



## TECHNICAL COMMITTEE MEETING MINUTES

Wednesday 10/13/2021

4:30PM

Via VIDEO/TELECONFERENCE

### Attendees:

Merritt Nesin, P.E.	Chairman, Technical Committee
Edward Kelly	Committee Member
Mark McGrath	Committee Member
Steve Bagwin	Committee Member
William Brink, PE	Executive Director, WPCA
Ann Brown, PE	Supervising Engineer, WPCA
Pete Scorziello	Synagro

#### 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 September 14, 2021 Meeting Minutes.

E. Kelly made a motion to approve the minutes of the September 14, 2021 Technical Committee Meeting; seconded by S. Bagwin. Motion carried 4-0-0.

#### 3. Public Comments - None

#### 4. Update of the Permit Modifications for the Dryer

P. Scorziello gave an update on the request for permit modifications. P. Scorziello clarified that they are asking to change the method of quantifying production, not asking for an increase in production. They now have a transport limit of 7.8 per hour. He would ask for that to be changed to about 12 transports per hour. He indicated that since the dryer went on line in January, he is able to meet production requirements with 5-6 transports per hour which is less than the limit. A stack test for CO and particulates is scheduled for November. If the emissions are low, he will ask for a modification. P. Scorziello indicated that the sludge quality has been good. He is not seeing as much fiber in the sludge. M. Nesin asked if any sludge is being hauled off site now. P. Scorziello stated that there is sludge being hauled because the volume of sludge produced by the plant sometimes changes and may be more some days. He also said sludge needs to be hauled when there are unexpected shut downs.

#### 5. Update on Repair of Primary Clarifier No. 1

A. Brown indicated that they reviewed the cost of repairing the arm on the primary clarifier and the cost of replacing the arm. The cost of replacement parts for the arm was \$18,000. The repair could be done under an existing contract for millwright services with Northeast Water Maintenance. They quoted a cost of \$7,100.00 to temporarily repair the arm. Either option will require replacement of the entire unit and drive in the near future. We are proceeding with repairing the arm under our contract with Northeast Water Maintenance now and including the replacement of the entire unit and drive in the upcoming Sludge Degritting Bid Documents.

#### 6. Approval of a Bid Waiver for Siemens for Mechanical Systems Inspections and Maintenance in the amount of \$58,152.00.

A. Brown explained that Siemens has an annual contract with WPCA for inspecting and maintaining the HVAC equipment at the WPCF. This request is for a renewal of that contract. The changes made this year are the removal of two units are no longer needed since the plant improvements and the addition of Dyke Lane pump station to the contract. W. Brink explained that Siemens provided the equipment and software during the plant upgrade in 2004. WPCA looked at changing the instrumentation and controls but found there was no savings in doing so. Therefore, this contract has been renewed annually. The Committee agreed to recommend a bid waiver in the amount of \$58,152.00 for Siemens.

7. Update on RFQ Response for Engineering Firm for FEMA BRIC grant application

A. Brown explained that qualifications were requested from 3 engineering firms to help with a needs assessment, cost estimate and Benefit Cost Analysis (BCA) for three storm water pump stations to assist in the City's application for a FEMA grant funds. Only one firm, Stantec, responded and provided a scope and fee schedule. The total fee requested for this work is \$54,560. The scope and fee is based on the WPCA providing information on past flooding events and damage from them. Since there are no past flooding events caused by a failure of the pumps, we do not have this data. W. Brink explained that these grants are highly competitive. Without historic information, our chances of receiving grant funds are not likely. He indicated that these stations were built in the 1960's and need improvements with or without the FEMA grant. He suggested the needs analysis be performed to identify what should be done at each station. The cost of this would be about \$20,000. If we continue with the BCA, it would be an additional \$24,700. Assisting with the grant application is \$4,900. Any of the information can be used in the future for other funding opportunities. The Committee agreed that this should be done and will recommend a bid waiver in the amount of \$54,560 for Stantec.

