LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
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1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

APRIL 9, 2019

HUNTER WRAY, PLANT MANAGER
TYSON FOODS BLOUNTSVILLE
67240 MAIN STREET
BLOUNTSVILLE AL 35031

RE: DRAFT PERMIT
NPDES PERMIT NUMBER AL0001449

Dear Mr. Wray:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Our records indicate that you are currently utilizing the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs). Your E2 DMRs will automatically update on the effective date of this permit, if issued.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

If you have questions regarding this permit or monitoring requirements, please contact Rachel Stanaland by e-mail at **restanaland@adem.alabama.gov** or by phone at **(334) 279-3065.**

Sincerely,

Scott Ramsey, Chief
Industrial Section
Industrial/Municipal Branch
Water Division

Enclosure: Draft Permit

pc via website: Montgomery Field Office
EPA Region IV
U.S. Fish & Wildlife Service
AL Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: TYSON FOODS INC

FACILITY LOCATION: 67240 MAIN ST
BLOUNTSVILLE, AL 35031

PERMIT NUMBER: AL0001449

RECEIVING WATERS:
001: GRAVES CREEK
002: GRAVES CREEK
003: GRAVES CREEK
004: GRAVES CREEK
005: LOCUST FORK

*In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, **Code of Alabama 1975**, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, **Code of Alabama 1975**, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.*

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

INDUSTRIAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0011: Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Oxygen, Dissolved (DO)	-	-	6.0 mg/l	-	-	Weekly	Grab	December - April
Oxygen, Dissolved (DO)	-	-	6.0 mg/l	-	-	Weekly	Grab	May - November
BOD, 5-Day (20 Deg. C)	118.44 lbs/day	177.67 lbs/day	-	10.6 mg/l	15.90 mg/l	Weekly	Composite	December - April
BOD, 5-Day (20 Deg. C)	53.63 lbs/day	80.45 lbs/day	-	4.80 mg/l	7.20 mg/l	Weekly	Composite	May - November
pH	-	-	6.0 S.U.	-	8.5 S.U.	Weekly	Grab	December - April
pH	-	-	6.0 S.U.	-	8.5 S.U.	Weekly	Grab	May - November
Solids, Total Suspended	-	-	-	20 mg/l	30 mg/l	Weekly	Composite	December - April
Solids, Total Suspended	-	-	-	20 mg/l	30 mg/l	Weekly	Composite	May - November

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0011 (continued): Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Oil and Grease, Hexane Extr Method	-	-	-	8 mg/l	14 mg/l	Weekly	Grab	-
Nitrogen, Ammonia Total (As N)	11.17 lbs/day	16.76 lbs/day	-	1.0 mg/l	1.5 mg/l	Weekly	Composite	December - April
Nitrogen, Ammonia Total (As N)	11.17 lbs/day	16.76 lbs/day	-	1.0 mg/l	1.5 mg/l	Weekly	Composite	May - November
Nitrogen, Kjeldahl Total (As N)	-	-	-	2.0 mg/l	3.0 mg/l	Weekly	Composite	December - April
Nitrogen, Kjeldahl Total (As N)	-	-	-	2.0 mg/l	3.0 mg/l	Weekly	Composite	May - November
Phosphorus, Total (As P) 5/	REPORT lbs/day	REPORT lbs/day	-	0.25 mg/l	REPORT mg/l	Weekly	Composite	March - October
Phosphorus, Total (As P) 5/	14.6 lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	March - October
Phosphorus, Total (As P) 5/	329.15 lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	March - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

5/ From the permit effective date to March 31, 2020 – Growing season monthly average limit = 28.19 mg/l
From April 1, 2020 to March 31, 2022 – Growing season monthly average limit = 1.25 mg/l
From April 1, 2022 forward – Growing season monthly average limit = 0.25 mg/l

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0011 (continued):Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Phosphorus, Total (As P)	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	November - February
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily	Totalizer	-
E. Coli	-	-	-	126 col/100mL	298 col/100mL	Weekly	Grab	May - October
E. Coli	-	-	-	548 col/100mL	2507 col/100mL	Weekly	Grab	November - April
Coliform, Fecal General	-	-	-	-	400 col/100mL	Weekly	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001Q:Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Nitrogen, Total (As N)	-	-	-	103 mg/l	147 mg/l	Quarterly	Composite	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	REPORT lbs/day	-	-	-	Quarterly	Composite	-
Toxicity, Ceriodaphnia Chronic 5/	-	0 pass(0)/fail(1)	-	-	-	Quarterly	Composite	-
Toxicity, Pimephales Chronic 5/	-	0 pass(0)/fail(1)	-	-	-	Quarterly	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

5/ See Part IV. C for Effluent Toxicity Limitations and Biomonitoring Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN002S:Storm water run-off associated with poultry processing operations 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Twice per Year	Estimate	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN002S (continued):Storm water run-off associated with poultry processing operations 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
E. Coli	-	-	-	-	REPORT col/100mL	Twice per Year	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN003S:Storm water run-off associated with poultry processing operations 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Twice per Year	Estimate	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN003S (continued):Storm water run-off associated with poultry processing operations 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
E. Coli	-	-	-	-	REPORT col/100mL	Twice per Year	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN004S:Storm water run-off associated with poultry processing operations 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Twice per Year	Estimate	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN004S (continued):Storm water run-off associated with poultry processing operations 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
E. Coli	-	-	-	-	REPORT col/100mL	Twice per Year	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0051:Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Oxygen, Dissolved (DO)	-	-	REPORT mg/l	-	-	Weekly	Grab	December - April
Oxygen, Dissolved (DO)	-	-	3.0 mg/l	-	-	Weekly	Grab	May - November
BOD, 5-Day (20 Deg. C)	178.78 lbs/day	290.52 lbs/day	-	16.0 mg/l	26.0 mg/l	Weekly	Composite	December - April
BOD, 5-Day (20 Deg. C)	178.78 lbs/day	290.52 lbs/day	-	16.0 mg/l	26.0 mg/l	Weekly	Composite	May - November
pH	-	-	6.0 S.U.	-	8.5 S.U.	Weekly	Grab	December - April
pH	-	-	6.0 S.U.	-	8.5 S.U.	Weekly	Grab	May - November
Solids, Total Suspended	-	-	-	20 mg/l	30 mg/l	Weekly	Composite	December - April
Solids, Total Suspended	-	-	-	20 mg/l	30 mg/l	Weekly	Composite	May - November

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0051 (continued):Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Oil and Grease, Hexane Extr Method	-	-	-	8 mg/l	14 mg/l	Weekly	Grab	-
Nitrogen, Ammonia Total (As N)	44.7 lbs/day	89.39 lbs/day	-	4.0 mg/l	8.0 mg/l	Weekly	Composite	December - April
Nitrogen, Ammonia Total (As N)	44.70 lbs/day	83.80 lbs/day	-	4.0 mg/l	7.5 mg/l	Weekly	Composite	May - November
Nitrogen, Kjeldahl Total (As N)	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	December - April
Nitrogen, Kjeldahl Total (As N)	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	May - November
Phosphorus, Total (As P) 5/	REPORT lbs/day	REPORT lbs/day	-	0.25 mg/l	REPORT mg/l	Weekly	Composite	March - October
Phosphorus, Total (As P) 5/	14.6 lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	March - October
Phosphorus, Total (As P) 5/	329.15 lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	March - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

5/ From the permit effective date to March 31, 2020 – Growing season monthly average limit = 28.19 mg/l
From April 1, 2020 to March 31, 2022 – Growing season monthly average limit = 1.25 mg/l
From April 1, 2022 forward – Growing season monthly average limit = 0.25 mg/l

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0051 (continued): Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Phosphorus, Total (As P)	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	November - February
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily	Totalizer	-
E. Coli	-	-	-	126 col/100mL	298 col/100mL	Weekly	Grab	May - October
E. Coli	-	-	-	548 col/100mL	2507 col/100mL	Weekly	Grab	November - April
Coliform, Fecal General	-	-	-	-	400 col/100mL	Weekly	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN005Q: Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Nitrogen, Total (As N)	-	-	-	103 mg/l	147 mg/l	Quarterly	Composite	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	REPORT lbs/day	-	-	-	Quarterly	Composite	-
Toxicity, Ceriodaphnia Chronic 5/	-	0 pass(0)/fail(1)	-	-	-	Quarterly	Composite	-
Toxicity, Pimephales Chronic 5/	-	0 pass(0)/fail(1)	-	-	-	Quarterly	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

5/ See Part IV. D for Effluent Toxicity Limitations and Biomonitoring Requirements.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

2. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance; however, should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.

b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures A and B above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

4. Records Retention and Production

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records shall not be submitted unless requested.

All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

5. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The permittee shall conduct the required monitoring in accordance with the following schedule:

MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e., (March, June, September and December DMR's).

SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be submitted with the last DMR for the month of the semiannual period, i.e. (June and December DMR's).

ANNUAL MONITORING shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be submitted with the December DMR.

b. The permittee shall submit discharge monitoring reports (DMRs) on the forms provided by the Department and in accordance with the following schedule:

REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING shall be submitted on a **monthly** basis. The first report is due on the **28th day of (MONTH, YEAR).** The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF QUARTERLY TESTING shall be submitted on a **quarterly** basis. The first report is due on the **28th day of [Month, Year].** The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF SEMIANNUAL TESTING shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting system (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b, unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved

alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within 5 calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of the dated e-mail, or hand-delivery stamped date), if applicable.

(2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

(3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.

(4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.

(5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-5-.14 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-5-.14 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management
Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

g. If this permit is a re-issuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b above.

2. Noncompliance Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of the noncompliance, any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

(1) does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)";

(2) threatens human health or welfare, fish or aquatic life, or water quality standards;

(3) does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);

(4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);

(5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset; and

(6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c no later than five (5) days after becoming aware of the occurrence of such discharge.

b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (http://adem.alabama.gov/DeptForms/Form421.pdf) and include the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

(3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

a. The permittee shall inform the Director of any change in the permittee's mailing address, telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules, and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.

b. If the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

5. Cooling Water and Boiler Water Additives

a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:

(1) name and general composition of biocide or chemical;

(2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach;

(2) quantities to be used;

(3) frequencies of use;

(4) proposed discharge concentrations; and

(6) EPA registration number, if applicable.

b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

6. Permit Issued Based On Estimated Characteristics

a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a stormwater discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the stormwater discharge has been fully initiated.

b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

E. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. Compliance with Total Phosphorus limits (Note: Growing season is April – October)

The Permittee shall achieve compliance with the discharge limitations for Total Phosphorus (TP) specified in Provision I.A according to the following schedule:

July 1, 2019	Submit report describing the Permittee's progress towards achieving compliance with TP limit of 0.25 mg/L. The report should include a discussion of the projects completed to date and a schedule for any projects that remain to be completed. The following should be included in the report, where applicable: pollution abatement program and preliminary plans; final plans, specifications, and drawings; date(s) of initiation of construction; and date(s) of attainment of operational status.
April 1, 2020	**Achieve compliance with TP limit of 14.6 lbs./day (growing season monthly average)**
July 1, 2020 July 1, 2021	Submit report describing the Permittee's progress towards achieving compliance with TP limit of 0.25 mg/L. The report should include a discussion of the projects completed to date and a schedule for any projects that remain to be completed. The following should be included in the report, where applicable: pollution abatement program and preliminary plans; final plans, specifications, and drawings; date(s) of initiation of construction; and date(s) of attainment of operational status.
April 1, 2022	**Achieve compliance with TP limit of 2.92 lbs./day (growing season monthly average)**

3. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices

a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

The permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

a. enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

d. sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

a. Any bypass is prohibited except as provided in b. and c. below:

b. A bypass is not prohibited if:

(1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

(2) It enters the same receiving stream as the permitted outfall; and

(3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The permittee has the burden of establishing that each of the conditions of Provision II.C.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that (i) an upset occurred; (ii) the permittee can identify the specific cause(s) of the upset; (iii) the permittee's facility was being properly operated at the time of the upset; and (iv) the permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The permittee has the burden of establishing that each of the conditions of Provision II. C.2.a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I.A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification; or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance with Statutes and Rules

a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36130.

b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit applieation for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted diseharge.

2. Change in Discharge

a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

b. The permittee shall notify the Director as soon as it is known or there is reason to believe:

(1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxie pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notifieation levels:

(a) one hundred micrograms per liter;

(b) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;

(c) five times the maximum concentration value reported for that pollutant in the permit application; or

(2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(a) five hundred micrograms per liter;

(b) one milligram per liter for antimony;

(c) ten times the maximum concentration value reported for that pollutant in the permit application.

3. Transfer of Permit

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

(2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

(3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 30l(c), 30l(g), 30l(h), 30l(k), or 3l6(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Permit Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines eannot be complied with by the permittee; or

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Permit Suspension

This permit may be suspended during its term for noncompliance until the permittee has taken aetion(s) necessary to achieve compliance.

7. Request for Permit Action Does Not Stay Any Permit Requirement

The filing of a request by the permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. DISCHARGE OF WASTEWATER GENERATED BY OTHERS

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

PART III OTHER PERMIT CONDITIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.

b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes.

(1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

(2) An action for damages;

(3) An action for injunctive relief; or

(4) An action for penalties.

c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:

(1) initiate enforcement action based upon the permit which has been continued;

(2) issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) reissue the new permit with appropriate conditions; or

(4) take other actions authorized by these rules and AWPCA.

4. Relief from Liability

Except as provided in Provision II.C.1 (Bypass) and Provision II.C.2 (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.

2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.

3. Construction has begun when the owner or operator has:

   a. begun, or caused to begin as part of a continuous on-site construction program:

      (1) any placement, assembly, or installation of facilities or equipment; or

      (2) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

   b. entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.

2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.

3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.

4. AWPCA - means the Alabama Water Pollution Control Act.

5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.

6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.

7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.

8. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.

9. Daily maximum - means the highest value of any individual sample result obtained during a day.

10. Daily minimum - means the lowest value of any individual sample result obtained during a day.

11. Day - means any consecutive 24-hour period.

12. Department - means the Alabama Department of Environmental Management.

13. Director - means the Director of the Department.

14. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other wastes into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(8).

15. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.

16. DO – means dissolved oxygen.

17. 8HC – means 8-hour composite sample, including any of the following:

    a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

18. EPA - means the United States Environmental Protection Agency.

19. FC – means the pollutant parameter fecal coliform.

20. Flow – means the total volume of discharge in a 24-hour period.

21. FWPCA - means the Federal Water Pollution Control Act.

22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).

23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.

24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.

25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.

26. MGD – means million gallons per day.

27. Monthly Average – means, other than for fecal coliform bacteria, the arithmetic mean of the entire composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

28. New Discharger – means a person, owning or operating any building, structure, facility or installation:

    a. from which there is or may be a discharge of pollutants;

    b. that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and

    c. which has never received a final effective NPDES permit for dischargers at that site.

29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.

30. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

31. Point source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

32. Pollutant - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

33. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

34. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

35. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".

36. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

37. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

38. Solvent – means any virgin, used or spent organic solvent(s) identified in the F-Listed wastes (F001 through F005) specified in 40 CFR 261.31 that is used for the purpose of solubilizing other materials.

39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.

40. TON – means the pollutant parameter Total Organic Nitrogen.

41. TRC – means Total Residual Chlorine.

42. TSS – means the pollutant parameter Total Suspended Solids.

43. 24HC – means 24-hour composite sample, including any of the following:

    a. the mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. a sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

    c. a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

44. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

46. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS

1. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2. Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

a. Establish specific objectives for the control of pollutants:

(1) Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

b. Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;

c. Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated stormwater runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective;

d. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of stormwater from these substances;

e. Prevent or minimize stormwater contact with material stored on site;

f. Designate by position or name the person or persons responsible for the day to day implementation of the BMP;

g. Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general to ensure that the BMP is continually implemented and effective;

h. Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate stormwater;

i. Develop a solvent management plan, if solvents are used on site. The solvent management plan shall include as a minimum lists of the solvents on site; the disposal method of solvents used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that solvents do not routinely spill or leak into the stormwater;

j. Provide for the disposal of all used oils, hydraulic fluids, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;

k. Include a diagram of the facility showing the locations where stormwater exits the facility, the locations of any structure or other mechanisms intended to prevent pollution of stormwater or to remove pollutants from stormwater, the locations of any collection and handling systems;

l. Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;

m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;

o. Be reviewed by plant engineering staff and the plant manager; and

p. Bear the signature of the plant manager.

3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

4. Department Review

a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.

b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.

c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

5. Administrative Procedures

a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.

b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.

c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.

d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS

1. Stormwater Flow Measurement

a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.

b. The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

2. Stormwater Sampling

a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.

b. All test procedures will be in accordance with part I.B. of this permit.

C. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR DSN001

1. The permittee shall perform short-term chronic toxicity tests on the wastewater discharges required to be tested for chronic toxicity by Part I of this permit.

a. Test Requirements (Screening Test)

(1) The samples shall be diluted using appropriate control water, to the Instream Waste Concentration (IWC) which is 100% effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year flow period.

(2) Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and the test at the 95% confidence level indicate chronic toxicity and constitute noncompliance with this permit.

b. General Test Requirements

(1) A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests and collected every other day so that the laboratory receives water samples on the first, third, and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 or the most current edition or another control water selected by the permittee and approved by the Department.

(2) Effluent toxicity tests in which the control survival is less than 80%, P. promelas dry weight per surviving control organism is less than 0.25 mg, Ceriodaphnia number of young per surviving control organism is less than 15, Ceriodaphnia reproduction where less than 60% of surviving control females produce three broods or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the permittee shall rerun the tests as soon as practical within the monitoring period.

(3) In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.

c. Reporting Requirements

(1) The permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

(2) Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2 of this part, an effluent toxicity report containing the information in Section 2 shall be included with the DMR. Two copies of the test results

must be submitted to the Department no later than 28 days after the month in which the tests were performed.

d. Additional Testing Requirements

(1) If chronic toxicity is indicated (noncompliance with permit limit), the permittee shall perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date on which the permittee became aware of the permit noncompliance and the results of these tests shall be submitted no later than 28 days following the month in which the tests were performed.

(2) After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.)

e. Test Methods

(1) The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms". The Larval Survival and Growth Test, Methods 1000.0, shall be used for the fathead minnow (*Pimephales promelas*) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (*Ceriodaphnia dubia*) test.

2. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate these requirements or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location, and county

(2) Permit number

(3) Toxicity testing requirements of permit

(4) Name of receiving water body

(5) Contract laboratory information (if tests are performed under contract)

(a) Name of firm
(b) Telephone number
(c) Address

(6) Objective of test

b. Plant Operation

(1) Discharge Operating schedule (if other than continuous)

(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)

(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(a) Sampling point

(b) Sample collection dates and times (to include composite sample start and finish times)
(c) Sample collection method
(d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
(e) Lapsed time from sample collection to delivery
(f) Lapsed time from sample collection to test initiation
(g) Sample temperature when received at the laboratory

(2) Dilution Water

(a) Source
(b) Collection/preparation date(s) and time(s)
(c) Pretreatment (if applicable)
(d) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized

(2) End point(s) of test

(3) Deviations from referenced method, if any, and reason(s)

(4) Date and time test started

(5) Date and time test terminated

(6) Type and volume of test chambers

(7) Volume of solution per chamber

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)

(11) Specify if aeration was needed

(12) Feeding frequency, amount, and type of food

(13) Specify if (and how) pH control measures were implemented

(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent chronic reference toxicant test(s), raw data and current control chart(s). The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.

(3) Dilution water utilized in reference toxicant test

(4) Results of reference toxicant test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration response relationship and evaluate test sensitivity

(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)

(3) Indicate statistical methods used to calculate endpoints

(4) Provide all physical and chemical data required by method

(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sub-lethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

g. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation

D. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR DSN005

3. The permittee shall perform short-term chronic toxicity tests on the wastewater discharges required to be tested for chronic toxicity by Part I of this permit.

a. Test Requirements (Screening Test)

(1) The samples shall be diluted using appropriate control water, to the Instream Waste Concentration (IWC) which is 37% effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year flow period.

(2) Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and the test at the 95% confidence level indicate chronic toxicity and constitute noncompliance with this permit.

b. General Test Requirements

(1) A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests and collected every other day so that the laboratory receives water samples on the first, third, and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 or the most current edition or another control water selected by the permittee and approved by the Department.

(2) Effluent toxicity tests in which the control survival is less than 80%, P. promelas dry weight per surviving control organism is less than 0.25 mg, Ceriodaphnia number of young per surviving control organism is less than 15, Ceriodaphnia reproduction where less than 60% of surviving control females produce three broods or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the permittee shall rerun the tests as soon as practical within the monitoring period.

(3) In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.

c. Reporting Requirements

(1) The permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

(2) Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2 of this part, an effluent toxicity report containing the information in Section 2 shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

d. Additional Testing Requirements

(1) If chronic toxicity is indicated (noncompliance with permit limit), the permittee shall perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date on which the permittee became aware of the permit noncompliance and the results of these tests shall be submitted no later than 28 days following the month in which the tests were performed.

(2) After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.)

e. Test Methods

(1) The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms". The Larval Survival and Growth Test, Methods 1000.0, shall be used for the fathead minnow (*Pimephales promelas*) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (*Ceriodaphnia dubia*) test.

4. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate these requirements or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location, and county

(2) Permit number

(3) Toxicity testing requirements of permit

(4) Name of receiving water body

(5) Contract laboratory information (if tests are performed under contract)

(a) Name of firm
(b) Telephone number
(c) Address

(6) Objective of test

b. Plant Operation

(3) Discharge Operating schedule (if other than continuous)

(4) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)

(5) Design flow of treatment facility at time of sampling

i. Source of Effluent and Dilution Water

(1) Effluent samples

(a) Sampling point
(b) Sample collection dates and times (to include composite sample start and finish times)
(c) Sample collection method
(d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
(e) Lapsed time from sample collection to delivery
(f) Lapsed time from sample collection to test initiation
(g) Sample temperature when received at the laboratory

(2) Dilution Water

(a) Source
(b) Collection/preparation date(s) and time(s)
(c) Pretreatment (if applicable)
(d) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

j. Test Conditions

(1) Toxicity test method utilized

(2) End point(s) of test

(3) Deviations from referenced method, if any, and reason(s)

(4) Date and time test started

(5) Date and time test terminated

(6) Type and volume of test chambers

(7) Volume of solution per chamber

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)

(11) Specify if aeration was needed

(12) Feeding frequency, amount, and type of food

(13) Specify if (and how) pH control measures were implemented

(14) Light intensity (mean)

k. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease(s) treatment (if applicable)

l. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent chronic reference toxicant test(s), raw data and current control chart(s). The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.

(3) Dilution water utilized in reference toxicant test

(4) Results of reference toxicant test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration response relationship and evaluate test sensitivity

(5) Physical and chemical methods utilized

m. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)

(3) Indicate statistical methods used to calculate endpoints

(4) Provide all physical and chemical data required by method

(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sub-lethal endpoints determined by hypothesis testing.

n. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

h. Conclusions and Recommendations

(3) Relationship between test endpoints and permit limits

(4) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

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Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

FACT SHEET

APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE POLLUTANTS TO WATERS OF THE STATE OF ALABAMA

Date: October 11, 2018 **Prepared By:** Rachel Stanaland

NPDES Permit No. AL0001449

1. **Name and Address of Applicant:**

   Tyson Foods Inc
   67240 Main Street
   Blountsville, AL 35031

2. **Name and Address of Facility:**

   Blountsville Facility
   67240 Main Street
   Blountsville, Alabama 35031

3. **Description of Applicant's Type of Facility and/or Activity Generating the Discharge:**

   Individual Permit - Standard

4. **Applicant's Receiving Waters**

Receiving Waters	Classification
GRAVES CREEK	F&W
Locust Fork	F&W

   For the Outfall latitude and longitude see the permit application.

5. **Permit Conditions:**

   See attached Rationale and Draft Permit.

6. **PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS**

   a. **Comment Period**

   The Alabama Department of Environmental Management proposes to issue this NPDES permit subject to the limitations and special conditions outlined above. This determination is tentative.

   Interested persons are invited to submit written comments on the draft permit to the following address:

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

All comments received prior to the closure of the public notice period (see public notice for date) will be considered in the formulation of the final determination with regard to this permit.

b. Public Hearing

A written request for a public hearing may be filed within the public notice period and must state the nature of the issues proposed to be raised in the hearing. A request for a hearing should be filed with the Department at the following address:

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

The Director shall hold a public hearing whenever it is found, on the basis of hearing requests, that there exists a significant degree of public interest in a permit application or draft permit. The Director may hold a public hearing whenever such a hearing might clarify one or more issues involved in the permit decision. Public notice of such a hearing will be made in accordance with ADEM Admin. Code r. 335-6-6-.21.

c. Issuance of the Permit

All comments received during the public comment period shall be considered in making the final permit decision. At the time that any final permit decision is issued, the Department shall prepare a response to comments in accordance with ADEM Admin. Code r. 335-6-6-.21. **The permit record, including the response to comments, will be available to the public via the eFile System (**http://app.adem.alabama.gov/eFile/**) or an appointment to review the record may be made by writing the Permits and Services Division at the above address.**

Unless a request for a stay of a permit or permit provision is granted by the Environmental Management Commission, the proposed permit contained in the Director's determination shall be issued and effective, and such issuance will be the final administrative action of the Alabama Department of Environmental Management.

d. Appeal Procedures

As allowed under ADEM Admin. Code chap. 335-2-1, any person aggrieved by the Department's final administrative action may file a request for hearing to contest such action. Such requests should be received by the Environmental Management Commission within thirty days of issuance of the permit. Requests should be filed with the Commission at the following address:

Alabama Environmental Management Commission
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059

All requests must be in writing and shall contain the information provided in ADEM Admin. Code r. 335-2-1-.04.

