

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

The regular monthly meeting of the Board of Sewer Commissioners was held on Wednesday, September 25, 2013, in Conference Room "A" of the Parsons Complex, 70 West River Street. Chairman Carroll called the meeting to order at 7:00 p.m.

COMMISSION MEMBERS PRESENT: Chairman Robert Carroll, Commissioner Lee Cooke, Commissioner Edmund Collier and Commissioner Bradford Hubler

OTHERS PRESENT: Consultant Raymond Macaluso, of Westcott and Mapes, Inc. and James Cooper, Superintendent of Wastewater

EXCUSED: Vice-Chairman Donald Anderson

Chairman Carroll asked if there was anyone who was a resident, taxpayer, or elector that would like to address the Commission under Citizen's Comments and reminded everyone that they are limited to three minutes.

CITIZEN'S COMMENTS

None

PETITIONS ACCORDING TO DATE & TIME THEY WERE SUBMITTED

None

NON-CONFORMING APPLICATIONS (PETITIONS)

None

TABLED APPLICATIONS

None

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

WESTCOTT AND MAPES, INC.

A. Indian River Interceptor

Mr. Macaluso reported the milling and final paving of CT162 New Haven Avenue from Pond Point Avenue east to Manny's Luncheonette under the City Wide Program would begin this week.

Indian River Interceptor Replacement, Phase 2 - ReBid

Mr. Macaluso reported that the Contract Agreement for the Shadyside Lane Easement Restoration has been processed through the City Departments and a Notice to Proceed will be issued to Don's Landscaping & Tree Service, LLC of Orange, CT once a Purchase Order is issued.

He further reported Contract Plans for the Sanitary Sewer installation are being finished and will be advertised in November.

B. High Street Sanitary Sewer Upgrade

No Change

C. New Haven Avenue/Rosemary Court/Grove Street Infill

Mr. Macaluso reported that Camputaro & Son Excavating Co. completed permanent pavement installation on New Haven Avenue west of Grove Street following installation of the mainline sanitary sewer, building laterals, and sanitary sewer force main discharge at Anderson Avenue.

He further reported that Camputaro's subcontractor, United Concrete Products, delivered and installed the Grove Street Pump Station valve vault and generator building base on September 12, 2013.

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

Commissioner Cooke asked Mr. Macaluso what was the status of the road closure on New Haven Avenue. Mr. Macaluso responded that the contractor should have both lanes of traffic open by the end of October.

Mr. Macaluso reported that Camputaro submitted an alternate proposal to reconstruct Grove Street pavement structure in lieu of milling and paving for consideration by the Sewer Commission. After review by Westcott and Mapes, Inc., Mr. Macaluso respectfully requested approval of the Contractor's proposal to reconstruct the Grove Street pavement structure full depth, for a net increase of approximately \$4,546 to the Contract Amount after deduction of the unused pavement restoration item quantities allocated for this location.

Chairman Carroll asked for a motion to approve change order no. 1 in the amount of \$4,546 to reconstruct Grove St in lieu of milling and paving. Commissioner Cooke made the motion to approve change order no. 1 and Commissioner Hubler seconded the motion. Being no discussion the motion passed unanimously.

The Contractor's Application for Payment No. 6 has been reviewed and certified by Westcott and Mapes in the amount of \$263,603.96, and Mr. Macaluso respectfully requested approval of payment to Camputaro.

D. Infill Project No. 1

Mr. Macaluso reported that Complete Construction Co. has installed the new 8" PVC sanitary sewer on Seabreeze Avenue across Chapel Street to MH Sta 7+20 at New Haven Avenue. Complete is now proceeding with 8" PVC sanitary sewer installation down New Haven Avenue toward Dunbar Road.

Chairman Carroll asked Mr. Macaluso about the paving of New Haven Avenue from Pond Point Avenue to Manny's Restaurant. Mr. Macaluso responded 2 days.

