

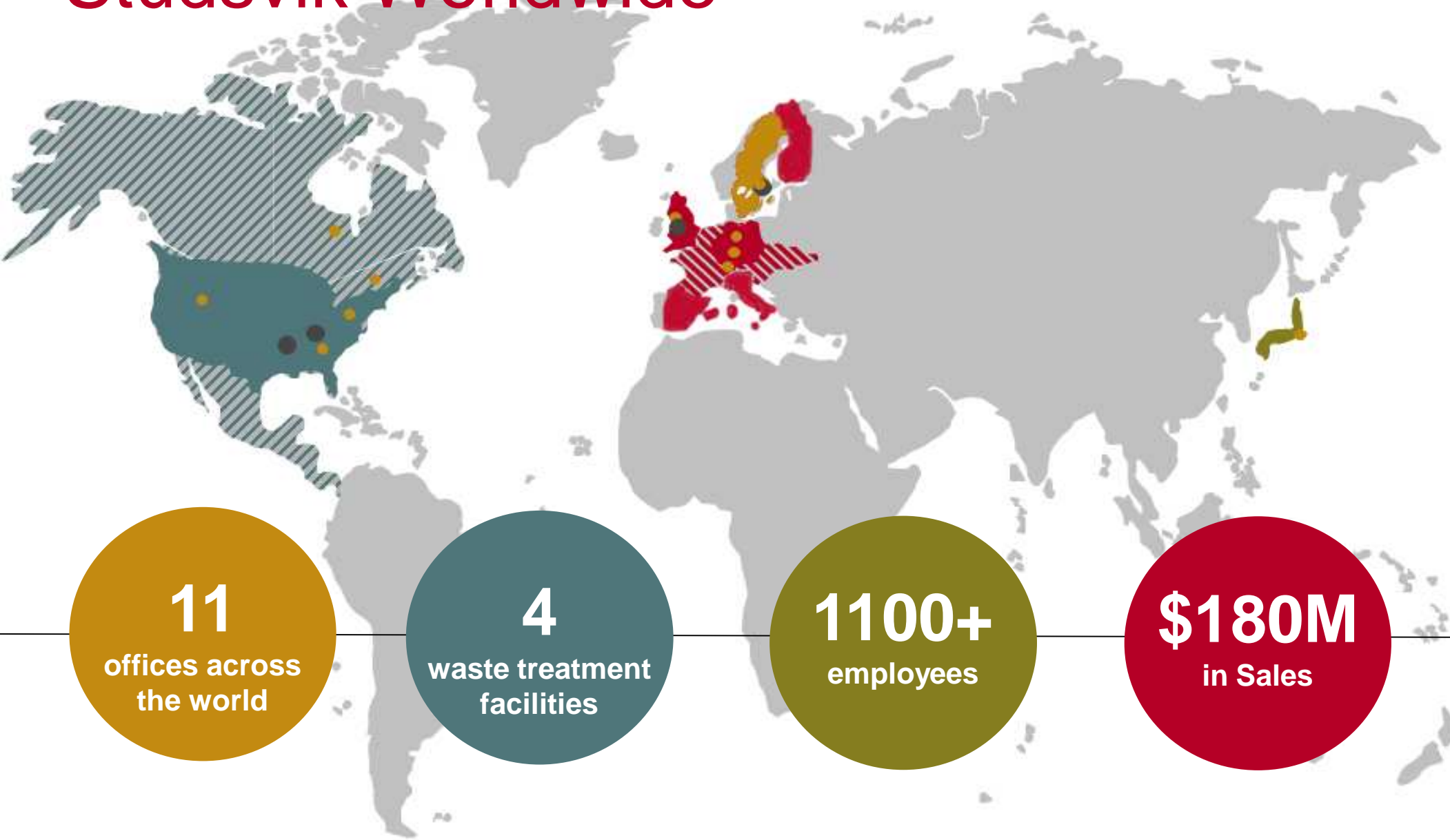
Studsvik

Facility Treatment Update

Steven Jameson
February 28, 2012



Studsvik Worldwide



11

