



## TECHNICAL COMMITTEE MEETING MINUTES

Wednesday, September 13, 2023

4:30PM

Via VIDEO/TELECONFERENCE

### Attendees:

Merritt Nesin	Chairman, Technical Committee
Ed Kelly	Committee Member
Steve Bagwin	Committee Member
Bill Brink, P.E.	Executive Director, WPCA
Ann Brown, P.E.	Supervising Engineer, WPCA
Robert Pudelka	Plant Supervisor, WPCA

1. **Call to Order and Roll Call**– M. Nesin called the meeting to order at 4:30PM and announced the attendees as listed above.
2. **Approval of August 16, 2023 Meeting Minutes**- M. Nesin made a motion to approve the minutes of the August 16, 2023 Technical Committee Meeting; seconded by E. Kelly; S. Bagwin abstained. Motion carried 2-0-1.
3. **Public Comments** - None
4. **Approval of a Bid Waiver for Siemens for Mechanical Systems Inspections and Maintenance in the amount of \$ 69,372.00** - A. Brown presented a proposal from Siemens for annual service contract for inspection and maintenance of mechanical systems within the plant and 2 pump stations. The amount of the contract is \$69,372.00. There was a discussion as to whether the contract was needed or could WPCA maintain and repair the mechanical systems with our own staff. It was explained that Siemens responds immediately to calls, they are called out about once a week. Siemens has the technical expertise to repair this equipment and the contract includes normal materials, such as belts and filters, and labor. A. Brown asked the Committee to approve a waiver of the bid process so a contract can be issued to Siemens. The Committee agreed.
5. **Approval of a Bid Waiver for Wright-Pierce to Design New Clarifier Equipment In Final Settling Tank No. 3 in the amount of \$45,000.00** – A. Brown explained that proposals were requested from 3 engineering firms and 2 of the 3 firms responded with proposals. M. Nesin asked if WPCA had specifications from clarifiers 1,2 and 4 that could be used for this project instead of having a consultant prepare the plans and specifications. A. Brown explained that the work is not that straight forward and there will be structural modifications to the tank along with the new equipment. WPCA will bid the construction and will need a set of plans and specifications for bidding including the structural changes that would be prepared by Wright-Pierce. They will also prepare a cost estimate for the work. R. Pudelka explained that there were some high torque alarms, and the tank was drained and examined. It was determined that the equipment was 30 years old and experiencing metal fatigue. A temporary repair was done so the tank can be put back into service until this work is done. A. Brown asked the Committee to approve a waiver of the bid process so an agreement can be prepared for Wright-Pierce to do the design. The Committee agreed.
6. **Discussion on Collection System** – S. Pietrzyk was not in attendance and W. Brink made the Committee aware of another break in the Saddle Rock pump station force main. A section of pipe from

this break as well as the previous break will be examined by Corrosion Probe to determine the cause. W. Brink stated that options include replacing or lining the force main.

7. **Discussion on Plant Operations** – R. Pudelka reviewed the Monthly Operating Report and Equipment Update with the Committee, which is attached and made part of these minutes. R. Pudelka also presented the results from this summer's acute toxicity testing where the plant's final effluent discharge is compared to the harbor waters. Rob noted the two days where the fecal coliform count in the harbor was high (>24,196 & 19,923 most probable number) were days where there was measurable rainfall and the high fecal coliform is from stormwater runoff. The fecal coliform in the plant effluent is much lower (e.g. highest test result for the month of July was 21 most probable number).
8. **Update on Engineering Studies and Designs** – A. Brown provided the Committee with a Capital Projects Update including engineering studies and designs, which is attached and made part of these minutes. A. Brown made the Committee aware that an RFQ for Operation and Maintenance of Stamford WPCF Sludge Drying Facility and Transportation and Beneficial Use or Disposal of Biosolids was also prepared for advertising.
9. **Update on Construction Projects** – A. Brown provided the Committee with a Capital Projects Update including construction projects, which is attached and made part of these minutes.
10. **Old Business** - None
11. **New Business** – W. Brink notified the Committee that WPCA has been attending meetings with the Army Corp of Engineers regarding the repair of the hurricane barrier gate. The most recent meeting focused on communicating an emergency to the area which would be affected should a storm occur while the hurricane barrier gate was out of service. The construction work on the barrier gate will begin around January 2025 and may take 6 months to repair. WPCA is especially concerned with the high-water elevations during a storm and how plant buildings and equipment would be affected.

WPCA was asked to attend a Planning Board meeting on Monday, 9/18, to discuss sewer capacity at the plant. W. Brink will attend.

WPCA was asked to attend the Board of Reps Operations Committee meeting on Monday, 9/18, to discuss how to provide residents of North Stamford access to public city water and sanitary sewer system. A. Brown will attend.