Mr. Macaluso informed the Commission that the bus route is open on Seabreeze Avenue and Chapel Street.

Mr. Macaluso reported that Complete Construction submitted a request for a change order to increase the contract amount for Item No. 11a. Temporary Support and Protection of Utilities to compensate them for the cost of additional work related to supporting an unanticipated AT&T utility duct crossing on Seabreeze Avenue at Sta 6+98±. After review by Westcott and

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

Mapes, Inc., Mr. Macaluso respectfully requested approval of the Contractor's request for an increase of \$16,000 to item No. 11a.

Chairman Carroll asked for a motion to approve this request to compensate Complete Construction for the additional work related to supporting the AT&T utility duct. Commissioner Collier made the motion to approve this change order with Commissioner Cooke seconding the motion. After some discussion about utility companies not being responsive to requests for utility location information and whether or not the city has any recourse the motion passed unanimously.

Mr. Macaluso reported that Complete Construction submitted a proposal to install alternate landscape plantings, as requested by the #61 Roller Terrace property owners, along the private sanitary sewer easement, and to remove and replace existing (arborvitae) plantings at #4 Kerry Court. After review by Westcott and Mapes, Inc., Mr. Macaluso respectfully requested approval of the Contractor's proposal to provide the above plantings, for a net Contract increase of \$1,200.00.

Chairman Carroll asked for a motion to approve Complete Construction's request to install alternate landscaping plantings in the amount of \$1,200.00. Commissioner Cooke made a motion to approve this request in the amount of \$1,200.00. Commissioner Collier seconded the motion. Being no discussion the motion passed unanimously.

He further reported that Complete submitted an alternate proposal to reconstruct Seabreeze Avenue and Kerry Court's pavement structure in lieu of milling and paving, as authorized by Bruce Kolwicz, Director of Public Works, for consideration by the Sewer Commission. After review by Westcott and Mapes, Inc., Mr. Macaluso respectfully requested approval of the Contractor's proposal to reconstruct Seabreeze Avenue and Kerry Court pavement structure full depth, for a net increase of approximately \$8,820 to the Contract amount after deduction of the unused pavement restoration item quantities for this location.

Chairman Carroll asked for a motion to approve Complete Construction's request to reconstruct Seabreeze Ave and Kerry CT in lieu of milling and paving as authorized by Bruce Kolwicz. Commissioner Hubler made the motion to approve with Commissioner Collier seconding the motion. Commissioner Cooke asked Mr. Macaulso if there was enough money in contingency to cover these costs. Mr. Macaluso responded yes. After some discussion about the cost savings in reconstructing the roads during sewer construction the motion passed unanimously.

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

Mr. Macaluso further reported that W&M submitted the approved Riveredge Drive as-built drawings for the Commissions' acceptance.

The Contractor's Application for Payment No. 9 has been reviewed and certified by Westcott and Mapes in the amount of \$81,464.43, and Mr. Macaluso respectfully requested approval of payment to Complete Construction Co.

E. Infill Project No. 2

Mr. Macaluso reported that Westcott and Mapes' subcontractor, General Borings, Inc., completed subsurface boring investigation work on Plains Road and Raton Drive, and were currently conducting soil boring investigation on High Street and Wilson Street. He further reported that Planning & Zoning CAM, and Inland Wetland permitting application would be filed by next month.

Consulting Engineer's Report

Mr. Macaluso reported at the next month's Sewer Commission meeting, he will be presenting future Sanitary Sewer Projects based on the approved Capital Improvement Plan for discussion and consideration. Mr. Macaluso explained the procedure for the Capital Improvement Plan consideration of new projects for the coming year.

AECOM TECHNICAL SERVICES, INC.

Chairman Carroll presented the following report from AECOM to the Commissioners.

