EBC 14th Annual Construction and Demolition Materials Management Regional Summit
Welcome

David Murphy

Chair, EBC Solid Waste Management Committee

Vice President, Tighe & Bond
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Introduction:
Economics – Leveraging the Purchasing Power of the State

Scott Lemay
President
United Material Management
Keynote Address:
Economics – Leveraging the Purchasing Power of the State

Lieutenant Governor of Massachusetts
Karyn Polito
Expectations and Goals for the Summit
What You Will Learn

Tony Wespiser
Summit Chair
Senior Project Manager, Weston & Sampson
Future Challenges and Opportunities in Solid Waste Management

Martin Suuberg

Commissioner
Department of Environmental Protection
Commonwealth of Massachusetts
C&D Update and Launch of the New Minimum Performance Standard

Michael Elliott

Asbestos / C&D Program Coordinator
Department of Environmental Protection
Commonwealth of Massachusetts
MassDEP C&D Update and Launch of New Minimum Performance Standard

EBC 14th Annual C&D Materials Regional Summit
Sheraton Framingham
January 30, 2020
Agenda

• Background

• Current Status

• Objectives of C&D Minimum Performance Standard

• C&D MPS Performance Criteria

• C&D MPS Implementation Plan
Background
Current Status

CY2018 Process Separation Rate (PSR)

19 C&D Processors

14 Lg. C&D Transfer Stations
Objectives of C&D Minimum Performance Standard

- Level the “playing field” - improve low performing C&D Handling Facilities
- Preferentially direct Mixed C&D Waste to high performing C&D Handling Facilities.
- Reduce “leakage” (i.e. disposal) of inadequately processed C&D waste
- Divert banned materials from disposal to greatest extent possible
- Maximize separation of recyclable materials for further processing or recycling/reuse
- Nothing new! Simply clarifies existing Waste Ban Requirements with measurable performance criteria
C&D MPS Performance Criteria

- C&D MPS performance criteria:
  1. Achieve minimum threshold for the Process Separation Rate (PSR):
     - Initially set PSR minimum threshold at 15%;
     - May increase PSR minimum threshold over time to improve performance
     - Measure PSR as compared to total inbound material accepted
  2. Demonstrate that all banned materials are separated to the greatest extent possible.
     - Per Waste Ban Compliance Plan Approval

- Failure to satisfy either performance criterion constitutes a failure to comply with Waste Ban Regs and Waste Ban Compliance Plan
  - Cannot dispose or arrange for disposal of any C&D materials
  - Must transfer C&D materials to MPS-compliant facility
C&D MPS Implementation Plan

• CY2020
  – C&D MPS goes into effect starting in CY2020
  – MassDEP shares C&D MPS facility status based on CY2019 data (ca. 6/30/2020)
  – MassDEP performs QA/QC of annual report data
  – MassDEP conducts periodic site audits to verify data

• CY2021
  – MassDEP publishes MPS facility status based on CY2020 data (ca. 6/30/2020)
  – Under-performing facilities may be subject to enforcement
  – MassDEP continues annual report data QA/QC and periodic site audits
For More Information:

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Regional Developments in C&D Materials Management

Steve Changaris

Regional Vice President
National Waste & Recycling Association
National Developments

• OSHA & NWRA workplace safety agreement
• Hours of Service/Electronic Log Devices – FMCSA industry exemption
• Waste, Construction, Demolition and Material Recovery Facility Temporary Worker Recommended Practices guide
• USGBC & LEEDS – standards ratcheting up
• Infrastructure bill?
Regional Developments

- MA DEP state plan
- Regional landfill capacity issues
- Upgraded soils management standards
- PFAS/PFOA forever chemicals/emerging contaminants
Regional Developments

• Permitting issues will linger
• Processing, reduction and diversion goals
• Markets, markets, markets We, like the Apollo 13 astronauts, remind command control, “Houston, “we’ve got a problem” “!
• Metals are down; fiber is down; rigid plastics “forgetta’ about it”… disposal – ouch!
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National Developments in C&D Materials Management

Bill Turley

Executive Director

Construction & Demolition Recycling Association
Overview of C&D National Issues
EBC C&D Summit

William Turley
Executive Director
➢ Recycle Act
➢ Recover Act
➢ America Recycles Day
➢ End Markets
• Authorize $15 million/year over five years in grants to States, local governments, Indian tribes, nonprofits, and public private partnerships to educate and inform consumers and households about their residential and community recycling programs.
• Directs EPA to develop a model recycling program toolkit for States, local governments, Indian tribes, and partners to deploy in order to improve recycling rates and decrease contamination in the recycling stream.
• Requires EPA to more frequently review and revise, if appropriate, its Comprehensive Procurement Guidelines, which designate products containing recycled materials and provides recommended practices for federal agencies to purchase such products.
• Bipartisan sponsors
• Relatively inexpensive
• Wide industry support
• Includes industrial materials, including C&D
• Realizing the Economic Opportunities and Value of Expanding Recycling
• HR 5115
• Coalition started by plastics industry
• $500 million in government grants over five years
• Recycling infrastructure support
• Only for curbside MRFs
• Limited number of materials
• Not as wide of support
• Sitting in House Energy & Commerce Committee
• U.S. EPA paying attention to recycling
• Using America Recycles Day as focus
• Starts at top
• Innovation Fair
• Four points of focus
  - Measurement
  - Secondary Materials Markets
  - Education and Outreach
  - Infrastructure
End Markets

- Survey of C&D World attendees
- Regulatory and End Markets
- CDRA Board agreed
- End Markets Committee formed
- C&D fines/biochar
  - Proof of Concept
- Shingle Document
Other Thoughts

• Ohio
  - C&D Definition—not from a manufacturing facility
  - Inspect rail transfer stations?
  - Hike C&D tipping fees

• Category 3 Materials
  - Will affect recycling rates
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Challenges of Managing PCB Contamination on C&D Projects

Craig Miner, LEED AP

Project Manager
Weston & Sampson
transform your environment
Challenges of Managing PCB Contamination on C&D Projects
What are PCBs?

