



TECHNICAL COMMITTEE MEETING MINUTES

Wednesday 2/17/2021

4:30PM

Via VIDEO/TELECONFERENCE

Attendees:

Merritt Nesin, P.E.	Chairman, Technical Committee
Edward Kelly	Committee Member
Mark McGrath	Committee Member
Rob Barocas	Committee Member
William Brink, PE	Executive Director, WPCA
Ann Brown, PE	Supervising Engineer, WPCA
Rob Pudelka	Plant Supervisor, WPCA
Steve Bagwin	WPCA Board Member
Brian Teitelbaum	Stamford Resident

1. Call to Order and Roll Call.

M. Nesin called the meeting to order at 4:30pm and announced attendees as listed above.

2. Approval of January 20, 2021 Meeting Minutes.

E. Kelly made a motion to approve the minutes of the January 20, 2021 Technical Committee Meeting; seconded by M. Nesin. Motion carried 4-0-0.

3. Public Comment

A. Brown gave an update from the residents of Perna Lane. Due to the winter weather and Covid restrictions, they are not able to reach as many residents as hoped. They will continue in warmer weather.

4. SWPCA Operations During COVID-19 Pandemic

W. Brink discussed the distribution of the COVID-19 vaccine and who is scheduled to receive the vaccine. He indicated that the plant employees may be receiving the vaccine by the end of March.

5. Update on Sludge Dryer and Building Repairs

A. Brown reported that the dryer has been operating well with minor issues. The louver and damper on the north side of the building have been installed. The leak detected in the roof was repaired. The Change Order proposal for the roof hatch to access the Dust Hazard Mitigation equipment has been approved and will be scheduled for installation. That Change Order will be added to the log for the next meeting. W. Brink indicated that sludge production has been down because the primary clarifiers are off line and the plant is only producing waste activated sludge. This produces good pellets but the amount is less than normal, about 12 dry tons per day verses normal production of about 20 dry tons per day.

6. Update on UV Disinfection Treatment System

R. Pudelka stated that the plant is running both UV channels. There were some issues with the level sensors but, the operation seems to be okay for now. TROJAN's technician checked to see if electrical interference could be causing the erratic level readings and found none. Nickerson has requested TROJAN have an Applications Engineer from Siemens review the sensors and advise us if this is the correct sensor for our system. M. Nesin said he was on site today and discussed possible causes of the problems with the level sensor. Since the system is still under warranty, TROJAN needs to be involved with any changes to the system.

7. Bid Waiver for the Purchase of Replacement Parts to Rehabilitate Belt Filter Press #2

R. Pudelka requested a Bid Waiver to order parts from Andritz in the amount of \$ 272,649.39 to be used to refurbish Belt Filter Press (BFP) #2. This will be the last unit that will need refurbishing. Last year, BFP #1 was reconditioned and we just completed refurbishing BFP #3 with Northeast Water. The lead time for parts is approximately 16 weeks. The expected life span of a rehabilitated unit is about 10 years for major parts. The cost of a new unit is about \$800,000 to \$850,000 quoted over a year ago. The labor paid to refurbish Belt Filter Press #3 was \$58,280. The Committee voted to recommend approval of the Bid Waiver for the Purchase of Replacement Parts by Andritz in the amount of \$272,649.39 to Rehabilitate Belt Filter Press #2 to the Board.

8. Discussion on SWPCA's Preferences for Viable Markets for Sludge Disposal

W. Brink indicated that following the kick-off meeting with Hazen, WPCA met with Hazen's subcontractor, Market Matters, to discuss options for sludge disposal. Because there is a large range of options for sludge disposal, they are looking at prioritizing and possibly eliminating some of the options. They provided the Committee with two tables and asked that each be filed out and returned to them to use in the study. The Tables were discussed at the Technical Committee meeting and the results are attached. These will be sent to Hazen and market Matters.

