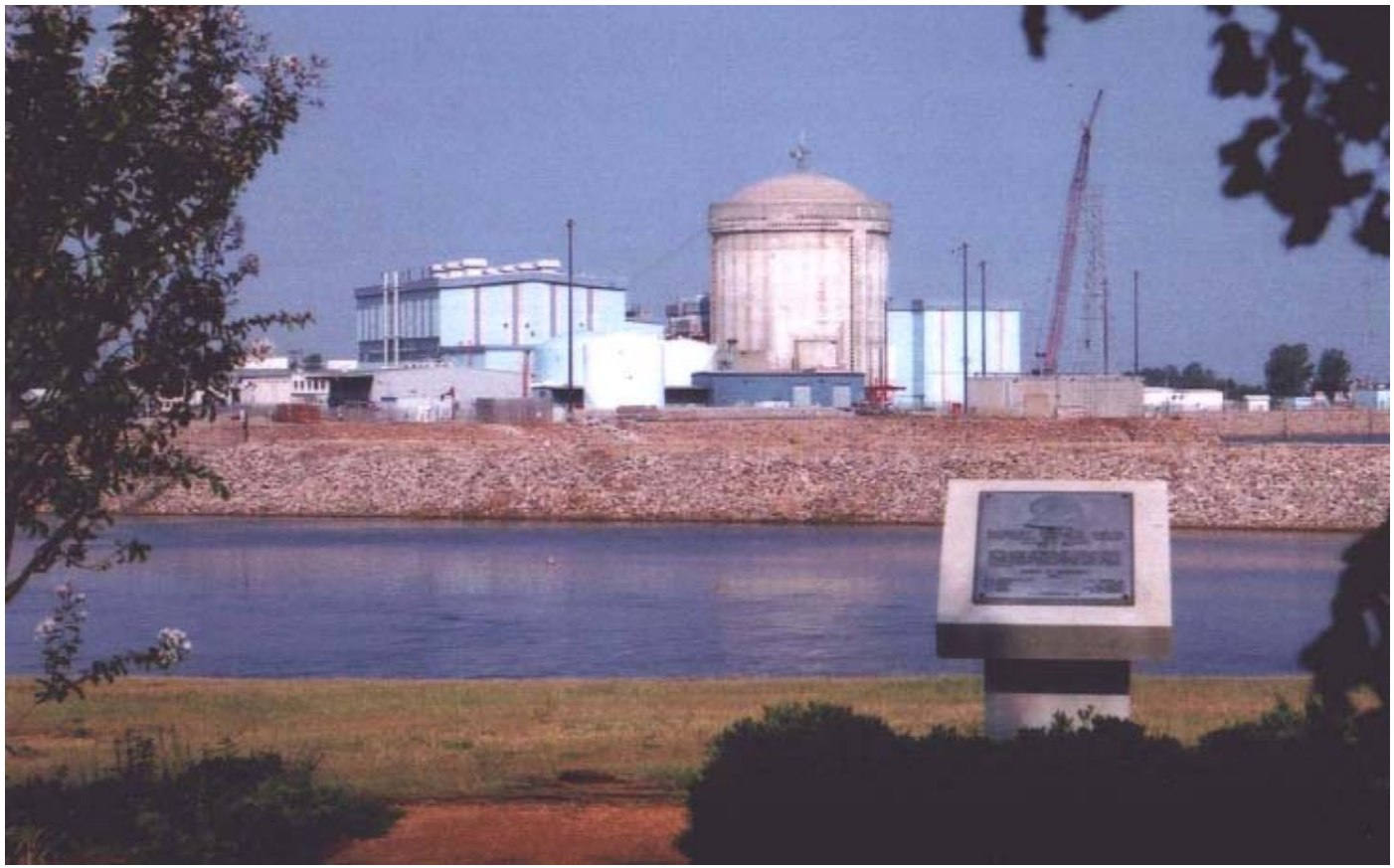
V. C. Summer Nuclear Station



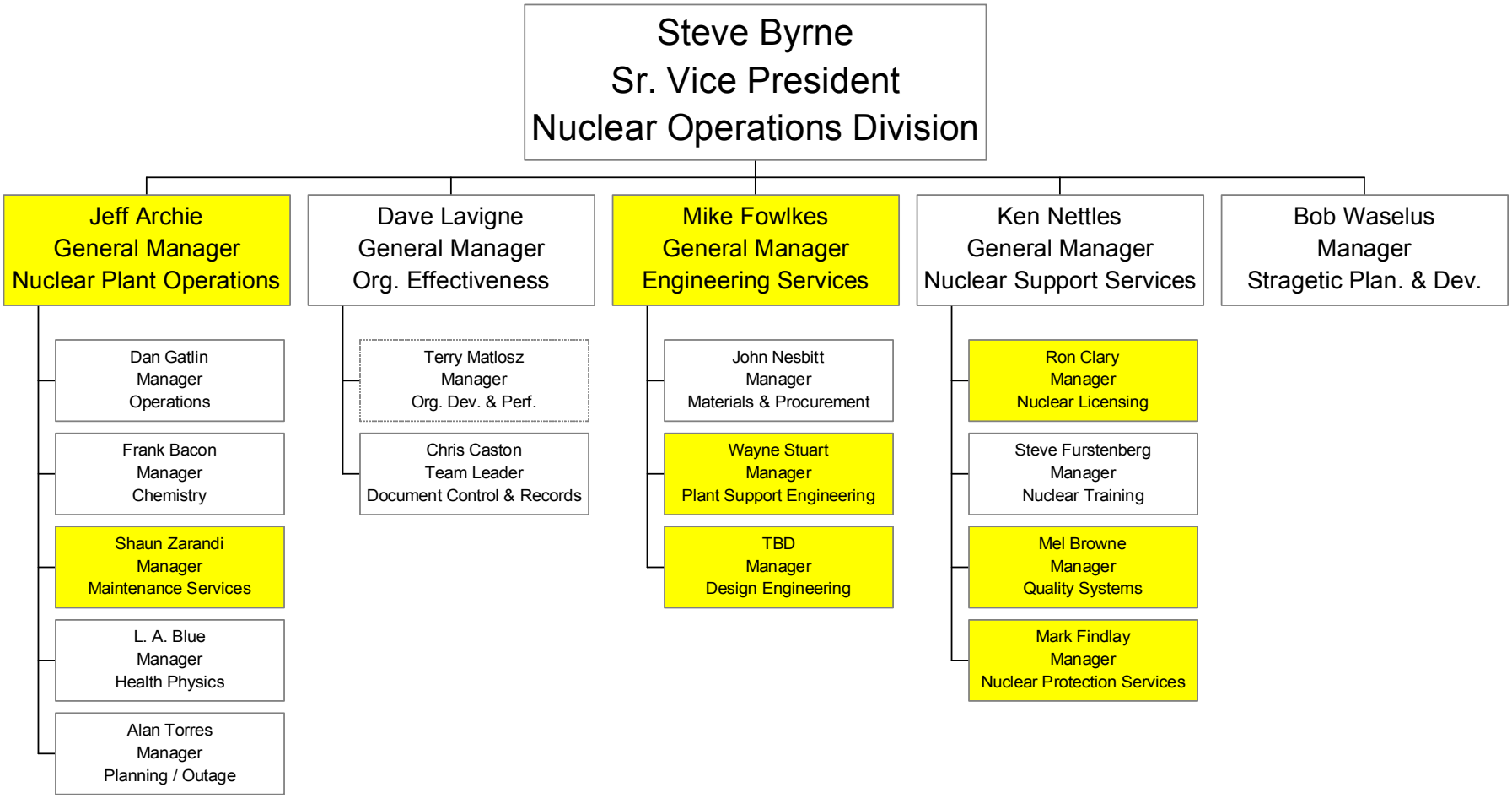
VCS Participants

Steve Byrne	Senior VP, Nuclear Operations
Jeff Archie	General Manager, Nuclear Plant Operations
Mike Fowlkes	General Manager, Engineering Services
Ron Clary	Manager, Nuclear Licensing
Alan Torres	Outage Manager
Jerry Weatherford	RHR Retrofit Project Lead

Agenda

• VCS Organization Changes	Steve Byrne
• RF-14	Alan Torres
• Reactor Vessel ISI	Ron Clary
• RHR Pump	Jerry Weatherford

V. C. Summer Nuclear Station
Management Organizational Changes



Organizational Development & Performance

- Human Performance
