

PARSONS

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October 2, 1997
Docket No. 50-336
Parsons NUM2-PPNR-0632-L

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Millstone Nuclear Power Station Unit No. 2
Independent Corrective Action Verification Program (ICAVP)

Gentlemen:

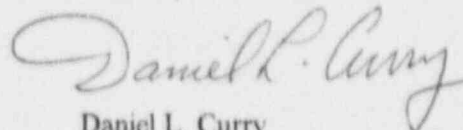
On September 23, 1997, Parsons Power Group Inc. (PPGI) participated in a publicly observed meeting with the U. S. Nuclear Regulatory Commission (NRC) and Northeast Nuclear Energy Company (NNECo). The meeting was held in the training center at the Millstone site. The primary purpose of the meeting was to discuss the status of the Millstone Unit 2 Independent Corrective Action Verification Program (ICAVP).

PPGI presented the Unit 2 project summary and provided the status of Tier 1, Tier 2 and Tier 3 activities. Key activities included in the project summary include:

- Tier 2 Critical Design Characteristics have been submitted to the NRC for approval
- Tier 3 sample populations have been approved by the NRC
- Target submittal date for the Unit 2 ICAVP Final Report is January 30, 1998

Enclosure 1 provides a list of primary participants in the meeting. Enclosure 2 provides the handout used by Parsons during the presentation

Sincerely,



Daniel L. Curry
Parsons ICAVP Project Director

DLC:djv
Attachment

cc: E. Imbro (2) - USNRC
H. Eichenholz - USNRC
R. Laudenat - NNECo
J. Fougere - NNECo
Rep. Terry Concannon - NEAC
Project Files

9710060100 971002
PDR ADDCK 05000336
P PDR



030098



PPNR0632.doc

Enclosure 1
List of Primary Participants

US Nuclear Regulatory Commission

Gene Imbro
Steve Reynolds
Wayne Lanning
Harold Eichenholz

Parsons Power Group Inc.