offices across
the world

4

waste treatment
facilities

1100+

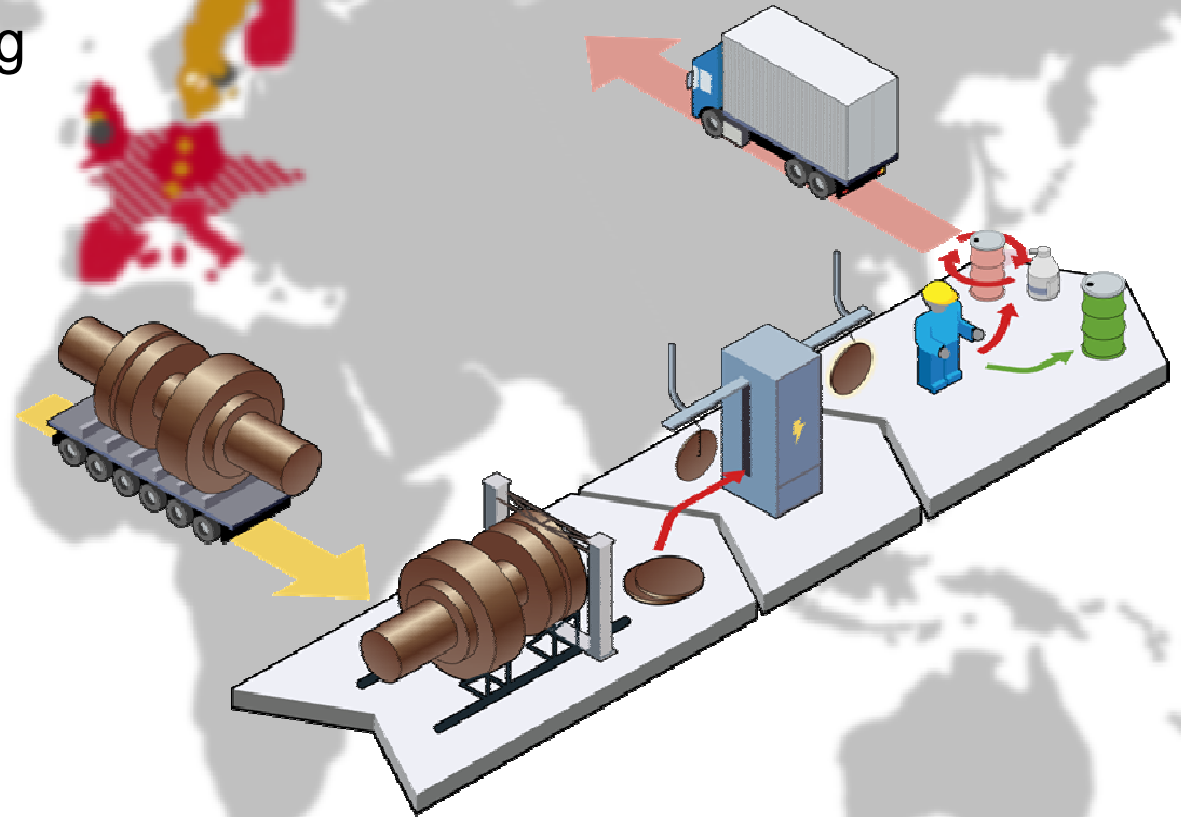
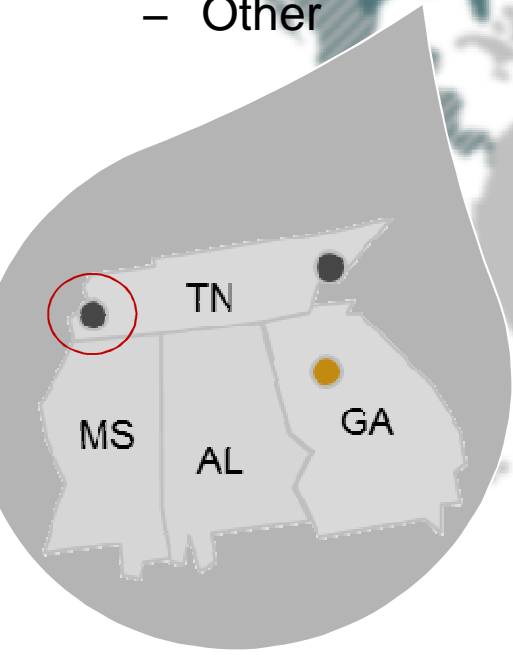
employees

