



Alabama Department of Environmental Management
adem.alabama.gov

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APRIL 9, 2020

MR AUSTIN TRAMELL
HSE MANAGER
BREITBURN OPERATING LP
1111 BAGBY STREET, SUITE1600
HOUSTON TX 77002

**RE: DRAFT PERMIT
NPDES PERMIT NUMBER AL0079529**

Dear Mr. Trammell:

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 Wayne Holt by e-mail at WHolt@adem.alabama.gov or by phone at **(334) 271-7847**.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Ramsey", is written over the word "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





NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: BREITBURN OPERATING LP
(AKA FLOMATON NITROGEN GENERATION FACILITY)

FACILITY LOCATION: 1030 VAN HOOSSEN ROAD
FLOMATON, AL 36441

PERMIT NUMBER: AL0079529

RECEIVING WATERS: DSN001: U.T. TO BIG ESCAMBIA CREEK
DSN002: U.T. TO BIG ESCAMBIA CREEK
DSN003: BIG ESCAMBIA CREEK

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**

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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: Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water when the minimum daily stream flow for the month is less than 0.1875 cfs. 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>						<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab	-
Stream Flow, Mean. Daily	REPORT cfs	-	REPORT cfs	-	-	-	Daily when Discharging	Measured 6/	-
pH	-	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	-
Nickel Total Recoverable 5/	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-
Zinc Total Recoverable 5/	-	-	-	-	0.197 mg/l	0.197 mg/l	2X Monthly	Composite	-
Copper Total Recoverable 5/	-	-	-	-	0.0127 mg/l	0.0180 mg/l	2X Monthly	Composite	-
Oil and Grease	-	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	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.
- 5/ For the purposes of monitoring, "Total" and "Total Recoverable" shall be considered equivalent.
- 6/ See Part IV.C. for Stream Flow Meter Calibration and 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): Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water when the minimum daily stream flow for the month is less than 0.1875 cfs. 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Flow, In Conduit or Thru Treatment Plant	MGD	MGD	-	-	-	Daily	Measured 4/	-

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:

DSN0012: Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water when the minimum daily stream flow for the month is between 0.1875 cfs and 0.374 cfs. 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>						<u>MONITORING REQUIREMENTS 1/</u>			
	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>	
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab	-	
Stream Flow, Mean. Daily	0.1875 cfs	-	REPORT cfs	-	-	-	Daily when Discharging	Measured 6/	-	
pH	-	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	-	
Solids, Total Suspended	-	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	-	
Nickel Total Recoverable 5/	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-	
Zinc Total Recoverable 5/	-	-	-	-	2.59 mg/l	2.59 mg/l	2X Monthly	Composite	-	
Copper Total Recoverable 5/	-	-	-	-	0.219 mg/l	0.236 mg/l	2X Monthly	Composite	-	
Oil and Grease	-	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	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.
- 5/ For the purposes of monitoring, "Total" and "Total Recoverable" shall be considered equivalent.
- 6/ See Part IV.C. for Stream Flow Meter Calibration and 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:

DSN0012 (continued): Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water when the minimum daily stream flow for the month is between 0.1875 cfs and 0.374 cfs. 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average REPORT</u>	<u>Daily Maximum REPORT</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Flow, In Conduit or Thru Treatment Plant	MGD	MGD	-	-	-	Daily	Measured 4/	-

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:

DSN0013: Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water when the minimum daily stream flow for the month is between 0.375 cfs and 0.5624 cfs 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>						<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab	-
Stream Flow, Mean. Daily	0.375 cfs	-	REPORT cfs	-	-	-	Daily when Discharging	Measured	-
pH	-	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	-
Nickel Total Recoverable 5/	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-
Zinc Total Recoverable 5/	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-
Copper Total Recoverable 5/	-	-	-	-	0.425 mg/l	0.454 mg/l	2X Monthly	Composite	-
Oil and Grease	-	2.46 lbs/day	4.93 lbs/day	-	-	-	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.
- 5/ For the purposes of monitoring, "Total" and "Total Recoverable" shall be considered equivalent.
- 6/ See Part IV.C. for Stream Flow Meter Calibration and 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:

DSN0013 (continued): Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water when the minimum daily stream flow for the month is between 0.375 cfs and 0.5624 cfs 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily	Measured 4/	-

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:

DSN0014: Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water when the minimum monthly stream flow for the month is equal to or above 0.5625 cfs. 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>						<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab	-
Stream Flow, Mean. Daily	0.5625 cfs	-	REPORT cfs	-	-	-	Daily when Discharging	Measured 6/	-
pH	-	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	-
Nickel Total Recoverable 5/	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-
Zinc Total Recoverable 5/	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-
Copper Total Recoverable 5/	-	-	-	-	0.631 mg/l	0.673 mg/l	2X Monthly	Composite	-
Oil and Grease	-	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	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.
- 5/ For the purposes of monitoring, "Total" and "Total Recoverable" shall be considered equivalent.
- 6/ See Part IV.C. for Stream Flow Meter Calibration and 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:

DSN0014 (continued): Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water when the minimum monthly stream flow for the month is equal to or above 0.5625 cfs. 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Flow, In Conduit or Thru Treatment Plant	MGD	MGD	-	-	-	Daily	Measured 4/	-

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: Storm water runoff resulting from non-process areas. 3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil and Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate 4/	-

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:

DSN0031: Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water to Big Escambia Creek.
3/

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

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	90 F	Weekly	Grab	-
pH	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	-
Solids, Total Suspended	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	-
Nickel Total Recoverable 5/	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-
Zinc Total Recoverable 5/	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-
Copper Total Recoverable 5/	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	-
Oil and Grease	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	Weekly	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily	Measured 4/	-

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/ For the purposes of monitoring, "Total" and "Total Recoverable" shall be considered equivalent.

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.

REPORTS OF ANNUAL TESTING shall be submitted on an annual basis. The first report is due on the 28th day of **JANUARY**. 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 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 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. 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 application 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 discharge.

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 toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification 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 301(c), 301(g), 301(h), 301(k), or 316(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 cannot 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 action(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. STREAM FLOW METER CALIBRATION AND REQUIREMENTS

- a. The Permittee shall maintain a stream gauging station that conforms with standard engineering practices upstream of the facility's discharge location. The stream gauging station shall be calibrated a minimum of once per year for the duration of the permit. The measurements from each calibration shall be submitted to ADEM's Industrial Section no later than 60 days after the date of the calibration, unless an alternate date is approved by the Department.
- b. During flow meter down times, the facility shall document the flow using either an estimate or hand-held flow meter device. The facility shall maintain a record of flow meter down times to be logged and reported as an attachment with the DMR reports.
- c. The daily stream flow gauging station, shall be recorded as an attachment with the DMR reports for each day's discharge incidence. Summary data should be reported on the monthly DMR forms provided by ADEM.

D. COOLING WATER INTAKE STRUCTURE (CWIS) REQUIREMENTS

- 1. The entity providing water to the permittee is a public water system in accordance with Section 1401 of the Safe Drinking Water Act or the water used for cooling consists of effluent, which would otherwise be discharged; therefore, the permittee is exempt from this permit condition.

ADEM PERMIT RATIONALE

PREPARED DATE: April 2, 2020
PREPARED BY: Wayne Holt

Permittee Name: Flomaton Nitrogen Generation Facility
Facility Name: Breitburn Operating LP
Permit Number: AL0079529

PERMIT IS REISSUANCE DUE TO EXPIRATION

DISCHARGE SERIAL NUMBERS & DESCRIPTIONS:

DSN001: Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water.
DSN002: Storm water resulting from non-process areas.
DSN003: Process wastewater resulting from compressor condensate, cooling tower blow-down, equipment wash-water, laboratory sinks, and process area storm water.

INDUSTRIAL CATEGORY: 40 CFR 415.490, specifically Subpart AW – Oxygen and Nitrogen Production.

MAJOR: N

STREAM INFORMATION:

Outfalls:	DSN001 and DSN002	DSN003
Receiving Stream:	U.T. to Big Escambia Creek	Big Escambia Creek
Classification:	Fish & Wildlife	Fish & Wildlife
River Basin:	Conecuh-Sepulga	Conecuh-Sepulga
7Q10:	0.0 cfs	76.31 cfs
1Q10:	0.0 cfs	57.2 cfs
Annual Average Flow:	1.1 cfs	667 cfs
303(d) List:	YES	YES
Impairment:	Metals (Mercury)	Metals (Mercury)
TMDL:	NO	NO

DISCUSSION:

Breitburn Operating L.P. (aka, Flomaton Nitrogen Generation) has applied for re-issuance of a NPDES Permit for its Flomaton, Alabama Nitrogen gas production plant. The facility produces nitrogen gas via the cryogenic separation of ambient air. Two parallel nitrogen generation plants each produce 17 MMSCFD, for a total of 34 MMSCFD of pure nitrogen gas. Using the conversion of 1 SCF nitrogen = 13.8 lbs nitrogen, the facility manufactures an estimated 2,463,768 lb/day of nitrogen.

