

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

**NUCLEAR WASTE TECHNICAL REVIEW BOARD  
FULL BOARD MEETING**

**SUBJECT: ADMINISTRATION FUNDING  
PROPOSAL: DESCRIPTION**

**PRESENTER: STEPHAN J. BROCOUM**

**PRESENTER'S TITLE  
AND ORGANIZATION: ASSISTANT MANAGER FOR SUITABILITY AND LICENSING  
YUCCA MOUNTAIN SITE CHARACTERIZATION OFFICE  
LAS VEGAS, NV**

**PRESENTER'S  
TELEPHONE NUMBER: (202) 586-9247**

**RENO, NEVADA  
APRIL 11-12, 1994**

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# Next Steps

- **Complete the identification of the information expected at each program step**
- **Identify testing, design, and performance assessment activities needed to support each step in the DOE and NRC decision process**
- **Allocate budgets and determine schedules**
- **Revise appropriate project documentation**
- **Conduct stakeholder interactions throughout process**

# Planning Assumptions

- **No changes to legislative and regulatory framework - make use of inherent flexibility**
- **Increased funding in FY95 and assured funding in out-years**
- **Waste acceptance and near-term storage issues addressed by delivery of MPCs to utilities starting in 1998**
- **Restructure site characterization program based on available information to focus on most significant issues for suitability and licensing**
- **Retrievability maintained for up to 100 years**

# Alternative Program Strategies

- **Two alternatives were evaluated:**
  - **A program restructured for management efficiency operating within existing legislative and regulatory framework (assumes availability of increased funding)**
  - **A resource-constrained program operating within existing legislative and regulatory framework (assumes level funding outlook)**
- **DOE is moving forward with further evaluation of restructured program within existing legislative and regulatory framework (Administrative Funding Proposal)**

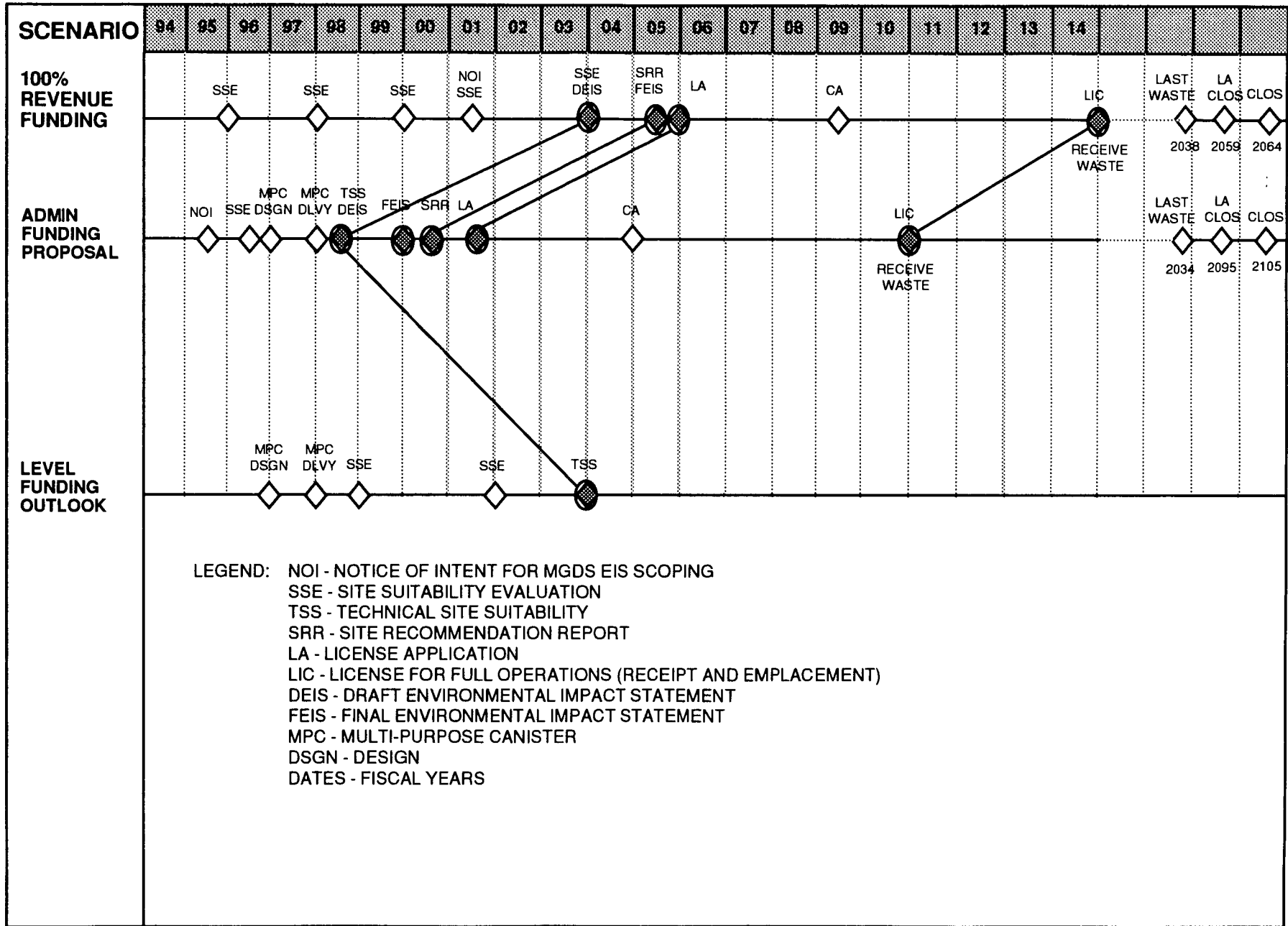
# **Administration Funding Proposal for FY 1995**

