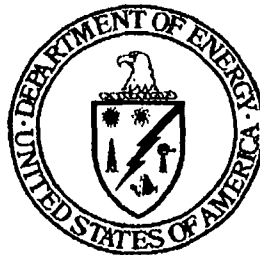


# **Transportation Plan**

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



**Nuclear Waste Technical Review Board  
Denver, Colorado  
July 13, 1994**



## Overview

- **Background**
- **Preliminary Draft Transportation Plan**
- **Contingency planning**
- **Approach to system development**
- **Equipment acquisition**
- **Operating system development**
- **Institutional activities**



## Background

- **Mission**

- transportation of:

- spent fuel from reactors or storage sites to CRWMS facilities
    - spent fuel from MRS (if available) to repository
    - high-level waste from producer sites to repository
    - wastes from repository, if needed

- planning principles for the transportation program

- protect public health and safety
    - provide for public participation
    - use private industry to the fullest extent possible
    - exercise cost effectiveness



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## Background (con't)

- **Spent fuel shipping experience**
- **Nuclear Waste Policy Act**
- **Transportation Business Plan**
- **Transportation Institutional Plan**



## Transportation Plan

- **Provides an overview of the transportation system**
- **Will replace the *Transportation Business Plan* and the *Transportation Institutional Plan***
- **New program guidance and realignment incorporated**
- **Preliminary draft completed June 1994**
  - distributed at Transportation Coordination Group meeting
  - comments due October 1994
- **Planned as a “living document”**



## Transportation Contingency Planning

- **Cask programs on schedule to provide transportation capability in the year 2000**
- **Approaches to meet earlier date if necessary**
  - existing NRC approved casks
  - current technology casks
    - development and NRC certification of new cask designs using current technologies
- **Operational structure - could use existing DOE traffic management**



## Systems Engineering Approach

- **Top-level document is the Civilian Radioactive Waste Management System Requirements Document**
- **Transportation system technical baseline documents**
  - Transportation System Requirements Document
  - Transportation Design Requirements Documents
  - Transportation-Related Interface Control Documents
  - Transportation Design Packages
- **Transportation System Operations Plan**
  - provides detailed concept of operations



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## Transportation System Architecture

- **Transportation cask subsystems**
- **Planning and control**
- **Service and maintenance support**
- **Field operations**





## Transportation System Assumptions

- **Consists of equipment, facilities, organizations, and activities required to ship spent fuel and high-level waste**
- **All surface modes will be considered**
- **Majority of spent fuel shipped in multi-purpose canisters by rail**
- **Some spent fuel will be shipped by truck due to handling constraints**
- **High-level waste shipped by rail**