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:

<u>Parameter</u>	<u>Daily Min Loading</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab	WQBEL
Stream Flow, Mean. Daily	REPORT cfs	-	REPORT cfs	-	-	-	Daily when Discharging	Measured	BPJ
pH	-	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	WQBEL
Solids, Total Suspended	-	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	BPJ
Nickel Total Recoverable	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	BPJ
Zinc Total Recoverable	-	-	-	-	0.197 mg/l	0.197 mg/l	2X Monthly	Composite	WQBEL
Copper Total Recoverable	-	-	-	-	0.0127 mg/l	0.0180 mg/l	2X Monthly	Composite	WQBEL
Oil and Grease	-	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	Weekly	Grab	EGL/BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	REPORT MGD	-	-	-	Daily	Measured	BPJ

0012:

<u>Parameter</u>	<u>Daily Min Loading</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab	WQBEL
Stream Flow, Mean. Daily	0.1875 cfs	-	REPORT cfs	-	-	-	Daily when Discharging	Measured	WQBEL/ BPJ
pH	-	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	WQBEL
Solids, Total Suspended	-	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	BPJ
Nickel Total Recoverable	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	BPJ
Zinc Total Recoverable	-	-	-	-	2.59 mg/l	2.59 mg/l	2X Monthly	Composite	WQBEL

Copper Total Recoverable	-	-	-	-	0.219 mg/l	0.236 mg/l	2X Monthly	Composite	WQBEL
Oil and Grease	-	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	Weekly	Grab	EGL/BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	REPORT MGD	-	-	-	Daily	Measured	BPJ

0013:

<u>Parameter</u>	<u>Daily Min Loading</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab	WQBEL
Stream Flow, Mean. Daily	0.375 cfs	-	REPORT cfs	-	-	-	Daily when Discharging	Measured	WQBEL/ BPJ
pH	-	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	WQBEL
Solids, Total Suspended	-	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	BPJ
Nickel Total Recoverable	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	BPJ
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	WQBEL
Copper Total Recoverable	-	-	-	-	0.425 mg/l	0.454 mg/l	2X Monthly	Composite	WQBEL
Oil and Grease	-	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	Weekly	Grab	EGL/BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	REPORT MGD	-	-	-	Daily	Measured	BPJ

0014:

<u>Parameter</u>	<u>Daily Min Loading</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab	WQBEL

Stream Flow, Mean. Daily	0.5625 cfs	-	REPORT cfs	-	-	-	Daily when Discharging	Measured	WQBEL/ BPJ
pH	-	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	WQBEL
Solids, Total Suspended	-	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	BPJ
Nickel Total Recoverable	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	BPJ
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	WQBEL
Copper Total Recoverable	-	-	-	-	0.631 mg/l	0.673 mg/l	2X Monthly	Composite	WQBEL
Oil and Grease	-	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	Weekly	Grab	EGL/BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	REPORT MGD	-	-	-	Daily	Measured	BPJ

002S:

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Oil and Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Twice per Year	Estimate	BPJ

0031:

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	-	90 F	Weekly	Grab
pH	-	-	6.0 S.U.	-	8.5 S.U.	Daily	Grab	WQBEL

Solids, Total Suspended	-	-	-	REPORT mg/l	REPORT mg/l	Weekly	Composite	BPJ
Nickel Total Recoverable	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	BPJ
Zinc Total Recoverable	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	BPJ
Copper Total Recoverable	-	-	-	REPORT mg/l	REPORT mg/l	2X Monthly	Composite	BPJ
Oil and Grease	2.46 lbs/day	4.93 lbs/day	-	10 mg/l	15 mg/l	Weekly	Grab	EGL/BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily	Measured	BPJ

*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

Outfall DSN001, Including monitoring tiers DSN001-1, DSN001-2, DSN001-3, and DSN001-4:

Stream Flow Tiers

The permit will continue to be tiered based on the stream flow for DSN001's receiving stream. Therefore, the stream flow will continue to be measured on days the facility is discharging.

