

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



DOE/NRC Quarterly Management Meeting

Las Vegas, Nevada

May 15, 2004.



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



Presented to: DOE/NRC Quarterly Management Meeting

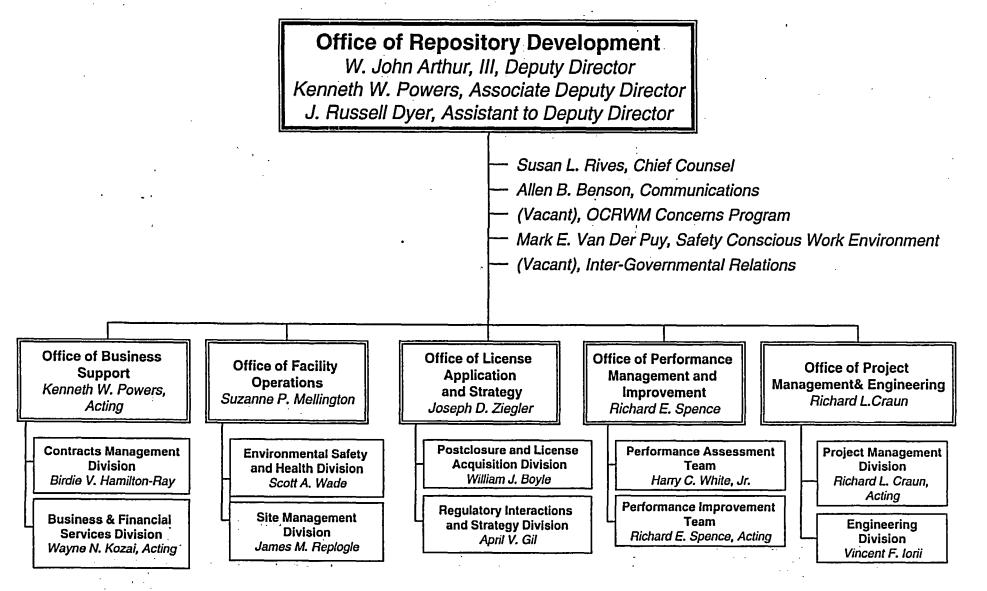
Project Update Exhibits

Presented by W-John Arthur, III **USEDepartment of Energy**

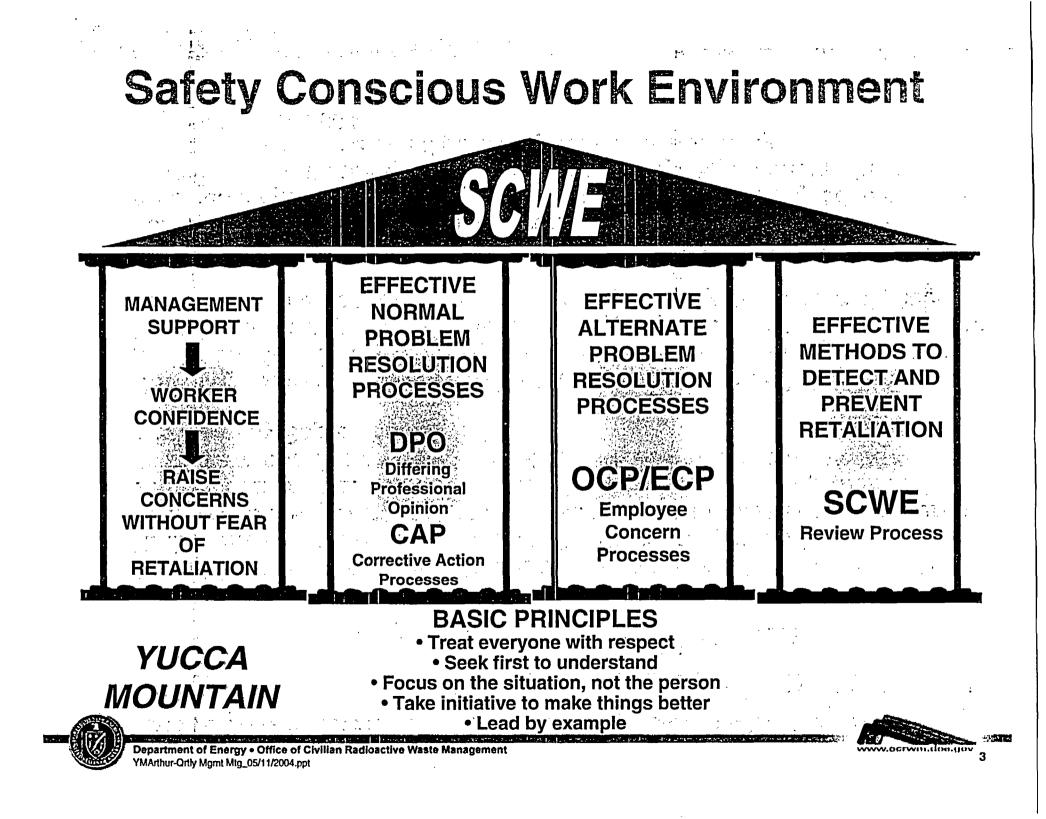
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Deputy Director Office of Repository Development

