OTC SAS Committee Update OTC/MANEVU Stakeholders Meeting April 22, 2024

Stationary and Area Sources Committee

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OZONE TRANSPORT COMMISSION

Presentation Overview

SAS 2023 Charge

- ✓ Assessing Source Emissions Inventory
- ✓ Provide Technical Support on Individual Sectors
- ✓ Cross-Committee Collaboration
- ✓ EPA Office of Air Quality Planning and Standards (OAQPS) Engagement

Additional Focus Areas

 Employ available emission inventory estimates to research and analyze additional strategies that reduce stationary and area source emissions in a cost-effective manner.

Assess Source Emissions Inventory

Update:

- Analysis of VOC EFs for NG boilers with Ultra Low NOx Burner (ULNB):
 - RACT/BACT/LAER Clearinghouse indicates that VOC EFs for NG boilers with ULNB may be lower than those in AP42.
 - Less variation in RACT/BACT/LAER Clearinghouse data compared to AP42.
 - Discussed with the OTC directors: As opportunity presents, discuss with EPA that they review AP42 VOC EFs for NG boilers.
- Will continue to evaluate other EFs for potential improvements for sectors with significant NOx emissions.

Technical Support on Sectors: ICI Wood Boiler Inventory

Update:

 Workgroup has presented the directors with conclusions and next steps based on the inventory work; discussions are now ongoing with the Modeling Committee as to how to model the air quality impacts of these sources.





Technical Support on Sectors: Heat Pump Water Heaters

- A report was drafted to quantify costs of transitioning from inefficient and fossil fuelfired water heaters to heat pumps.
- Provides equipment, installation, and operating cost comparison for:
 - Heat pump vs. oil, methane, propane, and electric resistance water heaters.
 - Spreadsheet calculator available that incorporates utility, labor, and other state-specific data.

Heat Pump Water Heaters in the Northeast and Mid-Atlantic: Costs and Market Trends



Heat Pump Water Heaters (Continued)

Legend	Cell Inputs	Cell Outputs	Assumptions		Passwor	d to unproteo	t sheet: ES	
					Electricit	Natural	Propane	Fuel Oil
	State	Electric Utility Size	Natural Gas Utility Size	Tin (F)	9	Gas	(\$/therm)	(\$/therm
State Data	MD	Largest Utility	Largest Utility	61.9	\$ 0.12	\$ 1.57	\$ 3.75	\$ 3.58

	Fuel	Туре	Draw Pattern	fficiency Leve	UEF
Baseline	Natural_Gas	Storage_WH	Medium	0	0.58
Measure	Electric	240V_HPWH	Medium	2	3.35

Constants				
lbs/Gal	8.33			
kWh/MMBTU	293.07			
Therms/MMBTL	10			
GallonsYear	16607.5			
HPWH EUL (yrs)	10			
Tout	125			

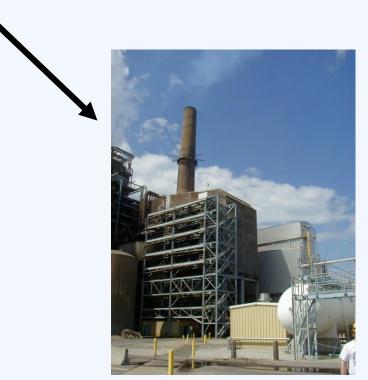
- Report was drafted for OTC and NESCAUM.
- OTC/NESCAUM finalizing report; will post this spring.
- Study will be followed by a similar analysis for space heating.
- Spreadsheet calculator.

Cross Committee Collaboration

Update/Next Steps:

- Coordinated with Modeling Committee on:
 - Modeling ICI wood boilers, including identification of SCCs.
 - Modeling for residential building electrification: lower emissions due to reduced
 fossil fuel combustion, but must account for small increase in electricity generating emissions associated with more electricity demand.





Office of Air Quality Planning and Standards (OAQPS) Engagement

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Air Quality Planning and Standards

Update:

- Will provide information in May to EPA OAQPS on:
 - The RACT and Control Measures Tool and RACT cost analysis.
 - Residential building electrification report/analysis:
 - Water heating, space heating, and whole home electrification-related NOx reductions.
 - Heat pump water heater cost analysis:
 - Spreadsheet to calculate costs for individual states.
 - Report detailing equipment, installation, and operating costs.
 - Recommendations for improved VOC EFs for NG boilers with ULNB.

Other: MWC NSPS and Emission Guidelines

- EPA proposed to update the large MWC NSPS and emission guidelines.
 - Existing facilities: NOx emissions limit of 110 ppmvd (24-hour average) identical to the OTC MWC report (but did not include OTC's recommended 30-day NOx standard).
 - New facilities: NOx emission limit of 50 ppmvd (24-hour average) based on SCR installation.
- SAS Committee submitted comments in support of the proposal on March 25th.
 - Commented on five items for which EPA requested input.
 - Included OTC MWC report as an attachment.

Other: Updates to OTC Model Rules

Update:

- Consumer model rule edits (based on stakeholder feedback):
 - Administrative and formatting updates: added dates, cleaned up rules, and reposted CP Phase I, II, III, and IV.
 - Clarified that "Sealant or Caulking Compound" does not include pipe thread sealants or pipe joint compounds.
- Adhesives model rule edits:
 - Clarified that compliance for low solids adhesives is demonstrated utilizing a different formula than other adhesives.

Thank You!

Stationary and Area Sources Committee

Wendy Jacobs, Connecticut DEEP



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