A. West Avenue and Gulf Pond Pump Stations

Warranty work completed and in progress has been at both West Ave P.S. and Gulf Pond P.S:

- As reported last month:

"CHN followed up with warranty work to inspect and attempt repairs on the West Ave Pump #4 leak at the suction 90° bend. Unable to repair the leak but ordered materials in order to do so. The materials are subject to arrive in approximately 8 – 10 days. At that time the repairs will be scheduled."

Materials arrived and CHN successfully completed this work last week.

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

- As reported last month :

Addison (electrical sub) was on site at Lou L's request to investigate a power phase reversal problem which has caused some damage to a pump shaft as well as to one of the grinder motors. Data and documentation we have had on this recently indicate this is a power company issue and not a construction issue. AECOM and CHN will be following with a report.

AECOM has now followed with emails and a letter report, dated September 12, 2013 (copy attached to the minutes) to Jim Cooper that summarizes all findings on site as well as providing the City with supportive information that the power phase reversal was a UI issue and not a previous construction issue, as well as documenting from startup records, that the previous UI phase of power was in fact proper (the reverse) prior to the incident. As a result, Jim Cooper has been in contact with their UI account representative and is formulating an evidential memo along with cost of repairs to them.

CHN's supplier/subcontractor, Allagash, will be performing warranty replacement parts/install on the pump discharge check valve cushioning devices at West Ave. This need was found and reported to us by Jim during the pump #4 work (reported above). This is being scheduled for later this week.

As reported last month:

"CHN and Knapp are preparing the final wiring record documents and a CD of this final control program for AECOM's review. When final, it will be given to Jim for future use/record (i.e., a spare program). (Note this was going to be done last month, but some final adjustments made by Knapp in our last month's report needed to be included)"

AECOM now has this under final review.

Record drawings are being finalized between CHN and AECOM and should be ready next month to provide to Jim Cooper.

B. Welchs Point and Rock Street Pump Stations

The design for this project is complete and awaiting a schedule for approval process to advertise the project for bids. As this was a part of the Facilities plan, and required by DEEP to be constructed but did not fit in the prior Facilities Plan bond authorization, we are working

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

with Jim to provide information so that it may be put forth as a Capital Improvement project, to be put before the Board of Aldermen. Additionally it could be submitted again to DEEP for Clean Water Fund consideration. Jim has indicated to us that he continues to remind the Mayor that the City is obligated to do this project (combined project, both stations as designed) as well as the serious infrastructure need at both stations to do them.

USER FEE REVISIONS/ASSESSMENT REVISIONS

None

COMMITTEE REPORTS

None

WASTEWATER REPORT

Mr. Cooper presented the following report to the Sewer Commission. He stated he has been working on trying to see if there is grant money available to get some of our old generator and transfer switches replaced. Ray Macaluso, Robin and I put together some projects for consideration by the Clean Water Fund and I was also in touch with a group within the City looking into hazard mitigation for future storm and flooding issues to protect City buildings and installations to see if there is money available through FEMA or other resources for generators transfer switches and some kind of protection for our plants and pump stations in low lying areas as well as other city buildings. Mr. Cooper also presented the letter from Charlie Smith of AECOM as follows:

Construction Funding/Authorization for Rock Street/Welchs Point Pump Stations Project

On April 7, 2008 the Milford Board of Aldermen approved an ordinance for the construction of this project. This is a facility plan project approved by DEEP (DEP at the time). As discussed at previous Board of Sewer Commissioner meetings, a priority list of needed projects was to be formalized. In prior discussions, Mr. Macaluso has previously reported that "Robin at the request of the Mayor and after speaking to the Finance Director put this in the Capital Improvement Plan in case there is additional funding required after the Facilities Plan funding is depleted." Facilities Plan funds from the prior bond authorization for Facility Plan projects are depleted to the extent that this project cannot be bid/constructed without further funding authorization. This project should move forward as part of the CIP with the Mayor's approval and onto a Board of Aldermen vote.