9. Discussion on Plant Operations

R. Pudelka provided the February 2021 Monthly Operating Report which is attached and made part of these minutes. Rob advised the committee about the longitudinal crack in the 42" force main. CH Nickerson will open a section of the pipe to examine the interior for a cause of the crack. WPCA will TV the inside of the pipe to determine how long the crack is and the condition other sections of the force main. Adding to the difficulty in repairing this force main is the amount of existence of numerous other pipes in the area of the break. CH Nickerson will replace the broken section. This should be done within the next few days. W. Brink indicated that the integrity of the entire force main may also be checked ultrasonically. This will help determine if a new force main is needed. W. Brink said that you would install 2 force mains for redundancy and locate them in a path with less utility conflicts.

10. Update on Engineering Studies And Designs

A. Brown provided an update on engineering studies and design which is attached and made part of these minutes.

- a. Infiltration & Inflow Removal Project
- b. Sludge Degritting System Upgrade
- c. Sludge Management Plan
- d. RFP for On-call Services for Millwrights to perform work at the plant
- e. RFQ for Engineering Design Services for Plant Water System and the RAS/WAS Pumping Systems

11. Update on Construction Projects

A. Brown provided an update on construction projects which is attached and made part of these minutes.

- a. Repair of Storm Water Pump #2 at Cummings Pump Station
- b. Standby Generator for the Greenwich Ave. Pump Station
- c. Preliminary, Secondary and Disinfection Treatment Improvements
- d. Clay Hill Pump Station Generator
- e. Electrical Preventive Maintenance and Arc Flash Evaluation
- f. Refurbishing Belt Filter Press No.3

12. Old Business

13. New Business

W. Brink discussed a Cybersecurity Alert update he received from the EPA. The update provided recommended security measures for the plant SCADA system. He asked Arcadis to confirm that our SCADA system meets all the cyber security mitigation measures listed in the update. Arcadis responded that the WPCA generally complies. We will be meeting with Arcadis to discuss this further.

There being no further issues to discuss, E. Kelly made a motion to adjourn the meeting, seconded by R. Barocas; motion carried 4-0-0. The meeting was adjourned at 5:42pm.



TECHNICAL COMMITTEE REPORT FOR FEBRUARY 2021

Monthly Operating Report data:	January		
	This month (Jan)	Last month (Dec)	10 Year Monthly AVG
Q (FLOW) DAILY AVG MGD	16.1	17.2	16.6
Q PEAK DAILY MGD	26.1	38.6	32.1
BOD INFLUENT AVG MG/L	190	193	199
BOD INFLUENT AVG LBS/D	25,512	27,685	
BOD EFFLUENT AVG MG/L	3	3	3
BOD EFFLUENT MAX MG/L	4	5	
BOD REMOVAL %	98.2	98.2	98.1
TSS INFLUENT AVG MG/L	218	249	307
TSS INFLUENT AVG LBS/D	29,272	35,719	
TSS EFFLUENT AVG MG/L	8	9	8
TSS EFFLUENT MAX MG/L	11	11	
TSS REMOVAL %	96	96.2	96
TOTAL N INFLUENT AVG MG/L	30.9	29.6	33.1
TOTAL N INFLUENT AVG LBS/D	4149	4246	4539
TOTAL N EFFLUENT AVG MG/L	2.68	2.79	2.82
TOTAL N EFFLUENT LBS/D	356	394	387
N REMOVAL %	91.3	90.6	91.5
TOTAL P INFLUENT AVG MG/L	3.26	3.39	4.48
TOTAL P EFFLUENT AVG MG/L	0.59	0.87	0.73
P REMOVAL %	81.9	74.3	84.3
UV EXCEEDANCES <30 mJ/cm2	1	0	

Equipment Update

NRCY Pump#5	LEPPERT NUTMEG WAITING ON PARTS
NRCY Spare Pump	LEPPERT NUTMEG WAITING ON PARTS
BFP #3	Over-haul completed by Northeast Water
BFP #2	New lower belt
BFP #1	New lower belt
BFP #2 & #3 Sludge Pump	New gearboxes