8. Discussion on Contract for the Purchase of Electricity

W. Brink stated that the City uses Competitive Energy Services (CES), a consulting firm, to advise it on electricity purchase and bid its electricity supply. WPCA bids in conjunction with the City but, as a separate bid. WPCA has purchased electricity in the past based on 12 or 24 month contracts. Our current 24 month contract for electricity @ \$0.0645/kWh expires on 11/3/21. We received bids which are substantially higher. It was recommended to go with a 2 year contract. The bid for 24 month fixed rate is \$0.09863. Based on last years' use, this will increase our electrical cost by approximately \$420,000 each year. W. Brink stated that he is hopeful that the price will fall over the next 2 years and hopes to achieve some energy savings with the new pumps, blowers and DO control system from the plant upgrade, as well as lower methanol usage.

9. Discussion on Plant Operations

Brink indicated that the plant is operating well. The submersible mixers have been running in the first part of the aeration tank which is now an anoxic zone. By enlarging the anoxic zone, Nitrate levels have fallen which means less methanol is being used. The process also needs less air and the new blowers are now more efficient.

10. Update on Engineering Studies and Designs

A. Brown provided the board with an update on engineering studies and designs which is attached and made part of these minutes.

- a. Infiltration & Inflow Removal Project
- b. Sludge Degritting System Upgrade
- c. Sludge Management Plan
- d. Engineering Design Services for Plant Water System and the RAS/WAS Pumping Systems
- e. Storm Water Pump Station Study for FEMA BRIC grant

11. Update on Construction Projects

A. Brown provided the board with an update on engineering studies and designs which is attached and made part of these minutes.

- a. Standby Generator for the Greenwich Ave. Pump Station
- b. Preliminary, Secondary and Disinfection Treatment Improvements
- c. Clay Hill Pump Station Generator
- d. Electrical Preventive Maintenance and Arc Flash Evaluation

12. Old Business

13. New Business

M. Nesin expressed his concern over the vibration in the shafts of the raw sewage pumps. He will send information to W. Brink detailing potential causes of the vibrations.

There being no further issues to discuss, E. Kelly made a motion to adjourn the meeting, seconded by S. Bagwin; motion carried 4-0-0. The meeting was adjourned at 5:32pm.



**UPDATE OF CAPITAL PROJECTS  
TECHNICAL COMMITTEE MEETING  
October 13, 2021**

A. Brown presented the following project updates:

**1. UPDATE ON ENGINEERING STUDIES AND DESIGNS**

**a. Sludge Degritting System Upgrade**

The bid documents for replacing the primary sludge pumps and sludge degritting equipment, as well as the sludge withdrawal piping from the primary settling tanks, are ready to advertise. As discussed at the last meeting, we reviewed the broken skimmer arm in the primary clarifier and decided to repair the arm temporarily and add the replacement of the skimmer components and drive to the sludge degritting bid documents. The skimmer arm was damaged in tropical storm Ida. Once the arm is included in the documents, we will bid this project.

**b. Sludge Management Plan**

There is no change to this item. Hazen is performing a more detailed analysis on the remaining sludge management technologies. This would include a detailed look at the equipment sizing and costs. This part of the plan should take a few months to analyze.

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

WPCA met with Gannett Fleming to discuss the scope of services. They submitted their scope and fee which is under review. No change to this item.

**2. UPDATE ON CONSTRUCTION PROJECTS**

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

The contractor addressed comments sent by Stamford EPB and Engineering. EPB has approved and engineering is under review. Once approved, the necessary permits for this work can be obtained.

**b. Preliminary, Secondary and Disinfection Treatment Improvements**

Construction is ongoing and construction updates are as follows:

42" Force Main:

- The lining operation is complete and the force main is online.

Raw Sewage Pump Station:

- All three bar screens have been installed and are operating.
- The conveyor from the bar screens is installed but not yet in use.
- The 90° header pipe from the RSPS has been replaced with (2) 45° pipes.
- The duct work for the new ventilation system is ongoing.
- The by-pass pumps and piping have been removed from the site.
- Working on the septage receiving area.