\$180M

in Sales

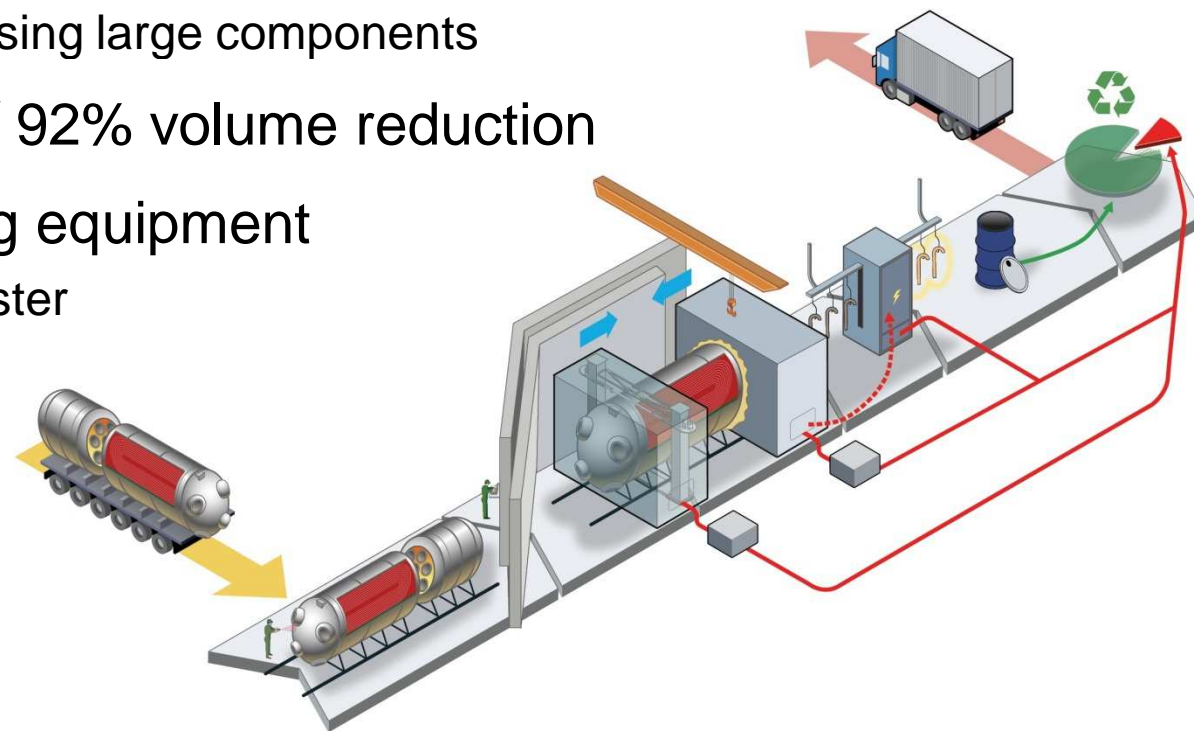
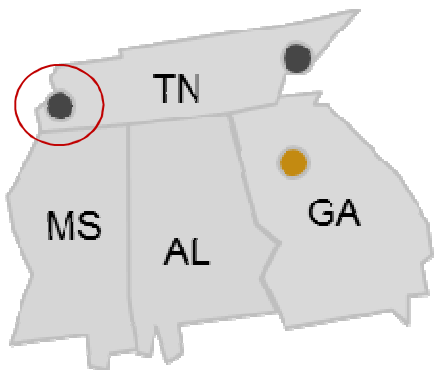
Memphos Processing Facility

- Large Component processing
 - Reactor Heads
 - Feedwater heaters
 - Turbines
 - Other



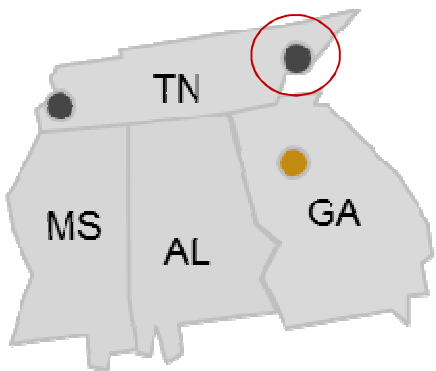
Steam Generator Technology Transfer

- Studsvik Sweden - largest processor of steam generators
 - 16 steam generators processed; 3 currently being processed
 - Proprietary technology for processing large components
- Up to 72% free release (lbs.) / 92% volume reduction
- \$5M investment for processing equipment
 - Band Saw, Tube Puller and Blaster

