

# Lime Plant Residuals as Landfill Cover

Public and private collaboration providing a win-win-win



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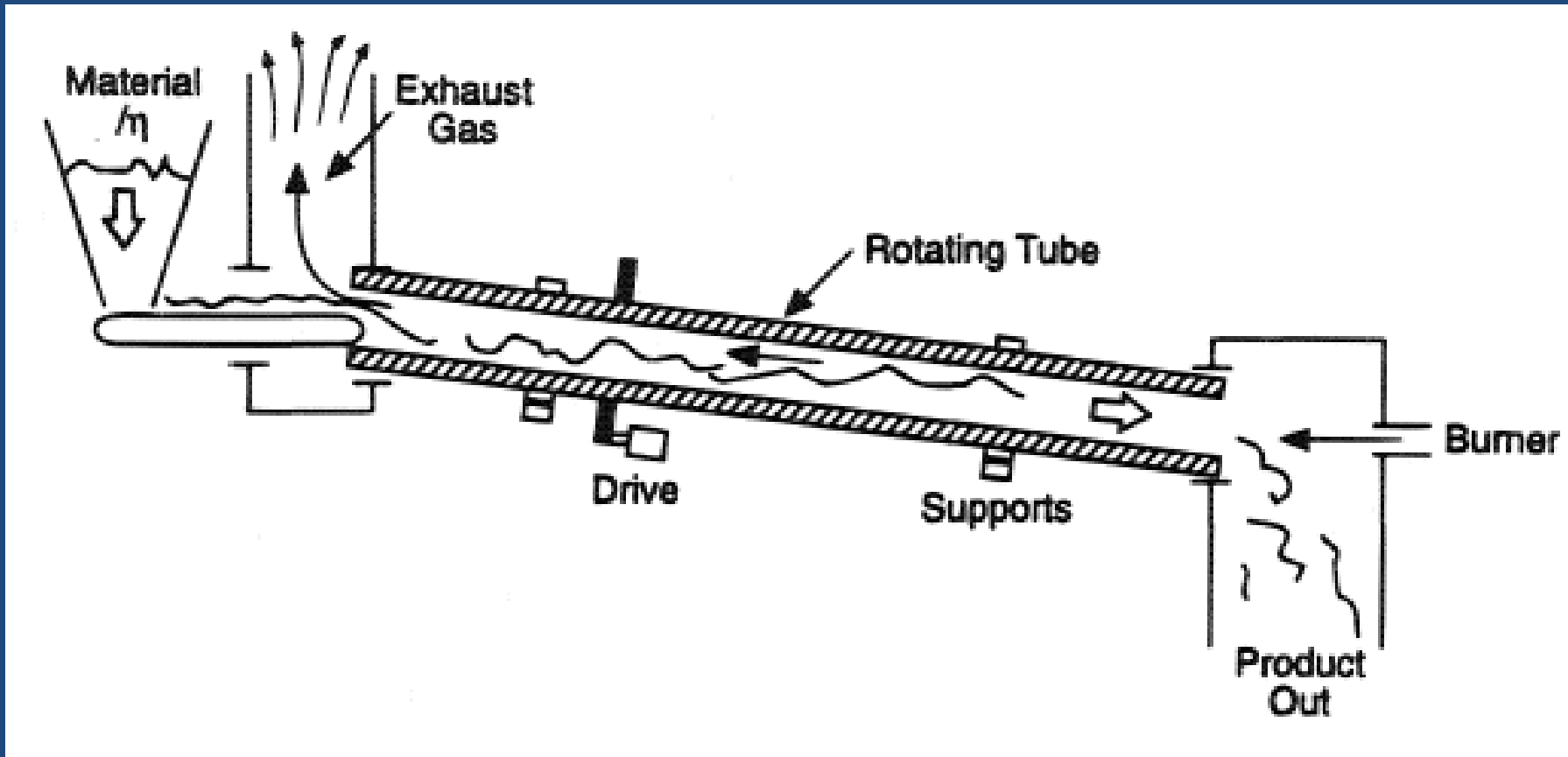


## Presentation Outline

- Background on Lime Industry
- Background on Mississippi Lime
- Alternative Daily Cover (ADC) program
- Fee challenges
- Approvals granted
- Results

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### Cross section of a typical rotary kiln

