

Westchester County Department of Environmental Facilities
Community Meeting at Yonkers Water Resource Recovery Facility
Thursday, March 16, 2017
AGENDA

1. Please summarize and review the information provided in the reports for the last twelve months: Do the reports tell us anything about how to improve odor control?

Yes, the reports are very informative. It's an operating tool and it also lets the operator know which control system may not be functioning properly. In addition, depending upon the location and circumstances, if the H₂S (hydrogen sulfide) concentrations are persistent after in-house attempts for mitigation are exhausted, it may indicate that further investigation and treatment could be necessary.

2. Please review the charts for H₂S monitors and give more detail of the causes of the readings above the target. If all the occasions on which the H₂S exceeds the target levels are caused by rain events, is there anything the Plant should do to change this? If the problem is an actual odor event rather than a monitor malfunction, when do you know this and what are your next steps?

The Plant SCADA system continuously displays the readings taken every fifteen minutes by the fence line monitors. Past graphs of the H₂S monitors provided to the LPRAs have indicated where excursions occurred and noted the cause of these items. We will continue to provide that information on the graphs. Plant operators, and/or the Plant Superintendent are being notified of excursions above the target limit and take appropriate action as required.

In an attempt to avoid invalid rain event readings, the intake tubing on the monitors now has an inverted funnel to help prevent moisture from entering the monitor. We think that this will stop the water entering the sample intake tube and giving a false positive reading. If the plant process equipment has malfunctioned and the monitors indicate an H₂S reading above the target, plant personnel will check the location of the high readings to help locate the source and take necessary steps to fix the problem. It may be that the door of a building is open, or a hatch is open and not a problem with a specific piece of equipment. If there is a monitor malfunction usually the plant staff can tell by how it reacts over the day.

3. In addition, we have a few specific points on which we would like clarification:
The odor reporting system: Review the current process when a complaint call is received:

Currently when the complaint is received the details are documented very thoroughly on the form (attached). The plant operations staff, using the form, will check the condition of all the processes in the facility and record key readings. If there is a problem it will be recorded and corrections will start to be made. Plant operator will also go with an instrument to take H₂S readings at the complainant site and document results. Sometimes during the holidays, evenings and weekends there are limited personnel available to respond immediately.

4. Explain how engineers decide if odor is related to Plant or not:

Plant has a weather monitoring station on site that records rain amounts, wind speed, direction, temperature and humidity. Basically, if the winds are some component out of the west then the wind is blowing across the plant to LPRA area. Should the wind component be from the east it is likely that a complaint is not from the plant. Wind speed must also be taken into account when making this determination.

5. Community H₂S monitoring stations: Progress on siting H₂S monitoring stations in the community:

DEF has requested Con Ed to permit installation of the monitoring equipment on their poles. They have denied this request. Previously, DEF had installed this equipment in the yard of some select houses. We can make meters available but they need to be plugged into an electrical outlet. In addition, access would need to be provided so the units can be serviced on a regular basis. DEF feels that more work needs to be done in order to determine if this task will be useful.

6. The reporting system is time consuming and has led to delays and confusion with the result that people do not call when there are smells unless they are unbearable. Would there be any benefit to forming a joint working party with residents and DEF to review the current procedure? Together we may be able to find ways to streamline it and make it more effective:

Yes, we are always open to suggestions and ideas. The Director and Plant Superintendent will set up a meeting with the LPRA to see if we can establish a better system.

7. The odor remediation projects:

Highlight the progress on odor remediation projects from the long list of construction projects included in the report:

The power point slides will highlight the projects which deal with air treatment

8. We have been accustomed to thinking of the odor remediation in Phases I, II, III. Should we revise this to focus on specific contracts? If so, which contracts?

The projects that mostly deal with HVAC and Odor Control have been given project titles such as Phase I, II, III, & IV. The project titles cannot be changed. However, there may be another project that we do and it may have a small air treatment component to it. We will try to point those out as we go along.

9. Update on the maintenance issues experienced in August 2015. Progress on reviewing maintenance procedures since August 2015?

We will be conducting a study to assess the condition of the Primary and Final Settling Tanks. The goal is to repair/rehabilitate/replace items to decrease the frequency of equipment breakdown. A consultant will soon be hired.

10. Review of equipment failure since fall 2016

Each of the Primary Settling Tanks have been down for one period between October and January for replacement of the wear strips and the clean out time is about one week.

Aeration Tanks 3, 4, 5, & 6 have been down for one period each between October and January for contractual repairs due to Superstorm Sandy. The clean out time for the Aeration Tanks is about one week.