ADEM PERMIT RATIONALE

PREPARED DATE: February 15, 2019
PREPARED BY: Rachel Stanaland

Permittee Name: Tyson Foods Inc

Facility Name: Tyson Foods Blountsville

Permit Number: AL0001449

PERMIT IS REISSUANCE DUE TO EXPIRATION

DISCHARGE SERIAL NUMBERS & DESCRIPTIONS:

DSN001: Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater
DSN002: Storm water run-off associated with poultry processing operations
DSN003: Storm water run-off associated with poultry processing operations
DSN004: Storm water run-off associated with poultry processing operations
DSN005: Treated process wastewater and clean-up water, sanitary wastewater, storm water, and treated poultry process wastewater

INDUSTRIAL CATEGORY: Meat and Poultry Products- Poultry Further Processing 40 CFR 432 Subpart L 432.122 and 432.123

MAJOR: Y

STREAM INFORMATION:

DSN001-DSN004

Receiving Stream:	Graves Creek
Classification:	Fish and Wildlife
River Basin:	Black Warrior River Basin
7Q10:	0 cfs
7Q2:	0 cfs
1Q10:	0 cfs
Annual Average Flow:	18.73 cfs
303(d) List:	YES
Impairment:	Nutrients: Phosphorus
TMDL:	YES

DSN005

Receiving Stream:	Locust Fork
Classification:	Fish and Wildlife
River Basin:	Black Warrior River Basin
7Q10:	3.62 cfs
7Q2:	10.23 cfs
1Q10:	3.07 cfs
Annual Average Flow:	585 cfs
303(d) List:	YES
Impairment:	Nutrients: Phosphorus
TMDL:	YES

DISCUSSION:

The facility is a poultry processor and is subject to 40 CFR 432 Subpart L. Live birds are slaughtered and processed through an evisceration system. The birds are then chilled, sized, and organized by weight. Leg quarters are package for consumer sale. The breast meat is shipped to a co-packing facility where it is de-boned. The de-boned breast meat is returned to the plant and processed into patties, strips, and nuggets and then par-fried and shipped for sale to consumers and commercial customers.

The facility is considering a project that will change the process discharge point DSN001 from Graves Creek to Locust Fork. The new discharge point is named DSN005.

ADEM Administrative Rule 335-6-10-.12 requires applicants to new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a discharge to a Tier II water body. Therefore, anti-degradation requirements do not apply.

0011:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Oxygen, Dissolved (DO) (2)	-	-	6.0 mg/l	-	-	Weekly	Grab	WQBEL
Oxygen, Dissolved (DO) (1)	-	-	6.0 mg/l	-	-	Weekly	Grab	WQBEL
BOD, 5-Day (20 Deg. C) (2)	118.44 lbs/day	177.67 lbs/day	-	10.6 mg/l	15.90 mg/l	Weekly	Composite	WQBEL
BOD, 5-Day (20 Deg. C) (1)	53.63 lbs/day	80.45 lbs/day	-	4.80 mg/l	7.20 mg/l	Weekly	Composite	WQBEL
pH (2)	-	-	6.0 S.U.	-	8.5 S.U.	Weekly	Grab	WQBEL
pH (1)	-	-	6.0 S.U.	-	8.5 S.U.	Weekly	Grab	WQBEL
Solids, Total Suspended (2)	-	-	-	20 mg/l	30 mg/l	Weekly	Composite	EGL
Solids, Total Suspended (1)	-	-	-	20 mg/l	30 mg/l	Weekly	Composite	EGL
Oil and Grease, Hexane Extr Method	-	-	-	8 mg/l	14 mg/l	Weekly	Grab	EGL
Nitrogen, Ammonia Total (As N) (2)	11.17 lbs/day	16.76 lbs/day	-	1.0 mg/l	1.5 mg/l	Weekly	Composite	WQBEL
Nitrogen, Ammonia Total (As N) (1)	11.17 lbs/day	16.76 lbs/day	-	1.0 mg/l	1.5 mg/l	Weekly	Composite	WQBEL
Nitrogen, Kjeldahl Total (As N) (2)	-	-	-	2.0 mg/l	3.0 mg/l	Weekly	Composite	WQBEL
Nitrogen, Kjeldahl Total (As N) (1)	-	-	-	2.0 mg/l	3.0 mg/l	Weekly	Composite	WQBEL
Phosphorus, Total (As P) (5)	REPORT lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Phosphorus, Total (As P) (6)	REPORT lbs/day	REPORT lbs/day	-	0.25 mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Phosphorus, Total (As P) (6)	14.6 lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Phosphorus, Total (As P) (6)	329.15 lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily	Totalizer	BPJ
E. Coli (3)	-	-	-	126 col/100mL	487 col/100mL	Weekly	Grab	WQBEL
E. Coli (4)	-	-	-	548 col/100mL	2507 col/100mL	Weekly	Grab	WQBEL
Coliform, Fecal General	-	-	-	-	400 col/100mL	Weekly	Grab	EGL

(1) Limit applies for the months of May, June, July, August, September, October, November
(2) Limit applies for the months of December, January, February, March, and April
(3) Limit applies for the months of May, June, July, August, September, and October
(4) Limit applies for the months of November, December, January, February, March, and April
(5) Limit applies for the months of November, December, January, and February
(6) The monthly average phosphorus limits shall apply for the months March, April, May, June, July, August, September, and October
From the permit effective date to March 31, 2020 – Growing season monthly average limit = 329.15 lbs/day
From April 1, 2020 to March 31, 2022 – Growing season monthly average limit = 14.6 lbs/day
From April 1, 2022 forward – Growing season monthly average limit = 0.25 mg/l

001Q:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Nitrogen, Total (As N)	-	-	-	103 mg/l	147 mg/l	Quarterly	Composite	EGL
Nitrite Plus Nitrate Total 1 Det. (As N)	-	REPORT lbs/day	-	-	-	Quarterly	Composite	BPJ
Toxicity, Ceriodaphnia Chronic	-	0 pass(0)/fail(1)	-	-	-	Quarterly	Composite	WQBEL
Toxicity, Pimephales Chronic	-	0 pass(0)/fail(1)	-	-	-	Quarterly	Composite	WQBEL

002S:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Twice per Year	Estimate	BPJ
E. Coli	-	-	-	-	REPORT col/100mL	Twice per Year	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ

003S:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Twice per Year	Estimate	BPJ
E. Coli	-	-	-	-	REPORT col/100mL	Twice per Year	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ

004S:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Twice per Year	Estimate	BPJ
E. Coli	-	-	-	-	REPORT col/100mL	Twice per Year	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ

005Q:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Nitrogen, Total (As N)	-	-	-	103 mg/l	147 mg/l	Quarterly	Composite	EGL
Nitrite Plus Nitrate Total 1 Det. (As N)	-	REPORT lbs/day	-	-	-	Quarterly	Composite	BPJ
Phosphorus, Total (As P)	-	REPORT lbs/day	-	-	-	Quarterly	Composite	WQBEL
Toxicity, Ceriodaphnia Chronic	-	0 pass(0)/fail(1)	-	-	-	Quarterly	Composite	WQBEL
Toxicity, Pimephales Chronic	-	0 pass(0)/fail(1)	-	-	-	Quarterly	Composite	EGL

0051:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Oxygen, Dissolved (DO)	-	-	REPORT mg/l	-	-	Weekly	Grab	WQBEL
Oxygen, Dissolved (DO)	-	-	3.0 mg/l	-	-	Weekly	Grab	WQBEL
BOD, 5-Day (20 Deg. C)	178.78 lbs/day	290.52 lbs/day	-	16.0 mg/l	26.0 mg/l	Weekly	Composite	WQBEL
BOD, 5-Day (20 Deg. C)	178.78 lbs/day	290.52 lbs/day	-	16.0 mg/l	26.0 mg/l	Weekly	Composite	WQBEL
pH	-	-	6.0 S.U.	-	8.5 S.U.	Weekly	Grab	WQBEL
pH	-	-	6.0 S.U.	-	8.5 S.U.	Weekly	Grab	WQBEL
Solids, Total Suspended	-	-	-	20 mg/l	30 mg/l	Weekly	Composite	EGL
Solids, Total Suspended	-	-	-	20 mg/l	30 mg/l	Weekly	Composite	EGL
Oil and Grease, Hexane Extr Method	-	-	-	8 mg/l	14 mg/l	Weekly	Grab	EGL
Nitrogen, Ammonia Total (As N)	44.7 lbs/day	89.39 lbs/day	-	4.0 mg/l	8.0 mg/l	Weekly	Composite	WQBEL
Nitrogen, Ammonia Total (As N)	44.70 lbs/day	83.80 lbs/day	-	4.0 mg/l	7.5 mg/l	Weekly	Composite	WQBEL
Nitrogen, Kjeldahl Total (As N)	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Nitrogen, Kjeldahl Total (As N)	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Phosphorus, Total (As P) (5)	REPORT lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	WQBEL

Phosphorus, Total (As P) (6)	REPORT lbs/day	REPORT lbs/day	-	0.25 mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Phosphorus, Total (As P) (6)	14.6 lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Phosphorus, Total (As P) (6)	329.15 lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	WQBEL
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily	Totalizer	BPJ
E. Coli (1)	-	-	-	126 col/100mL	298 col/100mL	Weekly	Grab	WQBEL
E. Coli (2)	-	-	-	548 col/100mL	2507 col/100mL	Weekly	Grab	WQBEL
Coliform, Fecal General	-	-	-	-	400 col/100mL	Weekly	Grab	EGL

(1) Limit applies for the months of May, June, July, August, September, October, November
(2) Limit applies for the months of December, January, February, March, and April
(3) Limit applies for the months of May, June, July, August, September, and October
(4) Limit applies for the months of November, December, January, February, March, and April
(5) Limit applies for the months of November, December, January, and February
(6) The monthly average phosphorus limits shall apply for the months March, April, May, June, July, August, September, and October
From the permit effective date to March 31, 2020 – Growing season monthly average limit = 329.15 lbs/day
From April 1, 2020 to March 31, 2022 – Growing season monthly average limit = 14.6 lbs/day
From April 1, 2022 forward – Growing season monthly average limit = 0.25 mg/l

*Basis for Permit Limitation

- BPJ – Best Professional Judgment
- WQBEL – Water Quality Based Effluent Limits
- EGL – Federal Effluent Guideline Limitations
- 303(d) – 303(d) List of Impaired Waters
- TMDL – Total Maximum Daily Load Requirements

Discussion

DSN001

Best Professional Judgment (BPJ)
The parameters of concern for this facility are based on the parameters of concern listed in EPA forms 2C and from the current permit. These parameters are consistent with similar facilities in the state and have been proven to be reflective of the operations at this facility. The parameters with specific limits are discussed below:

BOD and Ammonia
The mass based limits for BOD and Ammonia were determined using the concentration limits and the facilities long term average flow. A sample calculation can be seen below:

BOD (ppd) = Conversion Factor x Long Term Average Flow (MGD) x BOD (mg/l)

Oil & Grease
The daily maximum limit for Oil and Grease should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

pH
ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5) – Specific Water Quality for Fish and Wildlife classified streams states: "Sewage, industrial waste or other wastes shall not cause the pH to deviate more than one unit from then normal or natural pH, nor be less than 6.0, nor greater than 8.5 standard units."

Water Quality Based Effluent Limits (WQBEL)

Biological Oxygen Demand (BOD) and Ammonia
The Department's Water Quality Branch updated the Waste Load Allocation model with current stream data and Tyson's current flow rate. The concentrations of BOD and Ammonia were updated and are listed below. The monthly average limits proposed by Water Quality were multiplied by a peaking factor of 1.5 to calculate the daily maximum limits. The proposed concentration limits are more stringent than the Federal Guideline Limitations in 40 CFR 432. A comparison is provided in the table.

	Water Quality Limit from 2018 Waste Load Allocation		Effluent Limitation in 40 CRF 432	
	Monthly Average (mg/l)	Daily Maximum (mg/l)	Monthly Average (mg/l)	Daily Maximum (mg/l)
BOD-5 (Dec-April)	10.6	15.9	16.0	26.0
BOD-5 (May-Nov)	4.8	7.2	16.0	26.0
Ammonia (Dec-April)	1.0	1.5	4.0	8.0
Ammonia (May-Nov)	1.0	1.5	4.0	8.0

Total Kjeldahl Nitrogen (TKN), and Dissolved Oxygen (DO)
The Department's Water Quality Branch updated the Waste Load Allocation model with current stream data and Tyson's current flow rate. The concentrations of TKN, and DO were updated and are listed below. The TKN monthly average limit proposed by Water Quality was multiplied by a peaking factor of 1.5 to calculate the daily maximum limit.

	Water Quality Limit from 2018 Waste Load Allocation	
	Monthly Average (mg/l)	Daily Maximum (mg/l)
TKN (Dec-April)	2.0	3.0
TKN (May-Nov)	2.0	3.0
	Minimum DO mg/l	
DO (Dec-April)	6.0	
DO (May-Nov)	6.0	

E.Coli

ADEM Administrative Code R.335-6-10-.09 changed the bacterial indicator orgasms and associated criteria for non-coastal waters from fecal coliform to Escherichia coli (E.coli) to consistent with the United States Environmental Protection Agency (EPA) recommendations for protection against water-borne illnesses. As a result, this permit includes E.coli limits that are consistent with the revised regulations. Therefore the following requirements for E.coli will be included in this permit with a monitoring frequency of once per week:

Monthly Average (May-October)	126 colonies.100 ml
Monthly Average (November-April)	548 colonies/ 100 ml
Daily Maximum (May- October)	298 colonies/ 100 ml
Daily Maximum (November-April)	2507 colonies/ 100 ml

Chronic Toxicity Biomonitoring

Chronic toxicity biomonitoring will be required once per quarter to ensure no adverse impacts occur to the receiving stream as a results of the facility's discharge. The test will be run at the instream waste concentration (IWC) of 100 %. The IWC calculations are as follows where the 7Q10= 0.0 cfs = 0.0 MGD.

$$IWC = \frac{1.339\ MGD}{0\ MGD + 1.339\ MDG} = 100.00\%$$

Federal Effluent Guideline Limitations (EGL)

Parameters based upon EGL have had effluent guidelines established under the 40 CFR 432 Subpart L.

303(d) List of Impaired Waters/Total Maximum Daily Load (TMDL).

This discharge is included as a point source in the Locust Fork Watershed Nutrient TMDL, which was approved by the EPA in January 2018. The TMDL requires that all major permittees comply with a Total Phosphorus (TP) limit of 0.25 mg/l and, "shall be applied as an effluent monthly average total phosphorus concentration limit applicable during the months of March – October."

The Permittee will be required to achieve compliance with the TP limit provided in the TMDL. The initial TP limit of 28.19 mg/l is based on the 100% percentile of the last 3 years of DMRs submitted to the Department. Based on the compliance schedule provided by the Permittee and the Department's Best Professional Judgement, the permit requires compliance with a TP limit of 1.25 mg/l by April 2020 and compliance with the final TMDL limit of 0.25 mg/l by April 2022.

The facility requested that their limits be based in lbs /day. The limits are based on a flow rate of 1.4 MGD. Calculations are below:

From the permit effective date to March 31, 2020 – Growing season monthly average limit = 329.15 lbs/day

$$8.34 * 1.4\,MGD * 28.19 mg/l = 329.15 \frac{lbs}{day}$$

From April 1, 2020 to March 31, 2022 – Growing season monthly average limit = 14.6 lbs/day

$$8.34 * 1.4\,MGD * 1.25\,mg/l = 14.6 \frac{lbs}{day}$$

From April 1, 2022 forward the facility shall comply with the TMDL limitation of 0.25 mg/l

DSN005

The facility is considering a project that will change the process discharge point (DSN001) from Graves Creek to Locust Fork. The new discharge point is named DSN005.

Best Professional Judgment (BPJ)

The parameters of concern for this facility are based on the parameters of concern listed in EPA form 2C and from the current permit. These parameters are consistent with similar facilities in the state and have been proven to be reflective of the operations at this facility. The parameters with specific limits are discussed below:

BOD and Ammonia

The mass based limits for BOD and Ammonia were determined using the concentration limits and the facilities long term average flow. A sample calculation can be seen below:

BOD (ppd) = Conversion Factor x Long Term Average Flow (MGD) x BOD (mg/l)

Oil & Grease

The daily maximum limit for Oil and Grease should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

pH

ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5) – Specific Water Quality for Fish and Wildlife classified streams states: "Sewage, industrial waste or other wastes shall not cause the pH to deviate more than one unit from then normal or natural pH, nor be less than 6.0, nor greater than 8.5 standard units."

Water Quality Based Effluent Limits (WQBEL)

Biological Oxygen Demand (BOD) and Ammonia

The Department's Water Quality Branch prepared a Waste Load Allocation model for the potential discharge to Locust Fork with current stream data and Tyson's current flow rate. The concentrations of BOD and Ammonia are listed below. The monthly average limits proposed by Water Quality were multiplied by a peaking factor of 1.5 to calculate the daily maximum limits. The BOD limitations and the monthly average Ammonia limitations proposed are less stringent than the Federal Guideline Limitations in 40 CFR 432. The Federal Guidelines Limitations shall be used for those limits. A comparison is provided in the table.

	Water Quality Limit from 2018 Waste Load Allocation		Effluent Limitation in 40 CRF 432	
	Monthly Average (mg/l)	Daily Maximum (mg/l)	Monthly Average (mg/l)	Daily Maximum (mg/l)
BOD-5 (Dec-April)	22.0	33.0	16.0	26.0
BOD-5 (May-Nov)	20.0	30.0	16.0	26.0
Ammonia (Dec-April)	5.0	7.5	4.0	8.0
Ammonia (May-Nov)	6.0	9.0	4.0	8.0

Total Kjeldahl Nitrogen (TKN), and Dissolved Oxygen (DO)

The Department's Water Quality Branch prepared a Waste Load Allocation model for the potential discharge to Locust Fork with current stream data and Tyson's current flow rate. The Waste Load Allocation Model did not propose any limitations for TKN. It is proposed that TKN be monitored without limitations. The DO shall be limited to a minimum for 3 mg/l during the summer months and have no limitations during the winter months.

E.Coli

ADEM Administrative Code R.335-6-10-.09 changed the bacterial indicator orgasms and associated criteria for non-coastal waters from fecal coliform to Escherichia coli (E.coli) to consistent with the United States Environmental Protection Agency (EPA) recommendations for protection against water-borne illnesses. As a result, this permit includes E.coli limits that are consistent with the revised regulations. Therefore the following requirements for E.coli will be included in this permit with a monitoring frequency of once per week:

Monthly Average (May-October)	126 colonies.100 ml
Monthly Average (November-April)	548 colonies/ 100 ml
Daily Maximum (May- October)	298 colonies/ 100 ml
Daily Maximum (November-April)	2507 colonies/ 100 ml

Chronic Toxicity Biomonitoring

Chronic toxicity biomonitoring will be required once per quarter to ensure no adverse impacts occur to the receiving stream as a results of the facility's discharge. The test will be run at the instream waste concentration (IWC) is 37%. The IWC calculations are as follows where the 7Q10= 3.62 cfs = 2.33 MGD.

$$IWC = \frac{1.339\ MGD}{2.33\ MGD + 1.339\ MGD} = 36.5\%$$

Federal Effluent Guideline Limitations (EGL)

Parameters based upon EGL have had effluent guidelines established under the 40 CFR 432 Subpart L.

303(d) List of Impaired Waters/Total Maximum Daily Load (TMDL).

This discharge is included as a point source in the Locust Fork Watershed Nutrient TMDL, which was approved by the EPA in January 2018. The TMDL requires that all major permittees comply with a Total Phosphorus limit of 0.25 mg/l and, "shall be applied as an effluent monthly average total phosphorus concentration limit applicable during the months of March – October."

The Permittee will be required to achieve compliance with the TP limit provided in the TMDL. The initial TP limit of 28.19 mg/l is based on the 100% percentile of the last 3 years of DMRs submitted to the Department. Based on the compliance schedule provided by the Permittee and the Department's Best Professional Judgement, the permit requires compliance with a TP limit of 1.25 mg/l by April 2020 and compliance with the final TMDL limit of 0.25 mg/l by April 2022.

The facility requested that their limits be based in lbs /day. The limits are based on a flow rate of 1.4 MGD. Calculations are below:

From the permit effective date to March 31, 2020 – Growing season monthly average limit = 329.15 lbs/day

$$8.34 * 1.4\,MGD * 28.19 mg/l = 329.15 \frac{lbs}{day}$$

From April 1, 2020 to March 31, 2022 – Growing season monthly average limit = 14.6 lbs/day

$$8.34 * 1.4\,MGD * 1.25\,mg/l = 14.6 \frac{lbs}{day}$$

From April 1, 2022 forward the facility shall comply with the TMDL limitation of 0.25 mg/l

DSN002-DSN004

Best Professional Judgment (BPJ)

The parameters of concern for this facility are based on the parameters of concern listed in EPA form 2F and from the current permit. These parameters are consistent with similar facilities in the state and have been proven to be reflective of the operations at this facility.

Best Management Practices (BMPs) are believed to be the most effective way to control the contamination of stormwater from areas of industrial activities. This facility is required to maintain a BMP plan. The requirements of the BMP plan call for minimization of stormwater contact with waste materials, products and by-products, and for prevention of spills or loss of fluids from equipment maintenance activities. The effectiveness of the BMPs will be measured through the monitoring of the pollutants of concern.

	Phosphorus Loading	Maximum Daily Flow	Phosphorus Concentration
Report End Date	Maximum Daily (lbs/day)	Maximum Daily (MGD)	Maximum Daily (mg/l)
3/31/2012	180.3	1.455	14.86
6/30/2012	257	1.409	21.87
9/30/2012	247	1.452	20.40
12/31/2012	251	1.444	20.84
3/31/2013	199.5	1.638	14.60
6/30/2013	209	1.276	19.64
9/30/2013	178	1.173	18.20
12/31/2013	220	1.855	14.22
3/31/2014	329	1.835	21.50
6/30/2014	238	1.921	14.86
9/30/2014	232	1.829	15.21
12/31/2014	346	1.537	26.99
3/31/2015	281	1.754	19.21
6/30/2015	305.3	1.765	20.74
9/30/2015	157	1.273	14.79
12/31/2015	182	1.797	12.14
3/31/2016	276	1.828	18.10
6/30/2016	368	1.565	28.19
9/30/2016	156.7	1.662	11.31
12/31/2016	281.7	1.393	24.25
3/31/2017	339.9	1.625	25.08
6/30/2017	216.3	1.375	18.86
9/30/2017	238.7	1.362	21.01
12/31/2017	234.5	1.488	18.90
3/31/2018	227.9	1.877	14.56
6/30/2018	210.2	1.746	14.44

100th Percentile	28.19

Tyson

September 21, 2018

Ms. Rachel Stanaland
Water Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110

Ms. Stanaland:

This letter is in response to the Alabama Department of Environmental Management's ("Department") request for a written report detailing Tyson Farms – Blountsville ("Tyson") work on phosphorus management. This letter will set out the status of total phosphorus (TP) removal from effluent at Tyson and a provide a plan and schedule for implementation to attain compliance with the Locust Fork and Village Creek Nutrient TMDL.

Tyson is currently working in conjunction with the other major dischargers in the Locust Fork watershed to perform instream monitoring, propose interim limits and propose a compliance schedule to bring Locust Fork into compliance with the chlorophyll A (chlorophyll) value of 18 micrograms per liter value stated in the TMDL. The proposed sampling plan and quality assurance project plan (QAPP) for that effort have been submitted to the Department and are under review.

Over the past several years, Tyson has averaged approximately 23 mg/l TP in the effluent from the poultry processing facility located south of Blountsville, AL. The phosphorus in Tyson's effluent is a combination of naturally occurring ortho phosphorus compounds common to the waste from a protein facility And phosphorus used in cooking ingredients and sanitation chemicals for our processes. Tyson is reviewing options for TP reduction, with the assistance of Reid Engineering, some of those include source reduction, biological phosphorus removal, chemical addition and alternative methods that are considered more sustainable for the production facility.

In addition to TP reduction efforts, Tyson has contracted with Reid Engineering to design improvements to our system. Some of the improvements are to the activated sludge facility which will include installing an anoxic selector and modifications to the mixing and aeration equipment in the existing oxidation ditch.

Tyson proposes interim limits of 1.25 mg/l TP beginning in April of 2020. While our discharge flow is relatively uniform (+/- 15%), we request interim limits to be based upon a mass of 14.6 lbs./day to be equivalent to a concentration of 1.25 mg/l TP at a flow of 1.4 MGD. Tyson is investing in other sustainable measures within the facility which include projects to reduce water usage and Tyson does not want to be

unduly penalized for our voluntary reduction of water. The Phase I value of 14.6 lbs./day of TP (1.25 mg/l) will realize an approximate 95% reduction in Tyson's effluent discharge.

