

**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	08/14/2018		
Media:	Water		
Regulatory Program(s)	CWA		
Company Name:	City of Artesia		
Facility Name:	Artesia Wastewater Treatment Plant		
Facility Physical Location:	1702 North Haldeman		
(city, state, zip code)	Artesia, New Mexico		
Mailing address:	Post Office Box 1310		
(city, state, zip code)	Artesia, New Mexico 88210		
County/Parish:	Eddy		
Facility Contact:	Patsy Hernandez	Wastewater Supervisor	
	phernandez@artesianm.gov		
FRS Number:	110011031766		
Identification/Permit Number:	NM0022268		
Media Number:	N/A		
NAICS:	221320		
SIC:	4952		
Personnel participating in inspection:			
Patsy Hernandez	City of Artesia	Wastewater Supervisor	575-748-0261
Janet Cox	City of Artesia	Laboratory Technician	575-748-0262
David Esparza	USEPA	Environmental Engineer	505-366-8402
EPA Lead Inspector Signature/Date			
	David Esparza		Date
Supervisor Signature/Date			
	Carol Peters		Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors David Esparza, PE, arrived at the City of Artesia Wastewater Treatment Plant (WWTP) (hereinafter referred to as WWTP) at approximately 9:00 AM on August 14, 2018 for an unannounced inspection. I met with Ms. Patsy Hernandez, Wastewater Supervisor, presented my credentials and informed her that this was an EPA inspection to determine the WWTP's compliance under the Clean Water Act (CWA). This compliance evaluation inspection (CEI) was conducted under the authority of the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the CWA. The generation of this report is based on information supplied by Artesia representatives, observations made by the United States Environmental Protection Agency (US EPA) inspector, and records and reports maintained by the permittee (Artesia), and the US EPA. Before leaving the facility, an exit briefing was held at 12:10 PM with Ms. Hernandez to explain areas of concern noted at the time of the inspection and request representative photograph copies of the WWTPs records.

FACILITY DESCRIPTION

The WWTP is a major discharger with a design flow of 2.6 million gallons per day (MGD). The original WWTP was built to treat approximately 1.3 MGD of wastewater (Train #1 built in approximately 2003). A second treatment train, identical to the original was built in approximately 2007; thus, increasing the facility capacity to the current 2.6 MGD. The facility is located at 1702 North Haldeman, Artesia, Eddy County, New Mexico (depicted in Aerial Image #1 below). The WWTP facility serves a population of approximately 12,200 (2016 US Census) residents. The WWTP is operated by staff within the Public Works Department and consists of 8 full-time equivalent (FTE) positions, though two (2) are currently vacant inclusive of administrative support during the hours of 6:00 AM to 4:00 PM seven (7) days during the regular work week and 7:00 AM to 9:00 AM on the weekends. On-call staff is available on an as needed basis.

A Supervisory Control and Data Acquisition (SCADA) system provides around the clock monitoring of WWTP operations. Previously septage and domestic (typically greywater) wastewater was received at a wet well before entering the headworks (Appendix 1 Photograph 1). According to WWTP records an average of approximately 4,700 gallons of septage. is received on a weekly basis. The facility staff monitors incoming registered septage haulers for pH and grease to determine compatibility with the WWTP for acceptance or rejection.

At the head of the treatment plant, the influent is pumped via a Flygt pump into the first of two (2) automatic bar screens for large solids removal. Previously, large solids were damaging the pumps, so the additional bar screen was built. Most of the treatment units are situated above land surface due the areas high static water level (SWL). The WWTP maintains a backup diesel generator for power that is exercised weekly, typically every Friday.

