

Calvert Cliffs
Implementation of Common Q System
Partial Replacement of PAMS
March 21, 2002



Constellation
Nuclear

Calvert Cliffs
Nuclear Power Plant

1

Enclosure 2

Agenda

- Introductions
- Describe expected outcomes of meeting
- Describe the CCNPP Implementation of Common Q PAMS
- Discuss the schedule
- Questions
- Conclusions



Expected Outcomes

- Understanding of CCNPP approach to resolve Plant Specific Action Items
- Clarification of CCNPP licensing approach for PAMS Digital Upgrade



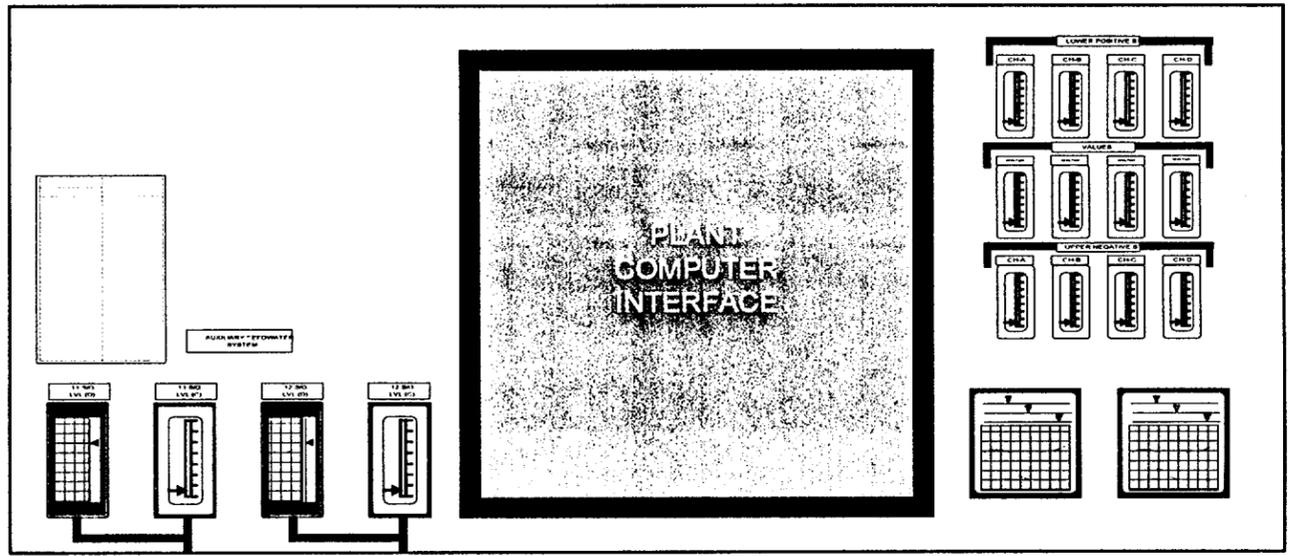
CCNPP Project Scope

- Reactor Vessel Level Monitoring System (RVLMS) processors, indicators and recorders.
- Sub-Cooled Margin Monitor (SCMM) processors, indicators and recorders.
- Core Exit Thermocouples (CET) indicators and recorders.
- RCS temperature/pressure and steam generator level indicators and recorders.