Regarding a compliance schedule for NPDES permitting, Tyson proposes the following:

- October 2018 through February 2019 – Design WWTP improvements to include Phase I TP removal. Submit engineering plans and construction permit application to ADEM for approval in February 2019.
- March 2019 through April 2019 – Bid project, award project following approval of engineering plans and construction permit by ADEM.
- May 2019 through December 2019 – Construct improvements to activated sludge facility.
- January 2020 through March 2020 – Come into compliance with Phase I mass limit of 14.6 lbs./day.
- January 2020 through September 2020 – Maintain compliance with Phase I limits and continue with Phase II TP removal design and pilot testing.
- October 2020 through January 2021 – Finalize design on Phase II TP removal concept.
- February 2021 – Submit construction permit application to ADEM for approval of Phase II design.
- February 2021 through March 2021 – Bid and award Phase II construction project.
- April 2021 through December 2021 - Construct Phase II improvements.
- January 2022 through April 2022 – Come into compliance with Phase II permit limits.

Parallel to the design and construction schedule above Tyson will be participating in the in-stream monitoring program. The monitoring will take place in the Locust Fork watershed and will monitor TP reductions associated with the phased approach in achieving the instream chlorophyll value of 18 µg/L value stated in the Locust Fork TMDL.

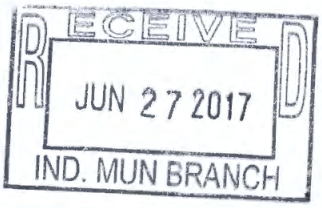
Tyson appreciates the opportunity to work with the Department on this matter. If you have questions or concerns about this letter or the proposed compliance schedule, please contact me at (205) 466-8231 or by email at Rodney.hames2@tyson.com.

Regards,

Rodney Hames, PE
Complex Environmental Manager
Tyson Farms, Inc.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT APPLICATION SUPPLEMENTARY INFORMATION

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION – INDUSTRIAL / MINING PERMIT SECTION
POST OFFICE BOX 301463
MONTGOMERY, ALABAMA 36130-1463



INSTRUCTIONS: **APPLICATIONS SHOULD BE TYPED OR PRINTED IN INK AND SUBMITTED TO THE DEPARTMENT IN DUPLICATE. IF INSUFFICIENT SPACE IS AVAILABLE TO ADDRESS ANY ITEM, PLEASE CONTINUE ON AN ATTACHED SHEET OF PAPER. PLEASE MARK N/A IN THE APPROPRIATE BOX WHEN AN ITEM IS NON-APPLICABLE TO THE APPLICANT.**

PURPOSE OF THIS APPLICATION

- ☐ INITIAL PERMIT APPLICATION FOR NEW FACILITY
- ☐ INITIAL PERMIT APPLICATION FOR EXISTING FACILITY
- ☐ MODIFICATION OF EXISTING PERMIT
- ☑ REISSUANCE OF EXISTING PERMIT
- ☐ REVOCATION & REISSUANCE OF EXISTING PERMIT

1. Facility Name: Tyson Farms Inc.

   a. Operator Name: Mark Bromley, Plant Manager

   b. Is the operator identified in 1.a., the owner of the facility? Yes ☐ No ☑
   If no, provide the name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.
   67240 Main Street Blountsville, AL 35031. Operator is the Facility's Plant Manager

2. NPDES Permit Number AL 0 0 0 1 4 4 9

3. SID Permit Number (if applicable): IU ___ ___ - ___ ___ - ___ ___ ___ ___ ___

4. NPDES General Permit Number (if applicable) ALG ___ ___ ___ ___ ___ ___ ___

5. Facility Physical Location: (Attach a map with location marked; street, route no. or other specific identifier)

   Street: 67240 Main Street

   City: Blountsville County: Blount State: AL Zip: 35212

   Facility (Front Gate) Latitude: 34.055012 Longitude: -86.580673

6. Facility Mailing Address (Street or Post Office Box): 67240 Main Street

   City: Blountsville State: AL Zip: 35031

7. Responsible Official (as described on page 13 of this application):

Name and Title: Stacy Miller, VP Division Value Added Operations II

Address: 2200 Don Tyson Parkway

City: Springdale State: AR Zip: 72762

Phone Number: (479) 290-5628

EMAIL Address: stacy.miller@tyson.com

8. Designated Facility Contact:

Name and Title: Lisa Beckham, 1st Shift Sr. Environmental Supervisor; Cameron Adams, 2nd Shift Sr. Environmental Supervisor

Phone Number: 205-429-2421 Ext 210

EMAIL Address: lisa.beckham@tyson.com; cameron.adams@tyson.com

9. Designated Discharge Monitoring Report Contact:

Name and Title: Lisa Beckham, Sr. Environmental Supervisor; Cameron Adams, 2nd Shift Sr. Environmental Supervisor

Phone Number: 205-429-2421 Ext 210

EMAIL Address: lisa.beckham@tyson.com; cameron.adams@tyson.com

10. Type of Business Entity:

☑ Corporation ☐ General Partnership ☐ Limited Partnership

☐ Sole Proprietorship ☐ Other (Please Specify) _____

11. Complete this section if the Applicant's business entity is a Corporation

a) Location of Incorporation:

Address: 2200 Don Tyson Parkway

City: Springdale County: Washington State: AR Zip: 72762

b) Parent Corporation of Applicant:

Name: Tyson Farms, Inc.

Address: 2200 Don Tyson Parkway

City: Springdale State: AR Zip: 72762

c) Subsidiary Corporation(s) of Applicant:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

d) Corporate Officers:

Name: Doug Ramsey, President Poultry

Address: 2200 Don Tyson Parkway

City: Springdale State: AR Zip: 72762

Name: Stacy Miller, VP Division, Value Added Operations II

Address: 220 Don Tyson Parkway

City: Springdale State: AR Zip: 72762

e) Agent designated by the corporation for purposes of service:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

12. If the Applicant's business entity is a Partnership, please list the general partners.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

13. If the Applicant's business entity is a Proprietorship, please enter the proprietor's information.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

14. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State of Alabama Environmental Permits presently held by the Applicant, its parent corporation, or subsidiary corporations within the State of Alabama:

Permit Name	Permit Number	Held By
See attachement I		

15. Identify all Administrative Complaints, Notices of Violation, Directives, Administrative Orders, or Litigation concerning water pollution, if any, against the Applicant, its parent corporation or subsidiary corporations within the State of Alabama within the past five years (attach additional sheets if necessary):

Facility Name	Permit Number	Type of Action	Date of Action
Tyson Chicken - Albertville Plant	AL0082244	NOV for Ferric Sulfate release	

SECTION B – BUSINESS ACTIVITY

1. Indicate applicable Standard Industrial Classification (SIC) Codes for all processes (If more than one applies, list in order of importance:

a. 2015-Poultry Slaughtering & Process

b. _____

c. _____

d. _____

e. _____

2. If your facility conducts or will be conducting any of the processes listed below (regardless of whether they generate wastewater, waste sludge, or hazardous waste), place a check beside the category of business activity (check all that apply):

Industrial Categories

[ ]	Aluminum Forming	[ ]	Metal Molding and Casting
[ ]	Asbestos Manufacturing	[ ]	Metal Products
[ ]	Battery Manufacturing	[ ]	Nonferrous Metals Forming
[ ]	Can Making	[ ]	Nonferrous Metals Manufacturing
[ ]	Canned and Preserved Fruit and Vegetables	[ ]	Oil and Gas Extraction
[ ]	Canned and Preserved Seafood	[ ]	Organic Chemicals Manufacturing
[ ]	Cement Manufacturing	[ ]	Paint and Ink Formulating
[ ]	Centralized Waste Treatment	[ ]	Paving and Roofing Manufacturing
[ ]	Carbon Black	[ ]	Pesticides Manufacturing
[ ]	Coal Mining	[ ]	Petroleum Refining
[ ]	Coil Coating	[ ]	Phosphate Manufacturing
[ ]	Copper Forming	[ ]	Photographic
[ ]	Electric and Electronic Components Manufacturing	[ ]	Pharmaceutical
[ ]	Electroplating	[ ]	Plastic & Synthetic Materials
[ ]	Explosives Manufacturing	[ ]	Plastics Processing Manufacturing
[ ]	Feedlots	[ ]	Porcelain Enamel
[ ]	Ferroalloy Manufacturing	[ ]	Pulp, Paper, and Fiberboard Manufacturing
[ ]	Fertilizer Manufacturing	[ ]	Rubber
[ ]	Foundries (Metal Molding and Casting)	[ ]	Soap and Detergent Manufacturing
[ ]	Glass Manufacturing	[ ]	Steam and Electric
[ ]	Grain Mills	[ ]	Sugar Processing
[ ]	Gum and Wood Chemicals Manufacturing	[ ]	Textile Mills
[ ]	Inorganic Chemicals	[ ]	Timber Products
[ ]	Iron and Steel	[ ]	Transportation Equipment Cleaning
[ ]	Leather Tanning and Finishing	[ ]	Waste Combustion
[ ]	Metal Finishing	[ ]	Other (specify)_____
[✓]	Meat Products		

A facility with processes inclusive in these business areas may be covered by Environmental Protection (EPA) categorical standards. These facilities are termed "categorical users" and should skip to question 2 of Section C.

3. Give a brief description of all operations at this facility including primary products or services (attach additional sheets if necessary):

The primary product is poultry. Live birds are slaughtered and processed through an evisceration system. Birds are then chilled, sized, and organized by weight. Leg quarters are packaged for consumer sale. The breast meat is shipped to a co-packing facility where it is de-boned. The de-boned breast meat is returned to the plant and processed into patties, strips, and nuggets and then par-fried and shipped for sale to consumers and commercial customers.

SECTION C – WASTEWATER DISCHARGE INFORMATION

Facilities that checked activities in question 2 of Section B and are considered Categorical Industrial Users should skip to question 2 of this section.

1. **For Non-Categorical Users Only**: Provide wastewater flows for each of the processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ at _____
(days of week) (hours of day)

d. Flow rate: _____ gallons/minute

e. Percent of total discharge: _____

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow

2. **Complete this Section only if you are subject to Categorical Standards and plan to directly discharge the associated wastewater to a water of the State.** If Categorical wastewater is discharged exclusively via an indirect discharge to a public or privately-owned treatment works, check "Yes" in the appropriate space below and proceed directly to part 2.c .

[✓] Yes

For Categorical Users: Provide the wastewater discharge flows or production (whichever is applicable by the effluent guidelines) for each of your processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

2a.

Regulated Process	Applicable Category	Applicable Subpart	Type of Discharge Flow (batch, continuous, intermittent)
poultry processing	meat products		continuous

2b.

Process Description	Last 12 Months (gals/day) Highest Month Average*	Highest Flow Year of Last 5 (gals/day) Monthly Average*	Discharge Type (batch, continuous, intermittent)
poultry processing	1.427 MGD	1.614 MGD	continuous

*** Reported values should be expressed in units of the applicable Federal production-based standard. For example, flow (MGD), production (pounds per day), etc.**

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ (days of week) at _____ (hours of day)

d. Flow rate: _____ gallons/minute

Percent of total discharge: _____

2c.

Non categorical Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ (days of week) at _____ (hours of day)

d. Flow rate: _____ gallons/minute

Percent of total discharge: _____

2d.

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow
Sanitary Sewer (overflow from City)	25,000 gals/day	25,000 gals/day

All Applicants must complete Questions 3 – 5.

3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Flow Metering	Yes	✓	No	___	N/A ___
Sampling Equipment	Yes	✓	No	___	N/A ___

If so, please indicate the present or future location of this equipment on the sewer schematic and describe the equipment below:

DSN001 and DSN005 Flow Meter - ISCO Model 4230 Bubbler Flow Meter for continuous flow-proportional monitoring and recording of daily flow.

DSN001 and DSN005 sampler - ISCO 3710 Refrigerated Sampler

4. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Yes ☐ No ☑ (If no, skip Question 5)

Briefly describe these changes and their anticipated effects on the wastewater volume and characteristics:

5. List the trade name and chemical composition of all biocides and corrosion inhibitors used:

Trade Name	Chemical Composition
see attachment II	

For each biocide and/or corrosion inhibitor used, please include the following information:

(1) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
(2) quantities to be used,
(3) frequencies of use,
(4) proposed discharge concentrations, and
(5) EPA registration number, if applicable

SECTION D – WATER SUPPLY

Water Sources (check as many as are applicable):

[✓] Private Well
[ ] Municipal Water Utility (Specify City):
[ ] Surface Water
[✓] Other (Specify): See att III for additional Wells

IF MORE THAN ONE WELL OR SURFACE INTAKE, PROVIDE DATA FOR EACH ON AN ATTACHMENT

City: N/A *MGD Well: 0.72 *MGD Well Depth: 185 Ft. Latitude: 34° 3' 22.49 "N Longitude: 86° 34' 40.58" W

Surface Intake Volume: _____*MGD Intake Elevation in Relation to Bottom _____Ft.

Intake Elevation: _____ Ft. Latitude: _____ Longitude: _____

Name of Surface Water Source: _____

*** MGD – Million Gallons per Day**

Cooling Water Intake Structure Information

Complete questions 1 and 2 if your water supply is provided by an outside source and not by an onsite water intake structure? (e.g., another industry, municipality, etc...)

1. Does the provider of your source water operate a surface water intake? Yes [ ] No [ ]
   (If yes, continue, if no, go to Section E.)

   a) Name of Provider _____ b)Location of Provider _____

   c) Latitude: _____ Longitude: _____

2. Is the provider a public water system (defined as a system which provides water to the public for human consumption or which provides only treated water, not raw water)? Yes [ ] No [ ]
   (If yes, go to Section E, if no, continue.)

Only to be completed if you have a cooling water intake structure or the provider of your water supply uses an intake structure and does not treat the raw water.

3. Is any water withdrawn from the source water used for cooling? Yes [ ] No [ ]

4. Using the average monthly measurements over any 12-month period, approximately what percentage of water withdrawn is used exclusively for cooling purposes? _____%

5. Does the cooling water consist of treated effluent that would otherwise be discharged? Yes [ ] No [ ]
   (If yes, go to Section E, if no, complete questions 6 – 17.)

6. Is the cooling water used in a once-through or closed cycle cooling system? Yes [ ] No [ ]

7. When was the intake installed?
   (Please provide dates for all major construction/installation of intake components including screens)

8. What is the maximum intake volume?
   (maximum pumping capacity in gallons per day)

9. What is the average intake volume?
   (average intake pump rate in gallons per day average in any 30-day period)

10. How is the intake operated? (e.g., continuously, intermittently, batch)
11. What is the mesh size of the screen on your intake?
12. What is the intake screen flow-through area?
13. What is the through screen design intake flow velocity? _____ft/sec
14. What is the mechanism for cleaning the screen? (e.g., does it rotate for cleaning)
15. Do you have any additional fish detraction technology on your intake? Yes [ ] No [ ]
16. Have there been any studies to determine the impact of the intake on aquatic organisms? Yes [ ] No [ ] (If yes please provide.)
17. Attach a site map showing the location of the water intake in relation to the facility, shoreline, water depth, etc.

SECTION E – WASTE STORAGE AND DISPOSAL INFORMATION

Provide a description of the location of all sites involved in the storage of solids or liquids that could be accidentally discharged to a water of the state, either directly or indirectly via such avenues as storm water drainage, municipal wastewater systems, etc., which are located at the facility for which the NPDES application is being made. Where possible, the location should be noted on a map and included with this application:

Description of Waste	Description of Storage Location
used oil, hydraulic oil, cooking oil, Universal waste storage	secure cage w/ berm inside & surrounded by a sump drain
Town Blountsville sanitary waste lift station & back-up sump	back-up sump @ south end of plant which pumps to lagoon 2

Provide a description of the location of the ultimate disposal sites of solid or liquid waste by-products (such as sludges) from any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
sludge waste from Wastewater Treatment	1453 lbs/day	returned to anaerobic treatment lagoon #1

***Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site. If any wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.**

SECTION F – COASTAL ZONE INFORMATION

Is the discharge(s) located within 10-foot elevation of Mobile or Baldwin County?

Yes [ ] No [✓] If yes, then complete items A through M below:

	YES	NO
A. Does the project require new construction?	☐	☐
B. Will the project be a source of new air emissions?	☐	☐
C. Does the project involve dredging and/or filling?	☐	☐
Has the Corps of Engineers (COE) permit been received?	☐	☐
Corps Project Number _____		
D. Does the project involve wetlands and/or submersed grassbeds?	☐	☐
E. Are oyster reefs located near the project site? (Include a map showing project and discharge location with respect to oyster reefs)	☐	☐
F. Does the project involve the siting, construction and operation of an energy facility as defined in ADEM Admin. Code R. 335-8-1-.02(bb)?	☐	☐
G. Does the project involve shoreline erosion mitigation?	☐	☐
H. Does the project involve construction on beaches and dunes?	☐	☐
I. Will the project interfere with public access to coastal waters?	☐	☐
J. Does the project lie within the 100-year floodplain?	☐	☐
K. Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
L. Does the project propose to construct a new well or alter an existing well to pump more than 50 GPD?	☐	☐
M. Has the applicable permit been obtained?	☐	☐

SECTION G – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR 131.12 and the Alabama Department of Environmental Management Administrative Code, Section 335-6-10-.04 for antidegradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? Yes [ ] No [✓]
   If yes, complete question 2 below. If no, go to Section H.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in question 1? Yes [ ] No [ ]

   If yes, do not complete this section.

If no, and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete questions A through F below and ADEM forms 311 and 313 (attached). Form 313 must be provided for each alternative considered technically viable.

Information required for new or increased discharges to high quality waters:

A. What environmental or public health problem will the discharger be correcting?

B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

C. How much reduction in employment will the discharger be avoiding?

D. How much additional state or local taxes will the discharger be paying?

E. What public service to the community will the discharger be providing?

F. What economic or social benefit will the discharger be providing to the community?

SECTION H – EPA Application Forms

All Applicants must submit EPA permit application forms. More than one application form may be required from a facility depending on the number and types of discharges or outfalls found there. The EPA application forms are found on the Department's website at http://www.adem.state.al.us/. The EPA application forms must be submitted in duplicate as follows:

1. All applicants must submit Form 1.
2. Applicants for existing industrial facilities (including manufacturing facilities, commercial facilities, mining activities, and silvicultural activities) which discharge process wastewater must submit Form 2C.
3. Applicants for new industrial facilities which propose to discharge process wastewater must submit Form 2D.
4. Applicants for new and existing industrial facilities which discharge only non-process wastewater (i.e., non-contact cooling water and/or sanitary wastewater) must submit Form 2E.
5. Applicants for new and existing facilities whose discharge is composed entirely of storm water associated with industrial activity must submit Form 2F, unless exempted by § 122.26(c)(1)(ii). If the discharge is composed of storm water and non-storm water, the applicant must also submit Forms 2C, 2D, and/or 2E, as appropriate (in addition to Form 2F).

SECTION I – ENGINEERING REPORT/BMP PLAN REQUIREMENTS
See ADEM 335-6-6-.08(i) & (j)

SECTION J– RECEIVING WATERS

Receiving Water(s)	303(d) Segment? (Y / N)	Included in TMDL?* (Y / N)
Graves Creek		Yes
Locust Fork of the Black Warrior River	Yes	Yes

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:
(1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);
(2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);
(3) Requested interim limitations, if applicable;
(4) Date of final compliance with the TMDL limitations; and,
(5) Any other additional information available to support requested compliance schedule.

SECTION K – APPLICATION CERTIFICATION

THE INFORMATION CONTAINED IN THIS FORM MUST BE CERTIFIED BY A RESPONSIBLE OFFICIAL AS DEFINED IN ADEM ADMINISTRATIVE RULE 335-6-6-.09 "SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS" (SEE BELOW).

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

"I FURTHER CERTIFY UNDER PENALTY OF LAW THAT ALL ANALYSES REPORTED AS LESS THAN DETECTABLE IN THIS APPLICATION OR ATTACHMENTS THERETO WERE PERFORMED USING THE EPA APPROVED TEST METHOD HAVING THE LOWEST DETECTION LIMIT FOR THE SUBSTANCE TESTED."

SIGNATURE OF RESPONSIBLE OFFICIAL: Wally Taylor DATE SIGNED: 6-21-17

(TYPE OR PRINT)
NAME OF RESPONSIBLE OFFICIAL: Wally Taylor

TITLE OF RESPONSIBLE OFFICIAL: Complex Manager

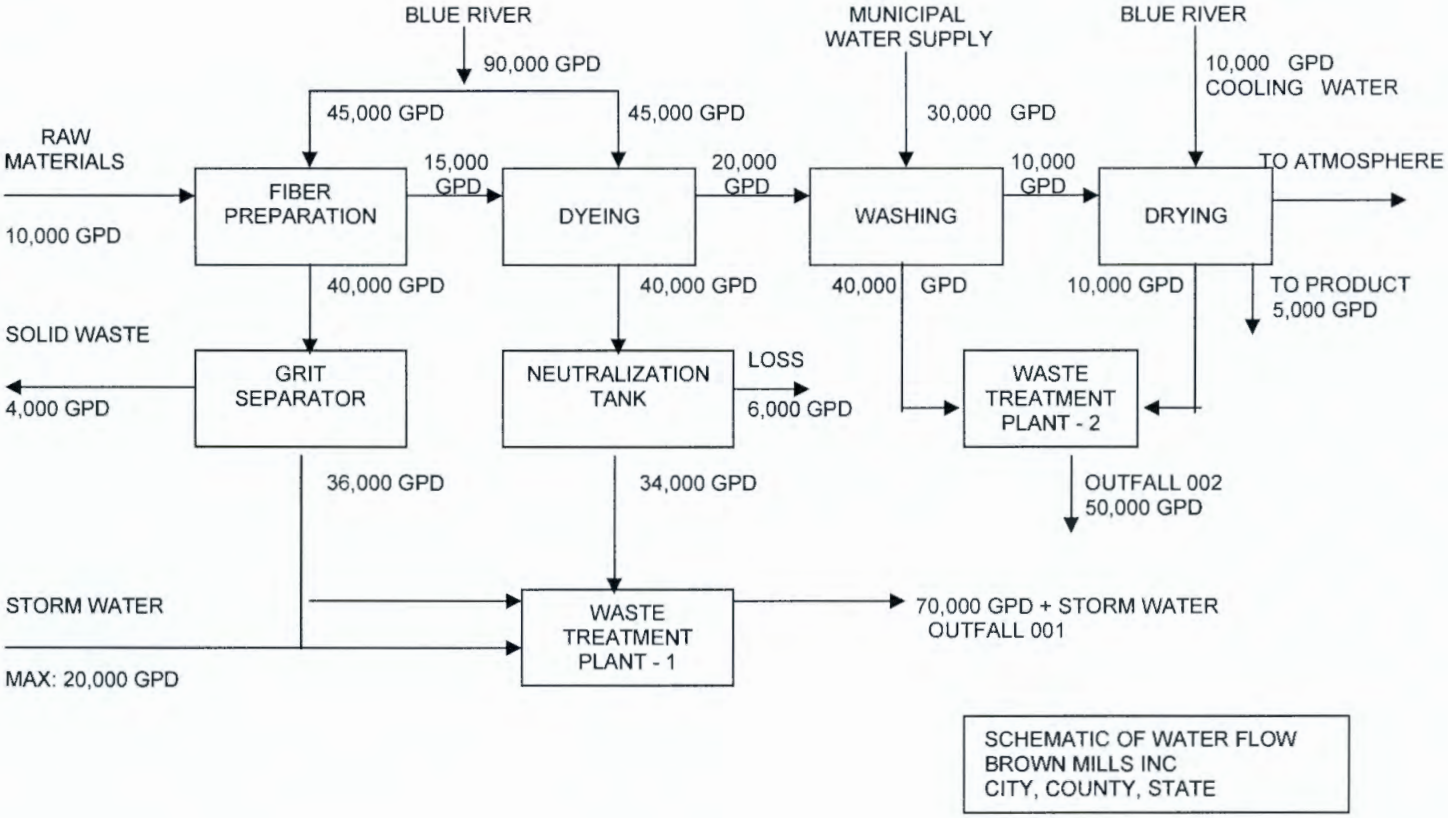
MAILING ADDRESS: 160 Richman Drive

CITY, STATE, ZIP: Snead, AL 35952 PHONE: (205) 466-7116

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:
(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
(b) In the case of a partnership, by a general partner;
(c) In the case of a sole proprietorship, by the proprietor; or
(d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

FIGURE 1


BLUE RIVER
90,000 GPD
45,000 GPD
45,000 GPD
MUNICIPAL WATER SUPPLY
30,000 GPD
BLUE RIVER
10,000 GPD COOLING WATER
RAW MATERIALS
10,000 GPD
FIBER PREPARATION
15,000 GPD
DYEING
20,000 GPD
WASHING
10,000 GPD
DRYING
TO ATMOSPHERE
40,000 GPD
40,000 GPD
40,000 GPD
10,000 GPD
TO PRODUCT 5,000 GPD
SOLID WASTE
4,000 GPD
GRIT SEPARATOR
NEUTRALIZATION TANK
LOSS
6,000 GPD
WASTE TREATMENT PLANT - 2
36,000 GPD
34,000 GPD
OUTFALL 002 50,000 GPD
STORM WATER
MAX: 20,000 GPD
WASTE TREATMENT PLANT - 1
70,000 GPD + STORM WATER OUTFALL 001
SCHEMATIC OF WATER FLOW
BROWN MILLS INC
CITY, COUNTY, STATE