Final Settling Tanks 5,8 & 9 have been down for one period (#8 two periods) between October and January for replacement of the wear strips (the second event for #8 was a wiring issue) and the clean out time is about 3 days.

11. Does the \$30M secured by Congressman Eliot Engel announced in December 2016 make any difference to the situation with regard to the repairs and upgrades necessitated by Hurricane Sandy and new FEMA requirements?

Actually, the funds mentioned above were the approval of the Project Worksheet FEMA reimbursement for the work required to repair the YJWRRF due to the damage from Superstorm Sandy. The only office that helped DEF through the FEMA process was that of Senator Gillibrand and they were very helpful.

12. Update on other capital projects occurring at the YJWRRF or affecting the plant, for instance, the sewage diversion project in New Castle; other sewer work:

The Town of New Castle has offered an alternate routing plan that will be discussed during the meeting.

13. Status of projects to reduce flame-off of methane gas - this seems to be working! The skies are not so bright so often at the north end of the plant.

Currently, anaerobic digester gas (ADG) is used in the Primary and Secondary Boilers that are used to heat the Anaerobic Digesters, provide building heat and fuel the ADG Engine Generator. There is a five phase project to change out all the diffusers in the Aeration Tanks and bring a Compressed Natural Gas (CNG) pipe into the plant (phase II). Then more efficient blowers will be added (phase III). After that two additional ADG Engines will be added, one to generate electricity and run the new blowers and one to be a standby unit (Phase IV & V). The plan is to use up all of the ADG and if we are a little short to run two engines at certain times of the year, the plant will supplement the ADG with CNG. The goal is not to flare any gas off.

14. Review of new technologies under investigation for improving operation and reducing impact on the surrounding communities of the YJWRRF.

DEF has received a proposal to hire CDM Smith to conduct a study to optimize the current system and explore new technologies available. The contract is in the approval process.

Odor Complaint Form
YJ-Log 34

COMPLAINT RECEIVED BY: _____ DATE: _____ TIME: _____ (AM/PM)

ODOR LOCATION NAME: _____ PHONE: _____

ADDRESS: _____

TOTAL COMPLAINTS THIS ADDRESS YTD _____

EVENT:	NOW	CONTINUOUS	INTERMITTENT
INTENSITY:	STRONG	MEDIUM	LIGHT
PERIOD:	1+HR	LESS THAN 1 HOUR	

ODOR TYPE: RAW SEWAGE MUSTY CHLORINE CHEMICAL SMOKE
 FECAL GAS OTHER: _____

DESCRIBE COMPLAINT: _____

NEIGHBOR INVESTIGATION BY: _____ DATE: _____ TIME: _____ (AM/PM)

COMPLAINT VERIFIED: YES NO

WEATHER CONDITIONS: WIND DIRECTION: _____ WIND SPEED: _____

TEMPERATURE: _____ HUMIDITY: _____

DESCRIBE ODOR: RAW SEWAGE PRIMARY SECONDARY CHEMICAL
 DIGESTER GAS THICKENER BUILDING MUSTY
 DEWATERING DIESEL SMELL OTHER: _____

COMPLAINANT CONTACTED: () Yes () No DATE & TIME _____

ACTION TAKEN TO INVESTIGATE COMPLAINT: _____

RESULT OF INVESTIGATION: _____

JEROME METER READING: _____

ACTION TAKEN TO REMEDY THIS COMPLAINT: _____

PRIMARY PLANT:

INFLUENT CHANNEL RATE (MGD) _____ TIME: _____

DIVERTED FLOW: NORTH CONTROL STRUCTURE: YES NO
 SOUTH CONTROL STRUCTURE: YES NO

SCREEN AND GRIT TANKS:	TANK 1:	F	1/2	1/2	E
	TANK 2:	F	1/2	1/2	E
	TANK 3:	F	1/2	1/2	E

PRIMARY TANKS IN SERVICE: 1 2 3 4 BARSCREENS IN SERVICE: 1 2 3

BREEZEWAY DOOR: OPEN CLOSED GRIT CONTAINER: F 1/2 E

GREASE: NONE LIGHT MEDIUM HEAVY

PST SCRUBBERS ON: A B C
 HYPO PUMPS ON: 1 2 3 4 5 6
 CAUSTIC PUMPS ON: 1 2 3
 H2S IN _____ H2S OUT _____

PRI THICK SCRUBBERS ON: 2 3 4
 HYPO PUMPS ON: 1 2 3 4 5 6
 CAUSTIC PUMPS ON: 1 2 3 4 5 6
 H2S IN _____ H2S OUT _____

S&G SCRUBBERS ON: 1 2 3
 HYPO PUMPS ON: 1 2 3
 CAUSTIC PUMPS ON: 1 2 3 4 5 6
 H2S IN _____ H2S OUT _____

3 STAGE SCRUBBERS ON: 1 2
 HYPO PUMPS ON: 1 2 3 4
 CAUSTIC PUMPS ON: 1 2 3 4
 ACID PUMPS ON: 1 2 3 4
 H2S IN _____ H2S OUT _____

