

UV DISINFECTION PROJECT UPDATE



Issue 2

June 6, 2016

Project Receives approval to proceed with Construction from TCEQ.

The UV Disinfection Project has officially been approved for construction by the Texas Commission on Environmental Quality (TCEQ). This has triggered the final ordering of equipment and materials needed by the contractor which has been waiting for this approval.

The approval is identified as a conditional approval based on multiple project completions that may not have been exactly specified under plans and specifications provided by our Engineer. Conditions that establish the requirements for multiple levels of recording of results and operational requirements. In addition, the letter specifies the requirements for the Utilities Department to initiate a newly revised CT Study for the final completion of project initiation. A CT Study establishes the disinfection strategies for the treatment of water at specific zones within the Treatment Plant.

Copies of the complete letter can be requested from the Utilities Department at 956-523-5590.

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



PWS_2400022_CO_20160518_Plan Ltr

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 18, 2016

Mr. Enrique S. Valdez, P.E.
LNV, Inc.
6010 McPherson Road
Laredo, TX 78401

Re: Webb County Water Utilities - Public Water System ID No. 2400022
Proposed Ultraviolet (UV) Disinfection System
Engineer Contact Telephone: (956) 462-5511
Plan Review Log No. P-03232016-162
Webb County, Texas

CN600612758; RN102698719

Dear Mr. Valdez:

On March 23, 2016, the Texas Commission on Environmental Quality (TCEQ) received planning material with your letter dated March 17, 2016 for the proposed UV disinfection system. Based on our review of the information submitted, the project generally meets the minimum requirements of Title 30 Texas Administrative Code (TAC) Chapter 290 - Rules and Regulations for **Public Water Systems** and is **conditionally approved for construction** if the project plans and specifications meet the following requirements:

1. The installed unit must comply with the design criteria summarized in the TCEQ's letter dated November 20, 2014 (enclosed). The reactor's validated dose, the reduction equivalent dose, and predicted output of the UV sensor must be determined by the formulas contained in this letter and the dose coefficients *A*, *B*, *C*, *D*, and *E* must match the approved validation report, "Third-Party Validation of the Spektron 250e UV reactor," dated August 2013. **The formulas and dose coefficients must be confirmed for the installed system before any inactivation credit can be granted on the SWMOR-Alt.**
2. The system must comply with all conditions stated in the Technical Review and Oversight Team's exception letter dated January 16, 2015 (enclosed) concerning UV disinfection.

WEBB COUNTY

WATER UTILITIES DEPARTMENT

ULTRA-VIOLET DISINFECTION PROPOSED CONSTRUCTION SEQUENCING

Sequence	Action	% Complete
1	Ordering of Instruments for UV Disinfection <ul style="list-style-type: none"> UV Disinfection Reactors are to be ordered preliminarily to assure equipment is received timely. 	100%
2	Ordering of Non-specific Materials and Equipment <ul style="list-style-type: none"> Actuators, Valves, Pipe Support Materials as an example have been ordered and due for delivery. 	100%
3	TCEQ Construction Submittal Request <ul style="list-style-type: none"> We have submitted the second information request from TCEQ and awaiting either an approval or additional information requests. 	100%
4	Issuance of "Notice to Proceed" to Contractor	100%
5	Ordering of Specific Materials and Equipment <ul style="list-style-type: none"> Completion of full Supplies order is finalized such as specific measured and order materials for this custom installation. 	10%
6	Installation of Temporary Construction Bypass <ul style="list-style-type: none"> Consists of a Pipe supported channel to allow treated water to be routed around existing UV System. This off course will allow contractor to fully work on the installation. 	0%
7	Begin complete demolition of existing equipment	0%
8	Electrical Installation	0%
9	Instrumentation Controls Installation	0%
10	Pipe Installation with Valves and Actuators	0%
11	Installation of Wedeco UV Reactors (Quantity = 3)	0%
12	Installation of Flow Monitoring Equipment	0%

	<ul style="list-style-type: none"> • Continuous Flow Rate for each disinfection channel. 	
Sequence	Action	% Complete
13	Installation of Regulatory Monitoring Equipment <ul style="list-style-type: none"> • Relative Intensities • Transmissivity of UV Light • Number of Hours in Operation 	0%
14	Equipment Calibration and Certification	0%
15	Operator Wedeco Equipment Training <ul style="list-style-type: none"> • Scheduled for Three (3) Complete days of on-site training. 	0%
16	Monthly Operator Report Training <ul style="list-style-type: none"> • TCEQ has agreed to provide additional on-site assistance in confirming the monthly report is completed and submitted corrected. 	0%
17	Operational Trail Period	0%
18	Initiate Live Treatment	0%