessary. Move/integrate Hazards Analysis into SAR Section 5.1, Hazards Analysis

2.7 Develop Defense in depth, Facility Worker Safety, Environmental Protection, and Verification of Safety Significant SSC Sections

3. REVIEW AND UPDATE OF THE EXISTING SAR ACCIDENT ANALYSIS

3.1 Review/verify existing SAR Chapter 7 accident analyses information by section as follows;

3.1.1 Section 7.1, Accident Classification

3.1.2 Section 7.2, Source Terms and Analytical Methodology

3.1.3 Section 7.3, Accident Description and Analysis

3.1.4 Section 7.4, Accidental Releases and Exposures to Hazardous Wastes

3.1.5 Appendix 7B, Reliability of the Waste Hoist

3.2 Review/update SAR Chapter 2 meteorological and supporting information necessary for performing accident analysis

3.3 Integrate hazards analyses performed in WBS Element 2 with existing accident analyses. Perform screening of accidents identified in the hazards analysis for detailed analysis in the accident analysis

3.4 Identify any new/additional accident analyses needs

- 3.5 Perform radiological and non-radiological accident analyses results using information obtained in WBS elements 3.1, 3.2, 3.3, and 3.4 above
 - 3.5.1 Develop accident scenarios
 - 3.5.2 Perform source term analysis
 - 3.5.3 Perform Consequence Analysis
- 3.6 Document all analyses performed
- 3.7 Evaluate accident analyses results with existing accident acceptance guidelines
- 3.8 Identify/verify Safety Class Structures, Systems, and Components (SSCs) important to safety. Evaluate Technical Safety Requirements
- 3.9 Perform SAR revisions as necessary
- 3.10 Integrate Technical Safety Requirements (TSRs) Document into Chapter 6, Technical Safety Requirements (Retitled)

4. REVIEW/UPDATE AND SAR REVISIONS OF REMAINING SAR CHAPTERS/SECTIONS 1, 7, 8, 9, and 10

- 4.1 Complete review of existing Chapter 1, Introduction and General Description
 - 4.1.1 Review/verify information in Section 1.1, Introduction
 - 4.1.2 Review/verify information in Section 1.2, General Description of the WIPP Facility
 - 4.1.3 Review/verify information in Section 1.3, General Description of Operations at the WIPP Facility
 - 4.1.4 Review/verify information in Section 1.4, Identification of Agents and Contractors and Section 1.5, Technical Programs
 - 4.1.5 Identify additional information needs
 - 4.1.6 Conduct information/data acquisition
 - 4.1.7 Perform Chapter 1 SAR revisions as necessary

4.2 Complete review of existing Chapter 6, Environmental, Safety, and Health Protection

- 4.2.1 Review/verify information in Section 6.1, Radiological Protection**
- 4.2.2 Review/verify information in Section 6.2, Environmental Protection**
- 4.2.3 Review/verify information in Section 6.3, Safety**
- 4.2.4 Review/verify information in Section 6.4, Industrial Hygiene**
- 4.2.5 Review/verify information in Appendix 6A, Calculation of Airborne Concentrations and Releases**
- 4.2.6 Identify additional information needs**
- 4.2.7 Conduct information/data acquisition**
- 4.2.8 Update/perform additional analyses as required**
- 4.2.9 Document all additional analyses performed**
- 4.2.10 Perform new SAR Chapter 7 revisions as necessary**

4.4 Complete review of existing Chapter 9, Conduct of Operations

- 4.4.1 Review/verify information in Section 9.1, Organizational Structure**
- 4.4.2 Review/verify information in Section 9.2, Startup Testing and Preoperational Checkout**
- 4.4.3 Review/verify information in Section 9.3, Training Program**
- 4.4.4 Review/verify information in Section 9.4, Normal Operations**
- 4.4.5 Review/verify information in Section 9.5, WIPP Facility Security Plan**
- 4.4.6 Review/verify information in Section 9.6, WIPP Facility Emergency Plan**
- 4.4.7 Identify additional information needs**
- 4.4.8 Conduct information/data acquisition**
- 4.4.9 Perform new SAR Chapter 8 revisions as necessary**