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

As reported in AECOM's September 25, 2013 Sewer Commission's report:

B. "Welchs Point and Rock Street Pump Stations:

The design for this project is complete and awaiting a schedule for approval process to advertise the project for bids. As this was a part of the Facilities plan, and required by DEEP to be constructed but did not fit in the prior Facilities Plan bond authorization, we are working with Jim to provide information so that it may be put forth as a Capital Improvement project, to be put before the Board of Aldermen. Additionally it could be submitted again to DEEP for Clean Water Fund consideration. Jim has indicated to us that he continues to remind the Mayor that the City is obligated to do this project (combined project, both stations as designed) as well as the serious infrastructure need at both stations to do them."

Need for this project is eminent as the existing stations are very aged mechanically/electrically/ and some structurally (Welchs Point). Welchs Point also requires odor control upgrade. The upgrades to both stations are similar to the recently completed West Avenue and Gulf Pond pump stations, except smaller in scale, whereby old open extended shaft pumps will be replaced with dry pit submersibles with VFDs and addition of sewage grinders (Welchs Point), and concrete structural repairs (Welchs Point). Additionally, however these stations need to have new standby generators/controls as well as the pump capacity increased from the existing.

Plants

Both Wastewater Plants performed well in the month of August producing a good effluent.

At the Housatonic Plant normal monthly maintenance was performed. Wastewater had to replace a drive motor on the grit classifier/washer.

At the Beaverbrook Plant normal monthly maintenance was performed. Work is being done to the blower on the odor control system.

Collection System
Pump Station

Scheduled maintenance was performed at the following pump stations: Ryder Woods and Roses Mill Road Pump Stations.

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

Other Duties Performed by Pump Station Crews:

1. The number 1 pump was replaced and a new impeller installed in the number 2 pump at the Cricklewood Pump Station
2. Number 1 pump at the Viscount Drive Pump Station was removed from the wet well to allow work on a broken mounting bracket.
3. The number 3 pump at Rogers Avenue Pump Station was removed to be rebuilt.
4. One of the discharge valves was replaced at the White Oaks Pump Station.
5. Three wet wells were cleaned and two clogged pumps cleared around the system.
6. All generators were tested and ground maintenance was performed.

There were four (4) alarms at pump stations in August: Three (3) for power outage and one (1) for control power.

Sewer Maintenance

Sewer Maintenance crews answered twelve (12) complaints.

Sewer Maintenance crews performed scheduled maintenance at three (3) trouble sites citywide: #33, #39 and #40

Scheduled maintenance was performed by Sewer Maintenance crews on the following equipment: All pumps and hoses, greased both sewer jet trucks and swept garage.

There were four (4) sewer excavations in August: 275 Mary Ellen Dr, 8 Mayfair Close, 132 North St. and 997 East Broadway.

Other Duties Performed by Sewer Maintenance Crews:

1. Cleaned and organized manhole ring and frame storage area at the Housatonic Plant.
2. Jetted Surf Avenue and Shell Avenue areas (septic and sand issues).
3. Cut roots in Utica/Windy Hill area.
4. Smoke tested Milford Police Headquarters and located sewer leak in men's locker room.
5. Jetted Bridgewater Avenue Extension to remove more sand.
6. Slurry wet wells at Anderson Avenue and Viscount Drive to remove solids.

A total of 18,650 ft were jet flushed, 5,485 ft were TV'ed with our standard TV equipment and 2,065 ft were TV'ed with the spy eye camera. We also hand rodded 975 ft, used the hydraulic jet root cutter to relieve 1,325 ft and root treated 525 ft. We smoke tested 1,610 ft and dye tested 485 ft to check for sewer connections.

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

VOTING

A. MEETING MINUTES FROM THE AUGUST 28, 2013 REGULAR MEETING

Chairman Carroll asked for a motion to approve the minutes from the August 28, 2013 regular meeting. Commissioner Cooke made a motion to approve the minutes of the August 28, 2013 meeting. Commissioner Hubler seconded the motion. The motion passed with 3 approvals and 1 abstention as Commissioner Collier was not in attendance at the last meeting.

