

TCEQ

Investigation

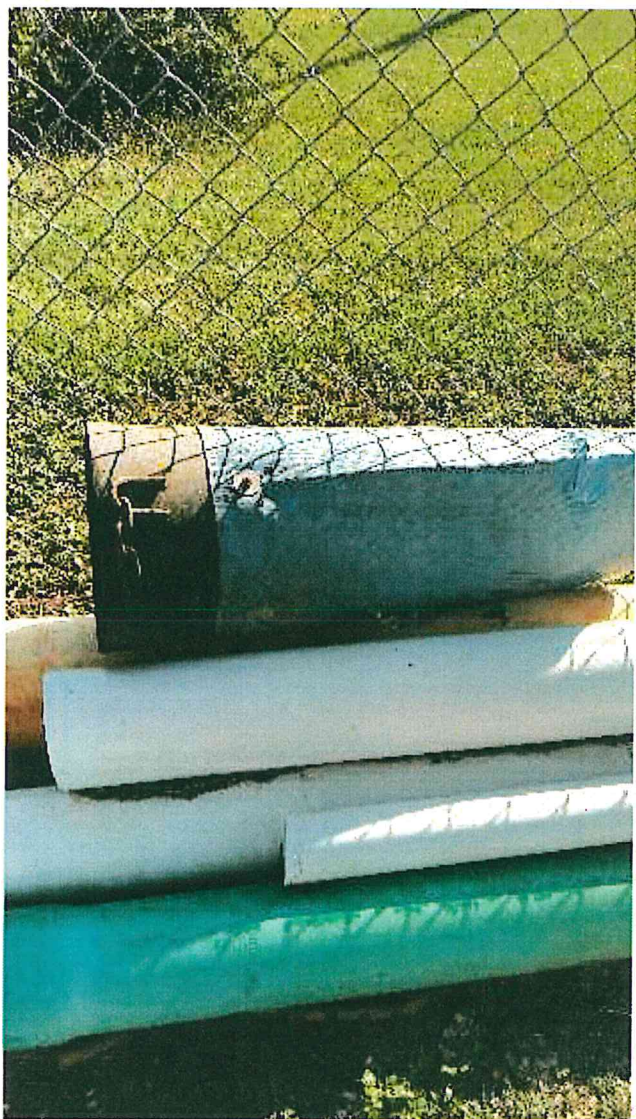
1597783

Marissa.Peltier@Tceq.Texas.gov



Track #  
579/61





  
Track #  
579/61



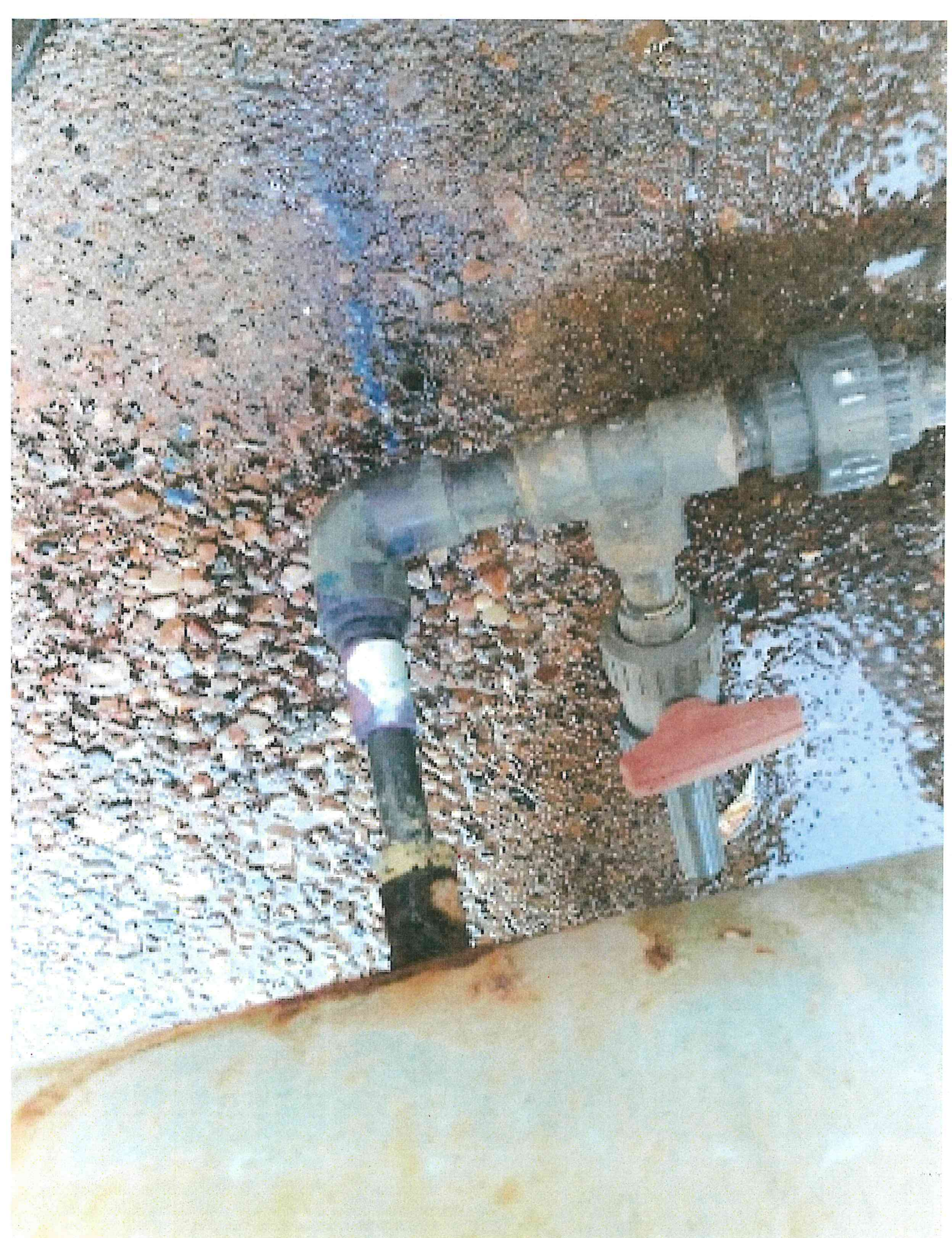
Track #  
690730  
Chlorine  
leak



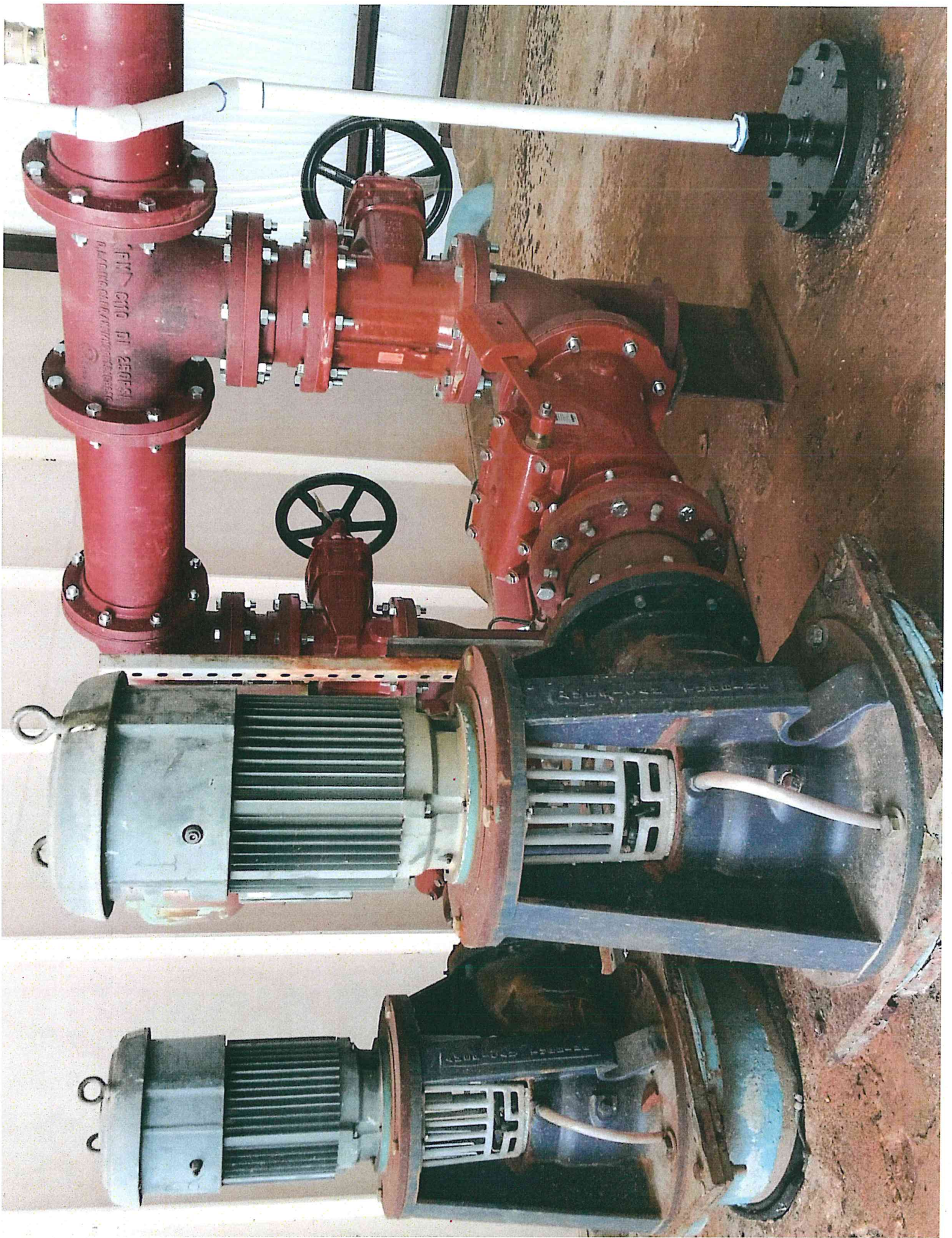
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Track #  
690730  
Chlorine Leak

Track #  
690730











Track #

690751



### BACKFLOW PREVENTION ASSEMBLY TEST AND MAINTENANCE REPORT

The following form must be completed for each assembly tested. A signed and dated original must be submitted to the public water supplier for record keeping purposes.

NAME OF PWS:	CITY OF SAN AUGUSTINE
PWS ID#:	2030001
PWS MAILING ADDRESS:	301 SOUTH HARRISON SAN AUGUSTINE, FL 32082
PWS CONTACT PERSON:	CHRIS BUDING
ADDRESS OF SERVICE:	

The backflow prevention assembly detailed below has been tested and maintained as required by commission regulations and is certified to be operating within acceptable parameters.

#### TYPE OF BACKFLOW PREVENTION ASSEMBLY (BPA):

<input checked="" type="checkbox"/>	Reduced Pressure Principle (RPBA)	<input type="checkbox"/>	Reduced Pressure Principle Detector (RPBA-D)
<input type="checkbox"/>	Double Check Valve (DCVA)	<input type="checkbox"/>	Double Check Detector (DCVA-D)
<input type="checkbox"/>	Pressure Vacuum Breaker (PVB)	<input type="checkbox"/>	Spill-Resistant Pressure Vacuum Breaker (SRVB)

Manufacturer:	WILKINS	Size:	2"
Model Number:	975XL2	BPA Location:	CITY WATER TREATMENT PLANT
Serial Number:	4163927	BPA Service:	REGULAR

Reason for test:	New <input type="checkbox"/>	Existing <input checked="" type="checkbox"/>	Replacement <input type="checkbox"/>	Old Model/Serial #
Is the assembly installed in accordance with manufacturer recommendations and/or local codes?	<input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Is the assembly installed on a non-potable water supply (auxiliary)?	<input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	

	Reduced Pressure Principle Assembly (RPBA)			PVB & SRVB	
	DCVA		Relief Valve	Air Inlet	Check Valve
	1 <sup>st</sup> Check	2 <sup>nd</sup> Check***			
<b>Initial Test</b>	Held at 6.4 psid	Held at 5.6 psid	Opened at 5.6 psid	Opened at _____ psid	Held at _____ psid
Date: 11-22-18	Closed Tight <input type="checkbox"/>	Closed Tight <input type="checkbox"/>	Did not open <input type="checkbox"/>	Did not open <input type="checkbox"/>	Leaked <input type="checkbox"/>
Time: 12:35 PM	Leaked <input type="checkbox"/>	Leaked <input type="checkbox"/>		Did it fully open (Yes <input type="checkbox"/> /No <input type="checkbox"/> )	
Repairs and Materials Used**					
<b>Test After Repair</b>	Held at _____ psid	Held at _____ psid	Opened at _____ psid	Opened at _____ psid	Held at _____ psid
Date:	Closed Tight <input type="checkbox"/>	Closed Tight <input type="checkbox"/>			
Time:					

\*\*\* 2<sup>nd</sup> check: metric reading required for DCVA only

Differential pressure gauge used:	WATTS	Potable:	<input checked="" type="checkbox"/>	Non-Potable:	<input type="checkbox"/>
Make/Model:	TIC-99E	SN:	3441066	Date tested for accuracy:	6-20-18

Remarks:

Company Name:	TERRACE TESTING	Licensed Tester Name (Print/Type):	JUSTUS V. HAYES
Company Address:	310 WILLOW LAKE	Licensed Tester Name (Signature):	[Signature]
Company Phone #:	SAN AUGUSTINE, FL 32082 936-201-9253	BPEL License #:	11000121
		License Expiration Date:	6-24-19

The above is certified to be true at the time of testing.

\* TEST RECORDS MUST BE KEPT FOR AT LEAST THREE YEARS (36 TAC 599.003)

\*\* USE ONLY MANUFACTURER'S REPLACEMENT PARTS

TEST RESULT
PASS <input checked="" type="checkbox"/>
FAIL <input type="checkbox"/>



**BACKFLOW PREVENTION ASSEMBLY TEST AND MAINTENANCE REPORT**

The following form must be completed for each assembly tested. A signed and dated original must be submitted to the public water supplier for recordkeeping \*purpose

NAME OF PWS:	City of San Augustine
PWS ID#:	2030001
PWS MAILING ADDRESS:	301 S. Harrison St., San Augustine, TX 75972
PWS CONTACT PERSON:	Leroy Hughes
ADDRESS OF SERVICE:	SNG Dialysis Center, 403 N Milam St. San Augustine, TX 75972

The backflow prevention assembly detailed below has been tested and maintained as required by commission regulations and is certified to be operating within acceptable parameters.

