ADM CO-DIGESTION AT POTW
CASA - STATE WATER BOARD – CALRECYCLE TRAINING
October 2014

STATE WATER RESOURCES CONTROL BOARD
REGULATORY FRAMEWORK
OVERVIEW

- State Water Resources Control Board Mission Statement, Regulatory Authority and Regulatory Programs
- Resource Recovery Regulatory Landscape
- POTW Solids Treatment and anaerobically digestible material (ADM) Co-Digestion
- Cross Media Issues
MISSION STATEMENT

“The State Water Board’s mission is to preserve, enhance and restore the quality of California’s water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.”
STATE WATER BOARD
REGULATORY AUTHORITY

**Clean Water Act:**
- Discharge to waters
- Pollutants
- Navigable Waters
  - Waters of the United States
- Generally surface waters
- Point sources only

**Porter-Cologne:**
- Any discharge to land or waters that could affect water quality and the beneficial uses of waters of the state.
- Waters of the State
  - Surface, ground, and saline waters,
    - Includes waters of the United States
    - Includes wetlands
- Point and nonpoint
REGULATORY TOOLBOX

- Waste Discharge Requirements (WDRs)
- Conditional Waivers of WDRs
- Conditional Prohibitions

- National Pollutant Discharge Elimination System (NPDES) Permits
- Non-Point Source Policy
- Total Maximum Daily Loads (TMDLs)
- Management Agency Agreements
- Cooperative Programs
REGULATORY PROGRAMS

- **NPDES**
  - POTWs
  - Industrial/Commercial
  - Pretreatment
  - Stormwater
  - TMDL

- **WDR**
  - Biosolids Land Application
  - Nonpoint Source
  - Irrigated Lands Regulatory Program
  - TMDL
  - Land Disposal
  - Composting
  - Dairy Program
  - Timber Harvest
  - Septic Tanks
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RESOURCE RECOVERY REGULATORY LANDSCAPE

- Recycled Water
  - Policy
  - General Order

- Solids
  - Biosolids General Order
  - WDR
    - Class A, B, or EQ
  - Compost General Order
  - Green Waste

- Drought – Emergency Orders
  - Transfers
  - Curtailments
  - Groundwater Management
OVERVIEW

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PUBLICALLY OWNED TREATMENT WORKS

- POTWs
  - Collect wastewater
  - Transport it via a series of pipes to the treatment plant.
  - Removes harmful organisms and other contaminants from the sewage
  - Discharges safely into the receiving water body
  - Produces solids for beneficial use
  - **Produces renewable energy through resource recovery**
POTW SOLIDS TREATMENT PROCESS

- **POTW Biosolids**
  - Treated sludge to 503 requirements
  - General Order for Land Application

- **POTWs**
  - Biogas Generation
  - Direct Injection of ADM to Anaerobic Digester for co-digestion

- **CDFA Definition of ADM / Inedible Material**
  - Fats, oils, grease (FOG)
  - Food Processing Wastes
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CROSS MEDIA ISSUE

- CalRecycle - Water Boards – LEAs – CDFA
  - Initial assessment
    - New waste stream
      - No explicit Finding in Discharge Permit
      - No specific Section in POTW process design manual or schematic
  - CDFA definition of inedible kitchen grease as defined in section 19216 of the Food and Agricultural Code, food material as defined in Title 14, CCR, Chapter 3.1, Article 1, Section 17582(a) and vegetative food material as defined in Title 14, CCR, Chapter 3.1, Article 1, Section 17582(A)
  - Review process to broaden definition of ADM
“If the Discharger proposes to receive hauled-in anaerobically digestible material for injection into an anaerobic digester, the Discharger shall notify the Regional Water Board and develop and implement standard operating procedures (SOPs) for this activity. If hauled in waste for digestion is already ongoing, the SOPs shall be developed within ninety (90) days. Otherwise the SOPs shall be developed prior to initiation of the hauling. The SOPs shall address material handling, including unloading, screening, or other processing prior to anaerobic digestion, and transportation, spill prevention, and spill response. In addition, the SOPs shall address avoidance of the introduction of materials that could cause interference, pass through, or upset of the treatment processes; avoidance of prohibited material, vector control, odor control, operation and maintenance, and the disposition of any solid waste segregated from introduction to the digester. The Discharger shall provide training to its staff on the SOPs and shall maintain records for a minimum of three (3) years for each load received, describing the hauler, waste type, and quantity received. In addition the Discharger shall maintain records for a minimum of three (3) years for the disposition location and quantity of cumulative pre-digestion segregated solid waste hauled off-site.”
DATE:
PERMIT NUMBER:

[Insert Appropriate] Regional Water Quality Control Board
Attention: [Insert Name]

Subject: Notification of Co-Digestion of Hauled In [type of Anaerobically Digestible Material] At The [Insert Name] Wastewater Treatment Plant

Dear [Insert Name]:

This letter is to inform the [insert Name] Regional Water Quality Control Board that the [insert agency] [will be/has been] operating an anaerobically digestible material (ADM) receiving facility to feed the anaerobic digestion system at the [insert name] Wastewater Treatment Plant for co-digestion. The main purpose of the project is to increase biogas and renewable energy production by digesting ADM.

The ADM receiving and co-digestion system [will be/is] a permanent facility with [Insert description of facility components, including number of tanks, piping, process configuration, enclosed structures, spill containment] to convey ADM into an anaerobic digestion system. [Insert description of end use destination for any screenings removed]. The [new/existing] system is [expected to be /has been] operational [by/since] [insert date].

The system [will receive/receives] ADM from [insert general description of waste sources]. [Insert general description of ADM waste collection, hauling, and truck hauler certification].

To ensure safe operation of the [new/existing] ADM receiving and digestion system, standard operating procedures (SOP) [have been developed/will be developed within ninety (90) days] that include a spill response and contingency plan, vector and odor control, avoidance of introduction of any materials that could cause upset of the treatment process, and operation and maintenance procedures. The spill response and contingency plan [will outline/outlines] procedures for spill containment, recovery, and cleanup procedures. Operations and maintenance (O&M) manuals [will be/have been] updated with instructions to properly operate and maintain the system.

Should you have any questions related to the ADM facility, please do not hesitate to contact me at [insert contact information].

Sincerely,

[Wastewater Agency Representative]
Conclusion

- Support recycling and resource recovery
- Providing allowances while maintaining environmental stewardship
- Comply with regulations
QUESTIONS

BIOSOLIDS PROGRAM CONTACT INFORMATION

Biosolids Web Page:

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