

Governor's Nuclear Advisory Council SCE&G Nuclear Update

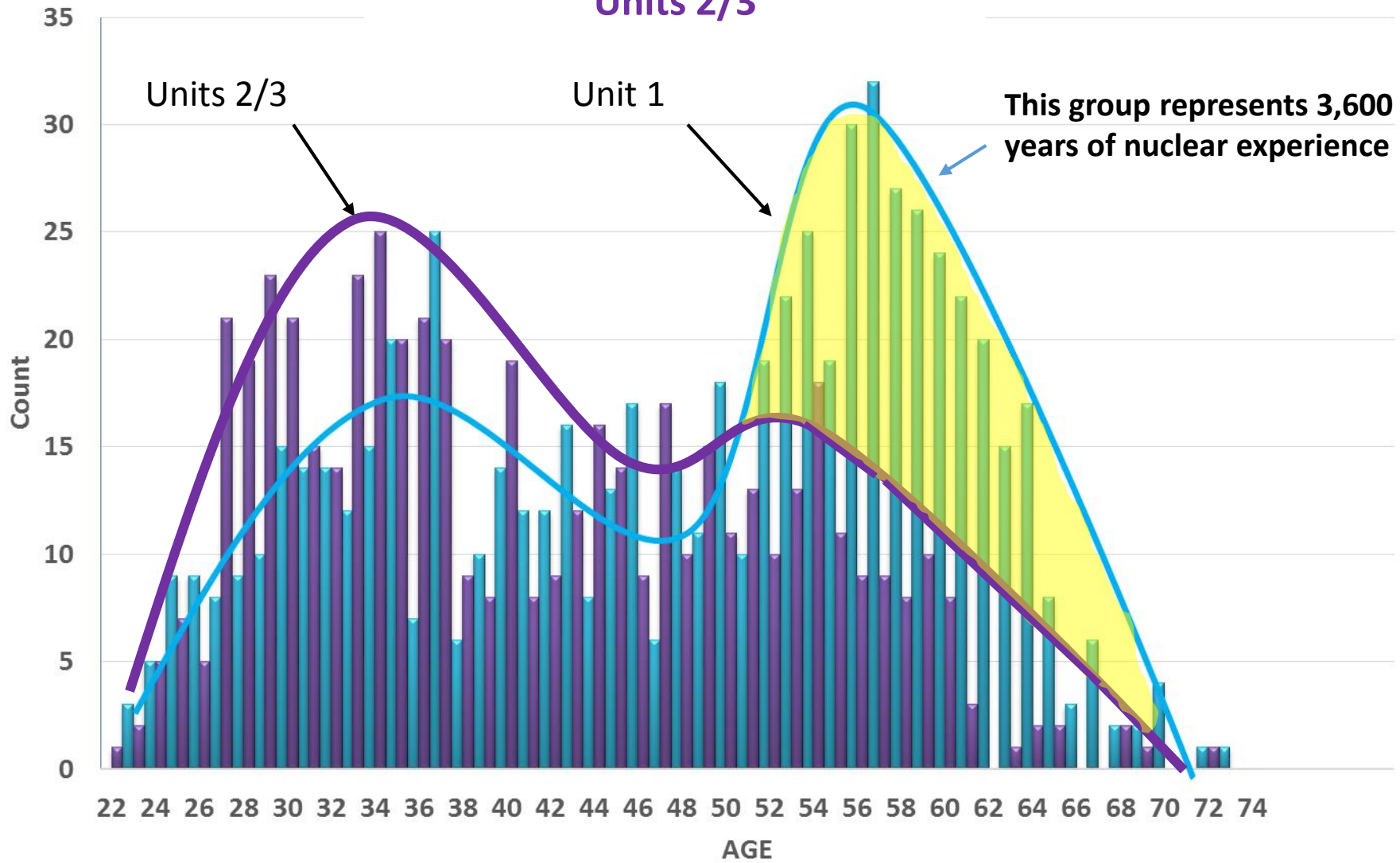
July 2016



VCS Age Distribution

Unit 1

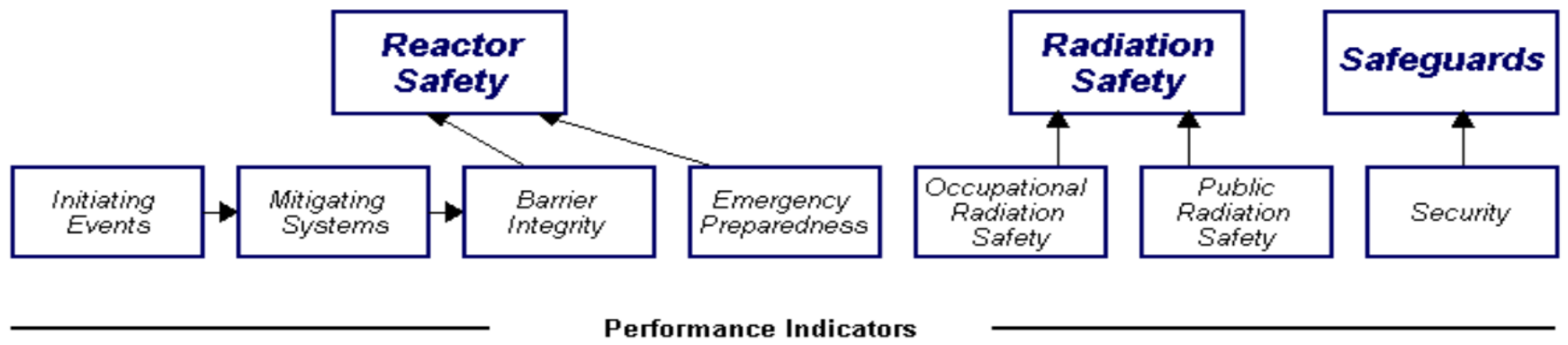
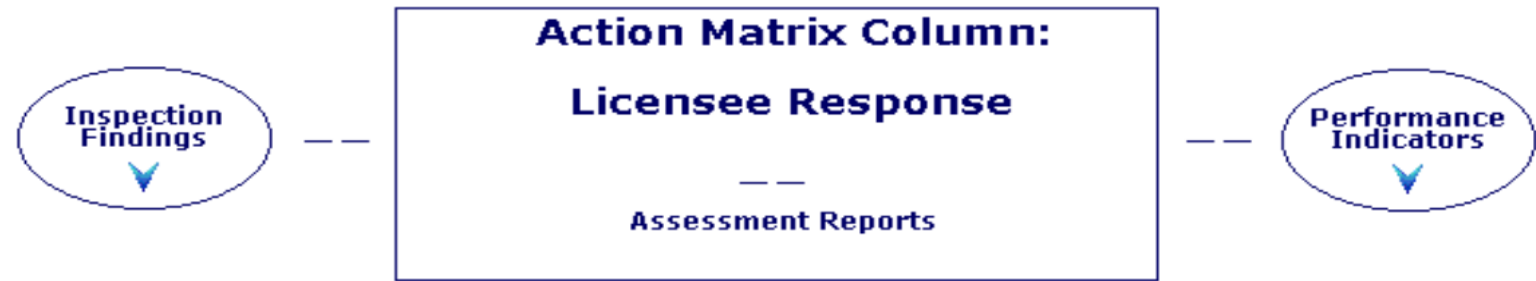
Units 2/3





