

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

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MEETING REPORT

SUBJECTS: LARS, FY91 Activities, and GS Program Activities

DATE and PLACE: August 21-22, 1990, San Antonio, TX

AUTHORS: NRC and CNWRA

DISTRIBUTION:

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J. Russell  
B. Sagar  
A. Whiting

CONSULTANT

R. Weiner

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PERSONS PRESENT:

NRC	CNWRA	CONSULTANT
P. Altomare	R. Adler	R. Weiner
R. Ballard	H. Garcia	
D. Brooks	J. Hageman	
R. E. Browning	R. Johnson	
J. Holonich	W. Patrick	
R. Johnson	T. Romine	
L. Linehan	J. Russell	
	B. Sagar	
	A. Whiting	

BACKGROUND AND PURPOSE

This meeting was called to (a) discuss and come to agreement on the approach and key concepts related to the License Application Review Strategy (LARS) and related Systematic Regulatory Analysis (SRA) topics, (b) review the NRC FY91 activities and (c) discuss key work activities associated with the GS and WSE&I Program Elements. Appendix A provides the agenda/talking-points for the meeting.

SUMMARY OF PERTINENT POINTS

August 21, 1990

A. LICENSE APPLICATION REVIEW STRATEGY

A comprehensive discussion took place on LARS and related Systematic Regulatory Analysis (SRA) topics. Following is a summary of the information that was exchanged and concurred in as being a basis for LARS development.

LARS Purpose

1. Define scope, objectives, and approach of staff review activities.
2. Serve as a tool to identify important areas for staff review.
3. Focus staff review for effective and efficient use of resources.

4. Provide a basis for a consistent approach, and serve as a tool to guide staff development of the License Application Review Plan (LARP) using the SRA process.
5. Communicate review approach effectively to the intended audience (i.e., NRC and Center staff, NRC upper management, outside parties). Include both what the document is and what it is not (i.e., it is not guidance to DOE).

#### Scope of LARS

1. Focuses on NRC review functions and provides the staff strategy for conducting reviews. Note that this is not the same as SECY 88-285, which provides the Regulatory Strategy.
2. Covers pre-License Application (LA) as well as LA review.
  - Study plans, SCP updates, etc.
  - Important consideration - DOE's Site Recommendation Report to the President/Congress which includes NRC's Preliminary Site Characterization Sufficiency and Waste Form Comments.
3. Has a broad repository system-wide scope.
  - All parts of repository system (e.g., site, waste package, repository, etc).
  - Interfaces of other systems with the repository: Interim Storage, Processing, Transportation, Waste Producers.

#### Review Objectives of LARS

1. Pre-LA Review
  - a) Determine if DOE has an adequate plan and process in place to demonstrate compliance with the regulations.
  - b) Ensure that required staff tools and capabilities are in place.
  - c) Provide for ongoing issue resolution.
2. LA Review
  - a) Determine compliance within three-year time period.
  - b) Ensure that required staff tools and capabilities are in place.

#### Review Approach

1. Phased approach: Pre-License Application Review and License Application Review Phases
  - Pre-License Application Phase: . Today - LA Acceptance Review
  - License Application Phase: LA Docketed - SER (not hearing activities)
2. Components of Review
  - a) Focus on QA (process and controls)
  - b) Reviews and interactions with DOE on format and content of LA

- c) Review of DOE products and plans
- d) DOE process for issue resolution

3. Sample Review Approach

- a) A general approach will be contained in the LARS. The CDS's will contain the individual approaches for each regulatory requirement.
- b) Sample will consist of:
  - different levels (use a pyramid diagram to define levels, Fig.1)
  - intensity for each level
- c) Concern over DOE knowing NRC's samples and biasing their program accordingly; need for other nonpredetermined samples

4. Alternative review methods

- a) for each level
- b) range of alternatives, i.e., sample check to independent analysis

5. Develop CDS's

- a) selection of level(s)
- b) selection of general method(s), not development of detailed Compliance Determination Method(s).
- c) selection criteria
  - Use of performance assessment to help determine importance, and provide program integration
  - Need to address when to apply performance assessment, presently can't use PA to determine importance
  - Criteria and their application presently unclear
- d) development of CDS is site specific and design specific (consideration of alternative designs included)
- e) establish requirements for documentation of assumptions and rationale
- f) A question was raised about identifying interfaces between CDMs. Composite CDMs is one approach to treating interfaces.
- g) Development of CDS's must recognize and be consistent with interfaces among RRs and REQPs.