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:

Oil & Grease

The daily maximum limit for Oil and Grease of 15 mg/l and the monthly average limit of 10 mg/l should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

Water Quality Based Effluent Limits (WQBEL)

Temperature:

The temperature limit of 90°F is proposed due to comparing the effluent flow with the 7Q10 of the receiving stream. The ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)3(i)-Specific Water Quality Criteria for Fish & Wildlife classified streams sets an in the stream limit of 90°F. Comparing the size of the stream with the flows and temperatures from the outfall, the discharge presents a concern to impact the receiving stream's temperature.

pH

ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)2 – Specific Water Quality for Fish & 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."

Copper and Zinc

As noted on the Reasonable Potential Analysis (see attached), it was determined that copper and zinc may present metal bearing loading issues for the subject receiving stream. In order to protect the receiving stream's water quality, tiered limits for total recoverable copper and total recoverable zinc are continued based on the minimum stream flow of the daily recordings for the month.

The below table reflects the T.R. Copper and T.R. Zinc limits at the various minimum stream flows. The calculations are based on calculations using the reasonable potential analysis for the UT at the given flows.

Flomaton Nitrogen metals' limits based on flow in U.T. to Big Escambia Creek

7q10 (in cfs)	0.00		0.250		0.500		0.750	
1q10 (in cfs)	0.00		0.188		0.375		0.563	
Min. Stream Flow (in CFS)	0.00		0.19		0.38		0.56	
	Daily Max ug/l	Monthly Avg ug/l	Daily Max ug/l	Monthly Avg ug/l	Daily Max ug/l	Monthly Avg ug/l	Daily Max ug/l	Monthly Avg ug/l
Copper, T.R.	18.03	12.77	236.5	219	454.9	425.3	673.4	631.6
Zinc, T.R.	197.4	197.4	2589.2	3414.1	Report	Report	Report	Report

Federal Effluent Guideline Limitations (EGL)

Parameters based upon EGL have had effluent guidelines established under 40 CFR 415.490, specifically Subpart AW – Oxygen and Nitrogen Production.

Oil & Grease

Per the BPT requirements, the facility's Nitrogen and Oxygen production rates were necessary to calculate the guideline based limits. The production rates as supplied in the application were 2,463,768 lbs per day of Nitrogen gas product and none for Oxygen. This production value was used to calculate the effluent limits using the mass loading factors as established from the Guideline Standards. The calculation for the BPT limitations is detailed below.

DAILY MAX: 2,463,768 LB/DAY * 1/1000 LBS * 0.002 LBS/1000 LBS OF PRODUCT = 4.93 LBS/DAY

MONTHLY AVE: 2,463,768 LB/DAY * 1/1000 LBS * 0.001 LBS/1000 LBS OF PRODUCT = 2.46 LBS/DAY

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

Either this stream is listed on the 303(d) List of Impaired Waters for these parameters or a TMDL has been established for these parameters, which contains certain requirements as to point and non-point sources in regards to limitations and monitoring requirements of the parameters into the receiving stream.

Mercury

The receiving stream for the discharge is UT to Big Escambia Creek. The Big Escambia Creek is currently listed on the Alabama 303(d) list for mercury. Based on the application, mercury is not considered a pollutant of concern because it is not expected to be in the discharge.

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.

Outfall DSN002:**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. The parameters with specific limits are discussed below:

Oil and Grease (O&G):

O&G will be limited to 15 mg/l as a daily maximum limitation, based on BPJ. The use of this limit has been demonstrated to be achievable by adequate BMPs, and has been shown to prevent the occurrence of an oily sheen in storm-water runoff.

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.

Outfall DSN003:

The parameters with specific limits are discussed below:

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. The parameters with specific limits are discussed below:

Oil & Grease

The daily maximum limit for Oil and Grease of 15 mg/l and the monthly average limit of 10 mg/l should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

Water Quality Based Effluent Limits (WQBEL)

Temperature:

The temperature limit of 90°F is proposed due to comparing the effluent flow with the 7Q10 of the receiving stream. The ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)3(i)-Specific Water Quality Criteria for Fish & Wildlife classified streams sets an in the stream limit of 90°F.

pH

ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)2 – Specific Water Quality for Fish & 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.”

Federal Effluent Guideline Limitations (EGL)

Parameters based upon EGL have had effluent guidelines established under 40 CFR 415.490, specifically Subpart AW – Oxygen and Nitrogen Production.