VC SUMMER 1

- Westinghouse 3 loop, 2900 MW Thermal (4.5% up-rate 1996)
- Turbine GE 990-1015 MW Electric
- Commercial 1984 (License Extension to 2042)
- Steam Generators Replaced 1994
- Refuel 22 completed December 2015, next April 2017
- Initial Dry Fuel Storage Campaign completed April 23, 1016



Performance Indicators

Unplanned Scrams (G)	Safety System Functional Failures (G)	Reactor Coolant System Activity (G)	Drill/Exercise Performance (G)	Occupational Exposure Control Effectiveness (G)	RETS/ODCM Radiological Effluent (G)	Protected Area Equipment (G)
Unplanned Power Changes (G)	Emergency AC Power System (G)	Reactor Coolant System Leakage (G)	ERO Drill Participation (G)			
Unplanned Scrams with Complications (G)	High Pressure Injection System (G)		Alert and Notification System (G)			
	Heat Removal System (G)					

Recent NRC and INPO Inspections

NRC Inspections	INPO Visits
Preoperational Testing of an ISFSI, 72.212 Evaluation and 72.48 Evaluation (Jan-March)	Emergency Response Review Visit (4/15)
ISFSI Loading Campaign (March-April)	Equipment Reliability Assistance Visit (6/15)
Initial Licensing Exam Preparation (May)	Outage Planning Review Visit (8/15)
Initial Licensing Exam Exam (June)	Transformer, Switchyard and Grid Review Visit (8/15)
Triennial Heat Sink Performance (June)	Crew Performance Evaluation (3/16)
RP Public Rad Safety Baseline (July)	Emergency Response and Fire Protection Evaluation (4/16)
Security RP Portion (July)	INPO Evaluation (5-2 – 5-13/16)
PI&R (August)	
EP Program (September)	
Triennial Fire Protection (October)	
Security Baseline & Construction (November)	
Plant Modification (November-December)	