Office of Repository Development







Outcome Measures: Safety Conscious Work Environment, Corrective Action Program, Employee Concerns Program

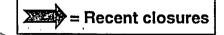
- Safety Conscious Work Environment Improvement in Office of Civilian Radioactive Waste Management (OCRWM) worker perception that management supports and encourages workers to raise safety concerns without fear of retaliation from current survey results of approximately 76 percent positive response to better than 85 percent positive survey response by September 30, 2004
- Corrective Action Program (CAP) Improvement in OCRWM worker perception that CAP effectively resolves issues in a timely manner from the current survey result of approximately 58 percent positive response to better than 70 percent positive survey response by September 30, 2004
- Employee Concerns Program (ECP) Improvement in OCWRM worker perception that ECP/OCRWM Concerns Program (OCP) effectively resolves employee concerns in a timely, thorough, and objective manner from the current survey result of approximately 76 percent positive response to better than 85 percent positive response by September 30, 2004





Status of U.S. Nuclear Regulatory Commission 30-Day Letter Actions

- 1. (Ziegler): Submit LA that complies with 10 CFR Part 63 in which data, software, and models meet or exceed applicable quality assurance requirements December 2004,
- $\sqrt{2}$. (Ziegler): Present KTI approach to NRC June 30, 2003 (closed on time)
- $\sqrt{3}$ (Brown): Create an effective trend report to monitor procedural compliance, identify causes of noncompliance, and take corrective action as necessary - Sep 30, 2003 (closed March 30, 2004)
 - $\sqrt{4}$. (Van der Puy): Update AP5.1Q to streamline the review and revision process for procedures July 30, 2003 (closed on time)
 - $\sqrt{5}$. (Van der Puy): Screen procedures for needed improvement July 30, 2003 (closed December 31, 2003)
 - $\sqrt{6}$. (Brown): Single improved Corrective Action Plan implemented September 30, 2003 (closed on time)
 - 7. (Brown): Goal: Approve 90 percent of corrective actions within 30 days of initiation of DRs and CARs; complete the corrective action for DRs in fewer than 60 days on average; complete corrective action for CARs in fewer than 100 days on average TBD
 - $\sqrt{8}$. (Van Der Puy): SCWE surveys will be performed quarterly with results provided to NRC July 17, 2003 (closed on time)
 - 9. (Van Der Puy): Additional SCWE training to managers for increased effectiveness TBD
 - $\sqrt{10}$. (Van Der Puy): Conduct external expert annual SCWE surveys September 19, 2003 (closed on time)
 - √ 11. (Mellington): Performance criteria for quality, timeliness, procedural compliance, and safety built into the appraisals and evaluations September 1 2003 (closed September 30, 2003)
 - $\sqrt{12}$. (Mellington): Demonstrated actions that exceed these expectations will be recognized and failure to meet them will be addressed appropriately October 1, 2003 (closed on time)
- $\sqrt{13.}$ (Mellington): Semiannual report to employees to highlight successes, communicate lessons learned, and underscore our commitment to accountability October 1, 2003 (1st report issued October 15, 2003)



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Management Assessment of Progress Towards License Application

COMPONENT	PERCENT COMPLETE (January 2004)	PERCENT COMPLETE (April 2004)
KTI Agreement Addressed*	70%	70%
LA Document	14%	33%
Preclosure Safety Assessment	45%	62%
TSPA-LA	76%	81%
Design	<u>56%</u>	<u>79%</u>
TOTAL WEIGHTED PERCENT COMPL	.ETE 54%	68%

