



Environmental Remediation & Demolition Strategies for Power Plants – Lessons Learned

USWAG Decommissioning Workshop

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Presentation Overview

- Permitting Requirements for Decommissioning and Demolition
- Expectations of the Community and Project Neighbors
- Environmental Requirements and Regulated Materials
- Demolition Plans and Methods
- Safety Requirements and Management Plans
- Project Management
- Implosion Video
- Questions

Permitting Requirements

- Permitting requirements vary widely by location
 - State specific laws passed applying only to power plant demo
 - States & municipalities requiring PE stamped demo plans for permit issuance
 - Public notices & community meetings
- Major incidents during demolition over the last five years have led to greater regulatory scrutiny
 - Chicago Little Italy dust incident from Crawford stack implosion
 - Killen building collapse
 - Cheswick stack implosion blowout
- Public focus on dust, waste disposal, traffic patterns, noise
 - Air monitoring
 - Recycling requirements
 - Truck routes avoiding school zones, major highways, limited hours

Community and Nearby Neighbor Expectations

- Remote location vs. in-town
 - High visibility and public interest regardless of location
 - Retiree interest in the process
- Notifications
 - Newspaper notices – often required by permitting agencies
 - Website
 - Adjacent neighbors, sensitive receptors
- Manage process up-front
 - Air monitoring stations around property for documentation
 - Noise
 - Truck traffic
- Coordinate with company community affairs/public relations team

Environmental Factors and Regulated Materials

- During plant shutdown manage as much regulated material as possible
 - Remove/reduce petroleum products
 - Refrigerants
 - Radioactive sources
 - Compressed gases
 - Catalysts
- Regulated Materials Surveys
 - No longer just asbestos and lead based paint
 - PCB (oils, caulks, contaminated soils, etc.), PFAS- emerging interest by regulatory agencies
- Storage Tank Regulations
 - Deadlines for removal after placed out of service – USTs
 - Required on-going certifications/inspections
- Elevators
 - Regulations vary state to state
- Waste Disposal
 - Record keeping

Demolition Contracting & Preparation

- What to look for when selecting a demo contractor
 - Safety record
 - Experience with similar facilities –all coal/gas/nuclear plants are not the same
 - Experience working in the state where your demo will be performed
 - Reference checks
 - Include all environmental remediation in demo contract even if they will use subcontractors
 - Metals, equipment salvage
 - Use of LD's, incentives
 - Bonding
- After selection planning process
 - Use of structural engineered designs and 3D models for detailed demo plans
 - Demo contractor and structural engineer participate in permitting process
 - Assets continuing to operate at the site

Demolition Methods

- Conventional demolition techniques vs. implosion
 - How close are neighboring structures?
 - Nuisance issues such as noise, dust, ground vibration
 - Is the demo inside an operating facility?
- Safety aspects
- Time for the demo
- Cost Impacts

Safety Requirements and Management Plans

- Site specific Health and Safety Plan (HASP)
- Company safety policies and procedures which will apply to demo contractor
- Perimeter air monitoring plan for dust and heavy metals
- Detailed dust management plans for site and access roads
- Daily JSA and permits to work
- Universal stop work authority
- Use of drones for observation
- Keeping the site organized

Project Management

- Project manager commitment to the project -large plant demo can last a year or more
- Project manager who has completed a number of complex demolitions before
- Extensive experience with abatement and disposal of regulated materials
- Training on all company safety policies and procedures that apply to abatement and demolition
- Weekly status meeting with entire demo contractor management team
 - Status – any problems, concerns with work
 - Schedule – on-track, delays
 - Look forward plans

Implosion Video

