
Crystal River 3 (CR3) Reactor Vessel Disposal

Crystal River Unit 3 Reactor

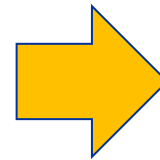
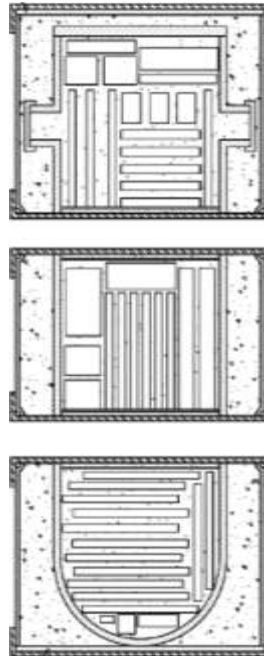
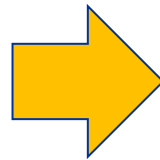
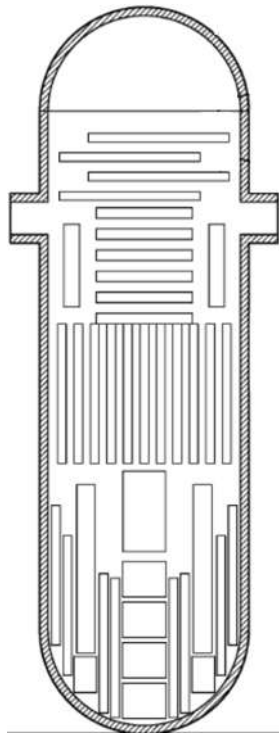
- ▶ Pressurized Water Reactor – B&W design
- ▶ Shutdown September 2009
- ▶ Decommissioning started in October 2020
- ▶ NorthStar Nuclear Decommissioning and Orano USA are performing the work
- ▶ Waste Control Specialists provides waste management services and disposal



CR3 – Reactor Sections

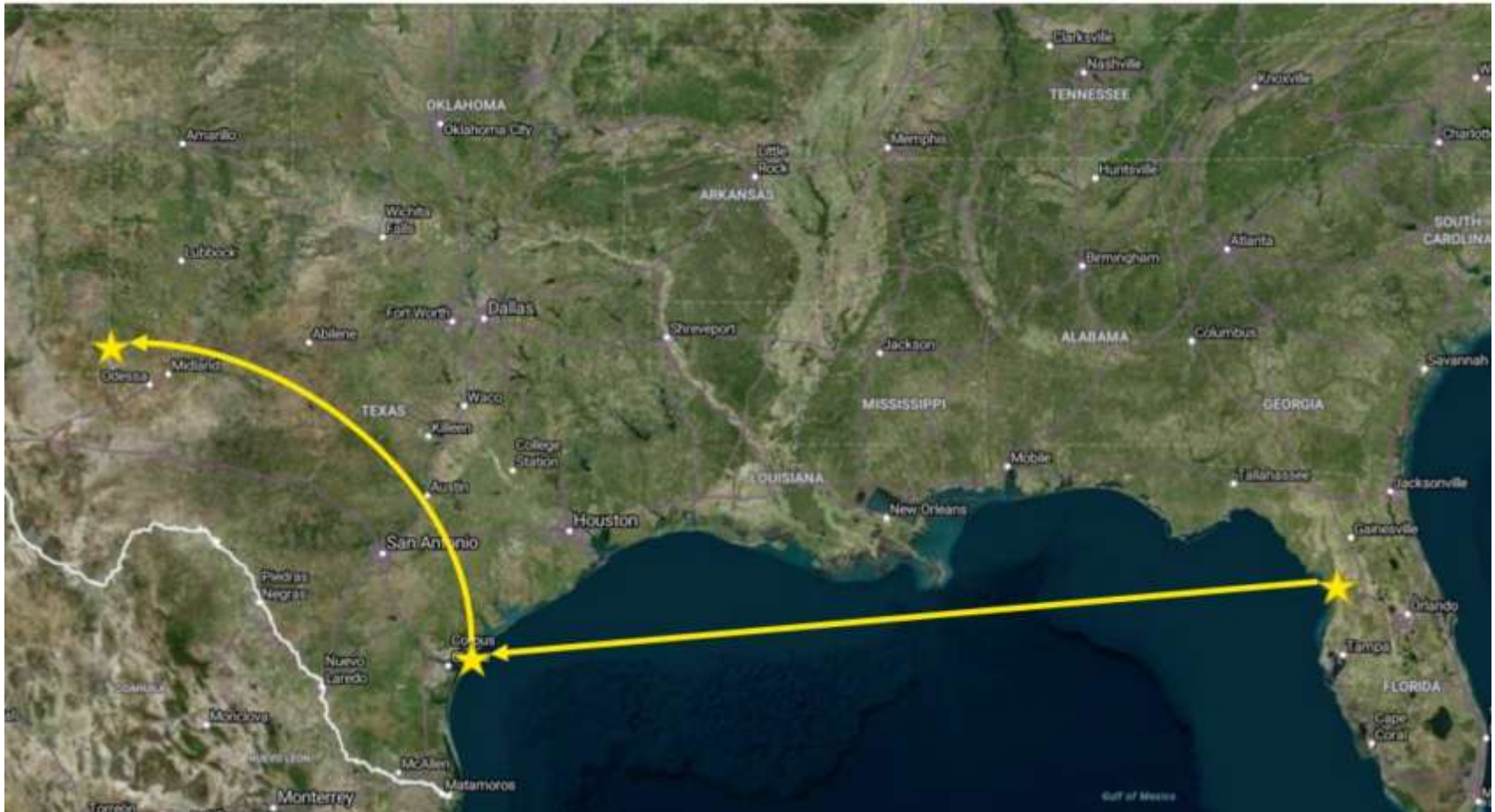
- ▶ Orano performed the cutting, packaging, and transportation
- ▶ The reactor vessel was cut into 4 sections
- ▶ Sections met all NRC and DOT packaging requirements for transportation