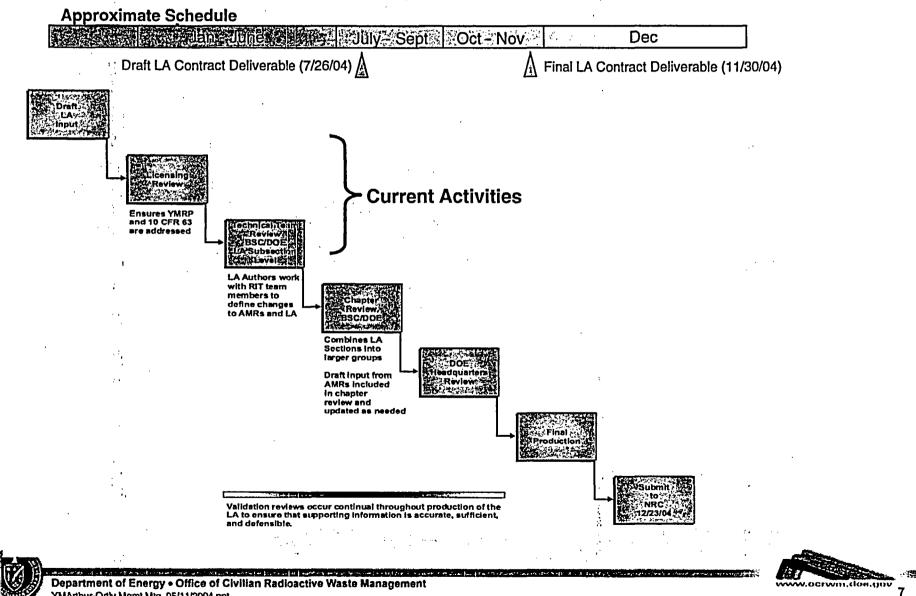
100 percent of Key Technical Issue (KTI) Agreements will be addressed prior to submission of the LA

* Status reflected as percent of 293 agreements with complete DOE submittals



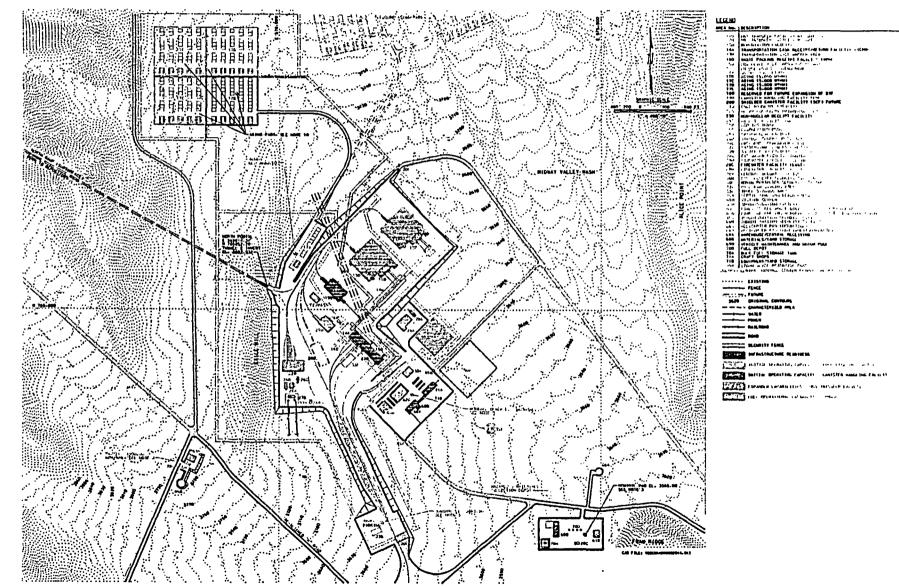


15 **License Application Development and Review Process**



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Current Surface Facilities Layout







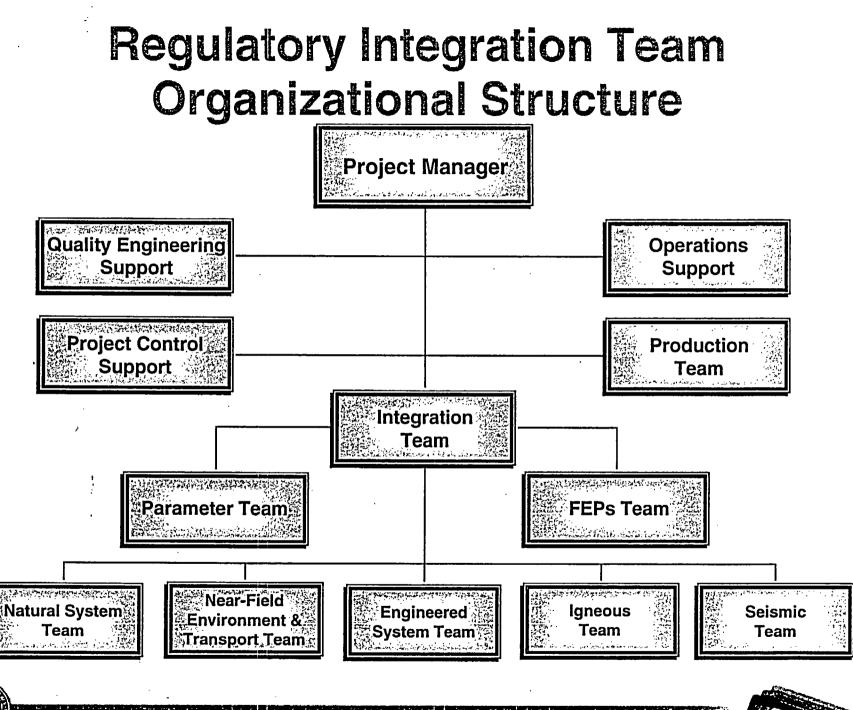


Total System Performance Assessment Component Models and Analysis Model Reports

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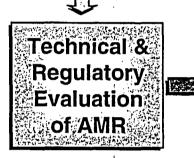
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Regulatory Integration Team Evaluation Process Steps





