

**CLIFTON PARK WATER AUTHORITY
BOARD MEETING**

**Tuesday, December 12, 2023
7:00 PM**

AGENDA

- Approve Minutes of November 14, 2023 Meeting

Privilege of the Floor

Old Business

- Peacock Glen Property

New Business

- Water Tank Inspection Report
- Resolution Commending Don Austin for Thirty-One years of Service

Other Business



Memo

To: Don Austin, Administrator
Chris Wheland, Administrator

From: Brock Juusola, P.E.

Copy: File

Date: November 16, 2023

Re: Clifton Park Water Authority – Tank Inspection Report Summary and Recommendations

The Clifton Park Water Authority (CPWA) engaged with the Pittsburg Tank & Tower Group (PTTG) to complete a survey / inspection of the Miller Tank, the Blue Spruce Tank, the Barney Road Tank and the Boyack Clearwell. The survey/inspection included a physical inspection of the tank exterior and accessible dry interior areas. The interior wet areas were inspected utilizing Remote Operated Vehicle (ROV) survey equipment. PTTG provided a written report for each tank which documented the structural, sanitary, safety and coating conditions for both the interior and exterior of each tank. These reports included photographs of the inspection findings along with digital video files of the ROV survey of the interior of each tank.

Overall Report Comments:

The reports for each of the four tanks included conclusions / recommendations that Delaware disputes. These are as follows:

- 1) Each tank report recommends installing ladders and associated fall protection within the tank interior. Regulatory standards do not require interior ladders in cold climates as any ice formation within the tank will damage the ladders. Delaware does not recommend interior ladders be installed in any of the CPWA tanks.
- 2) Each tank report notes the lack of tank grounding and recommends that the tanks be grounded. Section 7.3.7.3 of NFPA 780, Standard for the Installation of Lightning Protection Systems requires the following tank grounding methods

“A metal tank shall be grounded using one or more of the following methods:

The tanks shall be connected without insulated joints to a grounded metallic piping system.

The vertical cylindrical tank shall rest on the earth or concrete and shall be at least 20 ft in diameter, or it shall rest on bituminous pavement and be at least 50 ft in diameter.

The tank shall be grounded through a minimum of two grounding electrodes, as described in Section 4.12, at a maximum of 100 ft intervals along the perimeter of the tank.”

The three standpipe tanks all rest on a combination of the earth and concrete and are in excess of 20 ft in diameter. While as-built drawings of the Miller Tank are not available, the age of the tank suggests it was constructed in accordance with modern standards and the tank is grounded via grounded metallic piping system. As a result, it appears that all tanks are sufficiently grounded and additional grounding is not warranted.

- 3) Each tank report notes the lack cathodic protection and recommends adding cathodic protection. Recommended Standards for Water Works requires “proper protection shall be given to metal surfaces by paints or other protective coatings, by cathodic protection device, or by both”. AWWA D100 requires that dissimilar metals be electrically isolated from carbon steel tank components. Given that the ROV inspections of the tanks do not show any notable galvanic corrosion or show the presence of dissimilar metals within the tank, the need to add cathodic protection is not warranted. It is recommended that adding cathodic protection be considered on a case-by-case basis when each tank is being recoated.

A summary of the key findings along with recommendations for each tank are as follows:

Miller Tank

Background

The Miller Tank is a 1.5 million-gallon hydropillar welded carbon steel tank. The tank was constructed in 2003 and has the original coating system.

PTTG Inspection Report

Coating System:

The PTTG report notes that the exterior coating system is generally good condition and recommends re-evaluating the exterior coating system in the next inspection cycle. The report recommends that the tank interior be recoated.

Tank Safety:

Delaware Engineering, D.P.C.

The PTTG report notes OSHA compliant ladders and ladder resting platforms. The report does recommend installing/replacing the cable type safety device. The report recommends posting Fall Protection Required and Confined Space Entry signs as applicable through the tank. The report also recommends locking openings and hatches to prevent unauthorized access.

