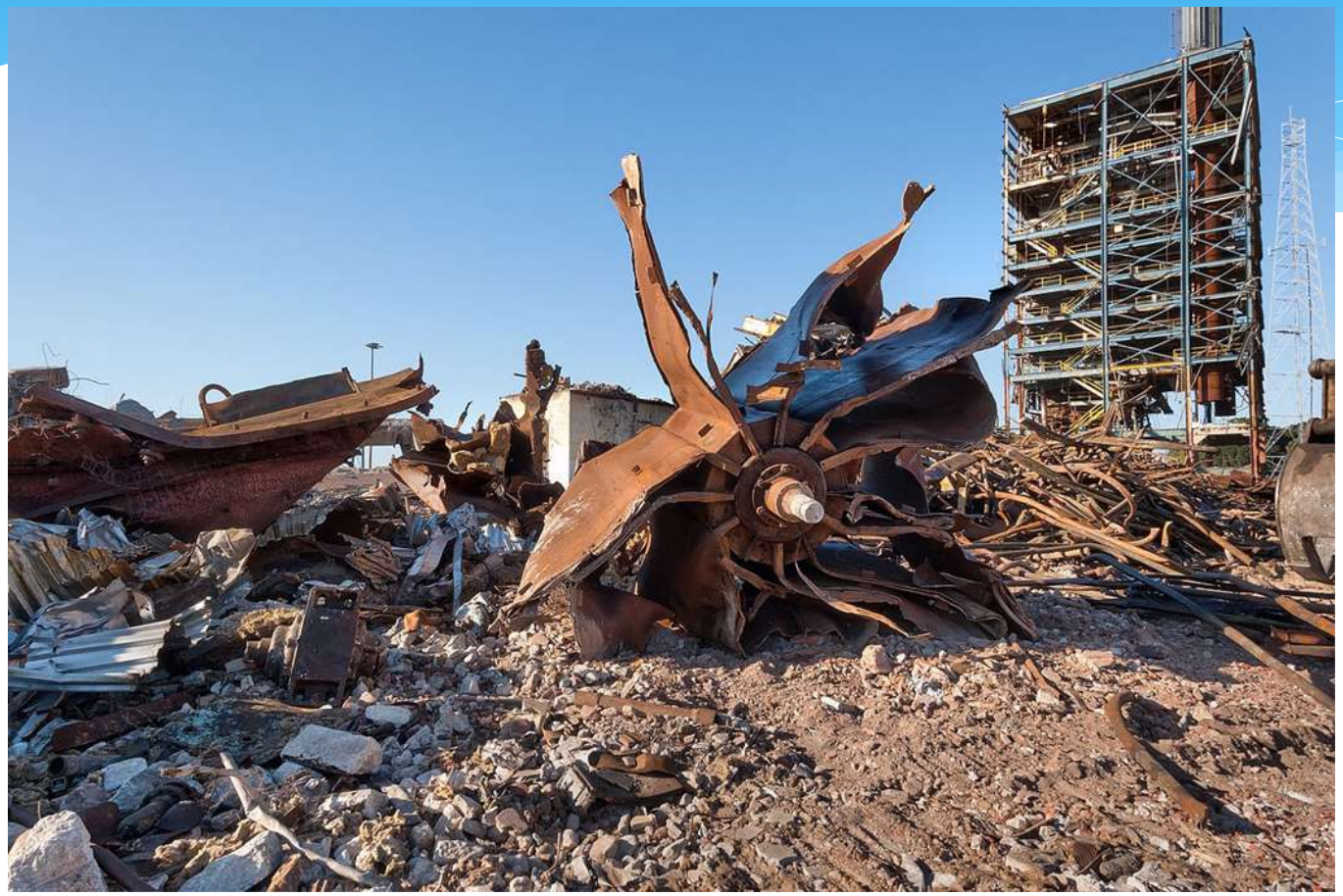
Decommissioning in Generation and Energy Delivery Systems

MARYLAND-DISTRICT OF COLUMBIA UTILITIES ASSOCIATION

2016 Environmental Conference

Jim Roewer, USWAG

USWAG's Decommissioning Focus



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USWAG's Decommissioning Focus

* Identify & Focus on Issues within USWAG's Purview
* Evaluate USWAG's role in Decommissioning
  * Generation Facility Closure/Decommissioning/ Conversion
  * Transmission/Distribution Facility Closure
* Coordinated Effort Across Committees
  * Ash, Low Volume Waste, PCB, R&R (and DOT)

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USWAG's Decommissioning Focus

* Decommissioning Resource Page
* Decommissioning Workshops
  * June 2014 – Washington, DC
  * June 2015 – Detroit
  * September 2016 – Houston