Process

- 1. Complete checklists
- 2. Develop & enter action items

Product

1. Action items in database, with integrated evaluation & priority Input from Parameter & FEPs Teams

Lead Review & Development of Action Plan

Process

- 1. Review & disposition actions in database
- 2. Prepare summary of proposed action plan

Products

- 1. Action item lists with recommended disposition
- 2. Summary sheet of recommendations

Process

- 1. Compare checklist with action items
- 2. Review recommendation from Team Lead

Integration

Review

- 3. Modify to account for quality affecting work, integration issues, & priorities, as needed
- 4. Teams update action item disposition & summary sheet
- 5. QE review of action list for CRs

Products

- 1. Updated action item lists with recommended disposition
- 2. Summary sheet with recommendations for management review



Process

1. Review & approve modify recommendations

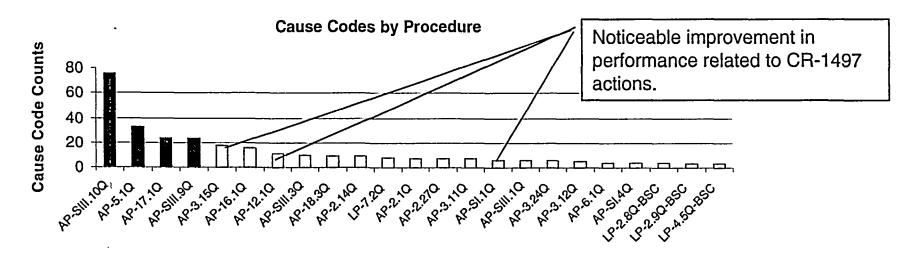
Products

- 1. Approved (possibly modified) AMR action item disposition & action plan
- 2. Other non-AMR specific actions



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Trends and Patterns Analysis



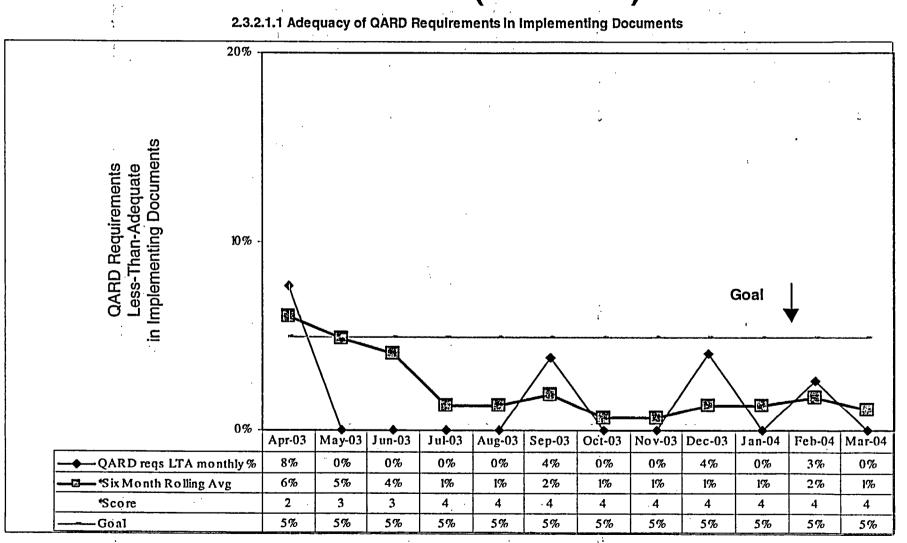
Distribution of principal causal factors for each of the selected procedures.

			lory			
Procedure	A1 Design Engineering	A2 Equipment/ Material	A3 Human Performance	A4 Management	A5 Communications	A6 Training
AP-SIII.10Q Models	0	0	48	18	10	0
AP-5.1Q Procedure Preparation, Review, and Approval	0	0	27	2	4	0
AP-17.1Q Records Management	0	0	17	1	6	0
AP-SIII.9Q Scientific Analysis	0	0	17	2	5	0





Adequacy of Quality Assurance Requirements and Description Requirements in Implementing Documents (2.3.2.1.1)