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F			D
1	2 — 13	14	15

LABEL ITEMS	
I. EPA I.D. NUMBER	PLEASE PLACE LABEL IN THIS SPACE
III. FACILITY NAME	
V. FACILITY MAILING ADDRESS	
VI. FACILITY LOCATION	

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X		B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
	16	17	18		19	20	21
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		X	D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
	22	23	24		25	26	27
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X		F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
	28	29	30		31	32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
	34	35	36		37	38	39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
	40	41	42		43	44	45

III. NAME OF FACILITY

C 1 SKIP: Tyson Farms, Inc. Blountsville Processing Plant

15 — 16 – 29 — 30 — 69

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
C 2 Beckham, Lisa Sr. Environmental Supervisor	(205) 429-2421
15 — 16 — 45	46 — 48 — 49 — 51 — 52 — 55

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 67240 Main Street

15 — 16 — 45

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 Blountsville	AL	35031
15 — 16 — 40	41 — 42	47 — 51

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 67240 Main Street

15 — 16 — 45

B. COUNTY NAME

Blount

46 — 70

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
C 6 Blountsville	AL	35031	08
15 — 16 — 40	41 — 42	47 — 51	52 — 54

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CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
2015 *(specify)*	*(specify)*
C. THIRD	**D. FOURTH**
(specify)	*(specify)*

VIII. OPERATOR INFORMATION

A. NAME: Mark Bromley

B. Is the name listed in Item VIII-A also the owner? ☐ YES ☑ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box: if "Other," specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

P *(specify)*

D. PHONE *(area code & no.)*: (205) 429-2421

E. STREET OR P.O. BOX: 67240 Main Street

F. CITY OR TOWN: Blountsville

G. STATE: AL

H. ZIP CODE: 35031

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
N X AL0001449	P
B. UIC *(Underground Injection of Fluids)*	**E. OTHER** *(specify)*
U	*(specify)*
C. RCRA *(Hazardous Wastes)*	**E. OTHER** *(specify)*
R	*(specify)*

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

The primary product is poultry. Live birds are slaughtered and processed through an evisceration system. Birds are then chilled, sized, and organized by weight. Leg quarters are packaged for consumer sale. The breast meat is shipped to a co-packing facility where it is de-boned. The de-boned breast meat is returned to the plant and processed into patties, strips, and nuggets and then par-fried and shipped for sale to consumers and commercial customers.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Wally Taylor, Complex Manager	Wally Taylor	6-21-17

COMMENTS FOR OFFICIAL USE ONLY

C

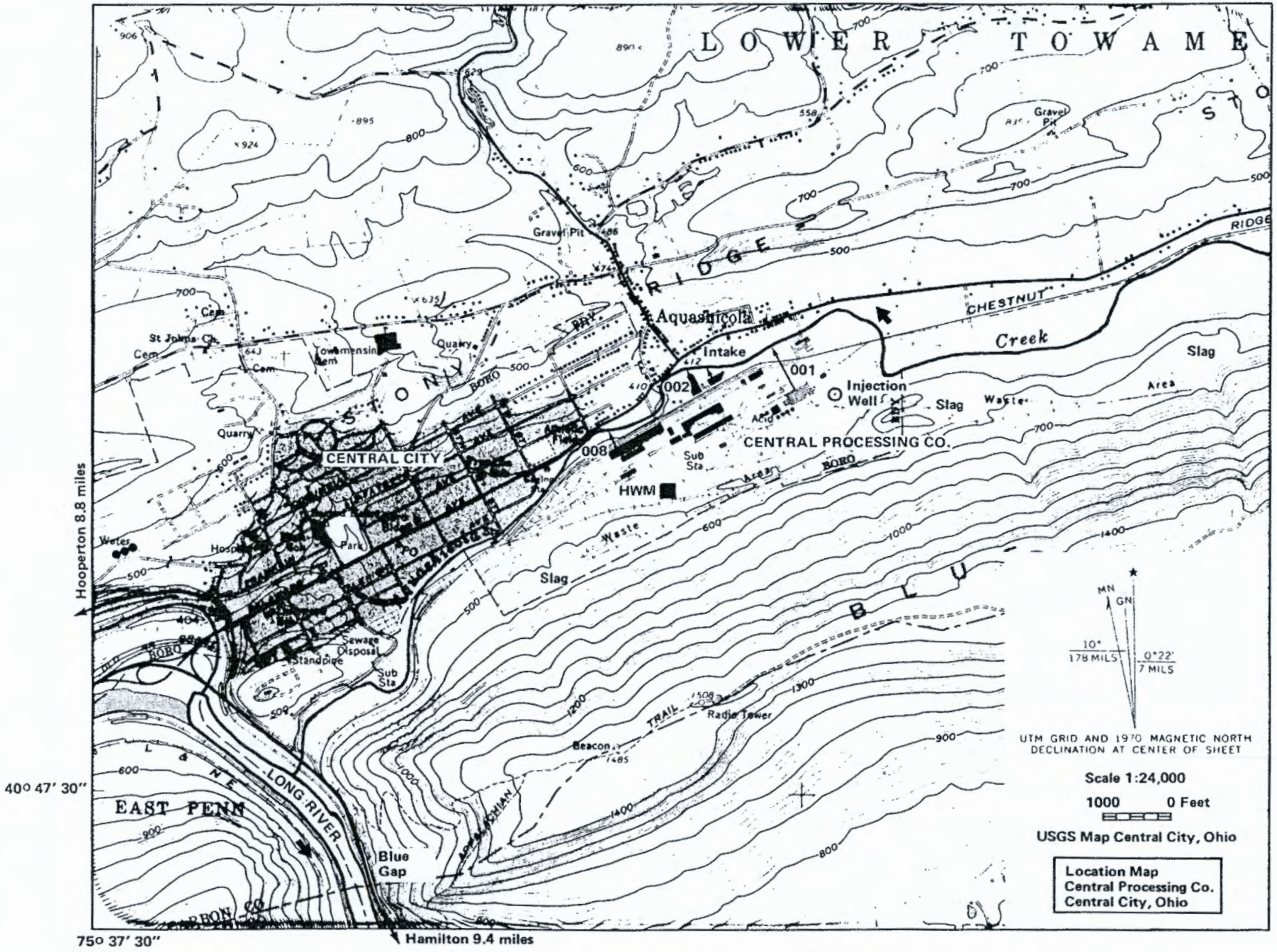
LOWER TOWAMENSING
RIDGE
STONY
CHESTNUT RIDGE
Aquashicola Creek
Intake
001
002
008
Injection Well
Slag
Waste
Area
CENTRAL PROCESSING CO.
HWM
Sub Sta
CENTRAL CITY
Gravel Pit
Quarry
Cem
St Johns Ch
Lowamensing Cem
Park
Hospital
Sewage Disposal
Standpipe
Radio Tower
Beacon
TRAIL
BLUE
LONG RIDGE
LONG RIVER
EAST PENN
Blue Gap
APPALACHIAN
CARBON CO
Hooperton 8.8 miles
Hamilton 9.4 miles
40° 47' 30"
75° 37' 30"
MN
GN
10°
178 MILS
0°22'
7 MILS
UTM GRID AND 1970 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
Scale 1:24,000
1000 0 Feet
USGS Map Central City, Ohio
Location Map
Central Processing Co.
Central City, Ohio

FIGURE 1-1

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
AL0001449

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
DSN001	34.00	3.00	2.00	86.00	34.00	36.00	Graves Creek
DSN005	34.00	1.00	54.49	86.00	34.00	17.92	Locust Fork

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
DSN001	PROCESSING PLANT WASTEWATER	1.353 MGD	ACTIVATED SLUDGE TREATMENT	3	A
	SANITARY WASTE	.025 MGD	ACTIVATED SLUDGE TREATMENT	3	A
	GROUNDS CLEANING/STORMWATER RUNOFF	.010 MGD	ACTIVATED SLUDGE TREATMENT	3	A
DSN005	ROCESSING PLANT WASTEWATER	1.353 MGD	ACTIVATED SLUDGE TREATMENT	3	A
	SANITARY WASTE	.025 MGD	ACTIVATED SLUDGE TREATMENT	3	A
	GROUNDS CLEANING/STORMWATER RUNOFF	.010 MGD	ACTIVATED SLUDGE TREATMENT	3	A

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

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JUN 27 2017
IND. MUN BRANCH

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES (*complete the following table*) ☑ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (*specify average*)	b. MONTHS PER YEAR (*specify average*)	a. FLOW RATE (*in mgd*)		B. TOTAL VOLUME (*specify with units*)		C. DURATION (*in days*)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☑ YES (*complete Item III-B*) ☐ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (*list outfall numbers*)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)

ALOOO1449

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
N/A	N/A	N/A	N/A

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

7 DAY CHRONIC TOXICITY REQUIRED BY NPDES PERMIT

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☑ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Wally Taylor, Complex Manager	(205) 466-7116
C. SIGNATURE	D. DATE SIGNED
Wally Taylor	6-21-17

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): AL0001449

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: DSN001 & DSN005

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	9.2	102.1	5.8	91.8	3.19	38.6	222	MG/L	PPD			
b. Chemical Oxygen Demand (*COD*)	<10.0	<124.2					1	MG/L	PPD			
c. Total Organic Carbon (*TOC*)	15.2	189.0					1	MG/L	PPD			
d. Total Suspended Solids (*TSS*)	27.2	321.2	12.6	159.4	5.0	58.7	222	MG/L	PPD			
e. Ammonia (*as N*)	1.5	16.8	0.56	5.7	0.276	3.3	222	MG/L	PPD			
f. Flow	VALUE 2.230		VALUE 1.693		VALUE 1.338		1095	MGD		VALUE		
g. Temperature (*winter*)	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature (*summer*)	VALUE 25.7		VALUE		VALUE		1	°C		VALUE		
i. pH	MINIMUM 6.1	MAXIMUM 7.1	MINIMUM 6.1	MAXIMUM 7.5			1	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X												
c. Color		X												
d. Fecal Coliform	X		117.0	1154.0	32.5	318.8	5.4	44.2	111	MG/L	PPD			
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (*as N*)	X		98.5	1222.0	98.5	1222.0	69.2	44.2	12	MG/L	PPD			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		6.35	78.9					1	MG/L	PPD			
h. Oil and Grease	X		5.9	102.0	4.4	56.8	3.0	31.3	112	MG/L	PPD			
i. Phosphorus (as P), Total (7723-14-0)	X		29.2	368.0	22.1	238.0	23.8	252.0	12	MG/L	PPD			
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (*as SO_4*) (14808-79-8)	X		15.6	193.72					1	MG/L	PPD			
l. Sulfide (*as S*)	X		6.40	79.5					1	MG/L	PPD			
m. Sulfite (*as SO_3*) (14265-45-3)	X		<2.00	<24.8					1	MG/L	PPD			
n. Surfactants	X		<0.0250	<0.3100					1	MG/L	PPD			
o. Aluminum, Total (7429-90-5)	X		0.0145	0.200					1	MG/L	PPD			
p. Barium, Total (7440-39-3)	X		0.00375	0.10					1	MG/L	PPD			
q. Boron, Total (7440-42-8)		X							1	MG/L	PPD			
r. Cobalt, Total (7440-48-4)	X		<0.00100	<0.0100					1	MG/L	PPD			
s. Iron, Total (7439-89-6)	X		<0.0600	<0.7500					1	MG/L	PPD			
t. Magnesium, Total (7439-95-4)	X		52.4	651.0					1	MG/L	PPD			
u. Molybdenum, Total (7439-98-7)	X		<0.00100	<0.1000					1	MG/L	PPD			
v. Manganese, Total (7439-96-5)	X		<0.0343	<0.4300					1	MG/L	PPD			
w. Tin, Total (7440-31-5)	X		<0.00100	<0.0100					1	MG/L	PPD			
x. Titanium, Total (7440-32-6)	X		0.0677	0.8400					1	MG/L	PPD			

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
AL0001449	DSN001 & DSN005

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)		X		<0.00100	<0.010					1	MG/L	PPD			
2M. Arsenic, Total (7440-38-2)		X		<0.00500	<0.010					1	MG/L	PPD			
3M. Beryllium, Total (7440-41-7)		X		<0.00100	<0.010					1	MG/L	PPD			
4M. Cadmium, Total (7440-43-9)		X		<0.00100	<0.010					1	MG/L	PPD			
5M. Chromium, Total (7440-47-3)		X		<0.00100	<0.010					1	MG/L	PPD			
6M. Copper, Total (7440-50-8)		X		0.00481	0.0600					1	MG/L	PPD			
7M. Lead, Total (7439-92-1)		X		<0.00100	<0.010					1	MG/L	PPD			
8M. Mercury, Total (7439-97-6)		X		<0.000200	<0.002					1	MG/L	PPD			
9M. Nickel, Total (7440-02-0)		X		0.00311	0.0400					1	MG/L	PPD			
10M. Selenium, Total (7782-49-2)		X		<0.00100	<0.010					1	MG/L	PPD			
11M. Silver, Total (7440-22-4)		X		<0.00100	<0.010					1	MG/L	PPD			
12M. Thallium, Total (7440-28-0)		X		<0.00100	<0.010					1	MG/L	PPD			
13M. Zinc, Total (7440-66-6)		X		0.0250	0.3100					1	MG/L	PPD			
14M. Cyanide, Total (57-12-5)			X												
15M. Phenols, Total			X												
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X												
2V. Acrylonitrile (107-13-1)			X												
3V. Benzene (71-43-2)			X												
4V. Bis (*Chloro-methyl*) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X												
6V. Carbon Tetrachloride (56-23-5)			X												
7V. Chlorobenzene (108-90-7)			X												
8V. Chlorodi-bromomethane (124-48-1)			X												
9V. Chloroethane (75-00-3)			X												
10V. 2-Chloro-ethylvinyl Ether (110-75-8)			X												
11V. Chloroform (67-66-3)			X												
12V. Dichloro-bromomethane (75-27-4)			X												
13V. Dichloro-difluoromethane (75-71-8)			X												
14V. 1,1-Dichloro-ethane (75-34-3)			X												
15V. 1,2-Dichloro-ethane (107-06-2)			X												
16V. 1,1-Dichloro-ethylene (75-35-4)			X												
17V. 1,2-Dichloro-propane (78-87-5)			X												
18V. 1,3-Dichloro-propylene (542-75-6)			X												
19V. Ethylbenzene (100-41-4)			X												
20V. Methyl Bromide (74-83-9)			X												
21V. Methyl Chloride (74-87-3)			X												

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X												
24V. Tetrachloro-ethylene (127-18-4)			X												
25V. Toluene (108-88-3)			X												
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X												
27V. 1,1,1-Trichloro-ethane (71-55-6)			X												
28V. 1,1,2-Trichloro-ethane (79-00-5)			X												
29V Trichloro-ethylene (79-01-6)			X												
30V. Trichloro-fluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)			X												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X												
2A. 2,4-Dichloro-phenol (120-83-2)			X												
3A. 2,4-Dimethyl-phenol (105-67-9)			X												
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X												
5A. 2,4-Dinitro-phenol (51-28-5)			X												
6A. 2-Nitrophenol (88-75-5)			X												
7A. 4-Nitrophenol (100-02-7)			X												
8A. P-Chloro-M-Cresol (59-50-7)			X												
9A. Pentachloro-phenol (87-86-5)			X												
10A. Phenol (108-95-2)			X												
11A. 2,4,6-Trichloro-phenol (88-05-2)			X												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X												
2B. Acenaphtylene (208-96-8)			X												
3B. Anthracene (120-12-7)			X												
4B. Benzidine (92-87-5)			X												
5B. Benzo (*a*) Anthracene (56-55-3)			X												
6B. Benzo (*a*) Pyrene (50-32-8)			X												
7B. 3,4-Benzo-fluoranthene (205-99-2)			X												
8B. Benzo (*ghi*) Perylene (191-24-2)			X												
9B. Benzo (*k*) Fluoranthene (207-08-9)			X												
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X												
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X												
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X												
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X												
15B. Butyl Benzyl Phthalate (85-68-7)			X												
16B. 2-Chloro-naphthalene (91-58-7)			X												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X												
18B. Chrysene (218-01-9)			X												
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X												
20B. 1,2-Dichloro-benzene (95-50-1)			X												
21B. 1,3-Di-chloro-benzene (541-73-1)			X												

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X												
23B. 3,3-Dichlorobenzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131 -11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitrotoluene (121-14-2)			X												
28B. 2,6-Dinitrotoluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachlorobenzene (118-74-1)			X												
34B. Hexachlorobutadiene (87-68-3)			X												
35B. Hexachlorocyclopentadiene (77-47-4)			X												
36B Hexachloroethane (67-72-1)			X												
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitrosodimethylamine (62-75-9)			X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X												

CONTINUED FROM THE FRONT

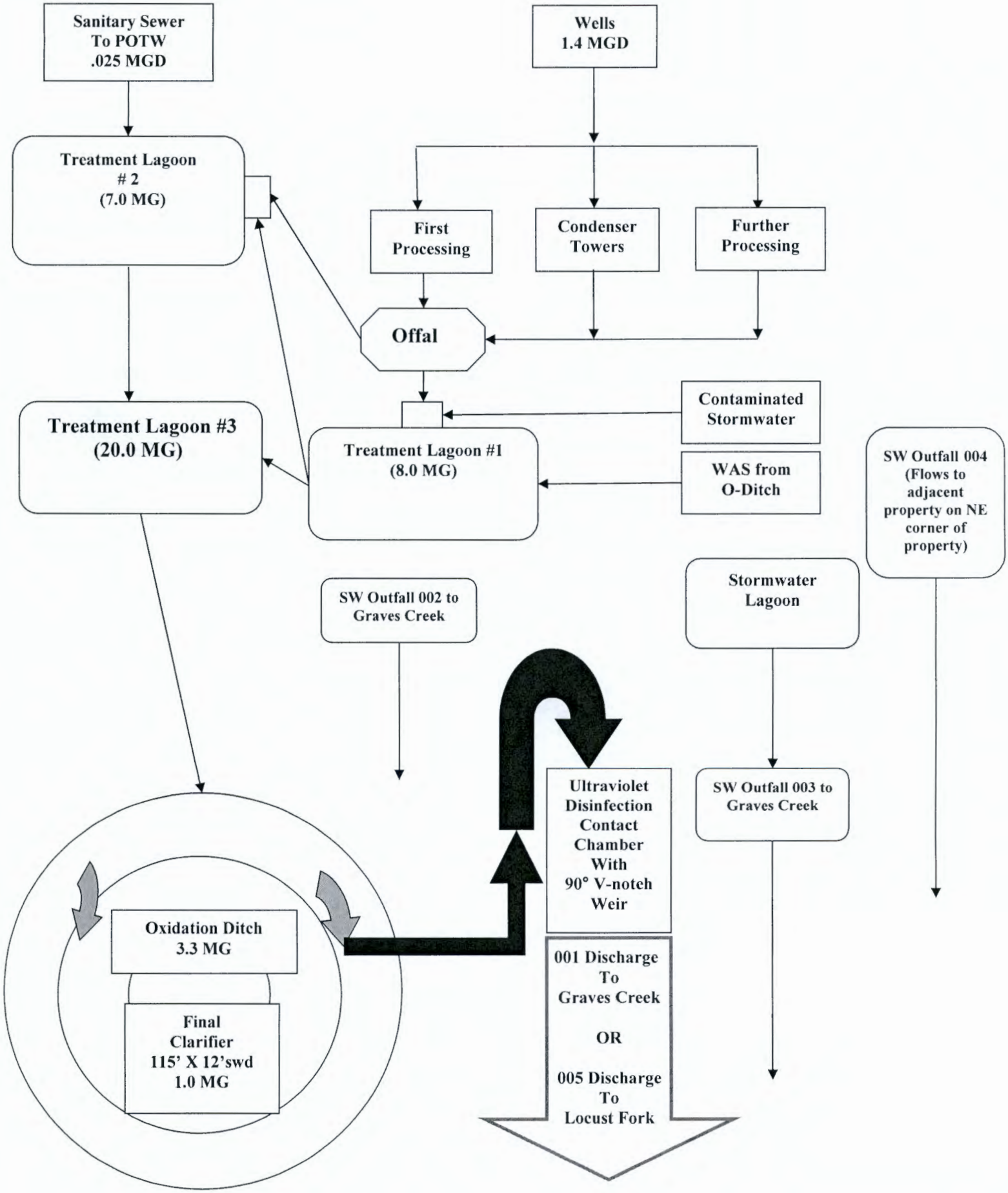
1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X												
44B. Phenanthrene (85-01-8)			X												
45B. Pyrene (129-00-0)			X												
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X												
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Enosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
AL0001449	DSN001 & DSN005

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

Figure 1


Sanitary Sewer To POTW .025 MGD
Wells 1.4 MGD
Treatment Lagoon # 2 (7.0 MG)
First Processing
Condenser Towers
Further Processing
Offal
Contaminated Stormwater
Treatment Lagoon #3 (20.0 MG)
Treatment Lagoon #1 (8.0 MG)
WAS from O-Ditch
SW Outfall 004 (Flows to adjacent property on NE corner of property)
SW Outfall 002 to Graves Creek
Stormwater Lagoon
Ultraviolet Disinfection Contact Chamber With 90° V-noteh Weir
SW Outfall 003 to Graves Creek
Oxidation Ditch 3.3 MG
Final Clarifier 115' X 12'swd 1.0 MG
001 Discharge To Graves Creek
OR
005 Discharge To Locust Fork

CODES FOR TREATMENT UNITS

PHYSICAL TREATMENT PROCESSES

1–A	Ammonia Stripping
1–B	Dialysis
1–C	Diatomaceous Earth Filtration
1–D	Distillation
1–E	Electrodialysis
1–F	Evaporation
1–G	Flocculation
1–H	Flotation
1–I	Foam Fractionation
1–J	Freezing
1–K	Gas–Phase Separation
1–L	Grinding (*Comminutors*)
1–M	Grit Removal
1–N	Microstraining
1–O	Mixing
1–P	Moving Bed Filters
1–Q	Multimedia Filtration
1–R	Rapid Sand Filtration
1–S	Reverse Osmosis (*Hyperfiltration*)
1–T	Screening
1–U	Sedimentation (*Settling*)
1–V	Slow Sand Filtration
1–W	Solvent Extraction
1–X	Sorption

CHEMICAL TREATMENT PROCESSES

2–A	Carbon Adsorption
2–B	Chemical Oxidation
2–C	Chemical Precipitation
2–D	Coagulation
2–E	Dechlorination
2–F	Disinfection (*Chlorine*)
2–G	Disinfection (*Ozone*)
2–H	Disinfection (*Other*)
2–I	Electrochemical Treatment
2–J	Ion Exchange
2–K	Neutralization
2–L	Reduction

BIOLOGICAL TREATMENT PROCESSES

3–A	Activated Sludge
3–B	Aerated Lagoons
3–C	Anaerobic Treatment
3–D	Nitrification–Denitrification
3–E	Pre-Aeration
3–F	Spray Irrigation/Land Application
3–G	Stabilization Ponds
3–H	Trickling Filtration

OTHER PROCESSES

4–A	Discharge to Surface Water
4–B	Ocean Discharge Through Outfall
4–C	Reuse/Recycle of Treated Effluent
4-D	Underground Injection

SLUDGE TREATMENT AND DISPOSAL PROCESSES

5–A	Aerobic Digestion
5–B	Anaerobic Digestion
5–C	Belt Filtration
5–D	Centrifugation
5–E	Chemical Conditioning
5–F	Chlorine Treatment
5–G	Composting
5–H	Drying Beds
5–I	Elutriation
5–J	Flotation Thickening
5–K	Freezing
5–L	Gravity Thickening
5–M	Heat Drying
5–N	Heat Treatment
5–O	Incineration
5–P	Land Application
5–Q	Landfill
5–R	Pressure Filtration
5–S	Pyrolysis
5–T	Sludge Lagoons
5–U	Vacuum Filtration
5–V	Vibration
5–W	Wet Oxidation

TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY*

INDUSTRY CATEGORY	GC/MS FRACTION[1]			
	Volatile	Acid	Base/Neutral	Pesticide
Adhesives and sealants	X	X	X	–
Aluminum forming	X	X	X	–
Auto and other laundries	X	X	X	X
Battery manufacturing	X	–	X	–
Coal mining	X	X	X	X
Coil coating	X	X	X	–
Copper forming	X	X	X	–
Electric and electronic compounds	X	X	X	X
Electroplating	X	X	X	–
Explosives manufacturing	–	X	X	–
Foundries	X	X	X	–
Gum and wood chemicals	X	X	X	X
Inorganic chemicals manufacturing	X	X	X	–
Iron and steel manufacturing	X	X	X	–
Leather tanning and finishing	X	X	X	X
Mechanical products manufacturing	X	X	X	–
Nonferrous metals manufacturing	X	X	X	X
Ore mining	X	X	X	X
Organic chemicals manufacturing	X	X	X	X
Paint and ink formulation	X	X	X	X
Pesticides	X	X	X	X
Petroleum refining	X	X	X	X
Pharmaceutical preparations	X	X	X	–
Photographic equipment and supplies	X	X	X	X
Plastic and synthetic materials manufacturing	X	X	X	X
Plastic processing	X	–	–	–
Porcelain enameling	X	–	X	X
Printing and publishing	X	X	X	X
Pulp and paperboard mills	X	X	X	X
Rubber processing	X	X	X	–
Soap and detergent manufacturing	X	X	X	–
Steam electric power plants	X	X	X	–
Textile mills	X	X	X	X
Timber products processing	X	X	X	X

*See note at conclusion of 40 CFR Part 122, Appendix D (1983) for explanation of effect of suspensions on testing requirements for primary industry categories.
[1]The pollutants in each fraction are listed in Item V-C.
X = Testing required.
– = Testing not required.

TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

TOXIC POLLUTANT

Asbestos

HAZARDOUS SUBSTANCES

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophenoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid

HAZARDOUS SUBSTANCES

Dichlorvos
Diethyl amine
Dimethyl amine
Dintrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine

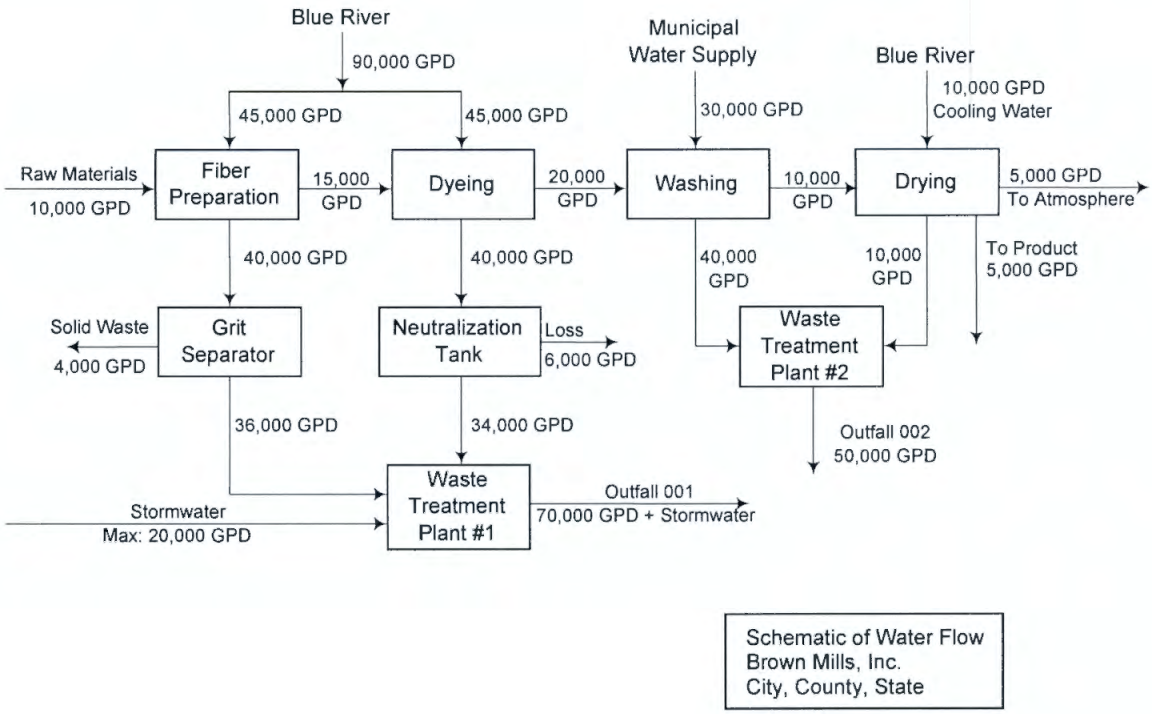
HAZARDOUS SUBSTANCES

Naled
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
TDE (Tetrachlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofon
Triethanolamine
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

1. Acetaldehyde
2. Acetic acid
3. Acetic anhydride
4. Acetone cyanohydrin
5. Acetyl bromide
6. Acetyl chloride
7. Acrolein
8. Acrylonitrile
9. Adipic acid
10. Aldrin
11. Allyl alcohol
12. Allyl chloride
13. Aluminum sulfate
14. Ammonia
15. Ammonium acetate
16. Ammonium benzoate
17. Ammonium bicarbonate
18. Ammonium bichromate
19. Ammonium bifluoride
20. Ammonium bisulfite
21. Ammonium carbamate
22. Ammonium carbonate
23. Ammonium chloride
24. Ammonium chromate
25. Ammonium citrate
26. Ammonium fluoroborate
27. Ammonium fluoride
28. Ammonium hydroxide
29. Ammonium oxalate
30. Ammonium silicofluoride
31. Ammonium sulfamate
32. Ammonium sulfide
33. Ammonium sulfite
34. Ammonium tartrate
35. Ammonium thiocyanate
36. Ammonium thiosulfate
37. Amyl acetate
38. Aniline
39. Antimony pentachloricle
40. Antimony potassium tartrate
41. Antimony tribromide
42. Antimony trichloride
43. Antimony trifluoride
44. Antimony trioxide
45. Arsenic disulfide
46. Arsenic pentoxide
47. Arsenic trichloride
48. Arsenic trioxide
49. Arsenic trisulfide
50. Barium cyanide
51. Benzene
52. Benzoic acid
53. Benzonitrile
54. Benzoyl chloride
55. Benzyl chloride
56. Beryllium chloride
57. Beryllium fluoride
58. Beryllium nitrate
59. Butylacetate
60. n-Butylphthalate
61. Butylamine
62. Butyric acid
63. Cadmium acetate
64. Cadmium bromide
65. Cadmium chloride
66. Calcium arsenate
67. Calcium arsenite
69. Calcium carbide
69. Calcium chromate
70. Calcium cyanide
71. Calcium dodecylbenzenesulfonate
72. Calcium hypochlorite
73. Captan
74. Carbaryl
75. Carbofuran
76. Carbon disulfide
77. Carbon tetrachloride
78. Chlordane
79. Chlorine
80. Chlorobenzene
81. Chloroform
82. Chloropyrifos
83. Chlorosulfonic acid
84. Chromic acetate
85. Chromic acid
86. Chromic sulfate
87. Chromous chloride
88. Cobaltous bromide
89. Cobaltous formate
90. Cobaltous sulfamate
91. Coumaphos
92. Cresol
93. Crotonaldehyde
94. Cupric acetate
95. Cupric acetoarsenite
96. Cupric chloride
97. Cupric nitrate
98. Cupric oxalate
99. Cupric sulfate
100. Cupric sulfate ammoniated
101. Cupric tartrate
102. Cyanogen chloride
103. Cyclohexane
104. 2,4-D acid (2,4- Dichlorophenoxyacetic acid)
105. 2,4-D esters (2,4- Dichlorophenoxyacetic acid esters)
106. DDT
107. Diazinon
108. Dicamba
109. Dichlobenil
110. Dichlone
111. Dichlorobenzene
112. Dichloropropane
113. Dichloropropene
114. Dichloropropene-dichloproropane mix
115. 2,2-Dichloropropionic acid
116. Dichlorvos
117. Dieldrin
118. Diethylamine
119. Dimethylamine
120. Dinitrobenzene
121. Dinitrophenol
122. Dinitrotoluene
123. Diquat
124. Disulfoton
125. Diuron
126. Dodecylbenzesulfonic acid
127. Endosulfan
128. Endrin
129. Epichlorohydrin
130. Ethion
131. Ethylbenzene
132. Ethylenediamine
133. Ethylene dibromide
134. Ethylene dichloride
135. Ethylene diaminetetracetic acid (EDTA)
136. Ferric ammonium citrate
137. Ferric ammonium oxalate
138. Ferric chloride
139. Ferric fluoride
140. Ferric nitrate
141. Ferric sulfate
142. Ferrous ammonium sulfate
143. Ferrous chloride
144. Ferrous sulfate
145. Formaldehyde
146. Formic acid
147. Fumaric acid
148. Furfural
149. Guthion
150. Heptachlor
151. Hexachlorocyclopentadiene
152. Hydrochloric acid
153. Hydrofluoric acid
154. Hydrogen cyanide
155. Hydrogen sulfide
156. Isoprene
157. Isopropanolamine dodecylbenzenesulfonate
158. Kelthane
159. Kepone
160. Lead acetate
161. Lead arsenate
162. Lead chloride
163. Lead fluoborate
164. Lead flourite
165. Lead iodide
166. Lead nitrate
167. Lead stearate
168. Lead sulfate
169. Lead sulfide
170. Lead thiocyanate
171. Lindane
172. Lithium chromate
173. Malathion
174. Maleic acid
175. Maleic anhydride
176. Mercaptodimethur
177. Mercuric cyanide
178. Mercuric nitrate
179. Mercuric sulfate
180. Mercuric thiocyanate
181. Mercurous nitrate
182. Methoxychlor
183. Methyl mercaptan
184. Methyl methacrylate
185. Methyl parathion
186. Mevinphos
187. Mexacarbate
188. Monoethylamine
189. Monomethylamine
190. Naled
191. Naphthalene
192. Naphthenic acid
193. Nickel ammonium sulfate
194. Nickel chloride
195. Nickel hydroxide
196. Nickel nitrate
197. Nickel sulfate
198. Nitric acid
199. Nitrobenzene
200. Nitrogen dioxide
201. Nitrophenol
202. Nitrotoluene
203. Paraformaldehyde
204. Parathion
205. Pentachlorophenol
206. Phenol
207. Phosgene
208. Phosphoric acid
209. Phosphorus
210. Phosphorus oxychloride
211. Phosphorus pentasulfide
212. Phosphorus trichloride
213. Polychlorinated biphenyls (PCB)
214. Potassium arsenate
215. Potassium arsenite
216. Potassium bichromate

217. Potassium chromate
218. Potassium cyanide
219. Potassium hydroxide
220. Potassium permanganate
221. Propargite
222. Propionic acid
223. Propionic anhydride
224. Propylene oxide
225. Pyrethrins
226. Quinoline
227. Resorcinol
228. Selenium oxide
229. Silver nitrate
230. Sodium
231. Sodium arsenate
232. Sodium arsenite
233. Sodium bichromate
234. Sodium bifluoride
235. Sodium bisulfite
236. Sodium chromate
237. Sodium cyanide
238. Sodium dodecylbenzenesulfonate
239. Sodium fluoride
240. Sodium hydrosulfide
241. Sodium hydroxide
242. Sodium hypochlorite
243. Sodium methylate
244. Sodium nitrite
245. Sodium phosphate (dibasic)
246. Sodium phosphate (tribasic)
247. Sodium selenite
248. Strontium chromate
249. Strychnine
250. Styrene
251. Sulfuric acid
252. Sulfur monochloride
253. 2,4,5-T acid (2,4,5-Trichlorophenoxyacetic acid)
254. 2,4,5-T amines (2,4,5-Trichlorophenoxy acetic acid amines)
255. 2,4,5-T esters (2,4,5 Trichlorophenoxy acetic acid esters)
256. 2,4,5-T salts (2,4,5-Trichlorophenoxy acetic acid salts)
257. 2,4,5-TP acid (2,4,5-Trichlorophenoxy propanoic acid)
258. 2,4,5-TP acid esters (2,4,5-Trichlorophenoxy propanoic acid esters)
259. TDE (Tetrachlorodiphenyl ethane)
260. Tetraethyl lead
261. Tetraethyl pyrophosphate
262. Thallium sulfate
263. Toluene
264. Toxaphene
265. Trichlorofon
266. Trichloroethylene
267. Trichlorophenol
268. Triethanolamine dodecylbenzenesulfonate
269. Triethylamine
270. Trimethylamine
271. Uranyl acetate
272. Uranyl nitrate
273. Vanadium penoxide
274. Vanadyl sulfate
275. Vinyl acetate
276. Vinylidene chloride
277. Xylene
278. Xylenol
279. Zinc acetate
280. Zinc ammonium chloride
281. Zinc borate
282. Zinc bromide
283. Zinc carbonate
284. Zinc chloride
285. Zinc cyanide
286. Zinc fluoride
287. Zinc formate
288. Zinc hydrosulfite
289. Zinc nitrate
290. Zinc phenolsulfonate
291. Zinc phosphide
292. Zinc silicofluoride
293. Zinc sulfate
294. Zirconium nitrate
295. Zirconium potassium flouride
296. Zirconium sulfate
297. Zirconium tetrachloride

LINE DRAWING



Schematic of Water Flow
Brown Mills, Inc.
City, County, State

Figure 2C-1

Tyson Foods, Inc.

March 26, 2015

Alabama Department of Environmental Management
Permits and Services Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110

Re: Delegation of Signatory Authority

To Whom It May Concern:

This letter is to inform the Department that those serving in the positions of Plant Manager, Feed Mill Manager, Truck Shop Manager, Hatchery Manager, and / or Complex Manager are hereby authorized to sign all reports, log sheets, prevention plans, permit applications, and other documents for their respective facilities as specified by the signatory requirements in the ADEM Administrative Code. The Tyson Foods, Inc. facilities covered by this letter are Ivalee Feed Mill (Attala, AL), Albertville Processing Plant, Albertville Truck Shop, Albertville Feed Mill, Albertville Hatchery, Cullman Truck Shop, Cullman Feed Mill, Sand Mountain Hatchery (Albertville, AL), and the Blountsville Processing Plant.

If you have questions concerning this letter, please contact me by telephone at (479) 290-5628 or by email at stacy.miller@tyson.com.

Sincerely,
Tyson Foods, Inc.

Stacy Miller
Vice President
Division Value Added Operations
Tyson Foods, Inc.

Waste Load Allocation Summary

REQUEST INFORMATION

Request Number: 3488

From:	Rachel Stanaland	In Branch/Section	Industrial		
Date Submitted	7/24/2018	Date Required	8/23/2018	FUND Code	605
Date Permit application received by NPDES program					
Receiving Waterbody	Locust Fork				
Previous Stream Name					
Facility Name	Tyson Foods, Inc.	(Name of Discharger-WQ will use to file)			
		Previous Discharger Name			
River Basin	Black Warrior	Outfall Latitude	34.032139	(decimal degrees)	
*County	Blount	Outfall Longitude	-86.566111	(decimal degrees)	
Permit Number	AL0001449	Permit Type	Permit Reissuance		
		Permit Status	Active		
		Type of Discharger	INDUSTRIAL		

Do other discharges exist that may impact the model? ☐ Yes ☑ No

If yes, impacting dischargers names.		Impacting dischargers permit numbers.	

Existing Discharge Design Flow	1.339	MGD	Note: The flow rates given should be those requested for modeling.
Proposed Discharge Design Flow		MGD	

Comments included: ☑ Yes ☐ No

Information Verified By: JJM

Year File Was Created: 1986

Response ID Number: 1657

Lat/Long Method: Municipal/Industrial

12 Digit HUC Code	031601110208		
Use Classification	F&W		
Site Visit Completed?	☑ Yes ☐ No	Date of Site Visit	10/31/2016
Waterbody Impaired?	☑ Yes ☐ No	Date of WLA Response	8/6/2018
Antidegradation	☐ Yes ☑ No	Approved TMDL?	☑ Yes ☐ No
Waterbody Tier Level	Tier I		
Use Support Category	5	Approval Date of TMDL	1/22/2018

Waste Load Allocation Information

Modeled Reach Length	11	Miles	Date of Allocation	7/25/2018	
Name of Model Used	SWQM		Allocation Type	2 Seasons	
Model Completed by	James Mooney		Type of Model Used	Desk-top	
Allocation Developed by	Water Quality Branch				

Waste Load Allocation Summary

Annual Effluent Limits	Conventional Parameters		Other Parameters	
	Qw 1.339 MGD	Qw 1.339 MGD	Qw 1.339 MGD	Qw MGD
	Season Summer	Season Winter	Season Growing	Season
Qw MGD	From May	From Dec	From Mar	From
	Through Nov	Through Apr	Through Oct	Through
CBOD5	CBOD5 20 mg/L	CBOD5 22 mg/L	TP 0.25 mg/L	TP
NH3-N	NH3-N 5 mg/L	NH3-N 6 mg/L	TN	TN
TKN	TKN	TKN	TSS	TSS
D.O.	D.O. 3 mg/L	D.O. 0 mg/L		

"Monitor Only" Parameters for Effluent:

Parameter	Frequency	Parameter	Frequency
TKN	Monthly		
NO2+NO3-N	Monthly		
TP	Monthly(Nov-Feb)		

Water Quality Characteristics Immediately Upstream of Discharge

Parameter	Summer		Winter	
CBODu	2	mg/l	2	mg/l
NH3-N	0.11	mg/l	0.11	mg/l
Temperature	28	°C	18	°C
pH	7	su	7	su

Hydrology at Discharge Location

Drainage Area Qualifier			Method Used to Calculate
Estimated	Drainage Area 301.88	sq mi	
	Stream 7Q10 3.62	cfs	ADEM Estimate w/USGS Gage Data
	Stream 1Q10 3.06	cfs	ADEM Estimate w/USGS Gage Data
	Stream 7Q2 10.19	cfs	ADEM Estimate w/USGS Gage Data
	Annual Average 583.8	cfs	ADEM Estimate w/USGS Gage Data

Comments and/or Notations

On June 13th 2018, Tyson requested that the location of the proposed discharge to the Locust Fork be moved upstream on the Locust Fork approximately 1.86 miles from the original proposed location (Request #3400). The water quality based effluent limits remain unchanged from the previous waste load allocation. Also, this facility is included in the Locust Fork Nutrient TMDL, and has been allocated a monthly average total phosphorus effluent concentration of 0.25 mg/l, March through October.

LANCE R. LEFLEUR
DIRECTOR

ROBERT J. BENTLEY
GOVERNOR

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August 3rd 2018

Memorandum:

To: Tyson Foods WLA File

Facility: Tyson Foods NPDES#: AL0001449

Receiving Waterbody: Locust Fork (34.032139,-86.566111)

Basin: Black Warrior River

A seasonal WLA was completed for Tyson Foods on March 31, 2017 based upon a proposed discharge location to the Locust Fork. A discharge flowrate of 1.339 MGD was requested for this modeling effort. On June 13th 2018, Tyson Foods requested that the location of the proposed discharge be moved upstream on the Locust Fork approximately 1.86 miles from the original proposed location.

Upon evaluating the effects of the new discharge location on the model results, the final seasonal effluent limitations from the previous waste load allocation remain unchanged. Based upon the model output, the necessary effluent limitations for Tyson Foods that are expected to be protective of water quality are given in the table below:

Tyson Foods Blountsville NPDES# AL0001449
Qw (MGD) = 1.339

Parameter	Summer Limits (mg/l)	Winter Limits (mg/l)
$CBOD_5$:	20	22
NH_3-N :	5	6
Minimum Dissolved Oxygen:	3	0

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
4171 Commanders Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (FAX)

Waste Load Allocation Rationale

Facility: Tyson Foods

Discharge Location: 34.032139, -86.566111

Receiving Waterbody: Locust Fork

Effluent Flow Rate: 1.339 MGD

Date: August 3rd, 2018

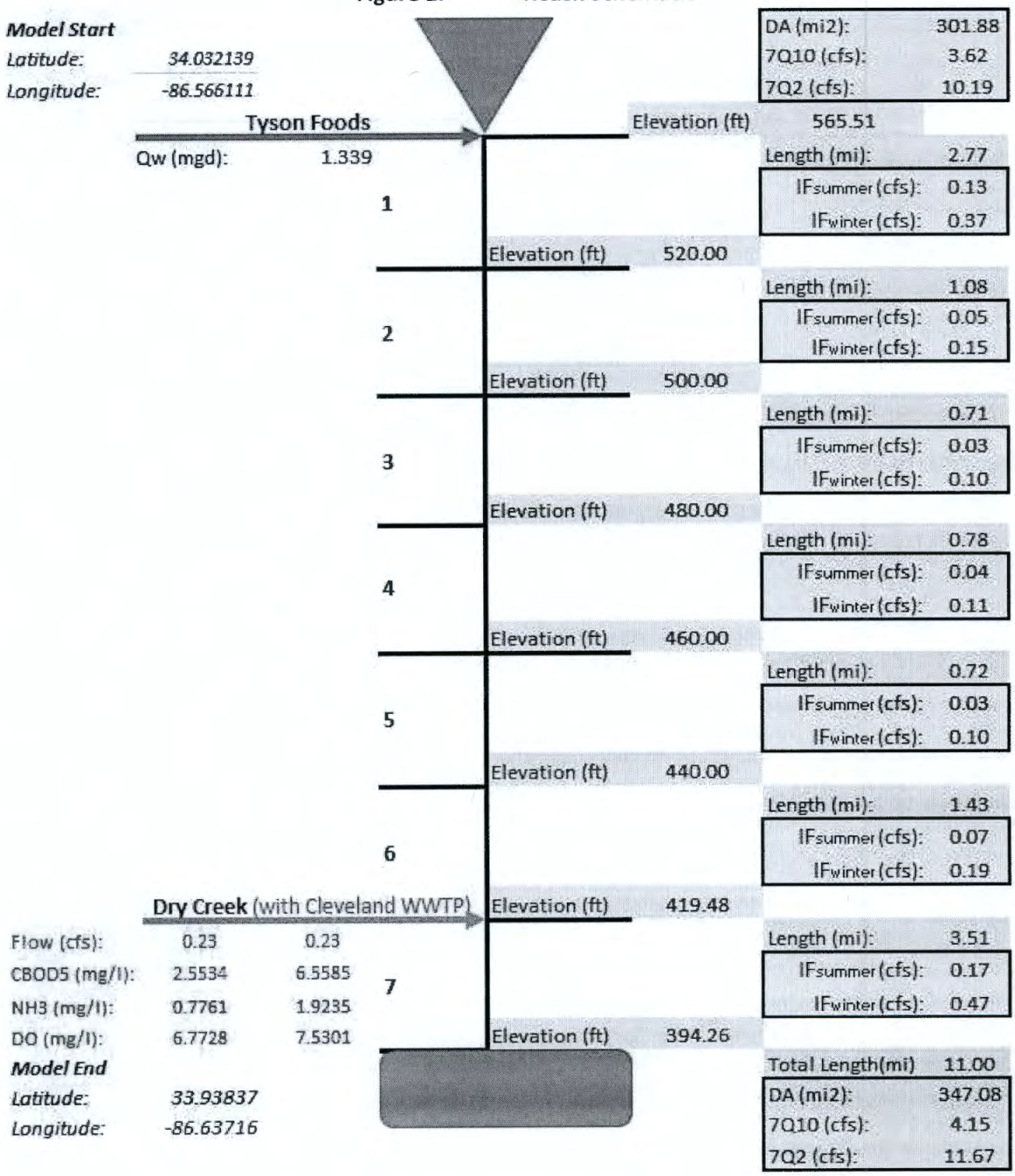
Background

A seasonal WLA was requested by Rachel Stanaland in the Industrial Branch on February 15th, 2017 based upon a new proposed discharge location for Tyson Foods in Blountsville. A discharge flowrate of 1.339 MGD was requested for this modeling effort. On June 13th 2018, the permittee requested that the proposed outfall location be moved upstream approximately 1.86 miles from the previous proposed location to the Locust Fork. Currently, the facility discharges to Graves Creek; the new proposed discharge location is to the Locust Fork. The use classification for the Locust Fork at the discharge location is Fish and Wildlife (F&W). Departmental regulations dictate the following in regards to applicable dissolved oxygen criteria for the Fish and Wildlife use classification: *"For a diversified warm water biota, including game fish, daily dissolved oxygen concentrations shall not be less than 5 mg/l at all times" (335-6-10-.09)*

Modeled Reach Description

The Department's Spreadsheet Water Quality Model was used to evaluate the Tyson Foods effluent limitations for this WLA. The modeled reach consists of 7 individual segments beginning at the proposed discharge location to the Locust Fork and extending downstream for a total stream length of 11 miles. The modeled reach ends on the Locust Fork just prior to the confluence with the Little Warrior River. The model reach also includes the Dry Creek tributary. The pollutant inputs for the Dry Creek tributary into the Locust Fork model reach were adopted from the seasonal Cleveland WWTP WLA spreadsheet model. The reach schematic is illustrated on the following page:

Figure 1. Reach Schematic



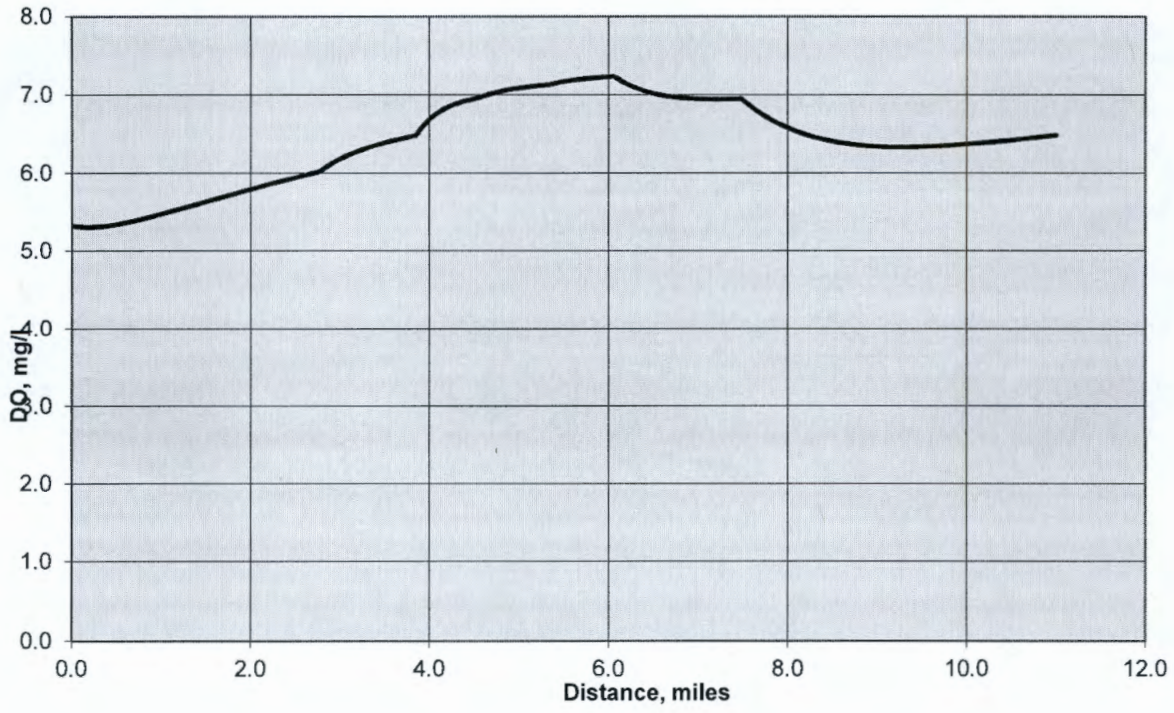
Low Flow Calculations:

The headwater and incremental flows used in the Locust Fork spreadsheet model are based on the low flow conditions calculated from the realtime USGS gage located on Locust Fork: USGS 02455000 Locust Fork near Cleveland. The realtime USGS gage 02455000 is located downstream of several significant continuous point source discharges in the watershed, including the Tyson Foods existing discharge to Graves Creek, a tributary to Locust Fork. Therefore, the final 7Q10 and 7Q2 low flow statistics utilized in this model are based upon a representative flow from the point source discharges subtracted from the existing low flow statistics.