SAFETY

No new Covid-19 cases or lost time to injury



**UPDATE OF CAPITAL PROJECTS
TECHNICAL COMMITTEE MEETING
February 17, 2021**

A. Brown presented the following project updates:

1. UPDATE ON ENGINEERING STUDIES AND DESIGNS

a. Infiltration & Inflow Study

The Contractor is 80% complete with the project. The work remaining is to perform a CCTV inspection of the service laterals identified in the report. Clean and grout the service laterals identified in the report and those found with the CCTV inspections. They will resume work in a week or so during better weather.

b. Sludge Degritting System Upgrade

No change to this item. Gannett Fleming has completed the bid documents. They sent the bid documents to the WPCA. We anticipate bidding this project in 2021 and will schedule a meeting with Gannett Fleming to discuss in the future.

c. Sludge Management Plan

The kick-off meeting was held on February 1st. We had one subsequent meeting with Hazen and it's subcontractor to discuss sludge market end use options. You have received a form which Hazen would like SWPCA to review and submit back to them listing preferences for sludge disposal. This will help in the analysis of viable markets for sludge disposal.

d. RFP For On-Call Services For Millwrights To Perform Work At The Plant

The contract for RFP #816 On-Call Millwright Services has been given to Northeast Water Maintenance in an amount not to exceed \$100,000 per year. The Contract will be a drawdown for work performed and can be extended for two additional one year periods. The type of work that will be included is the installation and/or repairs of pumps, wastewater treatment equipment, and associated above ground piping and any necessary repairs and improvements that may be beyond the availability of manpower at the WPCA.

e. Return Activated Sludge (RAS) and Waste Activated Sludge (WAS)

Based on the Basis of Design Memo from Hazen Sawyer, we are preparing a RFQ for the engineering design services of this system which should be ready for advertising shortly.

2. UPDATE ON CONSTRUCTION PROJECTS

a. Repair of Storm Water Pump #2 at the Cummings Pump Station

New England Pump and Valve removed the pump motor and pump assembly and have taken them to the shop for inspection and repairs. The major issue found with the pump is wearing in the bowl. The pump is in the process of being sandblasted, lined with a new metal ring, and coated with ceramic epoxy to avoid future wear. They will also install zincs as cathodic protection. Pump is almost complete and waiting for the motor repairs to reinstall at the pump station. The motor will be overhauled. The whole unit is expected to be completed and reinstalled over the next month.



b. Design-Build Standby Generator for the Greenwich Ave. Pump Station

The comments received last month from EPB and Engineering are being addressed and will be submitted for approval.

c. Preliminary, Secondary and Disinfection Treatment Improvements

The by-pass pumping has begun. While excavating at the valve chamber for the new air release valve on the 42" force main, the force main developed a leak. The flow from the leak was contained. After draining the area and excavating around the force main, it was discovered that the 42" pipe had a longitudinal crack on the bottom along the length of the pipe. Excavation is underway to determine how far the crack extends. A 3-foot by 1-foot access port is being cut out of the top of the pipe as soon possible so we can investigate and determine how to proceed with the pipe repair.

Raw Sewage Pumping Station:

- The new retaining wall is formed. The concrete pour needs to be scheduled over the next few weeks.
- Bar screen #3 has been removed. The channel has been coated and is now curing.
- All pumps have been installed for the bypass pumping operation. We are operating in full by-pass mode.
- The new 42" Tee and (2) knife gate valves have been installed. The new effluent pipe header is installed.
- Working on cleaning channels and wet well and readying for concrete repairs.

Aeration/Blower Building:

- Two new blowers have been installed. Electrical wiring is being completed and VFD's are being connected.
- The new 30" SS air piping has been insulated.

