Barnwell Facility Update
Presented at
Governor's Nuclear Advisory Council Meeting
December 8, 2011
Summary

- Safety
- Compliance
- Barnwell Disposal Operations
- Barnwell Processing Facility
- Barnwell Environmental and Dosimetry Laboratory
- Nuclear Services Support Facility
- Hittman Trucking
Safety

• Barnwell Complex
  – First Aids - Zero
  – Total Recordable Case Rate (TRC) 0.0
  – Day Away, Restricted or Transferred (DART) 0.0
  – Days Away Case (DAC) 0.0

• National Safety Council
  – 2011 Perfect Record Award

• Hittman Trucking
  – National Private Truck Council – 2011 Awards
    • First Place Regional small trucking firm
    • First Place Regional large trucking firm
  – SaferStats score was .49 accidents per million miles
Compliance

• 42 Years of Uninterrupted Operations
• EnergySolutions Operation Assessments/Observations
  – Internal Assessments
  – External Assessments
  – Independent Assessments
  – Management Field Observations
• DHEC Licensing and Oversight
  – Extensive license conditions
  – Inspections
  – On-site inspector
    ▪ Daily shipment inspections
  – Engineers
    ▪ Weekly site inspections
  – Staff
    ▪ Unannounced semi-annual license inspections
Barnwell Disposal Operations

• 235 Acres Owned by the State of South Carolina
  – EnergySolutions leases the site from South Carolina Budget and Control Board
  – EnergySolutions operates the disposal site under SC DHEC Radioactive Material License 097

• Atlantic Compact member
  – Acceptance of Class A/B/C waste shipments 7 days per week
  – Acceptance of large components and irradiated hardware shipments

• Institutional Activities
  – Site maintenance
  – Environmental monitoring
Class A/B/C Waste Disposal
Large Component Disposal
## Recent Waste Volumes

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine Utility Waste</td>
<td>12,108</td>
<td>6,637</td>
<td>10,983</td>
<td>615</td>
</tr>
<tr>
<td>Non-Utility Waste</td>
<td>148</td>
<td>60</td>
<td>67</td>
<td>0</td>
</tr>
<tr>
<td>Steam Generators</td>
<td>0</td>
<td>27,304</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Irradiated Hardware</td>
<td>58</td>
<td>0</td>
<td>0</td>
<td>116</td>
</tr>
<tr>
<td>Fiscal Year Total</td>
<td>12,314</td>
<td>34,001</td>
<td>11,050</td>
<td>731</td>
</tr>
</tbody>
</table>
South Carolina Workforce

- EnergySolutions employees in South Carolina: 267
  - Barnwell Disposal - 34
  - BPF - 6
  - NSSF - 14
  - Hittman Trucking - 38
  - Aiken - 85
  - Columbia - 90

- Average length of employment at the Barnwell Complex
  - Over 20 years
Decommissioning Activities

• Phase I
  – Phase 7, 8, 9 Cap Construction - Complete
  – Phase 1 & 2 Cap Repairs - Complete
  – Building and Equipment Disposition - Complete
  – SE Pond Construction - Complete
  – Site Grading & Grassing – Complete
  – All Completed Trenches Capped - Complete

• Phase II
  – Building and Equipment Decommissioning
  – Site Stabilization
  – Final Site Survey
  – Project Management
Building Decommissioning

Sep 2008

Oct 2008

Dec 2008

Sep 2009
Barnwell Processing Facility (BPF)

- 17-acre facility that consists of two primary buildings
  - 101 – 7,500 ft²
  - 201 – 20,000 ft²
  - 301 – 8,000 ft² future RCRA treatment facility

- Services provided
  - Volume reduction
  - Dewatering
  - Waste treatment
  - Decontamination
  - Water processing

- The BPF shares a boundary from the west with the Department of Energy Savannah River Site
BPF Building 101

• Climate controlled concrete facility
  – 7,500 square feet

• Large open work bay for processing and compacting various radioactive material and waste streams

• Sort and Segregation Facility (SSF)
  – 700 square feet

• Super compactor
BPF Building 201

- 20,000 square foot climate controlled concrete facility
- Open floor space for processing radioactive materials and waste
- Radiological waste testing laboratory
- 80-ton overhead bridge crane
BPF Building 301
RCRA Treatment Facility (future)

• 8,000 square foot steel building with concrete floor and foundation
  – RCRA Part B permit
  – Building design is approved
  – Two unloading bays
  – Process area
  – 50-ton overhead bridge crane
  – 5,000 square foot future expansion
Barnwell Environmental and Dosimetry Laboratory (BEDL)

- Environmental Monitoring
- Radiological Laboratory
- Radiation Dosimetry
- Engineering Support
- Site Characterization
- Hazardous Material Management
Nuclear Services Support Facility

• **Containers**
  • Answers for Special Packaging Needs
  • Proven Design and Reliability
  • Large Equipment Packaging
  • High Rad
  • Interim and Long-Term Storage
  • Waste Shipping, Processing, & Disposal
Hittman Trucking

- Two Locations
  - Barnwell, SC
  - Oak Ridge, TN

- Assets
  - 81 Tractors
  - Equipment
    - Flat Beds
    - Vans
    - Curtain Trailers
    - Cask Trailers
    - 80-ton Multi Axle Trailer

- Capabilities
  - NRC NQA-1 Approved Program
  - New and Used Nuclear Fuel Transport
  - DOE Classified Shipments
  - RAMQC Shipments
  - Integrated Proprietary Cask Fleet
  - Oversize/Overwidth Project Management
QUESTIONS?