- **Proposes new direction for DOE to carry out the policy set by Congress in the NWPA**
  - **Proposed funding profile will support a restructured site characterization program that is practical and feasible**
- **Intended to address two major issues confronted by program:**
  - **Addressing realities of near-term management of spent fuel by resolving waste acceptance issue and defining the DOE role in near-term storage**
  - **Assuring efficient progress toward determination of suitability of Yucca Mountain site and, if suitable, proceeding with site recommendation and licensing**
- **Proposed funding approach**
  - **Will provide increasing and assured annual funding over next several years**
  - **Critical to accomplishment of program objectives**

# **Basis for Restructured Program**

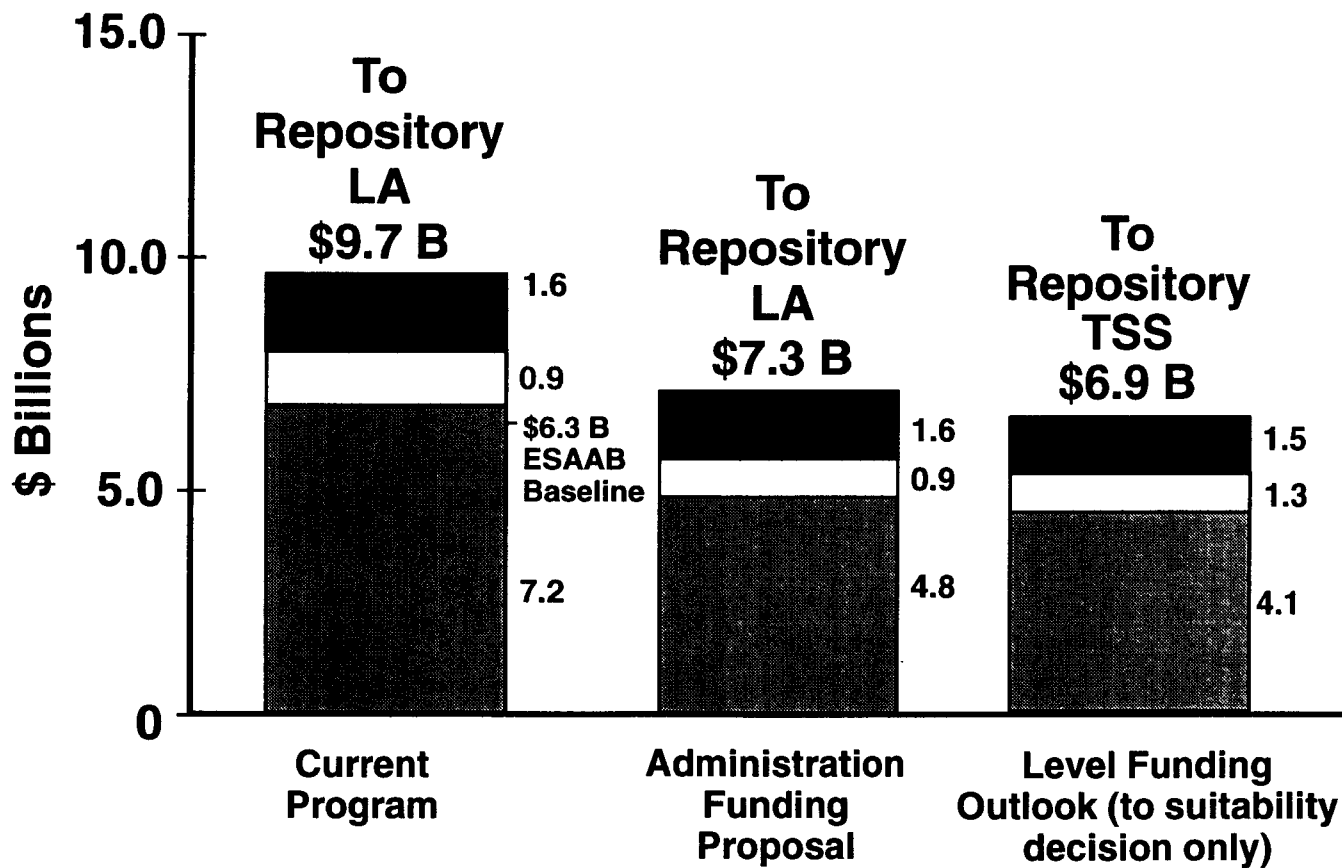
- **Responds to Congressional expectations to show demonstrable progress at reduced cost**
- **Consistent with original intent of NWPA and 10 CFR 60 regarding sequencing of DOE and NRC decisions**
- **Reflects the recommendations of the NAS Report, "Rethinking High Level Waste"**
- **Responds to suggestions from NWTRB and others regarding the need for effective management of a well focused technical program**

# Comparative Schedules





# Comparative Program Cost



## Alternative Program Strategies



# Summary of Proposed Top-Level Strategy for Repository

- **Make formal suitability findings in a stepwise manner**
- **Initiate the NEPA process as soon as possible**
- **Provide sufficient information in LA to support NRC's reasonable assurance finding**
  - **Ensure safety of repository operations**
  - **High confidence in waste package containment for at least 1,000 years**
  - **Bounding/conservative analyses relevant to radionuclide releases and total system performance for 10,000 years**
  - **Testing programs to focus on supporting design (construction, operations, waste package performance) and bounding/conservative analyses**
  - **Additional information to confirm basis for assessment of long-term performance provided under post-LA performance confirmation program**
- **Involve stakeholders and public prior to making key decisions**

