

# **Barnwell Site Transition Challenges**

**Presented at WM '09  
Session 11 Hot Topics  
by Bill House  
March 2, 2009**



# Barnwell Site Transition Challenges Presentation Summary

- Completion of full access operations
- Phase I decommissioning activities
- In-region only disposal operations
- Barnwell site operations
- Transition challenges

# Volumes Received Under Atlantic Compact Law

<b>Year</b>	<b>Volume Allowed</b>	<b>Actual Volume</b>
FY 2000-2001	160,000 cu ft	125,989 cu ft
FY 2001-2002	80,000 cu ft	57,763 cu ft
FY 2002-2003	70,000 cu ft	65,656 cu ft
FY 2003-2004	60,000 cu ft	59,516 cu ft
FY 2004-2005	50,000 cu ft	43,260 cu ft
FY 2005-2006	45,000 cu ft	44,988 cu ft
FY 2006-2007	40,000 cu ft	37,607 cu ft
FY 2007-2008	35,000 cu ft	32,954 cu ft

# Slit Trench Operations

- Irradiated hardware shipments
  - 18 shipments disposed FY 05/06
  - 37 shipments disposed FY 06/07
  - 73 shipments disposed FY 07/08
- Waste from 32 fuel pools
- No OSHA recordable injuries
- Max. annual individual exposure 1.253 Rem
- Horizontal offload equipment stored

# Decommissioning Activities

- Phase 7, 8, 9 caps
- Building D&D
- Performance Objectives Reports
- Southeast Pond Construction
- Site Grading
- Records Management



# Building Decommissioning Activities



**October 2008**



**December 2008**

# Disposal Trench in 2008



# In-Region Disposal Operations Plan

- Waste from Atlantic Compact States only
- Waste acceptance throughout the year
- Disposal of waste when it is received
- One trench design for routine wastes
- Staff to be sized for 9,000 cubic feet
- Disposal of irradiated hardware and large components on project basis



# Atlantic Compact Generators

- Dominion, Millstone (2), CT
- Duke, Catawba (2), Oconee (3), SC
- Exelon, Oyster Creek (1), NJ
- Progress, Robinson (1), SC
- PSEG, Hope Creek (1), Salem (2), NJ
- SCE&G, VC Summers (1), SC
- US Navy, New London, CT, Charleston, SC
- Others generators

# Standard Class A,B,C Trench



# Barnwell Site Operating Costs

- Total Operating Costs: \$6 - 8 million
- Fixed Costs: 54%
- Variable Costs: 10%
- Taxes, Permits, Fees: 16%
- Special Projects: 8%
- Misc. and Federal Taxes: 12%

# FY2008/2009 Disposal Operations

- First year of in-region operations volume about 13,000 cubic feet
  - Volume includes Classes A, B and C waste
  - Volume includes held waste
  - Volume does not include large components or slit trench
- Anticipate sufficient receipts to cover disposal operating costs

# FY2008/2009 Actual Waste Volumes

- Jul – Dec 2008: 2,606 cu.ft.
- January 2009: 1,429 cu.ft.
- Feb – Jun 2009: ??? cu.ft.

# FY2009/2010 and Following Years

- Annual cooperative commitment fee
  - 1/13<sup>th</sup> of total operating costs per reactor
  - 9,000 to 9,500 cubic feet of waste
  - Quarterly installments
  - Other generators may participate
- Other prices as established by B&CB
- Institutional costs paid from DCTF or ECMF

# Barnwell Site Operations

- Routine Class ABC waste disposal in vaults
- Phase I decommissioning activities
  - Grading and capping
  - Additional environmental studies
- Institutional activities
  - Site maintenance for closed portions
  - Environmental monitoring programs
- Continued interaction with utilities, other customers, ACC, PSC, B&CB, DHEC

# Meeting the Challenges

**SHIFT THE**





# Customer Challenges

- No last minute changes to keep the Site open
- More specific waste shipment scheduling
- FY2008 / 2009 take or pay approach with same disposal rates
- Future years expectations to pay “fair share” of disposal site operating costs
- Collective commitments must be sufficient volume and dollars to keep the Site viable

# Budget & Control Board Challenges

- No money to State general or education fund
- No use of public funds for site operations
- Evaluating decommissioning activities costs
- Financing institutional activities from Decommissioning Trust fund
- Evaluating adequacy of Long Term Care Fund

# DHEC Challenges

- D&D waste disposal stability requirements
- D&D waste disposition pathways
- Accepting site performance evaluations
  - Updated creek study
  - Additional borings and wells
  - Updated groundwater modeling
- Financial justifications required on site operator activities

# Site Operator Challenges

- Maintaining safety and compliance emphasis
- Reducing costs of disposal operations
- Justifying costs of Barnwell Site operations
- Finding alternative funding sources
- Encouraging customer support for the Site
- Reducing staff of long term employees

# Barnwell Staff Challenges

- Waste disposal is not the primary activity
- Lack of building deconstruction experience
- No detailed operating procedures for D&D
- Technical and financial approvals required
- Additional regulatory oversight during D&D
- Performance objectives report development

# Conclusions

- Challenges are being overcome through collaboration with the primary parties
- Decommissioning activities are benefiting the overall transition to In-Region Operations
- The Barnwell LLRW Disposal Facility can be operated successfully for Atlantic Compact generators with:
  - Sufficient commitments from large generators
  - Agreements to cover costs