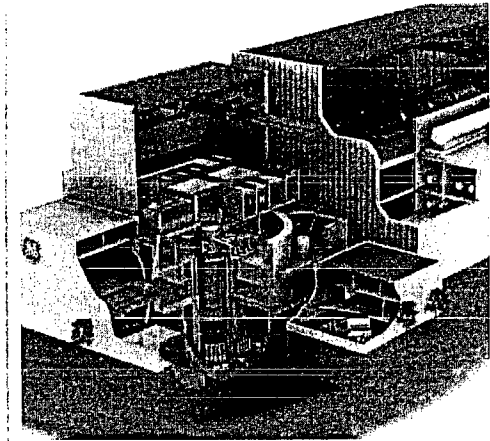


GE Update



Andy White

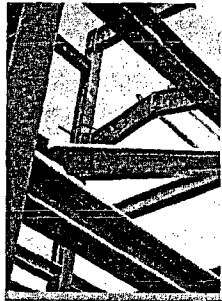
President & CEO, Nuclear Energy



imagination at work

C/p

Strategic focus



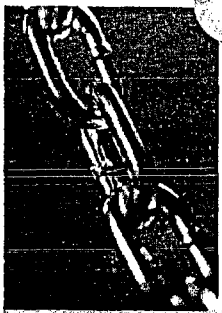
1 Build a strong foundation

- Accelerate investment in resource, expertise and R&D
- Improve customer experience w/ 'culture & capability' model
- Invest in supply chain ... remove sole source limitations, expand new unit capacity
- Expand regional footprint w/ acquisitions, partnerships & organic growth



2 Invest in core business

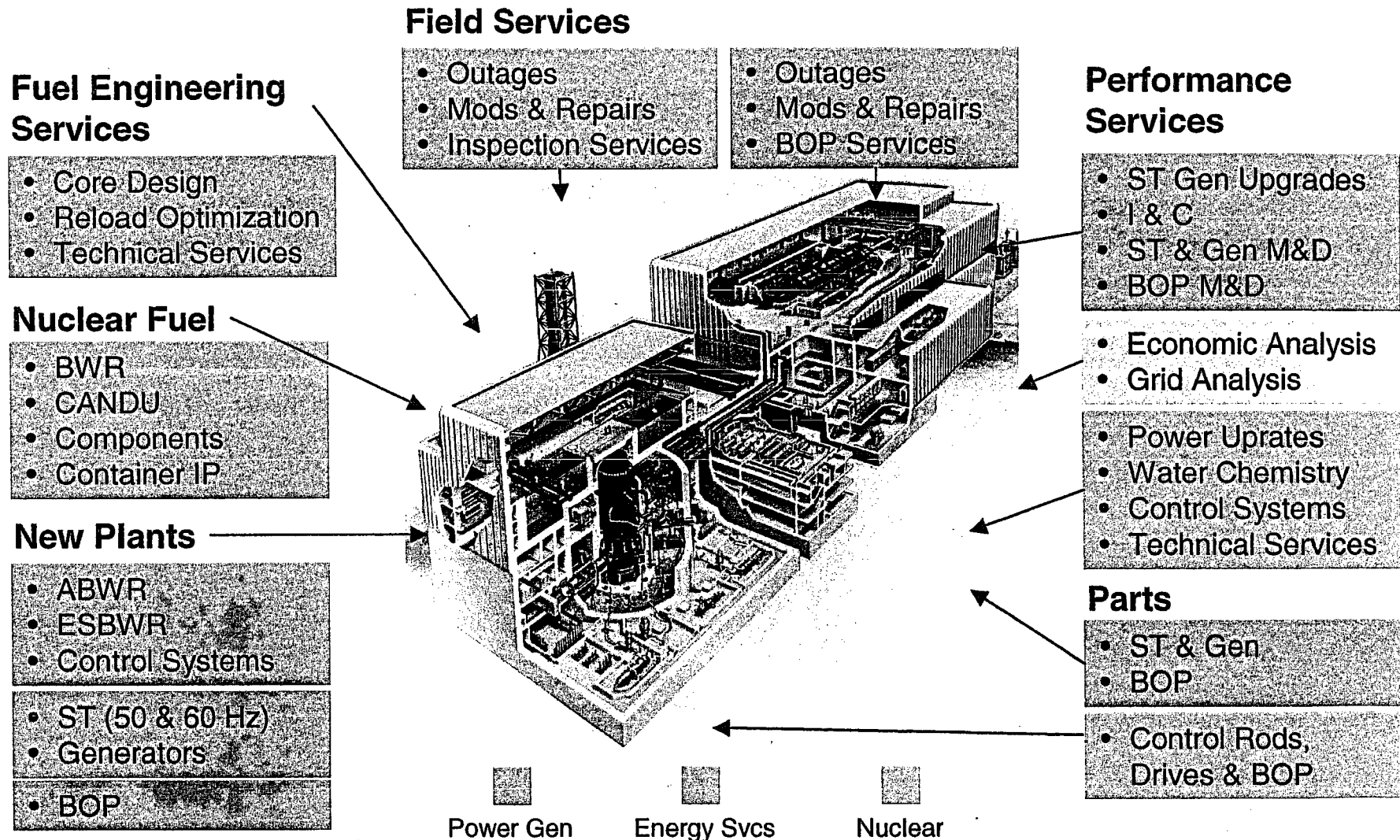
- New units ... ESBWR + Gen IV
- Fuel...GNF 2, MOX and beyond
- Reactor services ... total outages
- Performance services ... new portfolio
- Uranium...Enrichment +
- Back end services ... investigate options



3 Expand our presence across the Value Chain

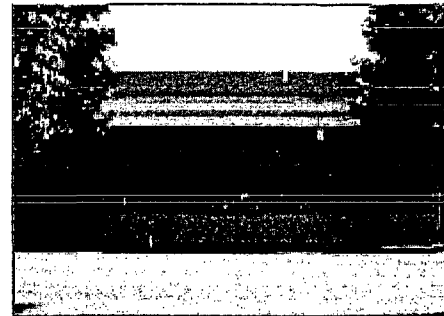
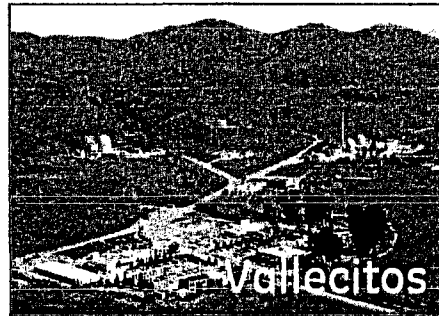
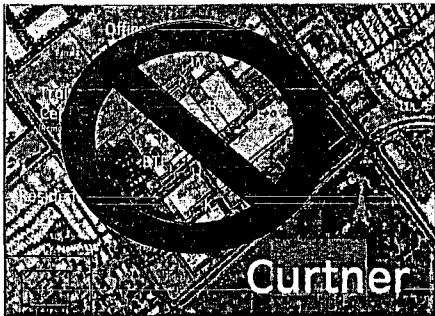
Mining & Milling	Conversion	Enrichment	Fuel Fabrication	New Units	Services	Spent Fuel Storage	Re-processing	Final Disposal
?		✓	✓	✓	✓	✓	?	✗
Explore Relationships		Silex	Add PWR		Add PWR	New	Explore	

Nuclear Vertical

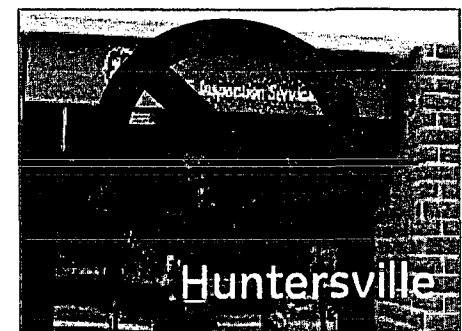
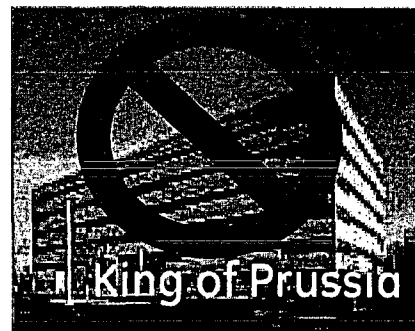
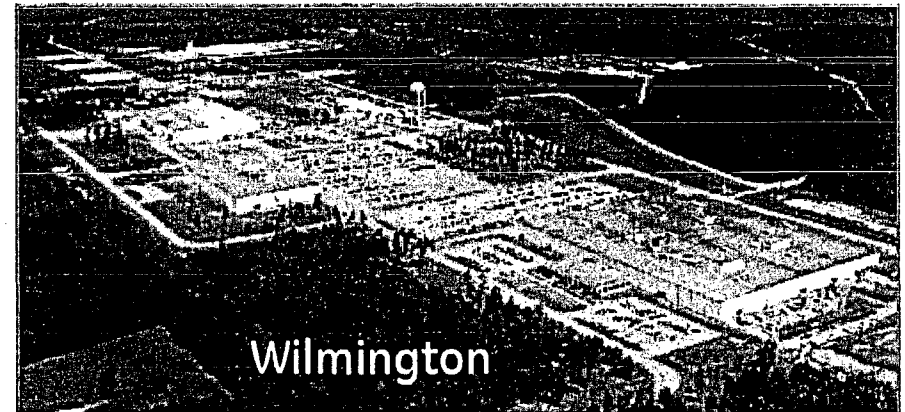


Plus Water, Security, Financing Options

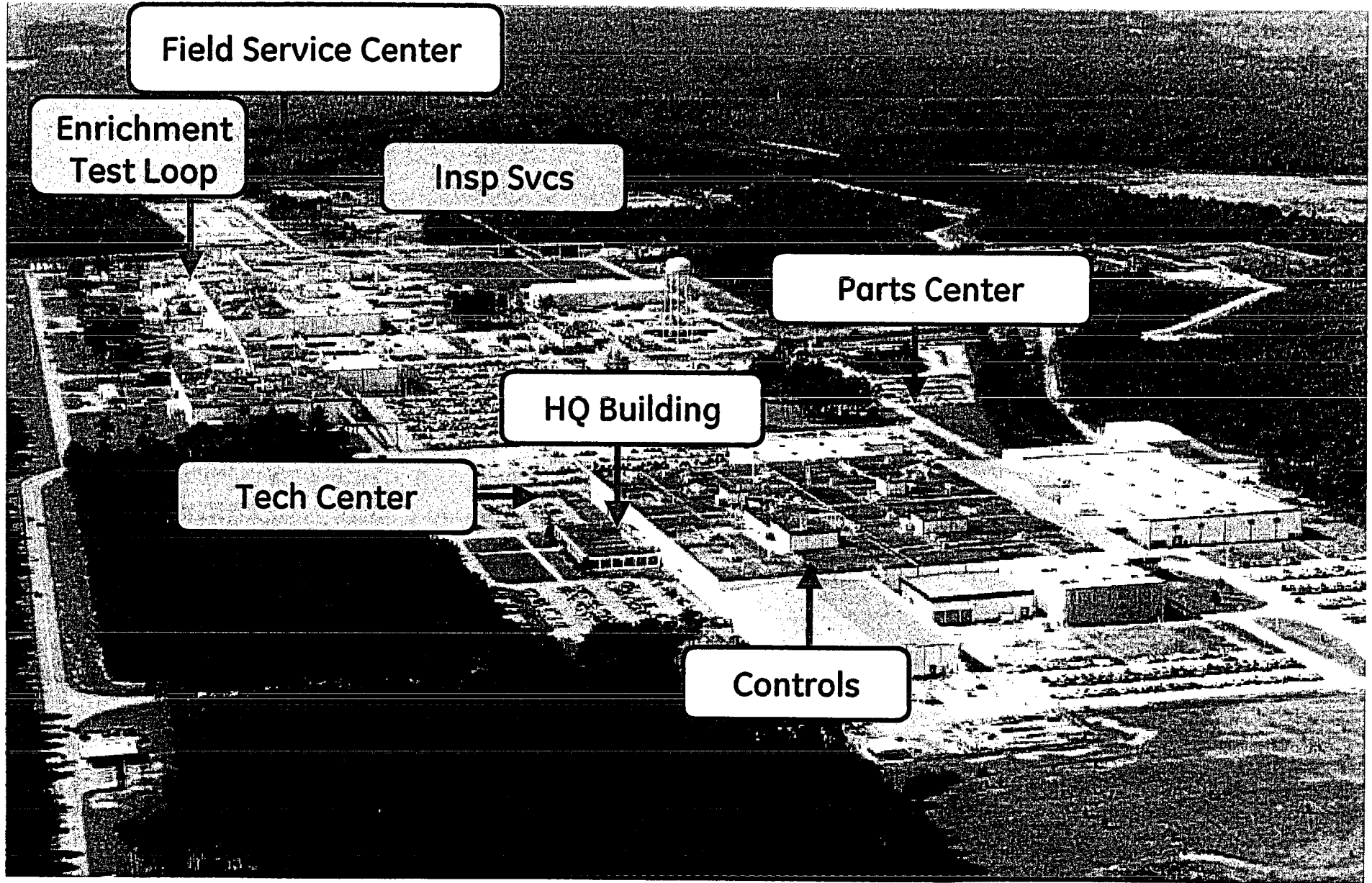
Simplification & Consolidation



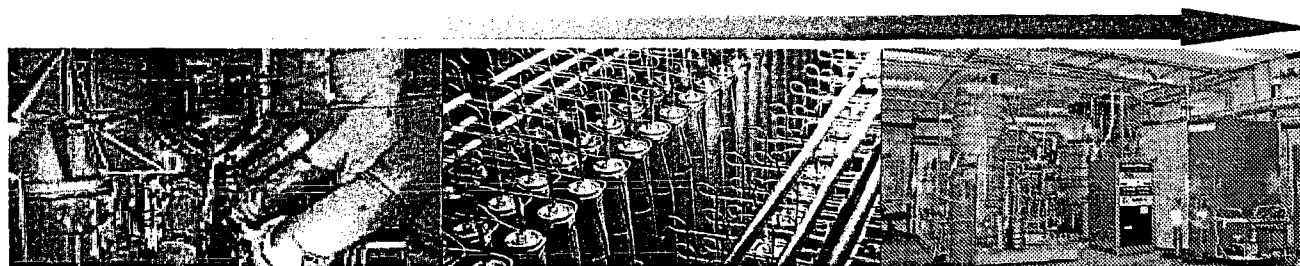
- 95% BWR's are in the East and South
- Customers requesting move
- Improved economics and incentives
- Closer to INPO, NEI, NRC, new build
- Recruiting and retention



Wilmington Site



GE Enters Uranium Enrichment ...