Total Complaints YTD _____
Total Complaints This Month _____

PRIMARY DIGESTERS/STORAGE TANKS:

DIGESTERS IN SERVICE: 1 2 3
GAS VENTING: YES NO

STORAGE TANK: F ¼ E
DOORS: OPEN CLOSED

CENTRIFUGES:

UNITS IN SERVICE: 1 2 3 4
DOORS: OPEN CLOSED

TIME OF LAST SLUDGE TRUCK _____
WINDOWS: OPEN CLOSED

SECONDARY PLANT:

AERATION TANKS AVERAGE D.O.:

D PASS _____ B PASS _____

DIGESTER AREA NORMAL: YES NO
THICKENER AREA NORMAL: YES NO
GAS VENTING: _____

TOTAL AIR FLOW: _____

BLOWERS IN OPERATION: 1 2 3 4 5 6

GREASE CONDITION: _____

AERATION TANKS IN SERVICE: 1 2 3 4 5 6

FINAL TANKS IN SERVICE: 1 2 3 4 5 6 7 8 9

H2S Readings

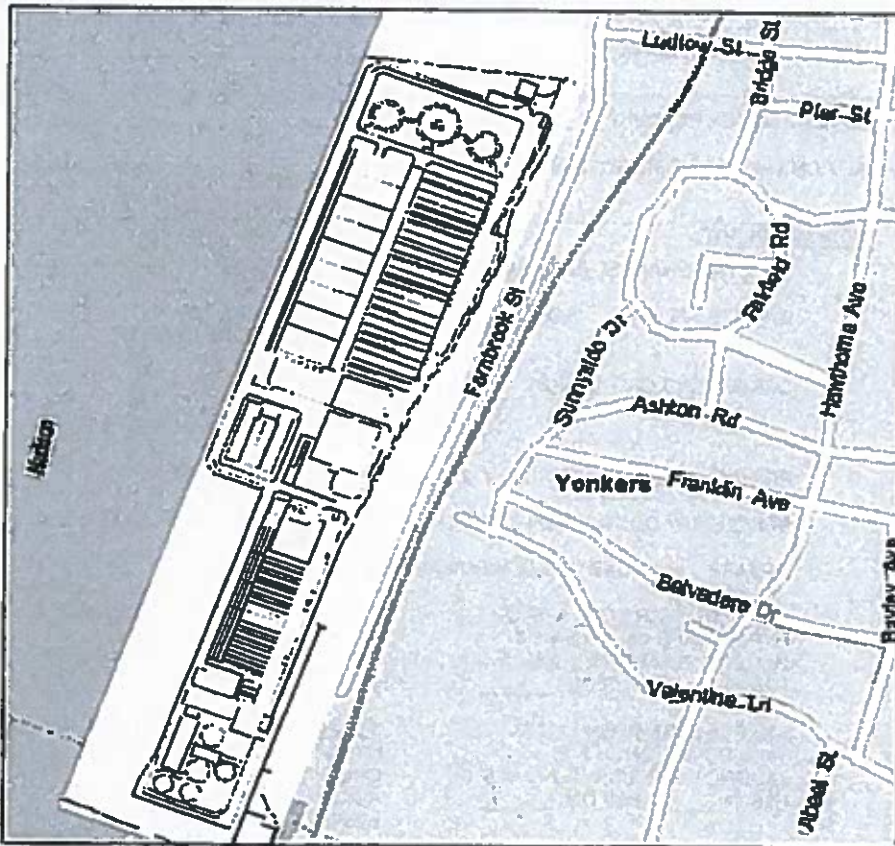
H2S: _____ PPB (STATION 2) H2S: _____ PPB (STATION 6)

H2S: _____ PPB (STATION 3) H2S: _____ PPB (STATION 7)

H2S: _____ PPB (STATION 4) H2S: _____ PPB (STATION 8)

H2S: _____ PPB (STATION 5) H2S: _____ PPB (STATION 9)

MARK WIND DIRECTION ON MAP. MARK AREA OF MAP WHERE YOU DETECT ODOR. THEN WALK UPWIND BACK TOWARDS THE PLANT AND DETERMINE IF ODOR EXISTS CLOSER TO THE PLANT. IF IT DOES, CIRCLE COMPLETE AREA OF ODOR AND DESCRIBE ODOR FOUND.



Effective Date: May 20, 2010