



Regulatory Compliance at Your Facility

Stormwater, Air Quality, Noise, Hazardous Materials

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Timothy K. Kucab, CHMM
Project Manager

Tighe & Bond
tkkucab@tighebond.com
(office) 413.875.1607
(cell) 617.417.6096



The “small” stuff...





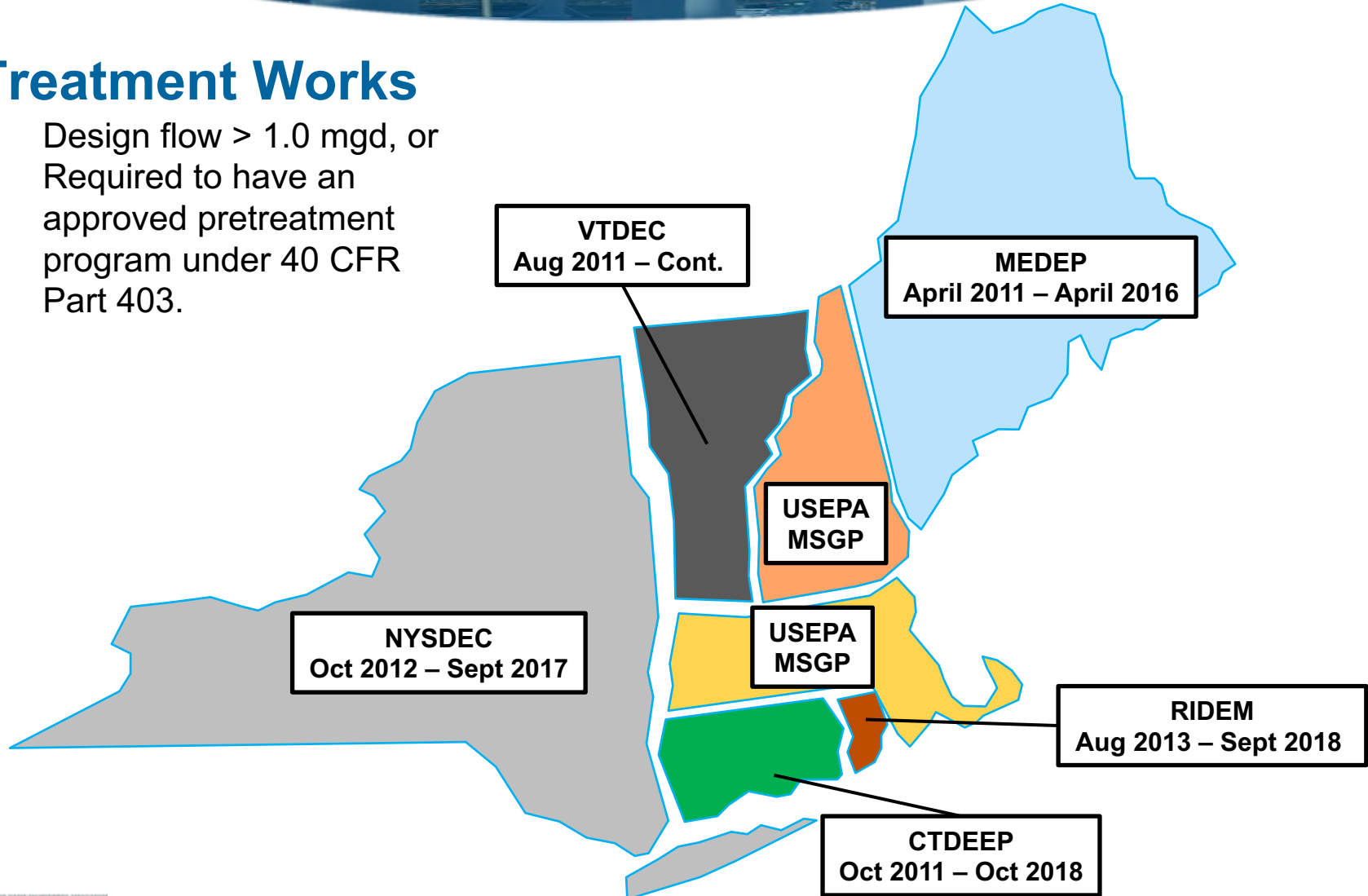
Stormwater



Stormwater General Permit

■ Treatment Works

- Design flow > 1.0 mgd, or
- Required to have an approved pretreatment program under 40 CFR Part 403.



Stormwater General Permit

- **Notice of Intent**
- **Develop a Stormwater Pollution Prevention plan**
- **Implement Best Management Practices**
- **Sampling/Inspection/Reporting**
- **No illicit discharges**
 - Floor Drains
 - Outside Vehicle Washing
 - Process Discharges
- **Annual Report**
- **Clean Water Act – Section 505**
 - Citizen Lawsuits





Air Quality



Air Emissions Source

■ Primary Pollutants of Concern

- Nitrogen Oxides, Volatile Organic Compounds, Sulfur Dioxide, Particulate Matter, Carbon Monoxide and/or Toxic Air Pollutants.