- Corrective Action Program
- Root Cause Analysis
- Operating Experience
- Trend Analysis
- Self Assessments
- Benchmarking

Refuel -14

General Overview

Refuel-14 Goals

- Our Number 1 Goal
  - Safety
    - Nuclear
    - Radiological
    - Industrial
- Duration - 36 days
- Dose goal - To be determined after source term
- Emphasize human performance

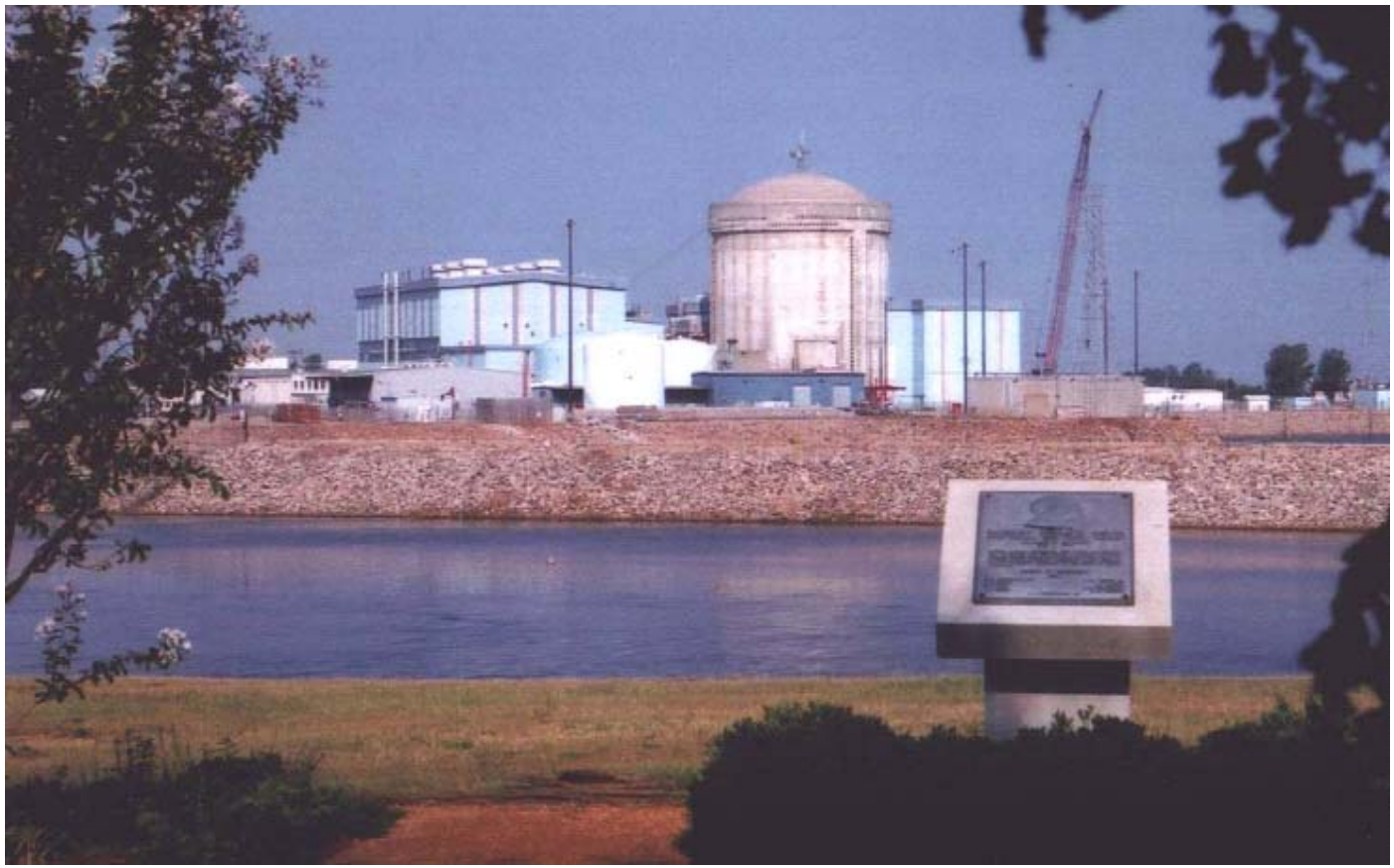
Refuel-14 Modifications

- Modifications
  - RHR pump seal
  - Complete RHR miniflow switch relocation
  - RHR vent addition
  - CW pump trip circuitry
  - Feedwater heater level transmitter logic change
  - Gravity boration flow path
- PRA review indicates no change in CDF

