

Decommissioning and Dismantling Turn-key Reactor Internals Segmentation Services

fact sheet

GE Hitachi's expertise in reactor design, licensing and modification project services, combined with Hitachi's proven experience in advanced modular construction and decontamination, results in GE Hitachi's ability to provide superior safety, reliability, and cost performance for nuclear decommissioning projects.

Capabilities

- Decommissioning studies
- Decommissioning & dismantling project planning
- Spent fuel services

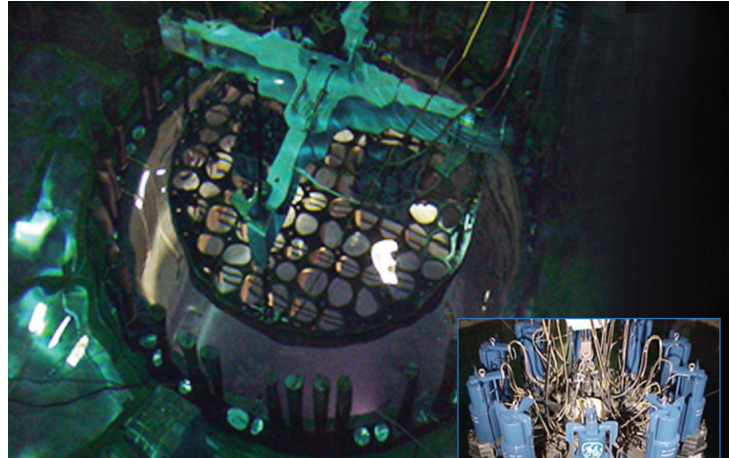
GE Hitachi has proven expertise in segmentation.

- Reactor internals modification/cut up
- Reactor internals segmentation
- Risk identification and management
- Functional organization and supply chain depth

Post-Operational Support

GE Hitachi offers a wide range of support to address your post-operational needs.

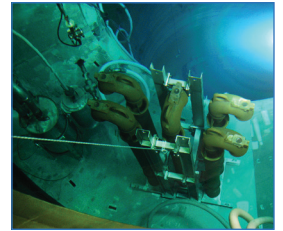
- Segmentation of reactor internals, including cut, pack, and canister load plans, managed under one project
- Licensing
- De-fueling
- Chemical decontamination services
- Post shutdown decision support
- Water management/consultancy including contaminated water resolution



GE Hitachi Segmentation History

BWR Components Dismantled and Segmented

- Steam dryer and separators
- Shroud
- Guide rods
- Feedwater spargers
- Core spray piping
- Top guide
- Shroud
- Core Plate
- ICM (Incore Monitor Housing) guide tubes and stabilizers
- Differential Pressure – Standby Liquid Control Line
- Jet pump assembly (inlet mixers, risers, riser braces, diffusers, and sensing lines)



Winner of Bentley *Be Inspired* Award

Hitachi-GE Nuclear Energy, Ltd. won the prestigious Bentley *Be Inspired* award. Our innovative approach to extreme engineering challenges associated with decommissioning transformed the disassembly approach from the traditional consideration of plant weight to plant volume.

GE was awarded the JSME (ASME equivalent) Power and Energy Systems Award for Social Service by TEPCO – one of the most important JSME awards after completion of 1F5.



HITACHI

GE Hitachi Reactor Internals and Segmentation Projects

1 Fukushima-3 1997

Guide Rods
Feedwater Spargers
Core Spray
Top Guide
Core Plate
Upper Shroud
Lower Shroud
Incore Monitor Housing – Guide Tubes
Incore Monitor Housing – Stabilizers
Differential Pressure – Standby Liquid Control Line
Jet Pump Inlet Mixer
Jet Pump Riser Pipe
Jet Pump Diffuser
Jet Pump Sensing Lines
Riser Brace Pod

1 Fukushima-2 1998

Guide Rods
Feedwater Spargers
Core Spray
Top Guide
Core Plate
Upper Shroud
Lower Shroud
Incore Monitor Housing – Guide Tubes
Incore Monitor Housing – Stabilizers
Differential Pressure – Standby Liquid Control Line
Jet Pump Inlet Mixer
Jet Pump Riser Pipe
Jet Pump Diffuser
Jet Pump Sensing Lines
Riser Brace Pod

1 Fukushima-5 1999

Guide Rods
Feedwater Spargers
Core Spray
Top Guide
Core Plate
Upper Shroud
Lower Shroud
Incore Monitor Housing – Guide Tubes
Incore Monitor Housing – Stabilizers
Differential Pressure – Standby Liquid Control Line
Jet Pump Inlet Mixer
Jet Pump Riser Pipe
Jet Pump Diffuser
Jet Pump Sensing Lines
Riser Brace Pod

Tsuruga 2000

Guide Rods
Feedwater Spargers
Core Spray
Top Guide
Core Plate
Upper Shroud
Lower Shroud
Incore Monitor Housing – Guide Tubes
Incore Monitor Housing – Stabilizers
Differential Pressure – Standby Liquid Control Line
Jet Pump Inlet Mixer
Jet Pump Riser Pipe
Jet Pump Diffuser
Jet Pump Sensing Lines
Riser Brace Pod