Model Output Evaluation

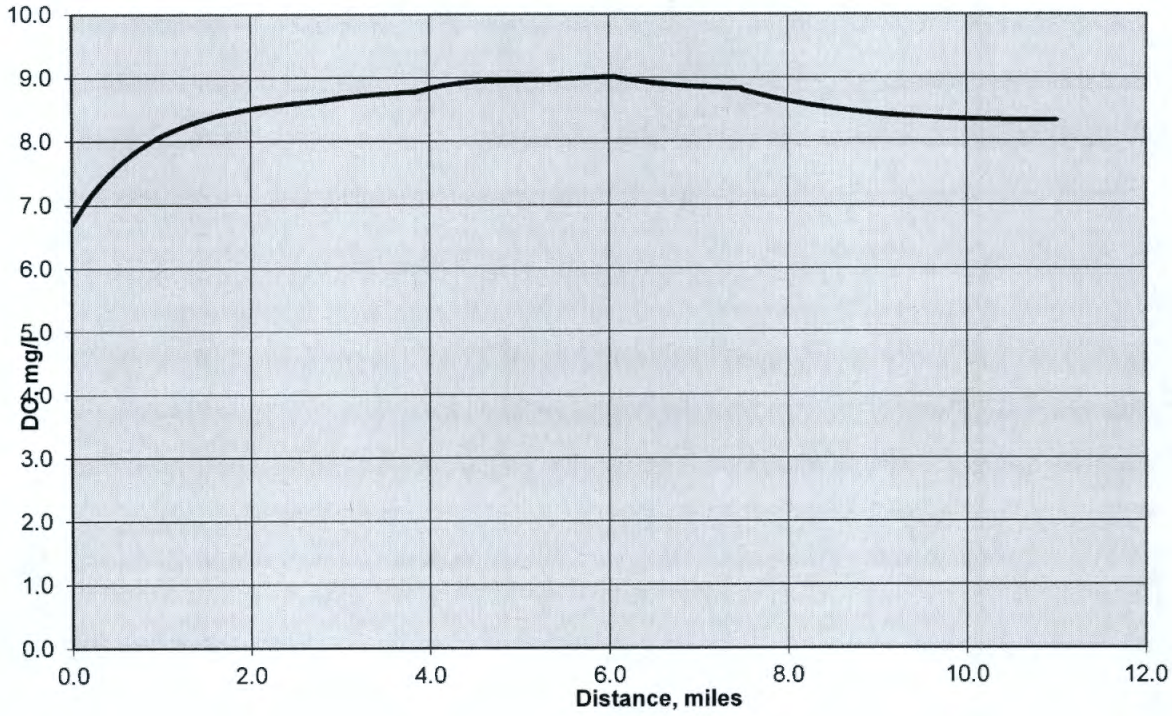
Based upon output from the summer model, the predicted dissolved oxygen sag occurs in the Locust Fork immediately downstream of the proposed Tyson Foods discharge. The figure below illustrates the predicted dissolved oxygen concentrations along the summer modeled reach:

Figure 2. Summer Model – Dissolved Oxygen vs. Distance



Based upon output from the winter model, the predicted dissolved oxygen sag occurs in the Locust Fork immediately downstream of the proposed Tyson Foods discharge. The figure below illustrates the predicted dissolved oxygen concentrations along the winter modeled reach:

Figure 2. Winter Model – Dissolved Oxygen vs. Distance



According to federal regulations, the applicable technology based (BPT) limitations for Tyson Foods are as follows (BOD5: 16 mg/l, NH3N: 4 mg/l). Based on the water quality model output, the water quality based effluent limitations are less stringent than the BPT effluent limitations. Therefore, the resulting effluent limitations in the table below used in the modeling effort are expected to be protective of both the instream dissolved oxygen criteria of 5.0 mg/L and also to assure the downstream pollutant concentrations at the end of the modeled reach are approaching background concentrations and are protective of water quality.

Tyson Foods Blountsville NPDES# AL0001449
Qw (MGD) = 1.339

Parameter	Summer Limits (mg/l)	Winter Limits (mg/l)
$CBOD_5$:	20	22
NH_3-N :	5	6
Minimum Dissolved Oxygen:	3	0

USGS 02455000 - Locust Fork Near Cleveland	
Drainage Area (mi2) :	303
Period of Record :	12/91/1936 to 05/31/2016
7Q10 (cfs)	**5.68**
7Q2 (cfs)	**12.28**
1Q10 (cfs)	**5.12**

NPDES Contiuous Point Sources Upstream of USGS 02455000

Period of Record: 2011-2016

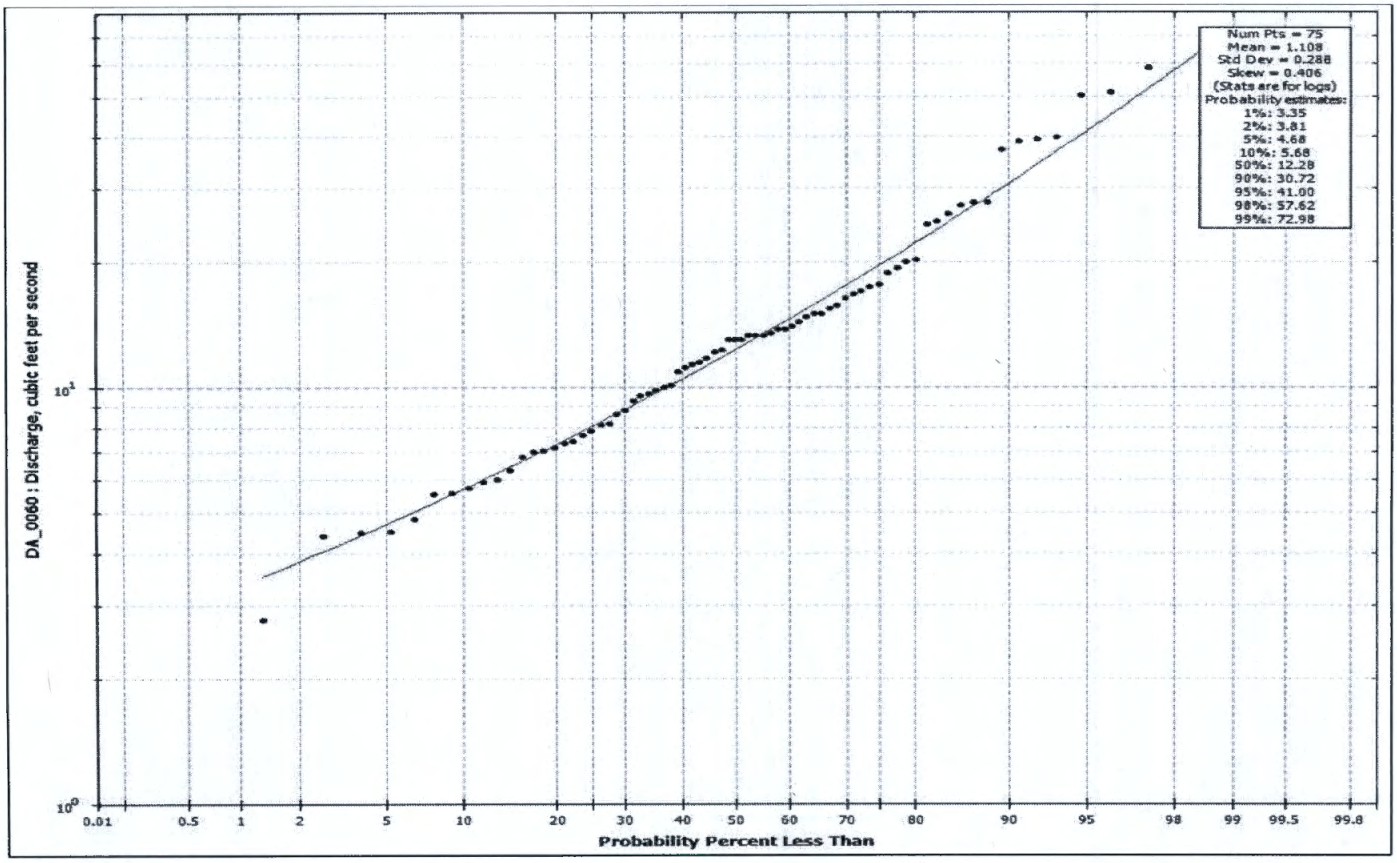
Permit #	Design Flow (MGD)	Min (MGD)	Min (cfs)
AL0049603	4.88	0.35	0.54
AL0001449	1.34	0.92	1.42
AL0058572	0.15	0.05	0.07
AL0021237	0.07	0.01	0.02
AL0050563	0.03	0.00	0.00
Sum	**6.47**	**1.33**	**2.05**

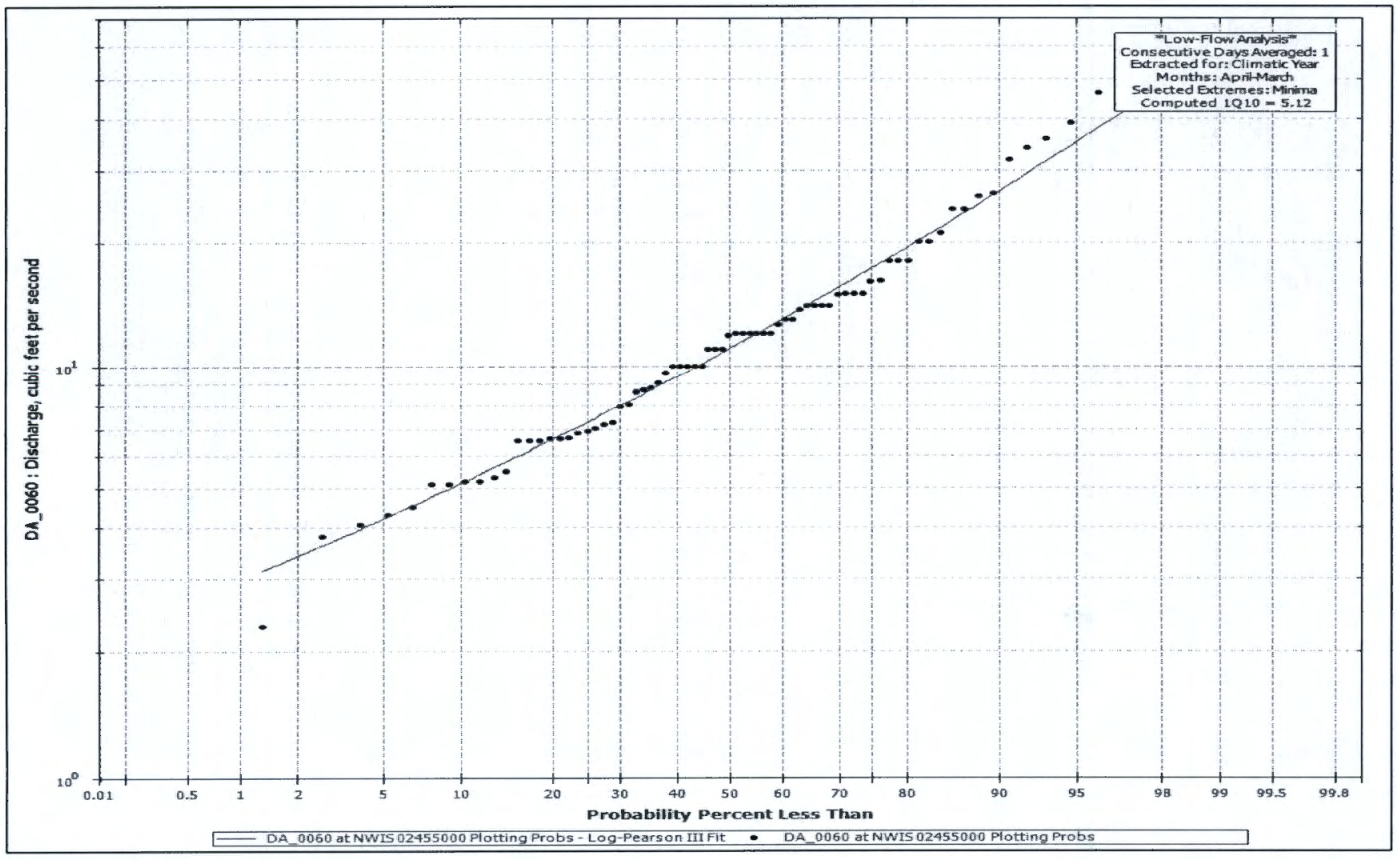
Low Flow Calculations = Daily Stream Flow Values - 2.05 cfs

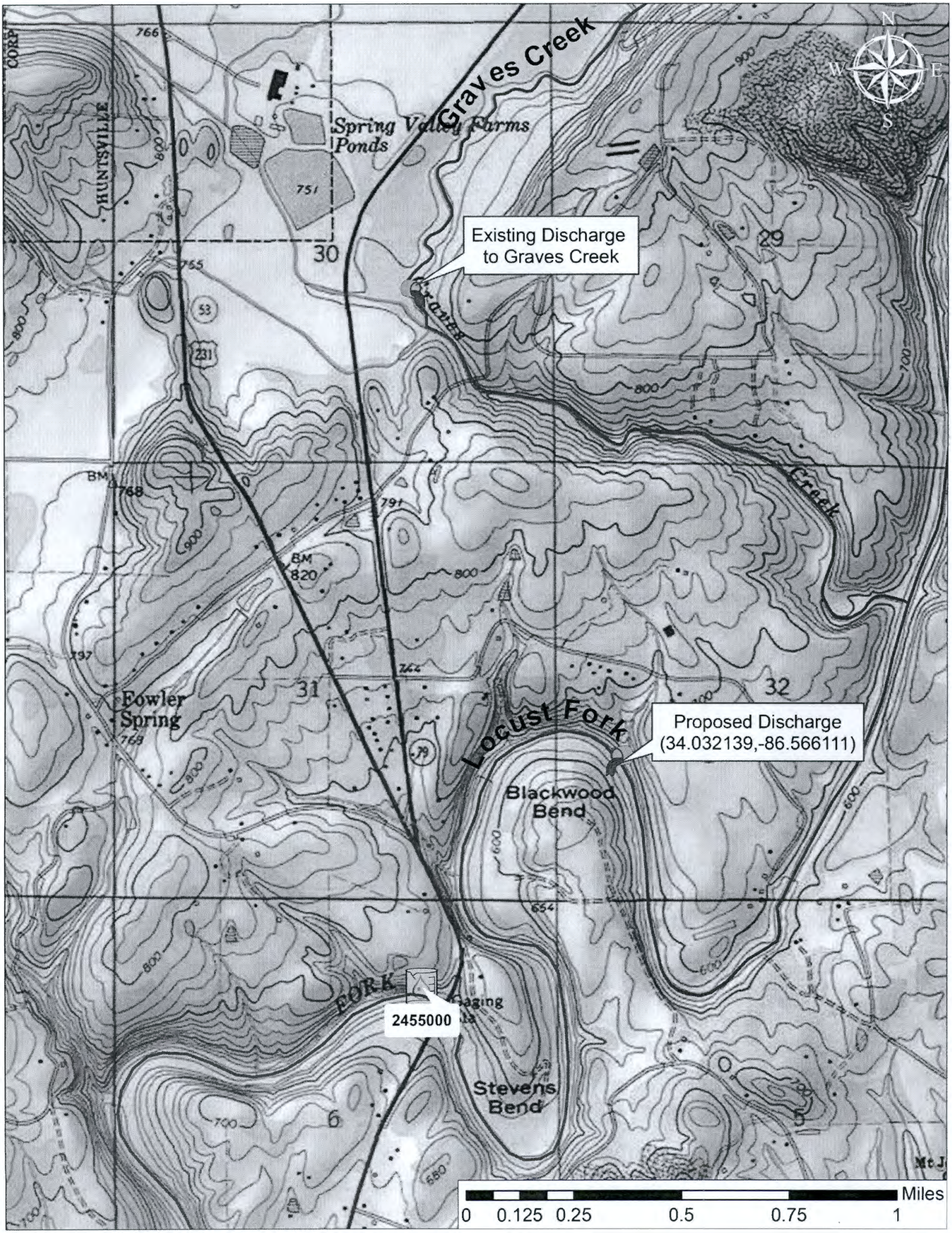
Point Sources Removed
Final Low Flow Statistics

USGS 02455000 - Locust Fork Near Cleveland	
7Q10 (cfs)	**3.63**
7Q2 (cfs)	**10.23**
1Q10 (cfs)	**3.07**

Tyson Foods	
Drainage Area (mi2) :	301.88
7Q10 (cfs)	**3.62**
7Q2 (cfs)	**10.19**
1Q10 (cfs)	**2.72**


Num Pts = 75
Mean = 1.108
Std Dev = 0.288
Skew = 0.406
(Stats are for logs)
Probability estimates:
1%: 3.35
2%: 3.81
5%: 4.68
10%: 5.68
50%: 12.28
90%: 30.72
95%: 41.00
98%: 57.62
99%: 72.98
DA_0060 : Discharge, cubic feet per second
Probability Percent Less Than


"Low-Flow Analysis"
Consecutive Days Averaged: 1
Extracted for: Climatic Year
Months: April-March
Selected Extremes: Minima
Computed 1Q10 = 5.12
DA_0060 : Discharge, cubic feet per second
Probability Percent Less Than
DA_0060 at NWIS 02455000 Plotting Probs - Log-Pearson III Fit
DA_0060 at NWIS 02455000 Plotting Probs


Graves Creek
Spring Valley Farms Ponds
Existing Discharge to Graves Creek
Proposed Discharge (34.032139,-86.566111)
Locust Fork
Blackwood Bend
Stevens Bend
Fowler Spring
2455000
HUNTSVILLE
30
29
31
32
6
5
N
S
E
W
Miles
0 0.125 0.25 0.5 0.75 1

Spreadsheet Water Quality Model

Stream Name :	***Locust Fork***
River Basin :	***Black Warrior***
County :	***Blount***

Modeled Reach :	Upstream Longitude	Upstream Latitude	Section	Township	Range
	-86.566111	34.032139			
	Downstream Longitude	Downstream Latitude	Section	Township	Range
	-86.61174	33.968526			
	Total Stream Length, miles	11.00			

Analysis Date :	**August 6, 2018**
Number of Sections :	**7**

Analysis Performed By :	**JJM**

Applicable Season:	Annual	Summer	Winter
		X	

Point Sources Included in the Model :	
Tyson	

Model Input :

Headwater Conditions :

CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
2.0000	0.1100	0.2200	6.65295	3.62	28

Tributary Conditions :

Section #	CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C	Name
1	0.0000	0.0000	0.0000				
2	0.0000	0.0000	0.0000				
3	0.0000	0.0000	0.0000				
4	0.0000	0.0000	0.0000				
5	0.0000	0.0000	0.0000				
6	0.0000	0.0000	0.0000				
7	2.5533	0.7761	1.7018	6.77	0.23	28.0	Dry Creek
8	0.0000	0.0000	0.0000				
9	0.0000	0.0000	0.0000				
10	0.0000	0.0000	0.0000				
11	0.0000	0.0000	0.0000				
12	0.0000	0.0000	0.0000				
13	0.0000	0.0000	0.0000				
14	0.0000	0.0000	0.0000				
15	0.0000	0.0000	0.0000				
16	0.0000	0.0000	0.0000				
17	0.0000	0.0000	0.0000				
18	0.0000	0.0000	0.0000				
19	0.0000	0.0000	0.0000				
20	0.0000	0.0000	0.0000				
21	0.0000	0.0000	0.0000				
22	0.0000	0.0000	0.0000				
23	0.0000	0.0000	0.0000				
24	0.0000	0.0000	0.0000				

Model Input : Continued

Incremental Inflow Conditions :

Section #	CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
1	2.0000	0.1100	0.2200	6.65295	0.13	28.0
2	2.0000	0.1100	0.2200	6.65295	0.05	28.0
3	2.0000	0.1100	0.2200	6.65295	0.03	28.0
4	2.0000	0.1100	0.2200	6.65295	0.04	28.0
5	2.0000	0.1100	0.2200	6.65295	0.03	28.0
6	2.0000	0.1100	0.2200	6.65295	0.07	28.0
7	2.0000	0.1100	0.2200	6.65295	0.17	28.0
8	0.0000	0.0000	0.0000			
9	0.0000	0.0000	0.0000			
10	0.0000	0.0000	0.0000			
11	0.0000	0.0000	0.0000			
12	0.0000	0.0000	0.0000			
13	0.0000	0.0000	0.0000			
14	0.0000	0.0000	0.0000			
15	0.0000	0.0000	0.0000			
16	0.0000	0.0000	0.0000			
17	0.0000	0.0000	0.0000			
18	0.0000	0.0000	0.0000			
19	0.0000	0.0000	0.0000			
20	0.0000	0.0000	0.0000			
21	0.0000	0.0000	0.0000			
22	0.0000	0.0000	0.0000			
23	0.0000	0.0000	0.0000			
24	0.0000	0.0000	0.0000			

Model Input : Continued

Effluent Conditions :

Section #	Discharger	Flow, MGD	Flow, cfs	$CBOD_5$, mg/l	$CBODu/CBOD_5$	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
1	Tyson	1.3390	2.071	20	3.33	66.600	5.00	5.00	3	28.0
2			0.000			0.000				
3			0.000			0.000				
4			0.000			0.000				
5			0.000			0.000				
6			0.000			0.000				
7			0.000			0.000				
8			0.000			0.000				
9			0.000			0.000				
10			0.000			0.000				
11			0.000			0.000				
12			0.000			0.000				
13			0.000			0.000				
14			0.000			0.000				
15			0.000			0.000				
16			0.000			0.000				
17			0.000			0.000				
18			0.000			0.000				
19			0.000			0.000				
20			0.000			0.000				
21			0.000			0.000				
22			0.000			0.000				
23			0.000			0.000				
24			0.000			0.000				

Model Input : Continued

Section Characteristics :								*Dam Characteristics :*		
Section #	Length, miles	Upstream Elevation, feet	Downstream Elevation, feet	Average Elev., feet	Slope, ft/mile	Calculated Velocity or User Input Velocity?	User Input Velocity, feet/sec	Dam Height, feet	Water Quality Factor	Weir Coefficient
1	2.77	565.51	520	542.755	16.4296	Calculated				
2	1.08	520	500	510	18.5185	Calculated				
3	0.71	500	480	490	28.1690	Calculated				
4	0.78	480	460	470	25.6410	Calculated				
5	0.72	460	440	450	27.7778	Calculated				
6	1.43	440	419.48	429.74	14.3497	Calculated				
7	3.51	419.48	394.26	406.87	7.1852	Calculated				
8										
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21										
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23										
24										

Model Input : Continued

Reaction Rates :

	Reaction Rates at 20° C					Reaction Rates at Ambient Temperature				
Section #	Kd, 1/day	K_{NH3}, 1/day	K_{TON}, 1/day	Computed Ka, 1/day	User Input Ka, 1/day	Ka, 1/day	Kd, 1/day	K_{NH3}, 1/day	K_{TON}, 1/day	Average Temp., °C
1	0.6	0.3	0.05	9.0990		11.0000	0.8664	0.5153	0.0722	28.0000
2	0.6	0.3	0.05	10.7567		13.0041	0.8664	0.5291	0.0722	28.0000
3	0.4	0.5	0.05	18.6877		22.5920	0.5776	0.8950	0.0722	28.0000
4	0.4	0.5	0.05	16.7065		20.1970	0.5776	0.9104	0.0722	28.0000
5	0.4	0.5	0.05	18.5738		22.4544	0.5776	0.9112	0.0722	28.0000
6	0.4	0.3	0.05	7.9098		9.5624	0.5776	0.5481	0.0722	28.0000
7	0.4	0.3	0.05	3.2424		3.9198	0.5776	0.5438	0.0722	28.0000
8										
9										
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19										
20										
21										
22										
23										
24										

Model Input : Continued

Reaction Rates : Continued (OPTIONAL)

