

From: David Sloan
Sent: Mon, 16 Mar 2015 20:11:03 +0000
To: Russell Schreiber (Wichita Falls); Kerry D. Maroney; Daniel Nix (Wichita Falls); Shawn Garcia; Mark Southard (mark.southard@wichitafallstx.gov)
Cc: Ray Longoria; David Jackson; Brad B. Castleberry (Lloyd, Gosselink)
Subject: UV System Approval - TCEQ 3-10-15
Attachments: UV System Approval - TCEQ 3-10-15.pdf

Russell, Kerry, et al:

Today I received TCEQ's approval letter for the installed UV disinfection system, with extension of the Temporary DPR project through the end of February 2016. Please note the requirement for submission of a SOP as described in Item 5 within 30 days (April 9, 2015). Please contact me if you have any questions regarding the conditions, or if we can be of any assistance in preparing the SOP.

Best regards,

DAVID W. SLOAN, P.E., BCEE
SENIOR PROCESS ENGINEER
BOARD CERTIFIED ENVIRONMENTAL ENGINEER



WATER / WASTEWATER TREATMENT & REUSE
4055 INTERNATIONAL PLAZA, SUITE 200 | FORT WORTH, TX, 76109
817 735 7277 VOICE | 817 528 4442 CELL
EMAIL: dws@freese.com

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



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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 10, 2015

Mr. David W. Sloan, P.E., BCEE
Freese & Nichols, Inc.
4055 International Plaza, Suite 200
Fort Worth, TX 76109-4895

Re: City of Wichita Falls - Public Water System ID No. 2430001
Ultraviolet System for Temporary Direct Potable Reuse Water Treatment Plant
Engineer Contact Telephone: (817) 735-7300
Plan Review Log No. P-02182015-112
Wichita County, Texas
CN600129316; RN105598759

Dear Mr. Sloan:

On February 18, 2015, the Texas Commission on Environmental Quality (TCEQ) received material with your letter dated February 17, 2015 for the Ultraviolet (UV) system evaluation for use in the City of Wichita Falls' temporary Direct Potable Reuse (DPR) water treatment plant. The letter also requests an extension of TCEQ's authorization for the City of Wichita Falls to continue operation of the Emergency Temporary DPR Project for one additional year. The City **may continue operation** of the Emergency Temporary DPR Project until February 29, 2016 as requested under the following conditions:

1. The City must comply with all conditions stated in TCEQ's letter dated August 5, 2014 concerning the City of Wichita Falls' temporary DPR water treatment plant.
2. The City must comply with all conditions stated in the Technical Review and Oversight Team's exception letter dated November 24, 2014 concerning UV disinfection.
3. The reactor's validated dose, the reduction equivalent dose, and predicted output of the UV sensor must be determined by the formulas contained in the letter and the dose coefficients A' , B' , C' , D' , E' , and F' must match the approved Validation Report "Trojan Technologies UV Validation of the Trojan UVSwift 8L24-2L", Revision B dated March 2008. **The formulas and dose coefficients have been confirmed for the installed system and inactivation credit can be granted on the Surface Water Monthly Operating Report (SWMOR)-Alt.** Please include the UV parameters for every SWMOR-alt submitted each month.

March 10, 2015

4. As stated in number 4b of TCEQ's August 5, 2014 letter, "all of the RRWWTP influent must pass through each of the treatment units, including the entire RRWWTP process, sedimentation, MF, RO, blending with raw surface water, second sedimentation, conventional filters and disinfection." The city may not substitute the UV system for another treatment barrier.
5. The City must prepare and submit within 30 days of the date of this letter a Standard Operating Procedure to monitor the UV system during operations that would include how to store, use and calibrate using the reference lamps and sensors. The SOP must include that each installed UV intensity sensor is verified against a calibrated reference sensor every 30 days.
6. The Alarm and Shutdown Conditions must be revised to include an alarm for each of the UV boundary conditions. Please submit documentation of the alarms.
7. Please provide the boundary conditions verification as requested in TCEQ's February 24, 2015 email and December 29, 2014 letter. Please provide Screen shots of the code showing bounding formulas restricting the input power level (> 30%), flow rate (>1 but < 25 MGD), UVT (>70%), and RED (>2.5 <20 Mj per cm cube) to the validated parameters.

The project is located at the Cypress Surface Water Treatment Plant at the northwest corner of the intersection of Big Ed Neal Drive and Johnson Road in Wichita County, Texas.

The City of Wichita Falls public water supply system provides water treatment.

Please refer to the Utilities Technical Review Team's Log No. P-02182015-112 in all correspondence for this project. This will help complete our review and prevent it from being considered a new project.

Please complete a copy of the most current Public Water System Plan Review Submittal form for any future submittal to TCEQ. Every blank on the form must be completed to minimize any delays in the review of your project. The document is available on our website at the address shown below.

<https://www.tceq.texas.gov/drinkingwater/udpubs.html>

For future reference, you can review part of the Utilities Technical Review Team's database to see if we have received your project. This is available on the TCEQ's homepage on the Internet at the following address:

<https://www.tceq.texas.gov/drinkingwater/planrev.html/#status>

You can download most of the well construction checklists and the latest revision of 30 TAC Chapter 290 – Rules and Regulations for Public Water Systems from this site.

Mr. David W. Sloan, P.E.
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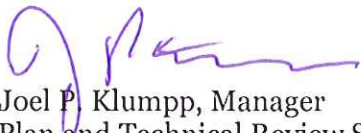
If you have any questions concerning this letter or need further assistance, please contact Mr. Craig A. Stowell at (512) 239-4633 or by email at craig.stowell@tceq.texas.gov or by correspondence at the following address:

Utilities Technical Review Team, MC-159
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Sincerely,



Craig A. Stowell, P.E.
Utilities Technical Review Team
Plan and Technical Review Section
Water Supply Division
Texas Commission on Environmental Quality



Joel P. Klumpp, Manager
Plan and Technical Review Section
Water Supply Division
Texas Commission on Environmental Quality

JPK/CAS/av

cc: City of Wichita Falls, Attn: Mr. Glenn Barham, P.O. Box 1431, Wichita Falls, TX
76307-1431