**TYPE OF BACKFLOW PREVENTION ASSEMBLY (BPA):**

<input checked="" type="checkbox"/> Reduced Pressure Principle (RPBA)	<input type="checkbox"/> Reduced Pressure Principle-Detector (RPBA-D)
<input type="checkbox"/> Double Check Valve (DCVA)	<input type="checkbox"/> Double Check-Detector (DCVA-D)
<input type="checkbox"/> Pressure Vacuum Breaker (PVB)	<input type="checkbox"/> Spill-Resistant Pressure Vacuum Breaker (SVB)

Manufacturer:	Wilkins	Size:	1 1/2"
Model Number:	975XL	BPA Location:	In dialysis center equipment room.
Serial Number:	4140725	BPA Serves:	Dialysis Equipment

Reason for test: New  Existing  Replacement  Old Model/Serial #

Is the assembly installed in accordance with manufacturer recommendations and/or local codes?  Yes  No

Is the assembly installed on a non-potable water supply (auxiliary)?  Yes  No

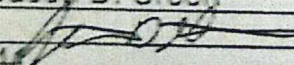
	Reduced Pressure Principle Assembly (RPBA)			PVB & SVB	
	DCVA		Relief Valve	Air Inlet	Check Valve
	1 <sup>st</sup> Check	2 <sup>nd</sup> Check***			
<b>Initial Test</b> Date: 1-14-18 Time: 10:30 am	Held at <u>9.0</u> psid Closed Tight <input type="checkbox"/> Leaked <input checked="" type="checkbox"/>	Held at <u>8.8</u> psid Closed Tight <input type="checkbox"/> Leaked <input checked="" type="checkbox"/>	Opened at <u>3.0</u> psid Did not open <input checked="" type="checkbox"/>	Opened at <u>1.4</u> psid Did not open <input type="checkbox"/>  Did it fully open (Yes <input type="checkbox"/> /No <input type="checkbox"/>	Held at _____ psid Leaked <input type="checkbox"/>
Repairs and Materials Used**					
<b>Test After Repair</b> Date: Time:	Held at _____ psid Closed Tight <input type="checkbox"/>	Held at _____ psid Closed Tight <input type="checkbox"/>	Opened at _____ psid	Opened at _____ psid	Held at _____ psid

\*\*\* 2<sup>nd</sup> check: numeric reading required for DCVA only

Differential pressure gauge used: \_\_\_\_\_ Potable:  Non-Potable:

Make/Model: Watts/TK-99E SN: 004843 Date tested for accuracy: 10-03-2018

Remarks: System Pressure: 80 psi

Company Name:	Loggins Plumbing	Licensed Tester Name (Print/Type):	Jason D. Green
Company Address:	101 Indl. Blvd., Ste 109	Licensed Tester Name (Signature):	
Company Phone #:	Lufkin, TX 75904 936-639-3073	BPAT License #	BP0017644
		License Expiration Date:	3-28-2020

The above is certified to be true at the time of testing.

\* TEST RECORDS MUST BE KEPT FOR AT LEAST THREE YEARS (30 TAC §290.46(B))  
\*\* USE ONLY MANUFACTURER'S REPLACEMENT PARTS

<b>TEST RESULT</b>
PASS <input checked="" type="checkbox"/>
FAIL <input type="checkbox"/>



NAME OF PVE: WATER  
 PVE MODEL NUMBER:                       
 PVE CONTACT PERSON:                       
 ADDRESS OF SERVICE: 214 S. Green, D. D. S., 214 S. Green, San Antonio, TX

The service personnel assembly tested below has been tested and maintained as required by commission regulations and is certified as complying within acceptable parameters.

**TYPE OF BACKFLOW PREVENTION ASSEMBLY (BPA):**

- Reduced Pressure Principle (RPPA)     Reduced Pressure Principle-Detector (RPBA-D)
- Double Check Valve (DCVA)     Double Check-Detector (DCVA-D)
- Pressure Vacuum Breaker (PVB)     Spill-Resistant Pressure Vacuum Breaker (SRVB)

Manufacturer: Watts    Size: 1"  
 Model Number: 3300    BPA Location: Basin of Building 3, Back Door  
 Serial Number: 3300096    BPA Service: Domestic Water

Reason for test: New  Existing  Replacement  Old Model/Serial #                       
 Is the assembly installed in accordance with manufacturer recommendations and/or local codes?  Yes  No  
 Is the assembly installed in a non-potable water supply (auxiliary)?  Yes  No

TEST RESULT	Reduced Pressure Principle Assembly (RPPA)			PVB & SRVB	
	DCVA		Relief Valve	Air Inlet	Check Valve
	1 <sup>st</sup> Check	2 <sup>nd</sup> Check***			
Initial Test Date: <u>6-18-18</u> Time: <u>10:15 AM</u>	Held at <u>2.3</u> psid Closed Tight <input checked="" type="checkbox"/> Leaked <input type="checkbox"/>	Held at <u>7.4</u> psid Closed Tight <input checked="" type="checkbox"/> Leaked <input type="checkbox"/>	Opened at <u>3.0</u> psid Did not open <input type="checkbox"/>	Opened at <u>        </u> psid Did not open <input type="checkbox"/> Did it fully open (Yes <input type="checkbox"/> / No <input type="checkbox"/> )	Held at <u>        </u> psid Leaked <input type="checkbox"/>
Test After Repair Date: <u>        </u> Time: <u>        </u>	Held at <u>        </u> psid Closed Tight <input type="checkbox"/>	Held at <u>        </u> psid Closed Tight <input type="checkbox"/>	Opened at <u>        </u> psid	Opened at <u>        </u> psid	Held at <u>        </u> psid

\*\*\* 2<sup>nd</sup> check: numeric reading required for DCVA only

Differential pressure gauge used: Compass    Potable:     Non-Potable:   
 Manufacturer: # 43-300-TX5    IN: 331311    Date tested for accuracy: 6-18-18

Company Name: San Antonio Water Authority    Licensed Tester Name (Print/Type): Scott Smith  
 Company Address: 5100 Alamo - San Antonio, TX    Licensed Tester Name (Signature): [Signature]  
 Company Phone #: 936-634-7388    BPAT License #: BP0014714  
 License Expiration Date: 7-2-21

The above is certified to be true at the time of testing.  
 \* TEST RECORDS MUST BE KEPT FOR AT LEAST THREE YEARS (30 TAC §290.46(B))  
 \*\* USE ONLY MANUFACTURER'S REPLACEMENT PARTS

Track #  
690767



**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

*Be it Known That*

**JOEY R DICKERSON**

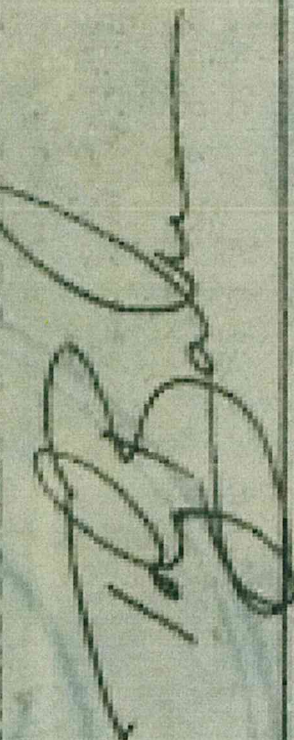
*has fulfilled the requirements in accordance with the laws of the State of Texas for*

**CLASS C SURFACE WATER TREATMENT OPERATOR**

License Number: WS0012209

Issue Date: 11/28/2018

Expiration Date: 11/28/2021



*Executive Director*

*Texas Commission on Environmental Quality*



Track #

690765



**WARNING  
RAW WATER INTAKE  
NO FISHING NO BOATS  
NO SWIMMING  
WITHIN 200 FEET**



Track #

Investigation 1592783

Turbidity meter





TU5300 SC





Track #

690741













Track#

690735-















Track #

690749











Track #  
690734



Oct. 2019

CITY OF SAN AUGUSTINE  
DEAD END HYDRANTS

Pressure Plan	Date	Hydrant Number / Location	Remarks	Flushed By	Repaired
One	10/9/19	#63 Farm Road 2213		MP & KM	
One	10/5/19	Cedar Hills C		MP-KM	
One	10/10/19	#33 Columbia		MP KM	
One	10/10/19	N. Milam (Empty Lot)		MP & KM	
Two	10/9/19	Nursing Home & Partin		MP & KM	
Two		Hwy. 147 Blue Barn			
Two	10/9/19	End of Parkway		MP & KM	
Two		#116 US 96 South			X
Two	10/9/19	Barrett & Sabine		MP & KM	
Two	10/9/19	Bellaire End of		MP & KM	
Three	10/10/19	#118 147 N. at City Limits		MP & KM	
Three	10/10/19	#28 Magnolia at Pine		MP & KM	
Three	10/9/19	#44 353 East		MP & KM	
	10/10/19	2 inch Fire plug North Harrison		MP & KM	
	10/10/19	2 inch Fire plug 147-Hanks Drive		MP & KM	X
	10/9/19	711 2 inch Kovar		MP & KM	
	10/9/19	353 End 2 inch		MP & KM	



CITY OF SAN AUGUSTINE  
DEAD END HYDRANTS

Sept 2019

Pressure Plan	Date	Hydrant Number / Location	Remarks	Flushed By	Repaired
One	July 1	#63 Farm Road 2213	5 min	Mike Macrone	
One		Cedar Hills C	5 min		
One		#33 Columbia	5 min		
One		N. Millam (Empty Lot)	5 min		
Two		Nursing Home & Partin	5 min		
Two		Hwy. 147 Blue Barn	5 min		
Two		End of Parkway	5 min		
Two		#116 US 96 South	5 min		
Two		Barrett & Sabine	Broke		
Two		Bellaire End of	5 min		
Three		#118 147 N. at City Limits	5 min		
Three		#28 Magnolia at Pine	5 min		
Three		#44 353 East	5 min		
Two		1 inch Fire plug North Harrison	5 min		
Three		1 inch Fire plug 147 Hanks Drive	5 min		
Three		2 1/2 inch Fire plug	5 min		
		353 End of 2 inch	5 min		



CITY OF SAN AUGUSTINE  
DEAD END HYDRANTS

August 2019

Pressure Plan	Date	Hydrant Number / Location	Remarks	Flushed By	Repaired
One	Sept 2	#63 Farm Road 2213	5 min	MJM	
One		Cedar Hills C	5 min	MJM	
One		#33 Columbia	5 min	MJM	
One		N. Milam (Empty Lot)	5 min	MJM	
Two		Nursing Home & Partin	5 min	MJM	
Two		Hwy. 147 Blue Barn	5 min	MJM	
Two		End of Parkway	5 min	MJM	
Two		#116 US 96 South	5 min	MJM	
Two		Barrett & Sabine	Need Repair	MJM	
Two		Bellaire End of	5 min	MJM	
Three		#118 147 N. at City Limits	5 min	MJM	
Three		#28 Magnolia at Pine	5 min	MJM	
Three		#44 353 East	5 min	MJM	
Two		2 inch Fire plug North Harrison	5 min	MJM	
Three		2 inch Fire plug 147-Hanks Drive	5 min	MJM	
Three		2 1/2 inch line	5 min	MJM	
		353 End of inch	5 min	MJM	



CITY OF SAN AUGUSTINE  
DEAD END HYDRANTS

July 2019

Pressure Plan	Date	Hydrant Number / Location	Remarks	Flushed By	Repaired
One	Aug 1	#63 Farm Road 2213	S.M.A.	M.A.M.	
One		Cedar Hills C	S.M.A.		
One		#33 Columbia	S.M.A.		
One		N. Milam (Empty Lot)	S.M.A.		
Two		Nursing Home & Partin	S.M.A.		
Two		Hwy. 147 Blue Barn	S.M.A.		
Two		End of Parkway	S.M.A.		
Two		#116 US 96 South	S.M.A.		
Two		Barrett & Sabine	Broken		
Two		Bellaire End of	S.M.A.		
Three		#118 147 N. at City Limits	S.M.A.		
Three		#28 Magnolia at Pine	S.M.A.		
Three		#44 353 East	S.M.A.		
Two		2 inch Fire plug North Harrison	S.M.A.		
Three		2 inch Fire plug 147-Hanks Drive	S.M.A.		
Three		2 1/2 inch Fire plug	S.M.A.		
		353 Guel Din	S.M.A.		



Track numbers

690762



weekly color standard check

PERFORMANCE VERIFICATION SECONDARY STANDARDS		BLANK	STD 1	STD 2	STD 3
Weekly Time		0.00	0.24	0.89	1.61
	Km	0.00	0.21	0.81	1.51
	mp 8:59A	0.00	0.23	0.83	1.55
11-19	Km 9 AM	0.00	0.19	0.79	1.50
3/18	mp 9 AM	0.00	0.22	0.81	1.52
3/15	mp 9 AM	0.00	0.22	0.80	1.51
4/1	mp 9 AM	0.00	0.22	0.81	1.53
4/8	mp 9 AM	0.00	0.22	0.81	1.51
4/15	mp 9:15 AM	0.00	0.23	0.81	1.53
4/22	JL 9:05 am	0.00	0.20	0.79	1.50
4-29	mp 9:00 AM	0.00	0.21	0.80	1.51
5-6	mp 9:00 AM	0.00	0.22	0.81	1.50
5-13	JL 9:00 AM	0.00	0.20	0.73	1.52
5-20	JL 9:15 AM	0.00	0.18	0.77	1.50
5-27	JL 8:40 AM	0.00	0.20	0.78	1.50
6-3-19	mp 8:30 AM	0.00	0.19	0.77	1.52
6-10-19	JL 8:30 AM	0.00	0.22	0.80	1.49
6-17-19	mp 8:40 AM	0.00	0.18	0.78	1.53
6-24-19	JL 8:40 AM	0.00	0.21	0.78	1.51
7-1-19	JL 8:45 AM	0.00	0.17	0.77	1.45
7-8-19	JL 8:50 AM	0.00	0.17	0.76	1.50
7-15-19	JL 9:00 AM	0.00	0.16	0.77	1.51
7-22-19	JL 10:05 AM	0.00	0.18	0.78	1.47
7-29-19	JL 9:15 AM	0.00	0.19	0.78	1.49
8-5-19	Km 9:15 AM	0.00	0.17	0.79	1.49
8-12-19	Km 9:20 AM	0.00	0.19	0.79	1.50
8-19-19	JL 9:15 AM	0.00	0.20	0.76	1.51
8-26-19	JL 9:15 AM	0.00	0.18	0.78	1.46
9-2-19	Km 8:30 AM	0.00	0.20	0.79	1.47
9-9-19	mp 9:10 AM	0.00	0.20	0.79	1.52
9-16	Km 8:40 AM	0.00	0.20	0.78	1.49







Track number  
~~690763~~

Track number  
690763



# Monthly

## Calibration of HACH CL17 Analyzer

To be done Second Week of each Quarter.

### Procedure : Calibration By Comparison

The CL17 Analyzer can be calibrated by analyzing the sample stream, using a reliable, known accurate laboratory method such as a DPD spectrophotometric method. It also is necessary to establish a zero reference by adding a dechlorinating agent to the sample cell during one measurement cycle. Do the following to set the zero reference :

1. Dechlorinating Solution reagent, HACH Cat. No. 323-32, is required for this procedure.
2. Observe the front of the pump module throughout a measurement cycle. Make a note of the point where reagent are added as indicated by the flattening of the two center tubes in the pump module.
3. When the reagent tubes begin to flatten during the next cycle, remove the top plug on the colorimeter, add two drops of the dechlorinating solution through the hole in the top of the colorimeter block and replace the plug.
4. Wait until the display is updated with the next reading by noting when the display changes or the pump motor restarts.
5. Set the zero reference by entering "0" with the number key and pressing the "ZERO" key.