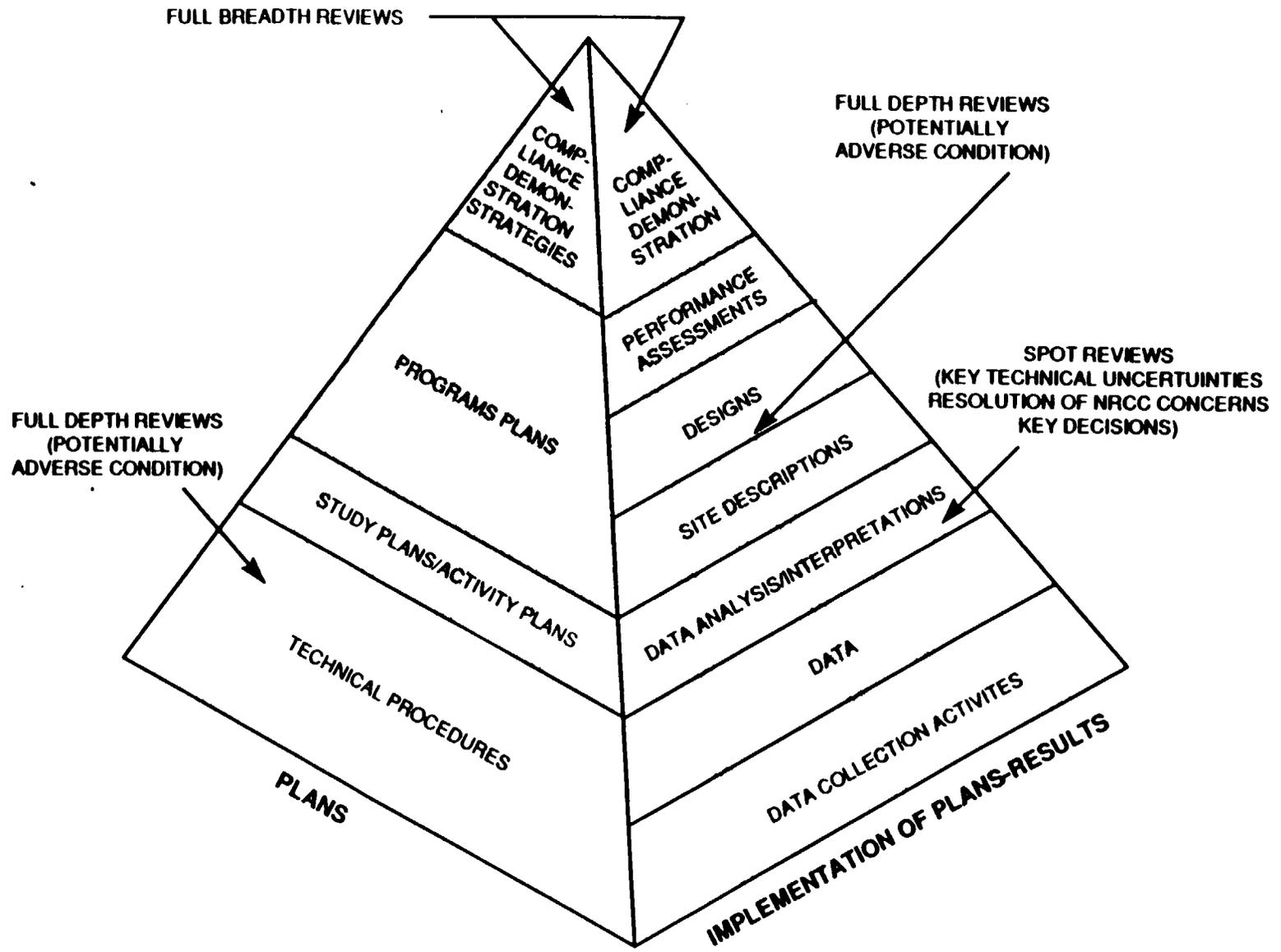


Figure 1

6. Review Responsibility (Do we need to state this in the LARS?)
  - a) Staff, assisted by the Center, needs to perform review and not delegate or relegate to other parties (e.g., DOE, State).
  - b) First-of-a-kind program.
  - c) Briefly cite awareness of other approaches and rationale for our approach.
  