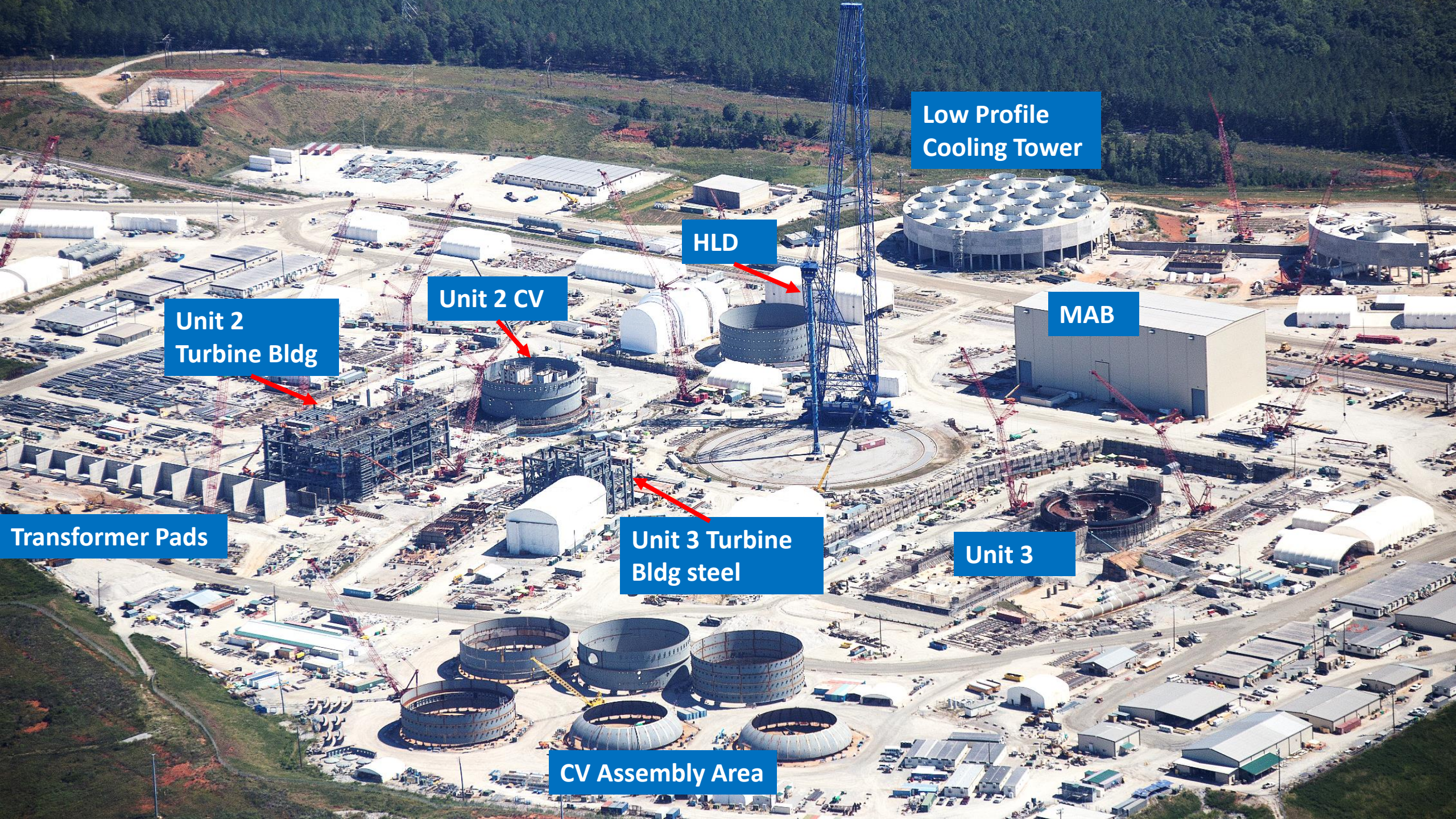
Initial Dry Fuel Storage Campaign

Loaded 4 casks in April 2016,
each with 37 assemblies



New Nuclear Construction Update





Low Profile
Cooling Tower

HLD

Unit 2 CV

Unit 2
Turbine Bldg

MAB

Transformer Pads

Unit 3 Turbine
Bldg steel

Unit 3

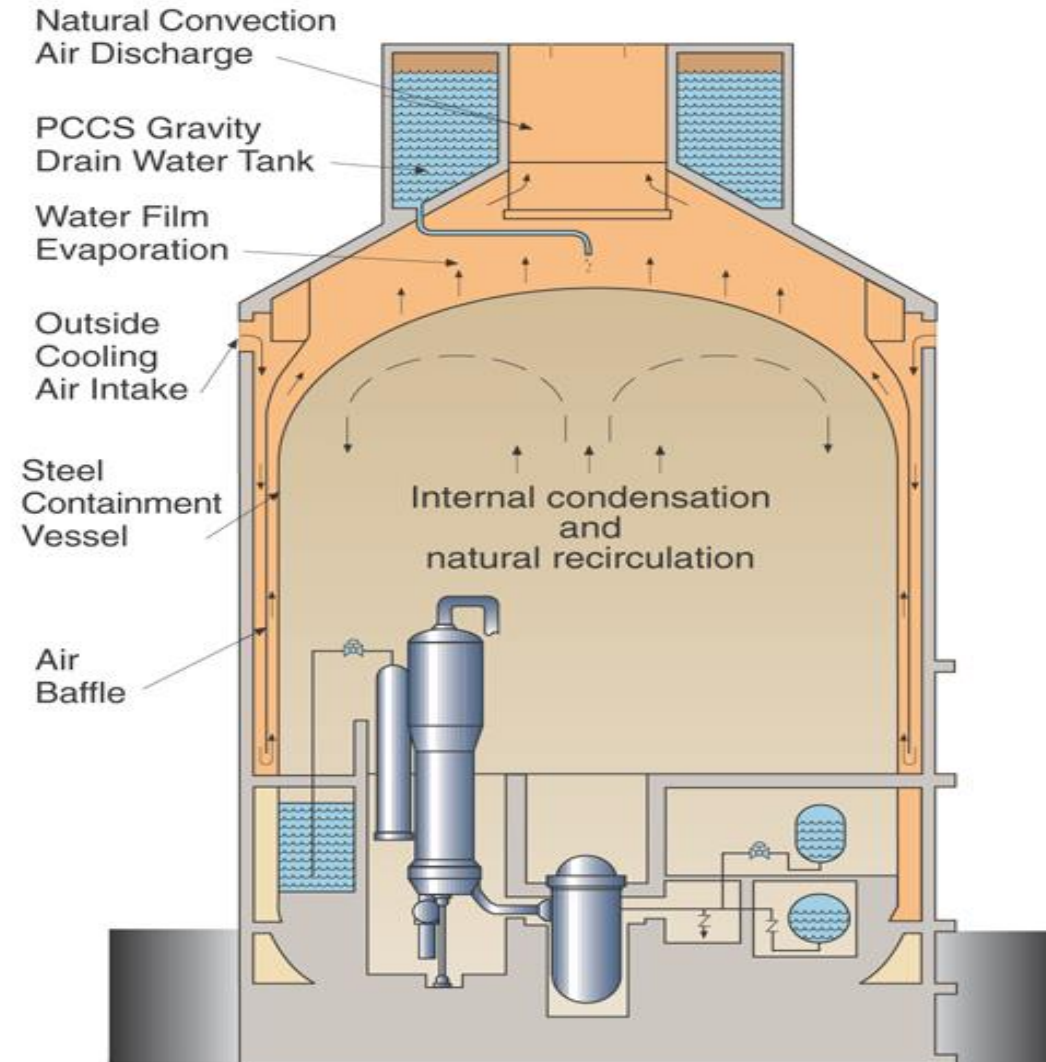
CV Assembly Area