# Differences Between Current Program and Administration Funding Proposal for Repository

<u>Key Elements</u>	<u>Current Program</u>	<u>Admin. Funding Proposal</u>
Site suitability evaluation	<ul style="list-style-type: none"> <li>• Interim evaluations</li> <li>• Design basis-Title I</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> <li>• Design basis - ACD</li> <li>• Technical site suitability determination by Secretary - 1998</li> </ul>
EIS	<ul style="list-style-type: none"> <li>• Draft 2003</li> <li>• Final 2005</li> <li>• Final supports site recommendation</li> <li>• Final accompanies LA</li> <li>• Design basis-Title I</li> </ul>	<ul style="list-style-type: none"> <li>• Draft 1998</li> <li>• Final 1999</li> <li>• Same</li> <li>• Same</li> <li>• Design basis - ACD</li> </ul>
Site Recommendation	<ul style="list-style-type: none"> <li>• 2005</li> <li>• Design Basis-Title I</li> </ul>	<ul style="list-style-type: none"> <li>• 2000</li> <li>• Same</li> </ul>

# Differences Between Current Program and Administration Funding Proposal for Repository

(Continued)

<u>Key Elements</u>	<u>Current Program</u>	<u>Admin. Funding Proposal</u>
<b>Licensing</b>	<ul style="list-style-type: none"><li>• 2005 LA</li><li>• Design basis-Title II for items important to safety and waste isolation</li></ul>	<ul style="list-style-type: none"><li>• 2001 LA</li><li>• Design basis - Title I for repository, Title II for waste package</li></ul>
<b>Technical and Scientific Studies</b>	<ul style="list-style-type: none"><li>• Full scope of studies proposed in SCP, with possible modifications, to support LA</li></ul>	<ul style="list-style-type: none"><li>• Scope of studies modified based on assessment of current state of knowledge to focus on technical issues most important to suitability and licensing</li><li>• Make effective use of required performance confirmation program</li></ul>

# Differences Between Current Program and Administration Funding Proposal for Repository

(Continued)