UV System:

- We have been operating two channels over the last week without issue.
- CH Nickerson is requesting an Applications Engineer from Siemens review the sensor performance and advise if there is a different sensor that should be used for our system.
- Basin 2 Channel has been poured.
- Additional concrete repairs are done; areas are formed and ready for concrete.

d. Clay Hill Pump Station Generator

No change in the status. Construction of the engineering department's drainage improvements project has begun by ordering materials. The Contractor will wait for the spring and better weather to continue with the project. The concrete pad and conduit for cables will be installed as part of the Clay Hill Drainage project. When we bid the generator and pad as one WPCA project, the bids were greater than our budget and we did not award. With the infrastructure in place from the drainage project, we will look at purchasing a generator.

e. Electrical Preventive Maintenance / Arc Flash

Siemens has gathered the nameplate information on all the electrical equipment within the plant. The information gathered to date has been given to Tighe & Bond to use in the preparation of the Arc Flash Hazard Analysis. Siemens continues to perform the electrical preventive maintenance in several buildings throughout the plant. They have completed three buildings to date and one pump station to date.



f. Refurbishing the Belt Filter Press

Northeast Water Maintenance & Service has completed the refurbishing of the Belt Filter Press No. 3 and it is back on line.

Change Order Log as of 2-17-21

The log has not changed since the last meeting. Pending items are shown as placeholders and will be included when a final cost is reached.

Copy of Change Order log for construction projects attached. In summary, the value of Change Orders for Capital projects is as follows:

Preliminary, Secondary and Disinfection Treatment Improvements (Contractor – CH Nickerson)

Original Value of Contract = \$ 26,751,500.00
Total Approved CO Amount = \$ 616,612.82
Percent of total project = 2.30%

Biosolids Dryer System Selective Demolition (Contractor – A Secondino & Son)

Original Value of Contract = \$1,365,121.00
Total Approved CO Amount = \$ 123,585.04
Percent of total project = 9.05%

Electrical Preventive Maintenance (Contractor – Siemens)

Original Value of Contract = \$95,732.00
Total Approved CO Amount = \$ 7,854.00
Percent of total project = 8.2%

Stamford WPCF Preliminary, Secondary and Disinfection Treatment Improvements
Change Order Summary

CHN PCCOR No.	CHN PCCOR Date	Description	PCO								RFI		RFP		WCD	
			Contractor Amount	Status	Included in CO#	Total Approved Amount	Approved to Preliminary	Approved to Secondary	Approved to UV	Approved Date	No.	Date Issued	No.	Date Issued	No.	Date Issued
NA	NA	Replace the Issue for Bidding Specification Sections 00520 - Agreement and 00800 - Supplementary Conditions with the Attached Specifications	\$ -	Approved	1	\$ -					5/10/2019					
01 (rev)	6/21/2019	Programming Services Provider / Integration Services - Revised	\$ 194,922.00	Approved	2	\$ 194,922.00	\$ 48,340.00	\$ 110,000.00	\$ 36,582.00	7/9/2019						
02 (rev)	1/20/2020	Additional Plank Support Framing & Planking at UV Basin 1 Outfall	\$ 35,257.23	Approved	3	\$ 35,257.23			\$ 35,257.23	2/27/2020			H-01	11/19/2019		
03 (rev)	10/25/2020	Changes to Moment Connection at UV Canopy	\$ 4,076.36	Approved	3	\$ 4,076.36			\$ 4,076.36	12/12/2019	H-019					
05	11/18/2019	UV Pilasters	\$ 2,689.46	Approved	3	\$ 2,689.46			\$ 2,689.46	11/19/2019						
09	1/28/2020	Remove and Reinstal drain piping and electrical conduionboxes in Blower Room to install new fire rated wall. Plans did not call for this work	\$ 28,473.69	Approved	3	\$ 28,473.69		\$ 28,473.69		4/7/2020					W-06	11/20/2019
11	2/21/2020	Add spool pipe to Septage Area	\$ 1,214.84	Approved	3	\$ 1,214.84	\$ 1,214.84			2/27/2020					W-03	11/20/2019
13	3/9/2020	Additional Rebar at UV Basin 1	\$ 21,447.91	Approved	3	\$ 21,447.91			\$ 21,447.91	3/15/2020					H-01	12/18/2019
17	4/14/2020	UV Power Panel Relocation	\$ 23,740.56	Approved	3	\$ 23,740.56			\$ 23,740.56		H-095	4/8/2020				
14	3/18/2020	Relocate Generator and Modify Bridge Crane per Building Department Request	\$ 83,080.40	Approved	4	\$ 83,080.40		\$ 83,080.40		8/19/2020						
18	6/19/2020	Replace Missing Hardware @ AT Bridges	\$ 5,082.33	Approved	4	\$ 5,082.33		\$ 5,082.33		8/19/2020						
19	7/14/2020	Provide Additional Thin Client Licensing & Integrate Existing Mixers per City Request	\$ 23,618.32	Approved	4	\$ 23,618.32		\$ 23,618.32								
16	4/4/2020	Credit for Redundant Breaker @ ATS	\$ (17,296.74)	Approved	5	\$ (17,296.74)		\$ (17,296.74)		9/23/2020						
21	8/7/2020	Add External Breaker for RSP-2	\$ 9,061.48	Approved	5	\$ 9,061.48	\$ 9,061.48			9/23/2020						
24	8/26/2020	Additional Tags for The GE Historian	\$ 8,590.02	Approved	5	\$ 8,590.02	\$ 2,863.34	\$ 2,863.34	\$ 2,863.34	8/26/2020	H-164	8/19/2020				
25	9/14/2020	Replace UV Channel #3 Inlet Gate	\$ 37,004.86	Approved	5	\$ 37,004.86			\$ 37,004.86	9/15/2020			H-02	9/3/2020		
27	9/15/2020	Install Missing Wiring to MX 60-6 & 60-12	\$ 16,235.90	Approved	5	\$ 16,235.90		\$ 16,235.90		9/23/2020						
28	9/15/2020	New Sampler Location at UV	\$ 5,232.89	Approved	5	\$ 5,232.89			\$ 5,232.89	9/17/2020	H-154	9/8/2020				