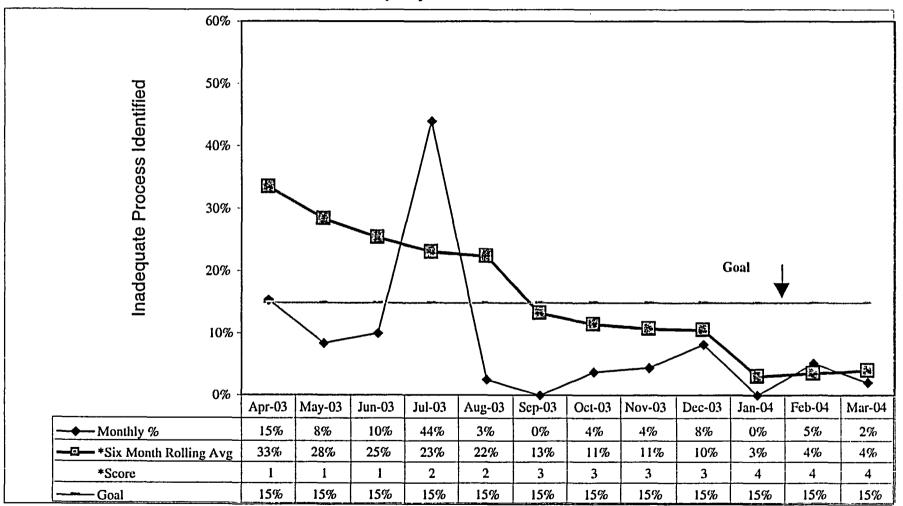


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Adequacy of Process in Quality Assurance Procedure (2.3.2.1.2)

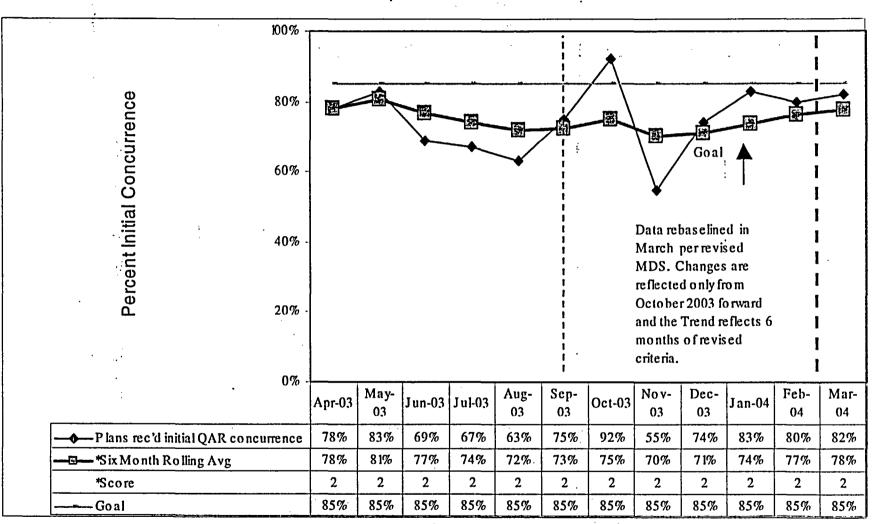
2.3.2.1.2 Adequacy of Process in QA Procedures







Adequate Corrective Action Plans (2.3.4.1.2)



2.3.4.1.2 Adequate Corrective Action Plans



Department of Energy

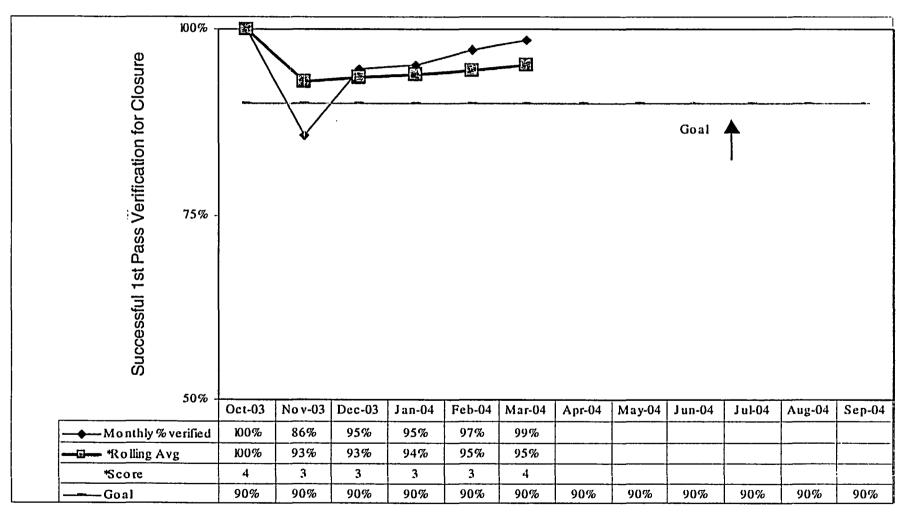
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Successful Verification of Condition Report Closure (2.3.4.1.3)