## Key Elements

## Current Program

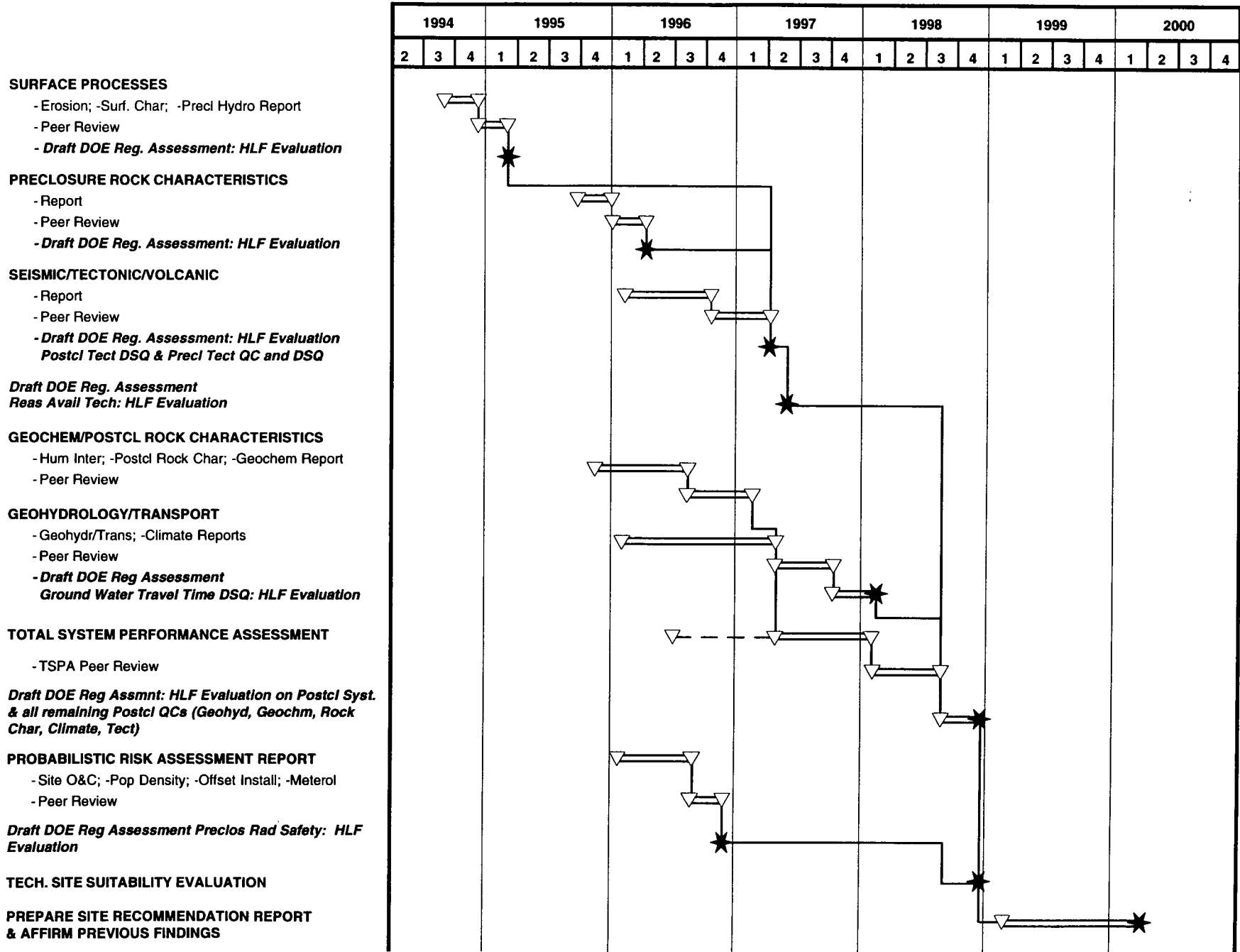
## Admin. Funding Proposal

### **Retrievability**

- 50 years after start of emplacement operations

- 100 years after start of emplacement operations or when results from performance confirmation provide adequate confidence for closure decision