Site Restoration

- Entrance driveway is being restored.
- Driveway widening area and the area where the by-pass pumps were located is being prepared for paving.
- Topsoil is being spread around areas that have been disturbed by the contractor staging equipment or by the by-pass piping.



**c. Clay Hill Pump Station Generator**

The generator pad has been installed. We will prepare a bid for the sizing, purchase and installation of a generator for this site.

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

Siemens will complete the electrical preventive maintenance on the last building which is operations today and tomorrow. All the information compiled will be provided to Tighe & Bond for the Arc Flash Study to be prepared.

**e. Storm Water Pump Station Study for FEMA BRIC Grant**

There is funding available from FEMA under a Building Resilient Infrastructure in Communities (BRIC) program for improvements to the storm water pump stations. We are helping to prepare an application for this funding which is very competitive. The application requires a needs assessment, cost estimate, project schedule and benefit cost analysis using FEMA software. We anticipate that the needed improvements will include replacement of the pump stations' aged electrical switch gear and pump motors and the addition of an emergency standby generator. We received qualifications from one firm, Stantec. They have worked with WPCA on the Dyke Lane pump station and are qualified for this study. The information needs to be completed by the middle of November for submission to FEMA by Nov 29<sup>th</sup>.

**Change Order Log as of 9-14-21**

Copy of Change Order log for construction projects attached. The value of Change Orders for Capital projects to date are as follows:

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

Original Value of Contract =	\$ 26,751,500.00
Total Approved CO Amount =	\$ 1,590,129.60
Contract Sum to Date =	\$ 28,341,629.60
Percent of total project =	5.9%

**Electrical Preventive Maintenance (Contractor – Siemens)**

Original Value of Contract =	\$ 95,732.00
Total Approved CO Amount =	\$ 7,854.00
Contract Sum to Date =	\$103,586.00
Percent of total project =	8.2%

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

CHN PCCOR No.	CHN PCCOR Date	Description	Contractor Amount	Status	Included in CDR	Total Approved Amount	Approved to Preliminary	Approved to Secondary	Approved to UV	RFI		RFP		WCD
										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	\$ -								
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					
02 (rev)	1/20/2020	Additional Flank Support Framing & Plumbing at UV Basin 1 Outlet	\$ 35,257.23	Approved	3	\$ 35,257.23			\$ 35,257.23		H-01	11/19/2019		
03 (rev)	10/25/2020	Changes to Moment Connection at UV Canopy	\$ 4,078.36	Approved	3	\$ 4,078.36			\$ 4,078.36		H-019			
05	11/18/2018	UV Plasters	\$ 2,689.46	Approved	3	\$ 2,689.46			\$ 2,689.46					
09	1/28/2020	Remove and Reinstall drain piping and electrical conduits in Blower Room to install new tie rated wall. Plans did not call for this work.	\$ 28,473.69	Approved	3	\$ 28,473.69		\$ 28,473.69						W-06
11	2/21/2020	Add spool pipe to Sorage Area	\$ 1,214.84	Approved	3	\$ 1,214.84	\$ 1,214.84							W-03
13	3/6/2020	Additional Rebar at UV Basin 1	\$ 21,447.91	Approved	3	\$ 21,447.91			\$ 21,447.91					H-01
17	4/14/2020	UV Power Panel Relocation	\$ 23,740.56	Approved	3	\$ 23,740.56			\$ 23,740.56		H-065	4/8/2020		
14	3/19/2020	Relocate Generator and Modify Bridge Crans per Building Department Request	\$ 83,080.40	Approved	4	\$ 83,080.40		\$ 83,080.40						
18	6/19/2020	Replace Missing Hardware @ AT Bridges	\$ 5,082.33	Approved	4	\$ 5,082.33		\$ 5,082.33						
19	7/14/2020	Provide Additional Thin Client Licensing & Integrate Existing Miners 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)						
21	8/7/2020	Add External Breaker for RSP-2	\$ 9,061.48	Approved	5	\$ 9,061.48	\$ 9,061.48							
24	8/26/2020	Additional Tags for The GE Helixian	\$ 8,590.02	Approved	5	\$ 8,590.02	\$ 2,863.34	\$ 2,863.34	\$ 2,863.34		H-164	8/19/2020		
25	8/14/2020	Replace UV Channel #3 Inlet Gate	\$ 37,004.86	Approved	5	\$ 37,004.86			\$ 37,004.86		H-02	8/3/2020		
27	9/15/2020	Install Missing Wiring to MX 60-6 & 60-12	\$ 16,235.90	Approved	5	\$ 16,235.90		\$ 16,235.90						
28	9/15/2020	New Sampler Location at UV	\$ 5,232.89	Approved	5	\$ 5,232.89		\$ 5,232.89			H-164	9/8/2020		

