



**AIR ISSUES & REGULATIONS COMMITTEE**  
A Committee of the Bay Area Clean Water Agencies

**Fall Committee Meeting**

**October 20, 2010**  
**10:00 am – 11:30am**

**Introductions & Opening**

**Agenda**

- I. Local Regulatory News
- II. National Regulatory News
- III. State Regulatory News
- IV. Additional Items
- V. Closing



**Local Regulatory News**

## 2010 BAAQMD Clean Air Plan

- September 15, 2010, Board adopted the final Bay Area 2010 Clean Air Plan (CAP) & certified its Final EIR
- The CAP is a comprehensive strategy to reduce air pollution from both stationary sources, such as factories & refineries, & mobile sources
- CAP updates the Bay Area ozone plan in compliance with Chapter 10 of the CA Health & Safety Code
- Additionally, the CAP provides an integrated, multi-pollutant strategy to improve air quality, protect public health, & protect the climate



## 2010 BAAQMD Clean Air Plan

- The CAP performance objectives are as follows:
  - Reduce PM2.5 exposure by 10% by 2015
  - Reduce diesel PM exposure by 85% by 2020
  - Reduce GHG emissions to 1990 levels by 2020 and 40% below 1990 by 2035

- Implementation to follow

- More info at:

<http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx>



## 2010 BAAQMD Clean Air Plan

### Control Strategies

- SSM 6 – General PM Emissions Limitation
- SSM 15 – GHG in Permitting, Energy Efficiency
- SSM 16 – New Source Review Addressing PM 2.5
- SSM 17 – New Source Review for Toxic Air Contaminants
- SSM 18 – Revisions to Air Toxics Hotspots Program
- MSM A-1 through MSM B-3
- LUM 3 – Updated CEQA Guidelines and Enhance CEQA Review
- ECM 1 – Energy Efficiency
- ECM 2 – Renewable Energy
- FSM 9 – GHG Mitigation in BACT and BACT Determinations
- FSM 13 – Energy Efficiency and Renewable Energy
- FSM 18 – GHG Fee

## Reg. 9 Rule 8

## BAAQMD Regulation 9, Rule 8

- **Goal:** to reduce NOx and CO from Stationary ICES
  - Spark- and Compression-Ignited
- **Applicable to:** Stationary ICES >50 bhp (previously ≥250 bhp)
- EBMUD, SJ/SC WPCP, Sunnyvale & CCCSD commented on the draft rule and most comments were addressed by BAAQMD
- Board approved amendments on July 25, 2007

### For more info:

- [http://www.baaqmd.gov/?sc\\_itemid=D39A3015-453E-4A0D-9C76-6F7F4DA5AED5](http://www.baaqmd.gov/?sc_itemid=D39A3015-453E-4A0D-9C76-6F7F4DA5AED5)
- [http://www.baaqmd.gov/pln/ruledev/regulatory\\_public\\_hearings.htm](http://www.baaqmd.gov/pln/ruledev/regulatory_public_hearings.htm)

## BAAQMD Regulation 9, Rule 8

### CI Engine Proposed Standards for Existing Engines (g/bhp-hr)

Size (bhp)	NMHC + NOx	NOx Only	CO	Effective Date
50 - 75	3.5	n/a	3.7	1/1/2011
75 - 175	n/a	2.5	3.7	1/1/2012
175 - 750	n/a	1.5	2.6	1/1/2011
>750	n/a	0.5	2.6	1/1/2011

## BAAQMD Regulation 9, Rule 8: Impact to POTWs

- Cuts cogen NOx emissions limits from 140 ppm to 65 ppm (natural gas) & 70 ppm (digas)
- 24 lean burn digas engines in Bay Area
- NOx and CO emissions levels are each optimized at the expense of the other
- Reg 9, Rule 8 establishes priority of NOx over CO. However CO gaining greater regulatory attention
- Renewable energy through cogen could be eliminated in the future owing to tighter limits
- *Concerns by POTWs going forward???*



## Reg. 9 Rule 7

## BAAQMD Reg 9, Rule 7: Boiler Rule Compliance Schedule

- Annual Tune-up/Inspection - Jan. 1, 2009
- Surface Temperature Limit – Jan. 1, 2010
- Stack Temperature Limit – Jan. 1, 2011
- 15 ppm NO<sub>x</sub> limit – Jan. 1, 2013
- Annual NO<sub>x</sub> and CO testing – Jan. 1, 2013