Gaseous Diffusion

Centrifuge

Laser Isotope
Separation

GENERATION	1 st	2 nd	3 rd
PROCESS	Mechanical	Mechanical	Laser Excitation
% OF EXISTING PRODUCTION ¹	45%	40%	0%

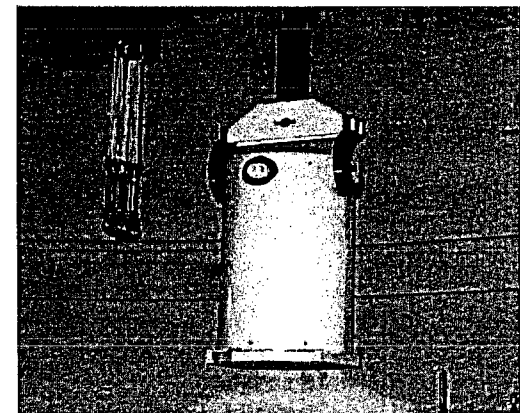
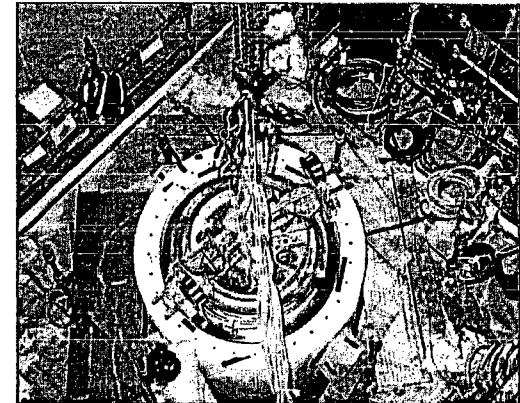
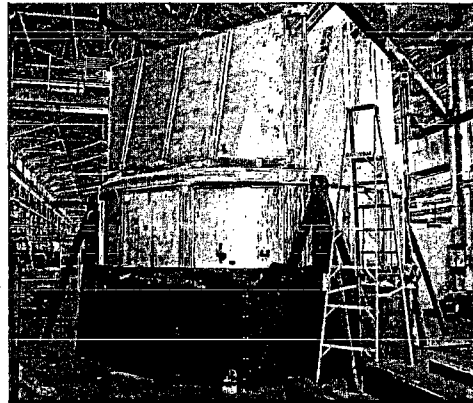
¹ Remainder from HEU

- ✓ U.S. Government wanting technology in U.S. company hands
- ✓ Resolved roadblocks to attaining projected laser isotope separation efficiencies
- ✓ GE/Silex – synergies to commercialize this innovative technology
- ✓ Improved cost of enrichment in the long term
- ✓ Wilmington location ideal

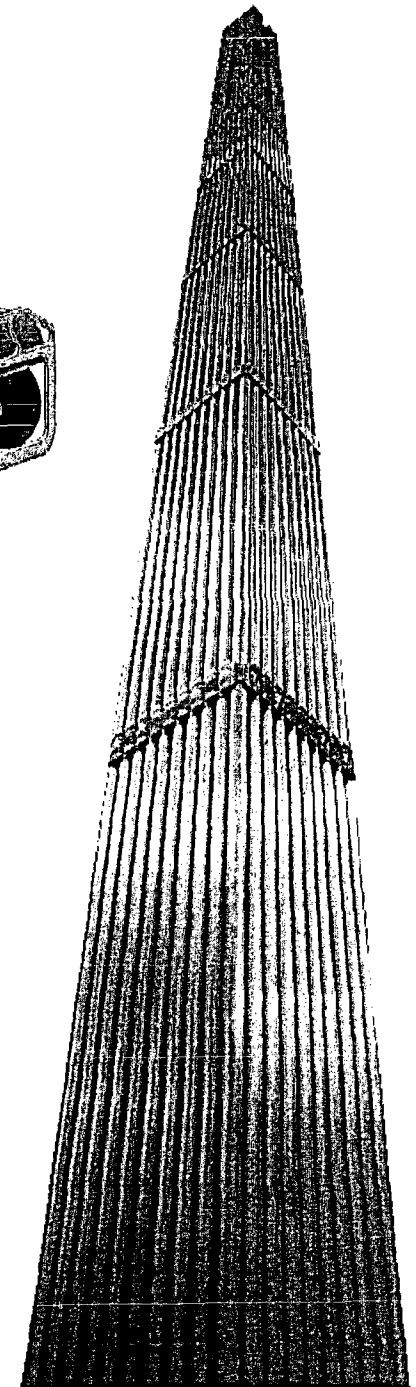
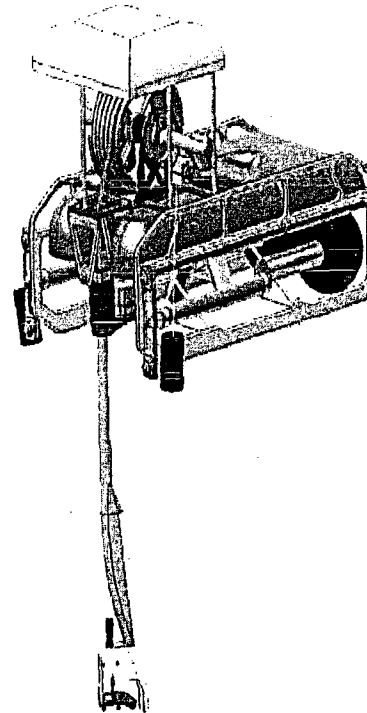
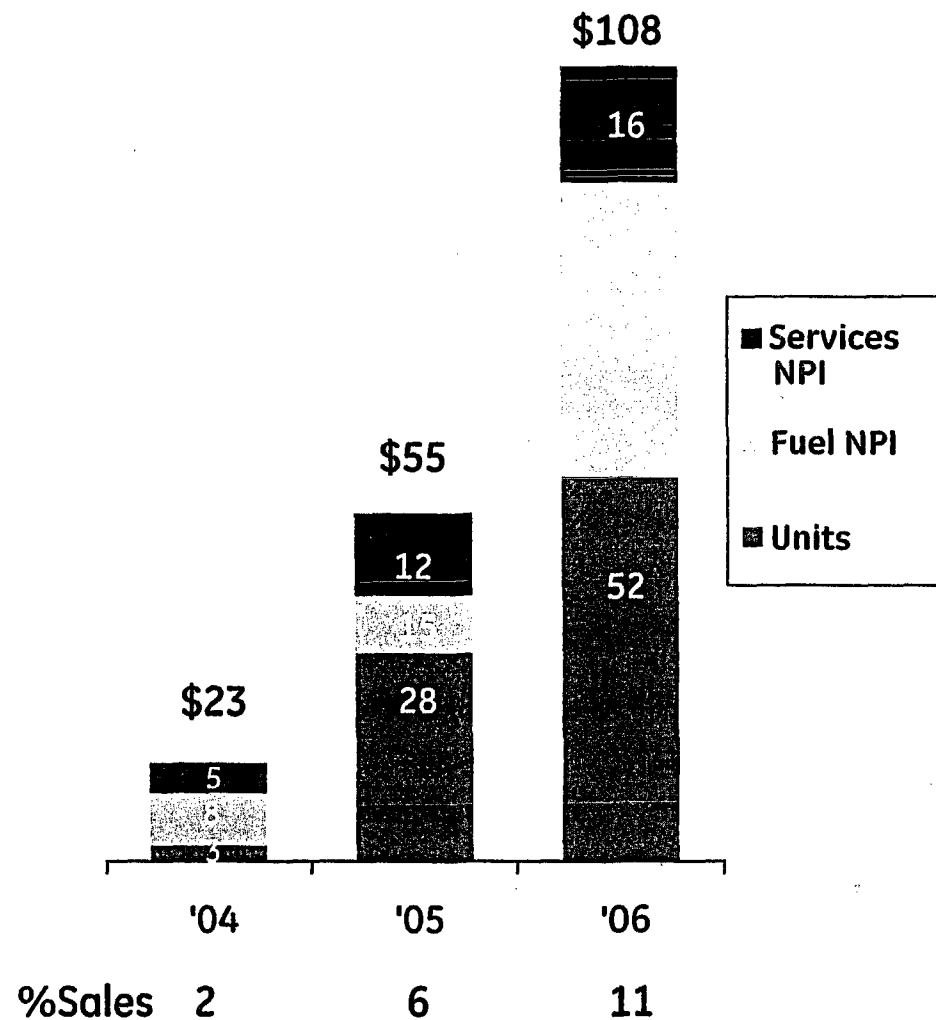
GE Enters Fabrication & Dry Cask Business...

Ionics Purchase

- Dry Fuel Canisters
- Transfer Casks
- Cask Liners
- Steam Dryers & Strainers



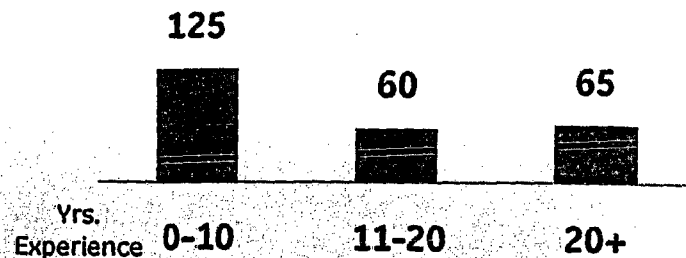
New Products / Programs (\$MM)



Talent Infusion

- 420 new hires since 2004
- Currently hiring 30 per month
- Mix of college & experienced talent
- Building solid bench

2005 New Hire Demographics



New Unit - Personnel Alignment

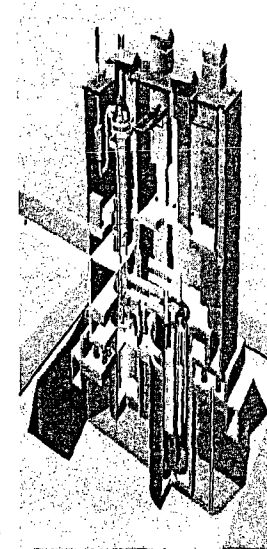
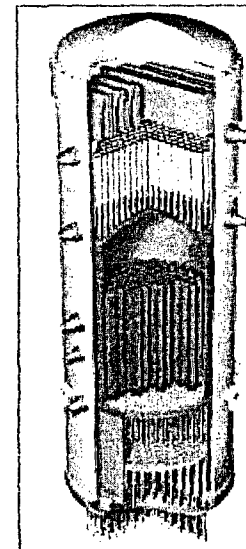
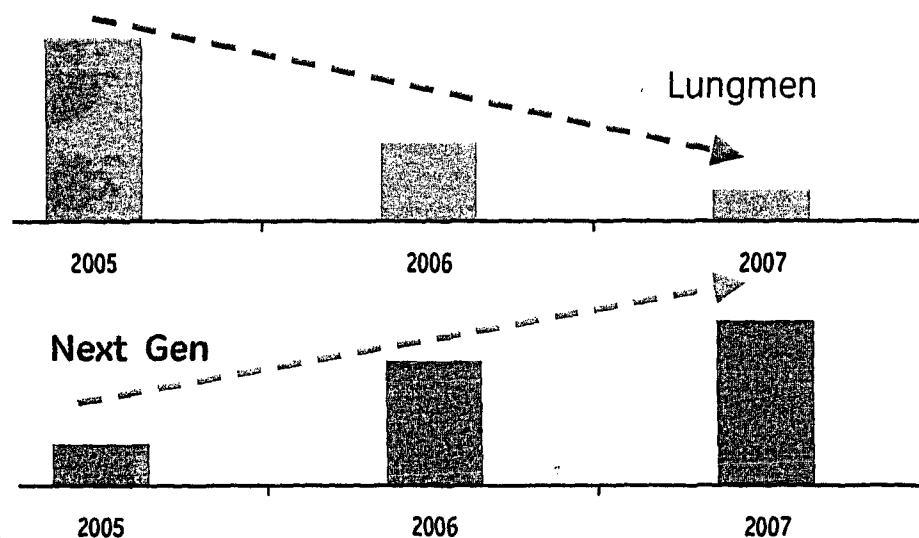
- ✓ ESBWR & future new units move to Wilmington ...attracting new personnel
- ✓ Top talent realigning to Next Gen ... transferring lessons learned