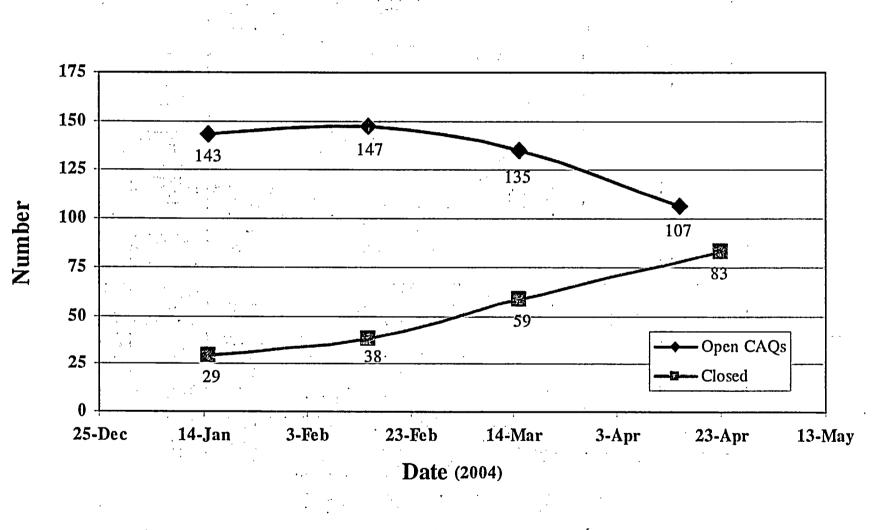
2.3.4.1.3 Successful Verification for CR Closure







Open/Closed Condition Reports (Level A & B, including Nonconformance Reports)





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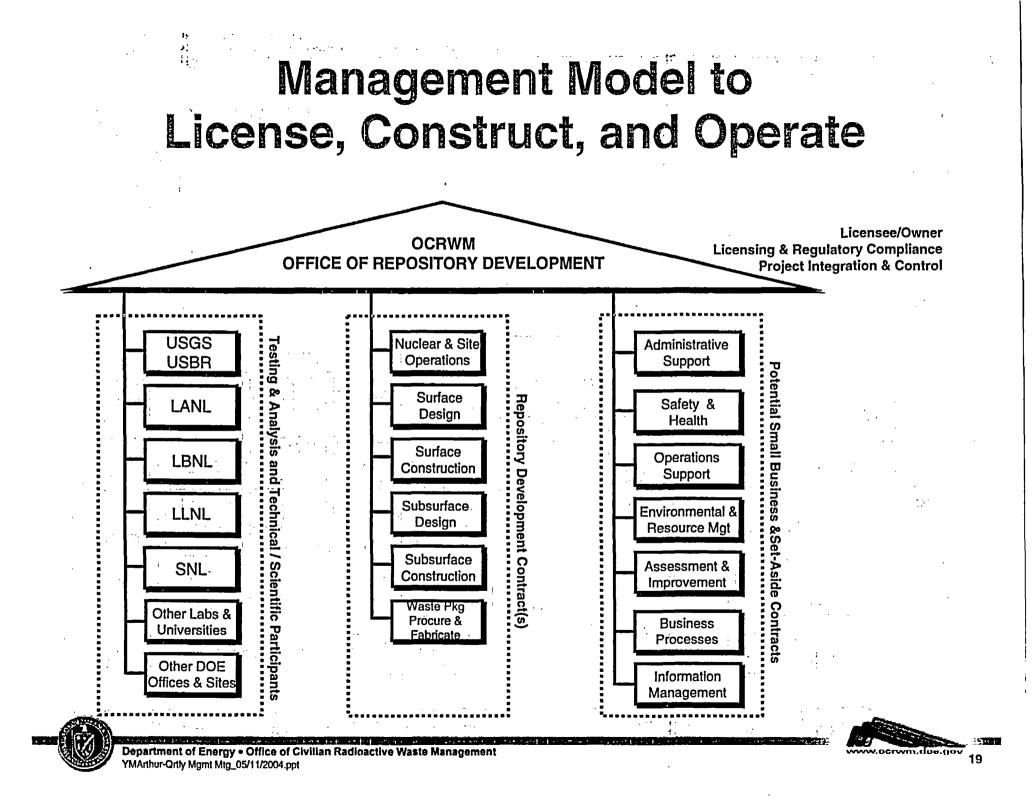
April 2004 Monthly Operating Report Annunciator Panel

