



TECHNICAL COMMITTEE MEETING MINUTES

Wednesday 11/10/2021

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
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 October 13, 2021 Meeting Minutes

E. Kelly made a motion to approve the minutes of the October 13, 2021 Technical Committee Meeting; seconded by S. Bagwin. Motion carried 4-0-0.

3. Public Comments – None.

4. Review Capital Improvements Plan Update

W. Brink stated that updating the Capital Improvement Plan is generally moving projects from the last fiscal year into the new fiscal year where the funds will be spent. He gave the example of the repair of the Belt Filter Press #2. The request for funding was authorized in February and the equipment was ordered. Parts were delivered in July therefore, the funds will be spent in this fiscal year as opposed to the year they were authorized. W. Brink explained that WPCA has used more cash than anticipated because of the force main repairs. There is enough cash to cover the cost. W. Brink indicated that he has been trying to replace different pieces of aging equipment annually to maintain and ensure reliability of the plant.

5. Review Capital Projects Request

A. Brown reviewed each Capital Project request listed below and the need for additional spending authorization for these. A. Brown indicated that the first 5 projects listed are reoccurring projects and basically used for upgrades or replacement of aging equipment.

CP2730 is used for the repair of the 42" force main. The project cost was estimated at the beginning of the repair. It became evident that there were unforeseen utility conflicts when preparing the site for the lining which were performed on a time and material basis. The additional spending request should cover the cost for the work performed.

CP6904 WPCA Major Replacement (additional \$900,000),
CP4242 Sanitary Sewer Rehabilitation (additional \$700,000),
CP9270 Sanitary Pumping Station Upgrades (additional \$ 500,000),
C71282 Vehicle Replacement and Repair (additional \$50,000),
CP1455 Primary Sludge Degritting System (additional \$1,200,000),
CP2730 WPCF Force Main Repair (additional \$640,000).

6. Discussion on Plant Operations

R. Pudelka stated that the plant is doing well. He reviewed the Monthly Operating Report and Equipment Update with the Committee which is attached and made part of these minutes.

7. 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

8. 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

9. Old Business

10. New Business

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 5:20pm.



NOVEMBER 2021 TECHNICAL COMMITTEE REPORT

Monthly Operating Report data:	October Results			Permit Limit
	This month (OCT)	Last month (SEPT)	10 Year Monthly AVG	
Q (FLOW) DAILY AVG MGD	16.4	20.8	15.1	24 MGD DESIGN AVG
Q PEAK MGD	42.3	78.3	39.2	58 MGD MAX AVG
BOD INFLUENT AVG MG/L	274	205	258	
BOD INFLUENT AVG LBS/D	37,477	35,562		
BOD EFFLUENT AVG MG/L	2	4	2	
BOD EFFLUENT MAX MG/L	2	37		20 mg/L
BOD REMOVAL %	99.3	96.1	98.8	85%
TSS INFLUENT AVG MG/L	396	272	384	
TSS INFLUENT AVG LBS/D	54,163	47,184		
TSS EFFLUENT AVG MG/L	6	7	7	
TSS EFFLUENT MAX MG/L	8	46		20 MG/L
TSS REMOVAL %	98	96.2	98.3	85%
TOTAL N INFLUENT AVG MG/L	33	28.4	37.5	
TOTAL N INFLUENT AVG LBS/D	4514	4927	4513	
TOTAL N EFFLUENT AVG MG/L	1.64	1.94	2.31	
TOTAL N EFFLUENT LBS/D	229	442	306	926 LBS/D
N REMOVAL %	95	93.2	93.7	
TOTAL P INFLUENT AVG MG/L	3.47	3.82	5	
TOTAL P EFFLUENT AVG MG/L	0.2	0.24	0.73	
P REMOVAL %	94.2	93.8	84.6	
UV EXCEEDANCES <30 mJ/cm2	0	2		

Equipment Update

NRCY Pumps	One pump still out at Lep-Nut
BANANA MIXER	OUT OF SERVICE TO FLEET -2 new mixers ETA 11/15
PRIMARY TANK #1	Temporary repair COMPLETED TO RAKE ARM
FINAL EFFLUENT PUMP	SPARE OUT FOR SERVICE
BELT REPLACEMENT	3 BFP BELTS REPLACED
BLEND TANK MIXER	SHAFT REPAIRED AND REINSTALLED
ANOXIC MIXER	TOP OF MAST WELD REPAIR
HYDROCYCLONE DEGRITTER	REMOVED FROM SERVICE FOR REPAIR TO WORN TROUGH



**UPDATE OF CAPITAL PROJECTS
TECHNICAL COMMITTEE MEETING
November 10, 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. We are meeting with the design engineers to finalize the documents which will include the skimmer arm and drive in the primary clarifier. This project will bid this year.

b. Sludge Management Plan

Hazen is working on the mass and energy balances for each of the alternatives that have been selected so far and a preliminary energy dashboard for the WPCA. A meeting to review this information will be held in December and an invite will to the Technical Committee members.