Asia Projects

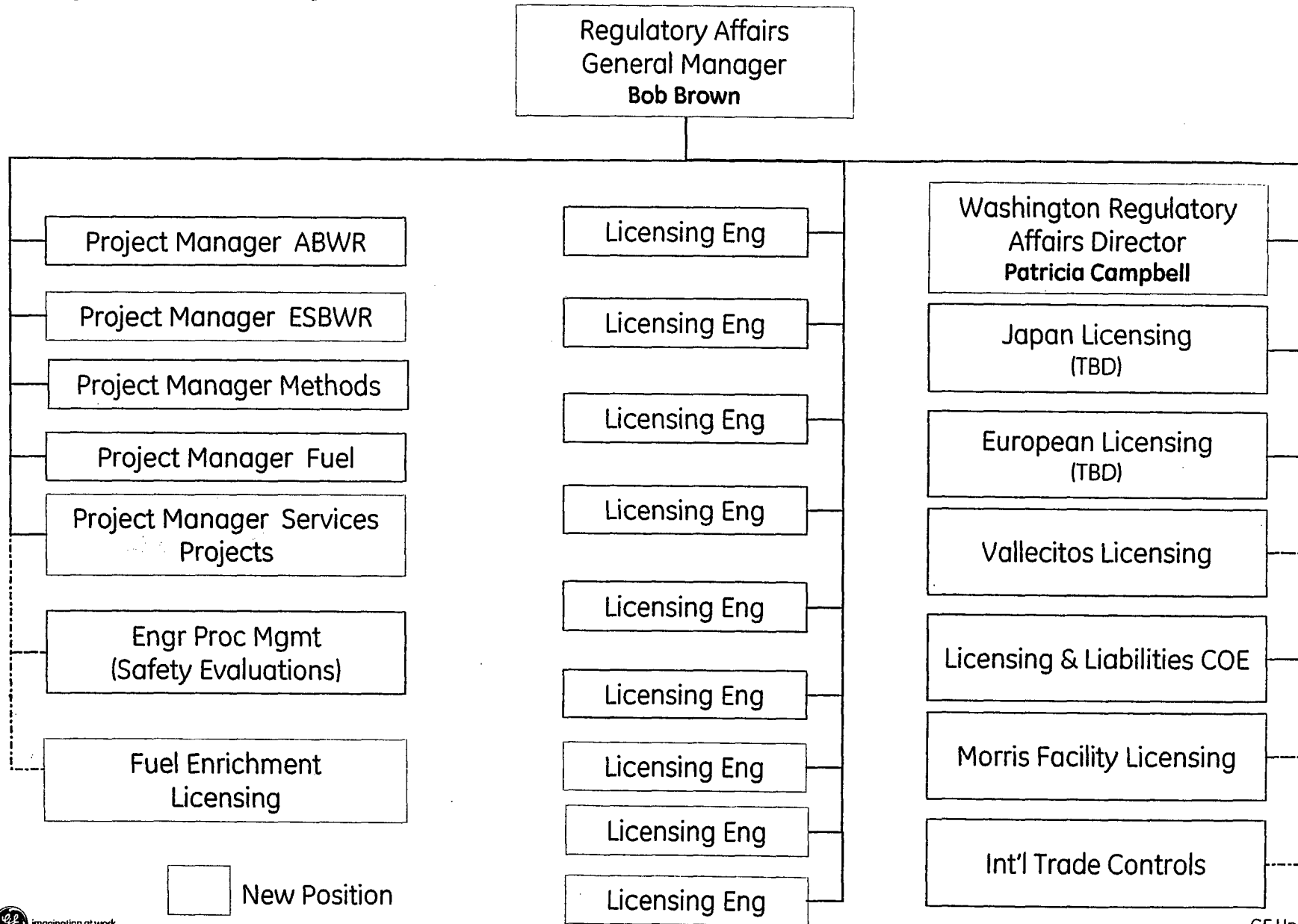
Headcount reallocation

Lungmen (2005-2007)

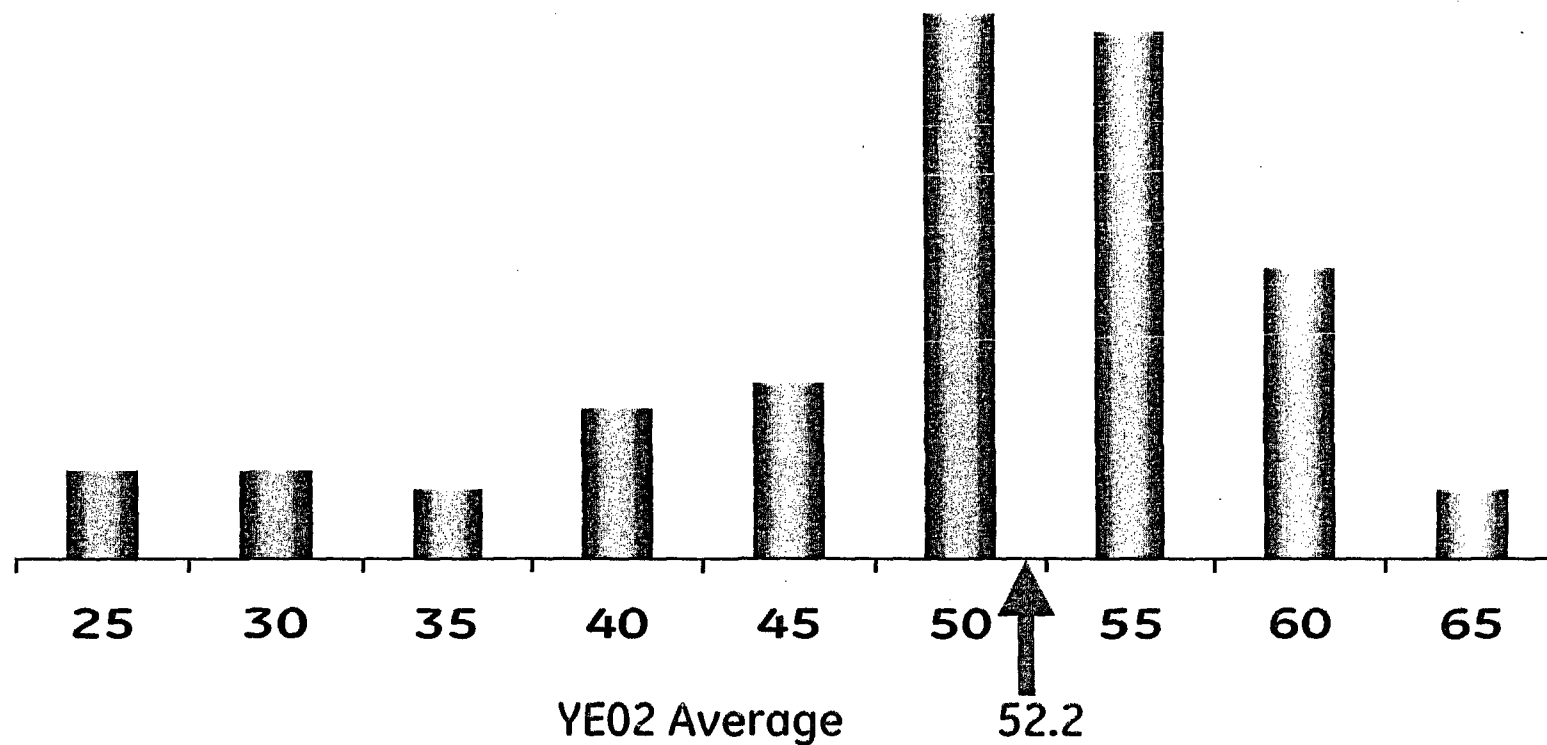


Next Gen

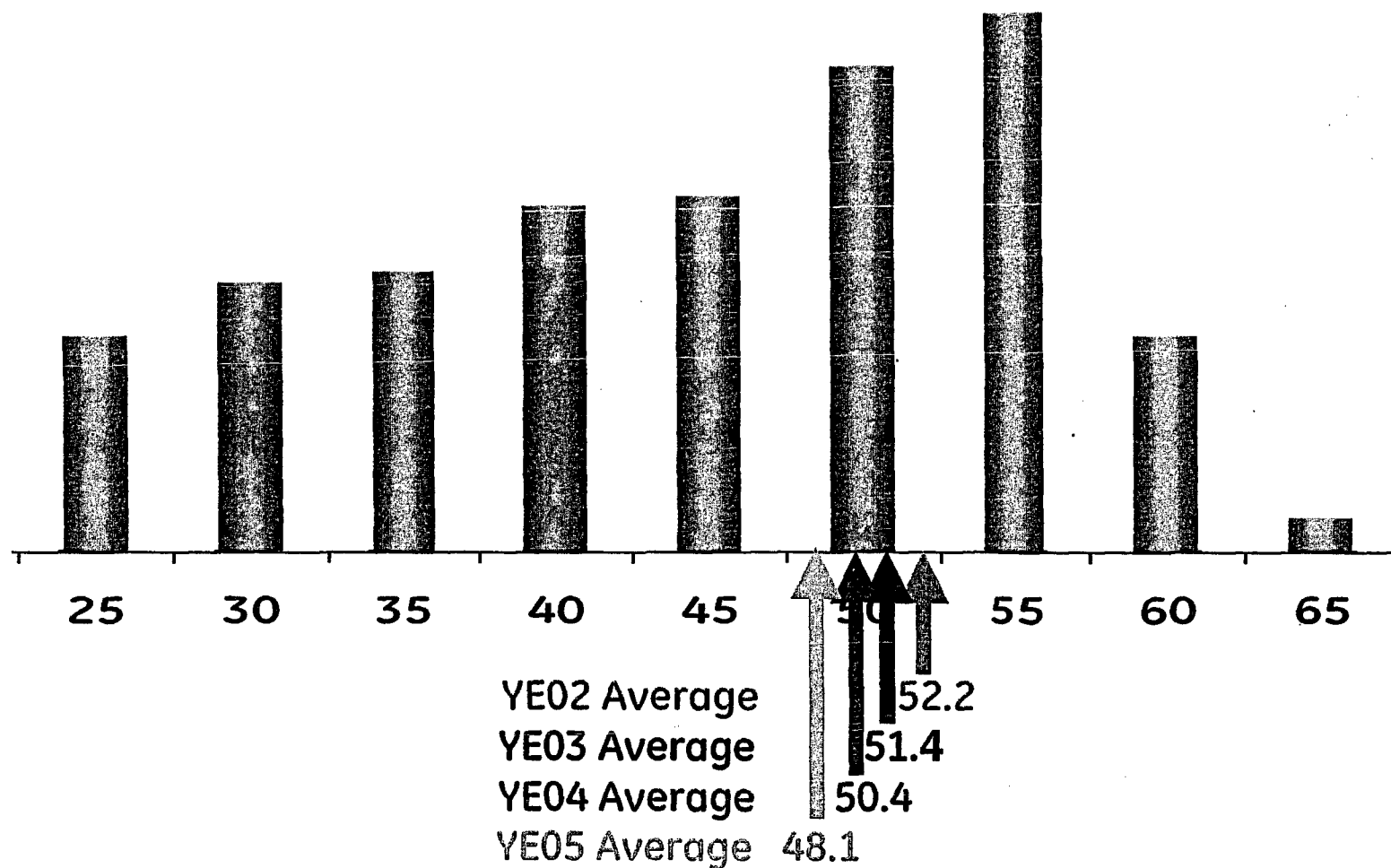
Regulatory Affairs



Resulting Impact on Demographics



Resulting Impact on Demographics



Human Performance

...The Environment

- Customers embracing, implementing & requesting HU
- GE benchmarking industry best practices



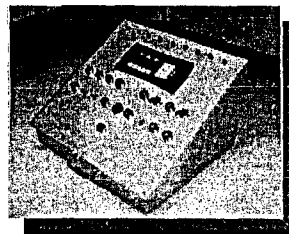
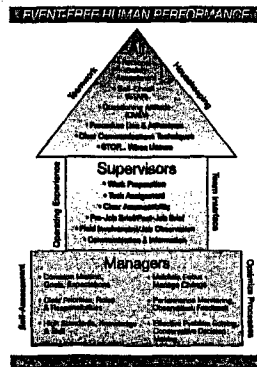
... The Catalyst

- Hired leader with strong INPO & industry experience
- HU Council Formed – Strong Leadership & Commitment

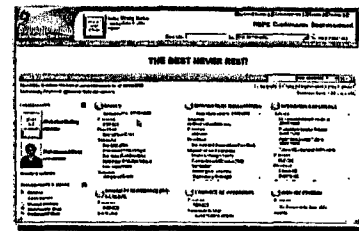
... The Improvement

- Core Focus Areas Targeted for Improvement
- Training and Practical Application of HU Tools

and
the
Tools...