Stamford WPCF Preliminary, Secondary and Disinfection Treatment Improvements
Change Order Summary

29	9/22/2020	Replace Missing WML support rods in Aeration tank 1-4E/4W	\$ 4,869.75	Approved	5	\$ 4,869.75		\$ 4,869.75		9/23/2020						
31	9/22/2020	Test Soils for City Storage tent	\$ 1,525.86	Approved	5	\$ 1,525.86		\$ 1,525.86		9/23/2020						
20	8/21/2020	Cut Sumps in Aeration Tank Floors	\$ 37,083.78	Approved	6	\$ 37,083.78		\$ 37,083.78		10/5/2020						
30	9/22/2020	Add Cable Tray and Bus Supports	\$ 57,017.98	Approved	6	\$ 57,017.98		\$ 57,017.98				12/2/2020				
33	10/2/2020	Replace Failing Straub Coupling (Existing)	\$ 5,513.98	Approved	6	\$ 5,513.98		\$ 5,513.98								
40	11/2/2020	Add Supports to Existing Pipe in Blower room	\$ 16,024.43	Approved	6	\$ 16,024.43		\$ 16,024.43		11/11/2020						
36	10/28/2020	Paint UV Steel Walkway at Basins 1 & 2 - Option 1	\$ 12,145.53	Approved	6	\$ 12,145.53		\$ 12,145.53		12/2/2020						
15	3/18/2020	Reroute roof drain from Screenings Building as required by the Stamford Building Department. Approved materials only. Labor to high so going T&M	\$ 6,912.20	Partial Approval	TBD	TBD	TBD			4/7/2020						W-01
23	4/24/2020	Replace Cables for Gates Not Shown on Contract Drawing	\$ 5,893.78	Revisions Required					TBD							
37 (rev)	12/8/2020	Trench Cover at Spare Parts Building	\$ 25,055.44	Under Review					TBD					H-03	10/5/2020	
41 (rev)	12/8/2020	Canopy Extension and Davit Crane	\$ 36,975.66	Under Review					TBD					H-05	10/22/2020	
42 (rev)	12/8/2020	Maintenance Access at UV Electrode Sensors	\$ 16,475.43	Under Review					TBD		RFI-159	8/4/2020				
		Electrical Power in Spare Parts Building		Awaiting Pricing					TBD					H-04	10/22/2020	
					Total	\$ 616,612.82	\$ 61,479.66	\$ 374,093.02	\$ 181,040.14							