7. Relationship of LARS, SRA Products, LARP, and FCRG
  - a) One CDS is required per Regulatory Requirement.
  - b) One CDS will identify one or more CDMs.
  - c) LARS includes tools (levels of review, alternative methods, criteria) for CDS development under SRA.
  - d) CDS will focus CDM selection and development.
  - e) CDS, CDM, REOP, site-specific TRC, and IRs are inputs to LARP.
  - f) REOP and generic TRCs will be included in FCRG.
  - g) FCRG is initial "driver" for the LARP structure.

August 22, 1990

B. FY91 ACTIVITIES

Robert Johnson reviewed the FY91 activities with a focus on proactive work items.

C. GS AND RELATED PROGRAM ELEMENT ACTIVITIES

The talking points under item 3 of the agenda were discussed, with an emphasis on planned work in the GS Program Element. The following points were made.

1. Current staffing, and staff acquisition plans and activities were discussed. GS and PA staff acquisition will be monitored carefully to ensure adequate resources are available.
2. Elements of the current FY90, and planned FY91 and 92 program were identified in terms of technical topics (formerly TPs and rulemakings) as well as SRA-related subjects.
3. Proposed activities associated with Item 2 were also summarized. There was general recognition/agreement as to the need for flexibility in accommodating work under such topics as Probabilistic

Seismic Hazard Analysis (PSHA), analysis methods, and the various reactive tasks.

4. Logical groupings were presented for GS-related RRs. These groupings are preliminary but depict the important concept that it is often not possible to address individual RRs in isolation from related ones. It is also considered to be more efficient to address RRs in such groups.

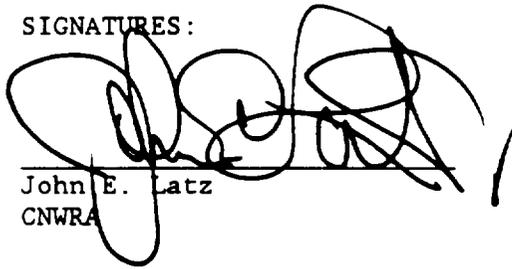
PROBLEM AREAS

None.

RECOMMENDATIONS/ACTION ITEMS

1. Need to determine how and appropriate time to develop interfaces among RRs and REOPs.
2. Need to decide whether Review Responsibility should be discussed in LARS.

SIGNATURES:



John E. Latz  
CNWRA



Robert E. Browning  
NRC 8/22/90

APPENDIX A

TO: J. LATZ - CNWRA

NRC/CNWRA MTG ON 8/21-23

- 1 -

SAN ANTONIO

NRC - CNWRA MEETING ON AUGUST 21-22

AUGUST 21

1A. DISCUSSION ON LARS, COMPLIANCE DETERMINATION STRATEGIES (CDS), COMPLIANCE DETERMINATION METHODOLOGIES (CDM) AND HIGH ORDER TECHNICAL UNCERTAINTIES.