Sanitary Protection:

The PTTG report recommends installing a flapper valve or screen on the overflow piping system.

General Recommendations:

The PTTG report recommends minor site grading to ensure the soil materials do not interact with the carbon steel sections of the tank along with minor tank sealing be conducted. The report further recommends the site be fenced and no trespassing and warning signs be posted.

Delaware Recommendations

Long-Term Recommendations: While the exterior of the tank appears to be in good condition, well placed coating systems typically last 25-30 years. It is often advantageous to paint the tank exterior prior to failure as often the tank can be overcoated versus a full sandblast of a failed coating system. Given that the coating system is 20 years old and considering the interior condition of the tank, it is recommended that long-term planning for a coating system begin. Fencing, tank accessories and additions along with potentially adding cathodic protection system to bring the tank into compliance with the current standards should be considered at the time of recoating.

Short-Term Recommendations: The report was unclear on the details of the fall protection systems. It is recommended that the fall protection systems and procedures along with the location of applicable signage be reviewed and applicable updates be made to ensure full OSHA compliance. All applicable access hatches, etc. should be locked to prevent any unauthorized access. Any site work required to minimum tank corrosion should be conducted in the near-term. Adding a flapper valve or screen on the tank overflow along with tank cleaning is also recommended.

Blue Spruce Tank

Background

The Blue Spruce Tank is a 2.0 million-gallon ground storage tank constructed of welded carbon steel tank. The tank construction date is unknown. The tank is reported to have undergone a complete lead paint removal and a full recoating in 2001.

PTTG Inspection Report

Coating System:

Delaware Engineering, D.P.C.

The PTTG report notes that the exterior coating system in the early stages of failure and recommends preparing, spot priming and an overcoat of the tank exterior. The report recommends that the tank interior be recoated.

Tank Safety:

The PTTG report notes that the tank vent is not equipped with a pressure-vacuum relief mechanism. The report notes that various components of the ladder and fall protection system are not OSHA compliant and recommends changes to the shell ladder and the cable type safety device. The report also recommends installing handrails on the top of the tank. The report recommends posting Fall Protection Required and Confined Space Entry signs as applicable through the tank along with locking openings and hatches to prevent unauthorized access.

General Recommendations:

The PTTG report recommends minor site grading to ensure the soil materials do not interact with the carbon steel sections of the tank along with minor tank sealing be conducted. The report further recommends that no trespassing and warning signs be posted.

Delaware Recommendations

Long-Term Recommendations: Given that the coating system is 22 years old and considering the exterior and interior condition of the tank, it is recommended that long-term planning to recoat the tank begin. Tank accessories and additions along with potentially adding cathodic protection system to bring the tank into compliance with current standards should be considered at the time of recoating.

Short-Term Recommendations: The tank vent should be upgraded to a pressure vacuum screened vent as soon as possible. Even relatively minor negative pressures resulting from a clogged vent can cause significant damage and overall tank failure. The report was unclear on the details of the fall protection systems. It is recommended that the fall protection systems and procedures along with the location of applicable signage be reviewed and applicable updates be made to ensure full OSHA compliance. All applicable access hatches, etc. should be locked to prevent any unauthorized access. Any site work required to minimum tank corrosion should be conducted in the near-term. Tank cleaning is also recommended.

Barney Road Tank

Background

The Barney Road Tank is a 1.0 million-gallon ground storage tank constructed of welded carbon steel tank. The tank was constructed in the 1960s. There is no record of the tank being recoated since it was constructed. The Barney Road tank does not match the hydraulics of the remainder of

the CPWA system, with the tanks elevation being lower than the other tanks in the system. The tank operates by filling via gravity during low flow demands. Water is then pumped from the tank into the higher pressure distribution system during higher demand periods.

PTTG Inspection Report

Coating System:

The PTTG report notes that the exterior and interior coating systems have failed and recommends that the entire tank be fully stripped and recoated.