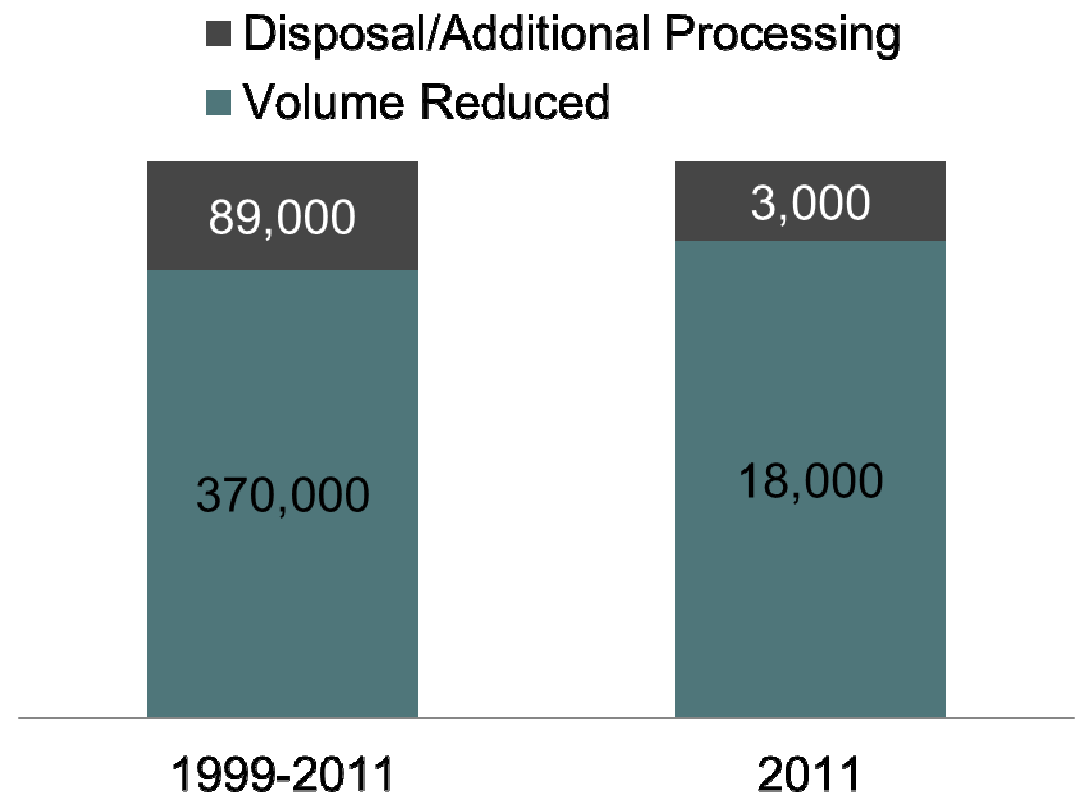


Erwin Processing Facility

- Waste processing for Class A, B, and C low-level radwaste
 - Resins
 - Filters
 - Liquid



Incoming LLW at Erwin Facility (ft³)