		Reaction Rates at 20° C			Reaction Rates at Ambient Temperature		
Section #	Stream Depth, feet	SOD, gm-O_2/ft^2/day	$CBOD_{settling}$, 1/day	$TON_{settling}$, 1/day	SOD, gm-O_2/ft^2/day	$CBOD_{settling}$, 1/day	$TON_{settling}$, 1/day
1							
2							
3							
4							
5							
6							
7							
8							
9							
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23							
24							

Model Output:

Minimum Dissolved Oxygen:	*5.3070 mg/l*
The Minimum DO occurs at:	*0.1385 miles*

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
1	1	0.0000	5.6914	0.3053	0.0000	25.5116	1.8897	1.9597	5.3234	28.0000
1	2	0.1385	5.6981	0.3056	0.0277	24.8799	1.8648	1.9538	5.3070	28.0000
1	3	0.2770	5.7047	0.3058	0.0554	24.2644	1.8403	1.9479	5.3098	28.0000
1	4	0.4155	5.7113	0.3060	0.0830	23.6647	1.8162	1.9420	5.3265	28.0000
1	5	0.5540	5.7180	0.3063	0.1107	23.0803	1.7924	1.9361	5.3529	28.0000
1	6	0.6925	5.7246	0.3065	0.1383	22.5108	1.7690	1.9303	5.3861	28.0000
1	7	0.8310	5.7312	0.3067	0.1659	21.9558	1.7459	1.9245	5.4240	28.0000
1	8	0.9695	5.7378	0.3070	0.1934	21.4150	1.7231	1.9187	5.4650	28.0000
1	9	1.1080	5.7445	0.3072	0.2210	20.8880	1.7007	1.9129	5.5079	28.0000
1	10	1.2465	5.7511	0.3074	0.2485	20.3744	1.6785	1.9071	5.5520	28.0000
1	11	1.3850	5.7577	0.3077	0.2760	19.8739	1.6567	1.9014	5.5965	28.0000
1	12	1.5235	5.7644	0.3079	0.3035	19.3861	1.6351	1.8957	5.6412	28.0000
1	13	1.6620	5.7710	0.3081	0.3310	18.9107	1.6139	1.8900	5.6857	28.0000
1	14	1.8005	5.7776	0.3084	0.3584	18.4473	1.5929	1.8844	5.7297	28.0000
1	15	1.9390	5.7843	0.3086	0.3859	17.9958	1.5722	1.8788	5.7731	28.0000
1	16	2.0775	5.7909	0.3088	0.4133	17.5556	1.5518	1.8731	5.8158	28.0000
1	17	2.2160	5.7975	0.3091	0.4407	17.1266	1.5318	1.8676	5.8577	28.0000
1	18	2.3545	5.8042	0.3093	0.4680	16.7085	1.5119	1.8620	5.8988	28.0000
1	19	2.4930	5.8108	0.3095	0.4954	16.3009	1.4924	1.8565	5.9391	28.0000
1	20	2.6315	5.8174	0.3098	0.5227	15.9036	1.4731	1.8509	5.9785	28.0000
1	21	2.7700	5.8241	0.3100	0.5500	15.5164	1.4541	1.8454	6.0171	28.0000
2	1	2.7700	5.8241	0.3100	0.5500	15.5164	1.4541	1.8454	6.0171	28.0000
2	2	2.8240	5.8266	0.3225	0.5602	15.3735	1.4471	1.8434	6.0613	28.0000
2	3	2.8780	5.8292	0.3226	0.5704	15.2319	1.4400	1.8413	6.1014	28.0000
2	4	2.9320	5.8318	0.3226	0.5807	15.0917	1.4330	1.8392	6.1378	28.0000
2	5	2.9860	5.8344	0.3227	0.5909	14.9529	1.4260	1.8371	6.1710	28.0000
2	6	3.0400	5.8370	0.3228	0.6011	14.8153	1.4190	1.8350	6.2015	28.0000
2	7	3.0940	5.8396	0.3229	0.6113	14.6791	1.4121	1.8330	6.2295	28.0000
2	8	3.1480	5.8421	0.3230	0.6216	14.5442	1.4052	1.8309	6.2553	28.0000
2	9	3.2020	5.8447	0.3231	0.6318	14.4106	1.3984	1.8289	6.2792	28.0000
2	10	3.2560	5.8473	0.3232	0.6420	14.2782	1.3916	1.8268	6.3015	28.0000
2	11	3.3100	5.8499	0.3233	0.6522	14.1471	1.3848	1.8247	6.3223	28.0000
2	12	3.3640	5.8525	0.3234	0.6624	14.0172	1.3780	1.8227	6.3418	28.0000
2	13	3.4180	5.8551	0.3235	0.6726	13.8886	1.3713	1.8206	6.3601	28.0000
2	14	3.4720	5.8577	0.3236	0.6828	13.7613	1.3646	1.8186	6.3774	28.0000
2	15	3.5260	5.8602	0.3237	0.6930	13.6351	1.3580	1.8166	6.3938	28.0000
2	16	3.5800	5.8628	0.3238	0.7032	13.5101	1.3514	1.8145	6.4095	28.0000
2	17	3.6340	5.8654	0.3238	0.7134	13.3863	1.3448	1.8125	6.4244	28.0000
2	18	3.6880	5.8680	0.3239	0.7236	13.2637	1.3383	1.8104	6.4387	28.0000
2	19	3.7420	5.8706	0.3240	0.7337	13.1423	1.3318	1.8084	6.4524	28.0000
2	20	3.7960	5.8732	0.3241	0.7439	13.0220	1.3253	1.8064	6.4657	28.0000
2	21	3.8500	5.8758	0.3242	0.7541	12.9029	1.3189	1.8044	6.4784	28.0000
3	1	3.8500	5.8758	0.3242	0.7541	12.9029	1.3189	1.8044	6.4784	28.0000
3	2	3.8855	5.8775	0.3702	0.7600	12.8561	1.3124	1.8031	6.5572	28.0000

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
3	3	3.9210	5.8792	0.3702	0.7658	12.8095	1.3059	1.8019	6.6264	28.0000
3	4	3.9565	5.8809	0.3703	0.7717	12.7632	1.2995	1.8007	6.6873	28.0000
3	5	3.9920	5.8826	0.3704	0.7775	12.7169	1.2931	1.7995	6.7408	28.0000
3	6	4.0275	5.8843	0.3704	0.7834	12.6709	1.2867	1.7983	6.7880	28.0000
3	7	4.0630	5.8860	0.3705	0.7893	12.6251	1.2803	1.7970	6.8296	28.0000
3	8	4.0985	5.8877	0.3706	0.7951	12.5794	1.2740	1.7958	6.8663	28.0000
3	9	4.1340	5.8894	0.3706	0.8010	12.5339	1.2677	1.7946	6.8987	28.0000
3	10	4.1695	5.8911	0.3707	0.8068	12.4885	1.2614	1.7934	6.9274	28.0000
3	11	4.2050	5.8928	0.3707	0.8127	12.4434	1.2552	1.7922	6.9529	28.0000
3	12	4.2405	5.8945	0.3708	0.8185	12.3984	1.2489	1.7910	6.9754	28.0000
3	13	4.2760	5.8962	0.3709	0.8244	12.3536	1.2428	1.7898	6.9955	28.0000
3	14	4.3115	5.8979	0.3709	0.8302	12.3090	1.2366	1.7886	7.0134	28.0000
3	15	4.3470	5.8996	0.3710	0.8361	12.2645	1.2305	1.7874	7.0293	28.0000
3	16	4.3825	5.9013	0.3711	0.8419	12.2202	1.2244	1.7862	7.0436	28.0000
3	17	4.4180	5.9030	0.3711	0.8478	12.1761	1.2183	1.7850	7.0565	28.0000
3	18	4.4535	5.9047	0.3712	0.8536	12.1321	1.2123	1.7837	7.0680	28.0000
3	19	4.4890	5.9064	0.3713	0.8594	12.0884	1.2063	1.7825	7.0784	28.0000
3	20	4.5245	5.9081	0.3713	0.8653	12.0447	1.2004	1.7813	7.0879	28.0000
3	21	4.5600	5.9098	0.3714	0.8711	12.0013	1.1944	1.7801	7.0964	28.0000
4	1	4.5600	5.9098	0.3714	0.8711	12.0013	1.1944	1.7801	7.0964	28.0000
4	2	4.5990	5.9116	0.3608	0.8777	11.9524	1.1878	1.7788	7.0958	28.0000
4	3	4.6380	5.9135	0.3609	0.8843	11.9038	1.1812	1.7775	7.0956	28.0000
4	4	4.6770	5.9154	0.3610	0.8909	11.8554	1.1746	1.7761	7.0958	28.0000
4	5	4.7160	5.9172	0.3610	0.8975	11.8072	1.1681	1.7748	7.0964	28.0000
4	6	4.7550	5.9191	0.3611	0.9041	11.7592	1.1616	1.7735	7.0973	28.0000
4	7	4.7940	5.9210	0.3612	0.9107	11.7114	1.1552	1.7721	7.0985	28.0000
4	8	4.8330	5.9228	0.3613	0.9173	11.6638	1.1488	1.7708	7.0999	28.0000
4	9	4.8720	5.9247	0.3613	0.9239	11.6164	1.1424	1.7695	7.1015	28.0000
4	10	4.9110	5.9266	0.3614	0.9305	11.5692	1.1361	1.7681	7.1033	28.0000
4	11	4.9500	5.9284	0.3615	0.9371	11.5222	1.1298	1.7668	7.1053	28.0000
4	12	4.9890	5.9303	0.3615	0.9437	11.4754	1.1236	1.7655	7.1074	28.0000
4	13	5.0280	5.9322	0.3616	0.9503	11.4289	1.1174	1.7641	7.1096	28.0000
4	14	5.0670	5.9340	0.3617	0.9569	11.3825	1.1112	1.7628	7.1119	28.0000
4	15	5.1060	5.9359	0.3618	0.9635	11.3363	1.1051	1.7615	7.1143	28.0000
4	16	5.1450	5.9378	0.3618	0.9701	11.2903	1.0990	1.7602	7.1167	28.0000
4	17	5.1840	5.9396	0.3619	0.9767	11.2446	1.0929	1.7588	7.1193	28.0000
4	18	5.2230	5.9415	0.3620	0.9832	11.1990	1.0869	1.7575	7.1218	28.0000
4	19	5.2620	5.9434	0.3620	0.9898	11.1536	1.0810	1.7562	7.1245	28.0000
4	20	5.3010	5.9452	0.3621	0.9964	11.1084	1.0750	1.7549	7.1271	28.0000
4	21	5.3400	5.9471	0.3622	1.0030	11.0634	1.0691	1.7536	7.1298	28.0000
5	1	5.3400	5.9471	0.3622	1.0030	11.0634	1.0691	1.7536	7.1298	28.0000
5	2	5.3760	5.9488	0.3713	1.0089	11.0230	1.0639	1.7524	7.1391	28.0000
5	3	5.4120	5.9505	0.3714	1.0148	10.9828	1.0586	1.7512	7.1476	28.0000
5	4	5.4480	5.9523	0.3714	1.0208	10.9427	1.0534	1.7500	7.1553	28.0000
5	5	5.4840	5.9540	0.3715	1.0267	10.9027	1.0482	1.7488	7.1623	28.0000
5	6	5.5200	5.9557	0.3716	1.0326	10.8629	1.0430	1.7476	7.1688	28.0000
5	7	5.5560	5.9574	0.3716	1.0385	10.8233	1.0379	1.7464	7.1747	28.0000
5	8	5.5920	5.9592	0.3717	1.0444	10.7838	1.0328	1.7452	7.1802	28.0000
5	9	5.6280	5.9609	0.3718	1.0504	10.7445	1.0277	1.7441	7.1853	28.0000

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
5	10	5.6640	5.9626	0.3718	1.0563	10.7053	1.0226	1.7429	7.1900	28.0000
5	11	5.7000	5.9643	0.3719	1.0622	10.6663	1.0176	1.7417	7.1944	28.0000
5	12	5.7360	5.9661	0.3720	1.0681	10.6274	1.0126	1.7405	7.1986	28.0000
5	13	5.7720	5.9678	0.3720	1.0740	10.5887	1.0077	1.7393	7.2025	28.0000
5	14	5.8080	5.9695	0.3721	1.0799	10.5501	1.0027	1.7381	7.2063	28.0000
5	15	5.8440	5.9712	0.3722	1.0858	10.5117	0.9978	1.7370	7.2098	28.0000
5	16	5.8800	5.9729	0.3722	1.0917	10.4734	0.9929	1.7358	7.2132	28.0000
5	17	5.9160	5.9747	0.3723	1.0977	10.4353	0.9881	1.7346	7.2164	28.0000
5	18	5.9520	5.9764	0.3724	1.1036	10.3973	0.9832	1.7334	7.2195	28.0000
5	19	5.9880	5.9781	0.3724	1.1095	10.3595	0.9784	1.7323	7.2225	28.0000
5	20	6.0240	5.9798	0.3725	1.1154	10.3218	0.9737	1.7311	7.2255	28.0000
5	21	6.0600	5.9816	0.3726	1.1213	10.2843	0.9689	1.7299	7.2283	28.0000
6	1	6.0600	5.9816	0.3726	1.1213	10.2843	0.9689	1.7299	7.2283	28.0000
6	2	6.1315	5.9850	0.3018	1.1358	10.1940	0.9626	1.7272	7.1746	28.0000
6	3	6.2030	5.9884	0.3019	1.1502	10.1045	0.9563	1.7246	7.1289	28.0000
6	4	6.2745	5.9918	0.3021	1.1647	10.0158	0.9501	1.7219	7.0901	28.0000
6	5	6.3460	5.9953	0.3022	1.1792	9.9279	0.9439	1.7193	7.0572	28.0000
6	6	6.4175	5.9987	0.3023	1.1936	9.8409	0.9378	1.7166	7.0296	28.0000
6	7	6.4890	6.0021	0.3024	1.2081	9.7547	0.9318	1.7140	7.0064	28.0000
6	8	6.5605	6.0055	0.3025	1.2225	9.6693	0.9258	1.7113	6.9872	28.0000
6	9	6.6320	6.0090	0.3026	1.2369	9.5846	0.9199	1.7087	6.9714	28.0000
6	10	6.7035	6.0124	0.3027	1.2514	9.5008	0.9140	1.7061	6.9586	28.0000
6	11	6.7750	6.0158	0.3029	1.2658	9.4177	0.9082	1.7035	6.9484	28.0000
6	12	6.8465	6.0192	0.3030	1.2802	9.3354	0.9024	1.7008	6.9404	28.0000
6	13	6.9180	6.0226	0.3031	1.2946	9.2538	0.8967	1.6982	6.9343	28.0000
6	14	6.9895	6.0261	0.3032	1.3090	9.1731	0.8910	1.6956	6.9300	28.0000
6	15	7.0610	6.0295	0.3033	1.3235	9.0930	0.8854	1.6930	6.9270	28.0000
6	16	7.1325	6.0329	0.3034	1.3379	9.0137	0.8798	1.6904	6.9254	28.0000
6	17	7.2040	6.0363	0.3035	1.3522	8.9351	0.8742	1.6878	6.9248	28.0000
6	18	7.2755	6.0398	0.3037	1.3666	8.8573	0.8687	1.6853	6.9252	28.0000
6	19	7.3470	6.0432	0.3038	1.3810	8.7801	0.8633	1.6827	6.9264	28.0000
6	20	7.4185	6.0466	0.3039	1.3954	8.7037	0.8579	1.6801	6.9282	28.0000
6	21	7.4900	6.0500	0.3040	1.4098	8.6280	0.8525	1.6775	6.9307	28.0000
7	1	7.4900	6.2821	0.3040	1.4098	8.4035	0.8497	1.6784	6.9249	28.0000
7	2	7.6655	6.2905	0.2458	1.4534	8.1860	0.8341	1.6712	6.7681	28.0000
7	3	7.8410	6.2989	0.2460	1.4970	7.9745	0.8189	1.6640	6.6430	28.0000
7	4	8.0165	6.3073	0.2463	1.5406	7.7686	0.8042	1.6569	6.5441	28.0000
7	5	8.1920	6.3157	0.2465	1.5841	7.5683	0.7899	1.6498	6.4674	28.0000
7	6	8.3675	6.3241	0.2467	1.6275	7.3734	0.7759	1.6427	6.4089	28.0000
7	7	8.5430	6.3325	0.2470	1.6710	7.1838	0.7624	1.6357	6.3658	28.0000
7	8	8.7185	6.3409	0.2472	1.7143	6.9994	0.7491	1.6287	6.3354	28.0000
7	9	8.8940	6.3493	0.2474	1.7577	6.8198	0.7362	1.6218	6.3156	28.0000
7	10	9.0695	6.3578	0.2477	1.8010	6.6452	0.7236	1.6149	6.3044	28.0000
7	11	9.2450	6.3662	0.2479	1.8442	6.4752	0.7114	1.6080	6.3005	28.0000
7	12	9.4205	6.3746	0.2482	1.8875	6.3098	0.6994	1.6012	6.3025	28.0000
7	13	9.5960	6.3830	0.2484	1.9306	6.1489	0.6876	1.5944	6.3093	28.0000
7	14	9.7715	6.3914	0.2486	1.9738	5.9922	0.6762	1.5876	6.3201	28.0000
7	15	9.9470	6.3998	0.2489	2.0169	5.8398	0.6650	1.5809	6.3341	28.0000
7	16	10.1225	6.4082	0.2491	2.0599	5.6914	0.6540	1.5742	6.3506	28.0000

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
7	17	10.2980	6.4166	0.2493	2.1029	5.5471	0.6433	1.5675	6.3691	28.0000
7	18	10.4735	6.4250	0.2496	2.1459	5.4065	0.6329	1.5609	6.3893	28.0000
7	19	10.6490	6.4334	0.2498	2.1888	5.2698	0.6226	1.5544	6.4107	28.0000
7	20	10.8245	6.4418	0.2500	2.2317	5.1367	0.6126	1.5478	6.4329	28.0000
7	21	11.0000	6.4502	0.2503	2.2746	5.0071	0.6029	1.5413	6.4559	28.0000

CHRONIC MASS BALANCE CALCULATION TO DETERMINE THE MAXIMUM ALLOWABLE EFFLUENT AMMONIA-NITROGEN CONCENTRATION			
3.62	Enter headwaters stream flow (in cfs) in the cell at the left (cell A4)*		
1.339	Enter effluent wasteflow (in mgd) in the cell at the left (cell A6)		
0.11	Enter headwaters ammonia-nitrogen concentration (in mg/l) in the cell at the left (cell A8)**		
7	Enter the pH in the cell at the left (cell A10)		
28	Enter the temperature in the cell at the left (cell A12)		
The maximum allowable instream ammonia-nitrogen concentration is		**2.48**	**mg/l*** **
*The headwaters stream flow is typically the $7Q_{10}$ value for summer and the $7Q_2$ value for winter.			
**Unless actual data is available, the headwaters ammonia-nitrogen value is assumed to be 0.11 mg/l.			
***This is the CCC ammonia-nitrogen value determined from revised ammonia toxicity criteria.			
The maximum allowable effluent ammonia-nitrogen concentration is		**6.62**	**mg/l**
CPR: 9/18/00			

ACUTE MASS BALANCE CALCULATION TO DETERMINE THE MAXIMUM ALLOWABLE EFFLUENT AMMONIA-NITROGEN CONCENTRATION			
3.62	Enter headwaters stream flow (in cfs) in the cell at the left (cell A4)*		
1.339	Enter effluent wasteflow (in mgd) in the cell at the left (cell A6)		
0.11	Enter headwaters ammonia-nitrogen concentration (in mg/l) in the cell at the left (cell A8)**		
7	Enter the pH in the cell at the left (cell A10)		
The maximum allowable instream ammonia-nitrogen concentration is		**36.09**	**mg/l*** **
*The headwaters stream flow is typically the $1Q_{10}$ value (except for A&I streams, in which case it is the $7Q_{10}$ value).			
**Unless actual data is available, the headwaters ammonia-nitrogen value is assumed to be 0.11 mg/l.			
***This is the CMC ammonia-nitrogen value determined from revised ammonia toxicity criteria.			
The maximum allowable effluent ammonia-nitrogen concentration is		**98.98**	**mg/l**
CPR: 9/18/00			

Spreadsheet Water Quality Model

Stream Name :	***Locust Fork***
River Basin :	***Black Warrior***
County :	***Blount***

Modeled Reach :

Upstream Longitude	Upstream Latitude	Section	Township	Range
-86.566111	34.032139			
Downstream Longitude	**Downstream Latitude**	**Section**	**Township**	**Range**
-86.61174	33.968526			
Total Stream Length, miles	11.00			

Analysis Date :	**August 6, 2018**
Number of Sections :	**7**

Analysis Performed By :	**JJM**

Point Sources Included in the Model :

Tyson

Applicable Season:	Annual	Summer	Winter
			X

Model Input :

Headwater Conditions :

CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
2.0000	0.1100	0.2200	8.04695	10.19	18

Tributary Conditions :

Section #	CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C	Name
1	0.0000	0.0000	0.0000				
2	0.0000	0.0000	0.0000				
3	0.0000	0.0000	0.0000				
4	0.0000	0.0000	0.0000				
5	0.0000	0.0000	0.0000				
6	0.0000	0.0000	0.0000				
7	6.5585	1.9235	2.7090	7.53	0.23	18.0	Dry Creek
8	0.0000	0.0000	0.0000				
9	0.0000	0.0000	0.0000				
10	0.0000	0.0000	0.0000				
11	0.0000	0.0000	0.0000				
12	0.0000	0.0000	0.0000				
13	0.0000	0.0000	0.0000				
14	0.0000	0.0000	0.0000				
15	0.0000	0.0000	0.0000				
16	0.0000	0.0000	0.0000				
17	0.0000	0.0000	0.0000				
18	0.0000	0.0000	0.0000				
19	0.0000	0.0000	0.0000				
20	0.0000	0.0000	0.0000				
21	0.0000	0.0000	0.0000				
22	0.0000	0.0000	0.0000				
23	0.0000	0.0000	0.0000				
24	0.0000	0.0000	0.0000				

Model Input : Continued

Incremental Inflow Conditions :

Section #	CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
1	2.0000	0.1100	0.2200	8.04695	0.37	18.0
2	2.0000	0.1100	0.2200	8.04695	0.15	18.0
3	2.0000	0.1100	0.2200	8.04695	0.10	18.0
4	2.0000	0.1100	0.2200	8.04695	0.11	18.0
5	2.0000	0.1100	0.2200	8.04695	0.10	18.0
6	2.0000	0.1100	0.2200	8.04695	0.19	18.0
7	2.0000	0.1100	0.2200	8.04695	0.47	18.0
8	0.0000	0.0000	0.0000			
9	0.0000	0.0000	0.0000			
10	0.0000	0.0000	0.0000			
11	0.0000	0.0000	0.0000			
12	0.0000	0.0000	0.0000			
13	0.0000	0.0000	0.0000			
14	0.0000	0.0000	0.0000			
15	0.0000	0.0000	0.0000			
16	0.0000	0.0000	0.0000			
17	0.0000	0.0000	0.0000			
18	0.0000	0.0000	0.0000			
19	0.0000	0.0000	0.0000			
20	0.0000	0.0000	0.0000			
21	0.0000	0.0000	0.0000			
22	0.0000	0.0000	0.0000			
23	0.0000	0.0000	0.0000			
24	0.0000	0.0000	0.0000			

Model Input : Continued

Effluent Conditions :

Section #	Discharger	Flow, MGD	Flow, cfs	$CBOD_5$, mg/l	$CBODu/CBOD_5$	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
1	Tyson	1.3390	2.071	22	3.33	73.260	6.00	6.00	0	18.0
2			0.000			0.000				
3			0.000			0.000				
4			0.000			0.000				
5			0.000			0.000				
6			0.000			0.000				
7			0.000			0.000				
8			0.000			0.000				
9			0.000			0.000				
10			0.000			0.000				
11			0.000			0.000				
12			0.000			0.000				
13			0.000			0.000				
14			0.000			0.000				
15			0.000			0.000				
16			0.000			0.000				
17			0.000			0.000				
18			0.000			0.000				
19			0.000			0.000				
20			0.000			0.000				
21			0.000			0.000				
22			0.000			0.000				
23			0.000			0.000				
24			0.000			0.000				

Model Input : Continued

Section Characteristics :								*Dam Characteristics :*		
Section #	Length, miles	Upstream Elevation, feet	Downstream Elevation, feet	Average Elev., feet	Slope, ft/mile	Calculated Velocity or User Input Velocity?	User Input Velocity, feet/sec	Dam Height, feet	Water Quality Factor	Weir Coefficient
1	2.77	565.51	520	542.755	16.4296	Calculated				
2	1.08	520	500	510	18.5185	Calculated				
3	0.71	500	480	490	28.1690	Calculated				
4	0.78	480	460	470	25.6410	Calculated				
5	0.72	460	440	450	27.7778	Calculated				
6	1.43	440	419.48	429.74	14.3497	Calculated				
7	3.51	419.48	394.26	406.87	7.1852	Calculated				
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Model Input : Continued

Reaction Rates :

