

## Region 6 Compliance Assurance and Enforcement Division INSPECTION REPORT

|                                        |                                                                    |                                  |              |
|----------------------------------------|--------------------------------------------------------------------|----------------------------------|--------------|
| Inspection Date(s):                    | 4/19/2018                                                          |                                  |              |
| Media:                                 | Water                                                              |                                  |              |
| Regulatory Program(s)                  | CWA                                                                |                                  |              |
| Company Name:                          | <b>Total Environmental Solutions, Inc. (TESI)</b>                  |                                  |              |
| Facility Name:                         | Frenchman's Creek                                                  |                                  |              |
| Facility Physical Location:            | Beaujolais Pkwy, Lot 146                                           |                                  |              |
| (city, state, zip code)                | Lafayette, LA                                                      |                                  |              |
| Mailing address:                       | PO Box 14059                                                       |                                  |              |
| (city, state, zip code)                | Baton Rouge, LA 70898                                              |                                  |              |
| County/Parish:                         |                                                                    |                                  |              |
| Facility Contact:                      | Gayle Davidson                                                     | Compliance Manager               |              |
|                                        | <a href="mailto:gdavidson@tesi-usa.com">gdavidson@tesi-usa.com</a> |                                  |              |
| FRS Number:                            | 110009048823                                                       |                                  |              |
| Identification/Permit Number:          | LA0077798                                                          |                                  |              |
| Media Number:                          |                                                                    |                                  |              |
| NAICS:                                 |                                                                    |                                  |              |
| SIC:                                   | 4952                                                               |                                  |              |
| Personnel participating in inspection: |                                                                    |                                  |              |
| Rachel Matthews                        | EPA-R6/EN-WM                                                       | Life Scientist                   | 214-665-8589 |
| Lawrence Messmer                       | TESI                                                               | Operations Manager               | 337-316-2925 |
| Michael Thompson                       | Geo Engineers                                                      | Associate Environmental Engineer | 225-933-8842 |
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| EPA Lead Inspector<br>Signature/Date   | Rachel Matthews                                                    |                                  | Date         |
| Supervisor<br>Signature/Date           | Carol Peters-Wagnon                                                |                                  | Date         |

## **Section I - INTRODUCTION**

### **PURPOSE OF THE INSPECTION**

EPA Region 6 inspector, Rachel Matthews, arrived at a designated meeting location, on April 19, 2018, with several TESI staff for a meeting regarding the 2017 Consent Decree Modification, Civil Action No. 6:98-0687 (CD) information as well as a briefing before heading to the first of five (5) Sewer Treatment Plants (STP) operated by TESI.

I met with Ms. Gayle Davidson, Mr. Lawrence Messmer, and Mr. Michael Thompson to discuss the purpose of the inspections in regard to the ongoing tracking of the CD requirements. The inspections were conducted under the authority of the CD and the National Pollutant Discharge Elimination System (NPDES) permit program in accordance with the Federal CWA.

This report is based on information supplied by TESI and representatives, observations made by me, and records and reports maintained by the permittee, the State of Louisiana, and/or the U.S. EPA.

### **FACILITY DESCRIPTION**

This facility is one of approximately 161 small STPs operated by TESI and listed in the CD with a schedule of compliance. This site is a mechanical STP under a Louisiana Pollutant Discharge Elimination System (LPDES) permit.

## **Section II - OBSERVATIONS**

During the inspection of the STP, I observed the aeration system appeared to be operating normally. However, the clarifier had some older floating sludge and floating algae mats. The baffle in the chlorine contact chamber was not level. The fence had been repaired and the overhanging trees were removed.

At the time of the inspection, the sludge blanket was measured with a sludge judge and the reading was at about 7.5 feet. The depth of the clarifier is 11 feet according to the Comprehensive Diagnostic Evaluation (CDE) from 2010. A recommended sludge blanket level for this site is no more than 4 feet (i.e. 1/3 of side-wall depth) or to be maintained with a 30-minute settleability test between 25-50%.

Sludge wasting requirements in the CD are based on the blanket level as well as solids settleability. The CD also includes a response to malfunctions regarding excessive solids buildup in excess of target levels suspected to be caused by a power or mechanical malfunction. The Long Term Compliance Plan (LTCP) of the CD includes a "Holistic Process Control Plan for Mechanical STPs". The following are the sludge wasting requirements of that section:

**3. Holistic Process Control Plan for Mechanical STPs.** *TESI shall implement a Holistic Process Control Plan for Mechanical STPs as an interim measure until the STP-specific Process Control Plans for Mechanical STPs, required in Paragraph 4, are completed and implemented for each Mechanical STP. TESI has submitted and EPA and LDEQ have reviewed the Holistic Process Control Plan for Mechanical STPs attached hereto as Attachment 2, and determined that the attachment fulfills the requirements for a Holistic Process Control Plan for Mechanical STPs set forth in this Paragraph. TESI shall implement the attached Holistic Process Control Plan for Mechanical STPs in its entirety beginning on the Effective Date of the Consent Decree Modification. Any future modifications of the*

*Holistic Process Control Plan for Mechanical STPs shall be consistent with all requirements of this Paragraph. The Holistic Process Control Plan for Mechanical STPs shall include:*

*a. STP Solid Wasting Procedures for regular solids evaluation and wasting to ensure solids wasting will occur within one week of each time solids depth is found to exceed 40% of the total height of the clarifier sidewall unless a 50% dilution settleability test does not show greater settleability than the standard settleability measurement taken. The solids depth measurement, the standard settleability test, and the 50% dilution settleability test must be performed during the same visit to the STP.*

*b. Solids wasting shall be required regardless of the results of the 50% dilution settleability test if solids depth exceeds 40% of the total height of the clarifier sidewall and:*

*i. TESI is unable to perform the standard settleability test and the 50% dilution settleability test during the same visit to the STP as the visit during which the solids depth is measured, or*

*ii. The depth of solids in the clarifier exceeds 60% of the total height of the clarifier sidewall.*

*c. In addition to the provisions in Subparagraphs a and b above, the STP Solids Wasting Procedures shall ensure:*

*i. Each time solids wasting at an STP is required, solids shall be removed from the clarifier such that the total depth of the solids in the clarifier is no more than 1/3 of the total height of the clarifier sidewall.*

*ii. If TESI documents that it has contacted at least three sewage sludge hauling contractors within two business days after a determination under Paragraphs a and b above that wasting of solids is required at an STP and none of the sewage sludge hauling contractors were able to remove the solids from the STP by the applicable deadline, then TESI may invoke force majeure under Section XIV (Force Majeure) of the Consent Decree.*

*iii. When responding to excessive solids buildup in excess of target levels suspected to be caused by a power or mechanical malfunction, TESI personnel will follow the Mechanical WWTP Sludge Removal Protocol Due to Power and Mechanical Deficiencies Affecting Clarifier (“the Malfunction Protocol”), attached hereto as Attachment 3. If TESI seeks to apply the Malfunction Protocol, it must document that decision so that compliance with the requirements of this Long Term Compliance Plan can be evaluated. Specifically, each time the measured sludge depth in an STP exceeds 40% of the total height of the clarifier sidewall and TESI elects to follow the provisions of the Malfunction Protocol, it must document the event by providing complete information including:*

*1. The date, location, and result of the initial sludge depth measurement that exceeded 40% of the total height of the clarifier sidewall;*

*2. Whether TESI suspected that the buildup of sludge was caused by a power or*

*mechanical malfunction;*

3. *Whether TESI elected to follow the Malfunction Protocol;*
4. *Whether TESI identified a malfunction within 24 hours and, if so, the type (power or mechanical) of malfunction identified;*
5. *The date, location, and result of the re-measurement of sludge depth pursuant to Malfunction Protocol ¶ 2; and*
6. *Whether solids were wasted from the STP after re-measurement and, if so, the date this occurred and the resulting sludge depth.*

*iv. Solids depths will be measured with a Sludge Judge sampling device and recorded at all mechanical STPs during each regularly scheduled visit by TESI personnel.*

### **Section III – AREAS OF CONCERN**

At the closing meeting I met with Mr. Lawrence Messmer and Mr. Michael Thompson to reiterate the inspections were primarily to review the progress with regard to the CD. The primary area of concern at the time was the sludge blanket levels.

### **Section IV – FOLLOW UP**

A review of the CD required Monthly Implementation Progress Report for April 2018 showed the sludge blanket was at 4 feet -- with a settleability test at 98% -- on April 16, 2018, and a follow-up check the day after my inspection (April 20, 2018). The follow-up check shows the blanket at 9 feet, with settleability at 85%. Comments regarding the follow-up is that data was erroneous, but no other comments were included on this. The report also includes information regarding 7,200 gallons of sludge removal three days later.

A records review indicated effluent excursions in the past 3 three years. The Discharge Monitoring Report (DMR) for January, February, and March of this year showed excursions of Total Suspended Solids daily maximum and monthly average. The permit limit is 20 milligrams per liter (mg/l) for daily maximum and 30 mg/l for monthly average. The effluent samples were reported as higher for both in all three months. TSS excursions were also reported for September 2015. In addition to TSS excursions, there was one dissolved oxygen excursion in May 2015 and two ammonia nitrogen excursions in July of 2017.