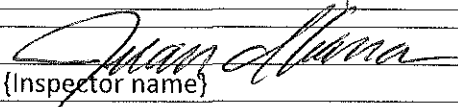
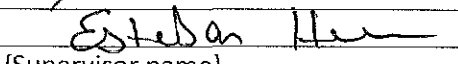


**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	03/20-21/2018		
Media:	Water		
Regulatory Program(s)	NPDES		
Company Name:	Tyson Poultry, Inc.		
Facility Name:	Tyson Poultry, Inc. – Dardanelle Processing Facility		
Facility Physical Location:	1291 North Highway 7 (OTFL location: 35.218089, -93.150961)		
(city, state, zip code)	Dardanelle, Arkansas 72834		
Mailing address:	P.O. Box 638		
(city, state, zip code)	Dardanelle, Arkansas 72834		
County/Parish:	Yell County		
Facility Contact:	Lance Martin	Tyson Complex Manager	
	lance.martin@tyson.com		
FRS Number:	N/A		
Identification/Permit Number:	AR0036714		
Media Number:	N/A		
NAICS:	311615		
SIC:	2015		
Personnel participating in inspection:			
Dave Evans	Tyson	Environmental Manager	479-229-8715
Lance Martin	Tyson	Complex Manager	479-229-8780
Wayne Spencer	Tyson	Wastewater Manager	479-229-8764
Jason Bolenbaugh	ADEQ	Compliance Branch Mgr.	501-682-0659
Amy Beck	ADEQ	Inspector Dist. 5	479-968-7339, x16
Paul Juarez	EPA R-6/6EN-WC	Inspector	214-665-7247
Juan Ibarra	EPA R-6/6EN-WC	Inspector	214-665-8493
EPA Lead Inspector Signature/Date	 {Inspector name}		10 April 2018 Date
Supervisor Signature/Date	 {Supervisor name}		5/2/2018 Date

Section I - INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors Juan Ibarra and Paul Juarez arrived at the Tyson Poultry Inc. / Dardanelle Processing Facility at 0932 on March 20, 2018, for an unannounced inspection. We were accompanied by staff from the Arkansas Department of Environmental Quality (ADEQ), Jason Bolenbaugh (Compliance Branch Manager) and Amy Beck (Inspector). We met with Lance Martin (Tyson Complex Manager), Dave Evans (Tyson Environmental Manager), and Wayne Spencer (Tyson Wastewater Manager) at the Opening Conference. I presented my credentials to the Tyson Managers and informed them that this was an EPA inspection to determine compliance with the facility's ADEQ discharge permit and the Clean Water Act. The scope of the inspection was a full compliance evaluation inspection (CEI) and included an evaluation of the facility's physical site conditions and applicable records as required by the ADEQ discharge permit. Dave Evans and Wayne Spencer accompanied the EPA and ADEQ inspectors throughout the course of the inspection.

FACILITY DESCRIPTION

The 1.3 MGD Tyson wastewater treatment plant (WWTP) treated wastewaters resulting from the slaughter, cleaning, and processing of poultry (chicken) and boiler blowdown. The processing plant, which operated three shifts per day (five days a week - closed on weekends), had two 8-hr production shifts and one 8-hr sanitation shift.

The plant had an offal screening headworks (see the photolog found in Appendix 1) that consisted of six large rotating screens (two for meat, two for feathers and two final combined). The final screens sent wastewater to the 250,000 aerated equalization tank. The offal and feathers were shipped off-site in open top trailers, and the blood was shipped off-site in a tanker. All of these wastes were transported to River Valley Animal Byproducts (a division of Tyson) in Scranton, AR. Following the offal 250,000 gallon aerated equalization tank, wastewater flow was sent to the Dissolved Air Flootation (DAF) tank. The DAF removed solids using air and polymers. The DAF unit sent sludge to the DAF sludge tank where it was later removed from the facility by Denali Water Solutions tanker trucks, to be land applied under a separate ADEQ permit.