	Diameter (feet)	Height (feet)	Weight (tons)
Vessel Head	17	8	95
Top Section	19	13	370
Mid Section	17	15	430
Bottom Section	15	7	95



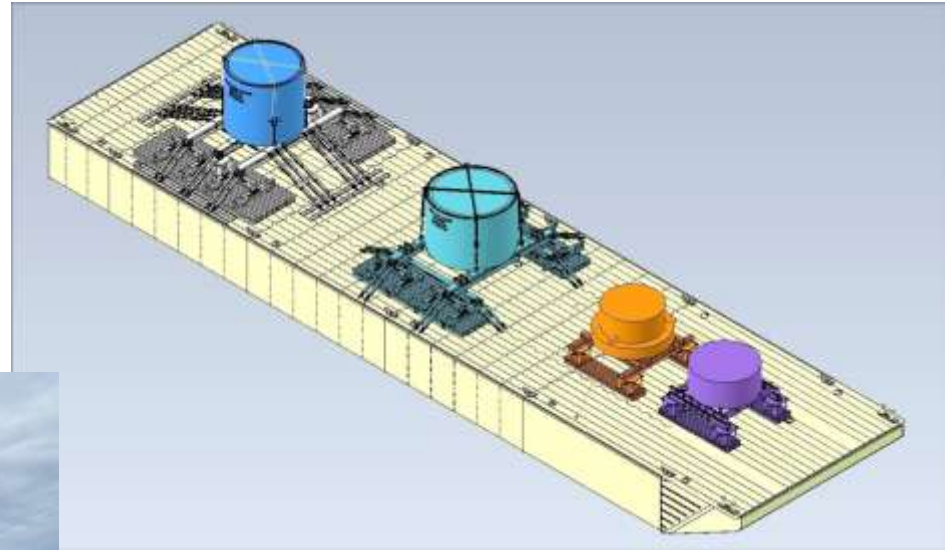
CR3 Reactor Vessel - Transportation

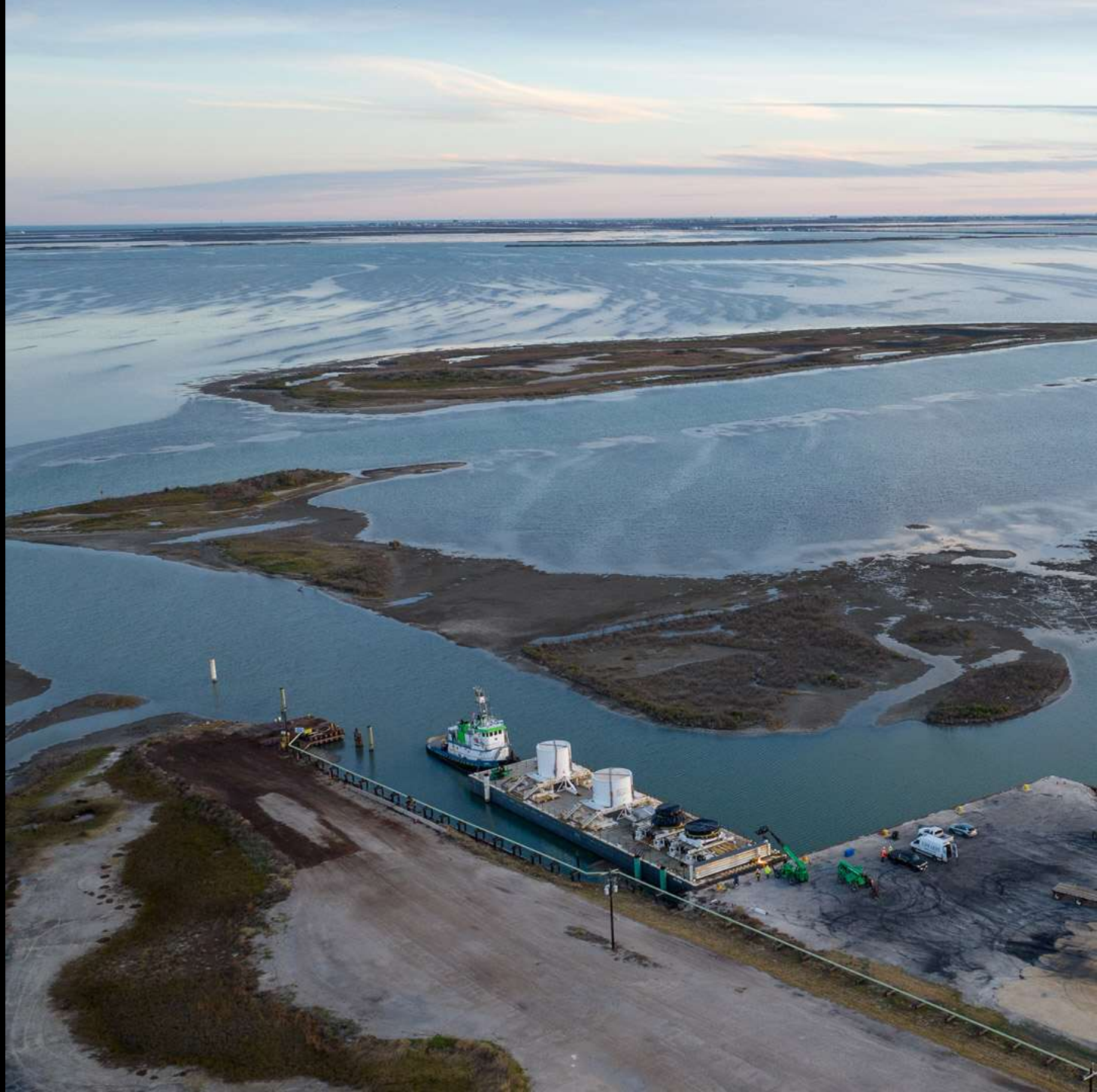
- ▶ Barge from Crystal River, FL to Aransas Pass, TX
- ▶ Truck transport to WCS site in Andrews, TX



CR3 Reactor Vessel – Barge Transport

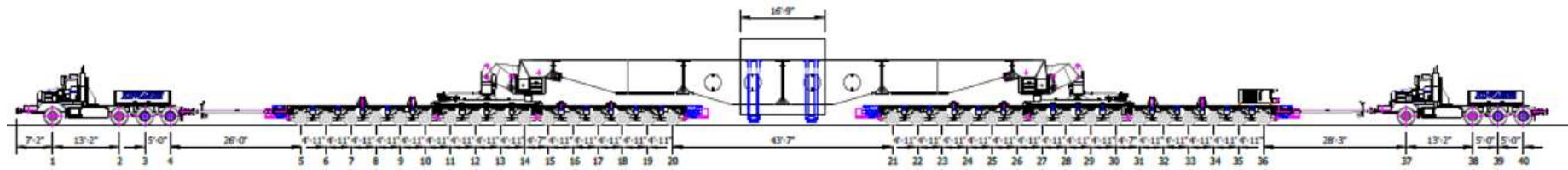
- ▶ Departed Crystal River January 22
- ▶ Arrived Aransas Pass January 29





CR3 Reactor Vessel – Road Transport

- ▶ Routes and transportation parameters were predetermined by TXDOT
- ▶ Head and Bottom Section required about 4 days each (~700-mile route)
- ▶ Top and Mid Sections required over 30 days each (~900-mile route)



Top and Mid Sections configuration – 32 axle trailer (more than 250 wheels)





Transportation Challenges





Arrival at WCS



On-Site Transport



Transport to Disposal



Disposal Placement



Final Disposal



Waste Control Specialists Transportation

WCS Site – Facilities

14,000 acres (permitted area is 1,400 acres)
4 landfills, RCRA & Rad treatment facilities
Over 9 miles of rail serve the site

Byproduct
Facility

Federal
Facility

Compact
Facility

Hazardous
Waste
Landfill

Administration
Buildings

Treatment
Facilities

Rail
Offload



Highway Transportation

- 2024 Highway Volume
 - 750 shipments
 - 4,000 containers
 - 600,000 cubic feet



Rail Transportation

- WCS has the only rail line in Andrews County
 - Operates 3 locomotives
 - 4-mile rail loop encircles the licensed site
 - 5 miles of owned rail line from site to Eunice, NM
 - Served by two Class 1 railroads (UP and BNSF)
- 2024 Rail Volume
 - 600 shipments
 - 5,000 containers
 - 3,000,000 cubic feet