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

A meeting was held with Engineering to confirm that all comment items are being addressed to their satisfaction. Engineering should be submitting an approval letter this week. Following the approval, the necessary building permits for this work can be obtained and installation can begin. Shop prints were reviewed and approved already and some equipment has been ordered.

b. Preliminary, Secondary and Disinfection Treatment Improvements

Most of the work that is left is in the Raw Sewage Pump Station (RSPS). Construction is ongoing and construction updates are as follows:

- All three bar screens have been installed and are operating.
- The conveyor from the bar screens is installed and operating.
- The washer compactor startup was Wednesday with training on Thursday.
- The duct work and installation of the exhaust fans on the roof of RSPS is ongoing.
- Roof repairs and roof curb at the RSPS is ongoing.
- The installation of grating and handrails in the RSPS is ongoing.
- The concrete top for the septage receiving area has been poured and needs to be installed.
- Site paving of the entrance driveway, the 5 pits that were opened for the force main repair and the crossings for the by-pass piping is being done this week.
- Site cleanup and restoration of disturbed areas is ongoing.
Issues with the instrumentation and controls for the aeration/blower system are being reviewed.
- Cleanup, painting and flooring of the RSPS to be done.



c. Clay Hill Pump Station Generator

The generator pad has been installed. We have requested a date from purchasing for bidding the sizing, purchase and installation of a generator for this site.

d. Electrical Preventive Maintenance / Arc Flash

Siemens has completed electrical preventive maintenance portion of the project. They are finalizing all the information compiled and will be providing it to Tighe & Bond for the Arc Flash Study to be prepared.

e. Storm Water Pump Station Study for FEMA BRIC Grant

Stantec has been working on the needs assessment, cost estimate, project schedule and benefit cost analysis required for the FEMA BRIC grant application. We will have a draft of the narrative this week and need to finalize by the end of the month for the City to submit. The grant must be submitted by November 29th. 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.

Change Order Log as of 11-10-21

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%

The Siemens Contract is complete and will be removed from next month's update.

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 CO#	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	\$ -			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	12/12/2018	H-019			
05	11/19/2019	UV Plasters	\$ 2,689.46	Approved	3	\$ 2,689.46			\$ 2,689.46	11/19/2019				
09	1/28/2020	Remove and Reinstall drain piping and electrical conduits/cables in Blower Room to install new fire rated well. 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				
17	4/14/2020	UV Power Panel Relocation	\$ 23,740.56	Approved	3	\$ 23,740.56			\$ 23,740.56	H-095	4/9/2020			
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			8/18/2020				
18	6/18/2020	Replace Missing Hardware @ AT Bridges	\$ 5,082.33	Approved	4	\$ 5,082.33	\$ 5,082.33			8/18/2020				
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	4/2/2020	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 Halotron	\$ 8,590.02	Approved	5	\$ 8,590.02	\$ 2,863.34	\$ 2,863.34	\$ 2,863.34	9/26/2020	H-164	9/19/2020		
25	9/14/2020	Replace UV Channel I3 Inlet Gate	\$ 37,004.86	Approved	5	\$ 37,004.86			\$ 37,004.86	9/15/2020		H-02	9/2/2020	
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		
29	8/22/2020	Replace Missing WWML 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	Cut Sumps in Aeration Tank Floors	\$ 37,083.78	Approved	6	\$ 37,083.78	\$ 37,083.78			10/5/2020				

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

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 Strub 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	
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			1/8/2021	H-04 10/22/2020
43	1/11/2021	Relocate Fire Alarm Conduit Around Door 1010c	\$ 5,410.15	Approved	7	\$ 5,410.15	\$ 5,410.15			1/16/2021	
45	1/11/2021	Increase Conduit Size to CP-11	\$ 1,191.24	Approved	7	\$ 1,191.24	\$ 1,191.24			1/12/2021	
48	1/21/2021	Add Bearing Cooling Water Gleeed to Influent Pumps	\$ 16,267.28	Approved	8	\$ 16,267.28	\$ 16,267.28			3/1/2021	
49	1/29/2021	Unforeseen Below Grade Conditions @ RSPS	\$ 19,244.40	Approved	8	\$ 19,244.40	\$ 19,244.40			3/1/2021	
46	4/9/2021	Demo Existing Embed at New Channel #3	\$ 5,163.56	Approved	0	\$ 5,163.56	\$ 5,163.56			5/2/2021	
50 (rev)	2/3/2021	(RFI 196) Heat Trace and Insulate 2" CW	\$ 4,734.43	Approved	9	\$ 4,734.43	\$ 4,734.43			5/26/2021	
52	3/15/2021	Control Mods to Ex. NRCY 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	0	\$ 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				
55	4/9/2021	Asst in Opening Gate 5030	\$ 3,710.78	Approved	0	\$ 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	\$ 19,078.78	Approved	9	\$ 19,078.78	\$ 19,078.78				
57	4/9/2021	Add Missing Wiring to New Ammonia Air Blast Kits	\$ 9,299.78	Approved	9	\$ 9,299.78	\$ 9,299.78				
58	4/9/2021	Delete UPS's @ Blower LCPs	\$ (2,057.30)	Approved	0	\$ (2,057.30)	\$ (2,057.30)				
60	4/20/2021	Emergency repair Assistance - Failed Gate at Primary DIBox	\$ 8,483.32	Approved	9	\$ 8,483.32	\$ 8,483.32				
61	4/30/2021	Handrail Around Opening at MWG for UV Channel #3	\$ 2,105.85	Approved	9	\$ 2,105.85	\$ 2,105.85			5/19/2021	

