


- ▶ Title V Air Operating Permit Renewal
- ▶ Permit Modification for an increase in waste gas burner flaring hours

ENVIRONMENTAL JUSTICE HEARING

RVSA BACKGROUND

- Formed as a Joint Meeting in 1928
 - Became a Sewerage Authority in 1951
 - 23 acres bordered by Hart St and Randolph Ave
 - 11 Member Municipalities and 3 customers
 - Population served 200,000
 - 24 Industries – 5% of the plant flow is industrial
 - Design Flow 40 mgd
 - ADF 25 mgd
- 



RVSA
Write a description for your map.

- Legend**
- 1
 - Borough of Mountainside
 - Coney Island Auto Parts
 - Feature 1
 - Feature 2
 - Feature 3
 - Feature 4
 - Feature 5
 - Feature 6
 - Feature 7
 - FOUR BOYS DELI 2
 - Outfall
 - Quala
 - Rahway Valley Sewerage Auth
 - RV12
 - RVSA plant boudry
 - RVSA Wastewater Treatment Plant
 - Township of Scotch Plains
 - Township of Woodbridge

Google Earth
Image Landsat / Copernicus

700 ft



- ▶ 275 Gallon Diesel Above Ground Storage Tank
- ▶ 2,000 Gallon Gasoline Above Ground Storage Tank
- ▶ Building Boilers (<1 MMBTU/hr)
- ▶ Wastewater Treatment System
- ▶ Five Polymer Storage Tanks
- ▶ Laboratory Hoods
- ▶ Three Infrared Heaters (<1 MMBTU/hr)
- ▶ Two NG Fired Unit Heaters
- ▶ One Employee Building Furnace NG
- ▶ One Laboratory Building Boiler NG
- ▶ 385 Gallon Waste Oil Storage Tank

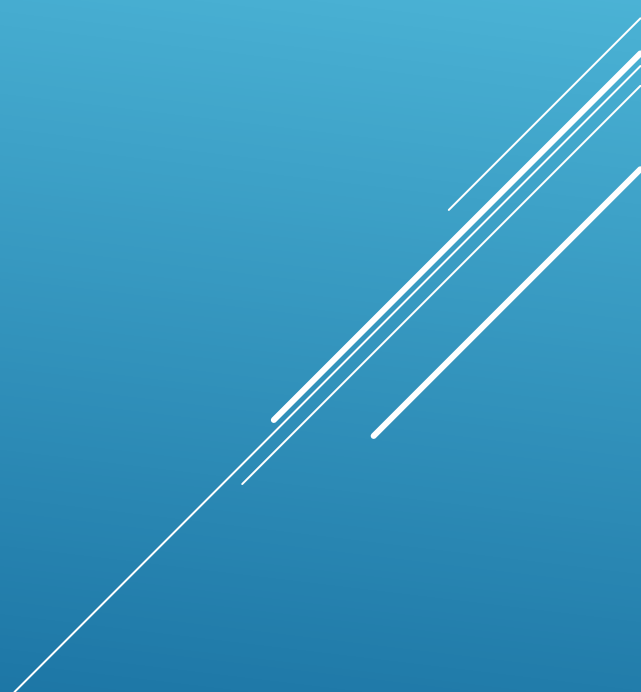
INSIGNIFICANT SOURCES

- ▶ Initial Title V Air Operating Permit January 2005
- ▶ Air Pollution Sources
 - ▶ Sludge digesters, sludge storage tanks and waste gas flares
 - ▶ Boilers
 - ▶ Sludge processing (gravity thickeners and RDTs)
 - ▶ TOH
 - ▶ Cogen Engines
 - ▶ Sludge dryer
 - ▶ Sludge Processing Equipment
 - ▶ Emergency Generators

SIGNIFICANT SOURCES

- ▶ Carbon monoxide
- ▶ Nitrogen oxides
- ▶ VOCs
- ▶ Odors (hydrogen sulfide and reduced sulfur compounds)
- ▶ Sulfur dioxide
- ▶ Particulates

POTENTIAL AIR EMISSIONS (ENVIRONMENTAL STRESSORS)



- ▶ Three Sludge Digesters – 1.1 Million Gallons Each
- ▶ Four Sludge Storage Tanks – 294,000 Gallons Each
- ▶ Two Waste Gas Flares – limit of 4,346 hours per year(rolling 12 month total)

DIGESTERS, STORAGE TANKS & FLARES

- ▶ Primary Service – 6MMBTU/hr.
- ▶ Pump & Blowers – 4.84 MMBTU/hr.
- ▶ Fuel Type – Natural Gas and/or Digester Gas
- ▶ Thermal Oil Heater 16 MMBTU/hr.
- ▶ Annual Combustion Adjustment (ACA) Requirements

BOILERS & TOH

- ▶ Treats off gases from Gravity Thickeners and RDTs
- ▶ Uses sodium hypochlorite to oxidize sulfur compounds
- ▶ Uses Sodium hydroxide for pH adjustment
- ▶ Three Stages
- ▶ Numerous permit operating requirements in order to ensure effective odor control

MULTISTAGE SCRUBBER

- ▶ Dries sludge from 23% solids to 95% solids
- ▶ Heat transfer from thermal oil
- ▶ Condenser in order to extract moisture from off gases
- ▶ Off gases bubble into aeration basins
- ▶ Dust emissions from transporter and receiver

SLUDGE DRYER

- ▶ Four Caterpillar engines 2131 BHP 1541 KW
- ▶ Digester Gas Treatment System for removal of sulfur and siloxanes
- ▶ Oxidation Catalysts on each engine
- ▶ Lean Burn Engines to minimize NOx emissions
- ▶ Compliance Stack Testing every 5 years
- ▶ Periodic Emission Monitoring quarterly

COGENERATION ENGINES

- ▶ Three centrifuges one permanently out of service
- ▶ Limit on VOC emissions
- ▶ Limit on odor
- ▶ Limit on centrifuge throughput

SLUDGE PROCESSING EQUIPMENT

- ▶ Two Emergency Generators – 2181 KW
- ▶ Sulfur in fuel limited to 15 ppmw
- ▶ Only operated for maintenance or under emergency conditions
- ▶ Air quality checked prior to operating for testing or maintenance

EMERGENCY GENERATORS

- ▶ Need for flaring
- ▶ Existing Flare Hours are 4,346
- ▶ Requesting increase to 6,519 hours
- ▶ Food Waste Receiving
- ▶ RNG Project

INCREASE IN FLARE HOURS

A decorative graphic consisting of several parallel white lines of varying lengths, slanted upwards from left to right, located in the bottom right corner of the slide.

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PUBLIC COMMENTS