Major Work Activities

- Reactor Vessel
  - Ten Year ISI
  - Bare metal visual inspections – Head/BMI
- Low pressure turbine maintenance
- ILRT of the Reactor Building
- “A” Train electrical maintenance
- “B” CCW heat exchanger repair and coating
- “C” RCP
  - Seal replacement
  - Motor replacement

V. C. Summer Nuclear Station



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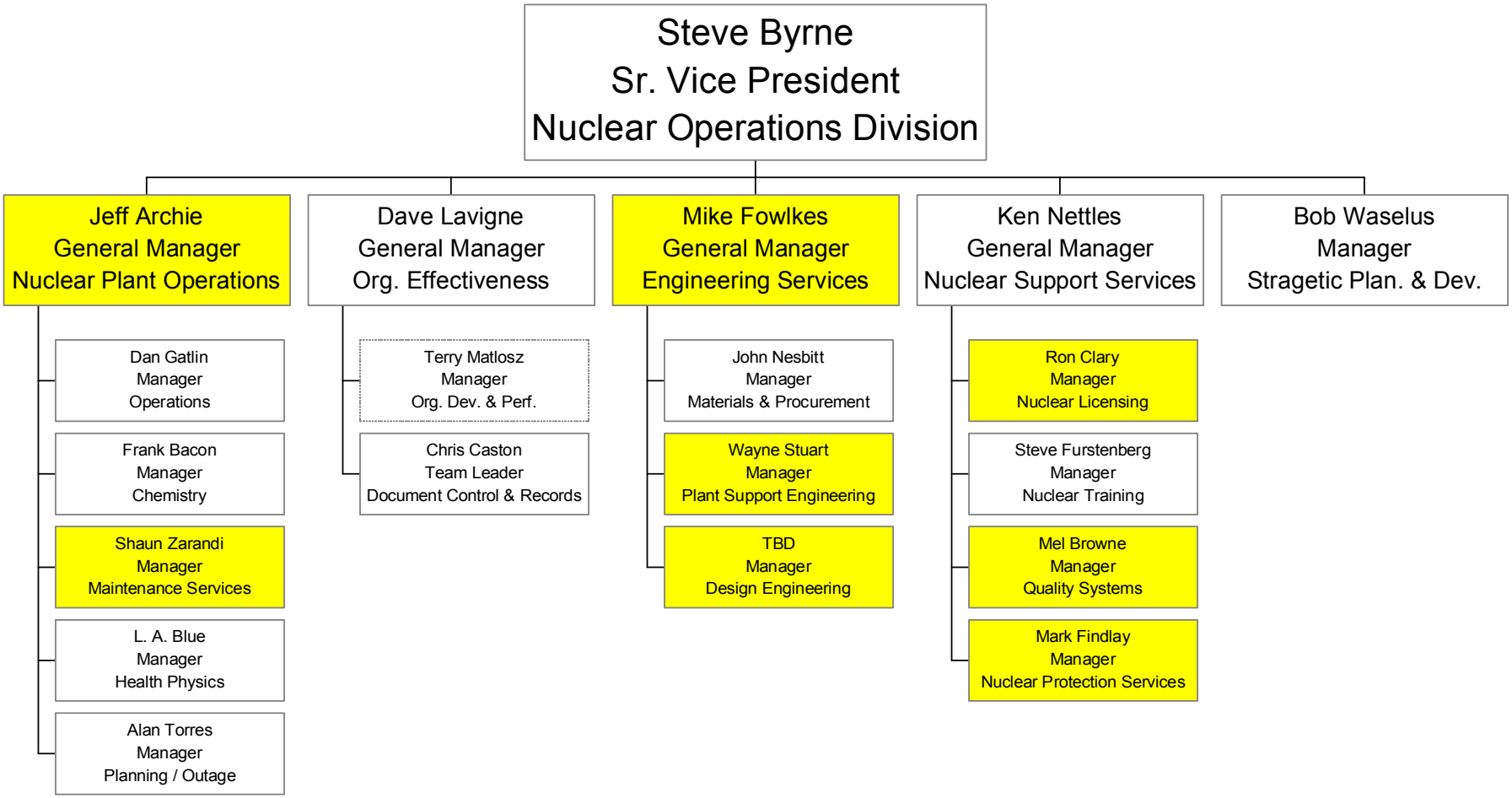