Oil & Grease

Per the BPT requirements, the facility’s Nitrogen and Oxygen production rates were necessary to calculate the guideline based limits. The production rates as supplied in the application were 2,463,768 lbs per day of Nitrogen gas product and none for Oxygen. This production value was used to calculate the effluent limits using the mass loading factors as established from the Guideline Standards. The calculation for the BPT limitations is detailed below.

DAILY MAX: 2,463,768 LB/DAY * 1/1000 LBS * 0.002 LBS/1000 LBS OF PRODUCT = 4.93 LBS/DAY
MONTHLY AVE: 2,463,768 LB/DAY * 1/1000 LBS * 0.001 LBS/1000 LBS OF PRODUCT = 2.46 LBS/DAY

316(b) Cooling Water Intake Structures

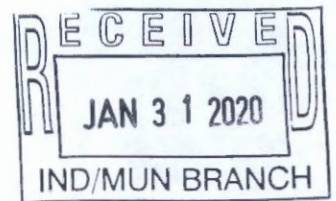
It has been determined that the facility withdraws supply water from private wells and from the City Of Flomaton.

The private wells are not subject to the regulation of the Clean Water Intake Structure under 316(b) in the Clean Water Act.

The entity providing water to the permittee is a public water system in accordance with Section 1401 of the Safe Drinking Water Act, therefore the permittee is exempt from the permit requirements of Section 316(b) of the federal Clean Water Act (33 U.S.C. section 1326).

Facility Name: Breitburm / Flomatom Nitrogen, Outfall D5N001
NPODES No.: AL0079529 Minimum Stream Flow = 0.38 cfs
Human Health Consumption Fish only (ug/l)
Freshwater FAW classification.
Freshwater Acute (ug/l) Q1 = 1Q10
Freshwater Chronic (ug/l) Q1 = 7Q10
Carcinogen Q1 = Annual Average
Non-Carcinogen Q1 = 7Q10
Table with 16 columns: ID, Pollutant, RP?, Carcinogen yes, Background from upstream source (Cd2) Daily Max, Max Daily Discharge as reported by Applicant (Cmax), Water Quality Criteria (C1), Draft Permit Limit (Cmax), 20% of Draft Permit Limit, RP?, Background from upstream source (Cd2) Monthly Ave, Avg Daily Discharge as reported by Applicant (Cmax), Water Quality Criteria (C1), Draft Permit Limit (Cmax), 20% of Draft Permit Limit, RP?, Water Quality Criteria (C1), Draft Permit Limit (Cmax), 20% of Draft Permit Limit, RP?, Water Quality Criteria (C1), Draft Permit Limit (Cmax), 20% of Draft Permit Limit, RP?

NPDES PERMIT APPLICATION



for

R# 20-50858

B BREITBURN
OPERATING LP

Flomaton Nitrogen Generation Facility

**Flomaton, AL
Escambia County**

January 28, 2020

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2. **Facility Fact Sheet**
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 - Appendix A – MSDS/Safety Data Sheets**
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 - Appendix D – Marley Cooling Tower**

FACILITY FACT SHEET

**BREITBURN OPERATING LP
FLOMATON NITROGEN GENERATION FACILITY
FLOMATON (ESCAMBIA COUNTY) ALABAMA**

PROPERTY DESCRIPTION

Breitburn Operating LP (Breitburn) owns a 59.0 acre plot along Van Hoosen Road, located approximately 1 mile south of Route 31, near Flomaton, Alabama. This facility was acquired from Air Products in 2007. All equipment and processes are confined to a 6.5 acre parcel located in the Southeast corner of the property. (Refer to attached topographical/aerial maps)

- **Location of Outfall 1 : Process Wastewater**

The process wastewater flow is directed offsite at the northeast corner of the developed area, via underground pipe, where it discharges into an unnamed tributary to Big Escambia Creek.

- **Location of Outfall 2 : Stormwater Runoff**

An interconnected system of 5 storm water catch basins is located within the air separation process area. These basins collect rainwater from gravel areas (approximately 75,000 SF) that are not subject to oil/chemical contamination. This non-contaminated stormwater is conveyed from the southeast corner of the developed area, via underground pipe, for discharge at grade onto the undeveloped area of Breitburn's property.

- **Location of Outfall 3 : Process Wastewater**

- The process wastewater flow is directed offsite at the south corner of the developed area. The wastewater discharge is conveyed thru approximately 2,400 LF of 8" HDPE pipe that runs parallel to the east side Van Hoosen Road. The 8" HDPE pipe discharges directly into Big Escambia Creek.