Yucca Mountain Project Annunciator Panel

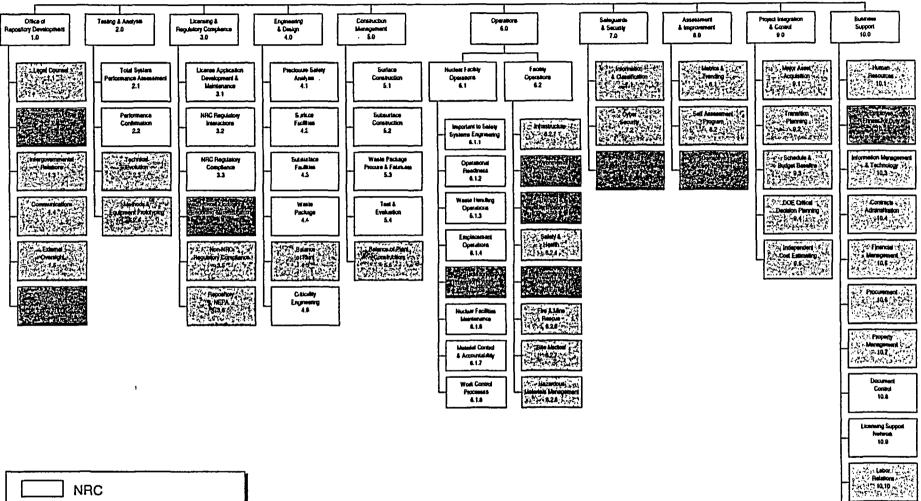
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Example of Functions and Governing Requirements



DOE Potentially Dual Regulated



Policies, Plans,

& Procedures

Federal Records Management 10.12





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

License Application Status

Presented to: **DOE/NRC Quarterly Management Meeting**

Presented by Joseph D. Ziegler Office of Repository Development. ULSADE STRUMENT OF EAST OF

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Director, Office of License Application and Strategy

Topics for Discussion

- License Application (LA) Schedule Status
- LA Content and Level of Detail
- Key Technical Issues (KTIs) Agreement Status
- Recent and Near-Term Interactions
- Summary





License Application Schedule Status

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COMPONENT	PERCENT COMPLETE JANUARY 2004	PERCENT COMPLETE APRIL 2004
KTI Agreement Addressed*	70%	70%
LA Document	14%	33%
Preclosure Safety Assessme	ent 45%	62%
Total System Performance Assessment (TSPA)-LA	76%	81%
Design	<u>56%</u>	<u>79%</u>
TOTAL WEIGHTED % COMP	LETE 54%	68%

100 percent of Key Technical Issue (KTI) Agreements will be addressed prior to submission of the LA

* Status reflected as percent of 293 agreements with DOE submittals (complete + 1/2 credit for partial)



License Application Schedule Status

(Continued)

February 19, 2004 Management Meeting

Tota	Datasets:	1,387*
G	Qualified:	721 (52%)
0	Being verified:	456 (33%)
0	Being developed:	210 (15%)*
Tota	Codes:	423*
•	Qualified and verified:	67 (16%)
Û	Qualified: (Legacy/re-testing)	344 (81%)
Đ	Developing/verifying:	12 (3%)

Model Reports Directly Supporting LA: 65

- Model Reports completed: 51 (78%)
 - *Estimated

May 11, 2004 Management Meeting

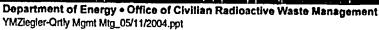
	-	
<u>Tota</u>	Datasets:	1,251*
Ð	Qualified:	733 (59%)
Ð	Being verified:	413 (33%)
0	Being developed:	105 (8%)*
Total	Codes:	427*
φ	Qualified and verified:	165 (39%)
IJ	Qualified: (Legacy/re-testing)	240 (56%)
Ŷ	Developing/verifying:	22 (5%)
Mode	el Reports Directly Support	<u>rting LA</u> : 65
•	Model Reports complete	d: 60 (92%)



License Application Content and Level of Detail

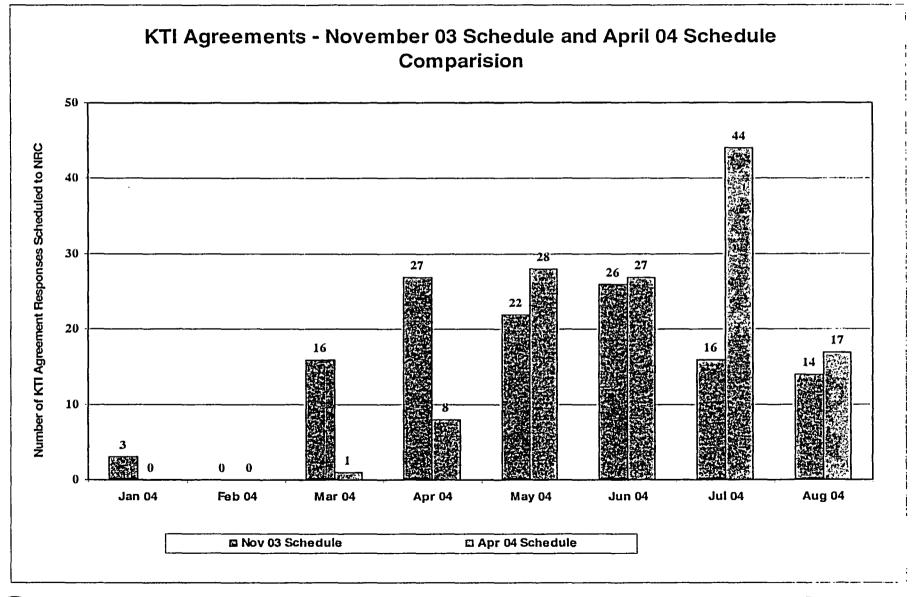
- Level of detail will be that which is necessary and sufficient to support a risk-informed review of preclosure safety and postclosure performance by the NRC and the determinations required for granting the construction authorization
 - The intent is to have the LA as stand-alone as possible and to give specific reference citations when needed
 - The NRC report of April 10, 2004 on the Technical Evaluations confirmed our understanding of the need for transparency and traceability in the LA