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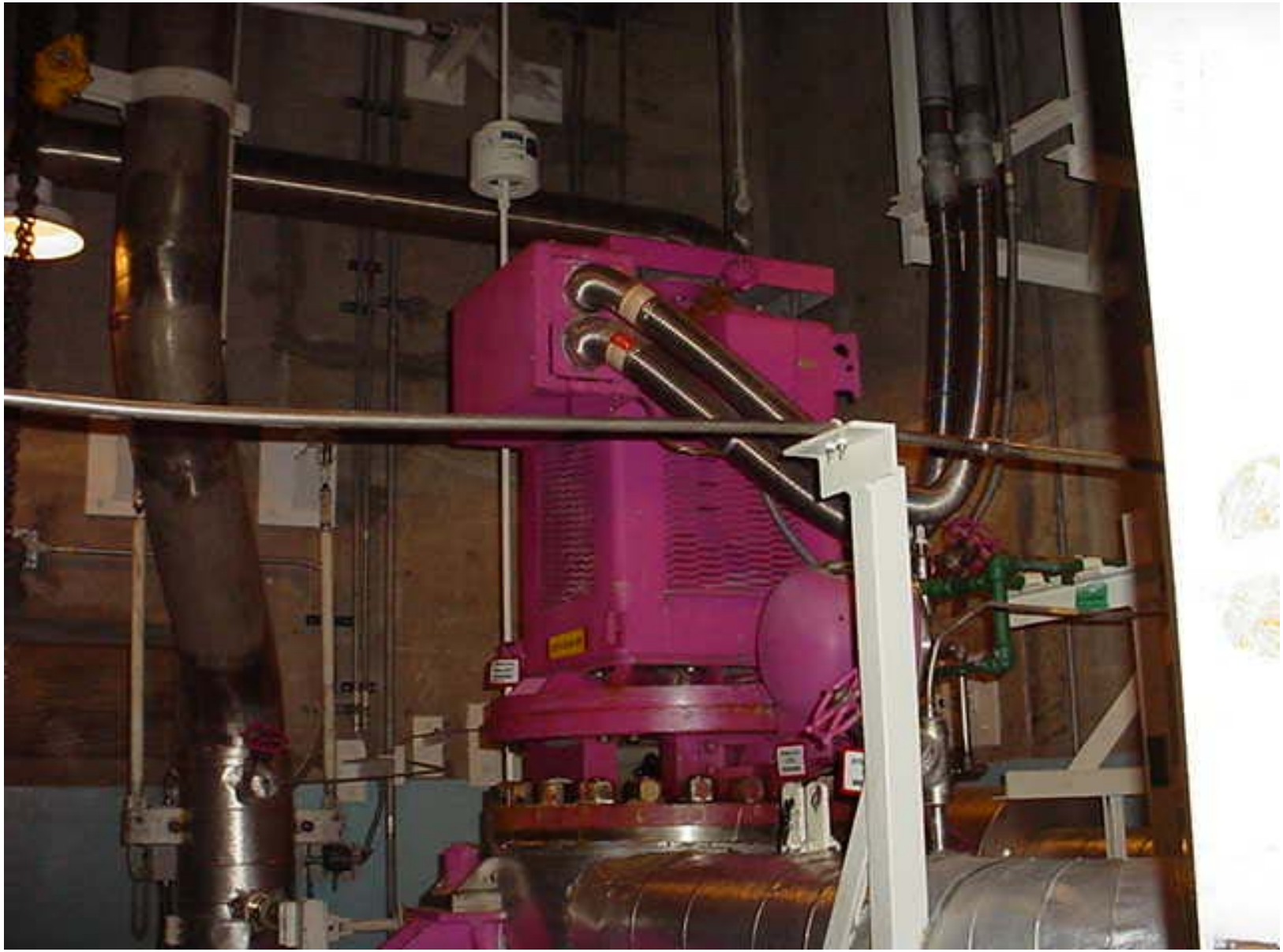
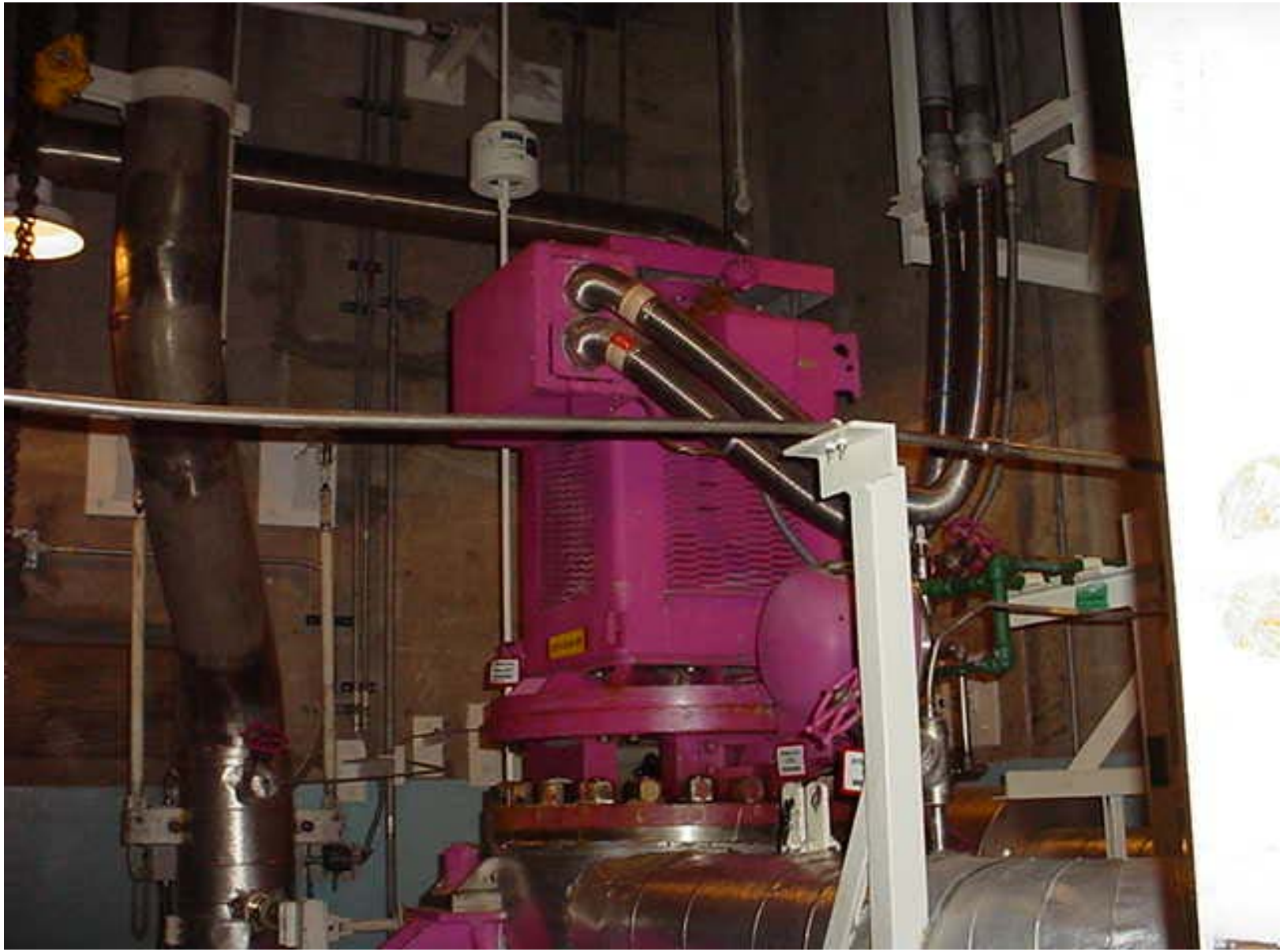
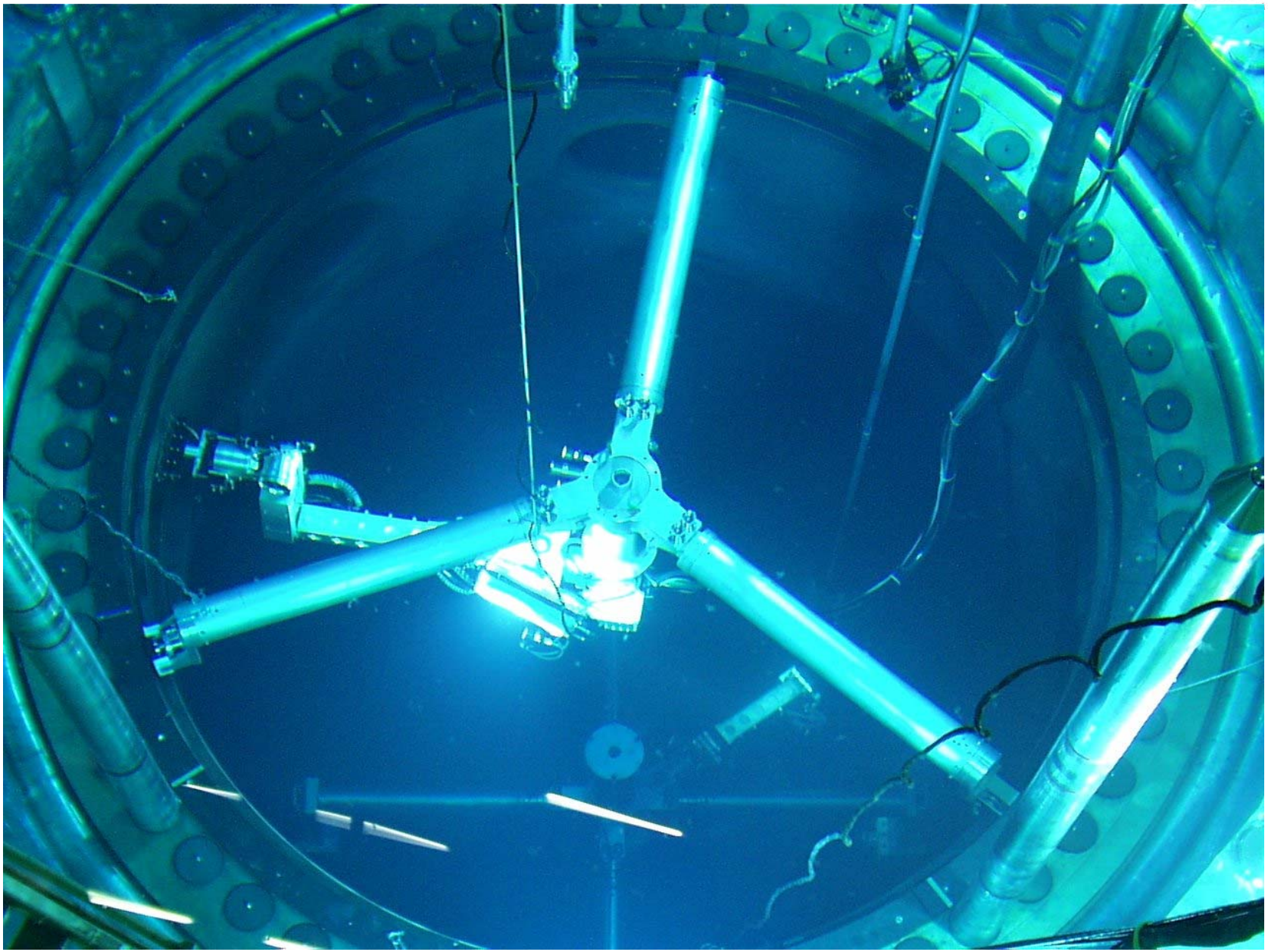