- o DEFINE PURPOSE SCOPE & CONTENT INCLUDING BACKGROUND MATERIAL, OF EACH.
- o DISCUSS HOW EACH WILL BE DEVELOPED AND ITERATED OVER TIME.
- o DISCUSS INTERFACE AND INTEGRATION OF CDSS' AND CDMs' FOR DIFFERENT REGULATORY TOPICS.
  - DISCUSS MECHANISM (? PERFORMANCE ASSESSMENT) FOR IDENTIFYING INTERFACES AND INFORMATION?
  - WHEN AND HOW DOES INTERFACE/INTEGRATION OCCUR AND AT WHAT LEVEL (CDS, CDM OR TRC)?
  - WHAT IS PERFORMANCE ASSESSMENTS' ROLE IN INTERFACES/INTEGRATION?
- o DISCUSS ROLE OF PARS AND ITS RELATIONSHIP TO LARS.
- o IS THERE ONE CDS FOR EACH TRC OR FOR EACH REG TOPIC OR DOES IT VARY?
- o DOES LARS JUST LAY OUT ALTERNATE STRATEGIES OR DOES IT CONTAIN CRITERIA FOR DEVELOPMENT OF CDSS' ETC.?
- o ARE DEVELOPMENT OF CDSS' AND CDMs' JUST BASED ON REG TOPICS OR DO THEY CONSIDER VARIOUS DOE PROGRAMMATIC OPTIONS SUCH AS A 5,000 YR. WASTE PACKAGE?
- o HOW DO COMPLIANCE DEMONSTRATION METHODOLOGIES (CDMM) RELATE TO CDMs' *- INTERRELATIONSHIPS, IF ANY, -- SHOULD CDM BE IMPACTED BY WHAT CDMM MIGHT BE?*
- o DOES DEVELOPMENT OF CDS AND/OR CDM FOLLOW IDENTIFICATION OF HIGH ORDER TECHNICAL UNCERTAINTIES OR IS IT AN ITERATIVE PROCESS?
- o IS HIGH ORDER TECHNICAL UNCERTAINTY RELATED TO JUST COMPLIANCE DETERMINATION OR ALSO COMPLIANCE DEMONSTRATION?
- o DO CDMs' CONTAIN REVIEW/ACCEPTANCE CRITERIA?

B. DISCUSS GENERICALLY, BUT THROUGH EXAMPLES, HOW LARS, CDS, CDM, AND HIGH ORDER TECHNICAL UNCERTAINTIES ARE DEVELOPED FOR SPECIFIC TECHNICAL TOPICS.

- o DOES WORK TO DATE OR PLANNED ON SCC AND ROC FULLY COMPLETE SRA STEPS FOR CDS, CDM, AND HIGH ORDER TECHNICAL UNCERTAINTY FOR EACH OF THESE ELEMENTS? IS THERE ANYTHING TO BE LEARNED FROM WORK TO DATE ON THESE TOPICS.

C. DOCUMENT AGREEMENTS

J. V. 10/2

2. PRESENT NRC '91 BUDGETED ACTIVITIES RELATED TO TOPICS IN ITEM 1  
(R. JOHNSON).

*1 Hr +*

(QA AND REACTIVE WORK ARE EXCLUDED FROM DISCUSSION).

- RULEMAKINGS
- TECHNICAL POSITIONS - PSHA
- LARS (PARS)
- SRA - CDS
  - HIGH ORDER TECHNICAL UNCERTAINTIES
  - CDM - UNSAT HYDRO AND ESF - REPOSITORY INTEGRATION (DEVELOP TECHNICAL BASIS, CRITERIA)
  - FUNCTIONAL ANALYSIS
- ANALYSIS METHODS
  - EBS

AUGUST 22

3. BASED ON DISCUSSIONS ON ITEMS 1 AND 2 AND '91 PROGRAM ELEMENT PLANS  
DISCUSS WSE&I AND GS '91 WORK BY THE CENTER.

- ROLE OF WSE&I VS TECHNICAL PROGRAM ELEMENTS IN COSS', COMS', ETC.
- ESTABLISHMENT OF PRIORITIES FOR DEVELOPMENT OF COSS', COMS' AND HIGH ORDER TECHNICAL UNCERTAINTIES.
- DETAILED DISCUSSION ON GS WORK.
  - PRODUCTS - SCOPE AND SCHEDULES
- DETAILED DISCUSSION WSE&I WORK
  - PRODUCTS - SCOPE AND SCHEDULES
- DISCUSSION ON ENGINEERING WORK (ONLY AS NEEDED BASED ON DISCUSSIONS ON ITEM 1).

NRC ATTENDEES:

- R. Browning
- J. Linehan
- J. Holonich
- R. Johnson
- P. Altomare
- R. Ballarc
- D. Brooks
- J. Pearring ?

