



TECHNICAL COMMITTEE MEETING MINUTES

Wednesday 6/9/2021

4:30PM

Via VIDEO/TELECONFERENCE

Attendees:

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

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 May 12, 2021 Meeting Minutes.

M. Nesin made a motion to approve the minutes of the May 12, 2021 Technical Committee Meeting; seconded by S. Bagwin. Motion carried 4-0-0.

3. Public Comments.

A. Brown stated that she received an email from Brian Teitelbaum which read that there was nothing new to report. Still trying to obtain the needed signatures.

4. SWPCA Operations During COVID-19 Pandemic

W. Brink reported that all but 4 employees are vaccinated. There have been no new cases of COVID since last month.

5. Update on Force Main Repairs - Installing a Cured In Place Pipe Liner

A. Brown stated that the Bid for lining the 42" force main was awarded to Insituform. Insituform has been to the plant to review the excavated access pits and formulate a plan for inserting the liner. Each pit is dug at one of the four 45° bends in the force main. The bends need to be removed to line the pipe. When the bends are removed, Insituform will either insert the lining or receive the lining in these areas. Nickerson will remove the bends and replace them with a ceramic epoxy lined fittings after Insituform is finished. Most of the fittings are on site. Insituform ordered the material which has a lead time of 4-6 weeks.

6. Discussion on Sludge Management Plan Weighted Criteria

W. Brink explained that the Technical Committee has already looked at eliminating disposal options when we did the end use market assessment. The committee is now being asked to look at criteria to be applied to different technology for processing and disposal of sludge in order to rank and possibly further eliminate alternatives. Hazen provided a spreadsheet and asked that percentages be assigned to each criteria. Prior to the meeting, W. Brink, R. Pudelka and A Brown reviewed the spreadsheet and assigned percentages to each criteria. W. Brink reviewed this information and the rationale for the percentages with the committee. All agreed with the assigned percentages and to send this information back to Hazen. Hazen will be scheduling the world of options workshop to discuss the technologies available.

7. Update on UV Disinfection Treatment System

R. Pudelka stated that there were several exceedances during the testing of the new channel with TROJAN system. He explained that to perform the functionality test, the contractor recycles treated effluent to the new channel. On the first day of performance (in service) testing, water discharged to the upstream of the new system triggered an alarm that opened the gates before the lamps turned on causing the exceedance. No one was aware of this alarm setting and started the test two more times with exceedances each times. The alarm was discovered and is now set as a minor alarm which does not

operate the gates. On the second day, the exceedance was the result of the TROJAN representative hitting the touch screen and unknowingly shutting the lamps off in the new channel. R. Pudelka stated that samples are being taken from this channel to determine if the lamps are getting the results needed. If the samples are acceptable, the system will be put into a 30 day test with rotation of all channels. R. Pudelka said that we have ordered a radar sensor unit which has a 4-5 week lead time. We are determining the location for this sensor. M. Nesein noted that since the roof was installed over the UV system, there has been no issue with the ultrasonic sensors.

8. Discussion on Plant Operations

R. Pudelka indicated the plant is operating fine with no major issues. Nickerson broke a stem off ~~the~~ one of the existing RSPS pumps which was repaired. These pumps and associated piping are scheduled to be removed and replaced with new pumps. The blowers have been in operation and have experienced faults for high temperature. The technicians felt it was a bad sensor and replaced it. It seems to occur when two blowers are run at different speeds. Technicians are looking into this. The startup and testing of the new bar screen is underway.

M. Nesein asked about the stack test for the sludge dryer permit. W. Brink explained that the stack test showed the emissions are well within the spec. The permit limits previously agreed to were 7 transports per hour and 25 dry tons per day. Synagro requested to increase the permit limits for transports per hour. The quality of the sludge cake is very good and the density of the dried pellets is such that Synagro will exceed the production rate of 25 dry tons per day if they exceed 7 transports per hour. Therefore, the permit limits will remain the same.

9. 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. RFQ for Engineering Design Services for Plant Water System and the RAS/WAS Pumping Systems

10. Update on Construction Projects

A. Brown provided an update on construction projects 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

11. Old Business

E Kelly asked for an update on our cyber protection plan. W. Brink indicated that we authorized Arcadis to contract with a third party, Virtual Armour that will oversee the system. Arcadis has been on-site and to download software for Virtual Armour to remotely access the system.