DANGER
CONFINED SPACE
ENTER BY
PERMIT ONLY
XHE0002B-CC

Outage Challenges

- ILRT
- Finding the fuel leak
- Coating the “B” CCW heat exchanger
- Timing of inspection of bottom of Reactor Vessel

Reactor Vessel Nozzle Weld Inspections

ISI Interval Information

- V. C. Summer currently in 2nd ISI Interval
  - January 1, 1994 through December 31, 2003
  - RF-14 scheduled October 11 through November 15, 2003
- 10 year ISI
    - Reactor Vessel *
    - Cold Legs*
    - Hot Legs

* Core barrel must be removed to perform

Wesdyne PDI Qualification Results

- Fully qualified for detection and length sizing of circumferential flaws
- Procedure limitation in the detection of axial flaws
- Limited qualifications for depth sizing of flaws
  - Demonstrated to size within 7.38 % RMSP of the wall thickness at the location of the flaw

RV Nozzle Examinations

- UT
  - Circumferential and axial directions
- ET
- Remote Enhanced Visual
- Surface Profile Mapping

DM Weld Flaw Measurement Plan

Detected Circ Flaw

Length Size – UT

Depth Size – UT

Difference between actual vendor RMS sizing error and 0.125” RMS will be added to the through-wall size before assessment.

Detected Axial Flaw

Length Size – ET

First Option **-** UT

Difference between actual vendor RMS sizing error and 0.125” RMS will be added to the through-wall size before assessment.