Treatment units at the WWTP are comprised of two (2) bar screens and grit removal system at the headworks (Appendix 1 Photograph 2), followed by four (4) race track design oxidation ditches, and extended air treatment units. The existing grit chamber is currently identified for rehabilitation in the yet to be completed Smith Engineering Preliminary Engineering Report (PER). Each day, each race track rotates through periods of anoxic and aerobic mixing and settling. The racetracks discharge to two (2) secondary clarifiers which discharge effluent to a new filtration system which then feeds into three (3) independent banks of an ultraviolet (UV) disinfection system prior to discharge to the Pecos River or to a reuse pond for application in city parks (Appendix 1 Photograph 4, 5 and 6). The onsite clarifiers are cleaned on a weekly basis. The facility also maintains an emergency high test hypochlorite (HTH) Chlorine/Sodium Thiosulfate system should the UV disinfection fail. Solids removed from the racetracks and/or the final clarifiers are sent to a thickener followed by a sludge press. Following the UV disinfection is a Parshall flume with a staff gauge and a Drexelbrook differential pressure sensor that records the totalized flow. For a portion of the calendar year (approximately 7-months) the disinfected effluent flow is stored for reuse on city parks and other facilities within an approximate 6-million-gallon clay lined onsite storage pond. During the months of November through March the WWTP discharges the treated effluent to the Pecos River. During the months of discharge at the outfall the disinfected effluent traverses through a closed conduit pipe approximately 1-mile prior to discharging into the Pecos River. A riprap structure has been placed at the outfall to minimize embankment undermining, prevent erosion and to enhance aeration prior to discharge into the Pecos.

Following the belt press, the sludge is placed in concrete drying beds (underdrains return excess liquid to the headworks) for composting into Class A sludge for land application and/or local agricultural purposes.



Aerial Image #1: Overall view of the City of Artesia's Wastewater Treatment Plant. Aerial from Google Earth maps.

Currently the only established Industrial User (IU) is Navajo Refining Company, L.L.C. (Navajo). The City of Artesia and Navajo entered into a wastewater agreement for the disposal of some of Navajo's effluent into the City's WWTP in 2013. This 2013 agreement was updated in May 2014 to include selenium removal technology.

Section II – OBSERVATIONS

I observed the following and the following information was provided and/or stated:

- The WWTP's existing grit chamber is currently identified for rehabilitation in the yet to be completed Smith Engineering Preliminary Engineering Report (PER).
- The WWTP had secure perimeter fencing; thus, limiting access. The overall WWTP's operations and maintenance (O&M), and general facility housekeeping appeared to be in good order.
- I noted a marked variance in the instantaneous flow reading displayed on the SCADA, which derives its reading from the influent flow meter and WWTP design flow. The instantaneous flow reading displayed by SCADA indicated an amount or volume more than the available WWTP capacity. An on the spot numerical average of the displayed readings indicated variable amounts more than 10-percent greater than design flow. Note: The issue was described in the February 2015 New Mexico Environment Department's (NMED) inspection report. Wherein, NMED states the effluent flow meter is not installed correctly and though was recording measurements, was not being used for NPDES reporting. The influent flow was being used for reporting at the time of the inspection.
- The WWTP on-site laboratory maintains and updates its written SOP's as necessary, inclusive of appropriate annual equipment certifications and/or calibrations.

Section III – AREAS OF CONCERN

After the on-site inspection, the EPA inspector met with WWTP and City of Artesia representatives for a closing conference at 12:10 PM. During this conference, the inspectors discussed observations noted during the inspection. These observations included:

- I noted a marked variance in the instantaneous flow reading displayed on the SCADA, which derives its reading from the influent flow meter and WWTP design flow. The instantaneous flow reading displayed by SCADA indicated an amount or volume more than the available WWTP capacity. An on the spot numerical average of the displayed readings indicated variable amounts more than 10-percent greater than design flow.

Section IV – FOLLOW UP

None required now.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 6 photos taken 08/14/2018

Appendix 2 – Opening conference sign-in sheet

Appendix 3 – Current Wastewater Treatment Plant Site Plan

Appendix 4 – City of Artesia Septage Spill Response and SSO Protocol

Appendix 5 – City of Artesia Wastewater Treatment Plant Operator Certifications