Training Simulator



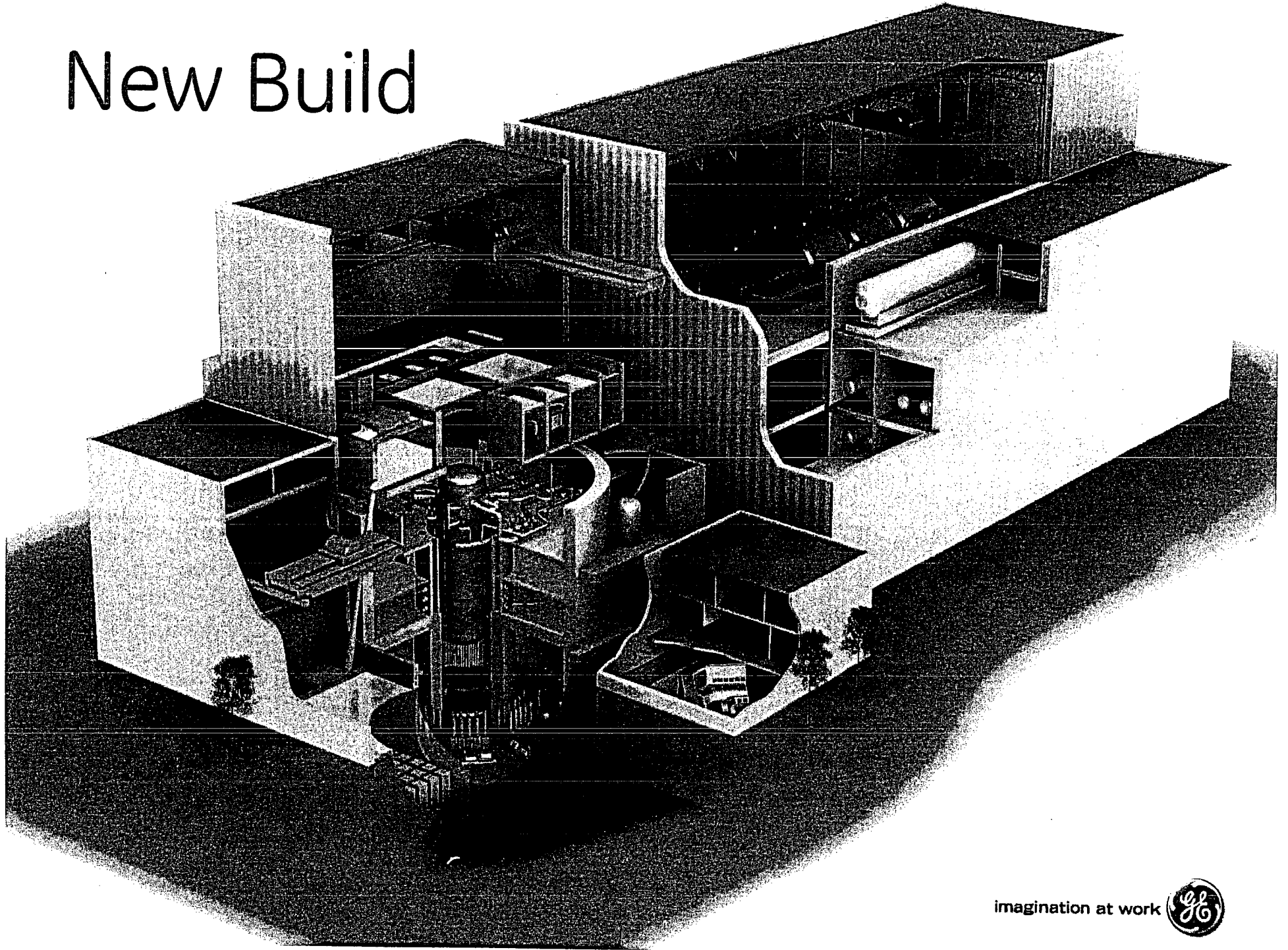
On-line ...Remote Accessibility 24 / 7



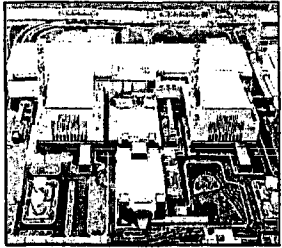
Event Clocks...

Rewards & Recognition

New Build

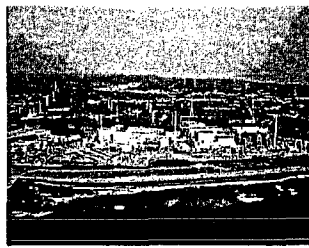


Gen III New Units



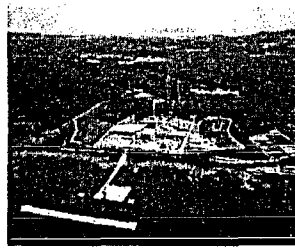
Kashiwazaki
6&7, Japan

Online



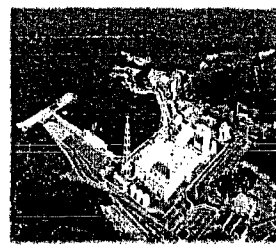
Hamaoka 5,
Japan

Online



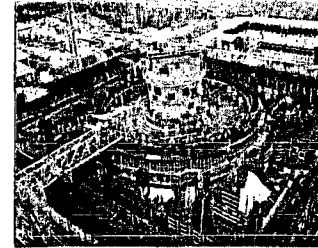
Shika 2,
Japan

On Line



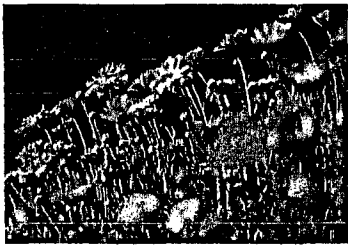
Shimane 3
Japan

Building



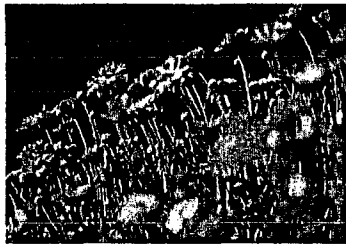
Lungmen 1&2
Taiwan

Building



Ohma, Japan

Approved



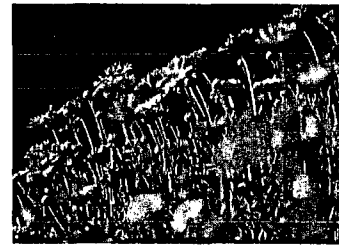
Higashidori
1&2, Japan

Planning



STP / NRG
3&4, USA

Planning

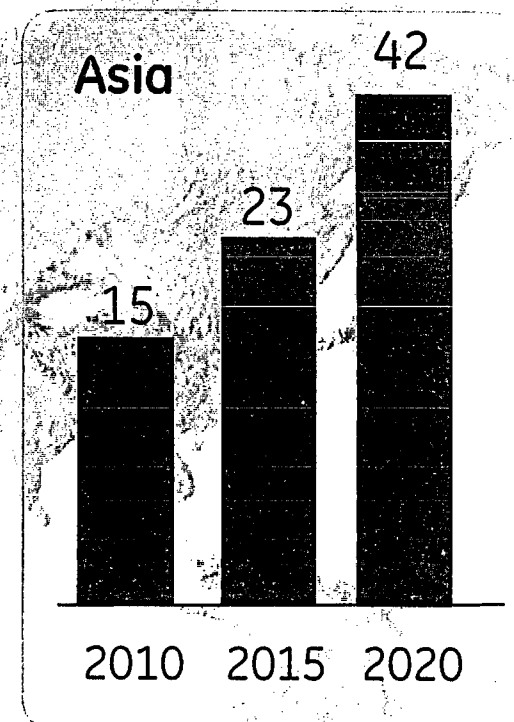
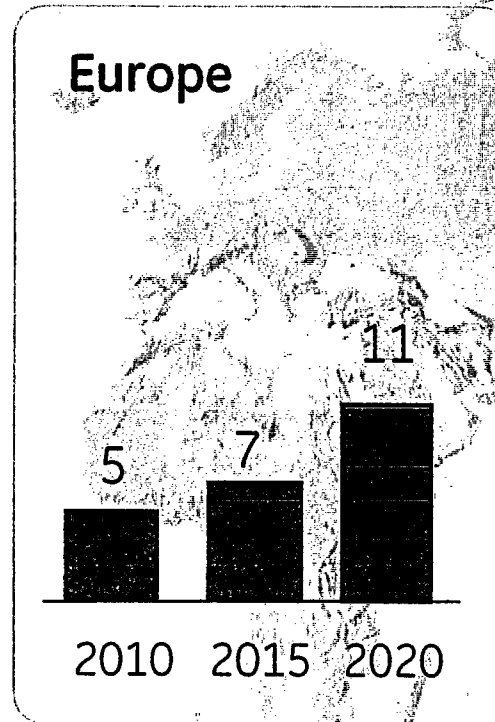
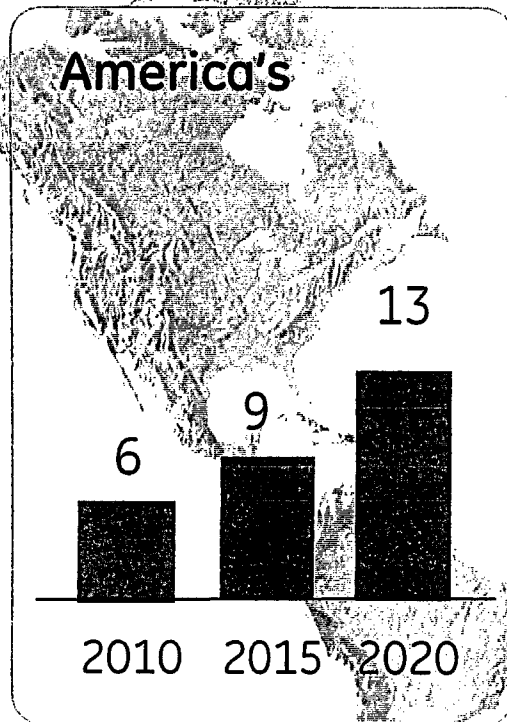


Amarillo
1&2, USA

Study

Future outlook

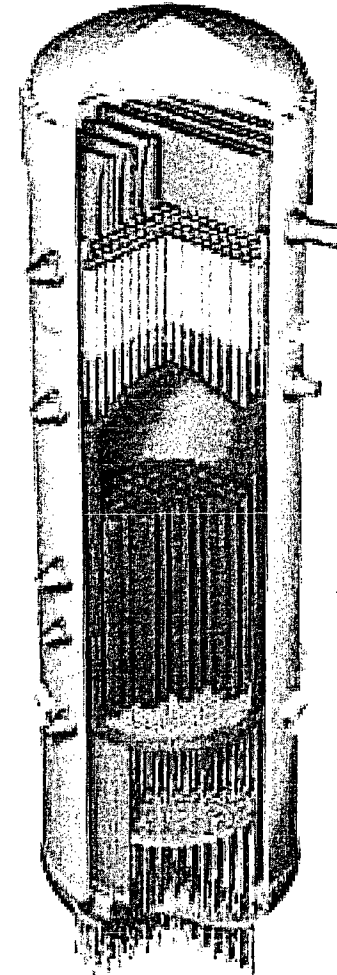
New Construction Forecasts ... (Orders; GW Cumulative)



Next Gen Reactors...Gen III+

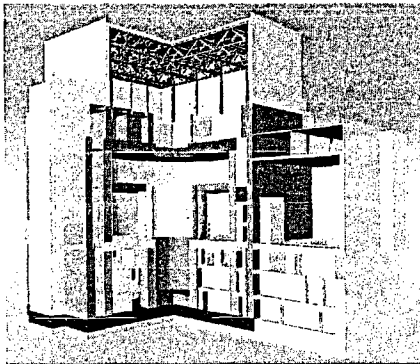
Customer / Industry Objectives

- Simplified design
- Lower capital costs
- Faster construction period
- Design for O&M ... lower cost...easier
- Fewer O&M staff / less specialized
- Improved forced outage rates
- Improved safety and security
- Lower dose & reduced waste
- Risk sharing & financing options
- Standard design