Tank Safety:

The report notes that various components of the ladder and fall protection system are not OSHA compliant and recommends changes to the shell ladder along with installing/replacing the cable type safety device and adding a lockable ladder guard. The report recommends posting Fall Protection Required and Confined Space Entry signs as applicable through the tank. The report also recommends locking openings and hatches to prevent unauthorized access.

General Recommendations:

The PTTG report recommends minor site grading to ensure the soil materials do not interact with the carbon steel sections of the tank along with minor tank sealing be conducted. The report further recommends that no trespassing and warning signs be posted.

Delaware Recommendations

Long-Term Recommendations: Given that the coating system has fully failed, it is recommended that the CPWA undertake a capital project to address this tank. Given the differing hydraulics of this tank versus the remainder of the system it is recommended that additional engineering be undertaken to determine if the existing tank should be refurbished while maintaining the existing hydraulic limits or replaced with a tank that matches the overall system hydraulics. The engineering evaluation should also consider the potential / impacts of removing the Barney Road Tank from the system. In the event that the existing tank is refurbished, tank accessories and additions along with potentially adding cathodic protection system to bring the tank into compliance with current standards should be considered as part of the tank refurbishment project.

Short-Term Recommendations: The report was unclear on the details of the fall protection systems. It is recommended that the fall protection systems and procedures along with the location of applicable signage be reviewed and applicable updates be made to ensure full OSHA compliance. All applicable access hatches, etc. should be locked to prevent any unauthorized access. Any site work required to minimum tank corrosion should be conducted in the near-term. Given the need for an immediate larger capital project, tank cleaning is not warranted at this time.

Boyack Clearwell

Background

The Boyack Clearwell is a 0.6 million-gallon ground storage tank constructed of welded carbon steel tank. The tank was constructed in the early 1970s. The tank was refurbished with a new cover and recoated in 2012.

PTTG Inspection Report

Coating System:

The PTTG report notes that the exterior coating system has failed and recommends an overcoat of the tank exterior. The report recommends that the tank interior be fully stripped and recoated.

Sanitary Protection:

The PTTG report recommends installing a flapper valve or screen on the overflow piping system.

Tank Safety:

The report notes that various components of the ladder and fall protection system are not OSHA compliant and recommends modifications to the shell ladder, the installation of a cable type safety device along with modifications to the handrail system on the top of the tank. The report recommends posting Fall Protection Required and Confined Space Entry signs as applicable through the tank. The report also recommends locking openings and hatches to prevent unauthorized access.

General Recommendations:

The PTTG report recommends minor site grading to ensure the soil materials do not interact with the carbon steel sections of the tank along with minor tank sealing be conducted. The report further recommends that the site be fenced and no trespassing and warning signs be posted.

Delaware Engineering Recommendations

Long-Term Recommendations: Given that both the interior and exterior coating system has failed, it is recommended that the CPWA undergo a capital project to recoat this tank. Tank accessories and additions along with potentially adding cathodic protection system to bring the tank into compliance with the current standards should be considered as part of the tank refurbishment project.

Short-Term Recommendations: The report was unclear on the details of the fall protection systems. It is recommended that the fall protection systems and procedures along with the location of applicable signage be reviewed and applicable updates be made to ensure full OSHA compliance. All applicable access hatches, etc. should be locked to prevent any unauthorized access. Any site work required to minimum tank corrosion should be conducted in the near-term. Adding a flapper

Delaware Engineering, D.P.C.

valve or screen on the tank overflow along with tank cleaning is also recommended. Given the need for an immediate larger recoating / tank improvement project, tank cleaning is not warranted at this time.



DELAWARE ENGINEERING, D.P.C.

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Albany, New York 12203

Phone: 518.452.1290
Fax: 518.452.1335

April 3, 2023

Don Austin, Water Authority Administrator
Clifton Park Water Authority
661 Clifton Park Center Road
Clifton Park, NY 12065

Subject: Knoll Top Tank Sprint Removal Inspection Report

Dear Mr. Austin

On March 10, 2023 Delaware Engineering conducted an inspection of the Knoll Top Tank to document the removal of the Sprint telecommunication equipment. This inspection compared the post-equipment removal with equipment installation plans titled "Do Macro Upgrade Site Cascade: AB76XC093" dated 1/24/2018. The inspection report is attached.