Passive Containment Cooling System

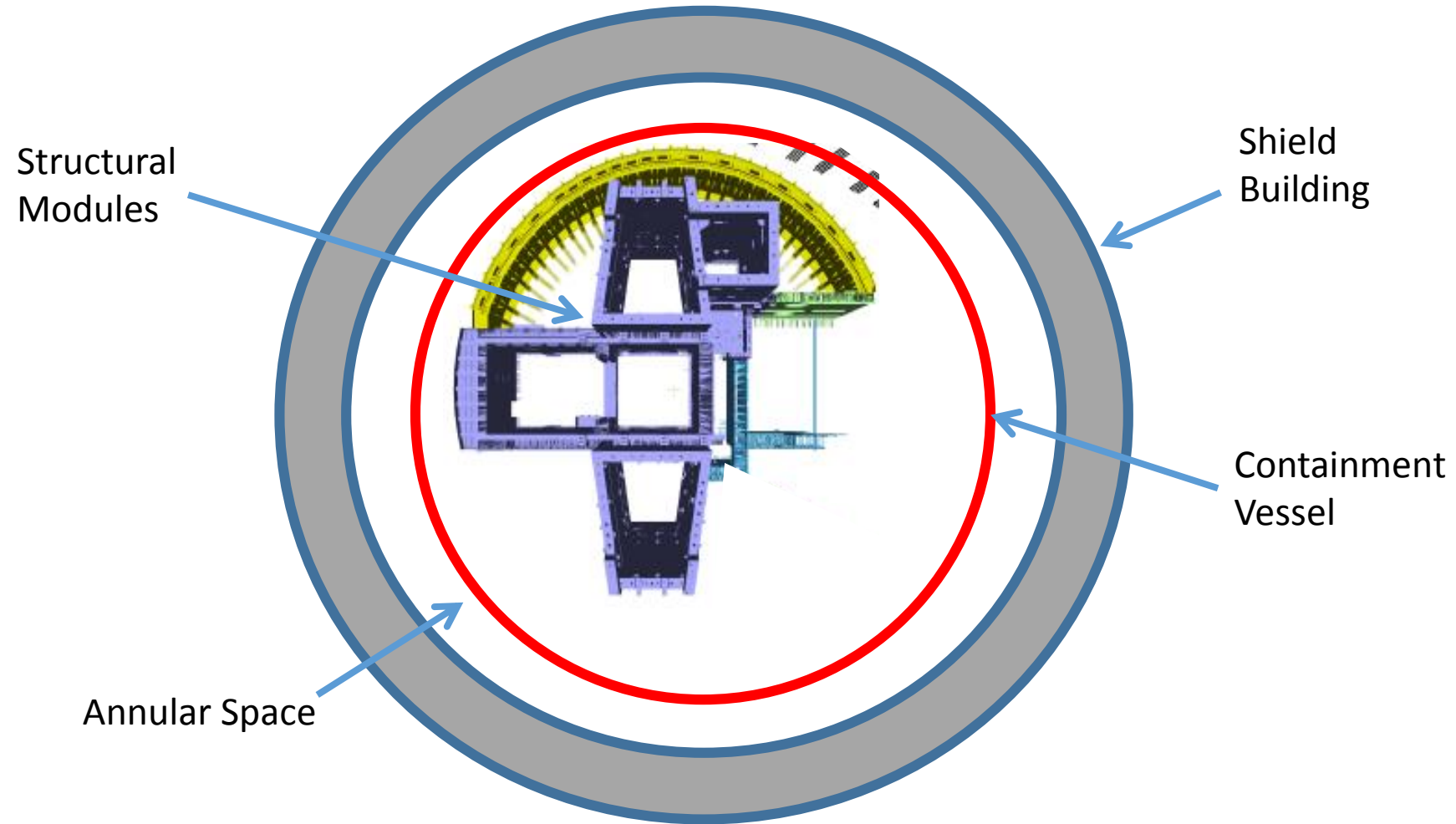
Relies on:

- Evaporation
- Precipitation
- Gravity
- Convection

No AC power needed



Shield Building/Containment Vessel



Containment Vessel

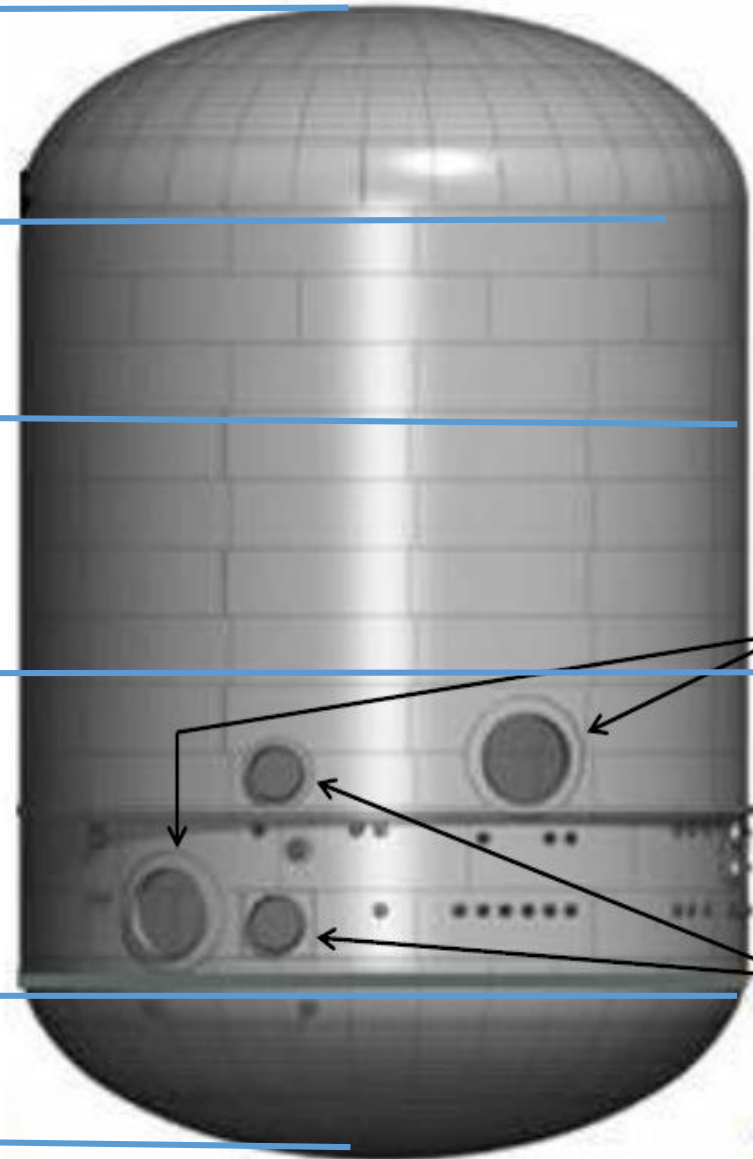
Top Head

Ring 3

Ring 2

Ring 1

Bottom Head



Equipment
Hatches (2)