• A polychlorinated biphenyl (PCB) is an organic chlorine compound $C_{12}H_{10-x}Cl_x$.

• Some PCBs share a structural similarity and toxic mode of action with dioxin affecting the endocrine system and the thyroid gland in particular.

• Suspected neurotoxin

• Suspected carcinogen
Why were PCBs utilized?

- Low flammability
- Fire resistant
- Chemical stability
- Electrical insulating properties
- Durability
- Resistant to degradation
- Softener and plasticizer
Types of Building Materials Known to Contain PCBs

- Caulking
- Paints
- Adhesives
- Asphalt Roofing Materials
- Fluorescent Light Ballasts
- Grout
- Insulating Coatings Mixed With Asbestos
- Plasticizer Agents
- Tar Paper
Regulatory Requirements

- No obligation to test for PCBs
- No requirement to report
- No explicit requirement to remove
- But if PCBs in building materials >50 ppm exist, owner is in violation of TSCA
Disposal

- > 50 ppm – TSCA permitted facility
- Some facilities permitted to accept <50 ppm waste in certain quantities/concentrations
- Massachusetts - >2 ppm must go out of state
- Connecticut - >1 must be removed and disposed of out of state
What happens if we don’t look?

• If they are not identified and improperly disposed, this will lead to a Toxic Substance Control Act (TSCA) violation.
• If identified and still in-use, depending on the concentration present PCBs must be remediated. PCBs in building material (above 50 ppm) is a “prohibited use”
• Health and safety
  – Actual health risks uncertain
  – Public outcry and perception can drive projects
  – Worker protection
What happens if we don’t look?

- Typical renovation/demolition can increase PCB exposures
- Must appropriately dispose of PCB materials
- Dramatic increase in demolition disposal costs
- Change Orders
- Long lead time and impact to schedule may exceed 6 months
  - Seasonal disposal considerations
Different strokes for different folks
(Demolition vs. Renovation)

• Weston & Sampson typically recommends the use of one of two procedures for PCBs in building materials:

• Procedure #1 Favored for demolition
  – Test and determine PCB concentrations and then develop a plan for remediation/disposal; or

• Procedure #2 Favored for renovation
  – Assume PCBs are present and manage building material wastes generated as bulk product waste.
Renovation (Procedure #2)

1) May cause increased costs for disposal as PCB Bulk Product Wastes when they may just be clean debris.
   • Clean debris disposal - $60 to $80/ton
   • PCB Bulk Product Wastes are $125 to $150/ton
   • 500 T = additional $32,500 to $35,000 in disposal costs

2) Advantage lies in providing a fixed scope of work for a renovation project and a fixed cost and schedule.
   A. Testing may result in increased costs:
      • Removal of materials outside of the intended work scope area
      • Removal of additional materials within the work area including an unknown amount of building substrate removal.
      • Both can lead to scope change, change orders and project delays.
EXAMPLE 1: Typical PCB Window Caulk Abatement

- PCB caulking at window frames
- Performance-based removal
- Sampled brick at 6-inch offset to verify no PCB impact
- Cut-out/removed brick and window for disposal as Bulk Product Waste
- Sampling and remediation added $500,000 to the project.
EXAMPLE 2: PCB Paint Abatement

- Old School Building in Maine that was converted to housing
- PCBs were included in original 2010 Phase I ESA and Assessed during Initial Phase II ESA
- PCBs found in paint over 50 ppm in basement and first floor
- Sampling and remediation added +/- $400,000 to the project, but these costs were anticipated.
Conclusions

• The assessment of PCBs should likely be included in assessment of properties that have buildings constructed or renovated between 1920 and 1979 and where demolition/renovation is planned.

• Understand the issue before you buy it!!

• Assessment is cheap – remediation is $$$
Panel Discussion: Integrating C&D Materials Management On-Site

Panel Moderator: Peter Durning

Managing Shareholder
Mackie Shea Durning PC
Panel Discussion: Integrating C&D Materials Management On-Site

Panel Moderator: Peter Durning, Mackie Shea Durning PC

Panelists:
- Steven Burke, Consigli Construction
- Norman Lamonde, Turner Construction
- Conor McGuire, Columbia Construction
- Jennifer Taranto, Structure Tone
Panel Discussion: C&D Generators and Processors

Panel Moderator: David Murphy

Vice President
Tighe & Bond
Panel Discussion: C&D Generators and Processors

Panel Moderator: David Murphy, *Tighe & Bond*

Panelists:
- Daniel Constello, *Costello Dismantling Co., Inc.*
- Jeffrey Leech, *Tunnel Hill Partners*
- Scott Lemay, *United Material Management*
Closing Remarks

Tony Wespiser

Summit Chair
Senior Project Manager, Weston & Sampson

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