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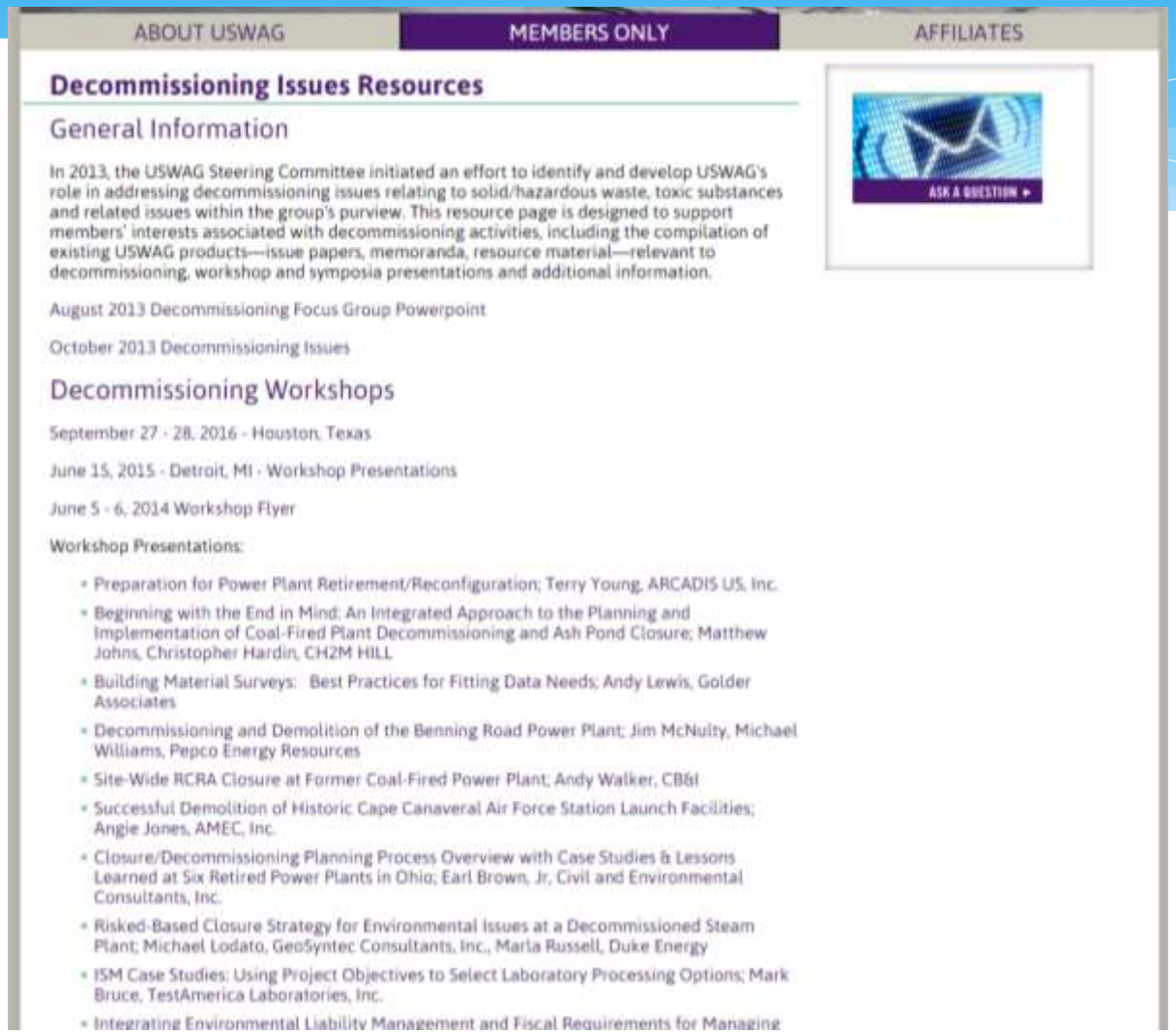
USWAG Decommissioning Resources



ABOUT USWAG | MEMBERS ONLY | AFFILIATES

Decommissioning Issues Resources

General Information

In 2013, the USWAG Steering Committee initiated an effort to identify and develop USWAG's role in addressing decommissioning issues relating to solid/hazardous waste, toxic substances and related issues within the group's purview. This resource page is designed to support members' interests associated with decommissioning activities, including the compilation of existing USWAG products—issue papers, memoranda, resource material—relevant to decommissioning, workshop and symposia presentations and additional information.