There being no further issues to discuss, E. Kelly made a motion to adjourn the meeting, seconded by S. Bagwin; motion carried 3-0-0. The meeting adjourned at 5:20pm.



# September 2023 TECHNICAL COMMITTEE REPORT

Monthly Operating Report data:	August Results			Permit Limit
	This month (Aug)	Last month (July)	Historical August Monthly AVG	
Q (FLOW) DAILY AVG MGD	14.3	14.3	14.5	24 MGD DESIGN AVG
Q MAXIMUM DAILY AVG MGD	18.5	17.5	18.9	58 MGD MAX AVG
BOD INFLUENT AVG MG/L	296	301	238	
BOD INFLUENT AVG LBS/D	35,302	35,898		
BOD EFFLUENT AVG MG/L	2	2	2	
BOD EFFLUENT MAX MG/L	4	2		20 mg/L
BOD REMOVAL %	99.1	99.4	99	85%
TSS INFLUENT AVG MG/L	373	485	346	
TSS INFLUENT AVG LBS/D	44,485	57,842		
TSS EFFLUENT AVG MG/L	4	3	5	
TSS EFFLUENT MAX MG/L	6	6		20 MG/l
TSS REMOVAL %	98.7	99.2	98.2	85%
TOTAL N INFLUENT AVG MG/L	39.4	43.5	34.9	
TOTAL N INFLUENT AVG LBS/D	4699	5188	4203	
TOTAL N EFFLUENT AVG MG/L	2.00	2.05	2.55	
TOTAL N EFFLUENT AVG LBS/D	237	249	318	926 LBS/D
N REMOVAL %	94.9	95.3	92.3	
TOTAL P INFLUENT AVG MG/L	5.08	6.16	4.95	
TOTAL P EFFLUENT AVG MG/L	1.85	0.90	0.72	
P REMOVAL %	63.6	85.4	85.5	
UV EXCEEDANCES <30 mJ/cm2	0	0		

## Plant Equipment Update

BFP#1	Roller Shaft needs replacement
TWAS Pump	VFD ordered, need to install
Admin Elevator OOS	TKE for service call, car door not opening
Secondary Clarifier #3	Rake arms dragging, trimmed off bottoms of plows
Polymer Makeup #1	Knapp installed new PLC
RSPS Pump #5	OOS - VFD Cooling fan needs replacement

**CT0101087 - Stamford WPCA - 2023 Annual Effluent Chronic Toxicity Test Results**

sample date	07/16/23	07/16/23	07/18/23	07/18/23	07/20/23	07/20/23
sample	harbor	FE	harbor	FE	harbor	FE
Flow (MGD)	NA	17.5	NA	16.0	NA	14.9
Al (mg/L) Aluminium	0.367	0.022	0.094	0.018	0.089	0.035
Sb (mg/L) Antimony	<0.005	<0.003	<0.005	<0.003	<0.005	<0.003
As (mg/L) Arsenic	<0.004	<0.002	<0.004	<0.002	<0.004	<0.002
Be (mg/L) Beryllium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cd (mg/L) Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cr+6 (mg/L) Cr Hexavalent Analysis completed after hold times for Harbor	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cr, total (mg/L) Chromium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cu (mg/L) Copper	0.01	0.004	0.007	0.004	0.005	0.005
Fe (mg/L) Iron	0.458	0.055	0.265	0.055	0.235	0.056
Hg (mg/L) Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ni (mg/L) Nickel	<0.001	0.001	0.002	0.002	0.002	0.002
Pb (mg/L) Lead	0.002	<0.001	0.001	<0.001	<0.001	<0.001
Se (mg/L) Selenium	<0.010	<0.005	<0.010	<0.005	<0.010	<0.005
Ag (mg/L) Silver	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tl (mg/L) Thallium	<0.0005	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001
Zn (mg/L) Zinc	0.026	0.031	0.022	0.031	0.020	0.030
cyanide, amenable (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
cyanide, total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
phenols, total (mg/L)	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
chlorine, total residual (mg/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-NH <sub>3</sub> , total as N (mg/L)	0.11*	ND (<0.09)*	ND (<0.09)*	ND (<0.09)*	ND (<0.09)*	ND (<0.09)*
N-NO <sub>3</sub> , total as N (mg/L)	0.14*	0.54*	0.19*	0.36*	0.18*	0.63*
N-NO <sub>2</sub> , total as N (mg/L)	ND (<0.09)*	ND (<0.09)*	ND (<0.09)*	ND (<0.09)*	ND (<0.09)*	*
P, total (mg/L)	0.27*	1.07*	0.23*	0.45*	0.44*	1.37*
total suspended solids (mg/L)	11*	4*	9*	3*	6*	3*
BOD <sub>5</sub> (mg/L)	2*	2*	2*	2*	2*	1*
Fecal Coliform MPN	>24,196		19,923*	3*		4*
Enterococcus	24,196		118*	<3.1*		1*
Laboratory	Phoenix	Phoenix	Phoenix	Phoenix	Phoenix	Phoenix
	*WPCA	*WPCA	*WPCA	*WPCA	*WPCA	*WPCA
Aquatic Toxicity Study @ New England Bioassay						