B. PAYMENTS

Chairman Carroll asked for a motion to approve the following payment list for this month in the amount of \$401,187.14 as follows. Commissioner Collier made a motion to approve this month's payment list. Commissioner Hubler seconded the motion. The motion passed unanimously.

To Westcott and Mapes, Infill Project No. 1, P.O. 11-0057568-001, Account No. 0026-4154-0047-4993-0000 in the amount of \$9,990.00;

To Westcott and Mapes, New Haven Ave Infills/Rosemary CT/Grove ST, P.O. 12-0059562-001, Account No. 0026-4154-0038-4993-0000 in the amount of \$13,933.75;

To Westcott and Mapes, Infill Project No. 2 – Design, P.O. 13-0062047-001, Account No. 0026-4154-0048-4993-0000 in the amount of \$32,195.00;

To Complete Construction, Infill Project No. 1, P.O. 13-0061142-001, Account No. 0026-4154-0047-4994-0000 in the amount of \$81,464.43;

Ralph Computaro & Son Exc., Rosemary CT/Grove ST/New Haven Ave Infill, P.O. 13-0062045-001, Account No. 0026-4154-0049-4994-0000 in the amount of \$263,603.96.

The total of the approved Payment List for the September 25, 2013 meeting is: \$401,187.14.

CHAIRMAN'S REPORT

There were seven administrative approvals this month:

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

1. 65 – 145 Furniture Row – Tenant Fitup Lumber warehouse and sales – This application is to renovate an existing warehouse and office to accommodate Downes & Reader Lumber warehouse and sales. This property is allowed 17,700 gpd. The proposed water usage is 1,068.93 gallons per day.
2. 48 aka 86 Pond Point Avenue – Revised – Residential Units – This application is to construct a residential community consisting of 9 one bedroom units and 13 two bedroom units plus the existing house. This application is an 8-30G AHD. This was previously approved with a different number of residential units.
3. 121-123 West Main Street – Revised – Metro Crossing Complex – This application is to connect 48 apartment units and office space consisting of 1,620 SF to the sewer system. This property is in the MCDD sewer zone and is allowed 10,935 gallons per day. The proposed project will use 4,308.60 gallons per day which is within their allotment.
4. 1201 Boston Post Road – “Yum Yum Bubble Tea and Crepes” – This application is to renovate a kiosk #9252 to include a sink. They will have a hand sink and a kitchen sink. The proposed water usage for this space is 360 gallons per day. They are classified as a class 3 so they will have to install an AGRU under the kitchen sink. All the kitchen sink plumbing then goes into the Mall’s exterior grease traps. The mall is allotted 112,290 gallons per day and they are proposing to use 80,459 gallons per day.
5. 326 West Main Street – Expand Daycare – This application is to expand an existing daycare for 40 additional children each day plus 10 additional teachers. They were previously approved for 147 children and 37 teachers. This property is allowed 8,640 gallons per day and they are proposed to use 1,488 gallons per day.

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

6. 1201 Boston Post Road – “The Kase Store” – This application is to renovate an existing space at the mall to be a cell phone case store. The proposed water usage for this space is 60 gallons per day. The Mall is allotted 112,290 gallons per day. The proposed water usage for the entire mall is 80,519 gallons per day which is below their allotment.

7. 755 Boston Post Road – “Sangini Beauty Parlor” – This application is to renovate an existing space to accommodate a beauty parlor. This beauty parlor does not have hair washing stations. They cut hair, thread eyebrows, perform facials and hair waxing. The proposed water usage for this space is 115 gallons per day. This property is allowed 375 gallons per day.

Chairman Carroll received the following as-builts for the recently completed sewer projects.

S-1366 – East Broadway Interceptor Replacement Sheet 1 of 3 – From Station 0+00 to station 10+00.

