

# UV DISINFECTION PROJECT UPDATE



Issue 7

September 6, 2016

## Demolition Completed, and Piping with Reactors almost fully installed.

A couple of weeks ago we saw the start of demolition of the UV room getting on it's way. Today we can see a fully cleaned out room with the new UV Reactors already attached to it's partnered piping (next page). The newly designed and purchased UV reactors, seen in these pictures are the narrow silver pieces of pipe parallel to each other. Progress will continue until all elements of the pipe chain are installed and leak tested. These reactors are the critical elements of the project, they will be holding the sensitive UV lamps that will provide that extra level of disinfection required for our segment of the river.



Our contractor is projected an early completion with the pipe and structural installation. They are expecting to complete the pipe installation along with the time consuming process of leveling and structurally binding down the system by the September 16, 2016.

This completion will enable the electricians and system controllers to begin the critical work of powering, calibrating, and communicating the UV reactors with the plants operation.

Ultimately changing the seen valves, piping, and materials into a critical treatment unit of our Plant and water system.

In our next update we will be expecting to demonstrate the complete connection of our discharge pipe gallery to be installed in the opposite wall of the seen UV room in these photographs.

We are excited to move into the next phase of water production.



By viewing the construction schedule on the next page, we begin to develop compliance timelines with the LT2 Crypto requirements this equipment and improvements were intended to meet.

With building in contingencies we are hoping we can demonstrate compliance by Thanksgiving this year.

This off course depends on maintaining our current rate of construction. And if so, we will have quite of bit to be thankful for this year.

Sequence	Action	% Complete
1	Ordering of Instruments for UV Disinfection <ul style="list-style-type: none"> <li>UV Disinfection Reactors are to be ordered preliminarily to assure equipment is received timely.</li> </ul>	100%
2	Ordering of Non-specific Materials and Equipment <ul style="list-style-type: none"> <li>Actuators, Valves, Pipe Support Materials as an example have been ordered and due for delivery.</li> </ul>	100%
3	TCEQ Construction Submittal Request <ul style="list-style-type: none"> <li>We have submitted the second information request from TCEQ and awaiting either an approval or additional information requests.</li> </ul>	100%
4	Issuance of "Notice to Proceed" to Contractor	100%
5	Ordering of Specific Materials and Equipment <ul style="list-style-type: none"> <li>Completion of full Supplies order is finalized such as specific measured and order materials for this custom installation.</li> <li>Additional Equipment as required by TCEQ has been placed on order. Awaiting delivery.</li> </ul>	100%
6	Installation of Temporary Construction Bypass <ul style="list-style-type: none"> <li>Consists of a Pipe supported channel to allow treated water to be routed around existing UV System. This off course will allow contractor to</li> </ul>	100%
7	Begin complete demolition of existing equipment	100%
8	Electrical Installation	0%
9	Instrumentation Controls Installation	0%
10	Pipe Installation with Valves and Actuators	75%
11	Installation of Wedeco UV Reactors (Quantity = 3)	80%
12	Installation of Flow Monitoring Equipment <ul style="list-style-type: none"> <li>Continuous Flow Rate for each disinfection channel.</li> </ul>	25%
Sequence	Action	% Complete
13	Installation of Regulatory Monitoring Equipment <ul style="list-style-type: none"> <li>Relative Intensities</li> <li>Transmissivity of UV Light</li> <li>Number of Hours in Operation</li> </ul>	0%
14	Equipment Calibration and Certification	0%
15	Operator Wedeco Equipment Training <ul style="list-style-type: none"> <li>Scheduled for Three (3) Complete days of on-site training.</li> </ul>	0%
16	Monthly Operator Report Training <ul style="list-style-type: none"> <li>TCEQ has agreed to provide additional on-site assistance in confirming the monthly report is completed and submitted corrected.</li> </ul>	0%
17	Operational Trail Period	0%
18	Initiate Live Treatment	0%