Effluent from the DAF was sent to the two 7-day 1-MG equalization tanks (to balance flows from the 5-day operating period over a 7-day wastewater treatment period). The equalization tanks equalized the flow that was sent to the 2-MG Complete Mix Activated Sludge (CMAS) aerated basin. The CMAS was followed by a 1.25 MG Final Clarifier, and thence the chlorine contact basin. The final effluent then discharged thru a shared underground City of Dardanelle storm drainage line to the Arkansas River. The use of an MS4 storm water line will be discussed later in the report. See the Plant Schematic found in Appendix 2.

Section II - OBSERVATIONS

Plant Operations:

The plant wastewater treatment system is monitored and operated via SCADA (supervisory control and data acquisition) control. The offal screening and DAF units were operating efficiently in the removal of gross and fine solids. Effluent from the DAF unit was found to be somewhat clear, with no visible solids particles seen in the effluent as it went to the 7-day equalization tanks. Blood from the poultry slaughter operations was separated from the wastewater treatment system and pumped into a tanker as part of the ADEQ's permit that required the implementation of phosphorus removal best management practices.

The treatment units following the DAF functioned as an activated sludge wastewater treatment plant, with the two aerated 7-day equalization tanks that preceded the CMAS. The CMAS had excellent aeration and mixing, utilizing two of three available blowers and two recirculation pumps to keep the unit well mixed and aerated. The plant SCADA system typically allowed the DO to run at about 2.3-2.4 mg/l. The color and odor at the equalization tanks and CMAS were good, and the CMAS had excellent floc. Following the CMAS was the final clarifier, which was rebuilt in December, 2017 during a plant holiday shut-down. The rebuild replaced the clarifier's major components, including the drive, seals, center column, top and bottom skimmer rakes and A-Frame, at a cost of \$388,500. Also, the chlorine contact basin was drained at that time, a new stainless steel weir was added to that unit, and only a quarter inch of solids was found at the bottom and removed. During the inspection, the clarifier was operating well with less than one foot of compacted sludge seen during the inspection when it was checked with a sludge judge. Also, the aerated chlorine contact basin was in very good operating condition with a DO near 8.0 mg/l. The effluent from the plant discharges thru a 90-degree V-notch weir which then flowed out thru a city storm sewer to the Arkansas River.

Plant Discharge:

The discharge permit issued to Tyson did not mention that plant effluent would discharge thru a city storm sewer to the Arkansas River. However, the plant's 24-hour composite sampler was located following the final treatment unit (aerated chlorine contact basin), in the wastewater discharge line prior to commingling with any city storm water.

e-DMR Submission:

Although the EPA database showed that Tyson Poultry failed to submit a number of discharge monitoring reports thru e-DMR, the ADEQ database showed that the reports had been submitted. And although shown as late in the ADEQ database, the cause was thought to be an error caused by a change-over to the new e-DMR system. Additionally, the facility had a "green card" certified mail receipt that showed that the October, 2016 DMR was received by the ADEQ NPDES Enforcement Section on November 14, 2016, while the EPA database showed that the DMR was either late or not submitted at all. According to Jason Bolenbaugh, the ADEQ Compliance Branch Manager, the ADEQ database showed the October, 2016 DMR as not received until 1/5/2017.

Summary Findings:

The entire wastewater treatment system was very well operated, maintained and managed. The operators had excellent company support for capital improvements such as the recent clarifier rebuild, and the installation and implementation of the SCADA system. Additionally, there were numerous back up pumps and blowers in place, and the operators of the plant were very capable. Only one laboratory recommendation was made regarding how the DO meter was calibrated. The barometer used to calibrate the DO meter must be calibrated annually, or a web source be used to provide the local barometric pressure.

The effluent discharged to the Arkansas River was clear, free of any sheen, floatables and foam. Additionally, the channel through which the discharge flowed had a gravel base and was free of any visible plant solids.