Delaware has noted the following components were not restored to pre-installation conditions:

1. Blanket materials were left behind. See Note 2 of the attached report.
2. The grounding wire that served the Sprint equipment was left in place. See Note 3 of the attached report.
3. Miscellaneous support brackets that supported Sprint equipment were left in place. See Note 4 of the attached report.
4. Conduit penetration and junction box covers which served Sprint equipment were not sealed. See Note 5 of the attached report.
5. Holes in the tank exterior cladding were not sealed. See Note 6 of the attached report.
6. The antenna mounts on the tank were left in place. See Note 8 of the attached report.
7. The paint utilized to for the areas impacted by the equipment removal does not match the color of the existing tank. The existing tank paint is Tnemec Fascinate 02GN. See Note 9 of the attached report.

If there are any questions or you need further information you can contact me at (518) 452-1290 ext 234 or via email at bjuusola@delawareengineering.com.

Sincerely,



Brock Juusola, P.E.
Senior Engineer

Encl. Clifton-park-water-authority-knoll-top-tank-sprint-removal_2023-03-10
Cc. A. McDonald-Schwartz, Delaware Engineering

Date Fri 03/10/2023

Job # 22-2617

Prepared By Annie McDonald-Schwartz

Weather

6:00 AM

21° 

Partially cloudy

Wind: 0 MPH | Precipitation: .0" | Humidity: 87%

12:00 PM

38° 

Partially cloudy

Wind: 1 MPH | Precipitation: .0" | Humidity: 54%

4:00 PM

43° 

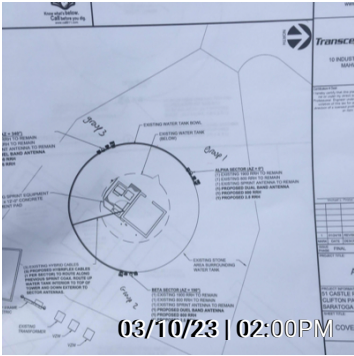
Partially cloudy

Wind: 5 MPH | Precipitation: .0" | Humidity: 46%

General Notes

1. Water tower grouping

Annie McDonald-Schwartz | 03/10/23 | 03:47PM



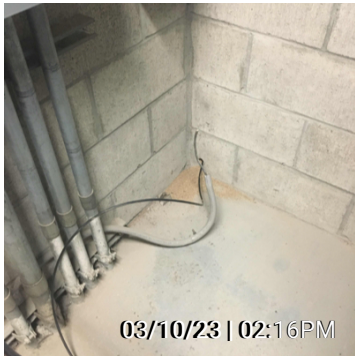
2. Items left behind from sprint

Annie McDonald-Schwartz | 03/10/23 | 03:47PM



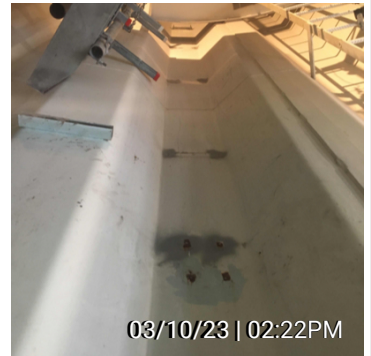
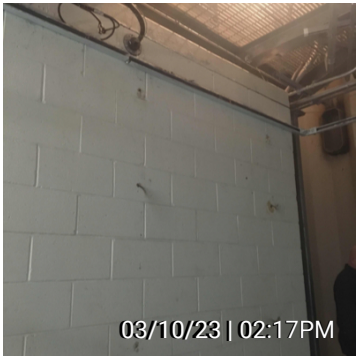
3. Grounding wire just cut and left

