

# **Environmental Permitting for Upgrading and Supplying RNG**

Presentation by: Jason Linkimer & Tony Widboom, P.E. Barr Engineering Co.



# Purpose

What are the environmental permitting requirements associated with bringing RNG into the natural gas pipeline network?





Environmental Permitting for Upgrading & Supplying RNG









Timelines for permitting



Environmental Permitting for Upgrading & Supplying RNG



Potential project locations (biogas sources)



Environmental permitting considerations

Timelines for permitting



# What is Driving This Market?

## Regulatory/legislative drivers

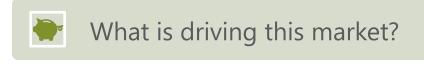
- Federal Renewable Fuel Standard (RFS)
- California Low Carbon Fuel Standard (LCFS)
- Oregon Clean Fuels Program
- British Columbia LCFS
- Additional activity

### Voluntary drivers

- Societal pressure
- Shareholder sustainability expectations
- Customer demand & brand loyalty
- Capital availability where investors are hedging long-term return
- Private industry recognition of economic opportunity



Environmental Permitting for Upgrading & Supplying RNG









Timelines for permitting



# Potential Project Locations (Biogas Sources)



DAIRY/POULTRY/ SWINE OPERATIONS



AGRICULTURAL WASTE



FOOD WASTE

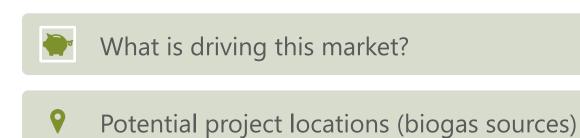


WASTEWATER TREATMENT



LANDFILLS

Environmental Permitting for Upgrading & Supplying RNG







Timelines for permitting



# Biogas Processing

### Recovery & distribution

- Biogas treatment
  - Train includes:
    - Upgrading/treating gas
    - Compression
    - Storage
    - Pipeline connections
- Wastewater
- Solid waste





Environmental Permitting for Upgrading & Supplying RNG









Timelines for permitting



# Environmental Permitting Considerations



SOURCE & PROJECT



AIR QUALITY IN
PROJECT LOCATION
(ATTAINMENT
ISSUES)



STATE SPECIFIC RULES, REQUIREMENTS, EXEMPTIONS



ENVIRONMENTAL REVIEW PROGRAMS



HAZARDOUS SUBSTANCE REGULATORY PROGRAMS

# Defining the Source & Project

### Applicable Programs

- Stationary source definition:
  - Common control
  - Contiguous or adjacent
  - Same 2-digit SIC or "support facility"
- Project definition:
  - Consider other related changes at the stationary source meeting certain criteria



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

1595 Wynkoop Street Denver, CO 80202-1129 Phone 800-227-8917



MEMORANI SUBJECT:

FROM:

TO:

The p Agency's (EP, of a "stationa programs unde for the title V the scope and

The A authorities the term is used i results in part years. To prointerpretation This memorar oil and natural

<sup>1</sup> References to " and the Nonattaii programs, such a <sup>2</sup> EPA has establ (June 3, 2016). A from the approac with shared equit Ref: 8ARD-PM

Mr. Danny Powers Air Quality Program Southern Ute Indian P.O. Box 737 Ignacio, Colorado 8

Dear Mr. Powers:

On April 22, 2019, y Quality Program (AC position on the AQP' owned by Red Cedar Willow) should be co entities should be cor Title V of the Clean . determinations." As a program has been ap determination based the EPA regarding R date and hopes the fo

#### BACKGROUND

The Jaques Compress methane gas from ser includes six compres heaters, and pump en equipment was origin equipment at the Jaqu owns and operates the tanks, heaters and Willow is wholly-ow

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same "major source" if t code): (2) are located on

persons under common of

regulations). The Tribe's

Code § 1-103(38), Altho-

principles would guide t

Title I of the CAA in det

C.F.R. § §§ 52.21(b)(5) a

Recycle

WASHINGTON, D.C. 20460

July 12, 2019

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF

The Honorable Catherine McCabe Commissioner New Jersey Department of Environmental Protection Post Office Box 402 Trenton, New Jersey 08625

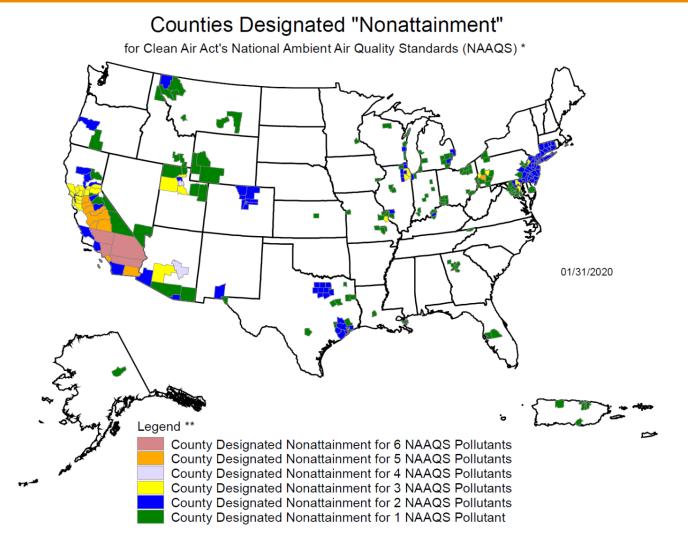
Dear Commissioner McCabe:

On December 14, 2018, the U.S. Environmental Protection Agency (EPA) received a letter from Sandra T. Ayres, Esq. on behalf of Ocean County Landfill Corp. (OCLC) (the 2018 OCLC Letter). The 2018 OCLC Letter requests that EPA revisit and reverse the agency's determination in a May 11, 2009, letter (the 2009 EPA Letter) that the OCLC landfill and two landfill gas-to-energy (LFGTE) operations owned by Manchester Renewable Power Corp. (MRPC) and Ocean Energy Corp. (OEC) should be treated as a single source for Clean Air Act (CAA) permitting purposes. Specifically, this request relates to whether these operations should collectively be considered part of the same "major source" for the operating permit program under Title V of the CAA and/or part of the same "stationary source" for the New Source Review (NSR) preconstruction permit programs under Title I of the CAA; the corresponding term used in the rules issued by the New Jersey Department of Environmental Protection (NJDEP) is "facility." EPA commonly refers to these types of questions as "source determinations."