August 2013 Decommissioning Focus Group Powerpoint

October 2013 Decommissioning Issues

Decommissioning Workshops

September 27 - 28, 2016 - Houston, Texas

June 15, 2015 - Detroit, MI - Workshop Presentations

June 5 - 6, 2014 Workshop Flyer

Workshop Presentations:

- Preparation for Power Plant Retirement/Reconfiguration; Terry Young, ARCADIS US, Inc.
- Beginning with the End in Mind: An Integrated Approach to the Planning and Implementation of Coal-Fired Plant Decommissioning and Ash Pond Closure; Matthew Johns, Christopher Hardin, CH2M HILL
- Building Material Surveys: Best Practices for Fitting Data Needs; Andy Lewis, Golder Associates
- Decommissioning and Demolition of the Benning Road Power Plant; Jim McNulty, Michael Williams, Pepco Energy Resources
- Site-Wide RCRA Closure at Former Coal-Fired Power Plant; Andy Walker, CB&I
- Successful Demolition of Historic Cape Canaveral Air Force Station Launch Facilities; Angie Jones, AMEC, Inc.
- Closure/Decommissioning Planning Process Overview with Case Studies & Lessons Learned at Six Retired Power Plants in Ohio; Earl Brown, Jr, Civil and Environmental Consultants, Inc.
- Risked-Based Closure Strategy for Environmental Issues at a Decommissioned Steam Plant; Michael Lodato, GeoSyntec Consultants, Inc., Marla Russell, Duke Energy
- ISM Case Studies: Using Project Objectives to Select Laboratory Processing Options; Mark Bruce, TestAmerica Laboratories, Inc.
- Integrating Environmental Liability Management and Fiscal Requirements for Managing

ASK A QUESTION ▸

USWAG Decommissioning Resources

* Workshop Presentations
* Ash Disposal Unit Case Studies
* Solid & Hazardous Waste Issues
  * Disposal of SCR Catalysts
  * Hazardous Waste Generator Guidance
  * Lead-Based Paint Abatement and Debris Regulations
  * Transportation of Hazardous Materials by Highway
  * Used Oil Management

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Decommissioning Efforts

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Decommissioning Efforts

* Project Planning
* Defining Project Goals
* Identification of Regulatory Concerns
  * Permitting
  * Recycling
  * Disposal
  * Safety
  * Emergency Response

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Decommissioning Efforts

* Contingencies
  * Financial
  * Preparing for Murphy's Law
* "Typical" Sites/Commonality of Issues

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Decommissioning Efforts

* Defining & Managing Risks
  * Site Characterization
  * Hazardous Materials Assessment
* Potential Hazards
  * Physical
  * Chemical – Arsenic, Asbestos, Lead, PCBs

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Future Workshop Topics

* Planning for Plant Closures
* End-Use Planning & Decision Making
* Value-added Management of Recovered Materials
* Lessons Learned: What Went Wrong & Contingency Planning

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Future Workshop Topics

* Regulatory Compliance
  * Permit Modifications
  * Changes of Generator Status
  * Staying in Compliance Throughout Closure
* Final Approval & Sign-off

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Substation Decommissioning Document

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USWAG Substation Decommissioning Document

* Resource for USWAG members undertaking or contemplating decommissioning of a substation
* Primary focus on compliance with federal PCB regulations under TSCA

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USWAG Substation Decommissioning Document

* Preliminary Planning
* Assessment
* Site Cleanup
* PCB Spill Cleanup Options
* Storage and Disposal of Equipment & Materials
* Property Transfer Issues

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Preliminary Planning

Regulatory and Practical Issues Related to Assessment and Disposal

* Determining the PCB Concentration for Disposal Purposes
* Applicability of the PCB Spill Cleanup Policy
* Managing As-Found < 50 ppm PCB Remediation Waste
* Regulatory Status Determination – PCB Remediation Waste vs. PCB Bulk Product Wastes
* Discovery of PCBs in Non-Liquid Materials

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Assessment

* Technical and Operational Considerations
* Assessment and Analysis of Equipment, Materials and Wastes
* Looking to Members for Input

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Site Cleanup

Summary of PCB Cleanup Options

Cleanup Option	Notification Required?	EPA Approval?	Immediate Cleanup Possible?	Site Sampling?	Cleanup Levels	Disposal Options	Dispose of Based on As-Found Concentration?
PCB Spill Cleanup Policy (40 C.F.R. § 761.120-135)	Sometimes[1]	No	Yes	High concentration – Required Low concentration – No[2]	Specified in regulations	Subpart D applies	No[3]
Self-implementing cleanup (40 C.F.R. § 761.61(a))	Yes (at least 30 days prior to commencement of cleanup)	Yes[4]	No	Required – Comprehensive	Specified in regulations	Specified in regulations	Yes
Performance-based disposal (40 C.F.R. § 761.61(b))	No	No	Yes	No[5]	None[6]	Specified in regulations	No[7]
Risk-based disposal approval (40 C.F.R. § 761.61(c))	Yes	Yes	No	Flexible[8]	Flexible[9]	Flexible[10]	Per approval