12. New Business

There being no further issues to discuss, E. Kelly made a motion to adjourn the meeting, seconded by M. McGrath; motion carried 4-0-0. The meeting was adjourned at 5:47pm.



**UPDATE OF CAPITAL PROJECTS
TECHNICAL COMMITTEE MEETING
June 9, 2021**

A. Brown presented the following project updates:

1. UPDATE ON ENGINEERING STUDIES AND DESIGNS

a. Infiltration & Inflow Study

The Contractor is finishing the CCTV inspection of the service laterals and cleaning and grouting of the service laterals needing repairs.

b. Sludge Degritting System Upgrade

The plans and specifications are ready for bidding. This project includes replacing the primary sludge pumps and sludge degritting equipment, as well as the sludge withdrawal piping from the primary settling tanks, with an estimated construction cost of \$4 million. We anticipate advertising this project for bids within the next month.

c. Sludge Management Plan

As part of their scope of services, Hazen developed a draft list of criteria and sub-criteria to be used for screening sludge processing alternatives. These topics are to be assigned a weighted value which will be used for screening and a detailed evaluation of the alternatives. The Technical Committee will be reviewing this draft list at the June 9th Technical Committee meeting. Hazen will also be reaching out to the Committee to schedule a World of Options workshop for the Sludge Management Plan to discuss what technologies are available, what they do, what they produce and pros/cons.

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

The Selection Committee is scheduled to interview the (4) four firms that submitted qualification packages for engineering design services of the above project next week.

2. UPDATE ON CONSTRUCTION PROJECTS

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

The contractor received final minor comments back from EPB and Engineering. The comments are down to a few regarding verification of structure elevations and certifications from an engineer required by the Flood Prone Area Regulations of Stamford because the pump station/generator is located in the flood plain. Northeast Generator is addressing these comments and I would expect to have a permit within the next month.

b. Preliminary, Secondary and Disinfection Treatment Improvements

Construction is ongoing and construction updates are as follows:

42" Force Main:

- Insituform was selected as the contractor for the installation of a lining in the 42" force main. The lining will be done on the straight sections of pipe and Nickerson will replace the 90° elbow in the RSPS building, the header pipe out of the RSPS building, and the (4) four 45° bends in the force main with a ceramic epoxy coated pipe. Some of this pipe is already on site.

Raw Sewage Pumping Station:

- Bar screen #3 is installed. Start-up and testing of the unit is this week.



- Two of the five new RSPS pumps, piping and concrete supports have been installed. There have been some issues with vibration when the two pumps are running at lower flows. GA Fleet was on site to review investigate if the wet well level and pump operating speed changes are causing the high vibration. Wright Pierce had a structural engineer on site to evaluate the support columns with respect to the loads imposed by the new pumps.

Aeration/Blower Building:

- Two new blowers are operating.
- The three existing blowers have been removed and concrete pads demoed. The concrete pas for the final new blower is formed.
- Three sound attenuators, one for each blower, have been installed outside the building.

UV System:

- The WEDECO system has been removed from Basin 2, the TROJAN system is installed. The functional test was performed last week. When starting the system for the performance test, an exceedance occurred. The first day exceedances were due activation of the high level float in the upstream chamber causing the channel gates to lower and the lamps to turn off. This will be changed to an alarm only. The exceedance the second day was caused by TROJAN representative error.

c. Clay Hill Pump Station Generator

The generator pad has been installed. The next step is for the WPCA to purchase a generator for this site.

d. Electrical Preventive Maintenance / Arc Flash

Siemens has one building to complete the electrical preventive maintenance. This is the operations building and this work will require shut downs that need to be coordinated with the contractor work. It will be scheduled for later in the summer. The information will be provided to Tighe & Bond for the Arc Flash Study to be prepared.

Change Order Log as of 5-12-21

Copy of Change Order log for construction projects attached. This has not changed since last month. The value of Change Orders for Capital projects to date is as follows:

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

Original Value of Contract = \$ 26,751,500.00
Total Approved CO Amount = \$ 715,274.94
Contract Sum to Date = \$ 27,466,774.94
Percent of total project = 2.70%