Advanced nuclear power ... ESBWR

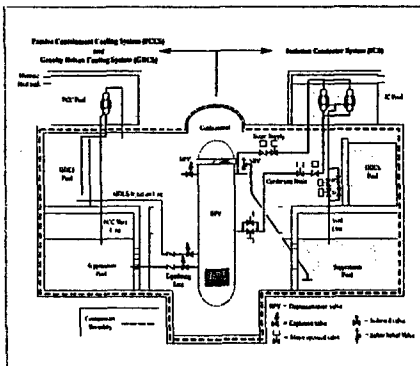
Key Features



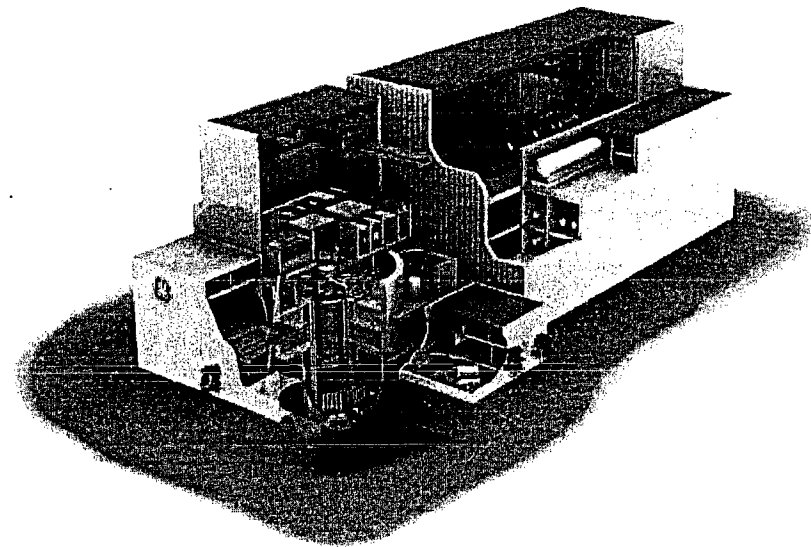
- Simplified Design
- Standard / Modular
- 36 month schedule *
- Capex down 15%
- Opex down 20%

Deployment

- NRC DC submission complete
- Part of the US DOE 2010 Program
- Selected by NuStart, Entergy & Dominion
- On plan for 2007 COL applications

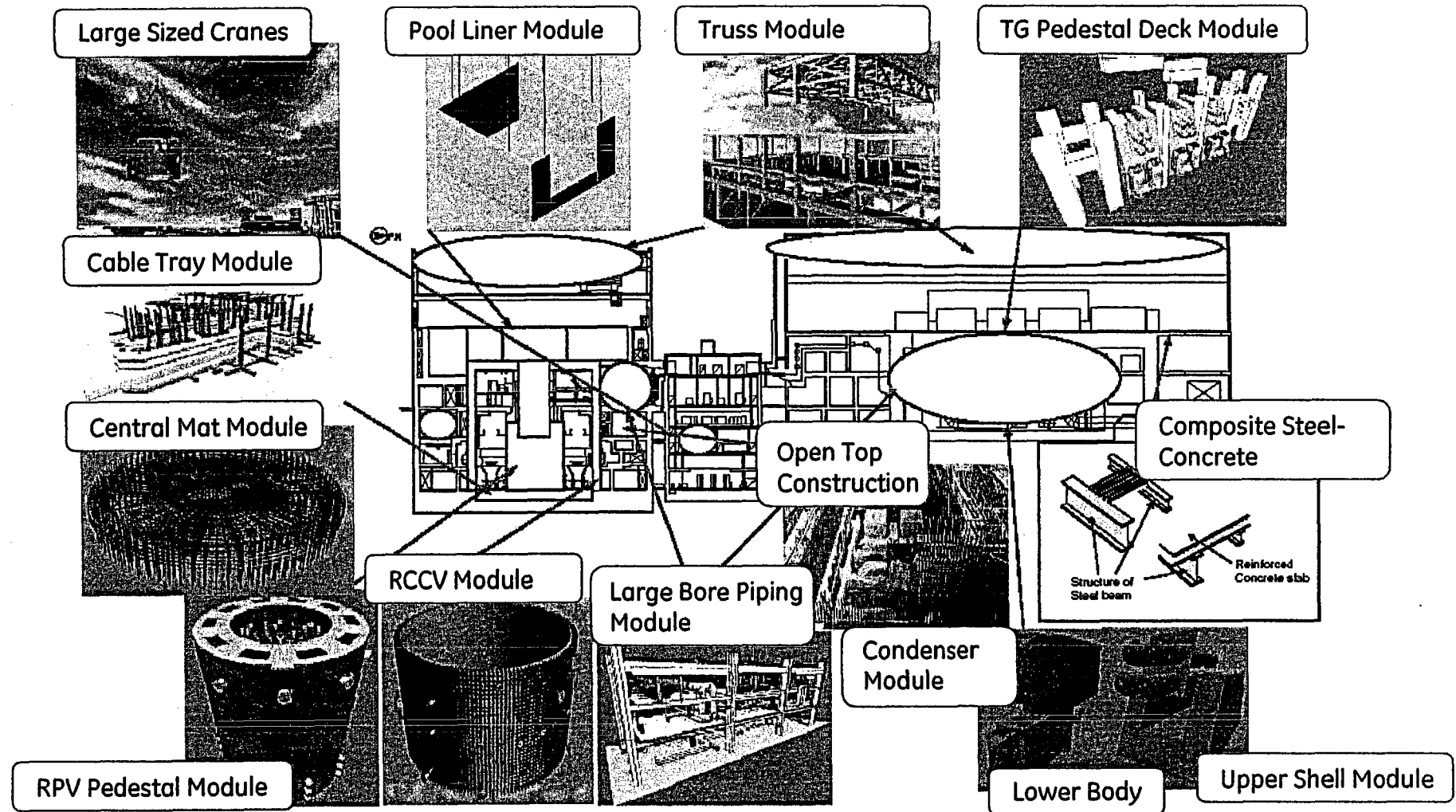


- Improved safety
- Improved security
- Passive design
- Improved outages

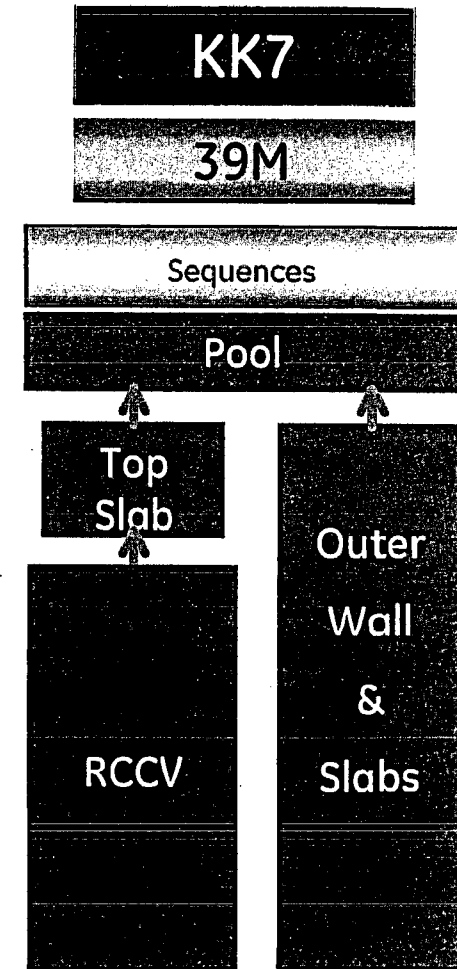
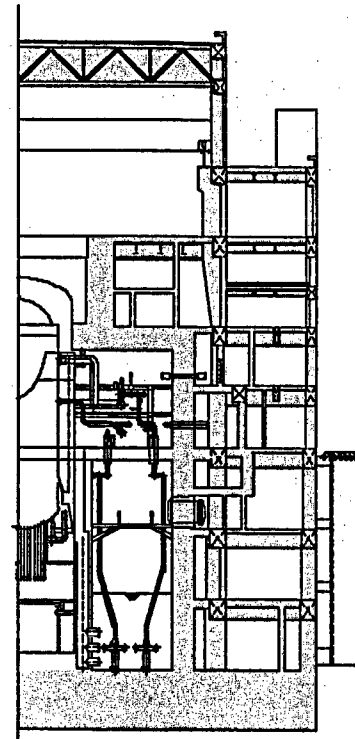
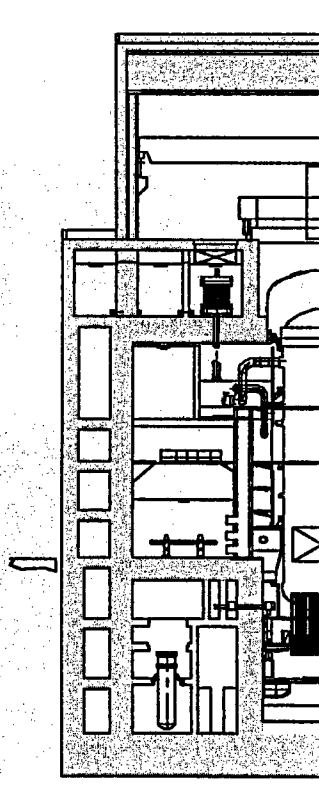
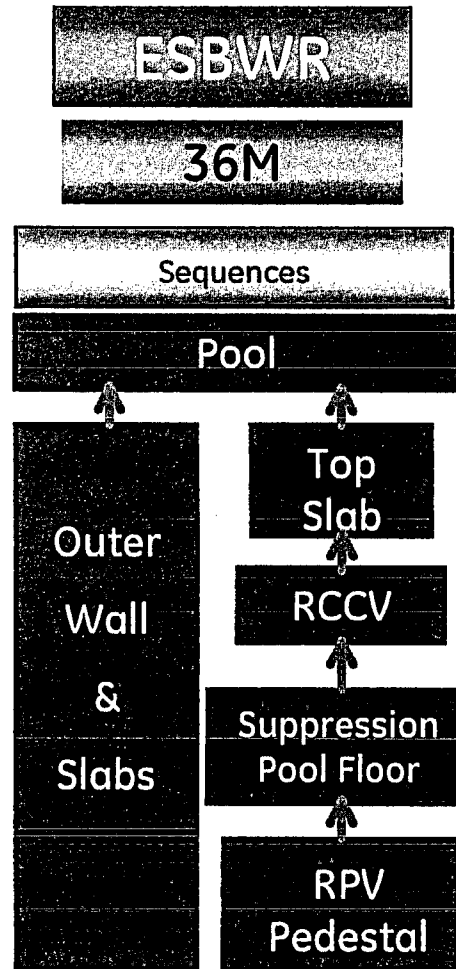