Second Option –

Conservative depth assumption based on ET measured length if not detected by UT.

Loop	Leg	RF-12 Circ. Location/ Orientation	RF-12 Length (Eddy Current)	RF-13 Length (Eddy Current)	RF-13 UT Length / Depth
A	Cold (N335)	326/circ.	0.5”		
B	Hot (N265)	35/circ.	0.6”	0.5”	
		200.8/axial**	0.25”	0.5” *	0.625” / 0.317”
		348/axial	0.25”	0.25”	
B	Cold (N215)	No Indications			
C	Hot (N145)	309/circ.**	0.5”	0.5”	0.375” / 0.11”
C	Cold (N95)	200/circ.	0.5”		

* Attributed to improved detection and sizing capability

** Indications also defined by UT examination. Evaluated and accepted to IWB 3600.

NRR Identified the Following Expectations for RF-14 at the September 10 Meeting

RF-14 Inspection Expectations

- Identify and characterize the previously identified indications
- If all previously identified indications are not found – then supplemental NDE must be performed
- Discuss actual inspection results with NRR

Future Outage Inspections

- If the results demonstrate no crack growth:
  - Restart without the need for further (beyond RF-14) NRC staff approval
  - Complete three successive examinations of the welds in accordance with ASME Code requirements
  - Provide highlighted reference in cover letter of 90 day ISI report on Hot Leg exam results

Future NDE

- Results of RF-14 examinations will drive NRC staff's expectations for future NDE
  - Demonstration that current examination methods accurately characterize indications (may not need supplemental NDE)
  - Surface indication results show "not a flaw" (may not need supplement NDE)
  - Inconclusive surface indication results (may need supplement NDE)

If the Results Reveal Crack Growth

- Staff evaluation is required
- If the condition is safe for the duration of the next outage, then the licensee will be allowed to restart for one cycle, subject to new inspection requirements

Conclusions

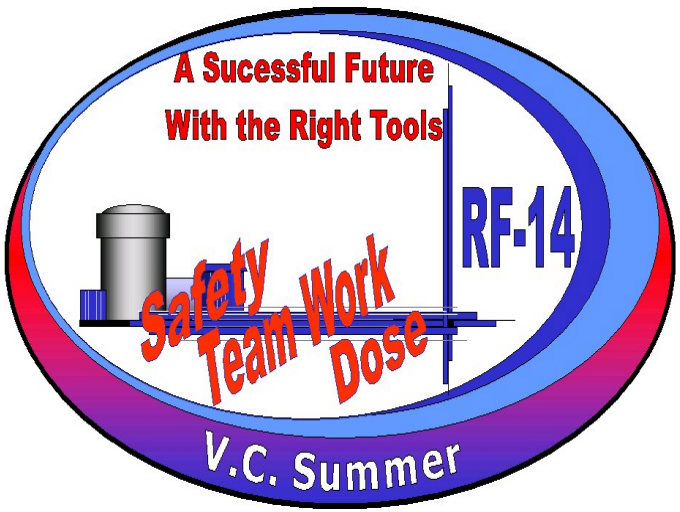
- VC Summer and NRR agreed at the 9-10-03 meeting that the direction being taken by VC Summer in RF-14 is appropriate.