■ Major Source

- *Type and amount of air pollutants it emits and the overall air quality in its vicinity.*

■ Area Source

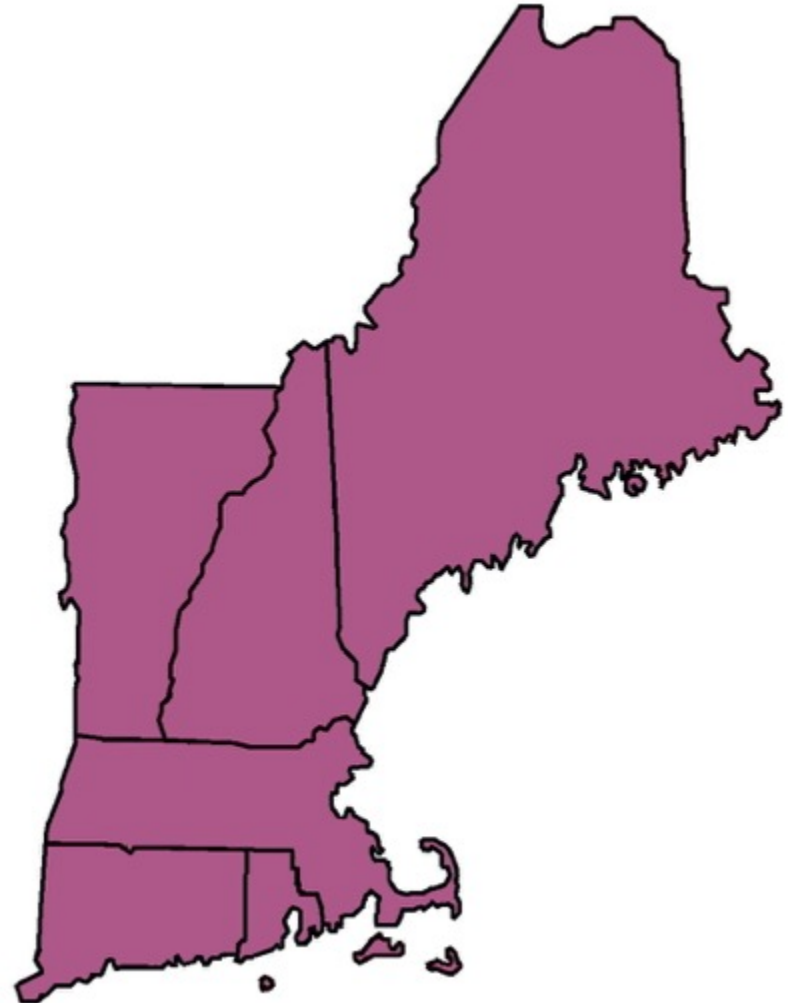
- Everyone Else



Image Source: Pinterest User Cheyenne Oswalt

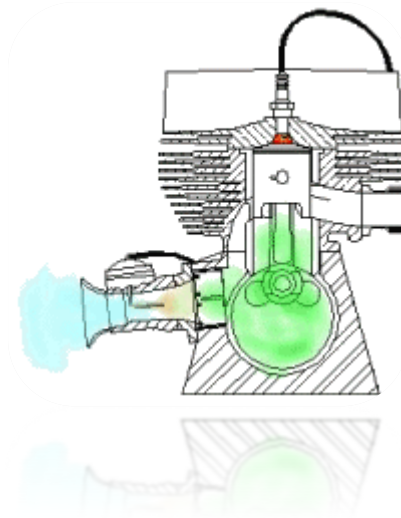
State Air Permitting Requirements

- Individual Permits
- General Permits
- Permit-by-Rule
- Certifications



Federal Government

- **NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE) - Subpart ZZZZ**
- **NSPS for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE) – Subpart IIII**
- **NSPS for Stationary Spark Ignition (SI) ICE – Subpart JJJJ**



****2006 is a key year!!****

HAPs Emitted From Engines

Organic HAP

- **Formaldehyde**
- Acrolein
- Methanol
- Benzene
- Toluene
- 1,3 – butadiene
- 2,2,4-trimethylpentane
- Hexane
- Xylene
- Napthalene
- PAH
- Methyl Chloride
- Ethylbenzene

Metallic HAP from Diesel-Fuel Fired RICE

- Cadmium
- Chromium
- Lead
- Manganese
- Mercury
- Nickel
- Selenium

Carbon Monoxide – Surrogate Pollutant

Emission Dispersion

■ “Good Engineering Practices”