Dan Curry
Eric Blocher
John Hilbish
Rich Glaviano
Wayne Dobson
Michael Akins

Northeast Nuclear Energy Company

M. L. Bowling, Jr.
Patricia Loftus
Richard T. Laudénat
D. B. Amerine
Ray Necci
Joseph Fougere

Enclosure 2
Presentation Handout

Agenda

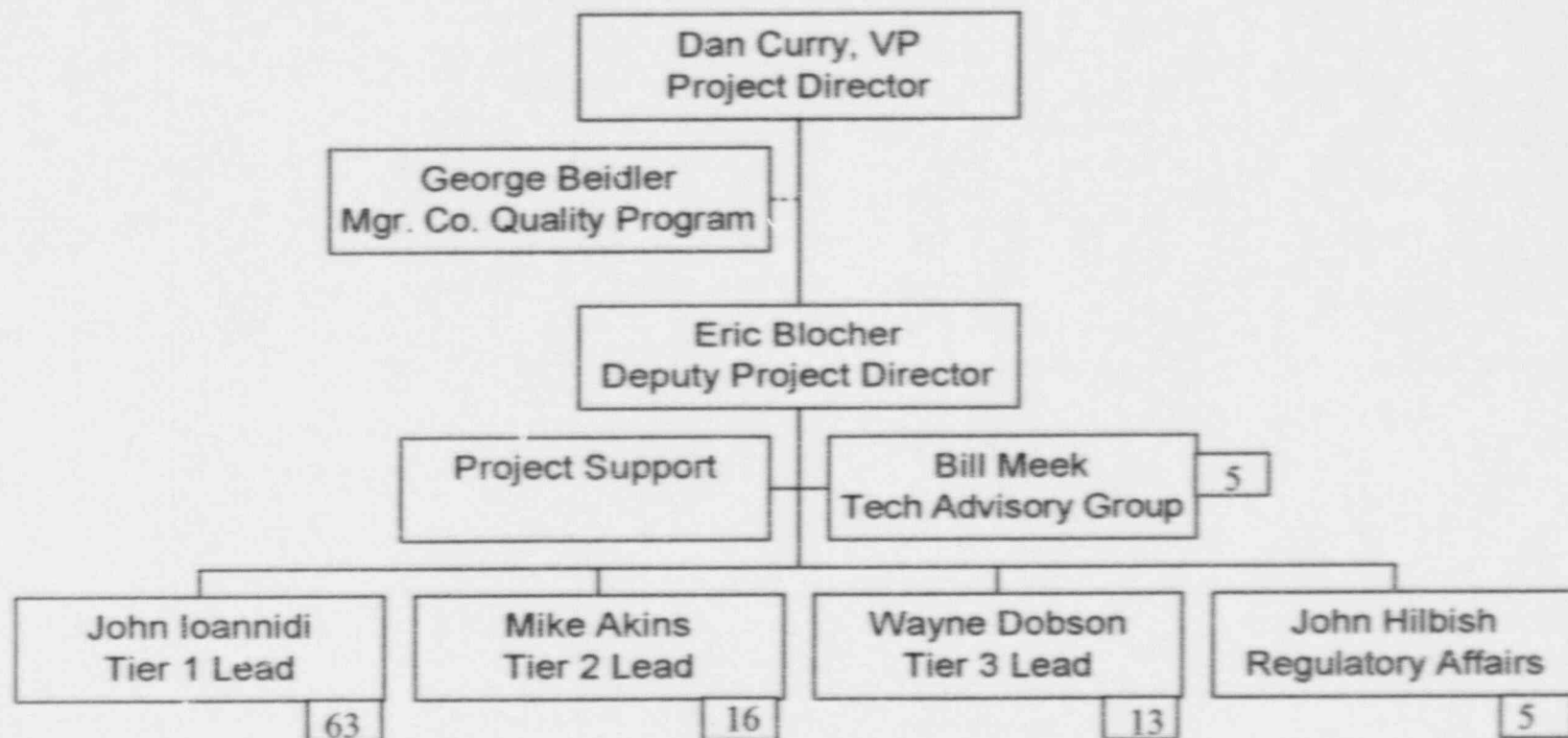
Millstone Unit 2 ICAVP

- ⊗ Project Summary - D. Curry
& Schedule
- ⊗ Status Tier 1 Activities - M. Akins
- ⊗ Status Tier 2 Activities - R. Glaviano
- ⊗ Status Tier 3 Activities - W. Dobson

Project Summary

- ⊗ Tier 1 Group 2 systems selected by NEAC
 - Emergency Diesel Generator & Support Systems
 - Radiological Release Control Systems
- ⊗ Tier 2 CDC have been presented to the NRC for approval (w/e of Radiological Release CDC)
- ⊗ Tier 3 Samples have been approved by the NRC
- ⊗ Initial NRC In-Process Review (05 Sep 97)
- ⊗ ICAVP Presentation to NEAC (18 Sep 97)
- ⊗ Target submittal date for Unit 2 ICAVP Final Report is January 30, 1998

Parsons ICAVP Team



Project Adjustments

- Daily RAI Clarification & Prioritization Call
- Bi-weekly Conference Call to discuss technical issues (NRC & NEAC Monitor)
- Information Retrieval Public Meeting (11 Sep 97)
- Assignment of Parsons Tier 1 - Group RAI Lead
- Use of Sampling Plans for selected Tier 1 Reviews

Project Schedule Milestones

- Tier 1 Group 2 Systems selected by NEAC 18 Sept 97
- Complete NRC In-Process Review 31 Oct 97
- Issue Tier 1 Group 1 Reports 24 Nov 97
- Issue Tier 2 Report 12 Dec 97
- Issue Tier 3 Report 12 Dec 97
- Issue Tier 1 Group 2 Reports 15 Jan 98
- Submit ICAVP Final Report 30 Jan 98

Requests For Additional Information

- 489 Issued
- 362 Completed
- 3,701 Documents Logged
- 127 Open (total)
- 66 + 9 partials Open (greater than one week)

Discrepancy Reports

- 63 Discrepancy Reports Initiated
- 49 Discrepancy Reports approved and issued to NNECo, NRC, NEAC
- 49 Discrepancy Reports posted on WWW
- 9 NU responses received to date
- 9 NU responses posted on WWW
- 3 Discrepancy considered invalid, issued, posted and closed
- 3 Comments to NU responses approved, issued and posted