S-1367 – East Broadway Interceptor Replacement Sheet 2 of 3 – From Station 10+00 to Station 20+00.

S-1368 – East Broadway Interceptor Replacement Sheet 3 of 3 – From Station 20+00 to Station 29+22.

S-1369 – Riveredge Drive Sheet 1 of 1 – From Station 0+00 to Station 3+21.3 through an Easement to the City of Milford from Gulf Pond Lane.

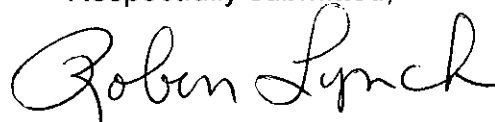
Chairman Carroll asked for a motion to accept the new sewer mains. Commissioner Cooke made a motion to accept the new sewer mains. Commissioner Collier seconded the motion. The motion passed unanimously.

CITY OF MILFORD
SEWER COMMISSION MEETING MINUTES
SEPTEMBER 25, 2013

Being no further business to discuss

Chairman Carroll asked for a motion to adjourn the meeting at 7:28 p.m. Commissioner Cooke made a motion to adjourn the meeting at 7:28 p.m. Commissioner Collier seconded the motion. The meeting adjourned at 7:28 p.m.

Respectfully submitted,

A handwritten signature in cursive script that reads "Robin Lynch".

Robin Lynch
Recording Secretary
Sewer Commission



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860 283 5500 tel
860 283 5777 fax

September 12, 2013

Mr. James Cooper
Wastewater Superintendent
1255 Oronoque Road
Milford, Ct 06460

Subject: Gulf Pond Pump Station/ Phase reversal

Dear Mr. Cooper:

This is a follow-up to our e-mail to you and Lou of August 29, 2013 in regards to the power phase reversal issue of July 29, 2013. This was first reported to CHN and then to us thru them on August 20, 2013, from an e-mail from Lou which outlined the problems which resulted from UI changing out some taps on a transformer. (although Lou, we believe, had contacted Brian Robinson (VFD supplier) a few weeks earlier and discussed the issue of pumps and equipment running backwards etc.) Known damage reported to us was breaking of a pump shaft and burning out of one of the grinder motors as a result of the incident. Nonetheless, in reviewing all the e-mails surrounding this incident, it appears, the earlier reports on this, thought the issue was an incorrect phasing on the load side of the automatic transfer switch (ATS), therefore leading one to believe that perhaps incorrect phase cabling from the load side of the ATS was done in the project construction. This was found to not be the case.

In response to this issue, CHN had their electrical contractor (Addison Electrical Contractors, LLC) immediately come to the station on August 21, 2013. Both Pat Addison and Joe evaluated the situation and checked all 3-phase equipment with the findings that all equipment was running in reverse while on utility power (line side from UI). They also shut down the main switch and allowed the station to run on generator power and all equipment ran in the proper direction. Addison detailed all of their findings in their letter of August 22, 2012, which CHN forwarded to you.

This incident was totally caused by UI's work which changed the line side of the original power phasing, and not a result of the construction project. We believe the initial confusion on this issue stemmed from the ATS, where this was the location where Pat changed the cabling, but on the line side of the ATS; the station or load side was proper as constructed. The below is what Pat had additionally reported to us in CHN's/AECOM's investigation of this (which is no different than what was in their letter, referenced above):