Date of Calibration    Before Calibration    DPD Method    Adjustment    Operator Signature

<u>Date of Calibration</u>	<u>Before Calibration</u>	<u>DPD Method</u>	<u>Adjustment</u>	<u>Operator Signature</u>
4-1-19	1.89	2.06	NA	MP
4-8-19	2.03	2.18	N	MP
4-15-19	2.19	2.21	N	MP
4-22-19	1.92	1.86	N	JL
4-29-19	1.89	1.87	NA	MP
5-6-19	1.84	1.86	NA	MP
5-13-19	1.94	2.06	NA	MP
5-20-19	1.73	1.88	NA	MP
5-27-19	1.84	2.09	YES	JL
6-3-19	1.92	1.82	YES	JL
6-10-19	1.75	1.89	NO	JL
6-17-19	2.46	2.24	NO	MP
6-24-19	1.86	2.03	NO	JL
7-1-19	1.81	2.19	YES	JL
7-8-19	1.69	1.96	YES	JL
7-15-19	2.15	2.35	YES	JL
7-22-19	2.00	2.06	NO	JL
7-29-19	2.16	2.35	YES	JL
8-5-19	2.37	2.31	NO	JL
8-12-19	1.74	1.74	NO	KM
8-19-19	2.18	2.14	NO	JL
8-26-19	2.07	1.84	YES	JL



Track num  
690732



Track Number 690732

SOP

The City Of San Augustine was emailed all the copies of the exceptions by TCEQ , The Copies are now in a folder and kept at the water plant and ready for review when asked.



Buddy Garcia, *Chairman*  
Larry R. Soward, *Commissioner*  
Bryan W. Shaw, Ph.D., *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



File PWS 2030001/CO  
CN 600630289  
RN 103779302

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

May 28, 2009

RECEIVED

Mr. Duke Lyons, City Manager  
City of San Augustine  
301 South Harrison Street  
San Augustine, Texas 75972

JUN 02 2009

TCEQ-Region 10  
Beaumont

Subject: Review of a Granted Exception to the SOR for Tube Settler Clarification Units  
City of San Augustine – PWS ID #2030001  
San Augustine, Texas

Dear Mr. Anding:

We have completed our review of our files and copies of data from the City of San Augustine (City) surface water treatment plant obtained by Mr. Alex Hinz from the Texas Commission on Environmental Quality's (TCEQ), Beaumont Regional Office. This exception review was conducted regarding two exceptions granted on October 16, 2001 for the City's Aquarius package water treatment plant's tube settler basins. The TCEQ granted exceptions to 30 TAC §290.42(d)(10)(C)(iii) and §290.42(d)(10)(C)(iv) for the tube settlers to operate at a surface overflow rate (SOR) of 2.0 gallons per minute per square-foot (gpm/sf) water area over the tubes and a side water depth of 11 feet without mechanical sludge removal facilities. Our review indicates that the City has failed to continuously meet TCEQ site-specific operating requirements as required by 30 TAC §290.39(1)(4) and previously noted in our letters dated October 16, 2001, July 21, 2008, December 12, 2006 and October 31, 2008. **Therefore, the TCEQ is revoking both of these exceptions under 30 TAC §290.39(1) (2).**

The City must retain the services of a professional engineer licensed to practice in the State of Texas and submit a sealed, signed and dated engineering report which addresses how the City will bring to the SWTP into compliance with the TCEQ's minimum design and capacity requirements as required by 30 TAC §290.39(e)(1).

- The engineering report is to be submitted to the TCEQ's Utilities Technical Review Team (MC 153) with copies to the Mr. Alex Hinz, TCEQ Water Section Work Leader, Beaumont Regional Office (R10) and Ms. Reyna Holmes, P.E., Team Leader, TCEQ Technical Review & Oversight Team (MC 155).
- The engineering report must be received by **July 1, 2009**.
- Sealed, signed and dated engineering plans and specifications must be submitted to the TCEQ Utilities Technical Review Team (MC 153) **within 60 days after the City receives the TCEQ's written response to the engineering report.**



Mr. Chris Anding, Superintendent  
Page 2  
May 28, 2009

- The City must begin construction of the TCEQ approved modifications **within 60 days of receiving written TCEQ approval to construct.**
- The City must complete construction of the approved modifications **within 180 days of receiving written TCEQ approval to construct.**
- If there are any conflicts in the compliance dates in this letter and any TCEQ Compliance Agreement or Agreed Order signed before or after the date of this letter, the compliance dates in a signed TCEQ Compliance Agreement or Agreed Order shall supersede the ones in this letter.

The City must have a continuous coagulation, mixing, flocculation and clarification process that is designed and operated to meet the TCEQ's minimum requirements specified in 30 TAC §290.42(d)(8), (9) and (10). It is evident from historical data that the City has been unable to consistently treat its raw water source to industry acceptable standards and ensure consistent pathogen removal using a clarification method that does not meet the TCEQ's minimum design criteria. The revocation of the previously granted exceptions results in the tube settlers being limited to a SOR of 1.0 gpm/sf (one-half of the previous granted capacity) and the required installation of mechanical sludge removal equipment.

The surface water treatment plant's previously approved TCEQ capacity was 1,534 gpm. Based on the revocation of the previously granted exceptions and the resulting limited capacity of the tube settler clarification process, **the current TCEQ total approved capacity for the surface water treatment plant is now 767 gpm.** According to the most recent comprehensive compliance investigation (CCI) conducted by the TCEQ Beaumont Regional Office, the City serves 1,321 retail service connections. In addition, the City is obligated to supply potable water on a wholesale basis to the Bland Lake Water Supply Corporation and San Augustine Rural Water Supply Corporation at 135 gpm and 231 gpm, respectively. Therefore, the City is no longer able to meet its minimum required treated water capacity is 1,159 gpm. The City may choose to:

- Add additional coagulation, mixing, flocculation and tube settler units designed to operate at a maximum SOR of 1.0 gpm/sf of water surface area and modifying the new and existing ones to include mechanical sludge removal facilities;
- Construct new coagulation, mixing, flocculation and clarification units designed to operate at the maximum allowable SOR specified in 30 TAC §290.42(d)(10)(C) and not use the tube settlers as the primary clarification process;
- Purchase of an adequate quantity of treated water;
- Develop and treat a TCEQ approved groundwater source(s);
- Pursue an alternative production capacity requirement by providing the information noted in our letter dated December 14, 2007 and any other necessary data; or,
- Any other TCEQ accepted alternative.

It came to our attention during the record review that the City appears to be monitoring and reporting combined filter effluent (CFE) turbidity data incorrectly. A comparison of the City's

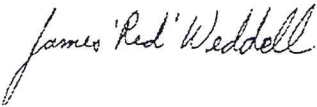


Mr. Chris Anding, Superintendent  
Page 3  
May 28, 2009

Surface Water Monthly Operating Reports (SWMORs) CFE data to that of the daily operator log sheets showed that CFE readings are being collected at arbitrary times each day and not at designated four-hour intervals per 30 TAC §290.111(e)(3)(B). We also noted during the record review that the City appears to be reporting individual filter effluent (IFE) turbidity incorrectly. It was observed that the City has available both 15-minute IFE turbidity readings from online turbidimeters as well as grab sample IFE turbidity readings collected at arbitrary times each day. When comparing these data to daily maximum IFE turbidity data reported on SWMORs, we found that the IFE grab sample data were used for reporting rather than 15-minute IFE data and this is not correct. Per 30 TAC §290.111(e)(3)(C), IFE turbidity must be continuously monitored and recorded every 15 minutes and these are the data to use for reporting daily maximum IFE turbidity on SWMORs. For more information about these monitoring and reporting issues, please contact Gary Chauvin by e-mail at [gchauvin@tceq.state.tx.us](mailto:gchauvin@tceq.state.tx.us) or by phone at (512)239-1687.

If you have any questions concerning this letter, or if we may be of further assistance, please contact us at the letterhead's address or me by telephone at (325) 481-8056.

Sincerely,



James "Red" Weddell, P.E.  
Technical Review & Oversight Team  
Public Drinking Water section -- MC155  
Texas Commission on Environmental Quality

JSW/av

cc: Mr. Alex Hinz, Water Section Work Leader, TCEQ Beaumont Regional Office – R10  
Mr. Gary Chauvin, TCEQ Technical Review & Oversight Team – MC155  
Mr. Tel Croston, TCEQ Enforcement Division, Enforcement Section I - MC169  
Ms. Vera Poe, P.E., Team Leader, TCEQ Utilities Technical Review Team – MC153  
Mr. Chris Anding, Superintendent, City of San Augustine





Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*

PWS/2030001/CO  
CN 600630289  
RN 103779302

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

April 30, 2010

Mr. Jerod L. Morris, P.E.  
Everett Griffith, Jr. & Associates Inc.  
(TER No. F-1156)  
P.O. Box 1746  
Lufkin, Texas 75902-1746

Subject: Request for a Temporary Exception to Booster Pumps Taking Suction from GST  
City of San Augustine – PWS ID #2030001  
San Augustine County, Texas

Dear Mr. Morris:

We received your letter via email on March 18, 2010 regarding the City of San Augustine's (City) plans to rehab the ground storage tank (GST) at the Old Light Plant Pump Station and requesting a temporary exception to the requirements of 30 TAC §290.44(d)(2) which state that booster pumps must take suction from storage tanks. In your letter, you stated that rehabbing the GST will require the bypassing of the GST, creating an inline booster station (pumps will take suction directly from the main pressure plane's distribution pipes). Additional information shows that you and the City are concerned that bypassing the tank while being rehabbed could create interrupted pressures, flow problems, and potential water quality issues for customers on one or both pressure planes. Therefore, to evaluate the feasibility of bypassing the tank, you have requested a temporary exception to bypass the tank during the summer months. If the bypassing of the tank does not cause pressure or flow problems to customers, the tank will be bypassed later in the year to allow for repairs. Based on the information provided, we are **granting this temporary** exception request.

The existing tank will be by-passed by modifying the existing plumbing system. Your letter states that the City staff will be able to make plumbing changes to place the GST in service in approximately an hour should this operating procedure create unacceptable pressures, flow, and potential backflows during the summer month. Information provided by the City, show that a more rapid return to the GST cannot be accomplished because of space constrains (only an ell with related piping and fittings can be installed on the GST's discharge during the temporary bypass). This option will not be available once the GST is taken out of service for two or more weeks to rehab later in the year.

The following are conditions to this granted exception:

1. A low pressure sensor and automatic cut-off switch must be installed and maintained in proper working order on the suction side of the Old Light Plant booster pumps when they are temporarily converted to inline booster pumps. The automatic cut-off switch must disable the booster pumps whenever the pressure sensor on the suction side detects less than 20 pounds per square inch (psi).



2. The pressure sensor must be calibrated and the proper operation of the automatic cut-off switch verified upon installation.
3. A pressure recording or event recorder device must be installed and maintained on the suction side of the booster pumps during the temporary inline booster pump operation. Based on your knowledge of the City's operation, lateral line sizes and elevations, you may want to install pressure recorders, or have staff conduct pressure checks during peak demand periods, at other locations on the suction side of the inline booster pumps.
4. As the City may have to return the Old Light Plant GST back to service rapidly, **the City must maintain the stored water in the GST in a safe and potable condition.** The City must prevent the quality of the water stored in the GST from degrading while the GST is bypassed. The disinfection residual of the water in the GST will need to be monitored at least once a day after bypassing the GST. This frequency may be less frequent after the first week and a deterioration timeline is established.
  - a. While the TCEQ does not recommend wasting the stored water through the GST drain onto the ground, the stored water must be maintained in a potable condition or the City will have to issue a precautionary Boil Water Notice when the water is discharged to distribution.
  - b. If water is discharged on the ground, it must be accomplished in accordance with all federal and state requirements.
  - c. If other uses, such as construction water, in lieu of wasting the stored water are found, a tested reduced-principle backflow prevention assembly (RBPA) must be installed on the GST's drain prior to discharging into any non potable water tank.
5. The City must collect at least one microbiological sample from the GST each month the GST is being bypassed and submit it to a TCEQ approved laboratory. This sample is to be marked "Special." If one of these samples is positive for total coliform, *E. Coli* or any other fecal indicating organisms, the GST must be flushed and disinfected in accordance with AWWA and another "Special" microbiological sample collected to verify the safe potable quality of the water in the GST.
6. The City must develop temporary operating and maintenance procedures for the City staff so that there will not be unforeseen delays in any necessary actions to provide potable water service and protect public health. This needs to include:
  - a. The monitoring and documentation of the GST's water quality;
  - b. Additional monitoring and recording of pressures on the suction side of the temporary inline booster pumps;
  - c. A response to customer complaints;
  - d. A contact in the event the GST must be returned to service because of low pressures;
  - e. The sanitary method of changing the piping on the GST's effluent; and
  - f. Any other actions the City staff finds necessary to protect public health during this temporary operating practice.
7. Should pressures on the either the suction or discharge side of the booster pumps drop below 20 psi, special precaution measures will need to be taken to ensure that contaminants have not

entered the City's distribution and the water is no longer safe for human consumption. The City must issue a precautionary Boil Water Notice to the affected customers in accordance with 30 TAC §290.46(q). Microbiological samples will need to be collected from the affected area(s) and all of the analytical results must be negative for total coliform, *E. Coli* and other fecal organisms before a BWN can be rescinded. Once copies of the negative analytical results are received, the City will need to contact the TCEQ Public Drinking Water Section at (512) 239-4691 or Beaumont Regional Office at (409) 898-3838 to receive permission to rescind the Boil Water Notice.

8. We understand that the City wholesales potable water through the Old Light Plant pressure plane to the San Augustine Rural WSC (SAR WSC) through two separate interconnections. One is under direct pressure. Therefore, the SAR WSC officials and staff must be notified in writing when the City initiates the temporary inline booster pump operation and when the GST is placed back in service.
9. The SAR WSC staff must be notified when the City has to issue a Boil Water Notice. If there is any question as to whether the SAR WSC needs to also issue a precautionary Boil Water Notice, please contact the TCEQ Beaumont Regional Office at (409) 898-3838 or the TCEQ Public Drinking Water Section at (512) 239-4691.
10. All records of pressure monitoring, automatic shutdown of the booster pumps, microbiological monitoring and any Boil Water Notices associated with the temporary exception must be maintained until the TCEQ conducts its next Comprehensive Compliance Investigation or one year after the Old Light Plant GST has been placed back in service, whichever is longer.

Operation of inline booster pumps increases the potential for backflow and/or backsiphonage of contaminants from the customer side of meters into the system's distribution system. While the installation of a low pressure sensor and automatic cut-off switch can prevent this from occurring on the suction side of inline booster pumps, it increase the potential for the customers on the discharge side of having low pressures or even no pressure or water flow. Therefore, inline booster pumps are considered a temporary solution where minimum flow and pressure requirements have exceeded a system's existing design until an acceptable solution is selected and constructed; or in this case, for the repair of a GST.

The following are TCEQ recommendations only for the City to consider so that the temporary inline booster pumps' operation will not result in a potential health effect or degrading of water service:

1. Issue notification to the customers on the suction and discharge side pressure planes for the during the term the booster pumps are operating inline with the distribution;
2. Involve the potentially affected customers of what to watch for and how to notify City staff before a serious problem arises;
3. Notification to the City's Fire Department and other rural fire departments that might be affected by the reduction of water on the Old Light Plant pressure plane or create conditions on the suction side of the temporary inline booster pumps that result in the automatic cut-off switch disabling the temporary inline booster pumps; and

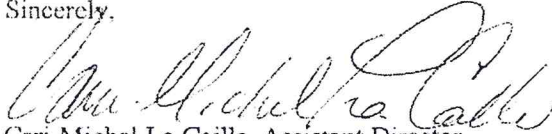


Mr. Jerod L. Morris, P.E.  
Page 4 of 4  
April 30, 2010

4. Consideration may need to be given to implementing an early stage of water conservation.

If you have any questions, or need further assistance, please contact Mr. Red Weddell of my staff by email at [jweddell@tceq.state.tx.us](mailto:jweddell@tceq.state.tx.us) or by telephone at (325) 481-8056.