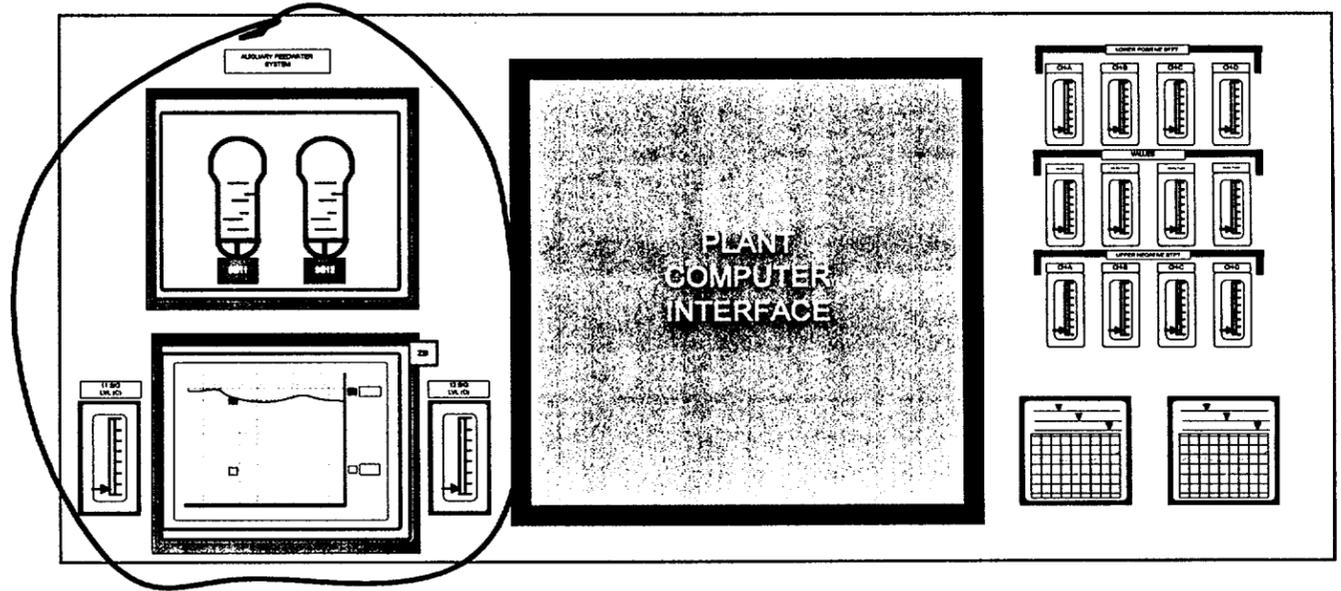


1C04 Panel, AFW and Feedwater Control Board

Before

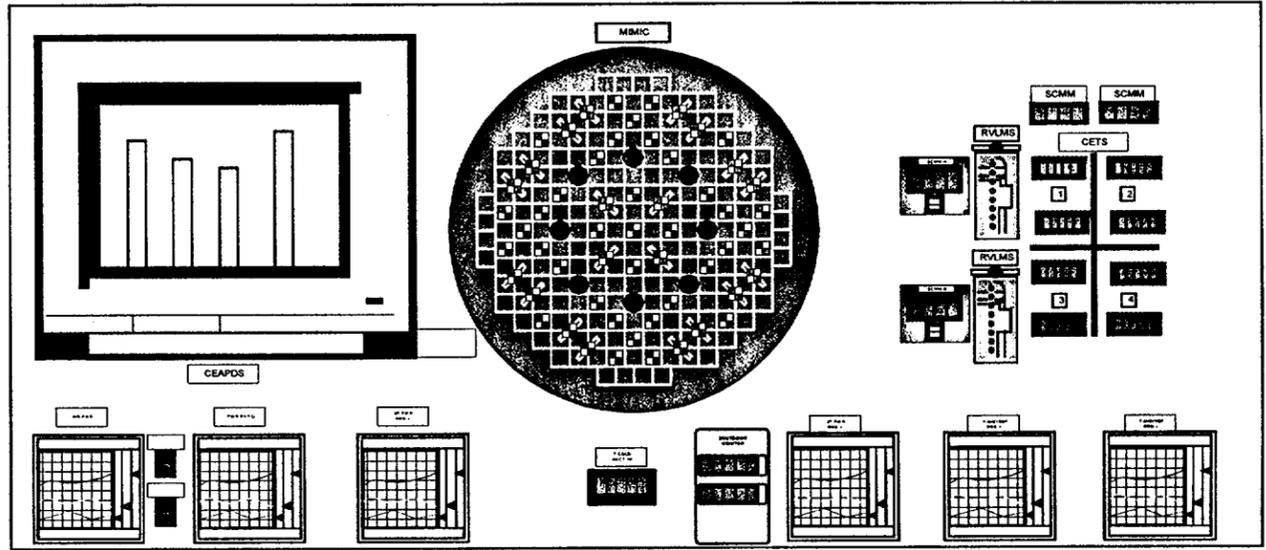


After

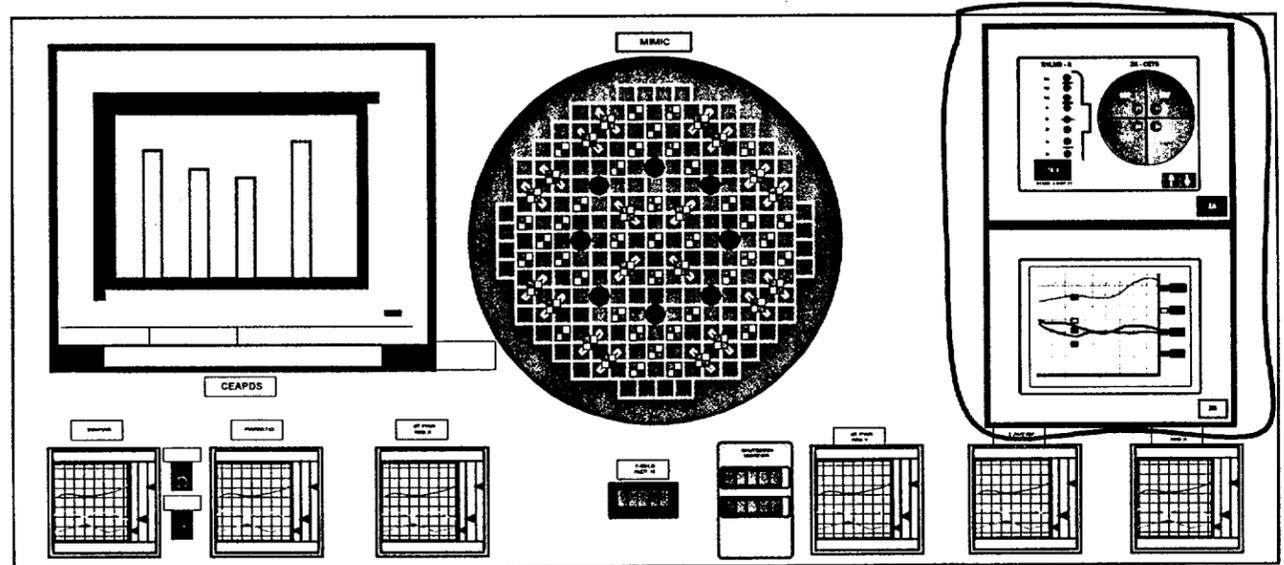


1C05 Panel, Reactivity Control Board

Before

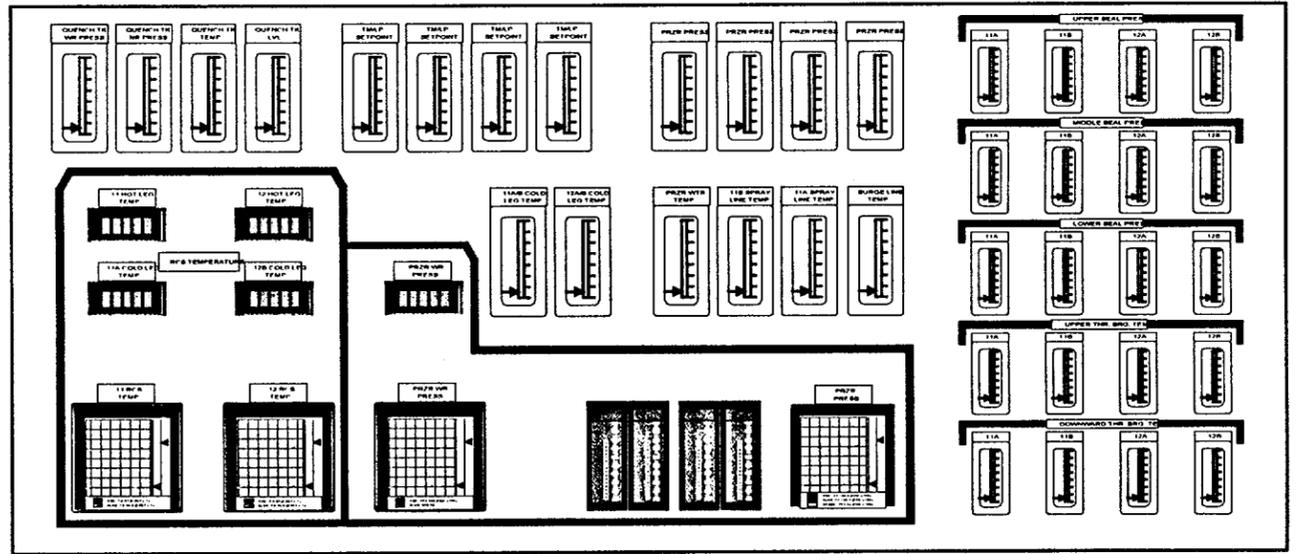


After

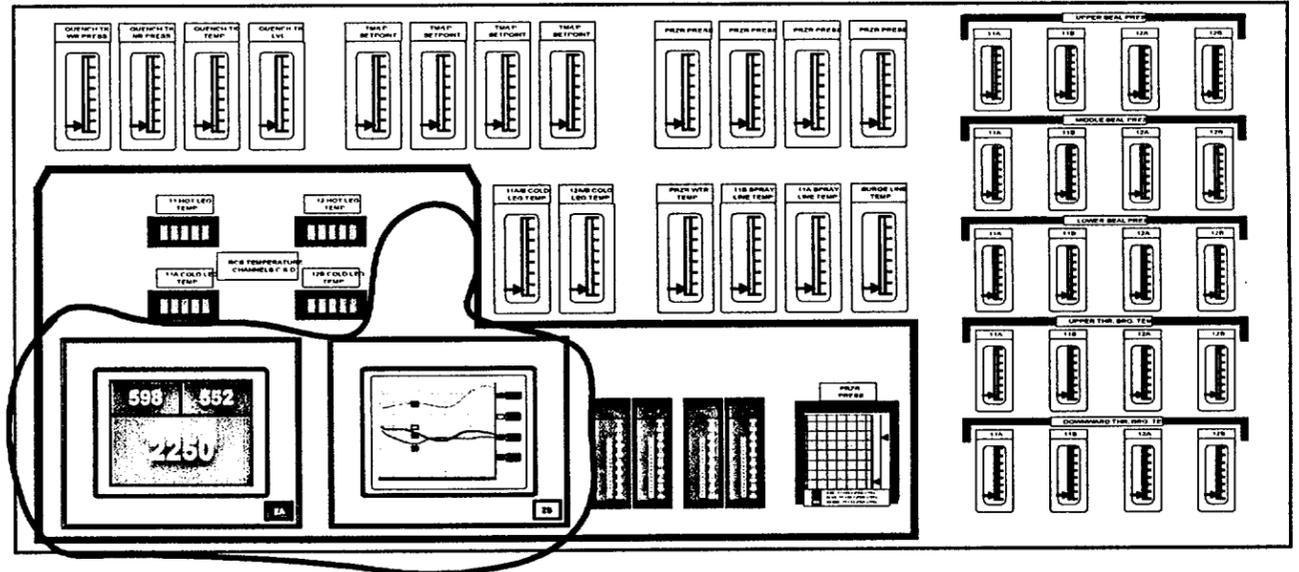


1C06 Panel, Reactor Coolant Control System

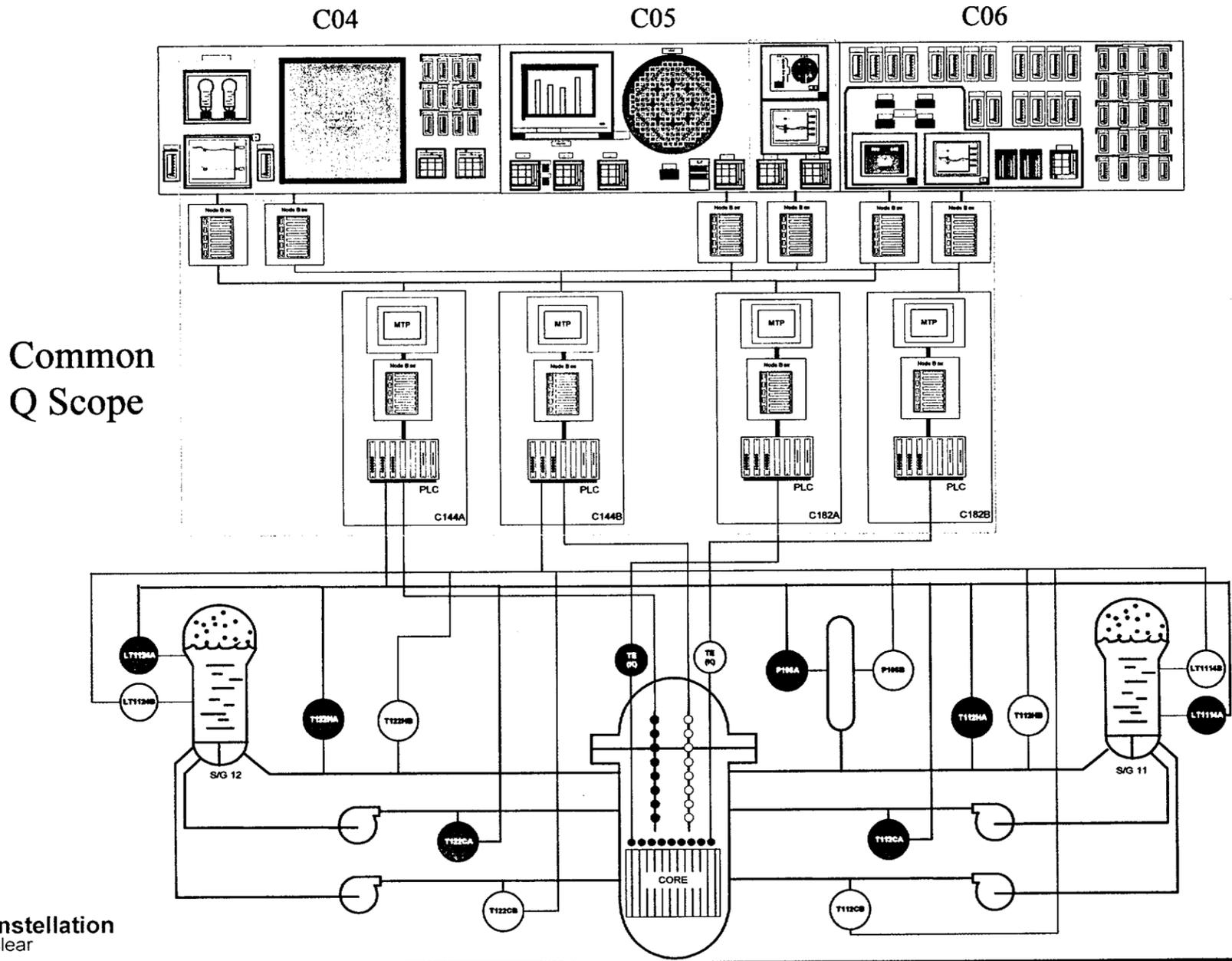
Before



After



PAMS Scope



Plant Modification Process

Engineering Services Package: EN-1-100

- Addresses ANSI N45.2.11 Design Requirements
- Contains the engineering analysis of proposed changes and justifies the technical and regulatory acceptability.