# Proposed Site Suitability Decision Schedule

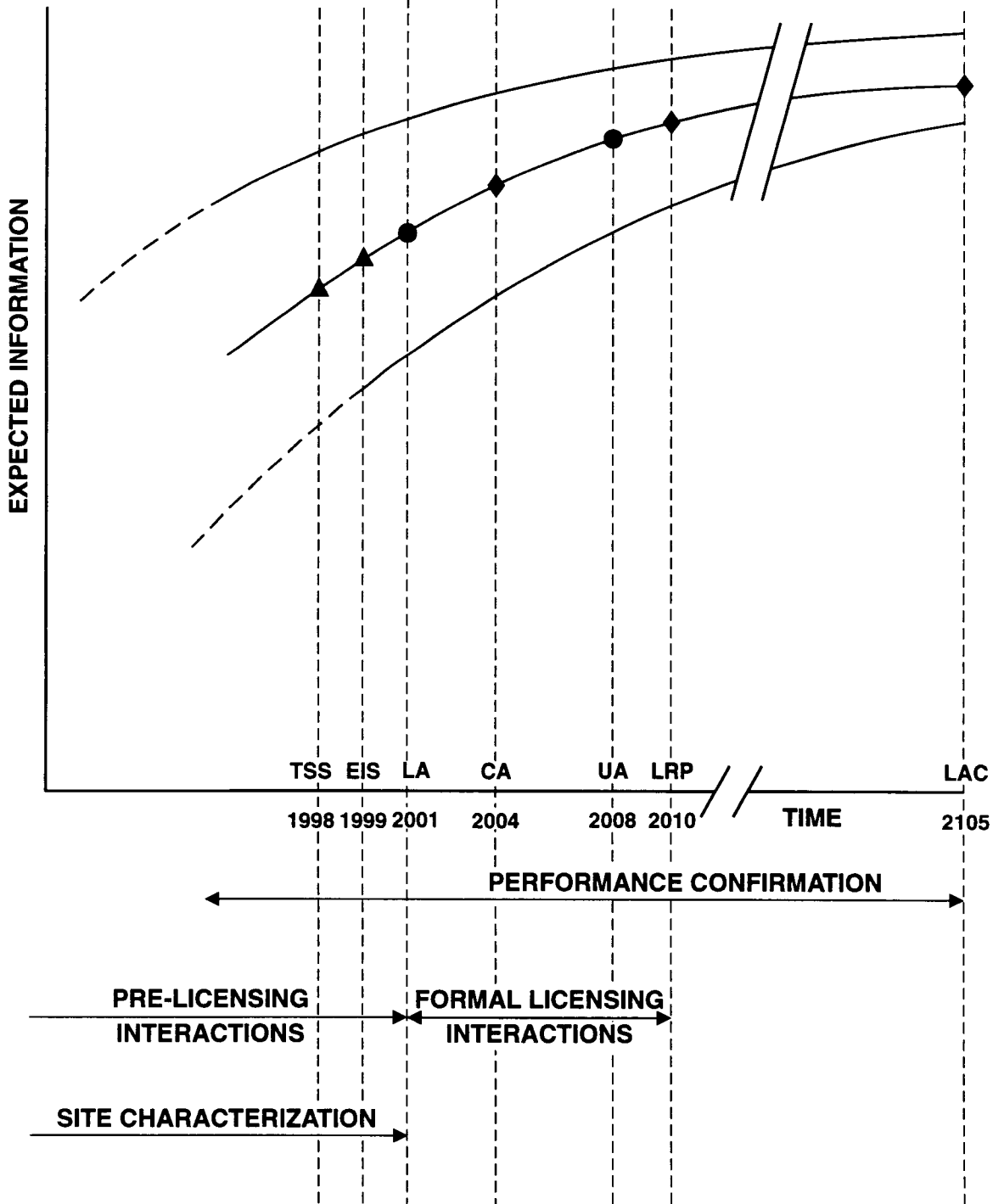


**60.24(a)**

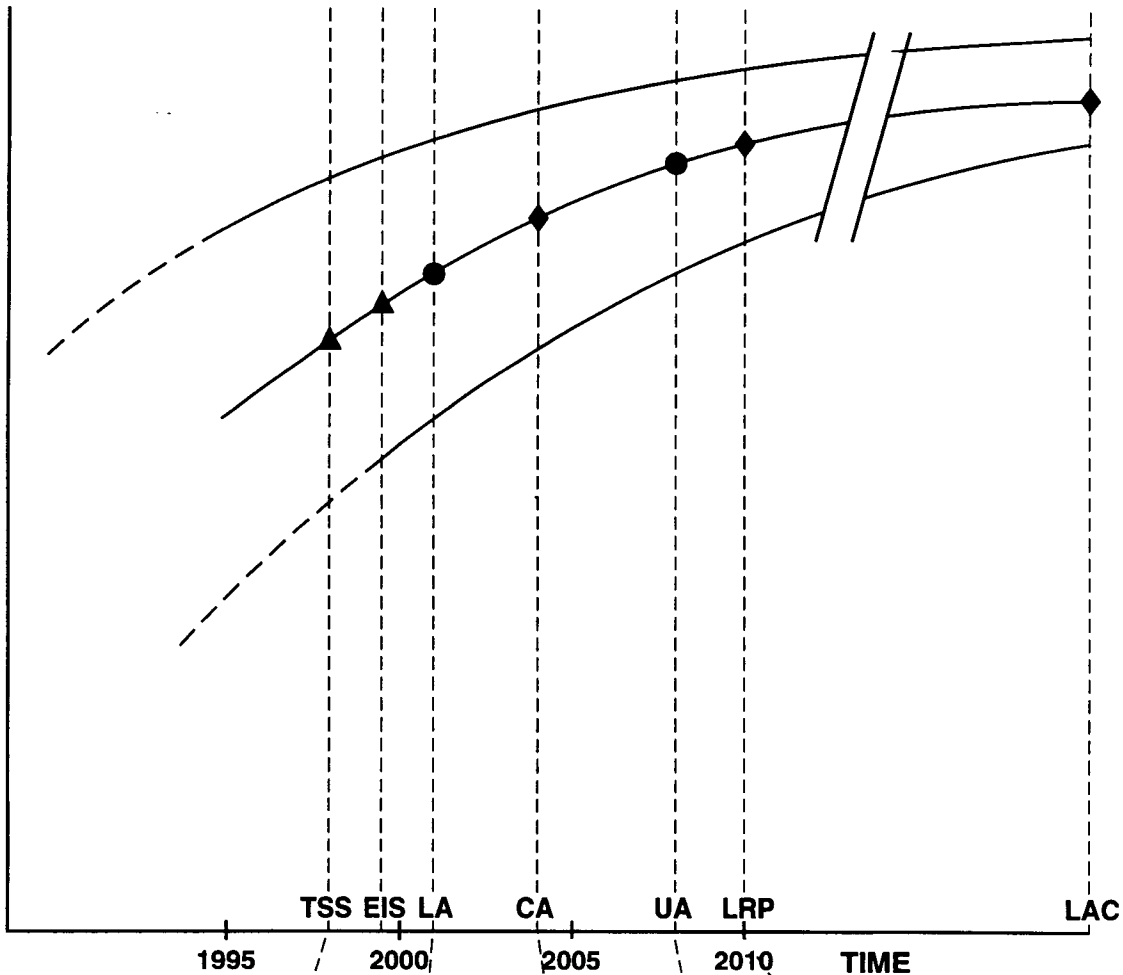
"... as complete as possible in the light of information that is reasonably available at time of docketing..."

**60.101(b)**

"... demonstration of compliance may take uncertainties and gaps in knowledge into account..."  
(reasonable assurance)



EXPECTED INFORMATION



	TSS/DEIS - 1998	LA/CA - 2001	CA - 2004	ULA/R&P - 2008	L/R&P - 2010	Perf. Confirm.
<b>NAT. BAR. EVAL</b>						
GWTT	Bounded	Sub. Finished		Final		
Scenarios	Bounded	Bounded		Sub. Finished		Final