In this case, the permitting authority's source determination turns on whether the OCLC landfill and MRPC/OEC LFGTE operations are under common control. Under the federal rules governing these permitting programs, entities may be considered part of the same 'major source' or "stationary source" if they (1) belong to the same major industrial grouping (2-digit Standard Industrial Classification (SIC) code); (2) are located on one or more contiguous or adjacent properties; and (3) are under the control of the same person (or persons under common control). See 42 U.S.C. § 7661(2) (Title V statutory definition); 40 CFR §§ 70.2 and 71.2 (Title V regulations); 4ú, §§ 52.1(b)(5) and (6), 51.165(a)(1)) and (ii), and 51.166(b)(5) and (6), NSR regulations). OCLC, MRPC, and OEC are all located on contiguous leaseholds owned by OCLC's parent company and all share the same 2-digit SIC code. Further, MRPC and OEC are wholly owned by a common parent company and there is no dispute that these two entities themselves are under common control and should be treated as part of the same source. Therefore, the key issue is whether OELC's landfill and the collective MRPC/OEC LECTE contains are under common rounder common control and should be treated as part of the same source. Therefore, the key issue is whether OELC's landfill and the collective MRPC/OEC LECTE contains are under common



# Air Quality in Project Location



## Implications for nonattainment

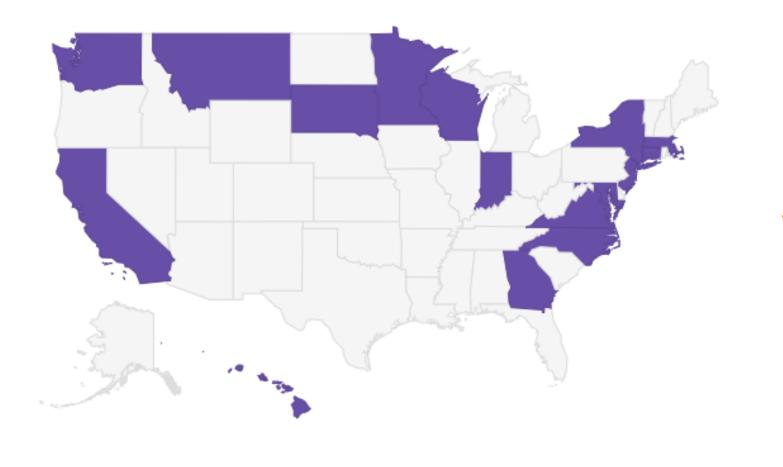
- Lower major source thresholds
- Significant requirements, costs and schedule risks
- Emission offsets
- Lowest Achievable Emission
   Rates regardless of cost



# State Specific Rules, Requirements, Exemptions

Environmental Requirements vary by State





# Environmental Review Programs

States with Environmental Policy Acts

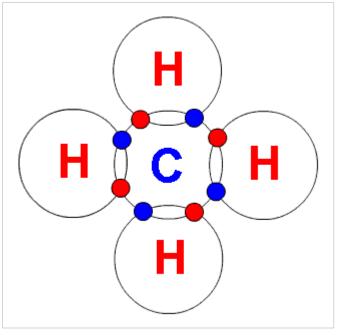


# Hazardous Substance Regulatory Programs

### Applicable Programs

- Risk Management Program (RMP) requires a plan to address accidents and emergencies
- OSHA's Process Safety Management (PSM) program addresses management of hazards
- Chemical Facility Anti-Terrorism
   Standards (CFATS) addresses security

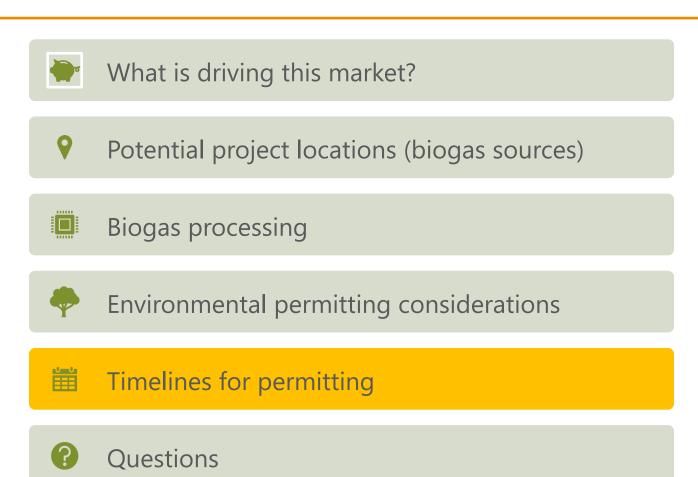
# Threshold quantity: 10,000 lbs or 236,100 scf of methane



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# Timelines for Permitting

### Pre-construction approvals



**AIR PERMIT** 



ENVIRONMENTAL REVIEW (IF REQUIRED)

## Pre-operation approvals







WASTEWATER

STORM WATER

**RMP** 



WASTE



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Timelines for permitting



# Questions?

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