- No Shanty Caps or Egg Beaters
- Vertical exhaust

■ Stack Height – Requirements May Vary

- 10 Feet Above Nearest Roofline
- If the stack is lower than 1.5 times the building height or lower than the height of a structure that is within 5L of the stack (5L being five times the lesser of the height or maximum projected width of the structure) – MODELING REQUIRED

■ Other states have additional requirements (i.e MASC in CT)



Siting Considerations



Siting Considerations

■ Impacts from Project

- Sound Levels
- Visual Impacts



Generator Exhaust

Residence less than 25 feet away

Generator Housing

Siting Considerations

- **Noise Policies**
- **Zoning Specific Noise Provisions**
- **Sound Level Monitoring**
 - Type 1 Digital Meter
 - “A” Weighted
 - Slow Response Mode



Monitoring Plans





Hazardous Materials



Hazardous Materials - RCRA

■ Waste Determination/Characterization

■ Generator Status Determination

- Waste Accumulation Areas
- Container Accumulation Standards
- Recordkeeping
- Shipping
- Inspections
- Training

■ Universal Waste (1 Year)

- Self Transport

■ State Specific Requirements

RCRA Accumulation Standards

Generator Type	Generation Rate (lbs/month)	Storage Limit (lbs)	Storage Time (days)
LQG	-	-	90
SQG	2,204	2,204	180
VSQG	220	220	Undefined



HBM - General Approach



Should Be
Very
Simple

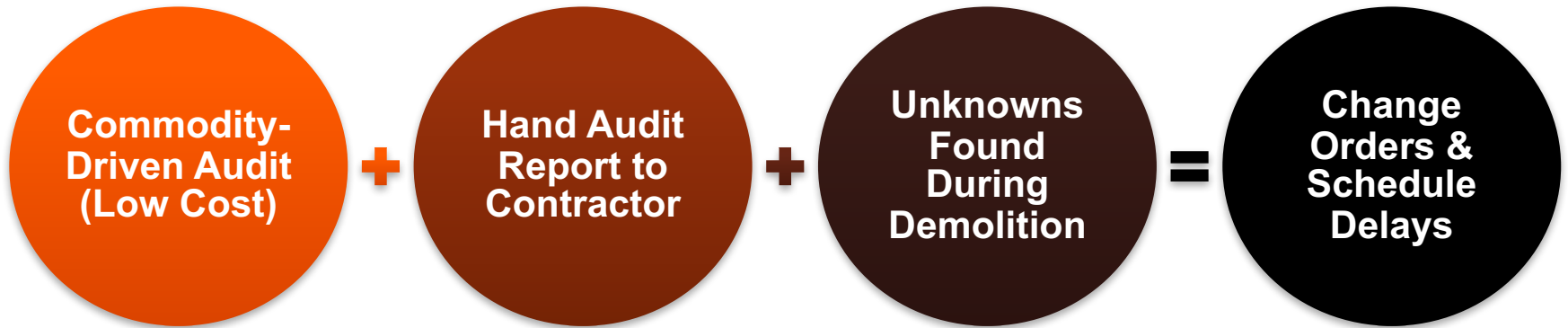
Find ALL
Regulated
Building
Materials

- PRIOR to Demolition
- Segregate
- Improve C&D Quality

Investigate
for:

- Asbestos
- Oil/Hazardous Materials Containers
- Lead, PCBs
- Uncommon Hazardous

The Problem – Managing Risk and Reward



****Often incidental quantities of asbestos are missed.**

Oil/Hazardous Materials (OHM)

Inventory

- Straight forward
- Containers, Bulbs, Ballasts, Mercury, CFCs

Keep an eye out for the less common

- Understand the building history
- Machinery can be complex (residuals)

Process and Storage Tanks

- Volume
- Contents

Sample unknowns

- Involve experts and field chemists
- BE SAFE!**

PCBs

Misc. Machine Oils

- Can be everywhere



Stained Concrete

- Site history
- When to sample



PCBs in Building Materials

- THINK before you sample
- Define Worker Protection and Waste Management



PCB Surprises During Construction are BAD





Thank You!!

Tighe&Bond

Engineers | Environmental Specialists

**53 Southampton Road
Westfield, MA 01085
413.572.3200**



**One University Avenue, Suite 104
Westwood, MA 02090
781.708.9820**



**177 Corporate Drive
Portsmouth, NH 03801
603.433.8818**



**446 Main Street
Worcester, MA 01605
508.754.2201**

**213 Court Street, Suite 900
Middletown, CT 06457
860.704.4760**



**1000 Bridgeport Avenue
Shelton, CT 06484
203.712.1100**



**4 Barlows Landing Road, Unit #18
Pocasset, MA 02559
508.564.7285**



**62 East Market Street
Red Hook, NY 12571
845.835.8080**