PRODUCTION INFORMATION

This industrial facility produces nitrogen gas via the cryogenic separation of ambient air. Two (2) parallel nitrogen generation plants each produce 17 MMSCFD, for a total of 34 MMSCFD of pure nitrogen gas. Using the conversion factor of 1 SCF Nitrogen = 13.8 lbs Nitrogen, the facility can manufacture up to 2,463,768 lbs/day of nitrogen. The nitrogen is sent via pipeline to Breitburn's St. Regis Treating Facility and Jay Gas Plant located in Jay, Florida. Liquid Nitrogen (LN) is also produced at the facility and is stored onsite (9,300 gal) for periodic tanker transport to a customer. This facility operates 24 hours a day, 7 days/week and 52 weeks/year.

COOLING WATER SYSTEM

Typically, 79% of the average of .029 MGD at Outfall 1 discharge consists of cooling water blowdown. An 11,000 GPM recirculation, open tower, cooling system provides noncontact cooling for the entire air separation process. Nearly 0.162 MGD of cooling water evaporates to the atmosphere through the cooling tower. The system requires an average of 0.185 MGD of makeup water.

WELL WATER

Cooling water, equipment wash water and general water usage is supplied by 2 onsite water wells, designated as "A" and "B". Typically, one well will be online for 6 months, while the other is offline. A single well is always in operation to meet the 0.185 MGD demand for cooling water makeup. The Office of Water Resources (OWR), under Certificate Number 0029, recognizes both wells. Annual ground water withdrawal reports are forwarded to the OWR.

- **Water Well "A"**
Well A is located within the southwest corner of the developed area of the plant site. It has a depth of 186 feet.
- **Water Well "B"**
Well B is located within the northwest corner of the developed area of the plant site. It has a depth of 192 feet.

CITY WATER

Potable water is provided by the City of Flomaton for potable/sanitary use.

SANITARY WASTEWATER

Sanitary Wastewater is discharged offsite into the City of Flomaton's wastewater collection system.

OIL/WATER SEPARATORS

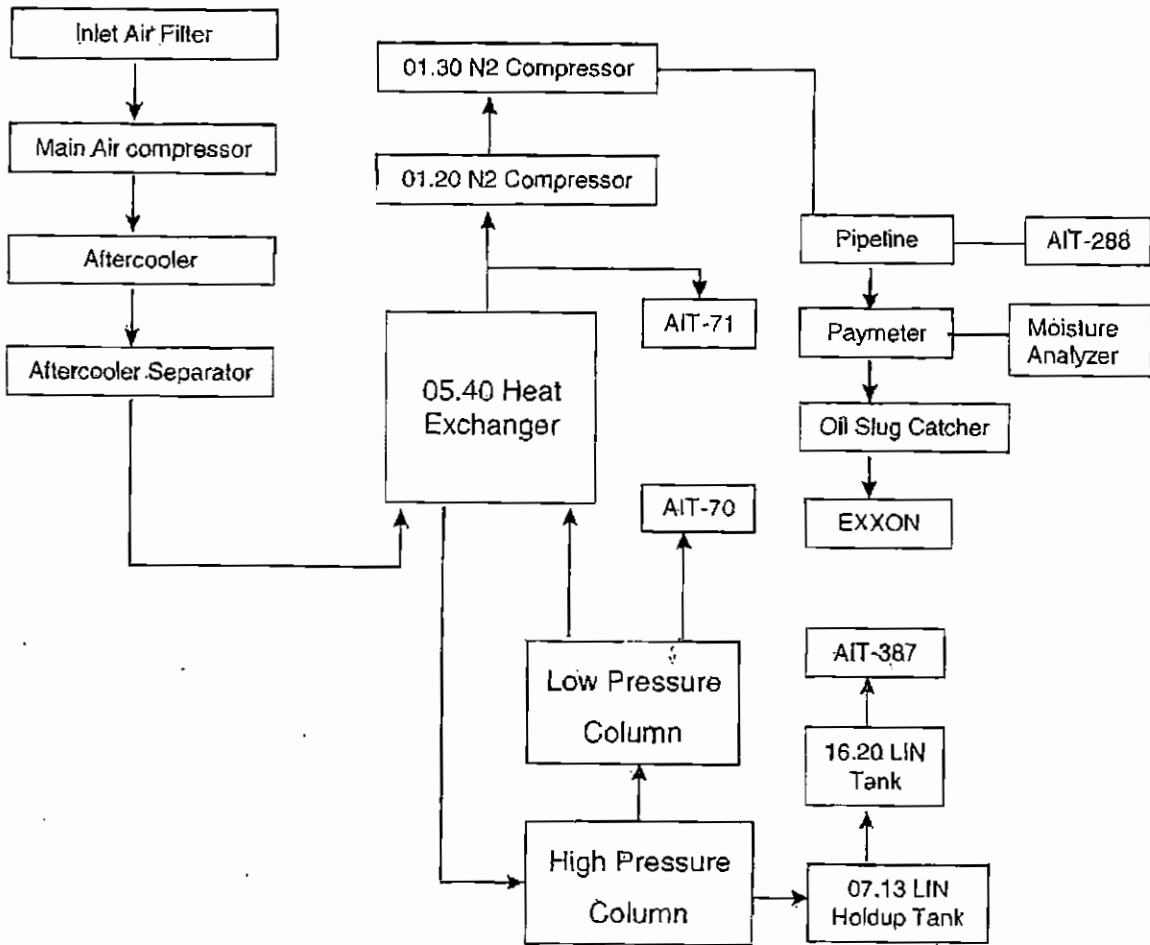
There are two (2) oil/water separators onsite. They function to prevent the discharge of bulk oils through Outfall 001