Stamford WPCF Preliminary, Secondary and Disinfection Treatment Improvements  
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28	9/22/2020	Replace Missing WML support rods in Aeration tank 1-4E/AW	\$ 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	Out 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 Falling Struab Coupling (Existing)	\$ 5,513.98	Approved	6	\$ 5,513.98	\$ 5,513.98			
40	11/2/2020	Add Supports to Existing Pipes in Blower room	\$ 18,024.43	Approved	6	\$ 18,024.43	\$ 18,024.43	11/11/2020		
36	10/26/2020	Paint UV Steel Walkway at Basins 1 & 2 - Option 1	\$ 12,145.53	Approved	6	\$ 12,145.53	\$ 12,145.53	12/2/2020		
37 (rev)	12/8/2020	Trench Cover at Spare Parts Building	\$ 25,055.44	Approved	7	\$ 25,055.44	\$ 25,055.44	12/17/2020		H-03 10/5/2020
41 (rev)	12/8/2020	Canopy Extension and Davit Crane	\$ 36,975.66	Approved	7	\$ 36,975.66	\$ 36,975.66	12/17/2020		H-05 10/22/2020
42 (rev)	12/8/2020	Maintenance Access at UV Electrode Sensors	\$ 16,475.43	Approved	7	\$ 16,475.43	\$ 16,475.43	12/17/2020	RFI-159	8/4/2020
44	12/22/2020	Electrical Power in Spare Parts Building	\$ 13,554.20	Approved	7	\$ 13,554.20	\$ 13,554.20	1/6/2021		H-04 10/22/2020
43	1/11/2021	Relocate Fire Alarm Control Around Door 1010c	\$ 5,410.15	Approved	7	\$ 5,410.15	\$ 5,410.15	1/6/2021		
45	1/11/2021	Increase Conduit Size to CP-11	\$ 1,181.24	Approved	7	\$ 1,181.24	\$ 1,191.24	1/12/2021		
48	1/21/2021	Add Bearing Cooling Water Gland to Influent Pumps	\$ 16,267.28	Approved	8	\$ 16,267.28	\$ 16,267.28	3/1/2021		
49	1/29/2021	Unfossen Below Grade Conditions @ RSPS	\$ 19,244.40	Approved	8	\$ 19,244.40	\$ 19,244.40	3/1/2021		
46	4/8/2021	Demol Existing Embed of New Channel #3	\$ 5,163.56	Approved	9	\$ 5,163.56	\$ 5,163.56	5/2/2021		
50 (rev)	2/3/2021	(RFI-186) Head Traces and Insulate 2" CW	\$ 4,734.43	Approved	9	\$ 4,734.43	\$ 4,734.43	5/26/2021		
52	3/15/2021	Control Molds to Ex. MFCY Pumps to Meet Code	\$ 2,924.08	Approved	9	\$ 2,924.08	\$ 2,924.08			
53	3/15/2021	Add EXP Motor to OH Door at RSPS	\$ 2,815.39	Approved	9	\$ 2,815.39	\$ 2,815.39			
54	3/15/2021	Relocate HVAC Duct to Install Pump VFDs	\$ 1,670.90	Approved	9	\$ 1,670.90	\$ 1,670.90			