Sincerely,



Cari-Michel La Caille, Assistant Director  
Water Supply Division  
Texas Commission on Environmental Quality

CLC/REH/JSW/av

cc: TCEQ Beaumont Regional Office – R10  
Ms. Vera Poe, P.E., Team Leader, TCEQ Utilities Technical Review Team – MC 153  
Mr. James “Duke” Lyons, Jr., City Manager, City of San Augustine

Robert J. Huston, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
John M. Baker, *Commissioner*  
Jeffrey A. Saitas, *Executive Director*



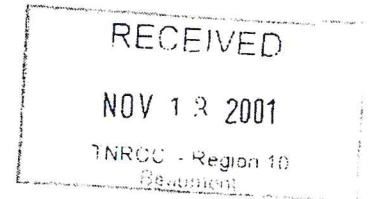
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## TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

*Protecting Texas by Reducing and Preventing Pollution*

October 16, 2001

Mr. Brandon D. Pate  
Water and Waste Management Associates  
7035 West Tidwell, Building J, #106  
Houston, Texas 77902



Subject: Request for an Exception to the Minimum SWD for Clarification Units  
Request for an Exception to the SOR for Solids-Contact Clarification Units  
City of San Augustine - PWS I.D. #2030001  
Plan Review Log No. 103-157  
San Augustine County, Texas

Dear Mr. Pate:

We have reviewed your letter received on October 12, 2001 and the data submitted for the US Filter's Aquarius package water treatment unit received on October 11, 2001. Your letter is requesting site-specific exceptions to design an Aquarius package water treatment unit containing a clarification section equipped with 60-degree tube settlers and a side water depth (swd) of approximately 11.0 feet at a surface overflow rate (SOR) of 2.0 gallons per minute per square foot (gpm/sf) of tube surface area. Based on our review of the submitted engineering drawings and specifications and data we are granting **both requests for exceptions** under the following conditions:

1. The 125,000-gallon clarifier is to be converted into a raw water settling tank for pretreatment before the tube settlers.
2. The City's operators must monitor and record the settled water turbidity at the effluent of each Aquarius package water treatment unit's clarification section at least once each eight-hour shift that it produces settled water.
3. Sludge must not be allowed to accumulate in a clarification section to a depth that results in the degradation of the settled water quality or disinfection contact time..
4. The highest level of the recorded settled water readings for each clarification section must be entered for each day of the month it is in operation on the Surface Water Monthly Operating.
5. The maximum settled water turbidity level must be 3.0 NTU or less in at least 95% of each month's reported readings.
6. The City of San Augustine's water treatment plant operators must receive the training necessary to make proper chemical adjustments for changing raw water quality to consistently achieve the 3.0 NTU or less settled water turbidity levels within the 30-day startup period of the Tonka package treatment unit at the requested flow rate. If the operators fail to achieve the required knowledge and experience during the 30-day startup period, the SOR must be reduced to 1.0 gpm/sf of tube surface area until proper training has been accomplished.



Mr. Brandon D. Pate  
Page 2  
October 16, 2001



The allowed operator training period does not relieve the City and plant operators from meeting the federal and state filtered water quality requirements or meeting their customers' quantity demand. The plant operators must be made aware of the need to carefully monitor changing raw water quality because the requested flow rate results in a hydraulic detention time that severely reduces the time allowed to make chemical feed adjustments necessary to continuously achieve acceptable settled and filtered water turbidity levels.

It is our understanding that the old clarifier will be converted into a raw water tank in front of either two Tonka or Aquarius package water treatment units to provide settling of heavy solids prior to discharge to the package units. The selected package water treatment units will have a total of 383.5 square feet of tube settler surface area. At the granted SOR, this will yield a total clarification capacity of 767 gpm.

All exceptions are subject to periodic review and may be revoked or amended if warranted. If at anytime after the 30-day startup period, the settled water turbidity level exceeds 3.0 NTU in 95% or more of a month's reported readings, the TNRCC will evaluate the individual and combined filter water turbidity levels, the length of the filter runs and the backwash flow rates and durations. If any of these are found unacceptable, the TNRCC will revoke this exception and the City will be required to operate the Tonka package treatment unit at a lower SOR and longer hydraulic detention time.

Also, if the TNRCC Regional staff determines during their on-site inspections that the 2.0 gpm/sf SOR is causing degradation of the finished water quality or that the plant's ability to meet the customers' quantity demands, this exception will be revoked.

If you have any questions concerning this request for an exception or if I may be of further assistance, please contact me at the letterhead's address or by telephone at (512) 239-4798.

Sincerely,

James "Red" Weddell, E.I.T.  
Surveillance & Technical Assistance Team  
Public Drinking Water Section (MC155)  
Water Supply Division

JSW

cc: TNRCC PWS File  
Ms. Heather Ross, TNRCC Tyler Region Office  
Mr. Jerry Salgado, P.E., TNRCC Utility Creation & Plan Review Team (MC153)  
Mr. Jack Schulze, P.E., TNRCC Surface Plant Evaluation Team (MC155)  
Mr. Fred Geiger, P.E., Texas Water Development Board  
Mr. Wayne Stolz, P.E., Everett Griffith, Jr. & Associates

Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Kubinsem, *Commissioner*  
Mark R. Viskery, P.C., *Executive Director*



File PWS/2030001/CO  
CN600630289  
RN103779302

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

December 22, 2009

Mr. Jerod L. Morris, P.E.  
Everett Griffith, Jr. & Associates Inc.  
P.O. Box 1746  
Lufkin, TX 75902

Subject: Request for Minimum Alternative Capacity Requirement  
Analysis of the Number of Connections  
City of San Augustine - PWS I.D. # 2030001  
San Augustine County, Texas

Dear Mr. Morris:

We received your letter, dated September 24, 2009, and associated data requesting that a minimum alternative capacity requirement (ACR) for the City of San Augustine (City) be granted under the Texas Commission on Environmental Quality's (TCEQ) requirements specified in 30 TAC §290.45(g). Based on our review, we are **granting** a new minimum alternative capacity requirement as follows:

**Total Production (Groundwater + Surface Water + Purchased - Sold): 0.58 gpm / connection**

An analysis of your submitted daily usage data indicated that a maximum daily demand day of 715,000 gallons occurred on August 1, 2009, with a conservatively estimated active connection count of 910. Calculations using a safety factor of 1.05 results in an equivalency ratio of 0.96. The above minimum alternative capacity requirement was calculated using this equivalency ratio and the specifications in 30 TAC §290.45(g)(2).

This minimum alternative capacity requirement is contingent upon the continuing collection of daily usage data and monthly number of active connections, as well as the maintenance of these records. All minimum alternative capacity requirements are subject to periodic review. They may be revised or revoked if water demand conditions change or if evidence is found that granting it has resulted in the degradation of potable water quality or quantity.

The number of connections was certified by Mr. James D. Lyons Jr., City Manager, to have varied by not more than 12 connections; therefore, a conservative estimate *for calculation of the ACR* is:

$$922 - 12 = 910 \text{ connections}$$



Mr. Morris, P.E.  
Page 2 of 3  
December 22, 2009

See below for an analysis of the number of connections (922). This conservative number of connections (910) was used in the ACR calculations because the number of active connections was not recorded monthly as required per 30 TAC §290.45(g)(1)(D).

Analysis of the Number of Connections

Per 30 TAC §290.38(15), a connection is defined as a *single family residential unit or each commercial or industrial establishment* to which drinking water is supplied from the system.

Please note that the above calculations were based on counting the City's number of connections in accordance with the definition of connection, which was different than how they were previously counted. The 922 connections are calculated based on:

- Each hotel (not hotel *room*) is one connection
- Each hospital (not hospital *bed*) is one connection
- Each nursing home (not nursing home *resident*) is one connection
- Please note that each senior living unit (apartment unit), as well as each standard apartment unit (rather than each apartment complex) counts as one connection.

Therefore, the number of active connections in the City of San Augustine was calculated as follows:

1,321 (the number of connections reported based on the old calculation method) + 7 (meters for Twin Lakes Care Center, Colonial Pines Nursing, San Augustine Development Center, Trinity Rehabilitation Center, San Augustine Inn, Budget Inn, and Memorial Hospital) – 406 (total of hotel rooms, hospital beds, and nursing room residents from the above facilities) = 922 connections. You requested in your December 18, 2009 email that the TCEQ's Central Office and Beaumont Regional Office use the same method to count connections. Beaumont Regional staff and TCEQ Central Office are in agreement on the above method of calculating connections. **Therefore, the TCEQ will update our database for the City of San Augustine's number of active connections from 1,321 to 922. Please note that this change in the number of connections affects the City's capacity requirements.**

We note that you submitted a list of facilities, daily water usage records (water produced – water sold) for September 2006 – August 2009, the number of connections (1,321) and documentation of how the problems leading to unusually high usage days (due to leaks or malfunctioning equipment) were corrected to prevent recurrence. The high usage days that were invalidated, including the corrective and preventative actions taken, are:

- September 2, 4, 8, 10 & 19, 2006 – leak in low-lying area during wet period - joint was replaced
- January 16, Feb 18 & 19, 2008, March 24-27, & May 24-25, 2009 – control failure – fail-safe surge protector was installed
- December 30, 2007, January 4, 6, 21, 25, 29, & 30, 2008 – failure in elevated tank electrode – fixed, found a company that can troubleshoot and repair elevated tanks.
- July 2-4, & 16, 2009 - diaphragm valve failures – repaired, operator will observe the liquid level indicator and overflow of the Light Plant GST daily.

Mr. Morris, P.E.  
Page 3 of 3  
December 22, 2009

Requests for alternative capacity requirement for the City's two wholesale customers (Bland Lake Rural WSC and San Augustine Rural WSC) were also submitted on September 24, 2009, and are currently being reviewed.

If you have any questions concerning this letter, or if we may be of further assistance, please contact me at the letterhead's address or by telephone at (512) 239-6006.

Sincerely,



Amanda Jigmond  
Public Drinking Water Section - MC155  
Water Supply Division

cc: TCEQ Beaumont Regional Office – R10  
Ms. Vera Poe, P.E., TCEQ Utilities Technical Review Team - MC153  
Mr. James "Red" Weddell, P.E., TCEQ Technical Review & Oversight Team – MC155  
Mr. Jack Schulze, P.E., TCEQ Technical Review & Oversight Team – MC 155  
Ms. Reyna Holmes, P.E., TCEQ Technical Review & Oversight Team – MC155  
Mr. Gary Chauvin, TCEQ Technical Review & Oversight Team – MC155  
Mr. Tel Croston, TCEQ Enforcement Division, Enforcement Section I – MC169  
The Honorable Mr. Leroy Hughes, Mayor, City of San Augustine  
301 S Harrison St, San Augustine, TX 75972  
Mr. Chris Anding, Superintendent, City of San Augustine





Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*

PWS/2030001/CO  
CN 600630289  
RN 103779302

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

August 5, 2010

Mr. Duke Lyons, City Manager  
City of San Augustine  
301 South Harrison Street  
San Augustine, Texas 75972

Subject: Request to Reinstate an Exception for the Maximum Allowable Clarification  
Surface Overflow Rate  
Review of the Actions Taken in Response to the October 2009  
Enhanced Special Performance Evaluation  
City of San Augustine – PWS ID #2030001  
San Augustine County, Texas

Dear Mr. Lyons:

On April 22, 2010, the Texas Commission on Environmental Quality (TCEQ) received your letter dated April 18, 2010 and its two attachments which you submitted in response to the following two documents.

1. TCEQ's letter dated February 24, 2010, conditionally reinstated the exception to Title 30 of the Texas Administrative Code (30 TAC) §290.42(d)(10)(C)(ii) which TCEQ had previously revoked. The reinstated conditional exception allows the City to operate its tube settlers at a (SOR) of 2.0 gallons per minute per square foot (gpm/ft<sup>2</sup>) instead of the 1.0 gpm/ft<sup>2</sup> rate specified in the rule.
2. TCEQ's letter dated October 19, 2009, Special Performance Evaluation Report (2009 SPE Report), which describes several "Changes That Must Be Made" and several "Changes That Should Be Considered."

In addition to reviewing the information submitted with your letter, the TCEQ also reviewed the City's Surface Water Monthly Operating Reports (SWMORs) for the past few months and the results of a site visit that was conducted by one of our staff members, Ms. Sylvana (Sam) Turner on June 17, 2010.

Item 1: Regarding the City of San Augustine's (the City) Request to Reinstate the Revoked Exception.

Attachment One of your letter indicates that the City has begun using the presedimentation basin whenever raw water turbidity levels are above 35 NTU and has the ability to feed a coagulant upstream of the basin. Please recall that TCEQ's letter dated February 2010 temporarily



Mr. Duke Lyons, City Manager  
City of San Augustine – PWSID 2030001  
Page 2 of 4  
August 5, 2010

reinstating the revoked exception requires the City to operate the pretreatment facilities in a manner that will ensure turbidity level in the feed water to the tube settler clarifiers does not exceed 35 NTU. The reinstatement of this exception is contingent on the City meeting the following conditions:

1. The City may by-pass the pre-sedimentation basin only when raw water turbidities are 35 NTU or less.
2. The City must maintain and operate the pre-sedimentation's coagulant feed equipment to improve particle removal when the pre-sedimentation basin is in operation. The City must feed a coagulant at adequate dosages to prevent the turbidity of the feed water reaching the package SWT units from exceeding 35 NTU.
3. The City must record the turbidity of the settled water produced by each tube settler basin (two samples) at least twice each shift. These samples must be collected after the package unit at least 30 minutes after beginning a production run and the highest daily settled water turbidity reading from each tube settler basin must be recorded on the SWMOR submitted to the TCEQ each month.
4. The City must achieve a settled water turbidity level of 3.0 NTU or less in at least 95% of the maximum daily readings from each tube settler basin.

Attachment One also indicates that the City is monitoring settled water turbidity levels at least twice each shift, collecting settled water data only after the clarifier has been operating for at least 30 minutes, and reporting the highest daily settled water reading from each clarifier. The attachment also indicates that the City is doing everything possible to ensure that at least 95% of the maximum daily settled water turbidity readings are 3.0 NTU or less each month. However, our analysis of the SWMOR data reveals that the plant did not meet the requirements during the months of January, February, or March of 2010 but did meet the performance standard during the month of April 2010. **Please be aware that the TCEQ could again revoke the City's exception if it is unable to consistently achieve settled water turbidity levels of 3.0 NTU or less.**

Item 2: Regarding the progress made towards the items identified during the 2009 Special Performance Evaluation (SPE)

Attachment Two of your letter describes the changes that the City has taken to date to address the findings contained in the 2009 SPE Report. Although many of these changes are already being implemented, the following changes are still in the analysis or design stage.

1. Attachment Two indicates you are awaiting the follow-up site visit for Directed Assistance Module No. 4 (DAM4) before you:
  - a. develop a disinfection protocol which reduces TTHM levels in the distribution system (i.e., Item 7 on the "Items That Must Be Changed" list); or

Mr. Duke Lyons, City Manager  
City of San Augustine – PWSID 2030001  
Page 3 of 4  
August 5, 2010

- b. adjust the treatment plant's pre-oxidation practices (i.e., Item 4 on the SPE report's "Items That Should Be Changed" list).
2. The City's engineer, Mr. Jed Morris, P.E., reported that the TCEQ has approved a revision to the discharge permit for the plant's sludge lagoon and design modifications which will ensure that the discharged supernatant does not contain an excessive amount of solids. Mr. Morris also stated that the City is aware of the status and will be contracting necessary construction locally (i.e., Item 10 on the "Items That Must Be Changed" list).