"As far as the written indication of rotation, we based nothing on that, my review and reporting was based on testing the rotation with a meter on the utility power and generator power, the towns electrician witnessed this with us and agreed that the utility power was incorrect. Also witnessing the incorrect rotation of motors and discussion of recent problems like the sump pump not being able to remove water in the past few weeks. I checked the utility power rotation on the line side of the transfer

switch, then ran the generator and checked the rotation on the generator. All the testing was done with a rotation meter, I was not referencing any written indication as it would not be viable to do so as I was not there to witness how the leads were connected or if it referenced from the front of the gear or back side of the gear, I could care less as to what was written, we performed our own testing and our conclusion is based on our actual testing with a meter. What we found is that the station was running in reverse (all motors were running in reverse) while on utility power. We then switch to generator power and all motors ran the correct rotation while on generator. They are correct that the grinder is set up to run in reverse when clogged but only for a set time usually about 30 sec., so with the normal power running the grinders in reverse the grinders would be pushing debris to the sides and binding the grinder, once high torque is detected the grinder would reverse itself for about 30 sec. to clear the clog, but under the incorrect utility reversal it would only run for about 30 sec. in the correct rotation then switch back to the wrong rotation again. It would be only a short duration before the grinder binds itself while running in reverse for any length of time. To correct the problem the utility power connections to the transfer switch was then swapped to match the requirements of proper station rotation, the generator power was correct and no action was taken to change anything with the generator connection. After the utility power rotation was swapped with the town's electrician we verified the correct rotation of all motors, both while running on VFD and then on bypass for each motor, we also witnessed the fans in both the electrical room and wet well and found them now running in the correct direction. Be very clear that the cables that we changed to correct rotation were from the utility line connection to the ATS, we changed the utility leads at the ATS due to being able to shut down the main breaker and ease of accessing the connection, it could have been done at the main breakers but access would have been more difficult".

As we referenced in our August 29, 2013 e-mail (first referenced above in our opening sentence of this letter) we have supportive information for you to show the power company that they reversed the phase on their line side:

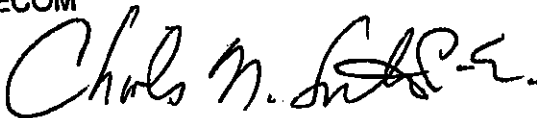
- Certainly the grinders have not run in reverse for the last year and a half. They would have bound up pushing solids backwards rather than with the flow. We have startup reports of March 22, 2012 where their operation was checked out by the vendor witnessed by us. (By the way to make it clear; yes the grinders are designed to run in reverse upon a jam alternating forward/reverse, but that is from its own control system where there is a momentary stop, before reversing direction... quite a difference to suddenly reversing while in a forward motion... hence the motor burn out).
- On March 29, 2012 AECOM videoed the initial run of the grinders when the station was put on line with flow. That video clearly shows the proper rotation of the grinders. I would attach it here but it is 60MB file, but if you want a copy, we can make one and mail it to you.
- On March 5, 2012 we tested the main pumps with Hayes pump. This included a check of proper phase when in the bypass mode (line side of utility power). You may recall that day the ECO2 blow off valve went off, but your 3 phase sump pump handled the mess (evidence of proper utility phase).
- Startup reports from Brian Robinson of March 15, 2012 and October 22, 2012 for the VFDs, both of which we attended in the field along with your operators and performed standard protocol with Brian on proper 3-phase checks when in by pass mode.

- Startup reports of February 25, 2013 which were the testing and balancing work on all of the ventilation fans. Certainly the system couldn't be properly tested and balanced if the fans were running in the wrong direction. Also all this time the exhaust fan in the electrical room was not blowing down! (an obvious situation Pat encountered on his August 21, 2013 visit)
- Our e-mail to Lou of July 9, 2013, (which although that was in regards to some follow-up things on Knapp's panel) it references Lou's work on the low voltage repairs he was having done on the generator which had caused the sump pump to fail (low voltage; tripped breaker) and the station had a few feet of water in the lower level since the ECO2 blow off valve had activated the weekend of July 6-7, 2013, however Lou reported that after the breaker was re-set the "sump pump was working fine"... evidence of proper rotation.

All of this history well documents the proper phase of utility power prior to this July 29, 2013 incident.

Sincerely,

AECOM



Charles N. Smith, P.E.
Project Manager

cc: file
John Russo, CHN