Personnel
Airlocks (2)

Containment Vessel Fabrication Area



Unit 2 Shield Building Panels Set



Shield Building
Transition Panel

Baffle
Brackets

Containment
Vessel

Unit 2 Shield Building with Concrete



PLUMBNESS

10/29/2015

Shield Building Course 2

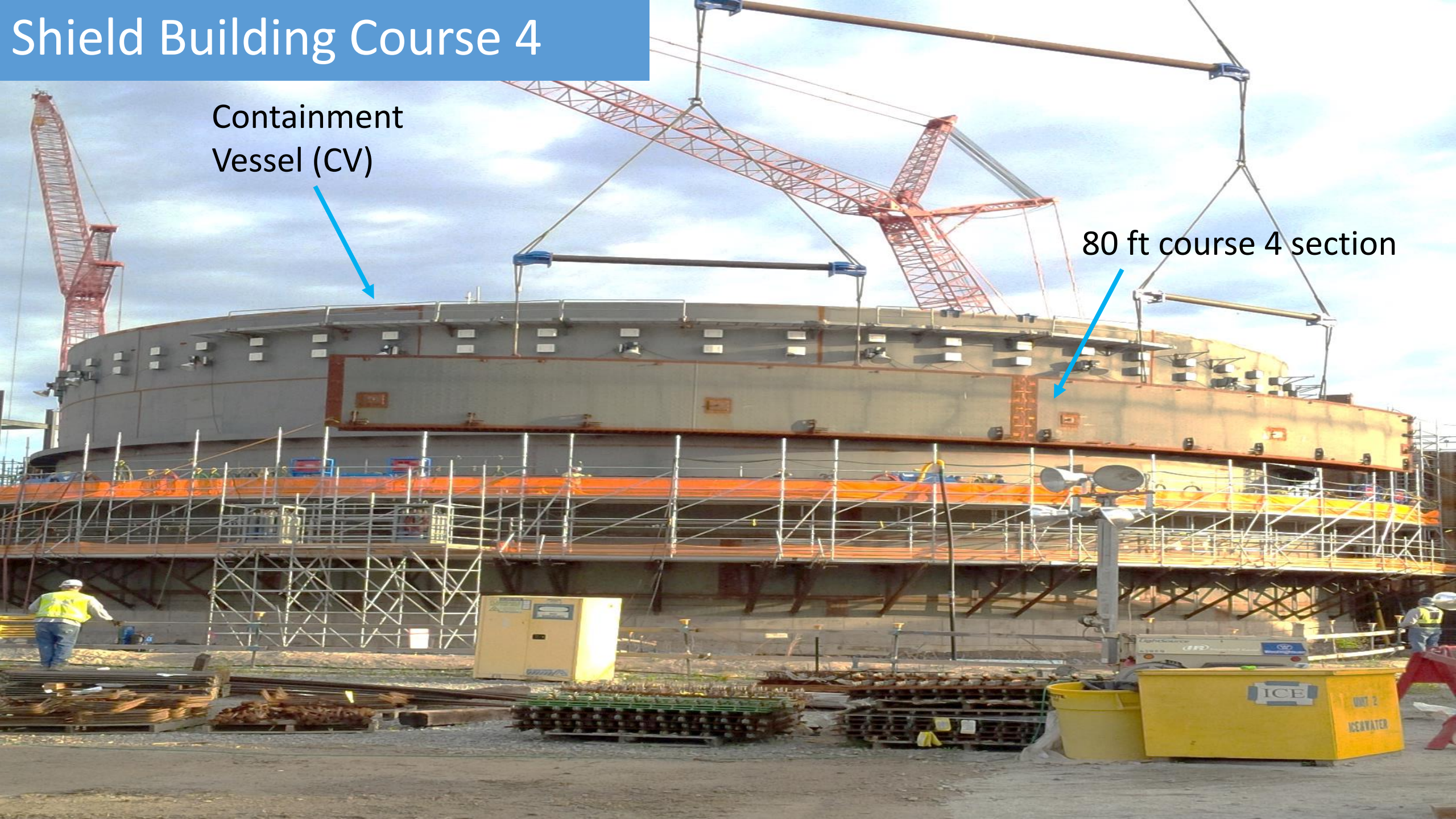


Shield Building Course 4

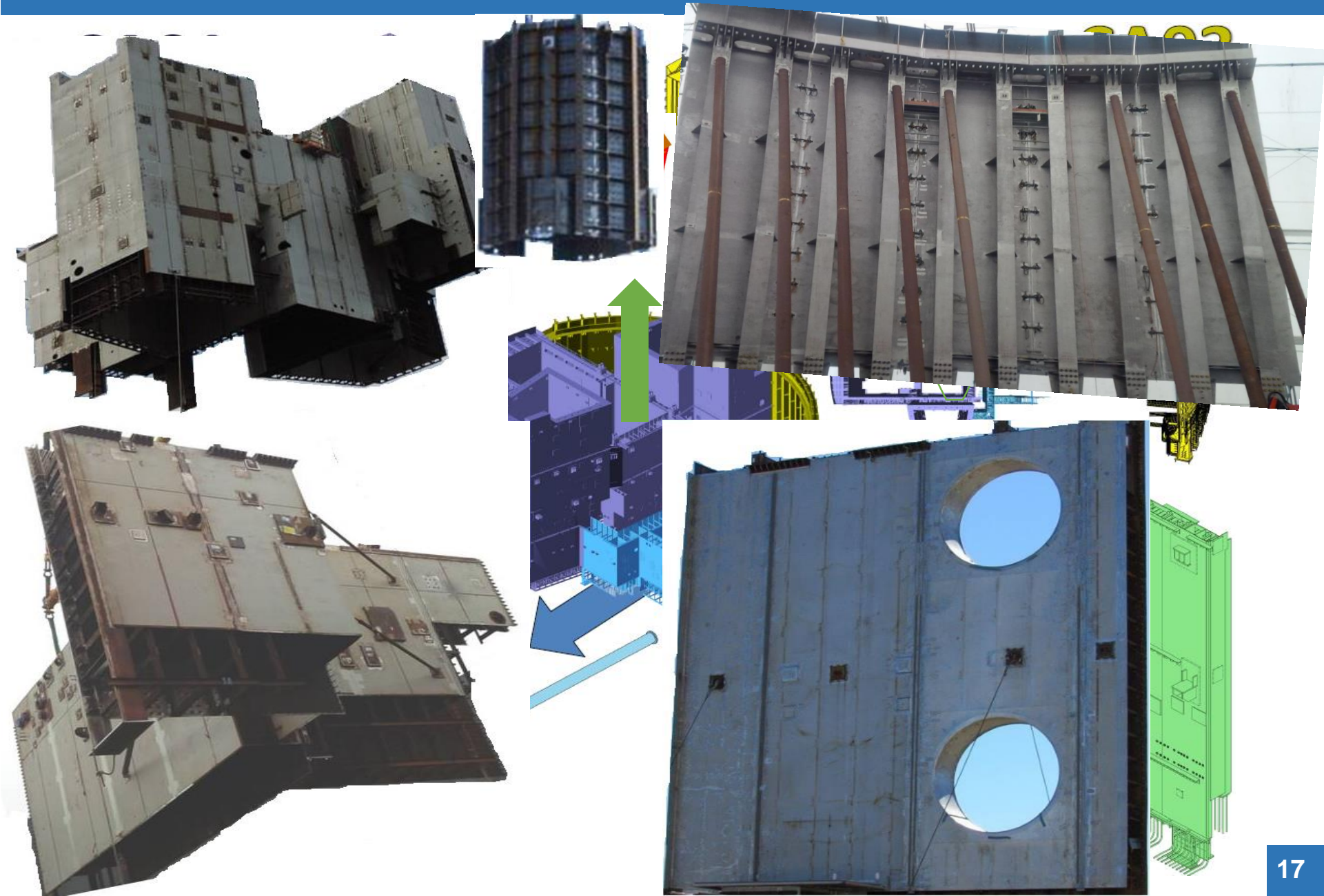
Containment Vessel (CV)