- 4.5 Complete review of existing Chapter 11, Quality Assurance
 - 4.5.1 Review/verify information in Section 11.1, Organization
 - 4.5.2 Review/verify information in Section 11.2, Quality Assurance Program
 - 4.5.3 Review/verify information in Section 11.3, Design Control
 - 4.5.4 Review/verify information in Section 11.4, Procurement Document Control
 - 4.5.5 Review/verify information in Section 11.5, Instruction, Procedures, Drawings
 - 4.5.6 Review/verify information in Section 11.6, Document Control
 - 4.5.7 Review/verify information in Section 11.7, Control of Purchased Items and Services
 - 4.5.8 Review/verify information in Section 11.8, Identification and Control of Items
 - 4.5.9 Review/verify information in Section 11.9, Control of Processes
 - 4.5.10 Review/verify information in Section 11.10, Inspection
 - 4.5.11 Review/verify information in Section 11.11, Test Control
 - 4.5.12 Review/verify information in Section 11.12, Control, of Measuring and Test Equipment
 - 4.5.13 Review/verify information in Section 11.13, Handling, Storage, and Shipping
 - 4.5.14 Review/verify information in Section 11.14, Inspection, Test, and Operating Status
 - 4.5.15 Review/verify information in Section 11.15, Control of Nonconforming Items
 - 4.5.16 Review/verify information in Section 11.16, Corrective Action
 - 4.5.17 Review/verify information in Section 11.17, Quality Assurance Records
 - 4.5.18 Review/verify information in Section 11.18, Audits
 - 4.5.19 Identify additional information needs
 - 4.5.20 Conduct information/data acquisition
 - 4.5.21 Perform new SAR Chapter 9 revisions as necessary

- 4.6 Complete review of existing Chapter 12, Decontamination and Decommissioning of the WIPP Facility
 - 4.6.1 Review/verify information in Section 12.1, General
 - 4.6.2 Review/verify information in Section 12.2, WIPP Facility
 - 4.6.3 Review/verify information in Section 12.3, Decontamination and Decommissioning
 - 4.6.4 Review/verify information in Section 12.4, Closure, Monuments, and Records
 - 4.6.5 Review/verify information in Section 12.5, Post Closure Physical and Environmental Surveillance
 - 4.6.6 Identify additional information needs
 - 4.6.7 Conduct information/data acquisition
 - 4.6.8 Perform new Chapter 10 SAR revisions as necessary

- 4.7 Complete review of existing Chapter 1, Summary Safety Analysis
 - 4.7.1 Review/verify information in Section 1A.1, Site Analysis
 - 4.7.2 Review/verify information in Section 1A.2, Radiological Impact of Normal Operation
 - 4.7.3 Review/verify information in Section 1A.3, Radiological Impact of Abnormal Operations
 - 4.7.4 Review/verify information in Section 1A.4, Accidents
 - 4.7.5 Review/verify information in Section 1A.5, Conclusions
 - 4.7.6 Perform Chapter 1 SAR revisions as necessary

5.0 PRODUCE DRAFT DOCUMENT FOR REVIEW

- 5.1 Compile all SAR revisions
- 5.2 Incorporate SAR revisions into master word processing file
- 5.3 Produce draft document for internal and external review
- 5.4 Conduct technical editing

6.0 REVIEW AND COMMENT RESOLUTION

- 6.1 Conduct internal WID Nuclear Safety review of draft document
- 6.2 Conduct WID review of draft document
- 6.3 Conduct WID review comment resolution
- 6.4 Produce final draft document for transmittal to DOE-CAO
- 6.5 Provide external comment resolution

ATTACHMENT 2

**FY-95 ANNUAL SAR UPDATE
SECTION OUTLINE AND CONTENTS**

**FY-95 ANNUAL SAR UPDATE
SECTION OUTLINE**

Chapter 1 Executive Summary

- 1.1 Introduction
- 1.2 General Description of the WIPP Facility
- 1.3 General Description of Operations
- 1.4 Organizations
- 1.5 SAR Organization
- 1.6 Summary Safety Analysis
- 1.7 Applicable Statutes, Rules, and Departmental Orders

Chapter 2 Site Characteristics

- 2.1 Site Description
 - 2.1.1 Geography and Demography
 - 2.1.2 Nearby Facilities
- 2.2 Environmental Description
 - 2.2.1 Meteorology
 - 2.2.2 Hydrology
 - 2.2.3 Geology

Chapter 3 Principal Design and Safety Criteria

- 3.1 General Design Criteria
- 3.2 Structural Design Criteria
- 3.3 Safety Protection Criteria

Chapter 4 Facility Design and Operation

- 4.1 Summary Description
- 4.2 Facility Structure
- 4.3 Process Description
- 4.4 Confinement Systems
- 4.5 Safety Support Systems
- 4.6 Utility and Auxiliary Systems
- 4.7 Radioactive and Hazardous Waste Management
- 4.8 Human Factors