Tier Status's

Tier 1 (SVSR) Review Process:

- Group 1 Design & Configuration Reviews in Progress
 - ❖ High Pressure Safety Injection (HPSI) with Refueling Water Storage Tank (RWST)
 - ❖ Auxiliary Feedwater (AFW) with Condensate Storage Tank
- System Boundary Process Identified All Functional System Interfaces and Uniquely identified each interface point
- System Review Workbook With 10 Checklists For Key Configuration Management Review Areas

Tier 1 (SVSR) Review Process:

- Functional Review of the Entire System and All Interfaces

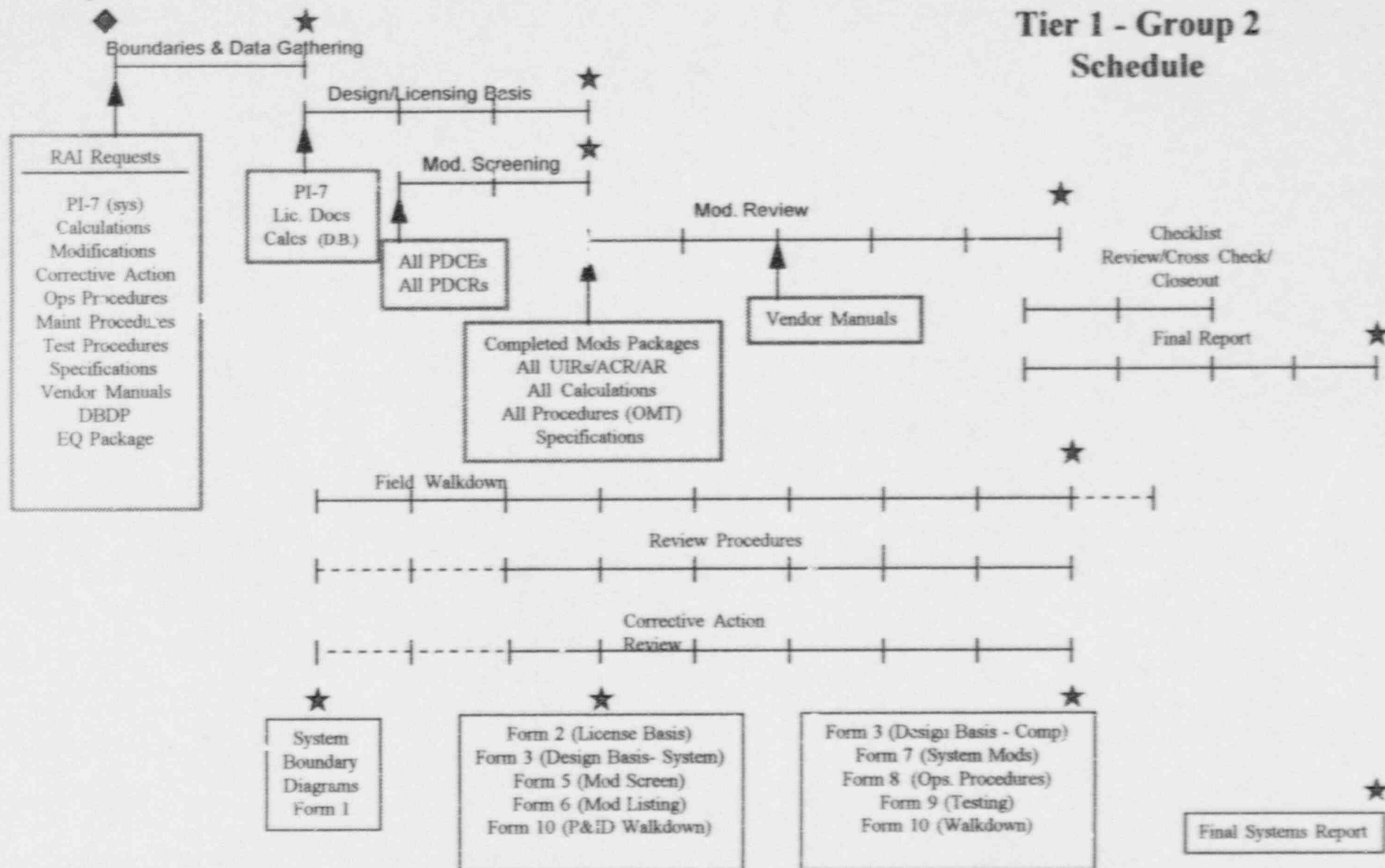
	<u>AFW</u>	<u>HPSI</u>
❖ Interfacing Systems	12	15
❖ System Interface Points	101	175
❖ Mod Packages Identified	~45	~30
❖ Regulatory Documents	24+45	30+45

