
AREVA

Introducing
AREVA Nuclear Materials, LLC

Vermont Yankee NDCAP Meeting, June 22, 2017

AREVA

New global structure forms competitive independent company

New AREVA (global)

AREVA Nuclear Materials (U.S.)

- Uranium Mining
- Uranium Enrichment
- Uranium Sales
- RadWaste Storage & Transportation
- Decommissioning & Dismantling
- Federal Services
- Nuclear Medicine
- Fuel Recycling

us.areva.com/ANM

AREVA

AREVA has strong financial and market positions

New AREVA (global)

Key Figures as of 12/31/16

- **€31.8 B** Backlog
- **€4 B** Revenue
- **20,000** Employees in the world
- **TOP 3** Worldwide in all activities

2016 revenue by market

- **41% France**
- **23% Asia Pacific**
- **20% North & South America**
- **15% Europe** excluding France
- **1.0% Middle-East & Africa**

2016 revenue by operations

- **38% Back End**
  Decommissioning & dismantling, used fuel storage & transportation, used fuel recycling
- **36% Mining**
- **25.5% Front End**
  Uranium enrichment, sales
- **0.5% Other**

AREVA Nuclear Materials (U.S.)

- $900 million in 2016 sales from U.S. activities
- 600 U.S. employees
- 20+ years U.S. experience reactor decommissioning & dismantling
- U.S. market leader in used fuel storage systems

AREVA

Vermont Yankee decommissioning uses experts for each stage

NorthStar project mgr

1. Engineering & License Support – Burns McDonnell
2. License Transfer / Termination – NorthStar
3. Decontamination – NorthStar
4. Vessel & Internals Segmentation – AREVA
5. Radwaste Packaging & Transport – AREVA
6. Demolition – NorthStar
7. Demo Waste Packaging & Transport – WCS
8. Radwaste Storage – WCS
9. Site Restoration – NorthStar
10. Used Fuel Storage Aging Management – AREVA

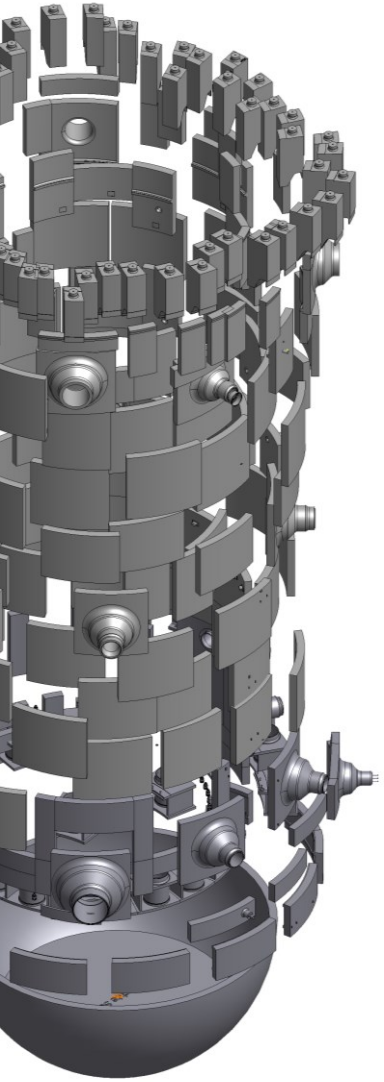
Fixed Price Contracts

AREVA performance and project costs are defined for each activity before work begins.

Any project expense exceeding the fixed price contract is carried by AREVA.

AREVA

AREVA brings knowledge and experience across all functions



AREVA Decommissioning Experience

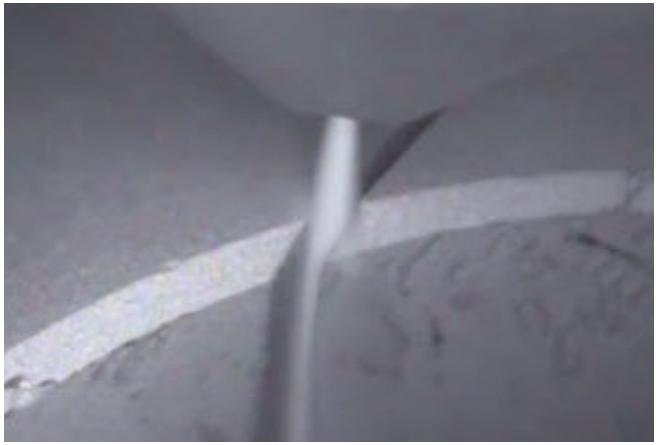
Nuclear Reactor	Type	Size	Segmentation	Packaging	Dismantling	Waste Mgmt
Connecticut Yankee	PWR	619 MWe	X		X	
Maine Yankee	PWR	900 MWe	X			
Millstone 1	BWR	660 MWe	X		X	
Rancho Seco	PWR	918 MWe	X			
Stade	PWR	640 MWe	X		X	
Wuergassen	BWR	640 MWe	X		X	
Yankee Rowe	PWR	180 MWe	X		X	
Vermont Yankee	BWR	620 MWe	X		X	