Attachment Two also indicates the City has decided not to track the "percent yield" of the SWT facility (i.e., Item 6 on the "Items That Should be Changed" list). Since the raw water meter has been recalibrated and the discrepancy between raw and treated water usage has been eliminated, we understand your decision and do not object to it. Please note that the City must calibrate all flow measuring devices and rate-of-flow controllers associated with the SWT facility at least once every 12 months as specified in 30 TAC §290.46(s)(1).

While reviewing your letter, we noted that approved disinfection requirements for the plant vary depending on whether or not the presedimentation basin is in use. Since the basin is only used as a pretreatment unit, it seems appropriate to establish a disinfection requirement that is based solely on the performance of the tube settlers. The data collected during the 24 months preceding the October 2009 SPE and during the first four months of 2010 reveals that the tube settler clarifiers were able to consistently achieve a 0.5-log reduction in turbidity levels. Since turbidity removal and pathogen control are related, it appears the plant can meet minimum disinfection requirements if it achieves a 0.5-log inactivation of *Giardia lamblia* and a 2.5-log inactivation of viruses. Since this single, common standard will provide adequate public health protection and will significantly simplify the plant's monitoring and reporting requirements, we are in the process of preparing a revised Concentration-Contact Time (CT) approval letter for the plant. Please keep these inactivation requirements in mind as you evaluate alternative disinfection protocols that will simultaneously meet minimum requirements and THM limits.

Please recall that TCEQ's letter dated February 24, 2010, which approved the conditional exception, requires the City to make all the changes identified in the "Items That Must be Changed" list in the 2009 SPE Report. As noted previously, the City still has not yet implemented an effective total trihalomethane (TTHM) control strategy (Item 7) or completed the changes need to comply with sludge lagoon discharge permit parameters (Item 10). **You must notify us in writing at the address below when the City completes these improvements or it is unable to do so by September 30, 2010.**

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

If you have any questions, or need further assistance, please contact my staff, Mr. Red Weddell regarding the reinstatement of the SOR exception by email at [jweddell@tceq.state.tx.us](mailto:jweddell@tceq.state.tx.us) or by



Mr. Duke Lyons, City Manager  
City of San Augustine – PWSID 2030001  
Page 4 of 4  
August 5, 2010

telephone at (325) 481-8056 or Mr. Jack Schulze regarding the SPE by email at [jschulze@tceq.state.tx.us](mailto:jschulze@tceq.state.tx.us) or by telephone at (512) 239-6046. Both of my staff can be contacted by mail at:

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

Sincerely,



Cari-Michel La Caille, Assistant Director  
Water Supply Division  
Texas Commission on Environmental Quality

CML/JCS/

cc: TCEQ Beaumont Regional Office (R10)  
TCEQ Tracer File  
Ms. Vera Poe, P.E., Team Leader, TCEQ Utilities Technical Review Team (MC 159)  
Mr. James "Red" Weddell, P.E., TCEQ Technical Review & Oversight Team (MC 159)  
Mr. Jack C. Schulze, P.E., TCEQ Technical Review & Oversight Team (MC 159)  
Mr. Gary Chauvin, TCEQ Technical Review & Oversight Team (MC 159)

Kathleen Hartnett White, *Chairman*  
Larry R. Seward, *Commissioner*  
Martin A. Hubert, *Commissioner*  
Glenn Shankle, *Executive Director*



File PWS 2030001/CO  
CN 600630289  
RN 103779302

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

December 12, 2006

AD MATRON COPY

Mr. Chris Anding, Superintendent  
City of San Augustine  
301 South Harrison Street  
San Augustine, Texas 75972

Subject: Revision of Condition for an Exception to the SOR for Tube Settler Clarification Units  
Revision of Conditions for an Exception to the Minimum SWD for Clarification Units  
TCEQ Alternative CT Study  
City of San Augustine – PWS ID #2030001  
San Augustine County, Texas

Dear Mr. Anding:

We have reviewed the calculated daily inactivations entered on the City of San Augustine's (City) Surface Water Monthly Operating Reports (SWMOR) for the time frame during which the old solids-contact basin was bypassed. As previously discussed and stated in our May 16, 2006 letter, the Texas Commission on Environmental Quality's (TCEQ) Beaumont Regional staff noted that the City was not meeting condition Nos. 1 and 2 listed in our October 16, 2001 letter. These exceptions were for the City to operate tube settler clarification units at a surface overflow rate (SOR) greater than 1.0 gallons per minute per square-foot (gpm/sf) and a depth less than 12 feet as prohibited by 30 TAC §290.42(d)(10)(C)(iii) and §290.42(d)(10)(C)(iv), respectively. Specifically, the old solids-contact clarifier basin was to be continuously used as a pretreatment basin and the City operators were supposed to monitor the Aquarius package water treatment plants' (WTP) settled water turbidity levels continuously. The City's failure to historically comply with TCEQ conditions has resulted in concerns regarding the previously approved removal credits for viruses and *Giardia lamblia* cysts and review under the Texas Health & Safety Code, Title 5, §341.0315(d) and 30 TAC §290.39(l)(2).

The TCEQ must ensure that future actions by the City do not result in a degradation of potable water quality. The revoking of the SOR exception would reduce the City's surface WTP capacity by one-half and result in the City's inability to meet customer demands. **Therefore, the TCEQ is not revoking these exceptions, but the TCEQ is revising the conditions under which the City may continue to operate the Aquarius package WTPs' tube settler clarification units at SOR of 2.0 gpm/sf and a minimum depth of 11 feet.** We have listed the new and revised requirements for the continued granting of these exceptions on the following pages.



1. During normal operations when the old solids-contact basin is used, the TCEQ approved CT Study in our letter dated January 31, 2003 must be used. Please reference the enclosed January 31, 2003 for further information during normal water treatment plant operations.
2. Based on the fact that the City has bypassed the old solids-contact basin in the past and may find it necessary to do so in the future, the TCEQ is issuing an alternate approved CT Study that must be met during events when the old solids-contact basin is bypassed. **This alternate CT Study is only for these events.**

When the old-solids contact basin is bypassed, **the City must achieve 3.0-log inactivation of viruses and 1.0-log inactivation of *Giardia lamblia* cysts through disinfection during events, such as maintenance, when the old solids-contact basin is bypassed.** During these events raw water will split and enter the two parallel 1.0 million gallons per day (MGD) US Filter Aquarius package WTPs. The filtered water from each package WTP will be recombined and the combined filtered water will flow into the 0.035-MG clearwell and then into the 0.500-MG ground storage tank. Each package WTP has its own flocculator, tube settler clarification unit and a gravity media filter.

The disinfection protocol will consist of free chlorine being injected into the raw water prior to the two Aquarius package WTPs and in the combined filtered water pipe prior to the 0.035 MG clearwell. Chlorine residual monitoring will be after each Aquarius package WTP and prior to entering the distribution.

A disinfection zone is a section of the plant that starts at a disinfectant injection or monitoring point and ends at the subsequent disinfectant injection or monitoring point. Every disinfectant injection point is the start of a new disinfection zone, even if it is not always used. Every injection point must have an associated monitoring point. However, a plant may have only one disinfectant point and choose to monitor at more than one point, creating multiple disinfection zones. **We have defined two disinfection zones for the City WTP during events when the old solids-contact clarifier basin is bypassed.** Disinfection Zone (D1) is divided into two trains D1-A and D1-B. Each train consists of one 1.0-MGD *US Filter Aquarius* package WTP plant. Disinfection Zone (D2) consists of the 0.035-MG clearwell and the 0.50-MG-ground storage tank.

CT calculations are used to evaluate the disinfection process. Because the operators will need  $T_{10}$  values for each of the disinfection zones to calculate the CT for the treatment process, a new  $T_{10}$  table was developed for the City WTP. The  $T_{10}$  values shown in Table 1A below are based on the data provided from present correspondence, our files, and the most recent CT study.

**Table 1A: Approved T<sub>10</sub> Table for the City of San Augustine WTP  
When the Old Solids-Contact Basin is Bypassed**

Zone	Treatment Unit	Volume (gal)	Flow Rate (MGD) <sup>(1)</sup>	Baffling Factor	T <sub>10</sub> segment (min)	Zone T <sub>10</sub> (min)
D1-A and D1-B	Flocculator	15,750 <sup>(2)</sup>	1.1 <sup>(8)</sup>	0.3 <sup>(10)</sup>	6.2	31.9
	Clarifier	34,420 <sup>(3)</sup>		0.3 <sup>(11)</sup>	13.5	
	Filter	13,270 <sup>(4)</sup>		0.7 <sup>(12)</sup>	12.2	
D2	Clearwell	17,600 <sup>(5)</sup>	2.2 <sup>(9)</sup>	0.2 <sup>(13)</sup>	4.61	39.3
	Ground Storage Tank	250,215 <sup>(6)</sup>		0.2 <sup>(13)</sup>	32.8	
	Piping	2,980 <sup>(7)</sup>		1.0 <sup>(14)</sup>	1.95	

Footnotes:

- (1) Based on the design capacity of treatment plant, as per Everett Griffith, Jr. & Assoc.(EGA), January 10, 2003.
- (2) Based on 13 feet 6 inch long by 13 feet wide by 12 feet deep flocculator section of *US Filter Aquarius* package plant, as per EGA, January 10, 2003
- (3) Based on 29 feet 6 inch long by 13 feet wide by 12 feet deep clarifier section of *US Filter Aquarius* package plant, as per EGA, January 10, 2003.
- (4) Based on mixed-media gravity filter section of *US Filter Aquarius* package plant, 13 feet long by 13 feet wide, water level is at a minimum 9 feet above the media, a combined media and underdrain depth of 3 feet. as per EGA, January 10, 2003. 50% porosity is assumed.
- (5) Based on 52 feet long by 10 feet 2 inch wide by 8 feet 11 inch side-wall clearwell, as per EGA, January 10, 2003.
- (6) Based on 51 feet diameter by 32 feet 9 inch side wall ground storage tank, as per EGA, January 10, 2003. Assumed 50% of nominal capacity in absence of site-specific information.
- (7) Based on 186 feet of 12-inch pipe and 144 feet of 18-inch pipe, as per EGA, January 10, 2003.
- (8) Based on 50 % of design capacity of treatment plant, as per EGA, January 10, 2003.
- (9) Based on design capacity of treatment plant, as per EGA, January 10, 2003.
- (10) Assumes baffling characteristics for settling basin with baffled inlet and 2 baffled walls, as per EGA, January 10, 2003.
- (11) Assumes "poor" baffling characteristics for flocculation basin.
- (12) Assumes "poor" baffling characteristics for clarifier.
- (13) Assumes "superior" baffling characteristics for filters.
- (13) Assumes baffling characteristics for clearwells in series. Based on the assumption that the baffling characteristics of the two tanks being operated in series are similar.
- (14) Assumes "plug flow " characteristics for pipes.



We have prepared another table, Disinfection Process Parameters, to help the operators complete their SWMORs when the old solids-contact basin is bypassed. In Table 2A, we have characterized the T<sub>10</sub> available in each of the two disinfection zones based on the flow rate through the unit(s) that contributes most to the disinfection process within that zone. We have also provided the operators with the disinfection requirements that they must meet on an on-going basis during these temporary time frames. In order to help the operators complete their SWMOR, the disinfection protocol information contained in Table 2A is presented in the format that is used on Page 4 of the SWMOR.

**Table 2A: Disinfection Process Parameters for the City of San Augustine WTP  
When the Old Solids-Contact Basin is Bypassed**

APPROVED CT STUDY PARAMETERS							PERFORMANCE STDs	
Parameters	Disinfection Zones						Log Inactivation	
	D1A	D1B	D2	D3	D4	D5	<i>Giardia</i>	Viruses
Flow Rate (MGD)	1.10	1.10	2.20	na	na	na		
T <sub>10</sub> Time (minutes)	31.9	31.9	39.3	na	na	na	1.0	3.0

3. At any time the City finds it necessary to bypass the old solids-contact basin, the WTP operators must complete a second SWMOR as per the TCEQ "Approved CT Study Parameters" and TCEQ required "Performance Standards" in Table 2A of this letter. The values in Table 2A of this letter and Table 2 of our January 31, 2003-letter, cannot be used on the same SWMOR. The City must include a written notification to the TCEQ's Technical Review & Oversight Team (MC155) with each month's SWMOR that Table 2A is used.
4. The City's operators must monitor and record the settled water turbidity at the effluent of each Aquarius package WTP's tube settler clarification unit at least once each eight-hour shift that it produces settled water. The eight-hour shifts shall correspond to the following time frames, 12:00 am – 8:00 am, 8:00 – 4:00 pm and 4:00 pm – 12:00 am.
5. Sludge must not be allowed to accumulate in a tube settler clarification unit to a depth that results in the degradation of the settled water quality or disinfection contact time.
6. The highest level of the recorded settled water readings must be entered for each day of the month on Page 2 of the SWMOR for each tube settler clarification unit. If more than one settled water turbidity level is measured for an Aquarius unit, the largest reading must be entered on the SWMOR.
7. The maximum settled water turbidity level for an Aquarius package WTP must be 3.0 NTU or less in at least 95% of each month's reported readings.

Mr. Chris Anding  
Page 5  
December 12, 2006

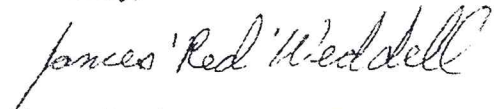
8. The City's WTP operators must receive the training necessary to make proper chemical adjustments for treating the raw water quality to consistently achieve the 3.0 NTU or less settled water turbidity levels and meet all federal and state filtered and drinking water standards specified in 30 TAC Chapter 290, Subchapter F under all operating conditions. Please note that the increase in disinfection levels to achieve the required new inactivation requirements may result in an increase in disinfection byproduct levels in distribution.

After a period of one year from the date of this letter, the City may submit a written request to the TCEQ to review the above conditions with copies of all raw water turbidity levels before and after the old solids-contact basin, all measured settled water turbidity levels and SWMORs.

As indicated by this letter, all exceptions are subject to periodic review by TCEQ Regional and Public Drinking Water staff and may be revoked or revised if warranted. If at anytime it is found that the continued granting of these two exceptions has resulted in a degradation of potable water quality or quantity, the TCEQ will revoke these exceptions. As noted earlier, the revocation of the granted SOR would result in a reduction of the TCEQ approved capacity to one-half of what is approved with the exception. The City would then need to install additional production facilities to remain in compliance. The revocation of the exception to operate the clarification units at a depth of 11 feet would result in the need to modify the clarification units to operate at a depth of 12 feet or greater for compliance.

If you have any questions concerning this letter, or if we may be of further assistance, please contact us at the letterhead's address or me by telephone at (512) 239-4798.