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

55	4/8/2021	Assist in Opening Gate 5030	\$ 3,710.78	Approved	9	\$ 3,710.78		\$ 3,710.78	5/2/2021		
56	4/9/2021	Separate Power Control on Existing Mixer and Pumps to Maintain Current Code Compliance	\$ 19,078.76	Approved	9	\$ 19,078.76		\$ 19,078.76			
57	4/8/2021	Add Missing Wiring to New Ammonia Air Blast Kils	\$ 9,299.78	Approved	9	\$ 9,299.78		\$ 9,299.78			
58	4/9/2021	Delete UPS's @ Blower LCP's	\$ (2,057.30)	Approved	0	\$ (2,057.30)		\$ (2,057.30)			
60	4/20/2021	Emergency repair Assistance - Failed Gate at Primary DBox	\$ 8,483.32	Approved	9	\$ 8,483.32	\$ 8,483.32				
61	4/20/2021	Handrail Around Opening at MWG for UV Channel #3	\$ 2,105.85	Approved	0	\$ 2,105.85		\$ 2,105.85	5/18/2021		
62	5/10/2021	(RFI-157A) Grating Grounding at UV Basins	\$ 5,492.86	Approved	0	\$ 5,492.86		\$ 5,492.86	5/11/2021	157A	
64 (rev)	5/12/2021	(RFI-126) Accessibility of UV Transmittance Sensor	\$ 9,493.96	Approved	0	\$ 9,493.96		\$ 9,493.96	5/13/2021	126	
65	5/12/2021	Service Overhead in Stairs in RSP5	\$ 900.43	Approved	0	\$ 900.43	\$ 900.43				
66	5/12/2021	Remove Removable Railings at AT Mixers	\$ -	Approved	0	\$ -		\$ -			
67	5/12/2021	Add Supports @ Influent Channel for Aluminum Paving	\$ 5,315.63	Approved	9	\$ 5,315.63	\$ 5,315.63				
68	5/12/2021	Notch Framing around new Influent pump shafts @ 5 Locations	\$ 1,009.50	Approved	9	\$ 1,009.50	\$ 1,009.50				
70	5/17/2021	(WCD-H-03) Encase Electrical and Hydraulic Control in Basin #2 (7&M)	\$ 23,166.63	Approved	9	\$ 23,166.63		\$ 23,166.63			H-03
71	5/21/2021	Provide 7 MED Clean Reirculated Flow at UV Basin #2	\$ 4,372.78	Approved	9	\$ 4,372.78		\$ 4,372.78	5/26/2021		
72 (rev)	5/21/2021	(RFI-222-H) Basin 2, Channel 3 Existing Wall Inconsistencies	\$ 8,436.33	Approved	0	\$ 8,436.33		\$ 8,436.33	6/6/2021	222	
74	5/28/2021	(RFI-167) Repair to Existing Concrete Basin at UV Effluent PS	\$ 42,048.45	Approved	0	\$ 42,048.45		\$ 42,048.45	6/6/2021	167	
83 (rev)	7/15/2021	Investigate/Repair Failed 42" Force Main	\$ 209,722.28	Approved	10	\$ 209,722.28	\$ 209,722.28				
86 (rev)	7/15/2021	Install Temporary 24" HDPE Force Mains & Manfold	\$ 367,747.46	Approved	10	\$ 367,747.46	\$ 367,747.46				
59	4/16/2021	Add Current Transformers to Blowers to Accept signal and monitoring of Amperage	\$ 24,700.84	Approved	11	\$ 24,700.84		\$ 24,700.84	6/10/2021	237	
75	6/9/2021	Replace Meter Melt Connector to Match New Meters	\$ 7,330.29	Approved	11	\$ 7,330.29		\$ 7,330.29	6/10/2021		





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

	Additional Work at Spare Parts Building Exterior Door							
		Pending						

