

SYSTEMS INTEGRATION

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**PRESENTATION TO THE
NUCLEAR WASTE TECHNICAL REVIEW BOARD
MARCH 7-8, 1989**

ACTIVITIES

- 1) **INTEGRATION AND CONTROL OF OVERALL SYSTEM DESIGN**
- 2) **SYSTEM REQUIREMENTS AND DESCRIPTION DOCUMENTS**
- 3) **OPTIMAL MRS ROLE**
- 4) **WASTE LOGISTICS, ACCEPTANCE SCHEDULES, STORAGE REQUIREMENTS**
- 5) **FACILITY INTERFACE CAPABILITY ASSESSMENT, UTILITY LIAISON**
- 6) **COORDINATE KEY TECHNICAL ACTIVITIES**

ACTIVITIES (CONTINUED)

- 7) INTERFACES MATCHED**
- 8) CONSISTENT PHILOSOPHIES EMPLOYED**
- 9) RESOLVE KEY SYSTEM TECHNICAL ISSUES**
- 10) SPECIAL STUDIES**
- 11) SYSTEMS ENGINEERING APPROACH**
- 12) BASELINE MANAGEMENT/CHANGE CONTROL**

NEAR TERM TASKS

- 1) SYSTEM REQUIREMENTS AND DESCRIPTION DOCUMENTS**
- 2) MRS SYSTEM STUDIES**
- 3) SUMMARY LOGIC NETWORK**
- 4) SYSTEM STUDIES PLAN**
- 5) SYSTEM MODELS**
- 6) ACCEPTANCE CRITERIA DEVELOPMENT**
- 7) FACILITY INTERFACE CAPABILITY ASSESSMENT**
- 8) BASELINE MANAGEMENT/CHANGE CONTROL**

WASTE MANAGEMENT SYSTEM REQUIREMENTS AND SYSTEM DESCRIPTION DOCUMENTS

- **GOAL:** PROVIDE TOP LEVEL BASELINE FOR MAJOR SYSTEM ELEMENTS
- **SCOPE:**
 - WMSR:** FUNCTIONS, REQUIREMENTS DEFINED, ALLOCATED TO SYSTEM ELEMENTS
 - SDD:** PHYSICAL, TECHNICAL DESCRIPTION OF SYSTEM, SYSTEM ELEMENTS, INTERFACES
- **SCHEDULE:**
 - WMSR:**

NOVEMBER 1988	COMPLETED INITIAL DRAFT WMSR
MAY 1989	COMPLETE FINAL DRAFT WMSR
JUNE 1989	COMPLETE DRAFT WMSR RATIONALE
 - SDD:**

MARCH 1989	COMPLETE INITIAL DRAFT SDD
JUNE 1989	COMPLETE FINAL DRAFT SDD

SUMMARY LOGIC NETWORKS

- **GOAL: INTEGRATE PROGRAM ELEMENTS, ASSIST IN DECISION-MAKING**
- **SCOPE: DEPICTS FLOW OF MAJOR ACTIVITIES AND DEMONSTRATES INTERRELATIONSHIPS**
- **SCHEDULE:**
 - **NOVEMBER 1988 COMPLETED INITIAL DRAFT NETWORK**
 - **PERIODIC UPDATES AS NEEDED**

SYSTEM STUDIES PLAN

- **GOAL:** **INPUT TO RESOLUTION OF TECHNICAL ISSUES,
DECISION**
- **SCOPE:** **METHODICAL APPROACH TO STUDIES**
- **SCHEDULE:**
 - **MARCH 1989** **COMPLETE SSP OUTLINE**
 - **MAY 1989** **COMPLETE DRAFT SSP**

SYSTEM MODEL DEVELOPMENT

- **GOAL:** ANALYTIC TOOLS FOR STUDIES
- **SCOPE:** CAPABILITY TO EVALUATE INTERACTION OF SYSTEM ELEMENTS, ALTERNATIVE CONFIGURATIONS AND SCENARIOS
- **SCHEDULE:**
 - **MARCH 1989** DEMONSTRATE AND DOCUMENT INTEGRATED MODELS

WASTE ACCEPTANCE CRITERIA DEVELOPMENT

- **GOAL: TECHNICAL SUPPORT FOR UTILITY INTERACTIONS**
- **SCOPE:**
 - 1) **FAILED FUEL**
 - 2) **CONSOLIDATED FUEL CANISTERS**
 - 3) **NFBC CANISTERS**
 - 4) **METAL STORAGE CASKS**
 - 5) **MESCs**
 - 6) **INSPECTION REQUIREMENTS**
 - 7) **STANDARD CANISTER**
 - 8) **OPTIMUM THERMAL LOAD, BLENDING**
 - 9) **HLW**
- **SCHEDULE:**

MARCH 1989	DEFINITION OF PRIORITY ISSUES
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FACILITY INTERFACE CAPABILITY ASSESSMENT (FICA)

- **GOAL:** **EXAMINE REACTOR FACILITIES FOR CAPABILITY TO STORE, CONSOLIDATE, SHIP FUEL AND CONSIDER POTENTIAL/INCENTIVE FOR UPGRADING**

- **SCOPE:**

- **APPROXIMATELY 53 SITE VISITS COMPLETED TO DATE (BY NAC, THRU ORNL)**
- **ALL VISITS TO BE COMPLETED IN FY 1989**
- **INTERIM REPORT HAS BEEN ISSUED**

SCHEDULE:

- **AUGUST 1989 COMPLETE SITE VISITS**
- **DECEMBER 1989 FINAL REPORT**

BASELINE MANAGEMENT/ CHANGE CONTROL

- **GOAL: CONTROL ISSUANCE AND REVISION OF TECHNICAL BASELINES, DOCUMENTS, DATA BASES**
- **SCOPE: DEVELOP AND IMPLEMENT CHANGE CONTROL PROCESS AND PROCEDURES**
- **SCHEDULE:**
 - **SEPTEMBER 1988 APPOINTED PROGRAM ELEMENTS CHANGE CONTROL BOARD**
 - **MARCH 1989 COMPLETE PROGRAM ELEMENTS CHANGE CONTROL PROCEDURES**
 - **AS REQUIRED PROCESS CHANGE PROPOSALS**

FUTURE ACTIONS (FY 89)

- **COMPLETE WMSR**
- **COMPLETE WMSR RATIONALE DOCUMENT**
- **COMPLETE SDD**
- **COMPLETE MRS SYSTEM STUDIES**
- **COMPLETE SYSTEM STUDIES PLAN**
- **COMPLETE SYSTEM LOGIC NETWORKS**
- **COMPLETE SEMP REVISION**
- **COMPLETE CHANGE CONTROL PROCEDURES AND PROCESS CHANGE PROPOSALS**