us.areva.com/DecomVY

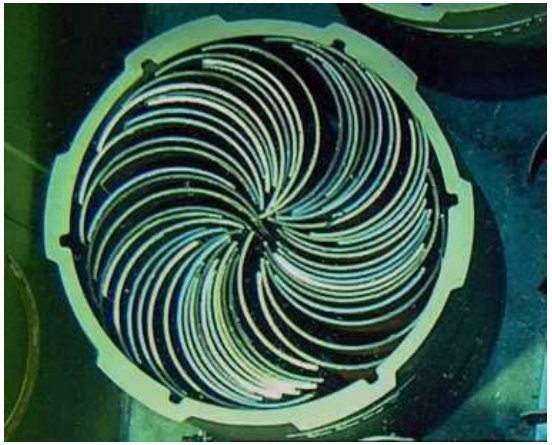
AREVA

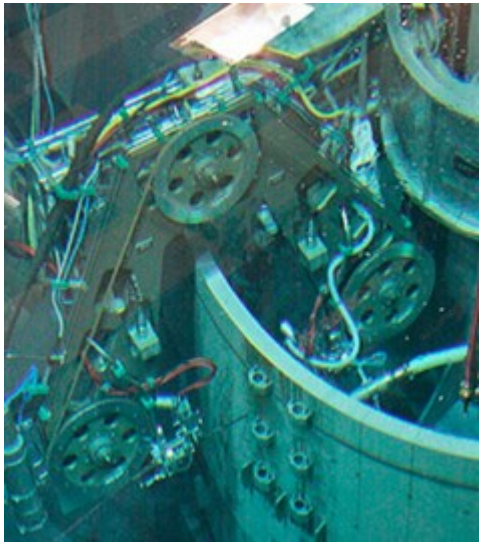
AREVA segmentation and dismantling technology is effective and exact

Abrasive water jet slicing metal part



Cut pieces in waste storage container





Underwater band saw

Dismantling mixed oxide production facility

AREVA

Potential 66% reduction in number of RadWaste canisters

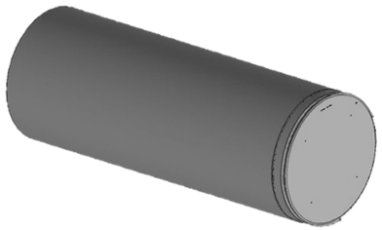
Globally, AREVA manages more than 3,000 shipments of radioactive materials every year by road, rail and sea.

At Vermont Yankee, using two nested containers:

RadWaste Storage

RadWaste canister (RWC)

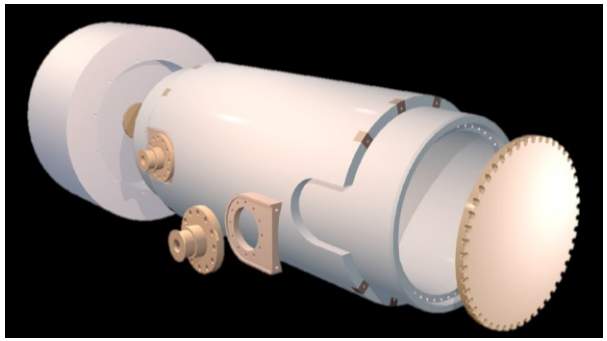
- Use of larger RadWaste canisters to minimize transportation and disposal volumes
- Loaded per a packaging plan based on all disposal and transportation regulatory requirements