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

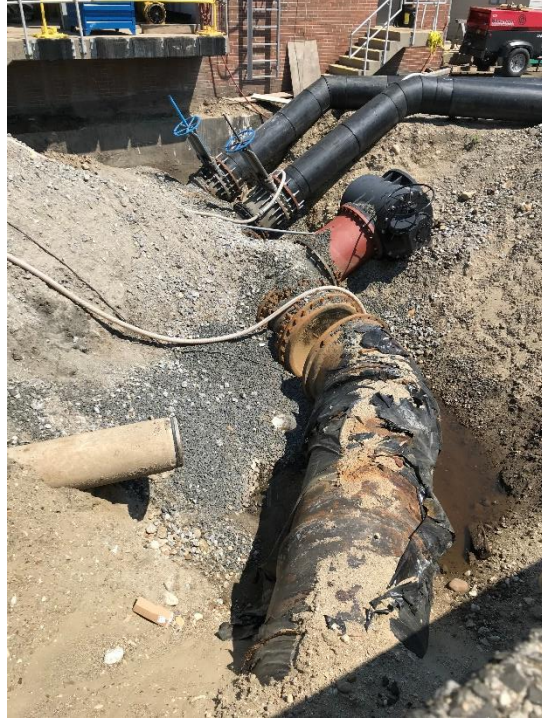
Original Value of Contract = \$1,365,121.00
Total Approved CO Amount = \$ 143,633.16
Contract Sum to Date = \$ 1,508,754.16
Percent of total project = 10.5%

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%



PLANT UPGRADE CONSTRUCTION
6-9-21



Pits that need to be opened for lining the 42" pipe. The 45° bends need to be removed. Utilities in conflict with the force main need to be capped and temporarily removed from service or relocated.



Raw Sewage Pump Station Building Repairs



Two of five new RSPS pumps



New blowers and sound attenuators



Wedeco system removed. TROJAN system in Channel 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	Approved	7	\$ 25,055.44		\$ 25,055.44		1/21/2021				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		1/21/2021				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		1/21/2021	RFI-159	8/4/2020				
43	12/17/2020	Increase Conduit Size to CP-11	\$ 1,191.24	Approved	7	\$ 1,191.24		\$ 1,191.24		1/21/2021						
44	12/22/2020	Electrical Power in Spare Parts Building	\$ 13,554.20	Approved	7	\$ 13,554.20		\$ 13,554.20		1/21/2021				H-04	10/22/2020	
45	1/11/2020	Relocate Conduit around new door 101c	\$ 5,410.15	Approved	7	\$ 5,410.15		\$ 5,410.15		1/21/2021						
	12/21/2021	Time Extension of 119 calendar days due to unforeseen underground conditions		Approved	8					3/5/2021						
48	1/21/2021	Provide Bearing Cooling Water to Influent Pumps	\$ 16,267.28	Approved	8	\$ 16,267.28	\$ 16,267.28			3/5/2021						
49	1/29/2021	Unforeseen Conditions at Headworks Excavation	\$ 19,244.40	Approved	8	\$ 19,244.40	\$ 19,244.40			3/5/2021						
					Total	\$ 715,274.94	\$ 61,479.66	\$ 374,093.02	\$ 279,702.26							

**Stamford WPCF
Biosolids Dryer Facility Repairs Project**

PCO								RFI		RFP		WCD	
CO No.	CO Date	Description	Contractor Amount	Status	Included in CO#	Total Approved Amount	Approved Date	No.	Date Issued	No.	Date Issued	No.	Date Issued
1	8/19/2020	Required wiring changes - PCO #1 cleaning Prevailing Wages - PCO #2 installation of items below presep/polycyclone - PCO #3 damaged skylight sleeves - PCO #4 crusher inlet & ID fan outlet ducts - PCO #5 HVAC Duct Add'l effort for Replacement of Modifications to	\$ 62,367.39	Approved	1	\$ 62,367.39	8/19/2020						
2	11/25/2020	Field install of silo dust collectors stiffeners - PCO #6 Process air instrumentation lines - PCO #7 electrical efforts - PCO #8 install of Roof Lightning Protection System - PCO #9 Purchase & Install of Roof Safety Rail System - PCO #10 Additional Re-	\$ 61,217.65	Approved	2	\$ 61,217.65	11/25/2020						
3	3/5/2021	Re-install Roof Lightning Protection System - PCO #9 (Listed for information in Change Order No.2/Cost included in Change Order No. 3) Adjustment to Electrical Protective Device Settings as recommended in ElectricalCoordination Study - PCO #11 Installation of lower roof hatch - PCO #12	\$ 20,048.12	Approved	3	\$ 20,048.12							
		Total	\$ 143,633.16			\$ 143,633.16							