80 ft course 4 section



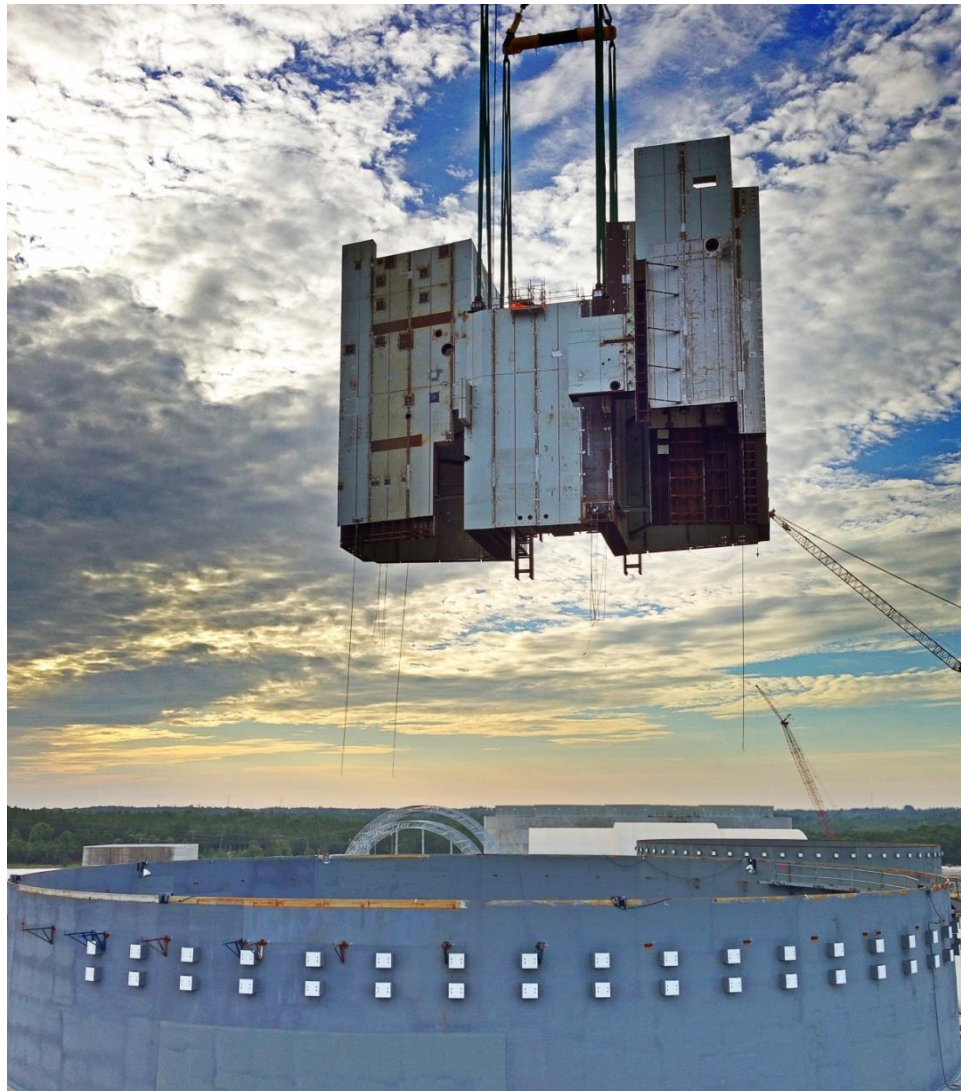
CA Modules



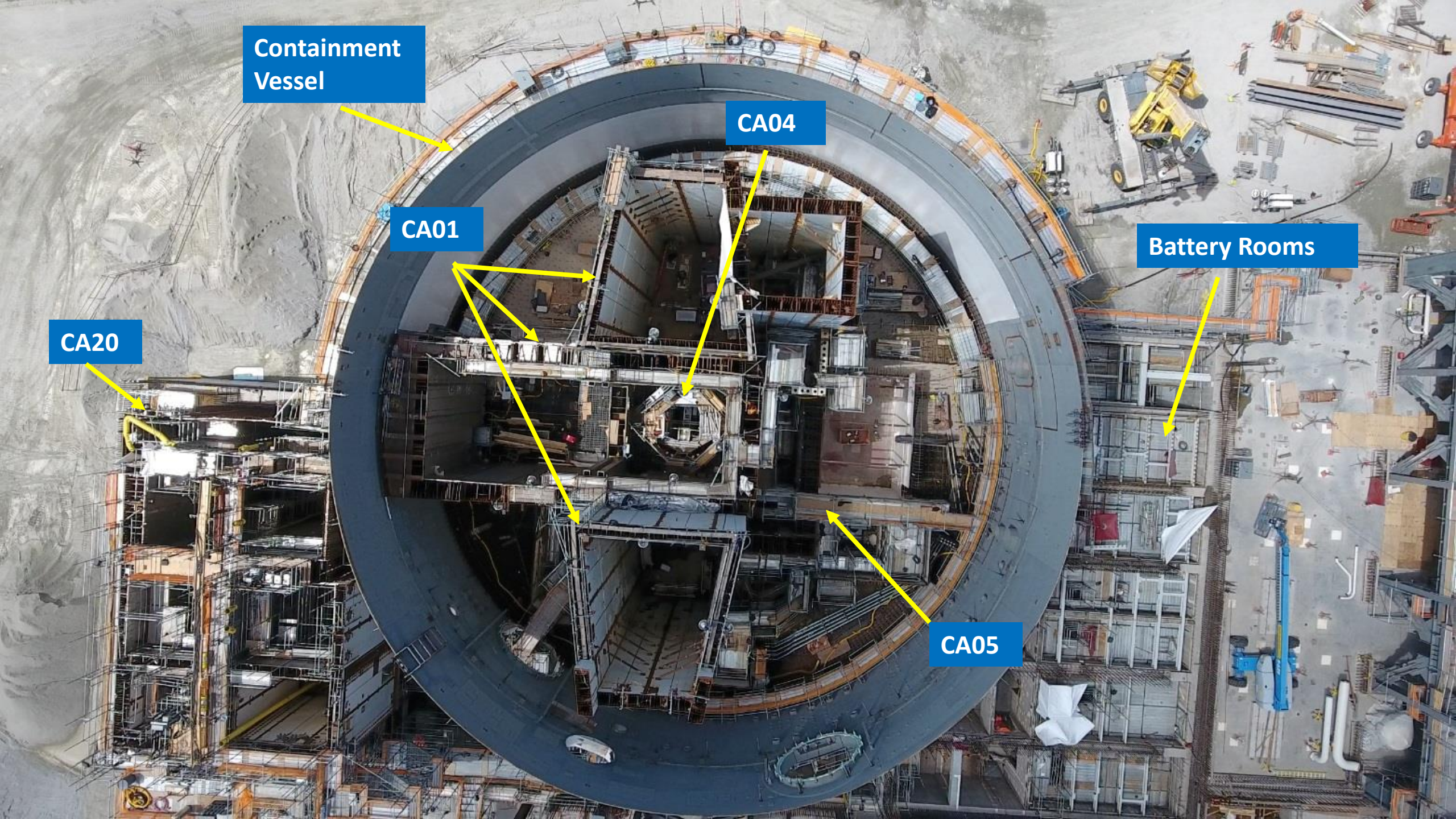
CA01 Placed July 23, 2015

Weight: 2,400,000 Lbs

Dimensions: 95ft x 90ft x 80 ft







Containment Vessel

CA04

CA01

Battery Rooms

CA20

CA05

Unit 2



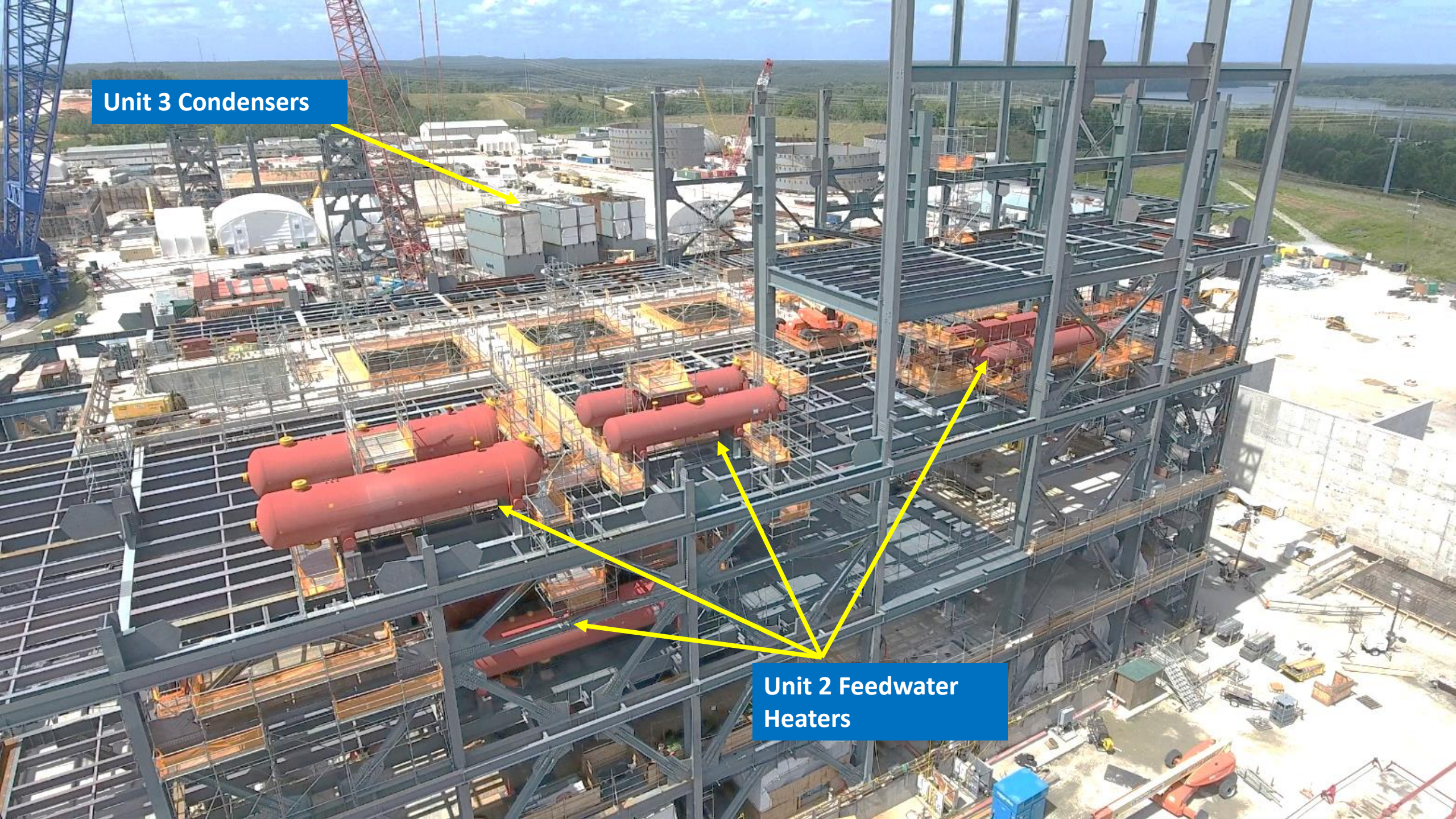
Unit 2 Containment
Vessel Ring 2



Unit 2 Transformers

Unit 3 Condensers

Unit 2 Feedwater Heaters



Turbine Pedestal

>2300 cubic yards
20 hour continuous pour



Unit 3 Containment Vessel Ring 1

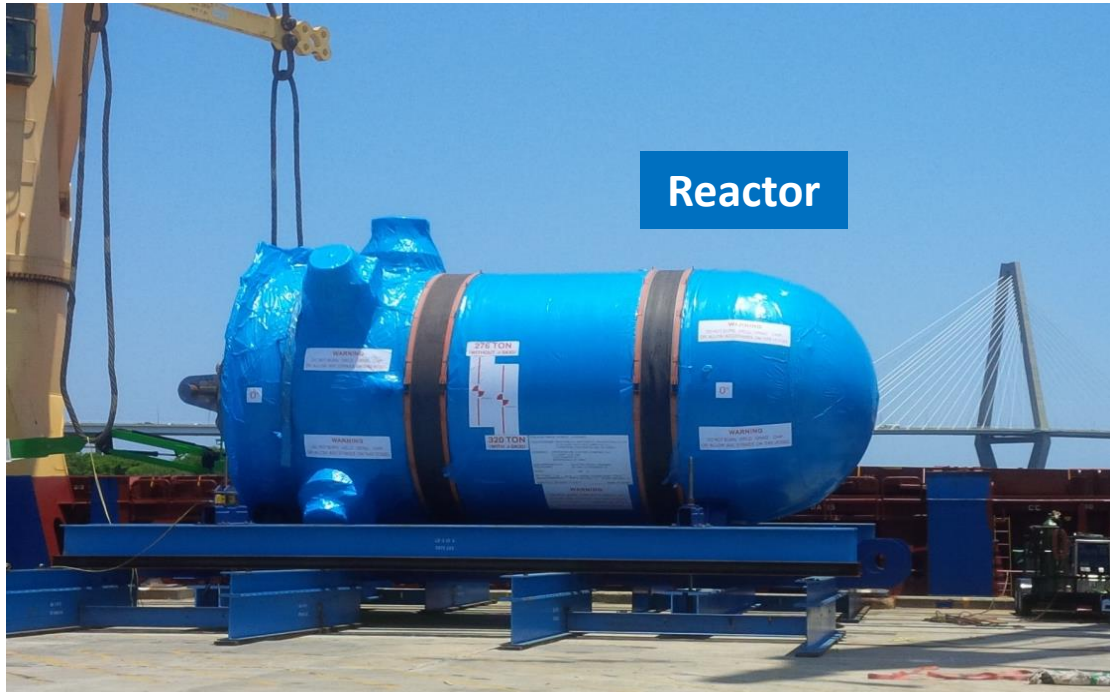


Unit 3

Unit 3 Containment