**Chronic Toxicity Summary**

		<i>Cyprinodon variegates</i>	
100% Effluent	100%		<b>48-hr % survival</b>
100% Effluent	100%		<b>7-day % survival</b>
		<i>Mysidopsis bahia</i>	
100% Effluent	100%		<b>48-hr % survival</b>
100% Effluent	100%		<b>7-day % survival</b>

Authorized Official: Robert T. Pudelka

Title: Plant Supervisor/Chief Operator

Signature

Date



**UPDATE OF CAPITAL PROJECTS  
TECHNICAL COMMITTEE MEETING  
September 12, 2023**

**UPDATE ON ENGINEERING STUDIES AND DESIGNS:**

**1. Infiltration Inflow Study**

The next step is for the Contractor to line the pipe which was cleaned. He has ordered the liner. We are waiting for a schedule for this work.

**2. Sludge Management Plan**

Hazen will be starting the Primary Sludge Fermentation Study once contracts have been fully executed.

**3. Plant Water, Return Activated Sludge (RAS) and Waste Activated Sludge (WAS)**

Gannett Fleming is starting the Preliminary and Final Design Services approved at the last meeting.

**4. RFQ for Evaluation of the Alvord Lane, Commerce Rd, and Saddle Rock Pump Stations**

Basis of Design Report for the pump station upgrades is underway. We met with Tighe & Bond to finalize the final details. We expect to have the report by the end of September.

**5. RFP for the Design and Supply of a Standby Generator at Clay Hill Pump Station and West Avenue Pump Station**

WPCA added West Avenue Pump Station to this project. Bid documents are being finalized and will be reviewed by the collection system electrician.

**6. Perna Lane, Phase I Collection Sewers**

Tighe & Bond completed traffic plans and submitted them to CTDOT. They received comments back from DOT which they are addressing. We met with Tighe & Bond to review questions about the layout of the pump stations. Tighe & Bond are finalizing the plans and will resubmit to DOT for approval. Once DOT approves, the project can be advertised for bids.

**7. Structural Evaluation of the Columns in the Sludge Dewatering Building**

Preparing bid documents for the repair.

**8. Bid for Design Build Standby Generator for the Greenwich Ave. Pump Station**

Preparing the bid documents to purchase and install a generator for Greenwich Ave pump Station. The controls will be provided by the WPCA.

**9. Repair/Replacement of approximately 175 LF of 12" Sewer on Edice Rd**

Bid documents have been prepared to repair/replace a 175LF section of 12" sanitary sewer on Edice Road that has a sag causing backups and surcharging. This project will be advertised for bids on September 21<sup>st</sup>.



**UPDATE ON CONSTRUCTION PROJECTS:**

**1. Electrical Preventive Maintenance / Arc Flash**

In discussion with Siemens. Asked Siemens for a cost for Siemens to do the arc flash study. Waiting for the proposal.

**2. Modular Office Trailers for Collection System Staff**

The trailers are in place. The power and cable for phone and internet is installed. The collection system staff has started moving into the trailers.

**3. Painting of Final Clarifiers # 1, 2 and 4**

We are waiting for bonds from MacKenzie Painting. Once submitted and approved, a kickoff meeting will be scheduled and a Notice to Proceed issued.

**4. Repair of Storm Water Pumps #1 and 3 at Cummings Pump Station**

Awarded to New England Pump and Valve. Waiting for approval of all the documents to schedule a kickoff meeting and issue a Notice to Proceed.

**5. Sludge Degritting System Upgrade**

CH Nickerson is working on the following:

- Installed new FRP baffles and weirs (clarifier #1) 95% complete.
- Started dewatering piping,
- Started relocation of existing plant water yard hydrant

Expected activities for following week:

- complete FRP weirs and baffles inside clarifier #1
- install dewatering pumps and piping / start dewatering.
- relocate existing yard hydrant.
- environmental study of existing equipment and piping (Hygenix)
- start demo of sludge pump #3
- Vacuum piles and pump grout

**PAYMENT/CHANGE ORDER LOG AS OF 8/16/2023**

Sludge Degritting System Upgrade (Contractor – CH Nickerson)

Original Value of the Contract = \$ 8,908,350.00

Total Approved CO Amount = \$ 0

Contract Sum to Date = \$ 8,908,350.00