## Reg. 9 Rule 9

## BAAQMD Reg 9, Rule 9: Stationary Gas Turbine Compliance Schedule

- January 1, 2010
- Alternative Compliance Limits
- NO<sub>x</sub> Concentration limit
  - 42 ppm for 5-50 MM Btu/hr
- NO<sub>x</sub> mass/MW<sub>hr<sub>u</sub></sub> for 5-50 MM Btu/hr
  - 2.12 lbs NO<sub>x</sub>/MW<sub>hr<sub>utilized</sub></sub>
  - MW<sub>hr<sub>u</sub></sub> = MW-hr<sub>electricity</sub> + MW-hr<sub>steam</sub>



## San Francisco Bay Conservation & Development Commission – Regional Strategy for Sea Level Rise

- Discussion of potential to affect POTW development
- Proposed for adoption in December 2010
- Joint counter effort by lead by Bay Area Council, Bay Planning Coalition
- Working session: October 19, 2010 at Bay Council Headquarters

### More Information:

<http://www.bcdc.ca.gov/>



## National Regulatory News

## EPA Mandatory Reporting Tool

- The EPA Electronic Greenhouse Gas Reporting Tool (e-GGRT), a new web-based system in development, is now available
- Reporting Threshold: >25,000 tons of CO<sub>2</sub>-e from General Stationary Combustion
- Register Online by: January 30, 2011
- Annual report due: March 31, 2011
- Training Webinars are scheduled for November 3 & 17, 2010
- Note: EPA is working on coordinating with State GHG Reporting Regulations, but currently you must submit 2 separate reports

**More Information:**

<http://www.epa.gov/climatechange/emissions/data-reporting-system.html>



## Greenhouse Gas Tailoring Rule

- PSD and Title V permitting requirements for GHGs
- **Step 1 (January 1, 2011)**
  - **All existing Title V holders to address GHGs**
  - Sources that require PSD for non-GHG emissions and increase GHG emissions  $\geq 75,000$  tons CO<sub>2</sub>e - PSD permit and GHG BACT review
- **Step 2 (July 1, 2011)**
  - **Sources with PTE  $\geq 100,000$  tons CO<sub>2</sub>e – new Title V permit**
  - Sources with PTE  $\geq 100,000$  tons CO<sub>2</sub>e - PSD permitting and GHG BACT review

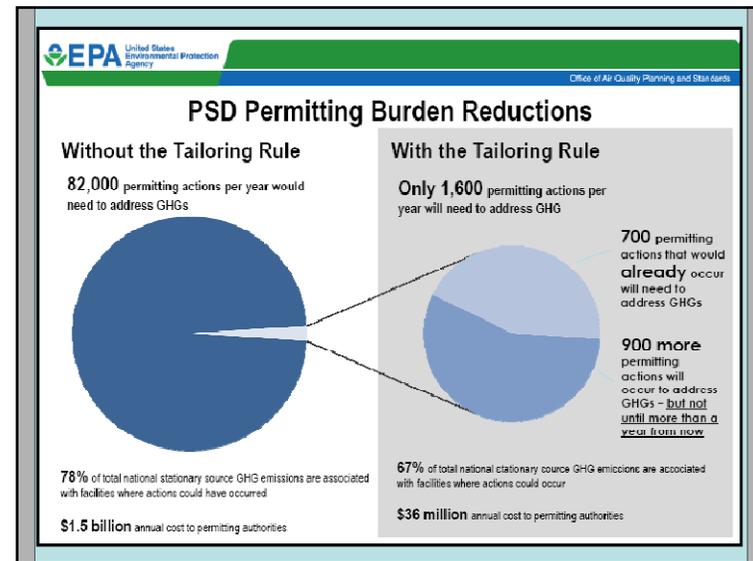
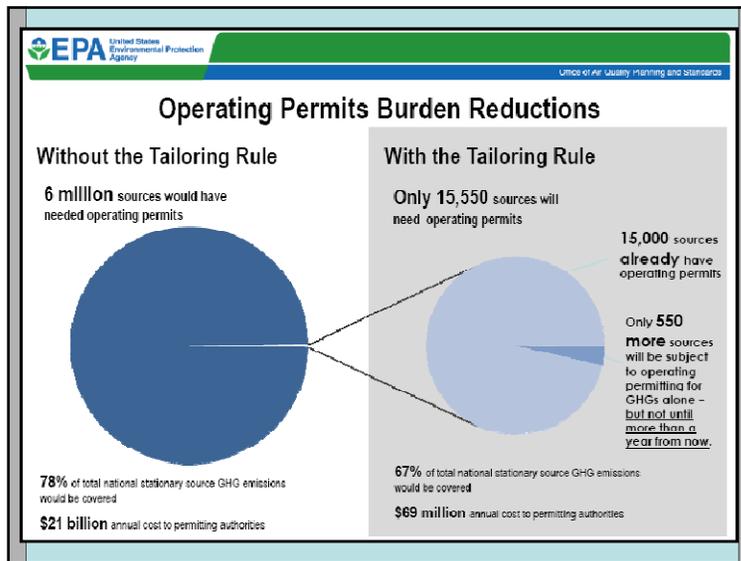


