



Wastewater Operations Group

Community Meeting “Noise and Odor”



DETROIT WATER & SEWERAGE DEPARTMENT
Wastewater Treatment Plant

Wendy Barrott, General Manager

October 23, 2014

Wastewater Treatment Plant



Noise

Wastewater Operations Group

- History of community noise complaints
- Actions taken to date
 - Noise reduction standards on-site construction
 - Noise reduction standards for new equipment
- Noise Study Results
 - Plant is noisier than generally recognized “appropriate” levels for both plant and off-site noise
- Goal - Reduce noise levels both on-site and off-site to generally acceptable levels



Noise Reduction Plan

Wastewater Operations Group

- Action Plan Developed
 - Items were identified for quick success
 - Oxygen pipeline
 - Noise levels in control rooms
 - Burner Air Fans Complex II Silencers
 - Mixers on Aeration Decks
 - Complex II – ID Fans
 - Complex II - air movement on 5th floor
 - Items identified for design and incorporation in the CIP



Complex II Dewatering

Wastewater Operations Group



- Objective lower noise in control room and processing floor
- Installation of noise control blanket completed
- Reports indicate considerable noise reduction
- Additional blankets for west and east walls have been purchased. Expected completion Jan. 2015

Burner Air Fans Complex II Silencers

Wastewater Operations Group

- Fans supplying air to the incineration burners were excessively noisy
- Silencer installed
- Post noise levels to be measured after Incinerator #1 starts up



Air Compressor Facility

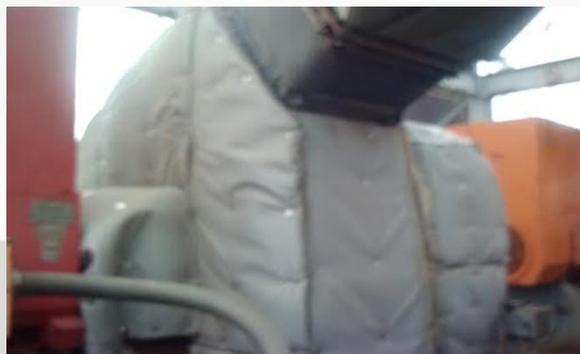
Wastewater Operations Group

- Quiet fiber panels are purchased for air compressor facility
- Expected completion March 2015
- Post noise level testing will be done



Complex II – ID Fans

Wastewater Operations Group



- Complex II ID Fans
- Will be replaced under incinerator upgrade
- WWTP tested insulation blanket as a short term solution
- 10-15 dB(A) reduction
- ID fans 9, 10, 11, 12, 13 and 14 have been completed

Other Noise Sources Under Study

Wastewater Operations Group

Complex II air Movement

- The 5th floor of Complex II is excessively noisy
- Analysis indicated that controlling the two exhaust fans on the north and south walls would gain the largest noise reduction
- Purchase and installation of a noise reducing hood and fan is under evaluation

Acoustic Fence

- Alternatives evaluated – no good solutions yet



Other Noise Sources Under Study

Wastewater Operations Group

Oxygen Supply Pipeline

- Praxair studied noise levels at the WWTP metering station and Delray Community Center
- Noise levels were 80 to 85 dB(A)
- Evaluation of solutions, cost effectiveness is ongoing

Aeration Deck Mixers

- Problematic – alternatives under evaluation



Odor

Wastewater Operations Group

- History of community and employee odor complaints
- Actions taken to date
 - Scheduled cleaning of thickeners and tanks
 - Adding odor control to sludge blending tanks during warmer months
 - Works – reduces odors on site
 - No negative impacts on sludge quality
 - Goal – NO storage of stabilized sludge on-site
 - Continue staff awareness of work practices impacting odor
 - Close doors
 - Housekeeping
 - Aerate thickeners well



Odor

Wastewater Operations Group

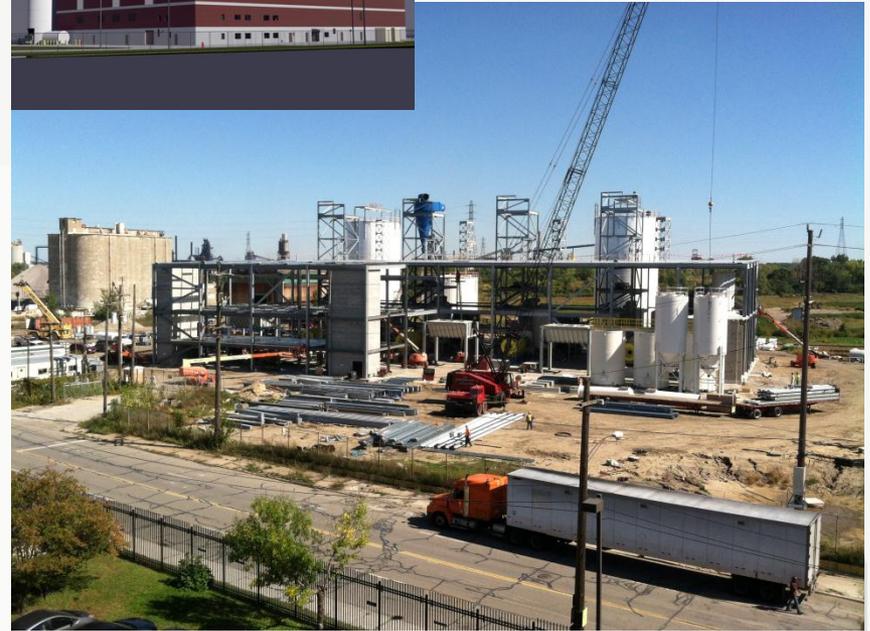
- Performed an Odor Study by Sigma
- Goal - Reduce objectionable odors on/off site
- First step for design of primary gravity thickener covers and air scrubbing has been released
- Continue to evaluate additional odor control measures and process treatment products
- Truck wash design is 95% complete



Construction of Biosolids Dryer

Wastewater Operations Group

- Ahead of schedule
- Reduce air emissions
- Reduce onsite biosolids storage
- Reduce number of trucks hauling stabilized biosolids



Questions & Complaints

Wastewater Operations Group

General Questions

Wendy Barrott

313-297-4300

Complaints

DWSD Security Desk

313-267-7401

WWTP Control Room

313-297-0326