Chapter 5 Hazards and Accident Analysis

- 5.1 Hazards Analysis**
- 5.2 Accident Analysis**
- 5.3 Verification of Safety Structures, Systems, and Components**

Chapter 6 Technical Safety Requirements

- 6.1 Use and Application**
- 6.2 Safety Limits**
- 6.3 Operational Limits and Surveillance Requirements**
- 6.4 Administrative Controls**

Chapter 7 Radiation, Hazardous Material, and Operational Safety

- 7.1 Radiation Protection**
- 7.2 Hazardous Material Protection**
- 7.3 Inadvertent Criticality Protection**
- 7.4 Operational Safety**

Chapter 8 Management, Organization, and Conduct of Operations

- 8.1 Management and Organizational Structure**
- 8.2 Conduct of Operations**
- 8.3 Procedures**
- 8.4 Training**
- 8.5 Initial Testing, Inservice Surveillance, and Maintenance**
- 8.6 Emergency Preparedness**

Chapter 9 Quality Assurance

Same as existing SAR

Chapter 10 Decontamination and Decommissioning

Same as existing SAR

FY-95 ANNUAL SAR UPDATE SECTION CONTENTS

Chapter 1, Executive Summary

The Executive Summary will include and update the existing FSAR Chapters 1 and 1A and will include the requirements for DOE Order 5480.23, Chapter 2, "Applicable Statutes, Rules, and Departmental Orders."

Chapter 2, Site Characteristics

Chapter 2, Site Characteristics will include the information in existing FSAR Chapter 2. The graded approach will be applied to only include information required in DOE 5480.23 Chapter 3, and necessary to support the hazards and accident analysis.

Chapter 3, Principal Design and Safety Criteria

This chapter will only discuss applicable design/safety criteria in accordance with the requirements of DOE 580.23 Chapter 6, Principal Health and Safety Criteria.

Chapter 4, Facility Design and Operation

This chapter will consolidate Chapters 4 and 5 of the existing FSAR. Per the requirements for DOE 5480.23 Chapter 4, Facility Description and Operation, this chapter will provide information on the principal structures, systems, and components (SSCs) in sufficient detail to support the identification of hazards, principal safety criteria, selection of engineered safety features, and the analysis of accidents. This chapter will also include the requirements of DOE 5480.23 Chapter 7, Radioactive and Hazardous Material Waste Management, and Chapter 14, Human Factors.

Chapter 5, Hazards and Accident Analysis

This chapter will replace Chapter 7, Accident Analysis, and include the requirements of DOE Order 5480.23 Chapter 5, Hazards Analysis and Classification of the Facility and Chapter 11, Analysis of Normal, Abnormal, and Accident Conditions. This chapter will provide a thorough updated hazards analysis by: (1) conducting a thorough review, verification, and update of the existing SAR hazards analyses; (2) a review and resolution of stakeholder issues and concerns; and (3) the integration of the hazards analyses into a single SAR chapter. This chapter will upgrade the existing accident analysis based on the results of the hazards analysis.

Chapter 6, Technical Safety Requirements

Chapter 10 of the existing FSAR will be replaced with the CAO approved Technical Safety Requirements Document.

Chapter 7, Radiation, Hazardous Material, and Operational Safety

This chapter will upgrade existing FSAR Chapter 6, Environmental, Safety, and Health Protection, based on the results of the Hazards Analysis. Based on the level of detail for the WIPP facility, this chapter will combine DOE 5480.23 Chapters 8, Inadvertent Criticality Protection, Chapter 9, Radiation Protection, Chapter 10, Hazardous Material Protection, and Chapter 17, Operational Safety.

Chapter 8, Management, Organization, and Conduct of Operations

This Chapter will replace existing FSAR Chapter 9, Conduct of Operations and will include the requirements for DOE Order 5480.23, Chapter 12, Management, Organization, and Institutional Safety, Chapter 13, Procedures and Training, Chapter 15, Initial Testing, Inservice, Surveillance, Maintenance, Chapter 19, Emergency Preparedness, and the Conduct of Operations Requirements required in Chapter 17, Operational Safety.

Chapter 9, Quality Assurance

This Chapter will upgrade existing FSAR Chapter 11 per the requirements of DOE 5480.23, Chapter 18, Quality Assurance.

Chapter 10, Decontamination and Decommissioning

This Chapter will upgrade existing FSAR Chapter 12 per the requirements of DOE 5480.23, Chapter 20, Decontamination and Decommissioning.