Slide 5

RC4

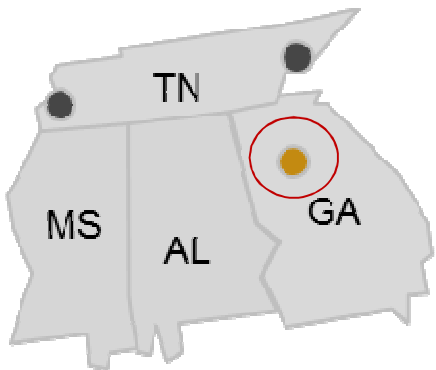
Option 2

Rosita Colson, 2/21/2012

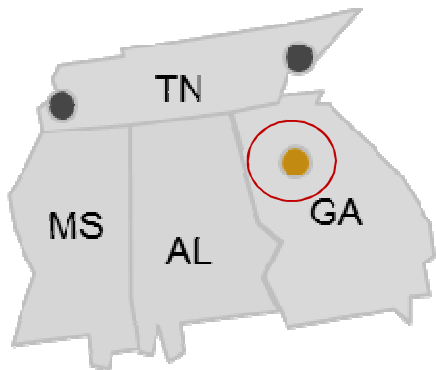
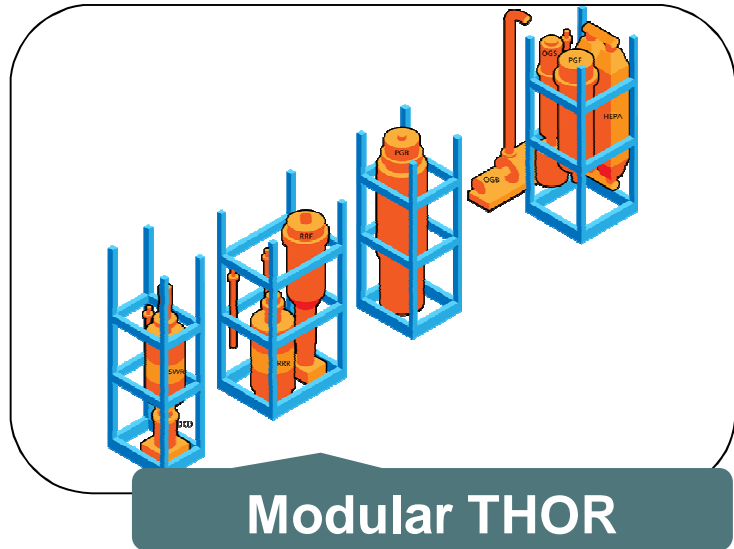
Erwin Processing Facility



- Joint Venture with EnergySolutions for processing commercial nuclear power plant resins for safe and permanent disposal at a low-level waste disposal facility
- Takes advantage of Studsvik's THOR technology



Engineering and Technology Services



- Multiple projects with life cycle values over \$100M each
- Broad experience base
 - Design and build of THOR units for international clients
 - Irradiated graphite treatment analysis
- Consultancy and engineering services
 - Technical assistance (e.g. bench scale testing, life cycle cost estimates, engineering process design, and equipment design/fabrication)
 - Decommissioning Assistance

Sweden Processing Facilities



- **Metal Treatment Facility**

- Decontamination, segmentation and melting of metals
- Improved tube pulling equipment for steam generator processing
- 3000 tons/year recycled

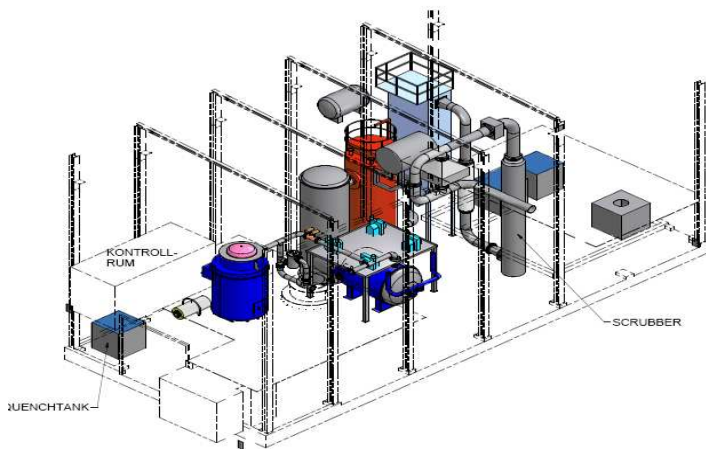
- **Incineration Facility**

- General waste treatment
 - Clothing, oils, resins
- Feed system upgrade in 2011 for direct injection
- New ISO container docking system
- 500 tons/year recycled

New Pyrolysis Facility



- Operational in 2012
 - Constructed in 2011
- Waste Streams
 - Uranium contaminated DAW
 - Low-level waste (sludge, oil, resins)
- Capacity of 50 – 100 tons/year



UK Metal Recycling Facility



- First nuclear licensed site to open in the UK in 20 years
- Characterization, packaging, logistics and storage, and mechanical decontamination
 - Capacity of 3000 tons/year of LLW Metal
 - Grit blaster and high force compactor
- Greater than 90% recycling achieved
- Processing for most nuclear licensed facilities

THOR Treatment Technologies



- Joint Venture with URS for the Application of THOR at U.S. Government (DOE) sites
 - Idaho Waste Treatment Unit – THOR process built on-site and currently under start-up
 - Continuing engineering and research work within DOE for the treatment of various waste forms

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