Key Technical Issue Agreements

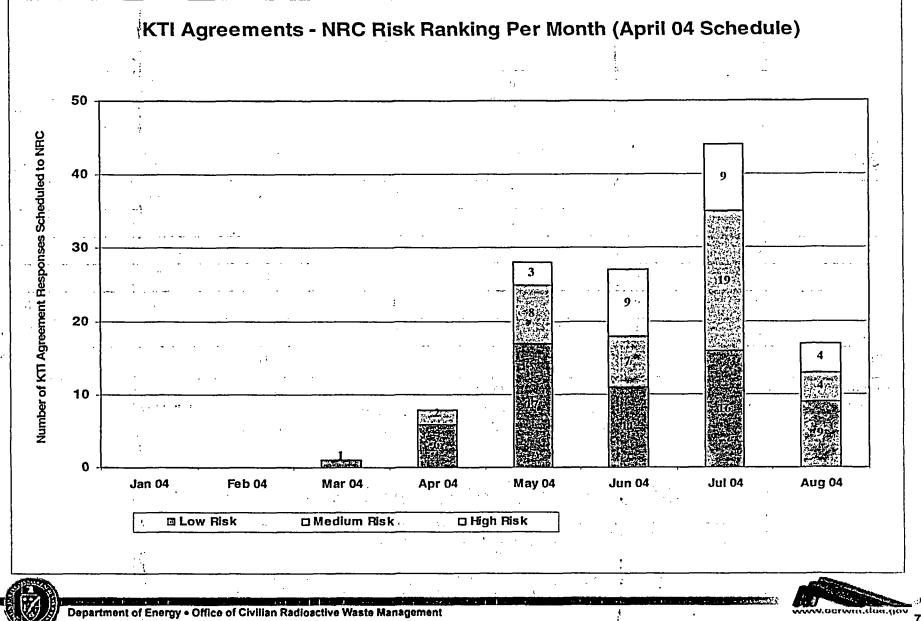




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Key Technical Issue Agreements

(Continued)



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Key Technical Issues Agreements Status Summary Reflects Activity through April 28, 2004

KTI ID	Agreements Reached	Agreements Submitted to NRC	Responses Submitted In NRC Review	Partial Responses Submitted	NRC Needs Additional Information	Responses Remaining to be Submitted	Agreements Complete
CLST	58	41	10	3	8	17	20
ENFE	41	. 37	18	5	1		13
GEN	1	1	0	1	0	0	0
IA	22	20	7	0	0	2	13
PRE	9	6	1	0	3	3	2
RDTME	23	4	2	1	0	19	1
RT	29	22	15	1	0	7	6
SDS	10	10	0	3	2	0	5
TEF	15	13	3	1	2	2	7
TSPAI	58	35	10	2	9	23	14
USFIC	27	25 .	4	0	3	2	18
Total =	293	214	70	17	28	79	99

Total responses to be submitted to NRC for closure (remaining responses, partial responses, and AIN's) = 124





Recent and Near-Term Interactions

- **Technical Exchange Performance** May 3: 0 Indicators
- May 4: Quarterly Quality Assurance Meeting e
- May 5: Technical Exchange NRC's Technical • **Evaluation**
- May 12: Technical Exchange Items Important to 0 Safety
- To be scheduled: 0

 - Criticality
 - Igneous Survey
 - Aircraft Hazards
 - High-level Decision Plan Repository Design and Thermal **Mechanical Environment KTI Agreements**
 - Preclosure Seismic
 - Preclosure Safety Assessment
 - TSPA-LA





Summary

- On target to submit the LA in December 2004 ٢
- **NRC** Technical Evaluation 6
- **KTI** Agreement response schedule is a challenge 6
 - Analysis and model reports
 - All agreements are scheduled to be addressed by August 2004