Annie McDonald-Schwartz | 04/03/23 | 11:11AM



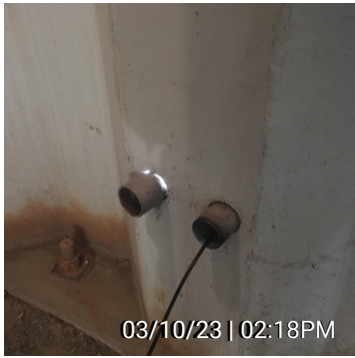
4. Wall/area that use to hold sprints equipment. Brackets left behind

Annie McDonald-Schwartz | 03/10/23 | 03:48PM



5. Pipe penetrations from sprint left. Lines just cut and left along with conduit.

Annie McDonald-Schwartz | 03/10/23 | 03:48PM



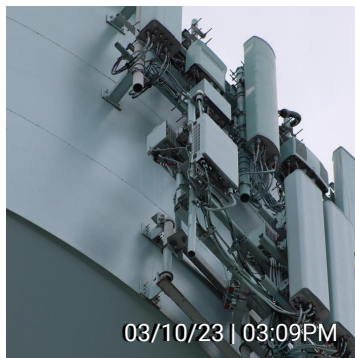
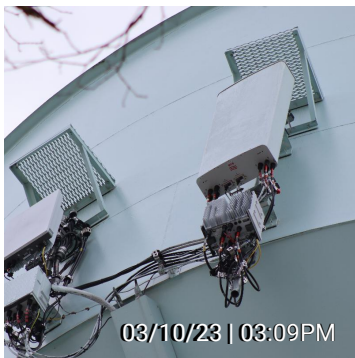
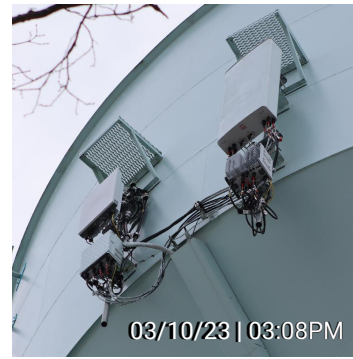
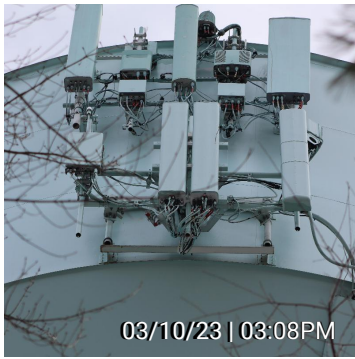
6. Unknown drill holes.

Annie McDonald-Schwartz | 03/10/23 | 03:48PM



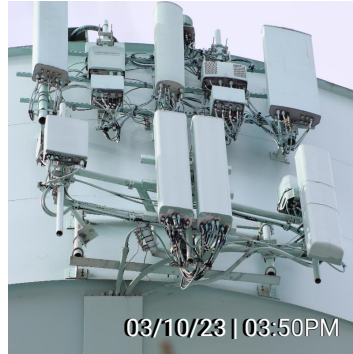
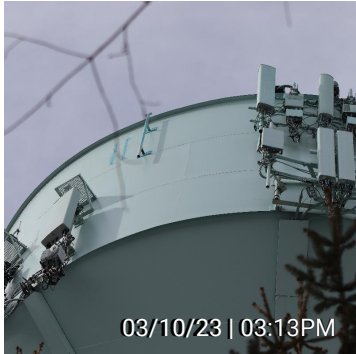
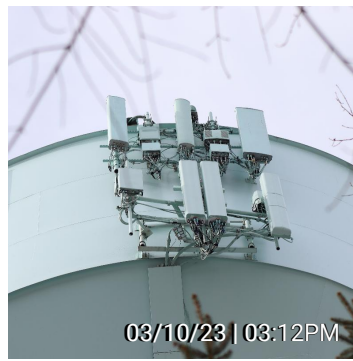
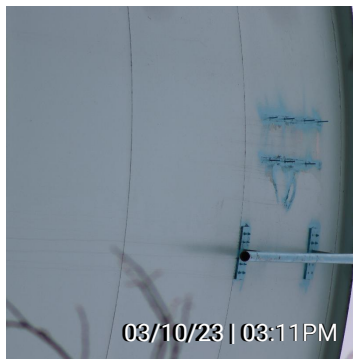
7. Cell group 1