Subsystem Analyses	Bounded	Sub. Finished		Final		Updated
TSPA Source Term	Bounded Model	Bounded Model		Complete		Confirmed
Post Cl. TSPA	Bounded	Bounded		Sub. Finished		Final
<b>Repos. Design</b>	ACD	Title I	Title II	Title III		Title III
Backfill/Seals		Title I (Flex)		Demonstrated		Decision
Materials Inter'n	Bounded	Bounded	Mat's Sel.			
Retrievability		Title I (Flex)	Proof of Princ.	Demonstrated		
Ar. Pwr. Den.	Bounded	Bounded		APD Decision		Final APD
Emplace. Mode		Title I (Flex)		Decision		
Precl. P.A.	Bounded	Sub. Finished		Final		
Lag Storage		Title I	Title II			
<b>Waste Pack. Des.</b>	ACD	Title II (P'type)		P'type Tested	Title III	Oper'ns Conf.
Sub Cmp Con		Complete		Updated		
Criticality Con.		Complete		Updated		
Contr. Rel.	Bounded	Conserv. Calcs		Complete		
Materials	Concepts	Determined		Test. Complete		Model Confirmed
Waste Form		Src Term Bnd'd		Final Src Term		



	TSS/DEIS - 1998	LA/CA - 2001	CA - 2004	ULA/R&P - 2008	L/R&P - 2010	Perf. Confirm.*
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\* Performance confirmation program is required to start during site characterization and continue until permanent closure (10 CFR 60.140(b))