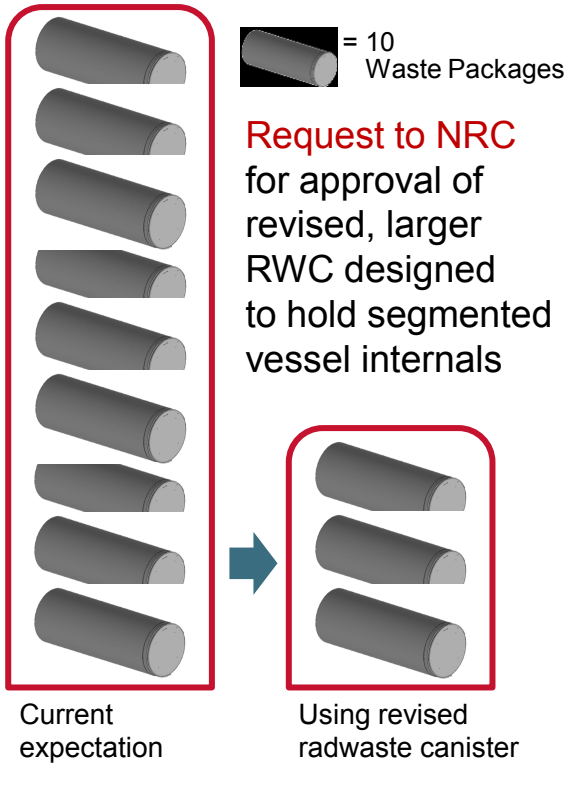
RadWaste Transport

NUHOMS® MP197HB transport cask

- NRC-licensed for rail, truck or marine transport
- Includes containment boundary, structural shell, gamma shielding material, solid neutron shield



VY RadWaste Transportation



AREVA

More than 50 years' U.S. experience managing and storing used nuclear fuel

AREVA will apply expertise from decades of experience to conduct the Independent Spent Fuel Storage Installation (ISFSI) aging management program.

Dry casks have thick shielding to protect workers and the public from radiation

Image: NRC

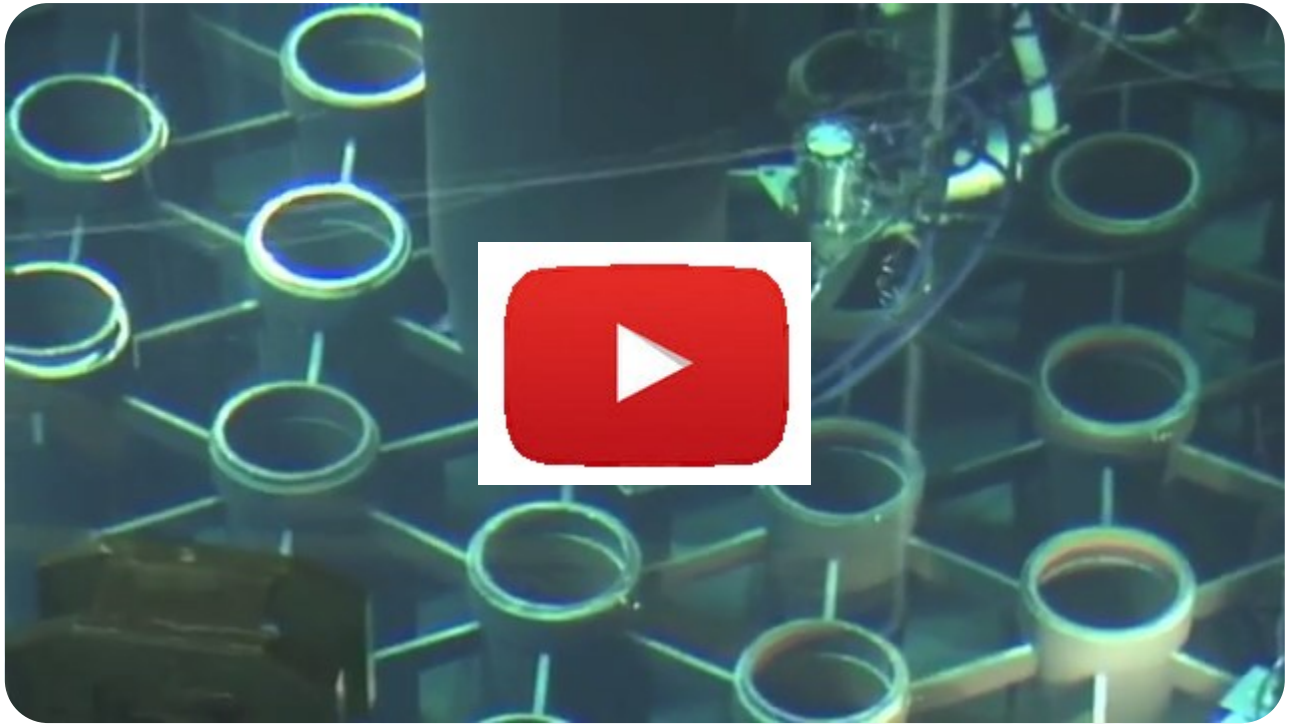
- Ensures secure storage until U.S. Department of Energy (DOE) takes ownership and transports offsite
- Inspects dry cask storage system at regular intervals to address any aging concerns
- Monitors steel canister surface, stored used fuel condition, concrete overpack, ISFSI pad
- Nuclear Regulatory Commission (NRC): Used nuclear fuel can be maintained in dry storage safely and without significant environmental impact

AREVA

Video: AREVA BWR segmentation and dismantling technology

Videos posted on our decommissioning webpage: us.areva.com/Decom

For Vermont Yankee decommissioning information: us.areva.com/DecomVY



AREVA