Annie McDonald-Schwartz | 03/10/23 | 03:55PM

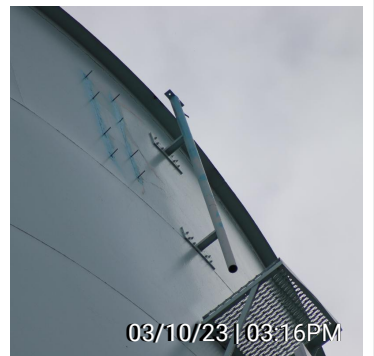
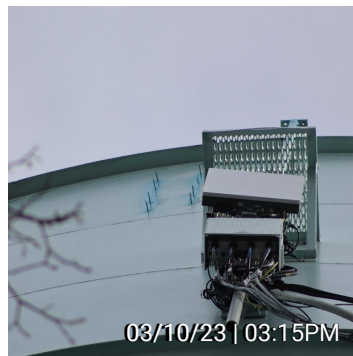
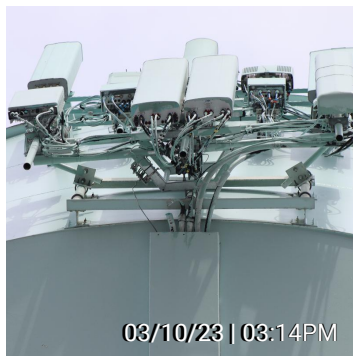
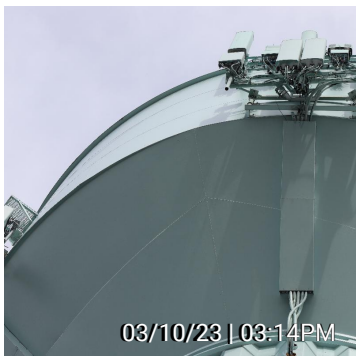


8. Cell group 2 - Sprint major equipment removed except the antenna mounts. Paint color doesn't match

Annie McDonald-Schwartz | 03/10/23 | 03:57PM



9. Cell group 3 - Spectrum major equipment removed except the antenna mount. Paint color doesn't match
 Annie McDonald-Schwartz | 03/10/23 | 03:58PM



Survey

Questions	N/A	No	Yes	Description
1. Any accidents on site today?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Any schedule delays occur?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Did weather cause any delays?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Any visitors on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Any areas that can't be worked on?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



I, Annie McDonald-Schwartz, have reviewed and completed this report.

Annie McDonald-Schwartz | 03/10/23 | 04:00PM

Clifton Park Water Authority

Resolution # _____, 2023

**Commending Donald Austin for Distinguished Service to the
Clifton Park Water Authority**

WHEREAS, Don Austin has been employed by the Clifton Park Water Authority (CPWA) since February 1992, and

WHEREAS, Don Austin has served the customers of CPWA for Thirty-One Years and Ten Months, and

WHEREAS, Don Austin has held the position of Water Maintenance Technician, Plant Operator, Deputy Administrator and Administrator, now, therefore be it,

RESOLVED, that the Clifton Park Water Authority Board of Directors hereby Honors and Commends Don Austin for over Thirty-One years of distinguished service rendered in the best interest of the customers of the Clifton Park Water Authority.

Motion to Accept: _____ Seconded: _____

Roll Call Vote

	<u>Ayes</u>	<u>Noes</u>
Mr. Gerstenberger	_____	_____
Mr. Ryan	_____	_____
Mr. Taubkin	_____	_____
Mr. Butler	_____	_____
Ms. Haig	_____	_____