* From FSC to FL

Principal ESBWR Construction Methods

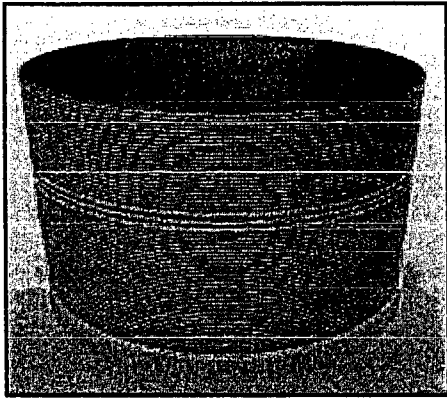


ESBWR vs. ABWR Comparison

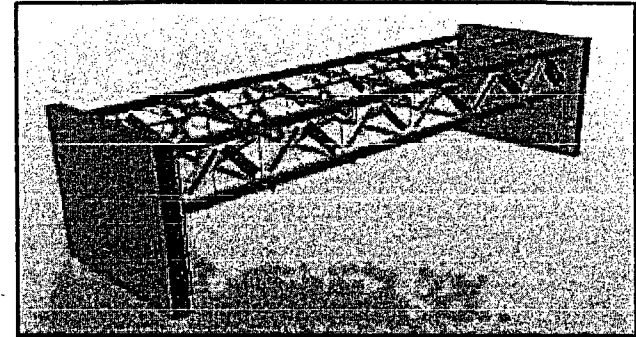


Advanced Construction Methods: 3D Models

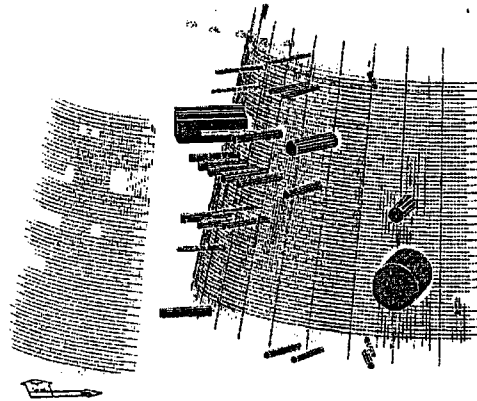
RCCV liner



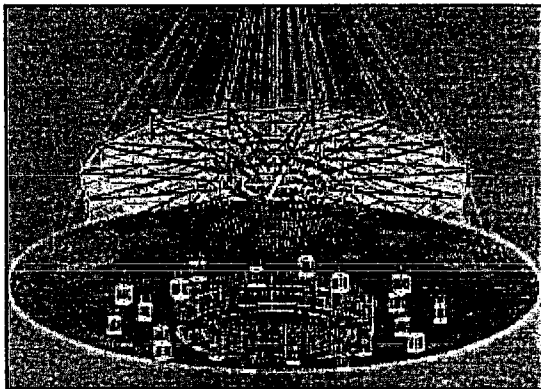
Roof Truss Steels



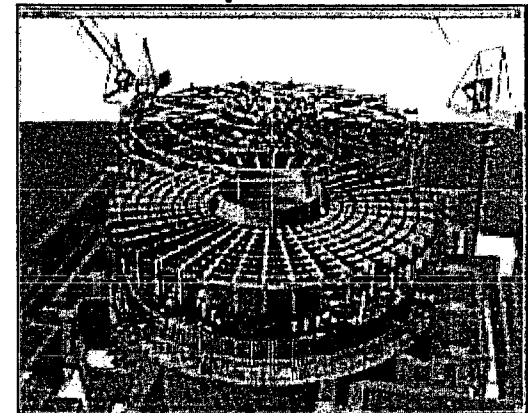
Rebars



Central Mat

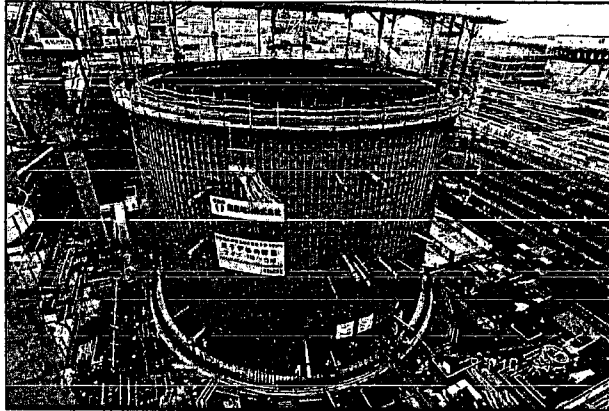


Top Slab

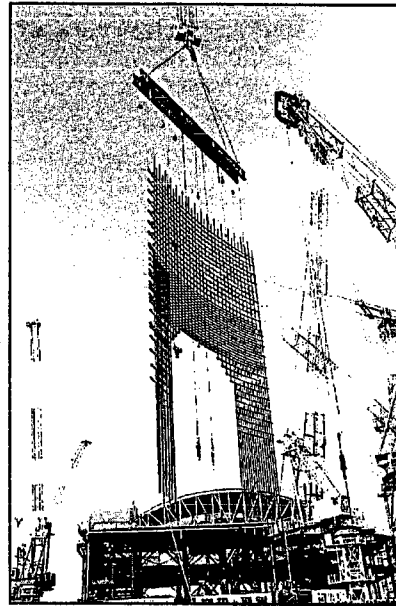


Advanced Construction Methods: In Reality

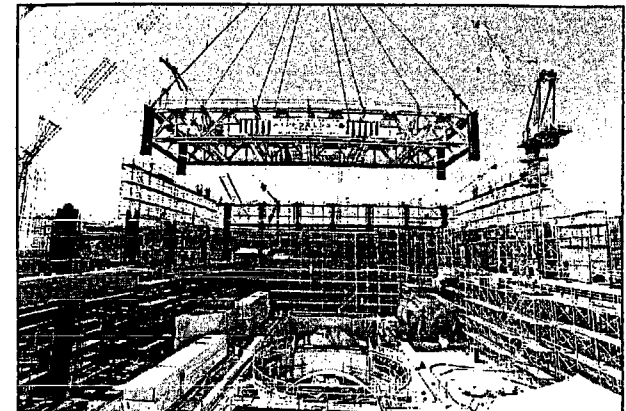
RCCV liner



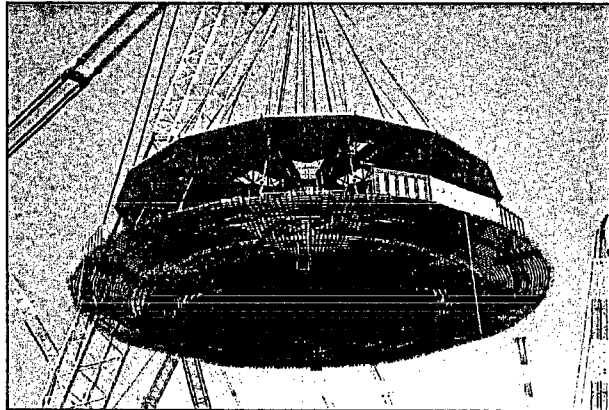
RCCV Rebars



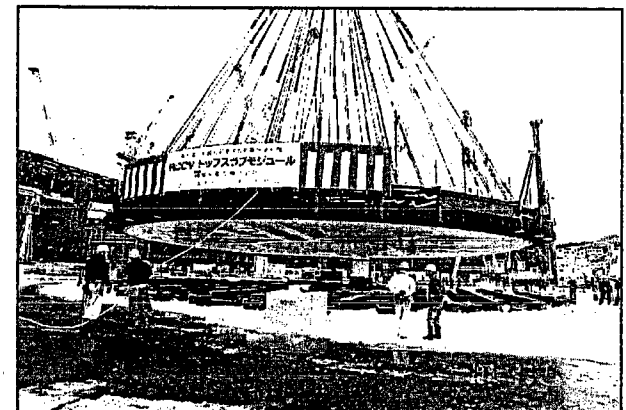
Roof Truss Steels



Central Mat



Top Slab



Standardization

Engineering Design

- ❖ Enveloped designs
- ❖ Common components
- ❖ Design control and documentation
- ❖ Standardized components
- ❖ Common test procedures
- ❖ Identical systems, structures
- ❖ O&M procedures
- ❖ Construction plans and processes

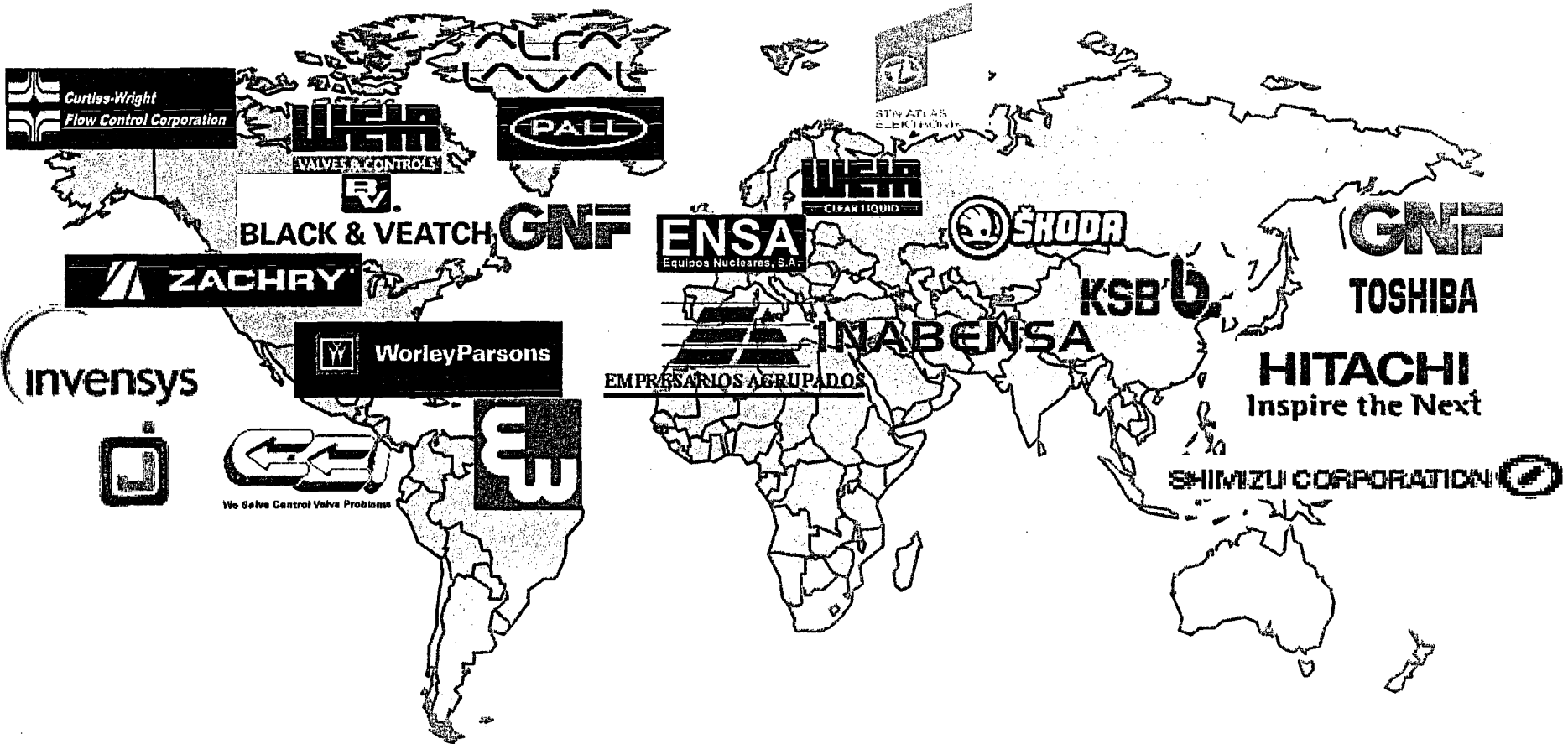
Project Controls

- ❖ Project Quality Plan
- ❖ Project Design Manual
- ❖ Project Procurement Plan
- ❖ Project Management Manual
- ❖ Project Schedule & Controls
- ❖ Engineering Operating Procedures (EOPs)
- ❖ Project Instructions (EPIs)

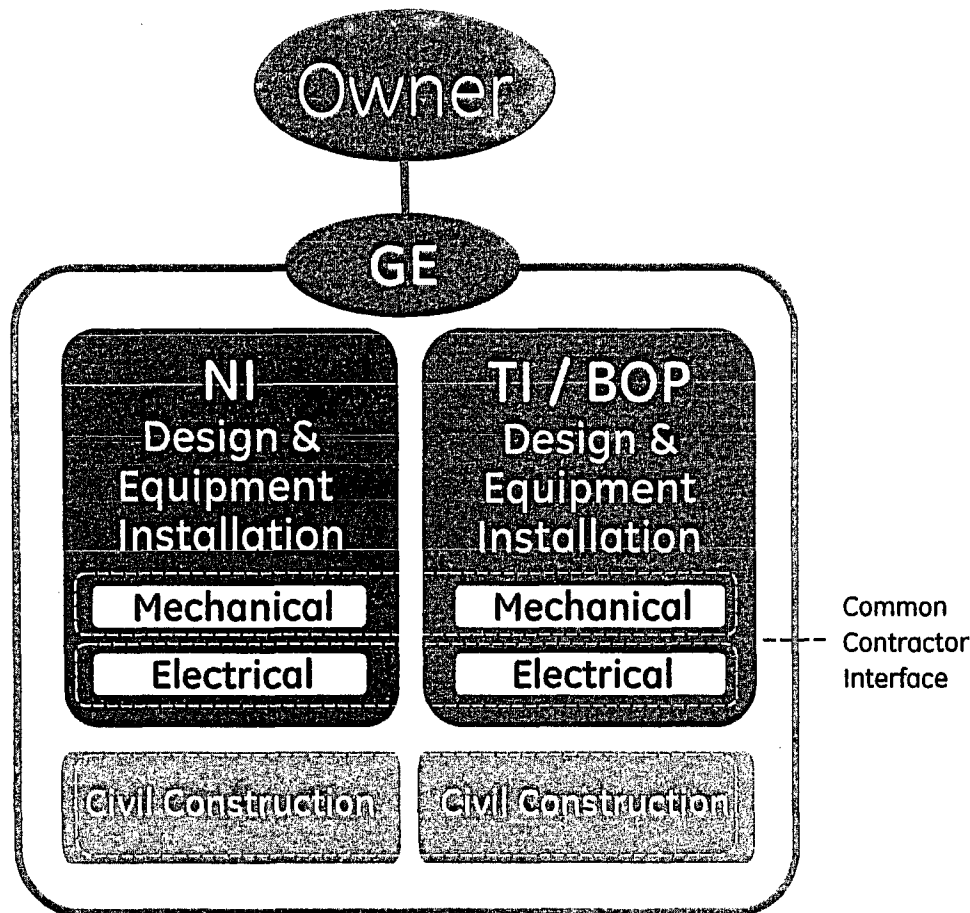
Documentation

- ❖ Project Specific Calculations
- ❖ Project Specific Design Record Files
- ❖ Equipment Requirements
- ❖ Key Supplier Documents
- ❖ Outgoing Customer Correspondence
- ❖ Text Type Engineering Documents
- ❖ Reports