Tier 1 (SVSR) Review Process

- Group 2 Systems selected by NEAC on September 18, 1997
- Emergency Diesel Generator and Support Systems
 - ❖ Emergency Diesel Generator
 - ❖ Emergency Diesel Generator Fuel Oil
 - ❖ 4160 Volt AC and Fast Bus Transfer
 - ❖ ESFAS (Emergency Diesel Load Sequencer only)
- Radiological Release Control Systems
 - ❖ Containment/Enclosure building Purge
 - ❖ Enclosure building Filtration
 - ❖ Enclosure Building (Control of post-LOCA radiological release)

Select Systems

Tier 1 - Group 2 Schedule



Tier 1 Checklists Items Status

Activity (PI-01 Form)	AFW Total Items/Questions	HPSI Total Items/Questions	% of Total Effort
Scope (Form 1)	1/-	1/-	2
Licensing (Form 2)	1/-	1/-	3
Systems (Form 3)			
System	1/85	1/90	8
Program	15/250	14/225	10
Component	167/5904	470/7492	24
Corrective Actions (Form 4)	80/800	157/1570	10
Mod Screening (Form 5)	45/765	29/319	3
Detailed Mod Review (Form 7)	35/2450	20/1400	15
Procedures (Form 8)	75/174	60/120	6
Testing (Form 9)	24/72	34/102	6
Walkdowns (Form 10)	19/-	19/-	8
Final Report	1	1	5

Tier 1- Group 1 Status

- NNECo Completes Group 1 Systems 30 June 97
- Group 1 System Identified
 - ❖ High Pressure Safety Injection 03 July 97
(HPSI) w/ RWST
 - ❖ Auxiliary Feedwater System w/ CST 08 July 97
- Boundary Review Meeting with NRC: 21/22 July 97
- Initiate HPSI & AFW System Reviews: 21 July 97
- Boundary Presentation to NNECo/Public 30 July 97
- NNECo CMP Complete (NNECo Date) 15 Sept 97
- Issue AFW & HPSI Reports 24 Nov 97

Tier 1- Group 2 Status

- Group 2 System Selected by NEAC 18 Sept 97
 - ❖ Emergency Diesel Generator System
 - ❖ Radiological Release Control Systems
- Boundary Review Meeting with NRC: (TBD)
- Initiate Group 2 System Reviews: 29 Sept 97
- Issue EDG & HVAC Reports 15 Jan 97

Tier 2 Review Process:

- ⊙ Review all FSAR Chapter 14 Analyses
 - ❖ 7 Event Categories
 - ❖ 29 individual events
(some with multiple analyses)
 - ❖ ~ 56 affected systems
 - ❖ ~ 300 “unique” components
- ⊙ Verify Active Component Critical Design Characteristics that must exist to support the Chapter 14 Analyses

Tier 2 Status

- Initial Information Retrieval
 - Siemens & ABB-CE Calculations (11 Sep 97)
 - NNECO Test & Performance Data (28 Aug 97)
 - Documented Design Calculations (10 Oct 97)
- Review of Chapter 14 Accident Analysis and Design Basis Calculations (NSSS & NNECO) in Progress
- Enhanced Review Efforts for As-Documented and Validation Reviews

Tier 2 Status

- Tier 2 “Checklist” identifies CDCs for review based on:
 - ❖ Using System Boundary Diagrams for Major Component Functions
 - ❖ Safety Function Diagrams (relates Component Function to Design Bases Events)
- Identify and Submit to NRC System CDCs for Review
 - ❖ Overcooling (5): 18 July 97
 - ❖ Reactor Coolant Pressure Boundary (6) 05 Aug 97
 - ❖ Radiological, Reactivity & Plant Transients (12) 25 Aug 97
 - ❖ Radiological Release (6) 29 Sep 97
- Final Report Tier 2 12 Dec 97