Section III – AREAS OF CONCERN

During the Closing Conference which occurred on 3/21/2018, the following areas of concern were discussed with the facility managers:

- 1) The discharge permit issued to Tyson did not mention that plant effluent would discharge thru a city storm sewer to the Arkansas River. The next permit cycle should specify the discharge route more precisely.
- 2) The barometer used to calibrate the DO meter be calibrated annually, or a web source be used to provide the local barometric pressure.

Section IV – FOLLOW UP

None

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 8 photos taken 3/20/2018

Appendix 2 – Plant Schematic

Appendix 1

Photo Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 1

Location: Tyson Poultry, Inc.		
City: Dardanelle	County: Yell	State: Arkansas



Photo File Name: P3200001.JPG

Date of Photo: 03/20/2018

Time of Photo: 1137

Photographer: Juan Ibarra

Description: Looking west at the drain trenches in the offal building. The trenches lead to the offal screens. A blood tanker was seen in the background. This area was very well maintained.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Tyson Poultry, Inc.		
City: Dardanelle	County: Yell	State: Arkansas



Photo File Name: P3200002.JPG

Date of Photo: 03/20/2018

Time of Photo: 1143

Photographer: Juan Ibarra

Description: Looking south at the drain trenches in the offal building with the rotating screens in the background.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Tyson Poultry, Inc.		
City: Dardanelle	County: Yell	State: Arkansas



Photo File Name: P3200003.JPG

Date of Photo: 03/20/2018

Time of Photo: 1156

Photographer: Juan Ibarra

Description: Looking west at the offal trucks as they drained liquid and blood into a trench that had a drain recovery pit at the far concrete wall. The drain lead back to the offal screens seen in photo 2. A red dye was added to the offal and blood (a USDA requirement) to prevent its use in food grade products.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Tyson Poultry, Inc.		
City: Dardanelle	County: Yell	State: Arkansas



Photo File Name: P3200004.JPG

Date of Photo: 03/20/2018

Time of Photo: 1216

Photographer: Juan Ibarra

Description: Solids coagulation seen on the DAF unit. Excellent solids removal was observed.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Tyson Poultry, Inc.		
City: Dardanelle	County: Yell	State: Arkansas



Photo File Name: P3200005.JPG

Date of Photo: 03/20/2018

Time of Photo: 1217

Photographer: Juan Ibarra

Description: The effluent discharge from the DAF unit. Excellent solids removal was observed.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: Tyson Poultry, Inc.		
City: Dardanelle	County: Yell	State: Arkansas



Photo File Name: P3200006.JPG

Date of Photo: 03/20/2018

Time of Photo: 1216

Photographer: Juan Ibarra

Description: Another view of the effluent discharge from the DAF unit. Excellent solids removal was observed.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: Tyson Poultry, Inc.		
City: Dardanelle	County: Yell	State: Arkansas



Photo File Name: P3200007.JPG

Date of Photo: 03/20/2018

Time of Photo: 1351

Photographer: Juan Ibarra

Description: The Tyson plant final effluent as it is discharged into a channel leading to the Arkansas River. The effluent discharge runs thru a City of Dardanelle storm drain that runs between the Tyson facility to this point. The photo was looking west.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: Tyson Poultry, Inc.		
City: Dardanelle	County: Yell	State: Arkansas