## Greenhouse Gas Tailoring Rule

- **Impact to POTWs**
  - Minimal for existing Title V holders – No existing GHG reduction regulations
  - PSD?
- **Next Steps**
  - Awaiting BAAQMD adoption and implementation schedule
- **More Information:**

<http://www.epa.gov/nsr/index.html>





## EPA Definition of Solid Waste

- May affect incineration of Sewage Sludge
- NACWA Comments:
  - Exempt or exclude sewage sludge that is combusted in definition of non-hazardous waste
  - Recognize sewage sludge and scum as legitimate fuels
  - Explicitly classify energy recovery and production at POTWs as energy recovery systems
  - State the rule does not apply and will not impact sewage sludge management as regulated by Part 503
- Regulation slated for approval January 2011

**More Information:**  
[http://69.175.53.20/federal\\_register/2010/jun/04/2010-10837.pdf](http://69.175.53.20/federal_register/2010/jun/04/2010-10837.pdf)

## EPA Proposed NSPS for Sewage Sludge Incinerators

- September 30, 2010 – EPA proposed new source performance standards (NSPS) and emission guidelines (EG) for new & existing sewage sludge incineration (SSI) units
- Proposed rules establish opacity limits and emission limits for 9 pollutants

**More Information:**  
<http://www.epa.gov/ttn/oarpg/new.html>

	Draft 129 Limits for Existing MHF	Draft 129 Limits for Existing FBI	Draft 129 Limits for new MHF	Draft 129 Limits for new FBI
Cd mg/dscm	0.09500	0.00190	0.00051	0.00051
Dioxin/Furans ng TEQ/dscm	0.3200	0.0560	0.0240	0.0240
Dioxin/Furans ng total/dscm	5.0000	0.6100	0.0022	0.0022
CO ppmvd	3900	56	7.4	7.4
HCl ppmvd	1.00	0.49	0.12	0.12
Hg mg/dscm	0.0200	0.0033	0.0010	0.0010
NOx ppmvd	210	63	26	26
Opacity %	10	0	0	0
Pb mg/dscm	0.30000	0.00980	0.00053	0.00053
PM mg/dscm	80.0	12.0	4.1	4.1
SO <sub>2</sub> ppmvd	26.0	22.0	2.0	2.0

## State Regulatory News

### Mandatory GHG Report Verification

- Reporting Verification due October 1, 2010
- Two Month Grace Period – due December 1, 2010
- How did Verification Process go?
- Common Issues/Tips for Next Year

#### More information:

<http://www.arb.ca.gov/cc/reporting/ghg-ver/ghg-ver.htm>

[http://www.arb.ca.gov/cc/reporting/ghg-ver/  
advisory\\_Oct01\\_verification.pdf](http://www.arb.ca.gov/cc/reporting/ghg-ver/advisory_Oct01_verification.pdf)



### CARB Cap & Trade:

#### Impact to POTWs

- **Capped Sectors:** POTWs *generally* not included - fugitive and biomass combustion emissions from stationary sources excluded
- **Offsets:**
  - Credits to be generated through ARB and “linked” programs
  - ARB to develop more protocols in 2011, including “wastewater sector”

#### Timeline / Next Steps

- Awaiting new regulation draft – Fall 2010
- Adoption in 2010 and implementation in 2011
- CWCCG working with CARB on offset protocol development

#### More information

<http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>



## CARB Cap & Trade: Wastewater Offsets

- CWCCG continues communication with ARB
- Potential protocols
  - Conversion of septic system to central sewer system
  - Conversion of digester gas flaring to cogeneration fuel/ digester installation
  - CO<sub>2</sub> sequestration from land application
  - Displacement of fossil fuel fertilizers
- Next Steps



