Guidelines for Coal Plant Decommissioning

Jeff Clock
Sr. Project Manager
EPRI

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• 25,000 MW of coal-fired generating facilities to be retired in the next few years
• ~5% of total US coal-fired capacity
• Retirements include lay-up or mothballing as well as full decommissioning
2004 EPRI Study

• Review of requirements for decommissioning coal plants
• Three Case Studies:
  - Plant Arkwright - Georgia Power
  - Watts Bar – TVA
  - Port Washington – We Energies
Considerations in Plant Decommissioning

Preliminary Planning

Environmental and Safety Issues

Decommissioning Tasks

Future Use of the Site a Key Consideration!
Preliminary Planning

• Alternative strategies for post-operational maintenance of site
• Maintain the site at present condition with minimal cleanup
• Perform minimal dismantling and demolition
• Dismantle to the degree required to meet specific needs of a planned reuse of the site
• Full decommissioning

• Financing availability can influence strategy selected.
Environmental and Safety Issues

• Environmental regulations can have a profound influence on decommissioning a power plant.
• Compliance with environmental statutes must be maintained throughout demolition and remediation.
• Existing permits must be modified, revised, or cancelled and/or new permits obtained.
• Planning should include an environmental assessment of the decommissioning process, with review of the draft plans by environmental leaders in the company.
Regulations/Permitting

• Clean Air Act
• NPDES
• Solid Waste Management
• USTs
• FAA
• OSHA
• Historic Preservation
• CERCLA
• NEPA
• Property Records
• Chemicals of concern: asbestos, lead, PCBs, mercury
Decommissioning Tasks

• Detailed Project Planning
• Administrative Actions
• Plant Shutdown
• Site Preparation for dismantlement
• Dismantlement of Buildings and Equipment
• Site Remediation and Restoration
Watts Bar Fossil Plant

- Four 1940’s coal-fired units with a 240 Mw Capacity
- Located in a rural area in Reah County, Tennessee
- Co-located on site with hydroelectric and nuclear facilities
- Retired in 2000
- State of partial demolition
- Estimated cost: $17M – 25M
Plant Arkwright

• Four 1940’s coal-fired units with a 160 Mw Capacity
• Located in a rural area in Macon, Georgia
• Retired in 2002
• Demolition and site cleanup and ash pond closure completed
• Estimated cost: $19M
Port Washington Power Plant

- Six coal-fired units built in 1930’s and 1940’s with a 341 MW capacity
- Located on Lake Michigan in City of Port Washington, WI
- Units 4-6 decommissioned in 2004 at a cost of $12.4 M
- Units 1-3 demolished 2004-2006 at a cost of $17M to $22M
- Site to be used for gas-fired units with addition property donated to City.
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