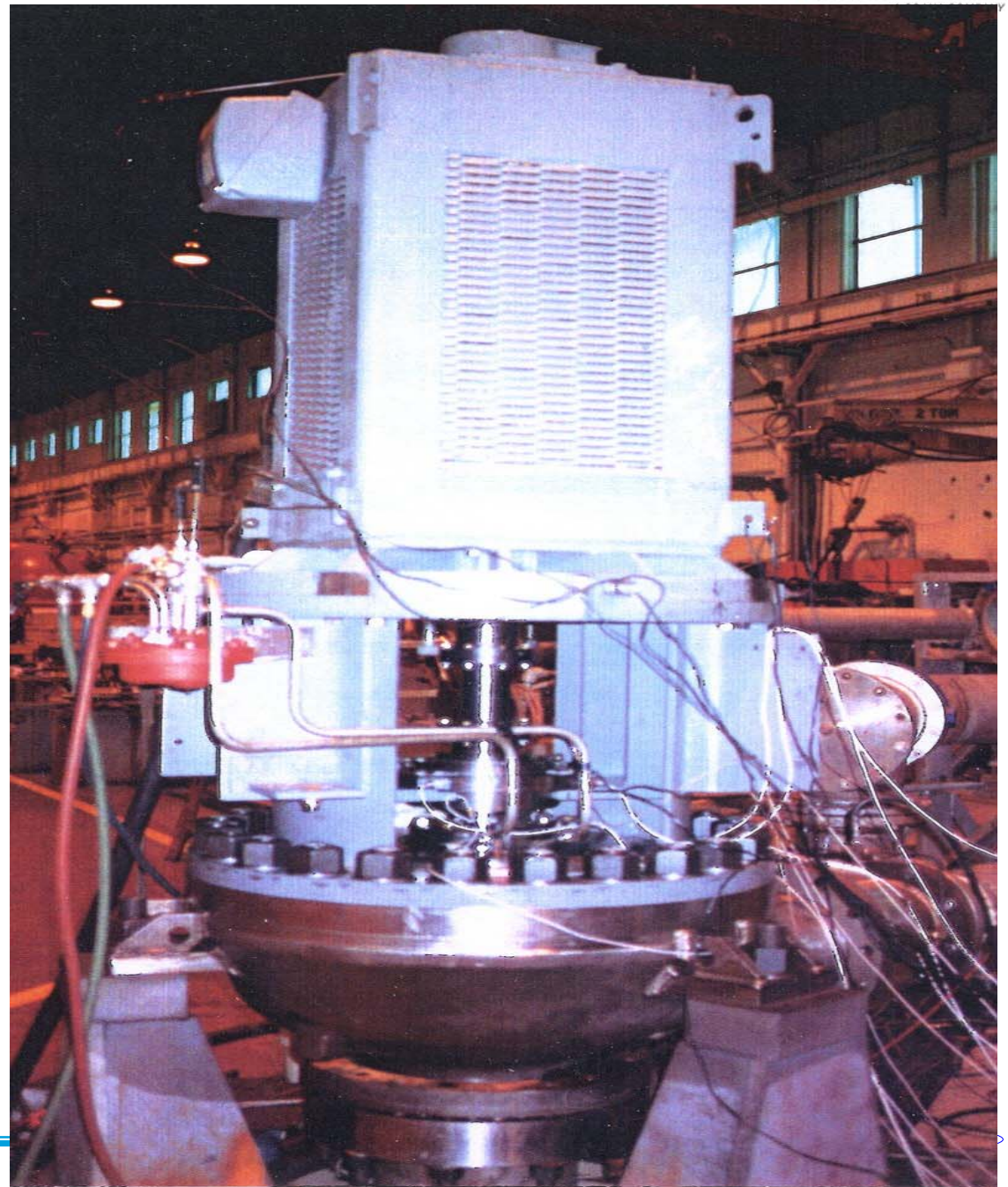
RF-14 RHR Retro Fit Modification

VC SUMMER

Westinghouse

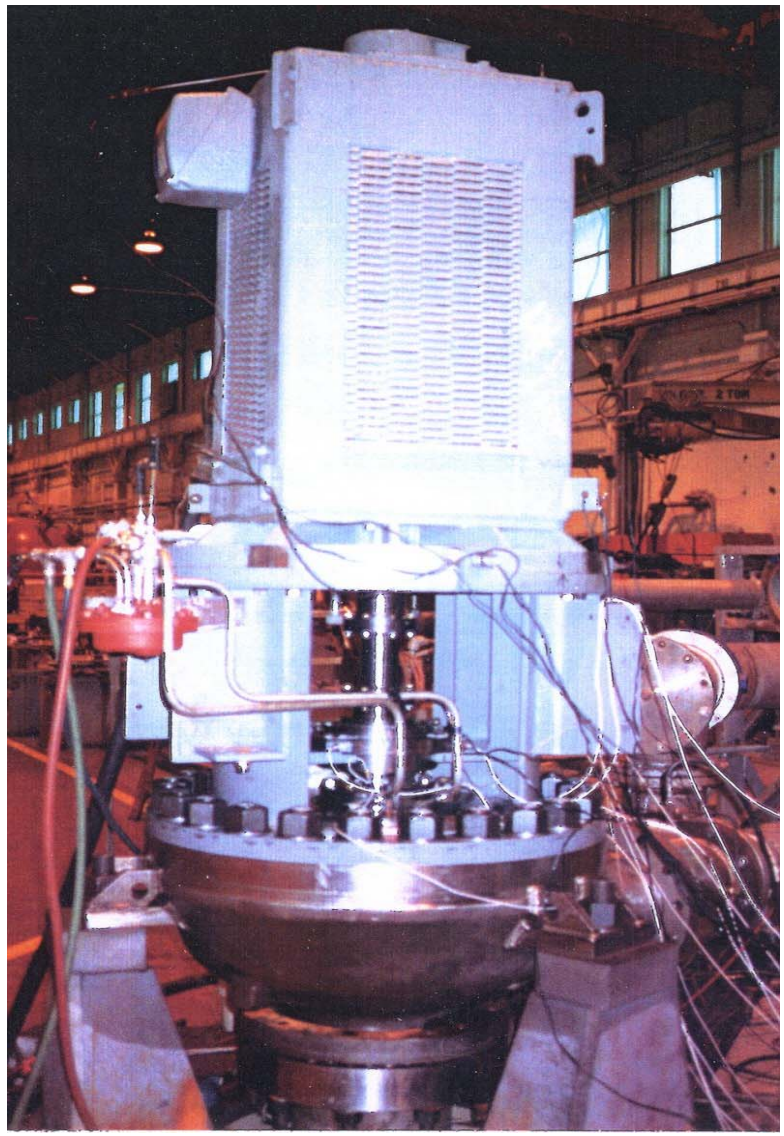
FlowServe



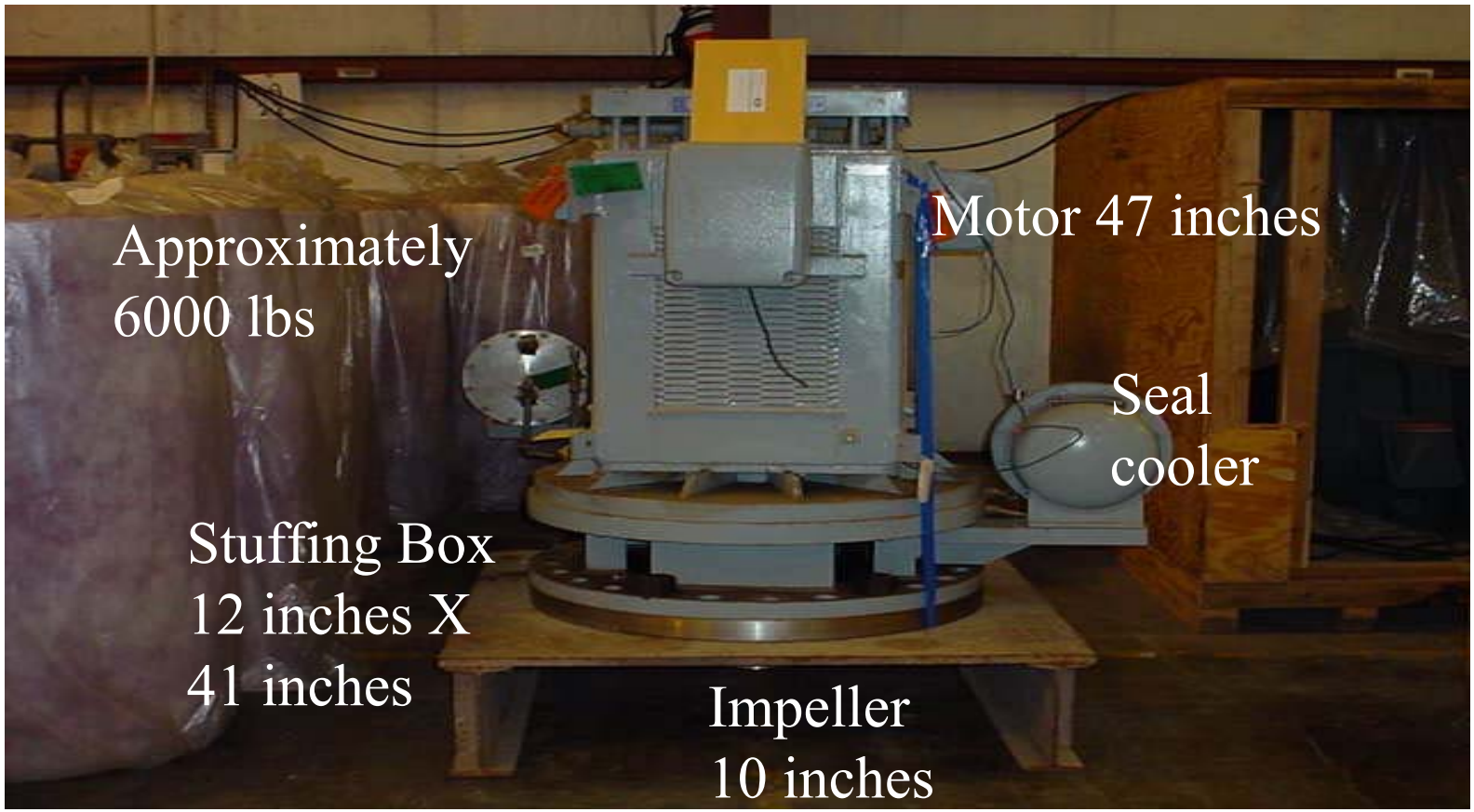


Brief Overview of RHR Project

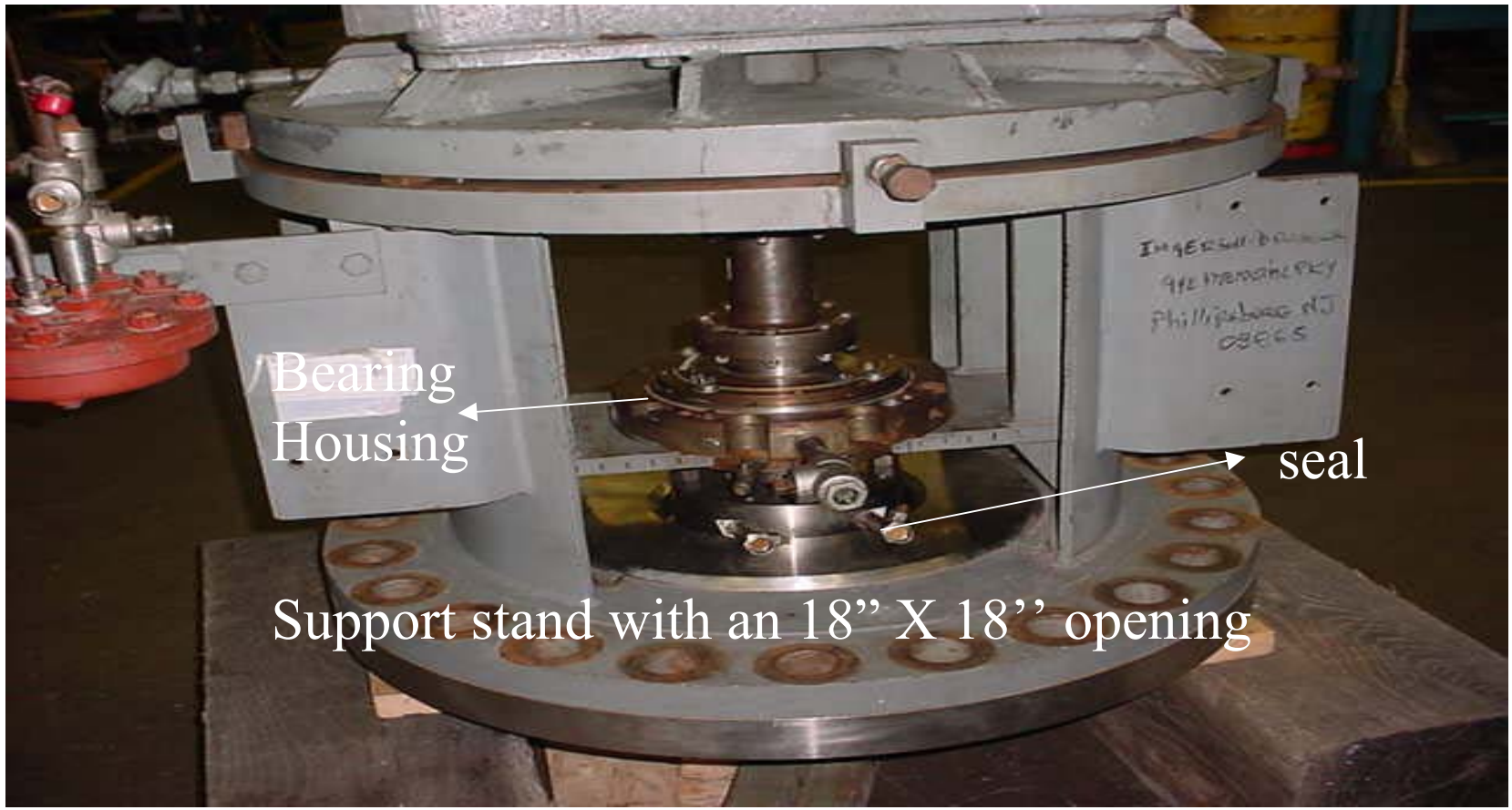
- Scope of modification "A" RHR Pump
  - Support stand
  - Spacer coupling
  - Upper & lower hub Assembly
- Project duration 5 days
- ALARA estimate 2.75 REM



Spare Model 8X20 WD/WDF



Modified 8X20 WD/WDF



The Spacer Coupling

Polycarbonate Dome

Suction Ring / Wear Ring

Questions?