



UC Davis CBC 2011

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AD AND METHANE USE IN CA

- 130 FACILITIES IN CA OVER 4 MGD
- 102 OF THOSE FACILITIES HAVE AD
- 80 OF THOSE FACILITIES USE METHANE (2.9 BGD vs 0.56 BGD)
- INCREASING RECEIPT OF FOG/FOOD WASTE

AD AND METHANE USE IN CA

- SUPPORTED BY CEC, CPUC, AND CALRECYCLE
- RENEWABLE ENERGY MANDATES
- BUT THERE ARE ISSUES

FOG/FOOD WASTE IN AD

- Sept '09 CalRecycle publishes guidance document on AD
- Defines compost by temperature rather than process
- So AD at >122 deg F is compost and subject to composting regs!
- AD at < 122 MAY need TS/PF Permit

AD AND METHANE USE IN CA

- TS/PF permit would be at discretion of Local Enforcement Agency (LEA)
- CASA has argued that POTWs are already regulated for this under water and air permits
- Patchquilt regulatory landscape creates unnecessary disincentive

ISSUES WITH TS/PF PERMIT

- **Oversteps legal authority of CalRecycle**
- **No permitting tier remotely resembles AD**
- **CEQA process lengthy and expensive**
- **Public process**

FOG/Food Waste in Digesters

- Worked closely with CalRecycle to understand what problem is that they perceive need to solve
- Letter sent to Margo Reid Brown and response sympathetic
- Stay tuned

CDFA Rendering Rules

- Proposed regs in July 2010
- Could have considered POTWs as renderers if accept FOG or Food Waste
- CASA provided written & verbal comments
- Not proceeding so avoid reg overlap

ISSUES UTILIZING METHANE

- CA has two air districts with severe ozone issues
- Restrictive emission limits on IC engines (SC) & turbines (SJVAMD)
- SC will require pre and post combustion clean-up
- Technology unproven and costly

ISSUES UTILIZING METHANE

- In SCAQMD by 7/12 new limits for NO_x, VOC, and CO
- Pretreatment for H₂S and Siloxane
- Post combustion SCR for NO_x
- Secondary CO catalyst for VOC and CO

Pipeline Quality Options

- Full scale pilot at Escondido
- ~ 14 MGD Average Flow
- Partnered with SoCal Gas Co
- Pressure Swing Adsorption (PSA)

Pipeline Quality Options

- On-line for 3 months-very successful
- Too pure so produce more tail gas
- Trying to balance so ~ 80/20 split
- Likely send to pipeline buy back at reduced rate

Pipeline Quality Options

- **Very small footprint (20x30)**
- **Worked with air district on flare emissions as must flare tail gas**
- **Siloxanes not issue since no combustion**
- **Not all power companies interested**