Shimane 2000

Guide Rods
Feedwater Spargers
Core Spray
Top Guide
Core Plate
Upper Shroud
Lower Shroud
Incore Monitor Housing – Guide Tubes
Incore Monitor Housing – Stabilizers
Differential Pressure – Standby Liquid Control Line
Jet Pump Inlet Mixer
Jet Pump Riser Pipe
Jet Pump Diffuser
Jet Pump Sensing Lines
Riser Brace Pod

OKG 2 2003

Core Spray Piping
Separator
Segmentation
Core Shroud Head
Steam Dryer

Susquehanna 1 2007

Steam Dryer

1 Fukushima-4 2011

Guide Rods
Feedwater Spargers
Core Spray
Top Guide
Core Plate
Upper Shroud
Lower Shroud
Incore Monitor Housing – Guide Tubes
Incore Monitor Housing – Stabilizers
Differential Pressure – Standby Liquid Control Line
Jet Pump Inlet Mixer

PWR
Decommissioning
also within
GEH Scope

1 Fukushima-1 2001

Guide Rods
Feedwater Spargers
Core Spray
Top Guide
Core Plate
Upper Shroud
Lower Shroud
Incore Monitor Housing – Guide Tubes
Incore Monitor Housing – Stabilizers
Differential Pressure – Standby Liquid Control Line
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Quad Cities 2004

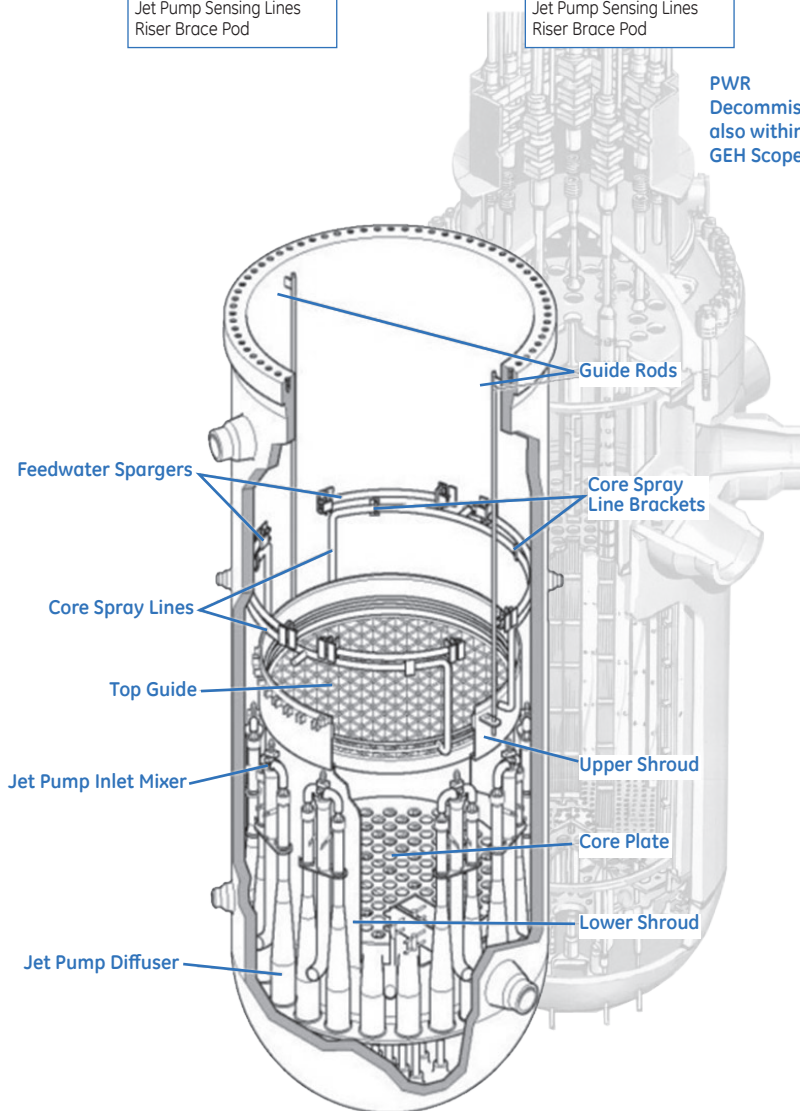
Steam Dryer

Susquehanna 2 2008

Steam Dryer

OKG 3 2011

Core Spray Piping
Separator
Segmentation
Core Shroud Head
Steam Dryer



For more information, contact your GE Hitachi Nuclear Energy sales representative or visit us at:

<https://nuclear.gepower.com/d-and-d>



MATERIAL
SEGMENTATION



WATER
PROCESSING



FUEL
MANAGEMENT



ENGINEERING
SERVICES



LICENSING
SUPPORT



FIELD
SERVICES

