


**The Future of Air Quality
Regulations: New York's CLCPA**

Presented By:
Jacob Rattay
Staff Consultant – Pittsburgh Office



New York's Climate Leadership and Community Protection Act (CLCPA)

Combat Climate Change and Achieve Carbon Neutrality

GHG Emission
Limits and Reporting

Increase Renewable
Electricity
Generation

Protect
Disadvantaged
Communities

Establish Climate
Action Council

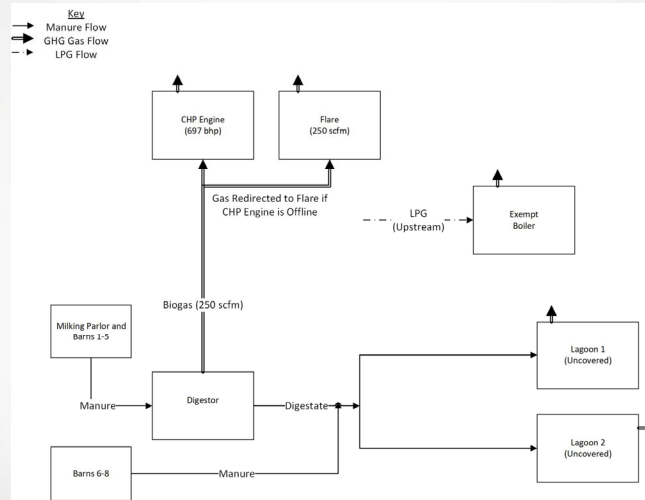


CLCPA Emissions Goals

- GHG Emission Level Goals
 - 60% of 1990 levels by 2030
 - 15% of 1990 levels by 2050
- Electricity Generation
 - 70% of electricity generation using renewable energy by 2030
 - 100% of electricity generation using renewable energy by 2040



Project Background: Dairy Farm



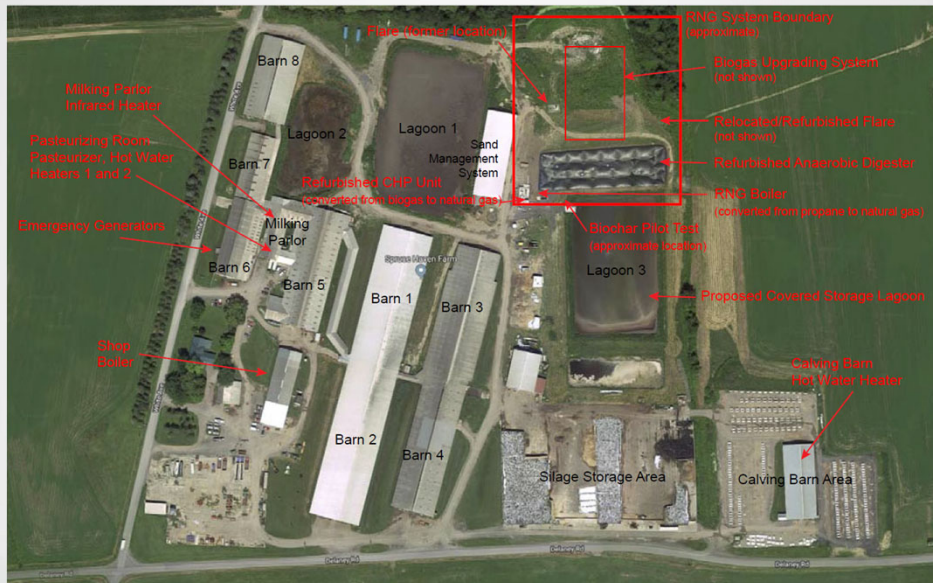
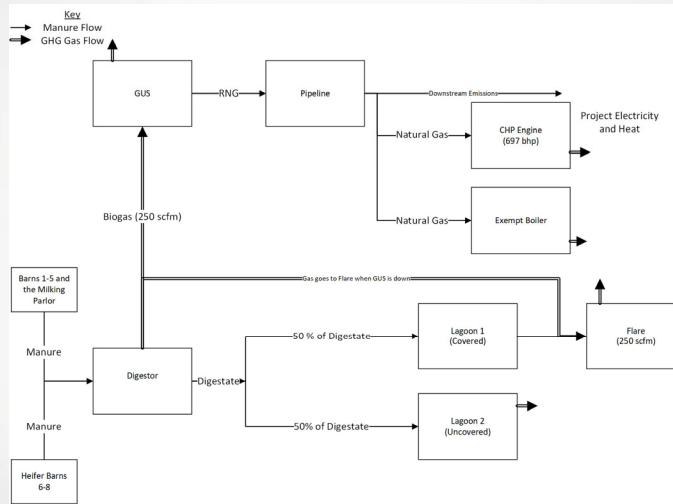
Project Background: Partnership with UGIES