Vessel Ring 1

Unit 3 Turbine
Building Structural
Steel Modules





Reactor



Pressurizer



Accumulator Tanks



Steam Generator

Cooling Towers Structurally Complete





Switchyard In Service

Water Treatment Facility Complete



Firing Range Complete



Local Companies Involved

- Glenn and Associates Surveying Jenkinsville
- Gregory Electric Supplemental electric Columbia
- Bagwell fence Fencing Spartanburg
- MB Kahn Multiple buildings Columbia
- Tindall Precast concrete Spartanburg
- ELDECO NOB electrical design Greenville
- Morgan Corporation Excavating Duncan
- Fluor Nuclear Construction Greenville
- Port of Charleston Incoming Shipments Charleston
- Tate Metalworks Water Plant Storage Tanks Roebuck
- Carolina Energy Solutions Specialty Welding and Pipe Rock Hill
- Tom Brigman Contractors Directional Boring Services Newberry
- Ashmore Concrete Concrete Pumping Summerville
- Thompson Turner Support structures Sumter
- Thompson Industrial Vacuum Excavation Sumter
- Penhall Company Concrete Services Cayce
- Universal Blastco Condenser Waterbox Liners Sumter
- Palmetto Rock Services Rock Blasting Duncan
- SME Inc. Soil stability Columbia

Sanmen Units, China