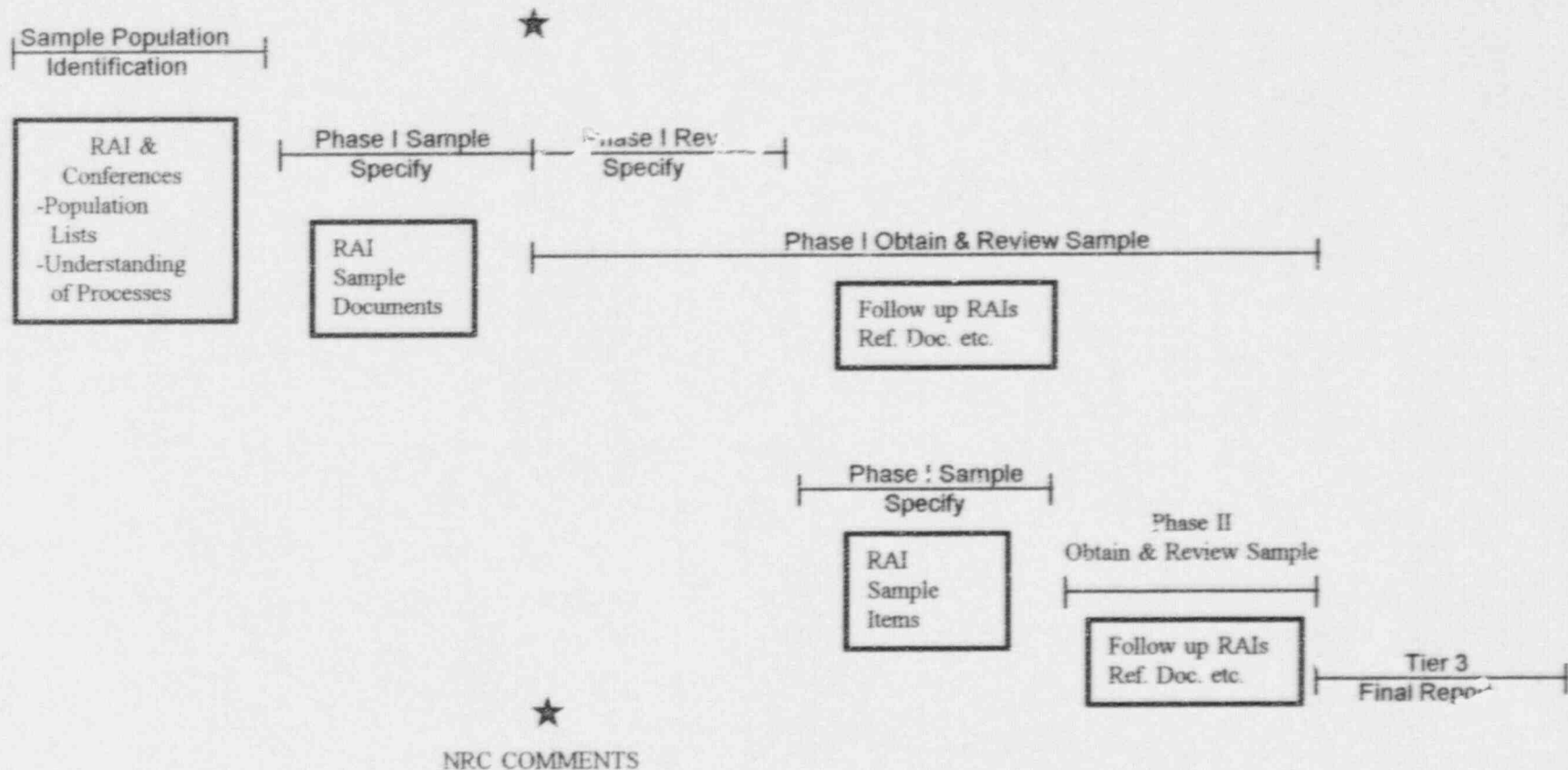
Tier 3 Review Process:

- Assess adequacy of CMP to identify & correct past change process configuration management deficiencies
- NRC Approved Sample Criteria - 8/26/97
- Inspection Areas Categorized into 3 Functional Groups

Tier 3 Review Process

Functional Groups	Sample Number
Engineering	309
Parts Dedication / Substitution	96
Operations & Maintenance	115
Total	520

Tier 3 Summary Schedule Logic



Tier 3 Inspection Areas

⦿ Engineering

- ❖ Setpoint Changes
- ❖ Specification Revisions
- ❖ Drawing Revisions
- ❖ Calculation Revisions
- ❖ Licensing Document Changes
- ❖ Non-Conformance Report (use as is)
- ❖ Engineering Work Request
- ❖ Vendor Technical Information Updates
- ❖ CMP Corrective Actions (applicable to sample)

Tier 3 Inspection Areas - Status

Engineering/Licensing Documents	Sample Number	Items			RAI
		Selected	Obtained	Reviewed	
Setpoint Changes	80	47			RAI-388 & 389 (9/5), 419 (9/9) <i>have</i>
Specification Revisions	32	4	4		RAI-443 (9/16) <i>open</i>
Drawing Revisions	32	16			RAI-443 (9/16) <i>open</i>
Calculation Revisions	64	27			RAI-390 (9/5), 412 (9/8) <i>open</i>
Licensing Document Changes	25	17	17		RAI-413 (9/9) <i>closed</i>
Non-conformance Reports, (NCR)	32	32	21		2 RAI-429, 430, 431 (9/11) <i>?</i>
Engineering Work Request, (EWR)	32				RAI-373, 374, 375 (9/4) <i>?</i>
Vendor Technical Information	12	12			RAI-344-358 (9/3), 387 (9/5)
Subtotal	309	155	42	2	

Tier 3 Inspection Areas

- ⊗ Parts Procurement, Substitution, Dedication

- ❖ Equivalency Substitution
- ❖ Commercial Grade Dedication
- ❖ MEPL Safety Classification Changes
- ❖ CMP Corrective Actions (as applicable to sample)

Tier 3 Inspection Areas - Status

Parts Procure, Substitution, Dedication	Sample Number	Items			RAI
		Selected	Obtained	Reviewed	
Commercial Grade Dedication	32	50	50		9/17 info received
Equivalency Substitutions	32	25	25		9/17 info received
MEPL safety classification changes	32				RAI 497 (9/22)
Subtotal	96	75	75	0	

Tier 3 Inspection Areas

☼ Operations & Maintenance

- ❖ Revision to O&M procedures
- ❖ Conduct of O&M
- ❖ Surveillance Testing
- ❖ ISI/IST, ASME Section IX repair and replacement
- ❖ Temporary Changes, including jumpers, lifted leads, and bypass control
- ❖ Emergency Changes
- ❖ CMP Corrective Actions (applicable to sample)

Tier 3 Inspection Areas - Status

Operations and Maintenance	Sample Number	Items			RAI
		Selected	Obtained	Reviewed	
Operation Procedures	10	6			RAI-462 (9/15)
Abnormal Ops	10	2			RAI-462 (9/15)
EOP	10				RAI-462 (9/15)
Surveillance Procedures	10	15			RAI-462 (9/15)
IST Procedures	10				RAI to be issued 9/24
ISI Procedures	10				RAI-471 (9/17)
Maint. Procedures	10	10			RAI-462 (9/15)
ASME Section XI Repair/Replace	20				RAI-426 (9/11)
Temp Changes/Jumper, Lifted Lead, Bypass	5	27	27		
Temp Changes/Jumper, Lifted Lead, Bypass	20	20			RAI-461 (9/15)
Subtotal	115	80	27	0	

Tier 3 Status

- ⊗ Process review to be performed in two phases based on NNECo CMP Systems Completion
- ⊗ Schedule Dates:
 - ❖ Sample Submitted for NRC Approval 25 July 97
 - ❖ NRC Approved Sample Plan 26 Aug 97
 - ❖ Request Phase 2 Sample Documents 10 Oct 97
 - ❖ Issue Tier 3 Final Report 12 Dec 97

Questions & Answers