# Predecisional Draft

## TRANSPORTATION SCHEDULE (PPA)

TESS 6/29  
transex.d4

CY-93 CY-94 CY-95 CY-96 CY-97 CY-98 CY-99 CY-00 CY-01 CY-02 CY-03 CY-04 CY-05 CY-06 CY-07 CY-08 CY-09 CY-10

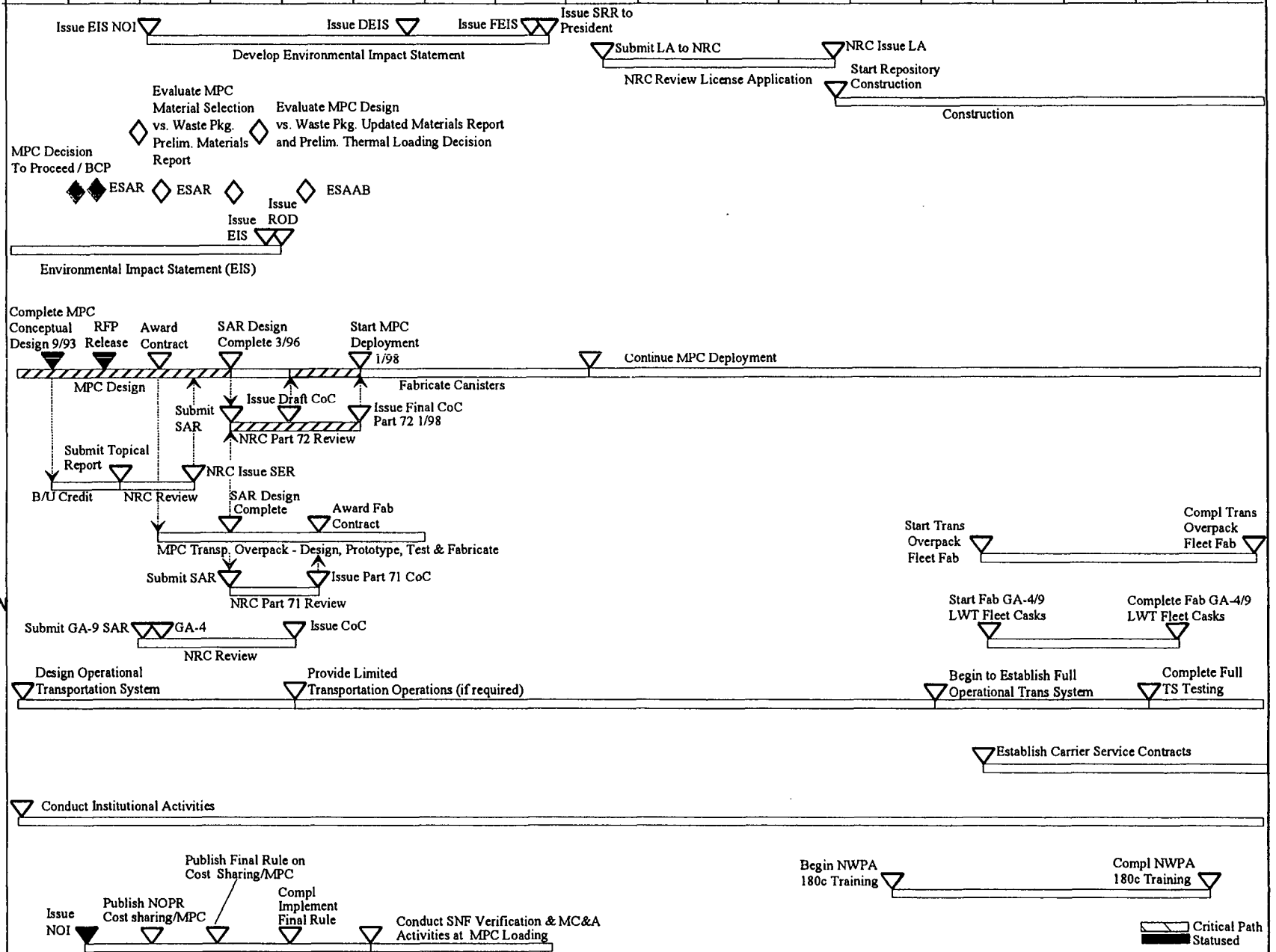
YMSCP

MRS Project

MPC

TRANSPORTATION

Waste Acceptance



FY-93 FY-94 FY-95 FY-96 FY-97 FY-98 FY-99 FY-00 FY-01 FY-02 FY-03 FY-04 FY-05 FY-06 FY-07 FY-08 FY-09 FY-10



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## System Development Activities

- **Hardware development and acquisition**
- **Operating system**
- **Institutional program**



## Cask Subsystem Development

- **Casks**

- from-reactor
- specialty
- high-level waste
- multi-purpose canister
- transportable storage cask

- **Transporters**



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## Operational System Development

- **Functions to be performed**
- **Operational structure**
- **Operational concepts**
- **Schedule and approach**



## Institutional Interactions

- **Essential to promote understanding of OCRWM's transportation program**
- **Work together with stakeholders to ensure public safety and promote confidence**
- **Programmatic issues**
  - resolution results in management and administrative actions necessary to implement the program



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## Programmatic Issues and Activities

- **Routing**
- **Section 180(c)**
- **Risk management**
- **Full-scale cask testing**
- **Advance notification to Indian tribes**
- **Inspection/enforcement**