Goals:

- Turn generated biogas into usable renewable natural gas (RNG)
 - Requires a Gas Upgrading System
- Convert existing equipment to run on natural gas
- Reduce emissions from existing farm equipment



Project Background: New Equipment



Project Background: CLCPA

Originally sought Registration Permit for facility changes

Comments from NYSDEC

CLCPA Analysis was required for this facility



Specifics of Permitting under CLCPA

—Consider Emissions from:



—Show a reduction in Emissions from Existing Facility to Proposed

—2030 and 2050 Emissions

—Emission Limiting Technologies



Spruce Haven Emissions Breakdown

- Upstream
 - Existing: Exempt Boiler LPG
 - Project: Exempt Boiler and Engine NG
- Project
 - Existing: Farm Sources
 - Project: Farm Sources and New Equipment
- Downstream
 - Existing: None
 - Project: RNG produced on-site distributed off-site



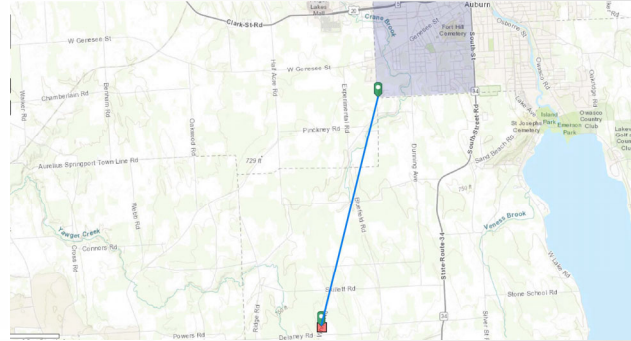
Emission Limiting Technologies

- Research alternate approaches or technologies that could reduce GHG emissions for each source
- Determine feasibility of emission reduction and implementation
- Cost analysis on potential solutions



Community Protection: The CP in CLCPA

- Facility was not located in a disadvantaged community
 - NYSDEC database
- Co-pollutant analysis necessary if located within one mile of a disadvantaged community



Product

- Basically, another permit application
 - Write-up
 - Calculations
 - PFDs
 - Site Location
- Potential for additional work
 - Co-pollutant analysis
 - Emission Limiting Technologies

Table 4 – Cumulative GHG Emissions

Type	GHG Emissions (tons/yr)				CO2e Emissions (tons/yr)
	CO ₂	CH ₄	N ₂ O		
Baseline	11,497.79	338.20	0.11		39,935.03
Project	15,796.36	171.90	0.05		26,878.11
Downstream	0.16	5.37	NA		451.06
Net Reduction					-12,605.85

Type	Actual Emissions (tons/yr)				CO2e Emissions (tons/yr)
	CO ₂	CH ₄	N ₂ O		
Baseline	4,371.38	308.08	0.10		30,277.80
Project	13,456.94	176.68	0.05		22,464.35
Downstream	0.13	4.29	NA		360.85
Net Reduction					-7,452.60



Difficulties



- New Regulations cause new problems
- Working with NYSDEC to understand requirements and deliverables
 - Emission Limiting Technologies
- Emission Sources we weren't familiar with



Looking to the Future

- Washington State Climate Commitment Act
 - Emissions capped with goal of 95% reduction of 1990 levels by 2050
- Colorado Climate Action Plan to Reduce Pollution
 - Reduce Emissions to 50% of 2005 levels by 2030 and 90% by 2050
- Massachusetts
 - Achieve 85% reduction in 1990 GHG emissions by 2050
- Clean Electricity Bills in many states including Oregon and Illinois



Contact Information

Jacob Rattay



- Phone: 412-249-1559
- Email: jrattay@cecinc.com



QUESTIONS?