Site Cleanup

* PCB Spill Cleanup Options (761.61)
* USWAG Risk-Based Remediation Wastes Disposal Approval
* EPA's Site Revitalization Guidance
* Decontamination Requirements
* Management of Contaminated Solid Surfaces

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Storage & Disposal

* Electrical Equipment: Storage for Reuse
* Storage for Disposal
* Disposal Options for PCB Wastes (Liquids and Equipment)
* Decontamination Requirements for Tools and Equipment
* Additional Considerations

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Property Transfer Issues

* Real Property
  * Sale of PCB-Contaminated Land and Facilities
* Disposition of Equipment and Other Assets

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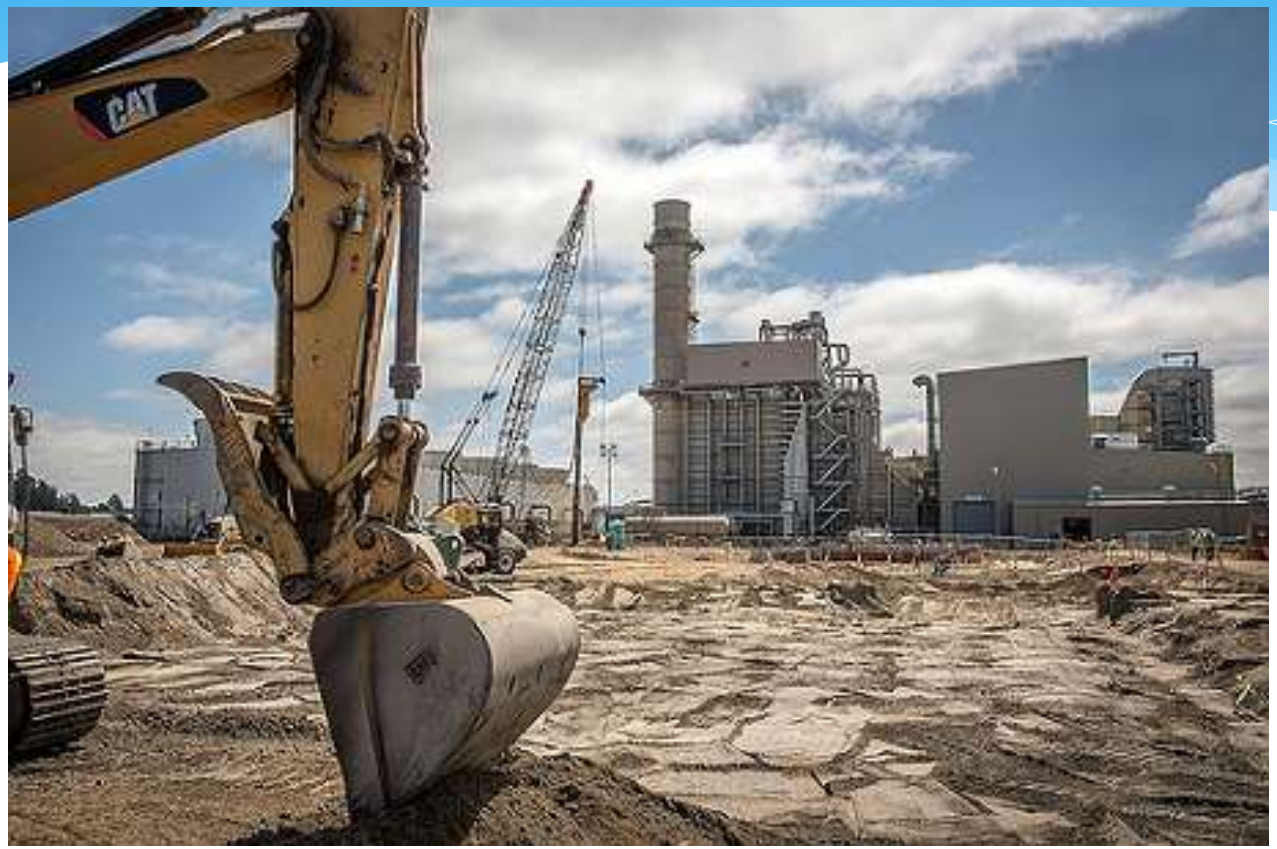
Questions?



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