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APPENDIX B

# CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES MEETING ATTENDANCE

SUBJECT OF MEETING *NRC/CNWRA: LARS/LARP*

DATE: *8/21/90* LOCATION: *CONF. RM #1, CNWRA*

PERSON	ORGANIZATION	TITLE/FUNCTION	TELEPHONE NUMBER
<i>W. PATRICK</i>	<i>CNWRA</i>	<i>TECH. DIRECTOR</i>	<i>512-522-5152</i>
<i>ALLEN R. WHITING</i>	<i>CNWRA</i>	<i>Dir. S.E. &amp; I</i>	<i>512-522-5156</i>
<i>ZAWLET JOHNSON</i>	<i>CNWRA</i>	<i>DIR. IMC</i>	<i>512-522-5152</i>
<i>Ruth Weiner</i>	<i>consultant</i>	<i>-</i>	<i>204-364-9750</i>
<i>Henry Flaccia</i>	<i>CNWRA</i>	<i>Director - Admin</i>	<i>512-522-5140</i>
<i>Ted Romine</i>	<i>CNWRA</i>	<i>MGR. NISELI</i>	<i>512/522-5203</i>
<i>Budhi Sagar</i>	<i>CNWRA</i>	<i>Manager, PA</i>	<i>512/522-5252</i>
<i>Joe Holonich</i>	<i>NRC</i>	<i>Section Leader</i>	<i>(301) 492-3400</i>
<i>JOHN LINEMAN</i>	<i>NRC</i>	<i>PROJ DIR</i>	<i>301-492-3389</i>
<i>Robert Johnson</i>	<i>NRC</i>	<i>Senior Project Manager</i>	<i>301-492-0409</i>
<i>ROBERT ADLER</i>	<i>CNWRA</i>	<i>WASH office</i>	<i>703-979-9129</i>
<i>John Hageman</i>	<i>CNWRA</i>	<i>Mgr SP</i>	<i>512-522-5152</i>
<i>Ron Ballard</i>	<i>NRC</i>	<i>RC HLGP</i>	<i>301-492-3462</i>
<i>Paul Altman</i>	<i>NRC</i>	<i>DHLWD/HLPD</i>	<i>301-492-3400</i>
<i>JOHN L. RUSSELL</i>	<i>CNWRA</i>	<i>MGR. FEED. SETTING</i>	<i>512-522-5183</i>
<i>John E. Lutz</i>	<i>CNWRA</i>	<i>Pres</i>	<i>512-522-5154</i>
<i>David Brooks</i>	<i>NRC</i>	<i>GS PEM</i>	<i>301 492-3457</i>
<i>RE Browning</i>	<i>NRC</i>	<i>Dir. Div NLWM</i>	<i>301-492-3408</i>

# CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES MEETING ATTENDANCE

SUBJECT OF MEETING

NRC/CNWRA: LARS & GS

DATE:

8/22/90

LOCATION:

CONF. RM #1, CNWRA

PERSON	ORGANIZATION	TITLE/FUNCTION	TELEPHONE NUMBER
W. PATRICK	CNWRA	TECH. DIRECTOR	512-522-5158
ALLEN R. WHITING	CNWRA	DIR. S.E. & I.	512-522-5156
RE Browning	NRC - DN&WM	Dir. Div of DN&WM	301-492-3408
D. Brooks	NRC	GS PEM	301-492-3457
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John E. Latz	<del>PRO</del> CNWRA	Pres.	512-522-5154
John L. Russell	CNWRA	MGR - Cool Setting	512-522-5183
Ron Ballard	NRC	B.C. / HLGP	301-492-3462
Phil Altonare	NRC	HL PD	301-492-3400
Ted Romins	CNWRA	MGR USE & I	512/522-5208
John Hageman	CNWRA	Mgr SP	512/522-5150
Robert Keller	CNWRA	Dir. W&S opp	203-979-9129
Robert Johnson	NRC	Senior Project Manager	(301) 492-0409
Joe Holonich	NRC	Section Leader	(301) 492-3403
JOHN LINEHAN	NRC	PROJ DIRECTOR	301-492-3387