GE's Qualified Suppliers



Project delivery structure

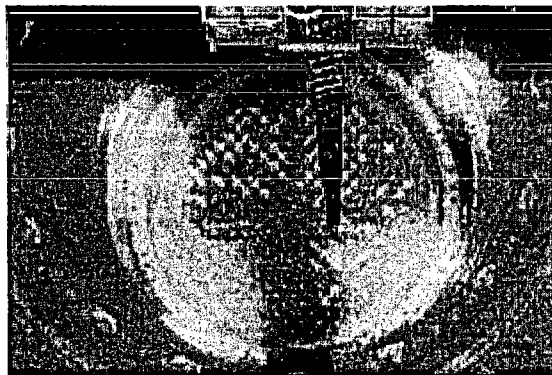
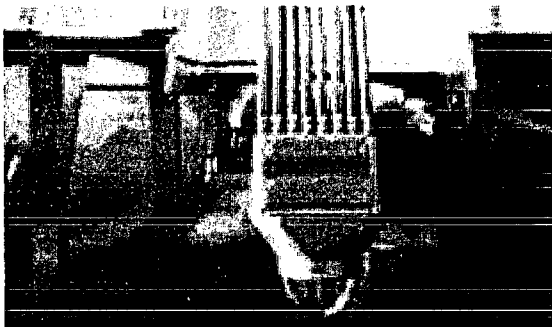


- PM = GE
- NI = GE + GE Team
- TI/BOP = GE &/Or Global Suppliers/Partners
- Civil Construction = Key partners identified
- M&E = Key partners identified

Highlights

- Owner signs a Prime Contract with GE, who manages subcontracts in closed consortium
- Collaborative Customer/GE model
 - Owner in key management positions
- Best approach to provide a Total Project solution:
 - Single interface point for customer
 - Total Project Management
 - Key project interfaces managed
 - Coordinated construction
 - Multiple project participants with risk sharing
- Contract terms to provide for reasonable risk share between GE and Owner
- Single interface point for Owner
- Developed & ready to deploy

Nuclear Fuels

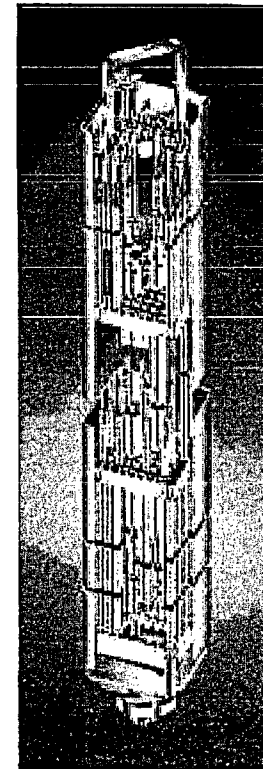


Fuel Products

- BWR & Candu Fuel:
 - Nuclear & Mechanical Design
 - Initial Core Loads
- MOX Fuel Supply (Japan)

Fuel Services

- Core Design
- Re-Load Design
- Technical Services
- Fuel Performance Optimization
- Monitoring & Diagnostic Services



BWR Bundles

- GE11/13/12/14
- GNF-2
- Next Generation

BWR Fuel

Defense in Depth

PCI/Duty

- Accurate, benchmarked, state-of-the-art methods
- High quality, PCI-resistant pellets
- Plant operator tools

Corrosion

- Maximum cladding corrosion resistant
- Real-time plant water chemistry monitoring (including high-risk fuel species)



Debris

- Debris ingress prevention
- Improved cladding fret resistance (at spacer locations)

Manufacturing

- Robust manufacturing processes
- Best-in-class inspection systems
- Human performance

GNF2 Advantage™



Results

Operating Flexibility

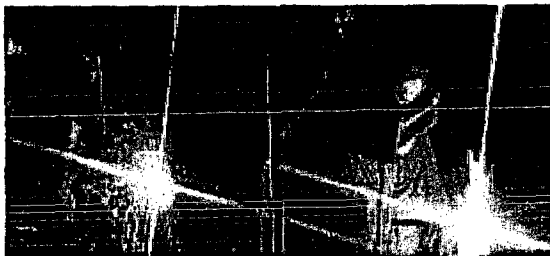
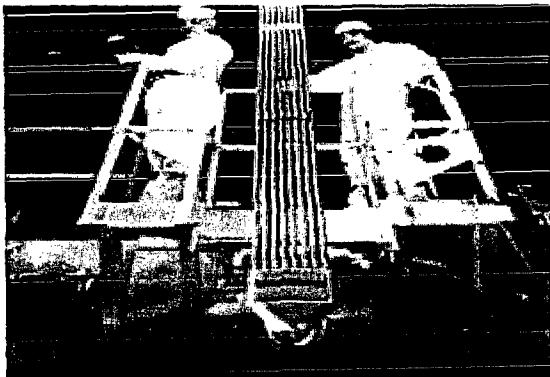
Increased Energy

Reduced Fuel Cycle Costs

Reliability & Quality Enhancements

Committed to zero leaker reliability while meeting customers' performance needs

Nuclear Services

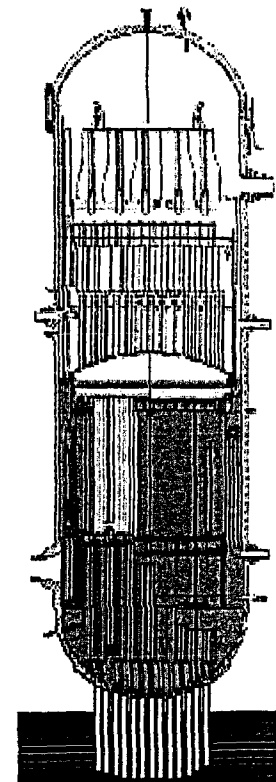


Performance Services

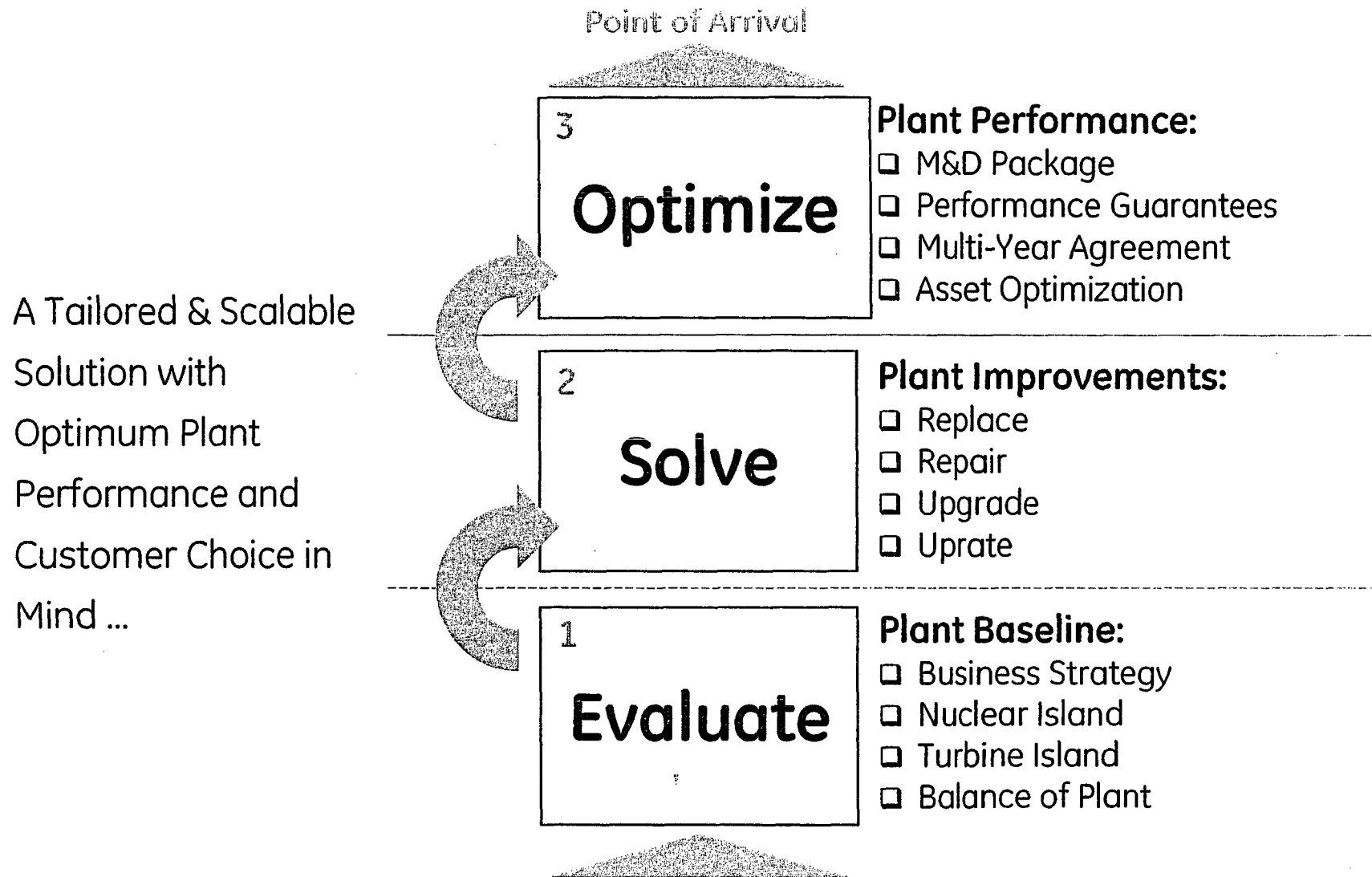
- Asset Enhancement Services
- Asset Protection Services
- Technical Services
- Electrical & Mechanical
- Controls
- Contractual Services

Reactor & Field Services

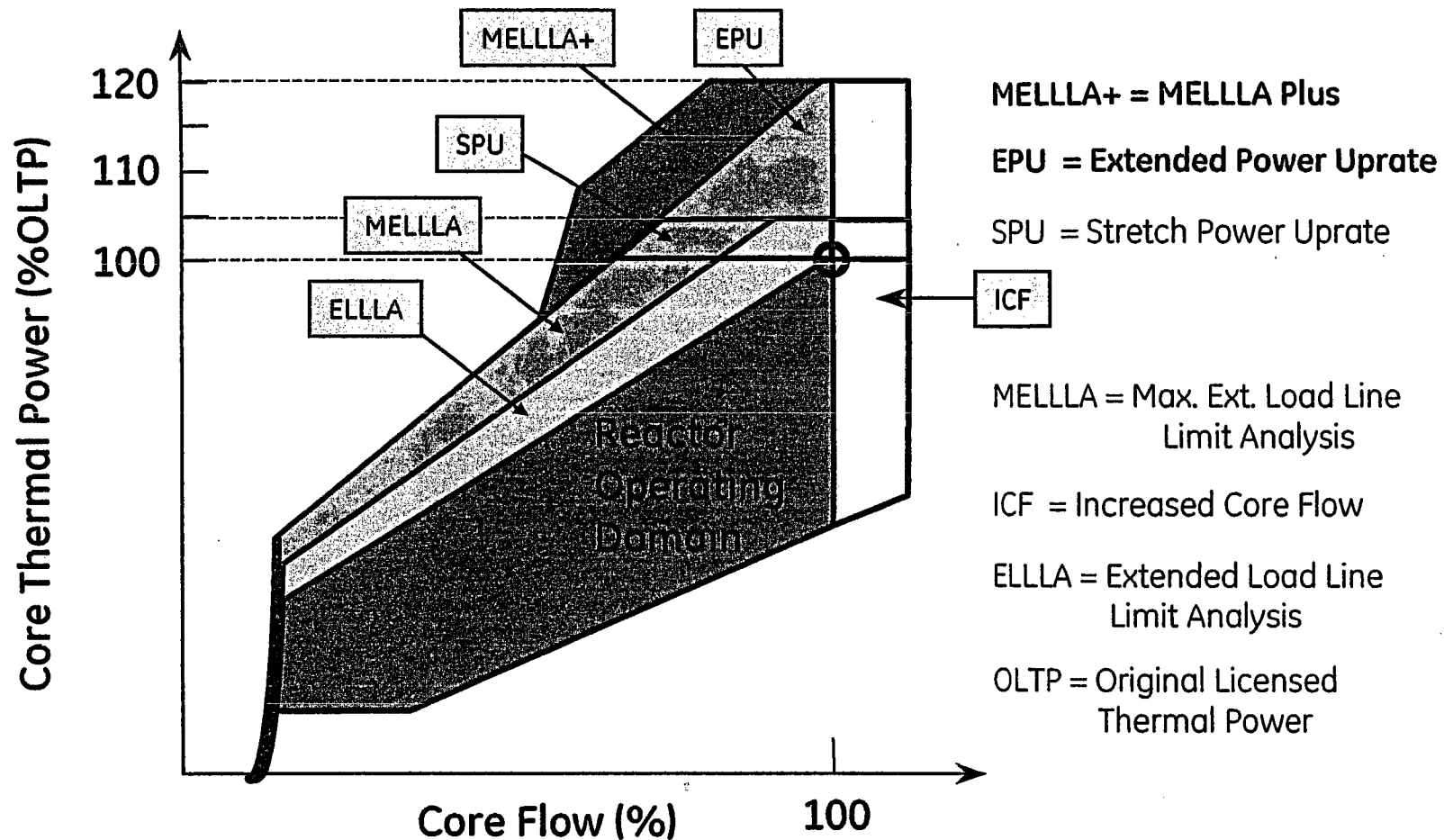
- Full Outage Services
- Inspection Services
- Reactor Modifications
- PWR Services
- Parts