Sincerely,



James "Red" Weddell, P.E.  
Technical Review & Oversight Team  
Public Drinking Water Section – MC155

JSW/al

Enclosure: TCEQ January 31, 2003 Letter

cc: TCEQ Beaumont Regional Office – R10  
TCEQ Tracer File  
Ms. Marlo Wanielista Berg, P.E., Team Leader, Technical Review & Oversight Team – MC155  
Ms. Alicia Diehl, PhD, E.I.T., Team Leader, Drinking Water Quality - MC155  
Mr. David D. Laughlin, P.E., Team Leader, Utilities Technical Review Team – MC153  
Mr. Gary Chauvin, Technical Review & Oversight Team – MC155









Mr. James Lyons  
City of San Augustine  
Page 2  
February 23, 2010

TAC §290.39(1)(4). **Conditions in Item Nos. 1-5 of this letter are new, minimum site-specific requirements for the City.** These requirements are in addition to other 30 TAC Chapter 290, Subchapter D requirements, other than the requirement an exception is being granted to. The City must comply with Item Nos. 1 – 5 to maintain compliance with TCEQ requirements.

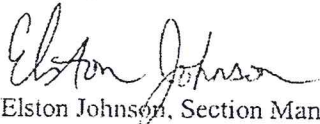
A letter addressing Item Nos. 3-5 must be submitted to the TCEQ within sixty (60) days of receipt of this letter. Until such time that a response from the City is received, the 2001 exception letter is temporarily re-instated. This temporary re-instatement may be revoked if the City fails to respond to this letter within the specified time frame. Once written confirmation that the City agrees to comply with the above-requirements, the exception will be re-instated. Please note that failure to meet the above requirements may result in revocation of the exception.

The TCEQ would like to recommend that additional items noted in the SPE be also addressed. These items are designed to improve the treatment plant's efficiency.

It should also be noted that according to our December 22<sup>nd</sup> meeting, the City is planning on constructing a third clear well. Please note that plans and specifications must be submitted to our Utilities Technical Review Team (MC-153) prior to initiating construction. Also note that a revised (CT) study must be submitted to the Technical Review and Oversight Team (MC-155) once the proposed clear well is 90% complete or three (3) months before the expected completion date; whichever ever comes first.

If you have any questions concerning this letter, or if we may be of further assistance, please contact me at the letterhead's address or by telephone at (512) 239-6183.

Sincerely,



Elston Johnson, Section Manager  
Public Drinking Water Section, MC-155  
Water Supply Division  
Texas Commission on Environmental Quality

EJ/REH/av

cc: Mr. Chris Anding, Superintendent, City of San Augustine, 301 S Harrison St, San Augustine, TX 75972  
Mr. Alexander Hinz, TCEQ Region 10 – Beaumont  
Ms. Reyna Holmes, P.E., TCEQ Technical Review and Oversight Team (MC-155)  
Mr. Gary Chauvin, TCEQ Technical Review and Oversight Team (MC-155)  
Mr. Elston Johnson, TCEQ Public Drinking Water Manager (MC-155)  
Ms. Sylvana Turner, TCEQ Technical Review and Oversight Team Region 10- Beaumont  
Mr. Jack Schulze, P.E., TCEQ Technical Review and Oversight Team (MC-155)  
Mr. Douglas Brown, TCEQ Environmental Law (MC-173)

Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*

File PWS/2030001/CO

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

October 26, 2011

Mr. Jerrod Morris, P.E.  
Everett Griffith, Jr. & Associates, Inc.  
408 North Third Street  
Lufkin, Texas 75902-1746

Subject: Request for an Exception to Allow the Use of Chloramines  
City of San Augustine - PWS ID No. 2030001  
San Augustine County, Texas

CN 600630289; RN103779302

Dear Mr. Morris:

On July 11, 2011 the Texas Commission on Environmental Quality (TCEQ) received your letter dated July 6, 2011 for the City of San Augustine (City) notifying us of a change in your disinfection process. This notice was submitted in accordance with the requirements specified in Title 30 of the Texas Administrative Code (TAC) §290.39(j). This proposed change will involve applying liquid ammonium sulfate (LAS) to the chlorinated water downstream of the chlorine injection sites in the treatment train so that a chloramine residual can be maintained in the clearwell and distribution system. 30 TAC §290.42(e)(3)(G) requires that we review the use of chloramine on a case-by-case basis under the exception guidelines. Based on our review of the information submitted, we are **granting** your request to change your disinfectant to chloramines under the following conditions:

1. Each of the City of San Augustine's customers, both retail and wholesale, should be notified that you plan to convert to a chloramine disinfectant at least 14 days prior to making the change. This notification must contain the Sample Language for Notification Upon Changing from Free Chlorine to Chloramines included in Enclosure 1. The notification should be provided to the news media, renal disease facilities, dialysis clinics, hospitals, physicians, local health departments, and any facility that may provide dialysis treatment or have fish tanks. Once your customers have been notified, you must send a Certification of Delivery for Public Notice (see Enclosure 1) and a copy of the public notice to the TCEQ Public Drinking Water Section at the following address:

Public Drinking Water Section (MC-155)  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087



Please ensure that any water system that purchases water from your system also receives this notice and understands that their customers must also receive this notice. This is vital information for your wholesale purchasers and can affect the type and quantity of disinfectant that the purchased water system needs to utilize.

2. A revised Contact Time (CT) Study is **NOT** required. The PWS operators must be aware that the type of disinfectant used in the surface water treatment plant and in distribution must be correctly identified as either free chlorine or chloramines in the appropriate fields in the Surface Water Monthly Operating Report (SWMOR). Please note that free chlorine is denoted as "FCL" and chloramines as "CLA" in the "Disinfection Process Parameters" dialog box and on Pages 4 and 5 of the SWMOR. For more information about the SWMOR, please see the TCEQ publication RG-211 "Monitoring and Reporting at Surface Water Treatment Plants."
3. All chemicals used in treatment of water supplied by public water systems must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 60 for direct additives. Conformance with these standards must be obtained by certification of the product by an organization accredited by ANSI as specified in 30 TAC §290.42(j).
4. All chemical storage and feed facilities must comply with the TCEQ requirements specified in 30 TAC §290.42(f)(1) and (2).
5. Monochloramine, total chlorine, and free ammonia levels need to be tested periodically to properly control the chloramination process and prevent inappropriate ammonia feed rates. The current ammonia level in the source water will affect the amount of chlorine and ammonia you will need to add to achieve the desired chlorine-to-ammonia ratio. Insufficient ammonia feed rates can result in taste and odor problems within the distribution system. Higher free ammonia levels can result in high nitrite levels that may exceed the maximum contaminant level, and can place infants at risk. Consequently, systems using chloramines must meet the following requirements as a condition of the exception:
  - a. The plant must obtain a test kit(s) or use a laboratory procedure that can measure the following:
    - i. **Free Ammonia**- preferably the kit or procedure should have the ability to differentiate between inorganic ammonia (such as LAS) and naturally-occurring organic nitrogen compounds, such as urea, that might be present in surface water.
    - ii. **Monochloramine**- the kit or procedure should have the ability to distinguish between monochloramine levels and other forms of total chlorine.

iii. **Chloramine (measured as Total Chlorine)**

iv. **Free Chlorine** – the water system must have the ability to measure free chlorine at the times when they switch from chloramines to free chlorine during a “burnout.”

b. The water system must measure and record the following:

	At the <b>Entry Point</b> to the Distribution System	At a <b>Bacteriological Sample Site</b> in the Distribution System	At the <b>Treatment Plant</b> , Downstream of the Chlorine or Ammonia Injection Point where you are Adjusting the Feed Rate
<b>Free Ammonia</b>	Weekly*	At least monthly**	<i>Prior to and After</i> Adjusting the Chlorine or Ammonia Feed Rate
<b>Monochloramine</b>	Weekly	n/a	<i>After</i> Adjusting the Chlorine or Ammonia Feed Rate
<b>Total Chlorine</b>	Weekly	At least monthly**	<i>After</i> Adjusting the Chlorine or Ammonia Feed Rate

\* if an elevated level of free ammonia is detected in the water at the entry point to the distribution system, more frequent monitoring is recommended.

\*\*when collecting a routine monthly bacteriological sample(s)

c. Corrective actions shall be taken by the operators if it is found that overfeeding of ammonia has occurred. For an example of corrective actions, please see Enclosure 2 regarding “Monitoring Plan Alert and Action Levels.”

d. Records of monochloramine, total chlorine, and free ammonia monitoring must be maintained with the system’s disinfectant records for a period of three years and made available to the TCEQ staff upon request as specified in 30 TAC §290.46(f)(3)(F).

6. The City of San Augustine may find that it needs to revert back to free chlorine periodically to control the levels of nitrifying bacteria in the distribution system. This reversion process does not reflect normal operating conditions and may result in temporary increases in disinfection byproduct (DBP) levels. Consequently, the TCEQ often adjusts its DBP monitoring schedule as a courtesy during these events. However, DBP sampling must occur within the calendar quarter when sample collection is scheduled. Therefore, the City should avoid reverting back to free chlorine during the last month of the quarter unless DBP samples for that quarter have already been collected.

To ensure that DBP samples are not collected under abnormal operating conditions, the City must notify us and any of its wholesale customers of any temporary reversion back to free chlorine. These notices should be issued in the following manner:



- a. The notice should be issued at least 14 days before the reversion begins and should state the date that the City plans to begin distributing water with a free chlorine residual as well as the anticipated duration of the event.
  - b. The notice to TCEQ should be sent either via email to [DBP@tceq.texas.gov](mailto:DBP@tceq.texas.gov), fax to (512) 239-6020, phone at (512) 239-4691, or correspondence to the address below; it should also include the name of any public water system that the City wholesales water to:  

Drinking Water Quality Team (MC 155)  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087
  - c. The notice to wholesale customers should be issued in writing or via fax.
7. The City must keep a copy of this letter and all related monitoring data in their files for as long as this exception remains in effect, and must make it available to TCEQ staff upon request.

Please note that the minimum required distribution residual shall be maintained at 0.5 milligram per liter (mg/L) chloramine residual (measured as total chlorine).

We note that this change includes the addition of one 10-gallon and one 50-gallon polypropylene tank, spill containment for each type of tank and a 1-gallon-per-hour (gph) LMI positive displacement injection pump.

Engineering plans and specifications are NOT required to be submitted to the TCEQ's Utilities Technical Review Team (MC 159) for review and approval prior to construction as specified in 30 TAC §290.39(j)(1)(A).

Please note that all exceptions are subject to periodic review by TCEQ. If it is found that the granting of this exception has resulted in the degradation of potable water quality or quantity, the exception shall be amended, revised or revoked.

This exception is not intended to waive compliance with any other TCEQ requirements in 30 TAC Chapter 290, nor can it be used as a defense in any enforcement action resulting from noncompliance with any other requirements of 30 TAC Chapter 290.

Mr. Jerrod L. Morris, P.E.  
Page 5 of 5  
October 26, 2011

If you have questions concerning this letter, or if we can be of additional assistance, please contact Sylvana (Sam) Turner at [Sylvana.Turner@tceq.texas.gov](mailto:Sylvana.Turner@tceq.texas.gov) by telephone at (409) 899-8798, or by correspondence at the following address:

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

Sincerely,



Ada Lichaa, P.G., Manager  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality

AL/SAT

Enclosures: Enclosure 1 Certification of Delivery for Public Notice  
Enclosure 2 Monitoring Plan Alert and Action Levels

cc: TCEQ Beaumont Regional Office – R10  
Ms. Vera Poe, P.E., TCEQ Utilities Technical Review Team (MC 159)  
Mr. Kerry Lacy, City Manager, City of San Augustine 301 S. Harrison St., San  
Augustine, TX 75972-1912



# ENCLOSURE 1:

## PUBLIC NOTICE REQUIREMENTS FOR SYSTEMS CONVERTING TO CHLORAMINES

A public water system (PWS) must notify its customers, in writing, at least 14 days prior to commencing the use of chloramines. This notification must contain the Sample Language for Notification Upon Changing from Free Chlorine to Chloramines included below. The notification should be provided to the news media, renal disease facilities, dialysis clinics, hospitals, physicians, local health departments, etc.

### Sample Language for Notification Upon Changing from Free Chlorine to Chloramines (English)

*"On <Date>, the <Water System Name> will be changing the disinfectant that we use from chlorine to chloramines. This change is intended to benefit our customers by reducing the levels of disinfection byproducts (DBPs) in the system, while still providing protection from waterborne disease.*

*However, the change to chloramines can cause problems to persons dependent on dialysis machines. A condition known as hemolytic anemia can occur if the disinfectant is not completely removed from the water that is used for the dialysate. Consequently, the pretreatment scheme used for the dialysis units must include some means, such as a charcoal filter, for removing the chloramine prior to this date. Medical facilities should also determine if additional precautions are required for other medical equipment.*

*In addition, chloraminated water may be toxic to fish. If you have a fish tank, please make sure that the chemicals or filters that you are using are designed for use in water that has been treated with chloramines. You may also need to change the type of filter that you use for fish tanks."*

*OPTIONAL: When the chloraminated water first flushes out the chlorinated water there may be a slight taste and odor, and possibly discoloration for a short period of time. This will not compromise the safety of the water.*

### Sample Language for Notification Upon Changing from Free Chlorine to Chloramines (Spanish)

*"El <Date>, el <Water System Name> cambiará el desinfectante de cloro que usamos a otro de cloramina. El propósito de este cambio es beneficiar a nuestros clientes reduciendo los niveles de los productos secundarios relacionados a la desinfección (DBPs) en el sistema, proporcionando al mismo tiempo la protección contra las enfermedades originadas por los gérmenes del agua.*

*No obstante, el cambio a cloramina puede causar problemas a las personas cuya vida depende de las máquinas de diálisis. Si el desinfectante no es completamente eliminado del agua que se usa para la diálisis, puede conducir a una anemia hemolítica. Por lo tanto, el esquema de tratamiento previo usado por las unidades de diálisis debe incluir algunos medios, tales como filtros de carbón, para eliminar la cloramina antes de esta fecha. Las instituciones médicas deben determinar si otros equipos médicos también pueden requerir precauciones adicionales.*

*Además, el agua con cloramina podría ser tóxica para los peces. Si tiene un tanque para peces, asegúrese de que los filtros o los productos químicos que están siendo usados están diseñados para ser usados en agua que ha sido tratado con cloramina. También puede ser necesario cambiar el tipo de filtro que usa para el tanque.”*

OPCIONAL: Al tiempo de la primera aspesión del agua cloraminada, se puede percibir por periodos cortos de tiempo algún sabor, olor y posiblemente alguna pérdida del color del agua. Esto no compromete la seguridad del agua.

Important notes:

- 1) The PWS may not begin using chloramines prior to the date shown in the notice.
- 2) The TCEQ does not currently require the PWS to include the name or contact number of a PWS employee that the customers can contract if they have questions. However, several systems have included this additional information as a courtesy to its consumers.
- 3) Some PWSs find it beneficial to periodically convert back to free chlorine for 7 – 14 days once or twice each year. This procedure can minimize the growth of nitrifying bacteria and make it easier to maintain an adequate chloramine residual during the rest of the year. If the PWS wishes to use this procedure, it must notify the TCEQ and any wholesale customer prior to making this type of temporary switch. The TCEQ also suggests that the PWS notify its customers just days before making the temporary change because this procedure occasionally results in slight changes in the taste and odor of the water. However, it does not have to reissue the public notice described above.





