U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

PRESENTATION TO
THE NUCLEAR WASTE TECHNICAL REVIEW BOARD

SUBJECT: SERVICING AND MAINTENANCE SUBSYSTEM
FIELD OPERATIONS SUBSYSTEM

PRESENTER: RONALD POPE

PRESENTER’S TITLE AND ORGANIZATION: PROJECT MANAGER, TRANSPORTATION OPERATIONS
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THE TRANSPORTATION OPERATIONS
SYSTEM ELEMENTS RELATED TO
OPERATIONAL FACILITIES

TRANSPORTATION OPERATIONS
SYSTEM

PLANNING &
CONTROL
SUBSYSTEM

SERVICING AND
MAINTENANCE
SUBSYSTEM

FIELD
OPERATIONS
SUBSYSTEM

TRANSPORTATION
CASKS
SUBSYSTEM

CARRIAGE
SUBSYSTEM

- CASK SYSTEM
  MAINTENANCE
  VEHICLE MAINTENANCE

- OPERATIONAL CONTROL
  TRAINING

- INTERMODAL
  TRANSFER FACILITIES
CASK MAINTENANCE FACILITY
FEASIBILITY STUDY

- INITIATED IN FY 88, EXPECTED COMPLETION IN FY 90
- PERFORMED TO DEVELOP ESTIMATE OF COST AND SCHEDULE
- DEVELOPED FACILITY SYSTEMS REQUIREMENTS
- LONGEST LEAD TIME OPERATIONS FACILITY
- ASSUMED TO BE
  - OPERATIONAL WHEN FLEET BECOMES OPERATIONAL
  - A STAND-ALONE FACILITY
  - GOVERNMENT-OWNED CONTRACTOR-OPERATED FACILITY
CASK MAINTENANCE FACILITY (CMF) FUNCTIONS

- Schedule and perform cask inspection, testing, preventive servicing and maintenance, and damage repair
- Provide capability to perform unplanned cask repair and inspection at locations other than the CMF
- Provide cask reconfiguration capability including storage and maintenance of reconfiguration hardware
- Provide for internal and external cask decontamination and cleaning
- Support cask recertification

RBP3
8/21/89
THE TRANSPORTATION OPERATIONS SYSTEM ELEMENTS

TRANSPORTATION OPERATIONS SYSTEM

PLANNING & CONTROL SUBSYSTEM

SERVICING AND MAINTENANCE SUBSYSTEM

FIELD OPERATIONS SUBSYSTEM

TRANSPORTATION CASKS SUBSYSTEM

CARRIAGE SUBSYSTEM
FIELD OPERATIONS SUBSYSTEM

- SUBSYSTEM INVOLVES SERVICES, DATA, PROCEDURES, AND EQUIPMENT PERTAINING TO
  - FACILITY/TRANSPORTATION INTERFACE
  - FACILITY TECHNICAL SUPPORT
  - WASTE ACCEPTANCE OPERATIONS
  - FACILITY INTERFACE EQUIPMENT
  - EMERGENCY RESPONSE OPERATIONS SUPPORT

- FIRST STEP
  - OBTAIN, ASSESS, AND INTEGRATE PAST AND ONGOING EXPERIENCE
INTEGRATION OF EXPERIENCE INTO FIELD OPERATIONS PLANNING

- OBSERVE AND DOCUMENT TRANSPORTATION ACTIVITIES
- OBTAIN FOREIGN TECHNOLOGY INFORMATION
- PERFORM RESEARCH AND DEMONSTRATION PROGRAMS
- APPLY EXPERIENCE TO DEVELOPMENT OF TRANSPORTATION OPERATIONS PLAN
- PROVIDE INPUT TO CASK SYSTEMS DEVELOPMENT
- ULTIMATE GOAL
  - PROVIDE COST EFFECTIVE, FULLY INTEGRATED, SAFE TRANSPORTATION OPERATIONS SYSTEM
CASK OPERATIONS STUDIES

- DOCUMENT EXPERIENCE WITH CURRENT CASK SYSTEMS AND CASK FLEET OPERATIONS
  - LEGAL WEIGHT TRUCK
  - OVERWEIGHT TRUCK
  - IF-300 RAIL CASK OPERATIONS (PLANNED)

- DOCUMENTATION COVERS TWO AREAS
  - CURRENT OPERATIONS AND PRACTICE
  - RECOMMENDATIONS FOR CASK SYSTEM IMPROVEMENTS
INPUT BEING OBTAINED FROM PAST AND CURRENT OPERATIONS

- CASK OPERATIONS STUDIES ADDRESS
  - QA IN PARTS CONTROL
  - FACILITY FOR RECONFIGURATION
  - FACILITY FOR MAINTENANCE
  - CASK CERTIFICATION MAINTENANCE INTERVALS
  - CASK LIFTING, HANDLING, LOADING
  - DESIGN OF IMPACT LIMITERS, CASK LIDS, BASKETS
  - DESIGN OF PERSONNEL BARRIERS
  - BOLT HANDLING
INTEGRATION OF OPERATING EXPERIENCE INTO TRANSPORTATION OPERATIONS SYSTEM

• UTILIZE AVAILABLE DOCUMENTATION OF EXPERIENCE

• OBSERVE AND DOCUMENT CURRENT EXPERIENCE
  – EXAMPLE: OBSERVATION OF SAN ONOFRE NUCLEAR GENERATION STATION

• OBTAIN APPLICABLE FOREIGN EXPERIENCE AND TECHNOLOGY