- Done in accordance with site Engineering Standards
- Will address Plant Specific Action Items



How will Plant Specific Action Items be addressed?

- Items not applicable to CCNPP project
 - 6.2 Alternate FPDS
 - 6.12 DPPS response time
 - 6.13 Software specifics for integrated system
- Item resolved generically Common Q
 - 6.3 FPDS concern/limitations



How will Plant Specific Action Items be addressed?

- Items to be resolved via plant modification process
 - 6.1 Application of HW
 - 6.4 Environmental
 - 6.5 Software
 - 6.6 Accuracy/Response Time
 - 6.7 HFE
 - 6.8 Functionality
 - 6.9 Automatic Features
 - 6.10 Failure Modes
 - 6.11 Diversity



Licensing Approach

Licensing Amendment or 50.59?

- PAM (indication only)
- No Technical Specification Changes
- EPRI TR-102348, Rev.1

(Guideline on Licensing Digital Upgrades)



Application of 50.59 Process

- Pre-qualified Common Q platform
- NEI 01-01/EPRI TR-102348 Rev. 1
- No Adverse Effects on interfacing SSCs
- HFE changes and Digital Upgrade treated as adverse and screened in
 - No active controls. Information to Operators equal or greater
 - Common Q operating history
 - Software development/configuration management process



Implementation Schedule

- 4/2002: Westinghouse closeout submittal for Common Q Open Items
- 10/2002: NRC SER Common Q closeout?
- 2/2003: Implement Unit 2 (RFO)
- 3/2004: Implement Unit 1 (RFO)



Defense-in-Depth and Diversity

- Diversity Evaluation will be performed
 - ANSI N45.2.11 requires diversity evaluation
 - EPRI TR-102348, Rev. 1
 - Standard Review Plan

Questions



Constellation
Nuclear

Calvert Cliffs
Nuclear Power Plant

Conclusions

- No Technical Specification changes are required.
- CCNPP PAM implementation of Common Q can be performed under the 50.59 process.

No License Amendment is needed.