- **Process Area/Oil Storage Area**
An AFL Industries 300 GPM gravity induced, coalescing tube, oil/water separator treats approximately 4,800 SF of process equipment pad rainwater runoff. The unit also receives equipment wash water, compressor condensate and acts as a containment device to capture any oil spills and leakage from equipment and oil storage areas. The separator is designed to produce an effluent containing less than 15 mg/L of Oil and Grease. The effluent is directed with other process related wastewaters to Outfall 001. Oil removed from the separator is sent to an offsite oil recycler. Up to 2,500 gallons/year may be removed from the separator.
- **Motor/Pumps Building**
An empty 140 gallon diesel fuel tank is located in the motor/pumps building. The diesel fuel was used to power an emergency firewater pump. This pump is out of service and scheduled for removal at a future date. The building's floor drain is directed into an oil trap manhole. The manhole acts as a contingency containment device to capture diesel spills. While fuel would be retained in the manhole, water would pass through for subsequent discharge to Outfall 001

FLOMATON SITE WORK INSTRUCTIONS MANUAL (S.W.I.M.)

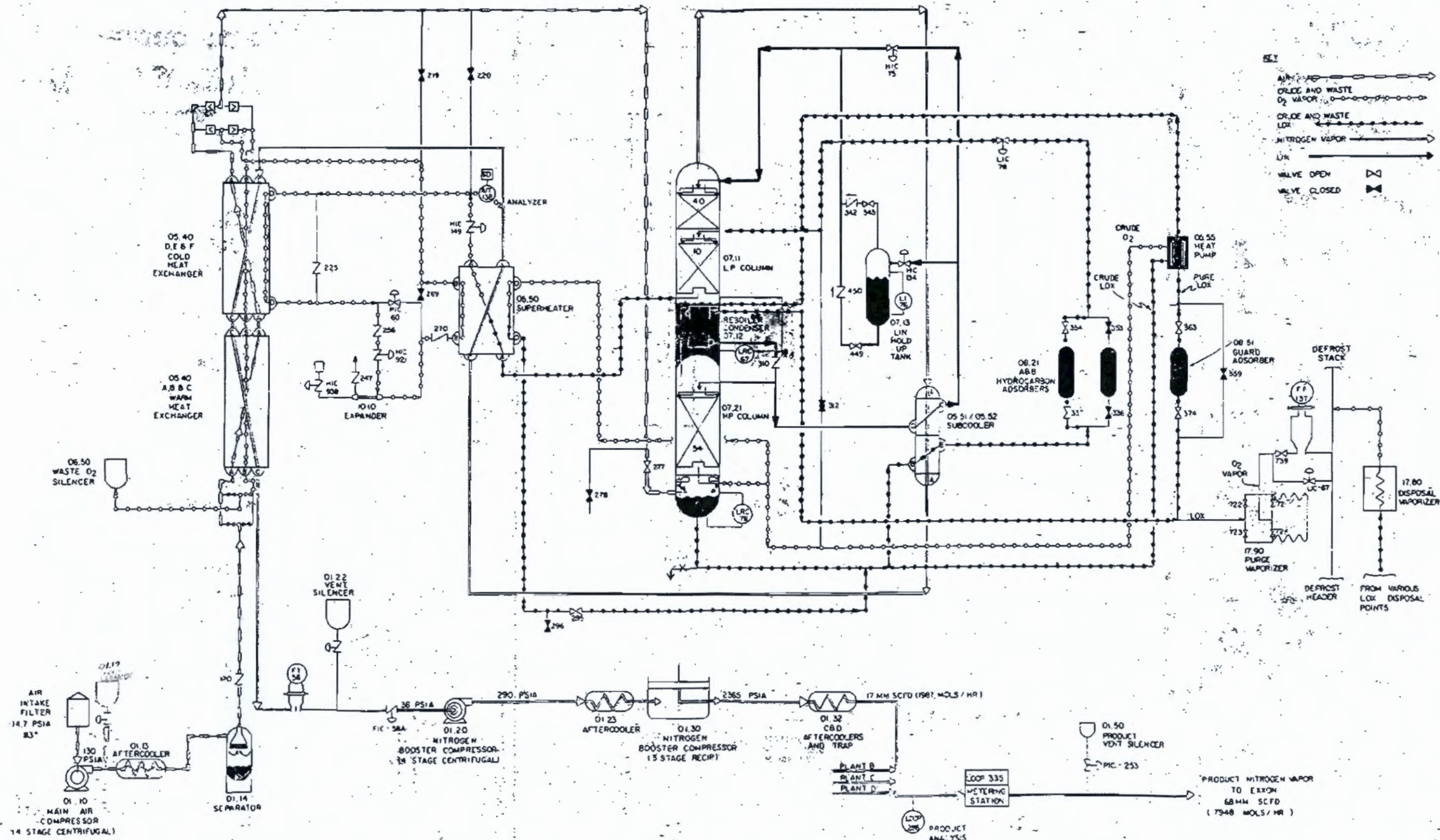
<p>SIMPLIFIED FLOW SHEET N₂ GENERATING FACILITY</p>	<p>NM-90016 Revision 1 Original Issue Date: 3/11/93 Revision Date: 05/05/05 Page 1 of 1</p>
---------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------

Flow Sheet for A, B, And C Plants



<p>PREPARED BY: <i>S. R. Bankston</i> S. R. Bankston</p>	<p>APPROVED BY: <i>G. J. Gray</i> G. J. Gray</p>
------------------------------------------------------------------	----------------------------------------------------------

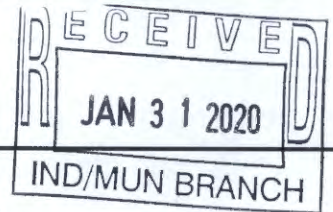
SIMPLIFIED FLOWSHEET