**Texas Commission on Environmental Quality**  
**CERTIFICATION of DELIVERY of PUBLIC NOTICE to CUSTOMERS**

Public Water System (PWS) Name: \_\_\_\_\_  
PWS I.D. (7-digit number required): \_\_\_\_\_  
Date of Change to Chloramines: \_\_\_\_\_

I, \_\_\_\_\_, certify that the following information is true and accurate: (signature)

- The public water system named above has distributed the Public Notice (PN) for changing the disinfectant to chloramines at least 14 days prior to the change by mail or direct delivery to bill-paying customers as required by 30 TAC §290.46(q)(2); and
- The information contained in this public notification is correct and complies with required public notification content in accordance with 30 TAC §290.46(q)(2); and
- The above system has made an adequate good-faith effort to reach non-bill-paying consumers by appropriate methods as follows (check all that apply):

- Posting the PN on the Internet at www. \_\_\_\_\_
- Mailing the PN to postal patrons within the service area that do not receive a bill
- Advertising the PN in news media
- Publication of PN in local newspaper
- Posting the PN in public places
- Delivery of multiple copies to single bill addresses serving several persons
- Delivery to community organizations

Date of Delivery to Customers: \_\_\_\_\_

Certified by: Name (print): \_\_\_\_\_

Title: \_\_\_\_\_

Phone No: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Send one copy of this completed form and one copy of the Public Notification that you delivered to your customers to:

**Public Drinking Water Section - Mail Code 155**  
**Texas Commission on Environmental Quality**  
**P. O. Box 13087**  
**Austin, Texas 78711-3087**

# ENCLOSURE 2:

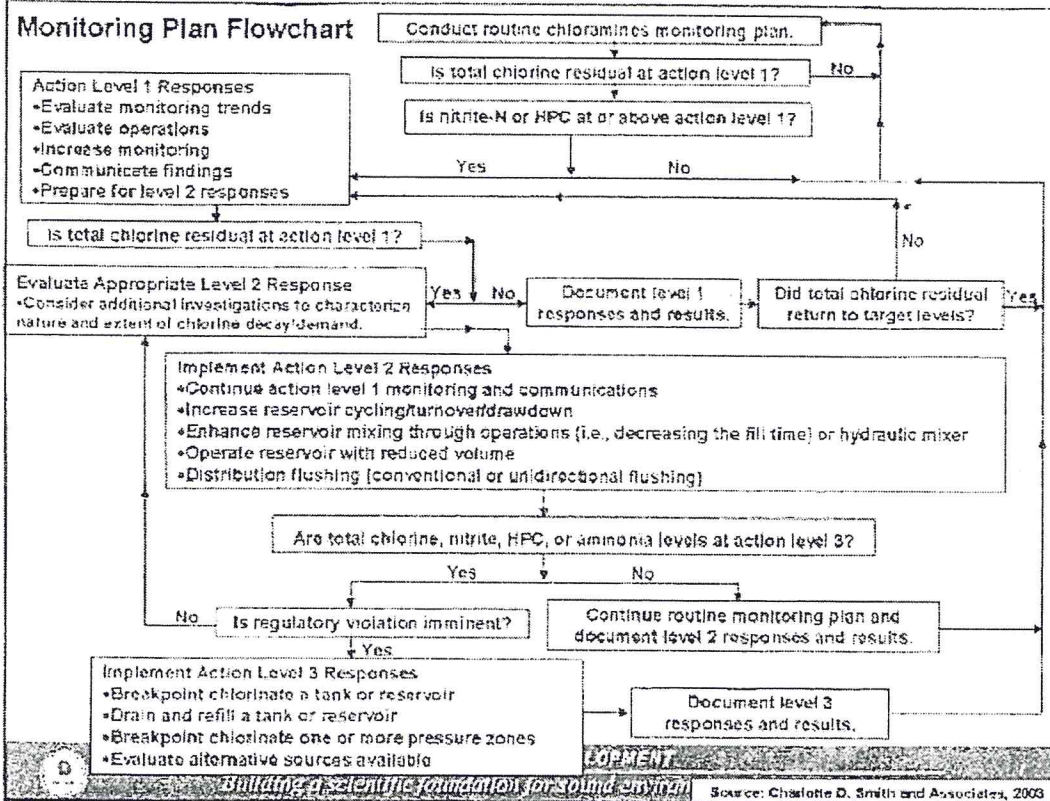
## Monitoring Plan Alert and Action Levels

Parameter	Target at Reservoir Inlets	Target at TCR Sampling Stations	Action Level 1 (Alert Level)	Action Level 2 (Operational Responses Required)	Action Level 3 (Regulatory Violation Possible)
Total chlorine (mg/L)	>1.7	>1.5	1.0-1.5	<1.0	<0.02
Nitrite-N (mg/L)	<0.01	<0.01	>0.02	>0.03	>0.05
HPC-R2A (cfu/mL)	<100	<100	>100	>200	>500
Free ammonia-N (mg/L)	<0.1	<0.15	>0.15	>0.2	NA

Source: Charlotte D. Smith and Associates, 2003

RESEARCH AND DEVELOPMENT

Building a Scientific Foundation for Sound Decision Making







2030001  
10/1/01

Robert J. Huston, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
John M. Baker, *Commissioner*  
Jeffrey A. Saitas, *Executive Director*

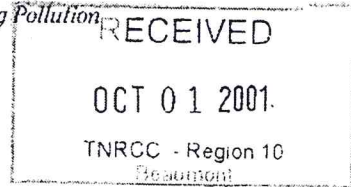


INFORMATION COPY

## TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

*Protecting Texas by Reducing and Preventing Pollution*

September 24, 2001



Mr. Wayne Stolz, P.E.  
Everett Griffith, Jr. 7 Associates Inc.  
P.O. Box 1746  
Lufkin, Texas 75902-1746

Subject: Request for an Exception to the Requirement for Containment of Chemical Storage Tanks  
City of San Augustine - PWS I.D. 2030001  
TNRCC Plan Review Log No. 103-157  
TWDB Water Supply Account Loan No. 1538  
San Augustine County, Texas

Dear Mr. Stolz:

We have reviewed your letter, received September 11, 2001, requesting an exception to the Texas Natural Resource Conservation Commission's (TNRCC) requirement in §290.42(d)(6)(E)(ii) for all chemical storage tanks to have containment facilities that will hold the maximum quantity of chemicals that can be stored within the containment facility and have a minimum of six inches of freeboard at the City of San Augustine's surface water treatment plant. Your letter included an alternate proposal to install prefabricated double wall chemical storage tanks in lieu of constructing a containment facilities. Based on our review of the proposed alternate methods, the TNRCC is granting this request for exception under the following conditions:

1. The inner tank's volume must be adequate to store 15 days worth of chemicals. There must be a method for readily determining the level of liquid in the inner tank.
2. There must be a method for readily determining if the inner tank is leaking into the outer shell.
3. The liquid volume of the outer tank must be 110% of the inner tank's volume.
4. The construction material for all chemical storage tanks must be suitable for the intended chemical to be stored and resistant to ultraviolet and other external environmental conditions. The tank shall be constructed in accordance with the appropriate American Society for Testing and Materials (ASTM) Standard.
5. All access opening into the inner tank shall be through a domed roof.
6. Access connections for the installation of adequate and proper venting must be constructed in the domed top of the inner tank. The opening of the vent shall be designed to prevent the entrance of rain water and covered with corrosive resistant screening.



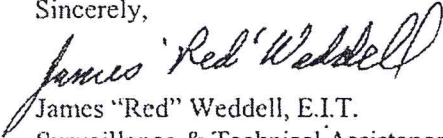
Mr. Wayne Stolz, P.E.  
Page 2  
September 24, 2001

7. The chemical transfer pumps must be designed for the chemical to be stored and take suction through a hole in the domed top of the inner tank with a method to prevent siphonage through the pump when it is not in service.
8. The outer containment tank shall have only one appurtenance for the installation of a chemical resistant drain valve. The appurtenance shall be located as close to the vertical wall's bottom as feasible without compromising the integrity of the outer containment tank.
9. The tank must be equipped with a manway having a minimum diameter of 24 inches with a liquid tight seal.
10. An access ladder, or stairway, and a work landing must be provided adjacent to the pump location to facilitate the replacement or repair of the chemical pump. If the top height of the inner tank and containment tanks are such that the pump location and associated piping can be worked on from the ground elevation, a ladder and work landing will not be required. The design of the ladder and work landing shall be constructed in accordance with applicable federal and state safety requirements.

All exceptions are subject to review during any complaint investigate or sanitary surveys by the TNRCC's regional staff. If at any time the it found that the granting of this request for exception is failing to protect the water treatment process or the environment, this exception will be revoked.

If you have any questions concerning this letter, or if we may be of further assistance, please contact me at the letterhead's address or by telephone at (512) 239-4798.

Sincerely,



James "Red" Weddell, E.I.T.  
Surveillance & Technical Assistance  
Public Drinking Water Section (MC 155)  
Water Supply Division

JSW

cc: TNRCC PWS File  
TNRCC Beaumont Region Office  
Mr. Joseph Strouse, P.E., Team Leader, TNRCC Utilities Creation & Plan Review (MC 153)  
Mr. Mike Lynn, P.E., East Texas Region Manager, Texas Water Development Board

Track num

690 730



Concrete Slab Chlorine





Concrete slab Chlorine





Track #

690729

Track Number 690729

SOP

The City of San Augustine will have these items on fill at the water plant and ready for submittal when asked by the inspector. The CSI inspections are did by a pluming inspector which is covered by the pluming code ordinance. And we had no filled customer complaints.



ORDINANCE NO. 258

AN ORDINANCE ADOPTING THE INTERNATIONAL BUILDING CODES FOR THE CITY OF SAN AUGUSTINE AS DIRECTED BY STATE LAW. THE CITY IS ADOPTING THE FOLLOWING INTERNATIONAL BUILDING CODES: ARTICLE II, "BUILDINGS AND BUILDING REGULATIONS"; ARTICLE II; "BUILDING CODE", SECTION 14-31; ARTICLE IV, "MECHANICAL CODE", SECTION 14-356; ARTICLE IV, "PLUMBING CODE", SECTION 14-236; ARTICLE V, "GAS CODE", SECTION 14-326; AND CHAPTER 38, "FIRE PROTECTION AND PREVENTION". THE CITY COUNCIL DIRECTS THE ADOPTION OF ALL INTERNATIONAL BUILDING CODES TO INCLUDE THE,

NOW, THEREFORE BE IT ORDAINED that:

- A. "Buildings and Building Regulations", Article II "Building Code" Section 14-31 "Adopted" be amended to adopt the 2000 International One and Two Family Dwelling Code and 2000 International Building Code with appendices;
- B. "Buildings and Building Regulations", Article IV "Plumbing", Section 14-236 "Adoption" of be amended to adopt the 2000 International Plumbing Code, with appendices;
- C. Buildings and Buildings Regulations", Article V. "Gas Code", Section 14-326 "Adopted" be amended to adopt the 2000 International Gas Code with appendices;
- D. "Buildings and Building Regulations", Article VI "Mechanical Code" Section 14-356 "Adopted" be amended to adopt the 2000 International Mechanical Code, with appendices;
- E. "Fire Protection and Prevention", Article III "Fire Prevention Code" Section 38-91 "Adopted", of be amended to adopt the 2000 International Fire Code, with appendices.
- F. "Buildings and Building Regulations", Article ? "Electrical Code", Section ? to be adopted when completed. Approximate publication date late 2004.

NOW, THEREFORE BE IT ORDAINED by the City Council of the City of San Augustine, Texas that the above sections be and hereby are amended by the adoption of the 2000 International Codes, with appendixes and amendments, so that henceforth same shall read as follows:

**"Buildings and Building Regulations", Article II "Building Code", Section 14-31 "Code Adopted"**

There is hereby adopted by the city for the purpose of establishing rules and regulations for the construction, alteration, repair, removal, demolition, equipment, use and occupancy of buildings and structures, including permits and penalties, that certain building codes known as the *International Building Code, 2000 Edition* and *International Residential Code for One and Two-Family Dwellings, 2000 Edition*, with appendixes and amendments thereto, save and except such portions as are hereinafter amended or deleted, of which one copy with all amendments

notes therein shall be on file in the office of the City Secretary, available to all persons for inspection, and the same are hereby adopted as the building code(s) of the city as fully as if set out at length herein and the provisions thereof shall be controlling within the corporate limits of the city.

**"Buildings and Building Regulations", Article IV "Plumbing", Section 14-236 "Adoption".**

The *International Plumbing Code, 2000 Edition* with its amendments and appendixes are hereby adopted as the plumbing code for the city of San Augustine, except for such exceptions and additions as are set forth in this chapter.

**"Buildings and Building Regulations", Article V "Gas Code", Section 14-236 "Adopted".**

The *International Gas Code, 2000 Edition* with its amendments and appendixes are hereby adopted as the gas code for the city of San Augustine, except for such exceptions and additions as are set forth in this chapter.


**"Buildings and Building Regulations", Article VI "Mechanical Code" Section 14-356. "Adopted".**

The *International Mechanical Code, 2000 Edition* with its appendix and amendments is hereby adopted as the mechanical code for the City of San Augustine, except for such exceptions and additions as are set forth in this chapter.

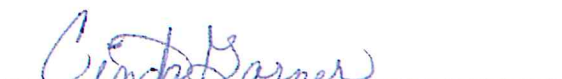
**Chapter 38 "Fire and Fire Prevention", Article III "Fire Prevention Code", Section 38-91 "Adopted".**

The *International Fire Code, 2000 Edition* (hereinafter referred to as "the fire prevention code" or "the code" hereby adopted by the city for the purpose of prescribing regulations governing conditions hazardous to life and property from fire and explosion.

PASSED AND APPROVED this the 15<sup>th</sup> day of April 2003.

  
Gertrude Lane, Mayor  
City of San Augustine

ATTEST:

  
Cinda Garner, City Secretary



Track #

579117



# Certification of Annual Inspection For the City of San Augustine

Location: San Augustine, TX

October 2016

This form certifies the inspections were completed on the above date for the facilities listed below:

- [1] 2,000 Gallon Pressure Tank
- [1] 100,000 Gallon Ground
- [1] 500,000 Gallon Ground
- [2] 500,000 Gallon Ground

*U.S. Underwater Services, LLC certifies the work was completed in accordance with the American Water Works Association's [AWWA] current standards [ANSI/AWWA c652-92] regarding disinfection procedures when conducting underwater activities in potable water storage facilities. All equipment used was for potable water use only. As a certified member of the Association of Diving Contractors International [ADCI] we are compliant with ADCI Standards for Commercial Diving and Underwater Operations. All work was performed by NDT certified commercial divers meeting all AWWA requirements and OSHA 29 CFR specifications. A minimum of a (3) man dive team was used as required by OSHA regulations for all DIVER inspections.*

*Glenna Stanfield*

Glenna Stanfield  
Reports Analyst  
U.S. Underwater Services, LLC





## INSPECTION REPORT

Inspection #: 5

Tank name: Fm 353

Date of inspection: 11/1/2016

Physical address of tank: Hwy 147, San Augustine

Crew Leader: S. Scroggins

Diver: N/A/Dry tank

### EXTERNAL INSPECTION

Was an identification plate available? Yes

Gallon capacity: 2,000 Gallon

Serial number: BS 391087

Tank builder: Bulldog Steel

Year built: 1991

Type of structure: Pressure Tank    Metal            Welded

Dimensions: Diameter: 15'    Length: 5'    Width: N/A' x N/A'

Does the tank extend underground? No

Foundation: Good    Type: Concrete Pads

Comments: None

External sidewall plates: Good

Comments: Thinning paint

Roof access ladder: N/A

Side manway access hatch: Good

Quantity: 1            Size(s): 16 ½" x 12 ¼"

Comments: It is recommended 'confined space entry' placards be installed.