	Reaction Rates at 20° C					Reaction Rates at Ambient Temperature				
Section #	Kd, 1/day	K_{NH3}, 1/day	K_{TON}, 1/day	Computed Ka, 1/day	User Input Ka, 1/day	Ka, 1/day	Kd, 1/day	K_{NH3}, 1/day	K_{TON}, 1/day	Average Temp., °C
1	0.4	0.3	0.05	10.4886		10.0027	0.3649	0.2503	0.0456	18.0000
2	0.4	0.3	0.05	12.3472		11.7752	0.3649	0.2614	0.0456	18.0000
3	0.4	0.5	0.05	21.0966		20.1193	0.3649	0.4368	0.0456	18.0000
4	0.4	0.5	0.05	18.9215		18.0450	0.3649	0.4380	0.0456	18.0000
5	0.4	0.5	0.05	20.9867		20.0145	0.3649	0.4382	0.0456	18.0000
6	0.4	0.3	0.05	9.1905		8.7648	0.3649	0.2631	0.0456	18.0000
7	0.4	0.3	0.05	3.8610		3.6821	0.3649	0.2622	0.0456	18.0000
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Model Input : Continued

Reaction Rates : Continued (OPTIONAL)

		Reaction Rates at 20° C			Reaction Rates at Ambient Temperature		
Section #	Stream Depth, feet	SOD, gm-O_2/ft^2/day	$CBOD_{settling}$, 1/day	$TON_{settling}$, 1/day	SOD, gm-O_2/ft^2/day	$CBOD_{settling}$, 1/day	$TON_{settling}$, 1/day
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Model Output:

Minimum Dissolved Oxygen:	*6.6875 mg/l*
The Minimum DO occurs at:	*0.0000 miles*

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
1	1	0.0000	12.2614	0.4869	0.0000	14.0386	1.1051	1.1965	6.6875	18.0000
1	2	0.1385	12.2801	0.4873	0.0174	13.9317	1.0997	1.1940	6.9956	18.0000
1	3	0.2770	12.2988	0.4878	0.0347	13.8258	1.0943	1.1916	7.2553	18.0000
1	4	0.4155	12.3174	0.4882	0.0521	13.7208	1.0890	1.1892	7.4744	18.0000
1	5	0.5540	12.3361	0.4886	0.0694	13.6167	1.0836	1.1868	7.6593	18.0000
1	6	0.6925	12.3548	0.4890	0.0867	13.5135	1.0783	1.1844	7.8155	18.0000
1	7	0.8310	12.3734	0.4894	0.1040	13.4113	1.0730	1.1820	7.9476	18.0000
1	8	0.9695	12.3921	0.4898	0.1213	13.3099	1.0677	1.1796	8.0594	18.0000
1	9	1.1080	12.4108	0.4903	0.1385	13.2094	1.0625	1.1773	8.1543	18.0000
1	10	1.2465	12.4294	0.4907	0.1558	13.1098	1.0572	1.1749	8.2349	18.0000
1	11	1.3850	12.4481	0.4911	0.1730	13.0111	1.0520	1.1725	8.3034	18.0000
1	12	1.5235	12.4668	0.4915	0.1902	12.9132	1.0468	1.1702	8.3619	18.0000
1	13	1.6620	12.4854	0.4919	0.2074	12.8161	1.0417	1.1679	8.4119	18.0000
1	14	1.8005	12.5041	0.4923	0.2246	12.7199	1.0366	1.1655	8.4547	18.0000
1	15	1.9390	12.5228	0.4927	0.2418	12.6246	1.0315	1.1632	8.4915	18.0000
1	16	2.0775	12.5414	0.4931	0.2590	12.5301	1.0264	1.1609	8.5233	18.0000
1	17	2.2160	12.5601	0.4936	0.2761	12.4363	1.0214	1.1586	8.5509	18.0000
1	18	2.3545	12.5787	0.4940	0.2933	12.3434	1.0164	1.1563	8.5749	18.0000
1	19	2.4930	12.5974	0.4944	0.3104	12.2513	1.0114	1.1540	8.5959	18.0000
1	20	2.6315	12.6161	0.4948	0.3275	12.1600	1.0065	1.1517	8.6143	18.0000
1	21	2.7700	12.6347	0.4952	0.3446	12.0695	1.0016	1.1495	8.6306	18.0000
2	1	2.7700	12.6347	0.4952	0.3446	12.0695	1.0016	1.1495	8.6306	18.0000
2	2	2.8240	12.6420	0.5122	0.3510	12.0354	0.9997	1.1486	8.6429	18.0000
2	3	2.8780	12.6493	0.5124	0.3575	12.0014	0.9978	1.1477	8.6544	18.0000
2	4	2.9320	12.6566	0.5125	0.3639	11.9675	0.9960	1.1468	8.6652	18.0000
2	5	2.9860	12.6639	0.5127	0.3703	11.9337	0.9941	1.1460	8.6754	18.0000
2	6	3.0400	12.6711	0.5129	0.3768	11.9000	0.9923	1.1451	8.6849	18.0000
2	7	3.0940	12.6784	0.5130	0.3832	11.8665	0.9905	1.1442	8.6938	18.0000
2	8	3.1480	12.6857	0.5132	0.3896	11.8330	0.9886	1.1434	8.7022	18.0000
2	9	3.2020	12.6930	0.5134	0.3961	11.7997	0.9868	1.1425	8.7101	18.0000
2	10	3.2560	12.7002	0.5135	0.4025	11.7664	0.9850	1.1416	8.7176	18.0000
2	11	3.3100	12.7075	0.5137	0.4089	11.7333	0.9832	1.1408	8.7246	18.0000
2	12	3.3640	12.7148	0.5139	0.4153	11.7003	0.9813	1.1399	8.7313	18.0000
2	13	3.4180	12.7221	0.5140	0.4217	11.6673	0.9795	1.1391	8.7375	18.0000
2	14	3.4720	12.7294	0.5142	0.4282	11.6345	0.9777	1.1382	8.7435	18.0000
2	15	3.5260	12.7366	0.5143	0.4346	11.6018	0.9759	1.1373	8.7491	18.0000
2	16	3.5800	12.7439	0.5145	0.4410	11.5693	0.9741	1.1365	8.7545	18.0000
2	17	3.6340	12.7512	0.5147	0.4474	11.5368	0.9723	1.1356	8.7595	18.0000
2	18	3.6880	12.7585	0.5148	0.4538	11.5044	0.9705	1.1348	8.7643	18.0000
2	19	3.7420	12.7657	0.5150	0.4602	11.4721	0.9687	1.1339	8.7689	18.0000
2	20	3.7960	12.7730	0.5152	0.4666	11.4399	0.9670	1.1331	8.7733	18.0000
2	21	3.8500	12.7803	0.5153	0.4730	11.4079	0.9652	1.1322	8.7775	18.0000
3	1	3.8500	12.7803	0.5153	0.4730	11.4079	0.9652	1.1322	8.7775	18.0000
3	2	3.8855	12.7851	0.5780	0.4768	11.3888	0.9635	1.1317	8.7923	18.0000

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
3	3	3.9210	12.7899	0.5781	0.4805	11.3697	0.9618	1.1312	8.8062	18.0000
3	4	3.9565	12.7946	0.5783	0.4843	11.3506	0.9601	1.1306	8.8191	18.0000
3	5	3.9920	12.7994	0.5784	0.4880	11.3316	0.9584	1.1301	8.8311	18.0000
3	6	4.0275	12.8042	0.5785	0.4918	11.3126	0.9567	1.1296	8.8423	18.0000
3	7	4.0630	12.8090	0.5786	0.4955	11.2937	0.9550	1.1290	8.8528	18.0000
3	8	4.0985	12.8138	0.5787	0.4993	11.2748	0.9533	1.1285	8.8625	18.0000
3	9	4.1340	12.8186	0.5788	0.5030	11.2559	0.9516	1.1280	8.8716	18.0000
3	10	4.1695	12.8234	0.5790	0.5068	11.2371	0.9499	1.1274	8.8801	18.0000
3	11	4.2050	12.8281	0.5791	0.5105	11.2183	0.9483	1.1269	8.8881	18.0000
3	12	4.2405	12.8329	0.5792	0.5143	11.1995	0.9466	1.1264	8.8955	18.0000
3	13	4.2760	12.8377	0.5793	0.5180	11.1808	0.9449	1.1258	8.9024	18.0000
3	14	4.3115	12.8425	0.5794	0.5218	11.1621	0.9433	1.1253	8.9090	18.0000
3	15	4.3470	12.8473	0.5795	0.5255	11.1435	0.9416	1.1248	8.9151	18.0000
3	16	4.3825	12.8521	0.5797	0.5293	11.1249	0.9399	1.1242	8.9208	18.0000
3	17	4.4180	12.8568	0.5798	0.5330	11.1063	0.9383	1.1237	8.9261	18.0000
3	18	4.4535	12.8616	0.5799	0.5367	11.0878	0.9366	1.1232	8.9312	18.0000
3	19	4.4890	12.8664	0.5800	0.5405	11.0693	0.9350	1.1227	8.9359	18.0000
3	20	4.5245	12.8712	0.5801	0.5442	11.0508	0.9333	1.1221	8.9404	18.0000
3	21	4.5600	12.8760	0.5802	0.5480	11.0324	0.9317	1.1216	8.9446	18.0000
4	1	4.5600	12.8760	0.5802	0.5480	11.0324	0.9317	1.1216	8.9446	18.0000
4	2	4.5990	12.8812	0.5658	0.5522	11.0118	0.9299	1.1210	8.9458	18.0000
4	3	4.6380	12.8865	0.5660	0.5564	10.9912	0.9280	1.1204	8.9470	18.0000
4	4	4.6770	12.8917	0.5661	0.5606	10.9707	0.9262	1.1199	8.9482	18.0000
4	5	4.7160	12.8970	0.5662	0.5648	10.9502	0.9244	1.1193	8.9494	18.0000
4	6	4.7550	12.9023	0.5663	0.5690	10.9297	0.9226	1.1187	8.9506	18.0000
4	7	4.7940	12.9075	0.5665	0.5732	10.9093	0.9207	1.1181	8.9518	18.0000
4	8	4.8330	12.9128	0.5666	0.5774	10.8890	0.9189	1.1175	8.9530	18.0000
4	9	4.8720	12.9180	0.5667	0.5816	10.8687	0.9171	1.1170	8.9541	18.0000
4	10	4.9110	12.9233	0.5668	0.5858	10.8484	0.9153	1.1164	8.9553	18.0000
4	11	4.9500	12.9285	0.5670	0.5900	10.8282	0.9135	1.1158	8.9564	18.0000
4	12	4.9890	12.9338	0.5671	0.5942	10.8080	0.9117	1.1152	8.9575	18.0000
4	13	5.0280	12.9391	0.5672	0.5984	10.7879	0.9099	1.1146	8.9587	18.0000
4	14	5.0670	12.9443	0.5673	0.6026	10.7678	0.9082	1.1141	8.9598	18.0000
4	15	5.1060	12.9496	0.5675	0.6068	10.7478	0.9064	1.1135	8.9609	18.0000
4	16	5.1450	12.9548	0.5676	0.6110	10.7278	0.9046	1.1129	8.9620	18.0000
4	17	5.1840	12.9601	0.5677	0.6152	10.7078	0.9028	1.1123	8.9631	18.0000
4	18	5.2230	12.9653	0.5678	0.6194	10.6879	0.9011	1.1118	8.9642	18.0000
4	19	5.2620	12.9706	0.5680	0.6236	10.6680	0.8993	1.1112	8.9653	18.0000
4	20	5.3010	12.9758	0.5681	0.6278	10.6482	0.8976	1.1106	8.9664	18.0000
4	21	5.3400	12.9811	0.5682	0.6320	10.6284	0.8958	1.1100	8.9674	18.0000
5	1	5.3400	12.9811	0.5682	0.6320	10.6284	0.8958	1.1100	8.9674	18.0000
5	2	5.3760	12.9860	0.5807	0.6358	10.6105	0.8942	1.1095	8.9707	18.0000
5	3	5.4120	12.9908	0.5808	0.6396	10.5926	0.8926	1.1090	8.9739	18.0000
5	4	5.4480	12.9957	0.5809	0.6434	10.5748	0.8910	1.1085	8.9768	18.0000
5	5	5.4840	13.0005	0.5811	0.6472	10.5570	0.8895	1.1080	8.9797	18.0000
5	6	5.5200	13.0054	0.5812	0.6510	10.5393	0.8879	1.1074	8.9823	18.0000
5	7	5.5560	13.0102	0.5813	0.6547	10.5215	0.8863	1.1069	8.9849	18.0000
5	8	5.5920	13.0151	0.5814	0.6585	10.5038	0.8848	1.1064	8.9873	18.0000
5	9	5.6280	13.0199	0.5815	0.6623	10.4862	0.8832	1.1059	8.9896	18.0000

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
5	10	5.6640	13.0248	0.5816	0.6661	10.4686	0.8816	1.1053	8.9918	18.0000
5	11	5.7000	13.0296	0.5818	0.6699	10.4510	0.8801	1.1048	8.9939	18.0000
5	12	5.7360	13.0345	0.5819	0.6737	10.4334	0.8785	1.1043	8.9960	18.0000
5	13	5.7720	13.0393	0.5820	0.6774	10.4159	0.8770	1.1038	8.9979	18.0000
5	14	5.8080	13.0442	0.5821	0.6812	10.3984	0.8754	1.1033	8.9997	18.0000
5	15	5.8440	13.0490	0.5822	0.6850	10.3810	0.8739	1.1027	9.0015	18.0000
5	16	5.8800	13.0539	0.5823	0.6888	10.3636	0.8723	1.1022	9.0033	18.0000
5	17	5.9160	13.0587	0.5825	0.6925	10.3462	0.8708	1.1017	9.0049	18.0000
5	18	5.9520	13.0636	0.5826	0.6963	10.3289	0.8693	1.1012	9.0065	18.0000
5	19	5.9880	13.0684	0.5827	0.7001	10.3116	0.8677	1.1007	9.0081	18.0000
5	20	6.0240	13.0733	0.5828	0.7039	10.2943	0.8662	1.1002	9.0096	18.0000
5	21	6.0600	13.0781	0.5829	0.7076	10.2770	0.8647	1.0996	9.0110	18.0000
6	1	6.0600	13.0781	0.5829	0.7076	10.2770	0.8647	1.0996	9.0110	18.0000
6	2	6.1315	13.0878	0.4862	0.7166	10.2373	0.8626	1.0985	8.9912	18.0000
6	3	6.2030	13.0974	0.4864	0.7256	10.1978	0.8604	1.0975	8.9731	18.0000
6	4	6.2745	13.1070	0.4866	0.7346	10.1584	0.8583	1.0964	8.9566	18.0000
6	5	6.3460	13.1167	0.4868	0.7436	10.1192	0.8562	1.0953	8.9415	18.0000
6	6	6.4175	13.1263	0.4870	0.7525	10.0802	0.8540	1.0942	8.9277	18.0000
6	7	6.4890	13.1359	0.4873	0.7615	10.0414	0.8519	1.0931	8.9152	18.0000
6	8	6.5605	13.1456	0.4875	0.7705	10.0027	0.8498	1.0920	8.9038	18.0000
6	9	6.6320	13.1552	0.4877	0.7794	9.9642	0.8477	1.0909	8.8934	18.0000
6	10	6.7035	13.1649	0.4879	0.7884	9.9259	0.8457	1.0898	8.8840	18.0000
6	11	6.7750	13.1745	0.4881	0.7973	9.8878	0.8436	1.0888	8.8755	18.0000
6	12	6.8465	13.1841	0.4883	0.8063	9.8498	0.8415	1.0877	8.8679	18.0000
6	13	6.9180	13.1938	0.4885	0.8152	9.8120	0.8395	1.0866	8.8610	18.0000
6	14	6.9895	13.2034	0.4887	0.8242	9.7743	0.8374	1.0855	8.8548	18.0000
6	15	7.0610	13.2130	0.4889	0.8331	9.7368	0.8353	1.0844	8.8493	18.0000
6	16	7.1325	13.2227	0.4891	0.8420	9.6995	0.8333	1.0834	8.8443	18.0000
6	17	7.2040	13.2323	0.4893	0.8510	9.6624	0.8313	1.0823	8.8399	18.0000
6	18	7.2755	13.2419	0.4895	0.8599	9.6254	0.8292	1.0812	8.8361	18.0000
6	19	7.3470	13.2516	0.4897	0.8688	9.5886	0.8272	1.0802	8.8327	18.0000
6	20	7.4185	13.2612	0.4899	0.8777	9.5519	0.8252	1.0791	8.8297	18.0000
6	21	7.4900	13.2709	0.4901	0.8867	9.5154	0.8232	1.0780	8.8272	18.0000
7	1	7.4900	13.5030	0.4901	0.8867	9.4646	0.8421	1.1061	8.8049	18.0000
7	2	7.6655	13.5266	0.4055	0.9131	9.3608	0.8364	1.1032	8.7382	18.0000
7	3	7.8410	13.5503	0.4059	0.9395	9.2583	0.8307	1.1003	8.6791	18.0000
7	4	8.0165	13.5739	0.4064	0.9659	9.1570	0.8250	1.0975	8.6267	18.0000
7	5	8.1920	13.5976	0.4068	0.9923	9.0570	0.8194	1.0946	8.5805	18.0000
7	6	8.3675	13.6212	0.4072	1.0186	8.9582	0.8139	1.0918	8.5398	18.0000
7	7	8.5430	13.6449	0.4076	1.0449	8.8607	0.8084	1.0890	8.5041	18.0000
7	8	8.7185	13.6685	0.4080	1.0712	8.7644	0.8030	1.0862	8.4729	18.0000
7	9	8.8940	13.6922	0.4085	1.0975	8.6692	0.7976	1.0834	8.4458	18.0000
7	10	9.0695	13.7158	0.4089	1.1237	8.5752	0.7923	1.0806	8.4224	18.0000
7	11	9.2450	13.7395	0.4093	1.1499	8.4824	0.7871	1.0778	8.4023	18.0000
7	12	9.4205	13.7631	0.4097	1.1761	8.3908	0.7818	1.0751	8.3853	18.0000
7	13	9.5960	13.7868	0.4101	1.2022	8.3002	0.7767	1.0723	8.3709	18.0000
7	14	9.7715	13.8104	0.4106	1.2284	8.2108	0.7716	1.0696	8.3591	18.0000
7	15	9.9470	13.8341	0.4110	1.2545	8.1225	0.7665	1.0669	8.3494	18.0000
7	16	10.1225	13.8577	0.4114	1.2805	8.0352	0.7615	1.0642	8.3417	18.0000

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
7	17	10.2980	13.8814	0.4118	1.3066	7.9490	0.7565	1.0615	8.3358	18.0000
7	18	10.4735	13.9050	0.4122	1.3326	7.8639	0.7515	1.0588	8.3315	18.0000
7	19	10.6490	13.9287	0.4127	1.3586	7.7798	0.7467	1.0561	8.3286	18.0000
7	20	10.8245	13.9523	0.4131	1.3845	7.6968	0.7418	1.0534	8.3271	18.0000
7	21	11.0000	13.9760	0.4135	1.4105	7.6147	0.7370	1.0508	8.3267	18.0000

CHRONIC MASS BALANCE CALCULATION TO DETERMINE THE MAXIMUM ALLOWABLE EFFLUENT AMMONIA-NITROGEN CONCENTRATION			
10.19	Enter headwaters stream flow (in cfs) in the cell at the left (cell A4)*		
1.339	Enter effluent wasteflow (in mgd) in the cell at the left (cell A6)		
0.11	Enter headwaters ammonia-nitrogen concentration (in mg/l) in the cell at the left (cell A8)**		
7	Enter the pH in the cell at the left (cell A10)		
18	Enter the temperature in the cell at the left (cell A12)		
The maximum allowable instream ammonia-nitrogen concentration is		**4.72**	**mg/l*** **
*The headwaters stream flow is typically the $7Q_{10}$ value for summer and the $7Q_2$ value for winter.			
**Unless actual data is available, the headwaters ammonia-nitrogen value is assumed to be 0.11 mg/l. ***This is the CCC ammonia-nitrogen value determined from revised ammonia toxicity criteria.			
The maximum allowable effluent ammonia-nitrogen concentration is		**27.41**	**mg/l**
CPR: 9/18/00			

ACUTE MASS BALANCE CALCULATION TO DETERMINE THE MAXIMUM ALLOWABLE EFFLUENT AMMONIA-NITROGEN CONCENTRATION			
10.19	Enter headwaters stream flow (in cfs) in the cell at the left (cell A4)*		
1.339	Enter effluent wasteflow (in mgd) in the cell at the left (cell A6)		
0.11	Enter headwaters ammonia-nitrogen concentration (in mg/l) in the cell at the left (cell A8)**		
7	Enter the pH in the cell at the left (cell A10)		
The maximum allowable instream ammonia-nitrogen concentration is		**36.09**	**mg/l*** **
*The headwaters stream flow is typically the $1Q_{10}$ value (except for A&I streams, in which case it is the $7Q_{10}$ value).			
**Unless actual data is available, the headwaters ammonia-nitrogen value is assumed to be 0.11 mg/l.			
***This is the CMC ammonia-nitrogen value determined from revised ammonia toxicity criteria.			
The maximum allowable effluent ammonia-nitrogen concentration is		**213.10**	**mg/l**
CPR: 9/18/00			

Mooney, James J

From: Hames, Rodney <Rodney.Hames2@tyson.com>
Sent: Wednesday, June 13, 2018 2:46 PM
To: Mooney, James J
Subject: [ADEM Spam Firewall identified as possible spam] Coordinates for Final Locust Fork Outfall

Importance: Low

Follow Up Flag: Follow up
Flag Status: Completed

James, the coordinates for the new outfall location are 34°01'55.7" and -86°33'58.0". Let me know what Kimberly says about whether we need to make a new request.

Rodney Hames, PE
Complex Environmental Manager
Alabama Complex

Tyson Foods, Inc
106 Richman Drive
Snead, AL 35952
(desk) 205-466-7116 ext. 231 or
(mobile) 205-901-7589

Rodney.hames2@tyson.com

ORIGINAL FILE COPY

Waste Load Allocation/MZ Request Form

request number: 3488

MEMORANDUM

To: Chief, Technical Support Section

From: (Responsible Engineer) Rachel Stanaland | In Branch/Section: Industrial

Date Submitted	7/24/2018	Date Required	8/23/2018	FUND Code	605

General Information

Receiving Waterbody	Locust Fork	River Basin	Black Warrior
Previous Stream Name			
*County	Blount	Outfall Latitude	34.032139 (decimal degrees)
		Outfall Longitude	-86.566111 (decimal degrees)

Modeling Information

Facility Name	Tyson Foods, Inc. (Name of Discharger-WQ will use to file)
Applicant Name	
	Previous Discharger Name
MasterID	
Contact Name	
Phone Number	
Permit Number	AL0001449
Model request submitted as part of permit application?	☐ Yes ☐ No
Date Permit application received by NPDES program	
Date Permit Expires	
Permit Type	Permit Reissuance
Permit Status	Active
Type of Discharger	INDUSTRIAL

RECEIVED
July 24, 2018
Water Quality Branch

Type of Modeling being requested:

- Modeling with Data Collection (10 stations) ☐
- Modeling with Data Collection (5 stations) ☐
- WLA Modeling Review Only (per season) ☐
- MZ CORMIX Modeling Review Only ☐
- Desktop Model ☑
- Mixing Zone Model (CORMIX) ☐
- HCR Model Analysis ☐
- Additional Season (Desktop and/or/CORMIX Mod ☑

Current Permit Limits (mg/L)

CBOD5 summer:		CBOD5 winter:	
BOD5 summer:		BOD5 winter:	
NH3-N summer:		NH3-N winter:	
TON summer:		TON winter:	
TKN summer:		TKN winter:	
MinDO summer:		MinDO winter:	

Seasonal limits requested? ☑ Yes ☐ No

Number of Seasons Requested: 2

Existing Discharge Design Flow: 1.339 MGD

Proposed Discharge Design Flow: MGD

Note: The flow rates given should be those requested for modeling.

Waste Load Allocation/MZ Request Form (Cont)

Do other discharges exist that may impact the model? ☐ Yes ☑ No

If yes, impacting dischargers names.		**Impacting dischargers permit numbers.**	

Note: ADEM form 455 must be submitted with all mixing zone requests. This information is usually furnished by the applicant and/or consultant. The form can be printed using the link below. It can also be found on the ADEM web site under the "ADEM Forms" link.

http://www.adem.state.al.us/DeptForms/Form455.pdf

Attachments: Photocopy of 7.5 minute series topographic map included with (discharge location marked)? ☐ Yes ☐ No

Comments

Tyson

June 21, 2017

Ms. Rachell Stanaland
Industrial Section
Water Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110

Ms. Stanaland:

Subject: Revised Permit Application Forms
Tyson Farms, Inc. – Blountsville Processing Plant
NPDES Permit AL0001449

Attached please find the revised permit application forms for the Blountsville Wastewater Permit (AL0001449) reapplication. These revised forms include information regarding the requested outfall, DSN005, to the Locust Fork of the Black Warrior River. In addition to the revised forms, the attached package also includes a revised Figure 1: Wastewater Treatment System Schematic and a letter from Stacy Miller, VP Division Value Added, granting signature authority to our Complex Manager.

If you have questions or concerns about the revised plans, please contact the undersigned at 205.466.7116 ext. 231 or by email at Rodney.hames2@tyson.com.

Regards,

Rodney Hames, PE
Complex Environmental Manager

Tyson Farms, Inc. Alabama Complex 160 Richman Drive, Snead, AL 35952
Telephone: (205) 466.7116 Fax: (205) 466-7126 www.tysonfoods.com