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

62	5/10/2021	(RFI-157A) Grating Grounding at UV Basins	\$ 5,492.86	Approved	9	\$ 5,492.86	\$ 5,492.86	5/11/2021	157A	
64 (rev)	5/12/2021	(RFI-126) Accessibility of UV Transmittance Sensor	\$ 9,483.96	Approved	9	\$ 9,483.96	\$ 9,483.96	5/13/2021	126	
65	5/12/2021	Sawcut Overhand in Stairs in RSPS	\$ 900.43	Approved	9	\$ 900.43	\$ 900.43			
66	5/12/2021	Rework Removable Railings at AT Mixers	\$ -	Approved	9	\$ -	\$ -			
67	5/12/2021	Add Supports @ Influent Channels for Aluminum Plating	\$ 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 Conduit in Basin #2 (T&M)	\$ 23,166.63	Approved	9	\$ 23,166.63	\$ 23,166.63			H-03
71	5/21/2021	Provide 7 MGD Clean Recirculated Flow at UV Basin #2	\$ 4,372.78	Approved	9	\$ 4,372.78	\$ 4,372.78	5/25/2021		
72 (rev)	5/21/2021	(RFI-222-1) Basin 2, Channel 3 Existing Wall Inconsistencies	\$ 8,436.33	Approved	9	\$ 8,436.33	\$ 8,436.33	6/6/2021	222	
74	5/28/2021	(RFI-167) Repair to Existing Concrete Beam at UV Effluent PS	\$ 42,048.45	Approved	9	\$ 42,048.45	\$ 42,048.45	6/6/2021	167	
63 (rev)	7/15/2021	Investigate/Repair Failed 42" Force Main	\$ 209,722.28	Approved	10	\$ 209,722.28	\$ 209,722.28			
68 (rev)	7/15/2021	Install Temporary 24" HDPE Force Mains & Manifold	\$ 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 Mixer Metric Connector to Match New Mixers	\$ 7,330.29	Approved	11	\$ 7,330.29	\$ 7,330.29	6/10/2021		
77	7/12/2021	Re-align Pumps 4 and 5 per GA Fleets Recommendation	\$ 2,924.56	Approved	11	\$ 2,924.56	\$ 2,924.56			
78	7/15/2021	Bypass Force Main Rental/Ops Costs 4/21/21 through 6/16/21	\$ 136,711.13	Approved	11	\$ 136,711.13	\$ 136,711.13	8/11/2021		
80	7/29/2021	Paint Existing Bridge Crane runway beams and crane rail at UV Basin #2	\$ 8,221.33	Approved	11	\$ 8,221.33	\$ 8,221.33	7/29/2020	8	7/22/2021
81	8/13/2021	Radar Level Sensor	\$ 2,407.75	Approved	12	\$ 2,407.75	\$ 2,407.75	8/18/2021		H-04
83	8/13/2021	Delete Blower Room Floor Painting	\$ (12,915.20)	Approved	12	\$ (12,915.20)	\$ (12,915.20)	8/25/2021		
84	8/18/2021	WCD-05-H UV PLC Programming Modifications - Add channel bot of Service Status	\$ 7,691.61	Approved	12	\$ 7,691.61	\$ 7,691.61	8/24/2021		H-05
85	8/24/2021	(RFI-256) Protection around Fixed Ultrasonic Sensors at UV	\$ 3,053.06	Approved	12	\$ 3,053.06	\$ 3,053.06	9/3/2021	256	7/9/2021
89	8/27/2021	Add WiFi to Aeration Tank Instruments	\$ 15,421.01	Approved	12	\$ 15,421.01	\$ 15,421.01	8/30/2021		
90	8/27/2021	Replace Existing Plastic JBs on Aeration	\$ 10,997.74	Approved	12	\$ 10,997.74	\$ 10,997.74			