Limestone added at the top

Product collected at the Bottom

Waste removed from Exhaust Gas

## Lime Plants

- Eight in Ohio
- Seven in NW Ohio
- One without a quarry



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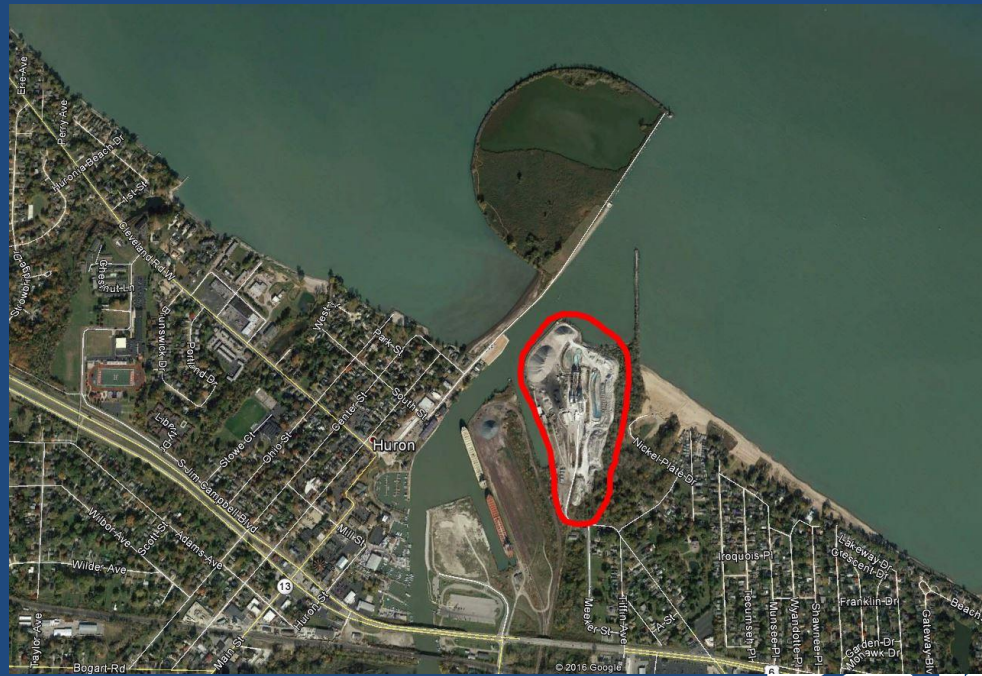
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# Location

## Huron, Ohio



## Mouth of the Huron River





# Mississippi Lime Plant

- Originally Owned and Operated by Huron Lime
- Huron Lime took the waste to captive landfills
- None of the air pollution control waste disposed since 1994
- Sold to Mississippi Lime 2014
- Mississippi Lime increased allowable production
- Ag Lime uses no longer utilized all of the material

## The Challenge

- All of the material could not be used as Ag Lime
- No quarry
- Additional cost-effective outlets needed



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# Ohio Administrative Code

## 3745-27-19(F)

- Daily cover applied at the end of each day
- Typically 6" soil layer
- Alternatives can be used "if approved by the Director"
- Tarps, spray-on products (F)(3)(b)
- Soil-like wastes (F)(3)(a)

# Ohio EPA, Mississippi Lime, and local Landfills collaborate



# Alternative Daily Cover Requests

- Prepared and submitted by Republic and Erie County
- 6-month trial approvals drafted
- What about fees?



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# Disposal or Use?

- Under current paradigm, even when “used” as a daily cover, the material is still viewed to be “disposed”
- Disposed solid waste is subject to fees





## Solid Waste fees

- State Disposal Fee
- Solid Waste District Generation/Disposal Fee
- However, if fees were required to be collected and remitted then the project would likely fail.



# Coordination with Applicable Solid Waste Management Districts

- Meeting(s) held May 18, 2016 at the Erie County Solid Waste Management District. Attendees:
  - Mississippi Lime
  - Ohio EPA
  - Erie County Landfill
  - Erie County Solid Waste Management District
  - Republic
  - Ottawa-Sandusky-Seneca Solid Waste Management District

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# Approvals Granted

- Erie County Landfill
  - Issued November 8, 2016
- Port Clinton Landfill
  - Issued January 18, 2017

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# Photo from Erie County Landfill





# Photo from Port Clinton Landfill



# Results

- Both facilities have used the material.
- Both are satisfied that it functions well as a soil replacement for daily cover.
- Both are asking for long term authorization to be able to use the material
- Transportation costs are a challenge
- Additional “outlets” may be needed to manage all of the excess



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QUESTIONS

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