Photo File Name: P3200008.JPG

Date of Photo: 03/20/2018

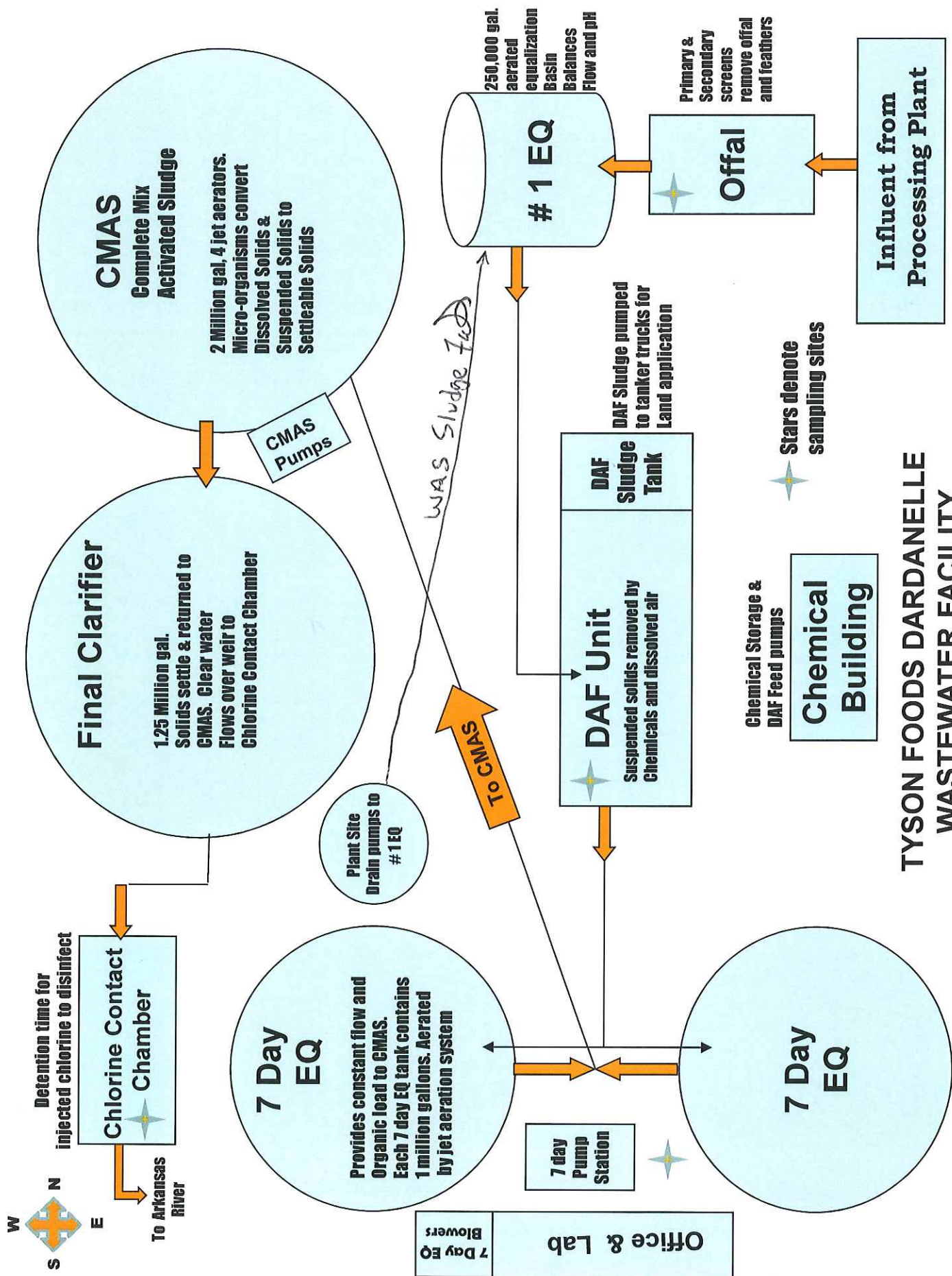
Time of Photo: 1351

Photographer: Juan Ibarra

Description: The Tyson plant final effluent as it is discharged into a channel leading to the Arkansas River. The stream had a gravel base which did not show any evidence of solids accumulation from the WWTP. This photo, which was looking south, was taken about 50' from the discharge line seen in photo 7.

Appendix 2

Plant Schematic



**TYSON FOODS DARDANELLE
WASTEWATER FACILITY**