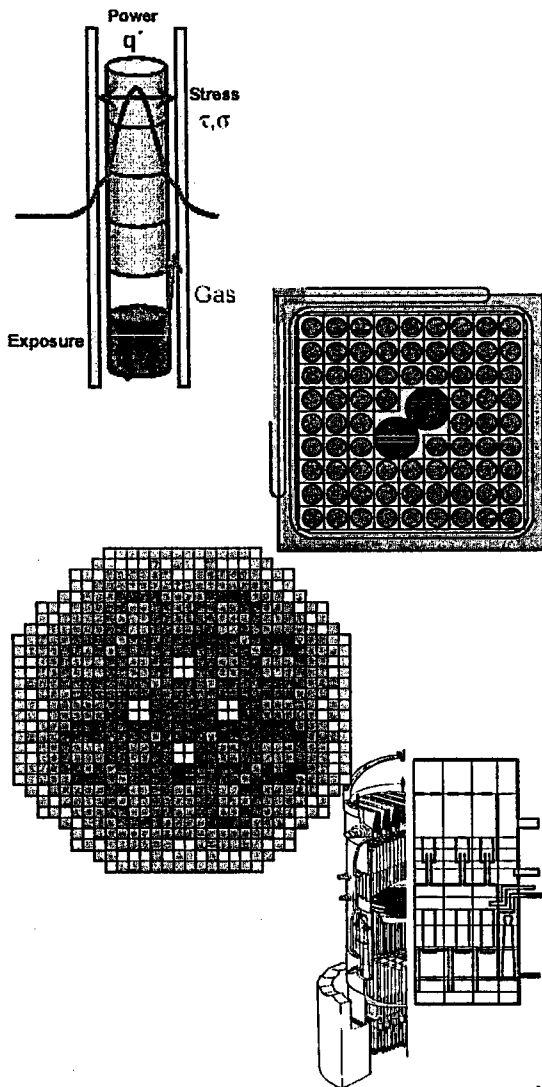
Performance 20SM - Concept



Increasing Operational Flexibility



Methods Analysis Platforms



PRIME

Fuel rod thermal-mechanical
Mechanical behavior of fuel rod.

LANCER

2-D Lattice Physics
Nuclear Behavior of Fuel Rods Within Bundle.

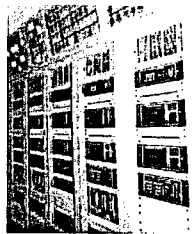
AETNA

3-D Core Simulation
Nuclear + Thermal-Hydraulic Behavior of Bundles in Core

TRACG

Coupled Core and BOP Simulation
Best Estimate Analysis of Operational Transients

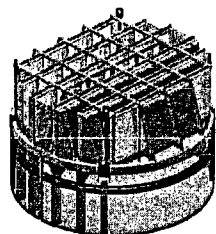
Digital Controls



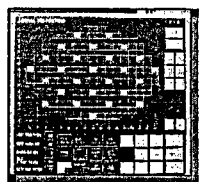
- Nuclear Measurement Analysis & Control



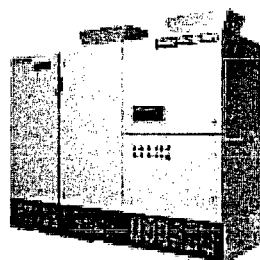
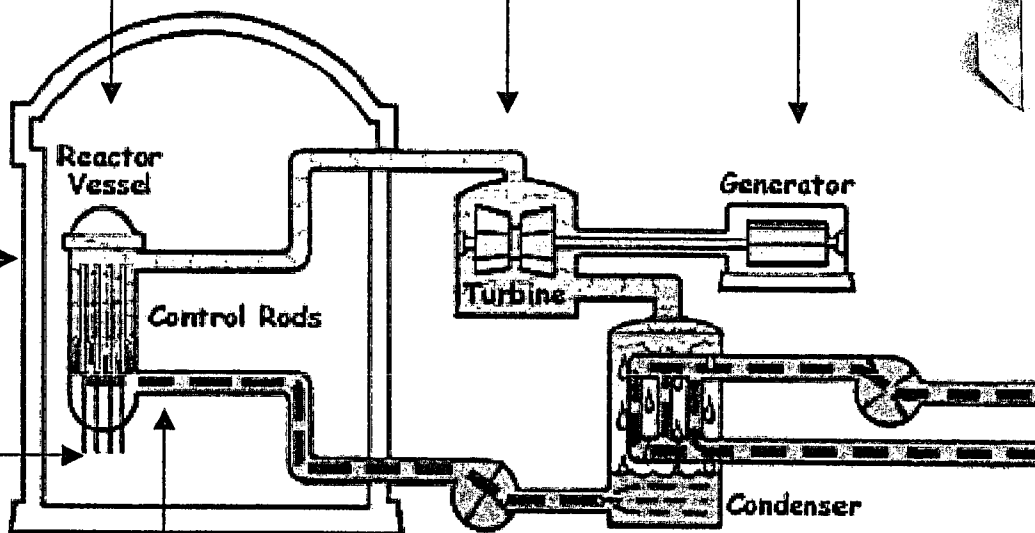
- Mark VIe Control Platform



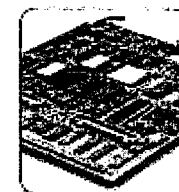
- Plant Monitoring & Diagnostics



- Rod Control Management System



- Adjustable Speed Drives
 - Recirculation Pumps
 - Feedwater Pumps
 - Circulating Water



- Electronic Service Program (ESP)
- Spare Parts

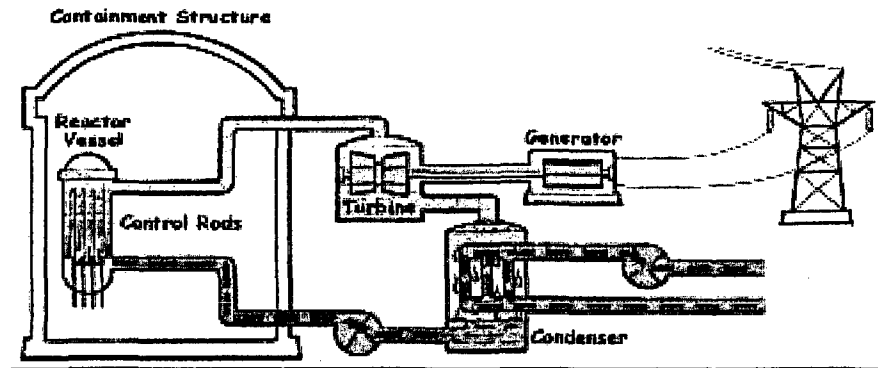


- Education and Training

WaterCare

Primary

- Hydrogen Water Chemistry
- NobleChem (License + App'n)
- DZO (License)



BOP

- Makeup Water Equipment
- Treatment / Additives / Filtration
- Scale, fouling & corrosion control
- Demineralized Water

- **Primary+ BOP** offerings
- **On Line M&D** solution for continuous monitoring of more species during Start Up, Operation, Transients and Shut Down

- Long term support ... based on:
 - Water quality + structural integrity + fuel protection
 - M&D ... simplified operations ... improved control

Total plant solution

Reactor Services

Outages

Outage Services

Refueling

Outage Tools

Reactor Parts

Control Rod Drive

Marathon Control Rod Blades

Reactor Internal Hardware

Modifications

Emergent Modifications/Repairs

In-vessel

NSSS (out of vessel)

Inspections

Visual Inspections

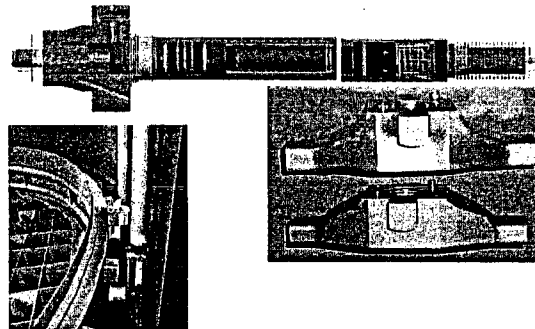
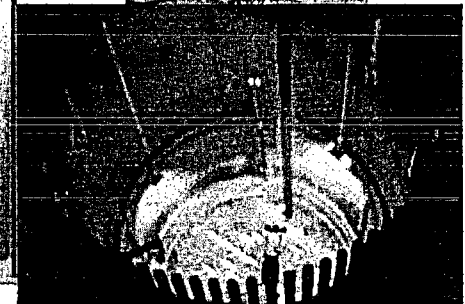
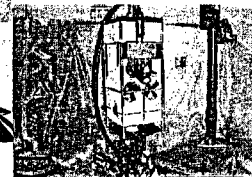
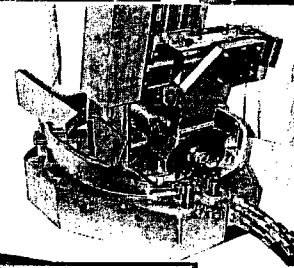
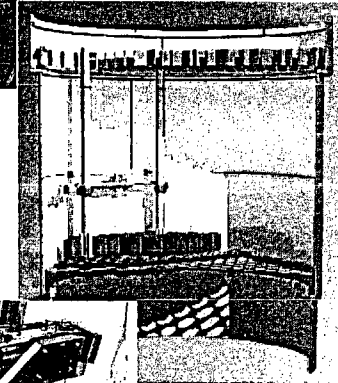
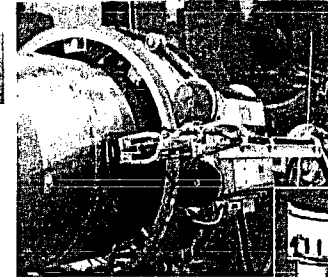
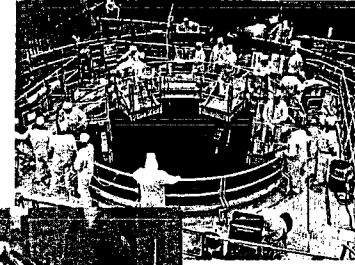
UT/ET Inspections

Remote Automated Tools

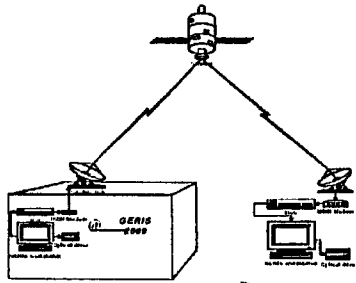
Specialty Projects

Suction Strainers

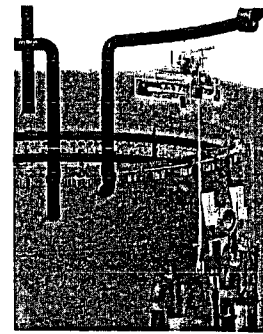
Dry Cask Services



NPI

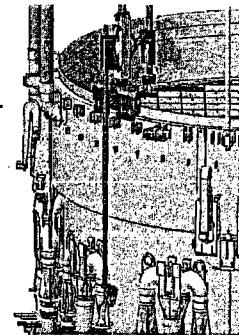


Low Duty Control Rod Blade
Phased Array TWS
Jet Pump Inspection Tooling



▶ IVVI Digitization / Remote Data Analysis

Invader – IVVI Remote Tooling



▶ Inside RPV Inspection System -replace GERIS ID

CRDH Inspection System

PWR Inconel Welding

PWR Piping Inspections

▶ PWR Suction Strainers

PWR Vessel Inspections

SLDES Improvements

Bundle Shuffle Machine

Next Gen BEDS