Overflow pipe and flapper: N/A

Water level indicator: Pressure Gauge

Condition: Good

Comments: In pump house

Roof ventilation structure: N/A

**External roof plates:** Good  
Comments: Thinning paint and corrosion

**Anode covers:** N/A

**Water access hatch:** N/A

---

## INTERNAL INSPECTION

**Internal roof plates:** Good  
Comments: Condensation with light corrosion

**Internal sidewall plates:** Good  
Comments: Condensation with light corrosion

**Water access ladder:** N/A

**Overflow flume:** N/A

**Water level float:** N/A

**Cathodic protection:** N/A

**Water level indicator probes:** N/A

**Water condition:** N/A

**Inside view of manway access hatch:** Good  
Comments: None

**Internal plumbing:** Good  
Comments: None

**Water inlet:** Good  
Comments: None

**Water outlet:** Good  
Comments: None

**Coating (Paint):** 0% Peeling 0% Blistering 20% Pitting  Total paint failure  
Blisters on wall/floor? No If yes, degree? N/A  
Pits on wall/floor? Yes If yes, degree? Moderate  
Comments: On sidewalls with moderate staining



**Internal floor plates:** Good

Comments: 10% sediment coverage

**Sediment: Depth:** Inches: 1/6"      Feet: 0'  
Type: Sandy Silt

Cleaned during inspection

**Debris:** No      If yes, describe:

Cleaned during inspection

**Cleaning:** Is cleaning recommended? No  
Comments: None



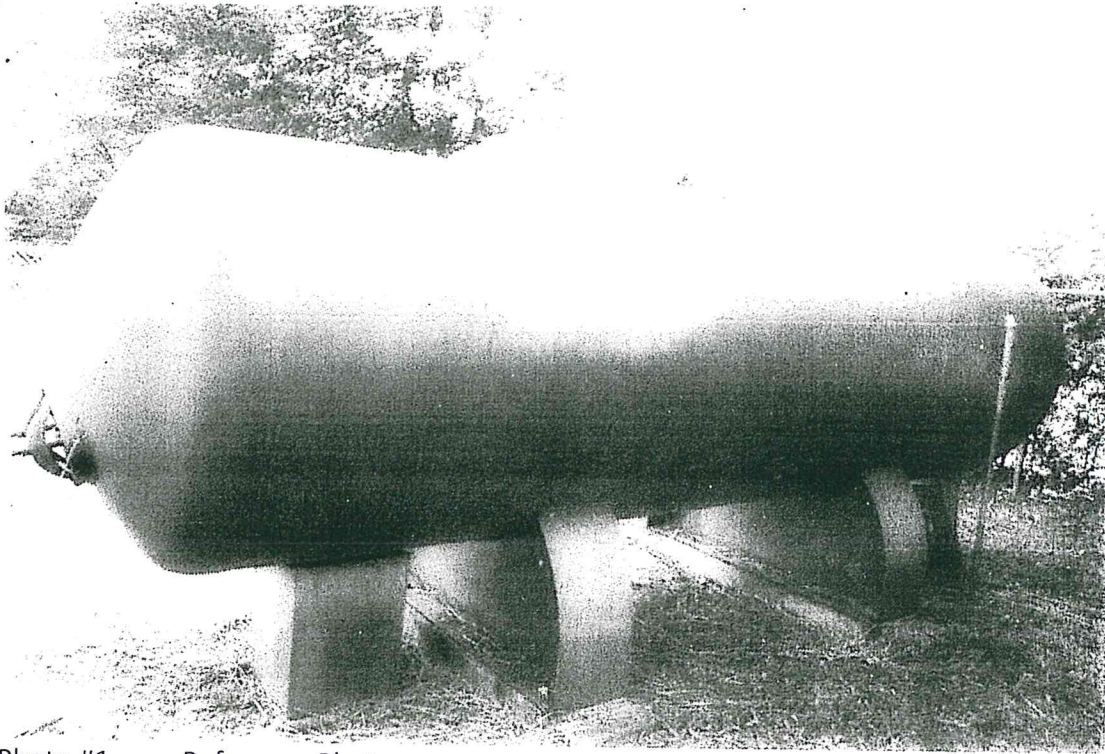


Photo #1      Reference Photo



Photo #2      External Sidewall Plates



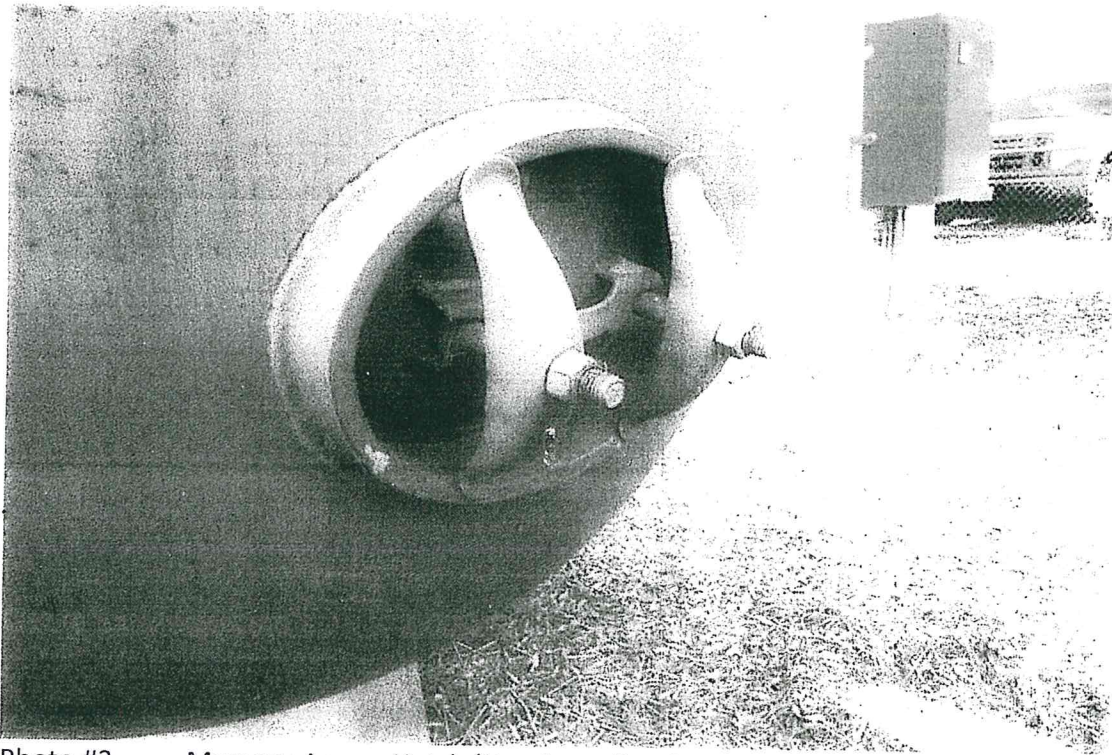


Photo #3 Manway Access Hatch (Needs confined space entry placard)

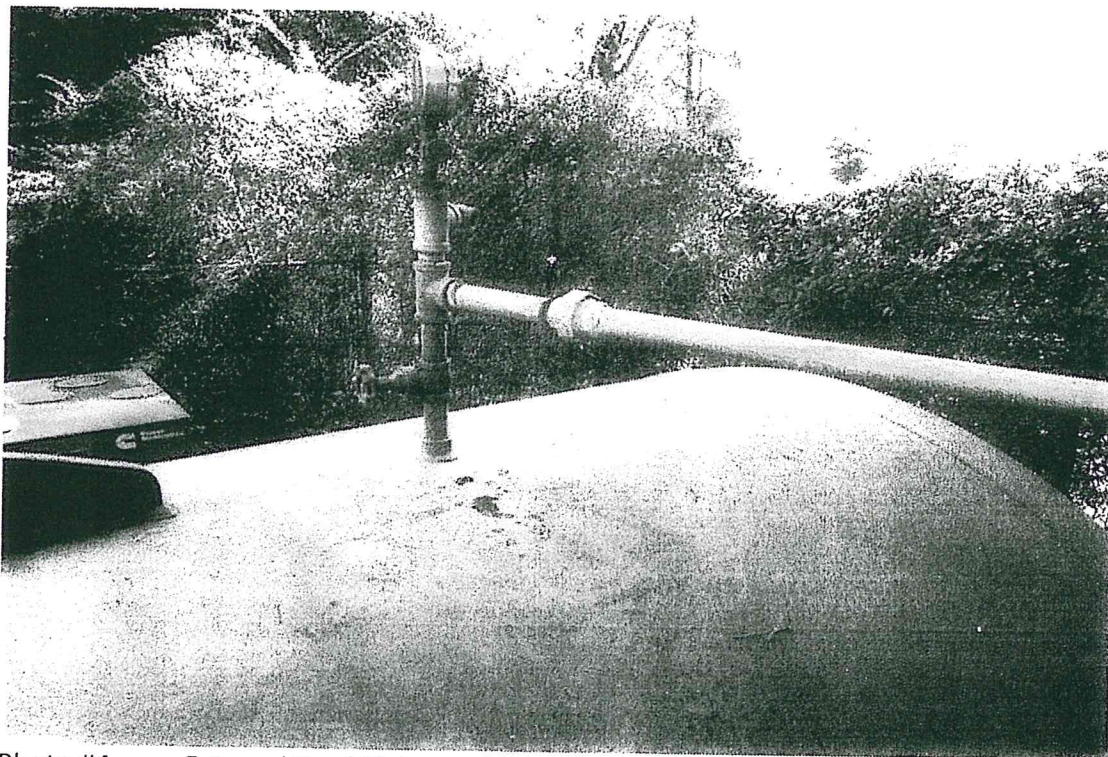


Photo #4 External Roof Plates and Pressure Gauge



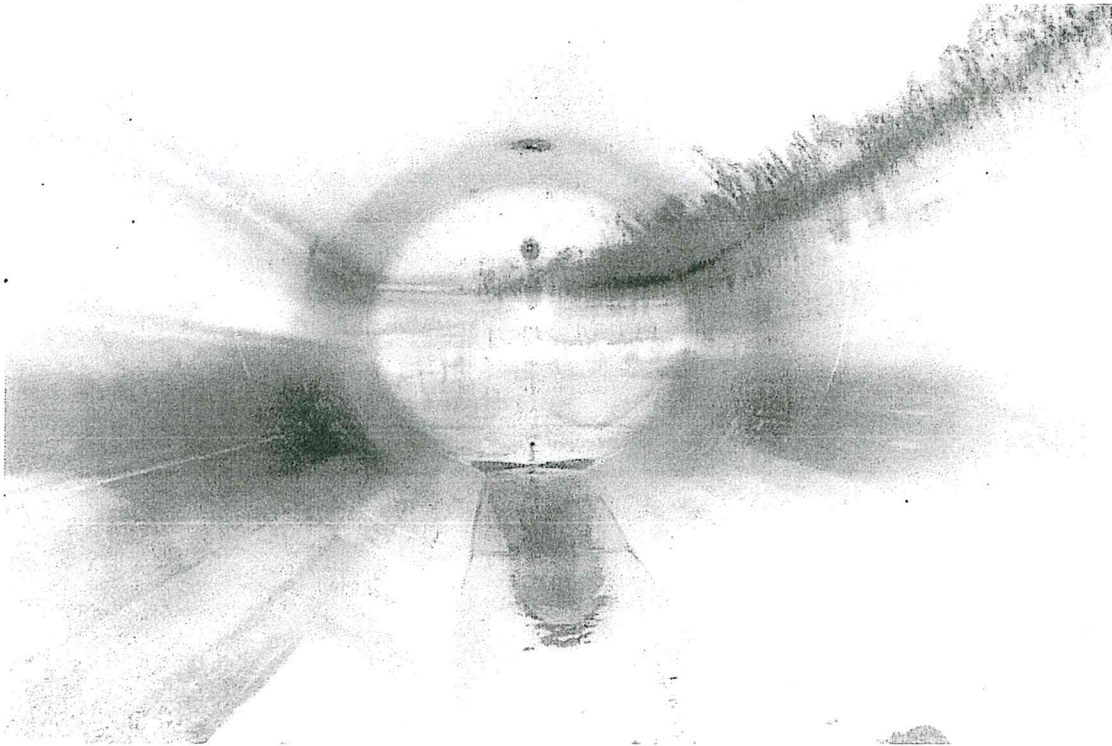


Photo #5 Internal Roof, Sidewall and Floor Plates

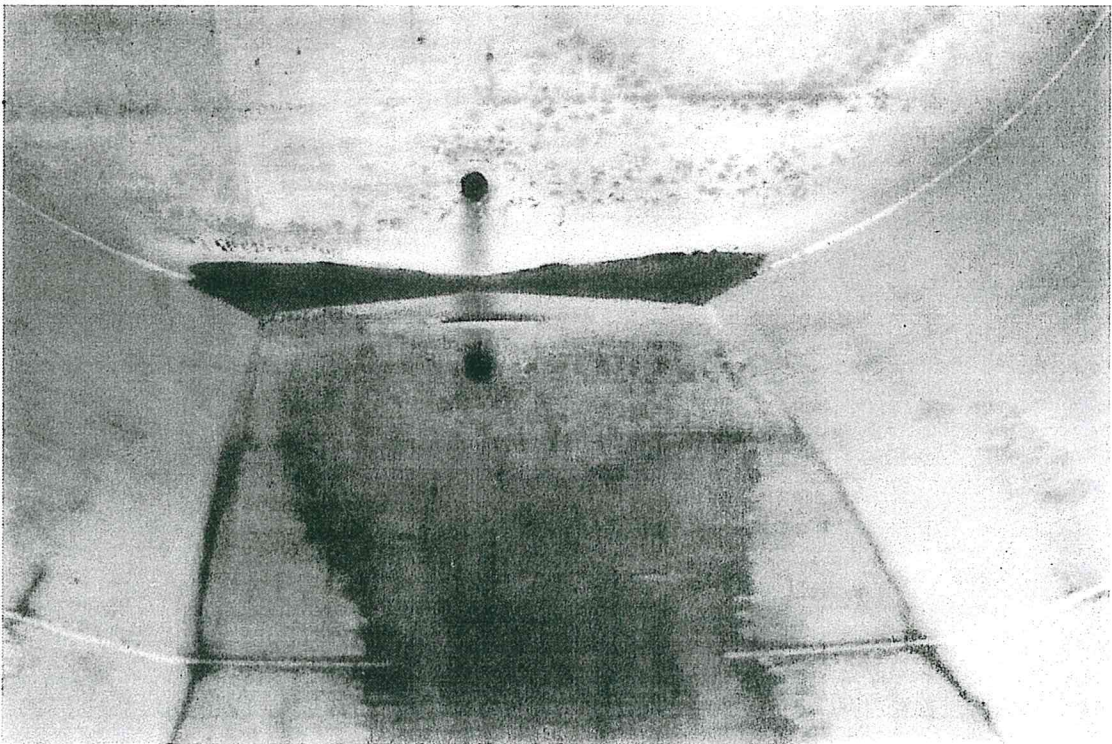


Photo #6 Floor Plates and Drain





Photo #7 Sidewall Plates by Hatch (Note: Pitting)



Photo #8 Internal Sidewall Plate (Note: Pitting and Staining)