## CARB Renewable Electricity Standard (RES)

- Adopted September 2010
- Requires electricity sellers to meet 33% renewable energy resource targets
  - 20% - 2012 to 2014
  - 24% - 2015 to 2017
  - 28% - 2018 to 2019
  - 33% - 2020 and beyond
- Program allows bundled and unbundled (TRECs)
- CWCCG followed regulation development
- **More info at:**  
<http://www.arb.ca.gov/energy/res/res.htm>



## CEC/CPUC Renewable Portfolio Standard (RPS) – Tradable RECs

- RPS program established in 2002
- Requires IOUs to meet 20% renewable energy resource target by 2010
- Legislative movement to increase target to 33% by 2020
- CPUC issued a modified decision in August 2010 which allows the use of TRECs in the RPS system - up to 40%
- Modified decision limits the amount of RECs from distributed generation
- CWCCG following development
- To Commission for adoption October 28<sup>th</sup>
- **More info at:**  
<http://www.cpuc.ca.gov/PUC/energy/Renewables/>



## CARB In-Use, Off-Road Diesel Fleet Regulation

- October 7, 2010- CARB met with the Associated General Contractors of America Trade Organization to agree upon proposed changes to the regulation.
- Changes set for acceptance December 2010 CARB Meeting
  - Comments to be accepted beginning: October 20, 2010

**More information:**

<http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>



## CARB In-Use, Off-Road Diesel Fleet Regulation

### Primary changes would include:

1. Delay performance requirements by 4 yrs (2 yr - medium & small fleets)
2. Combine NOx and PM, lower annual requirements, and allow fleets to comply through turnover only
3. Provide easier compliance path for fleets under 500 hp
4. Increase low use threshold
5. Extend double credit for retrofits
6. Maintain turnover rate for a longer period, from 2017 to 2022

### **More information:**

<http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>



## Proposed ATCM Amendments for New Stationary, CI Engines

- To align more closely with NSPS for consistency – new engines only
- NACWA Comments:
  - Supports compliance standards geared toward manufacturers
  - Supports attainable NOx emissions for emergency engines (>30 L/cyl)
  - Suggests maintenance plan and records for engines > 100 HP similarly to the conditions for engines < 100 HP
  - Emissions standards may be difficult to meet for digester-fired engines
- Timeline:
  - Obtain CARB Board Approval – **pending, October 2010**

### **More information:**

<http://www.arb.ca.gov/diesel/statport.htm>

## CARB Guidance for Siting Biorefineries

- October 11, 2010 – CARB released draft Air Quality Guidance for Siting Biorefineries, Comments Due – December 1, 2010
- Response to the Low Carbon Fuel Standard
- A best practices guidance document for siting biofuel production facilities
- Biorefinery: A facility that converts biomass to fuels, heat, electricity, and chemicals.
  - specifically addresses biogas and anaerobic digestion as a biofuel and conversion technology

### **More Information:**

[http://www.arb.ca.gov/fuels/lcfs/101110\\_DRAFT\\_Air\\_Quality\\_Guidance\\_for\\_Siting\\_Biorefineries.pdf](http://www.arb.ca.gov/fuels/lcfs/101110_DRAFT_Air_Quality_Guidance_for_Siting_Biorefineries.pdf)



## Additional Items

## BACWA AIR Budget Update

Total Budget for FY 10/11: \$81,000

- Spent to date: \$10,000
- % Spent to date: 12%



## BACWA AIR Issues Matrix

### **Key Issues:**

- General Air Quality Regulations– Local, State, National
- Fleet Regulations
- Stationary Engine Emissions Regulations
- Portable Engine Emissions Regulations
- Misc. Equipment Emission Regulations - Boilers, Turbines, etc.
- Solid Waste & Incineration Regulations
- Funding Opportunities
- Alternative Energy Regulations
- Environmental/Climate Change Regulations
- AB 32 Developments



## January Meeting with BAAQMD

**Next Meeting: January 26<sup>th</sup>, 2011**

**Speaker: Brian Bateman, BAAQMD Director of Engineering**

**Items to Discuss?**



## **Closing**

**Next Meeting: Wednesday – January 26, 2011**

## Supplementary Slides

### BAAQMD Regulation 9, Rule 8

#### Spark-Ignited Engine Standards (Effective January 1, 2008)

Powered by Fossil Derived Fuels	
Rich Burn	$\leq 0.35$ g NO <sub>x</sub> / bhp
Lean Burn	$\leq 1.00$ g NO <sub>x</sub> / bhp
Powered by Waste Derived Fuels	
Rich Burn	$\leq 0.70$ g NO <sub>x</sub> / bhp
Lean Burn	$\leq 1.00$ g NO <sub>x</sub> / bhp