 PLANT A, 17 MM SCFD NITROGEN
 (PLANTS B, C & D ARE NEARLY IDENTICAL)
 EXXON (JAY FIELD) FLOMATON, ALABAMA
 00-0-3039



**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES INDIVIDUAL PERMIT APPLICATION
SUPPLEMENTARY INFORMATION FOR INDUSTRIAL FACILITIES**

Instructions: This form should be used to submit the required supplementary information for an application for an NPDES individual permit for industrial facilities. The completed application should be submitted to ADEM 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 not applicable to the applicant. Please type or print legibly in blue or black ink. Mail the completed application to:

ADEM-Water Division
Industrial Section
P O Box 301463
Montgomery, AL 36130-1463



PURPOSE OF THIS APPLICATION

- | | |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Initial Permit Application for New Facility* | <input type="checkbox"/> Initial Permit Application for Existing Facility* |
| <input type="checkbox"/> Modification of Existing Permit | <input checked="" type="checkbox"/> Reissuance of Existing Permit |
| <input type="checkbox"/> Revocation & Reissuance of Existing Permit | * An application for participation in the ADEM's Electronic Environmental (E2) Reporting must be submitted to allow permittee to electronically submit reports as required. |

SECTION A - GENERAL INFORMATION

- Facility Name: FLOMATON NITROGEN GENERATION FACILITY
 - Operator Name: _____
 - Is the operator identified in A.1.a, the owner of the facility? Yes No
If no, provide name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

- NPDES Permit Number: AL 0 0 7 9 5 2 9 (not applicable if initial permit application)
- SID Permit Number (if applicable): IU _____ - _____ - _____
- NPDES General Permit Number (if applicable): ALG _____
- Facility Physical Location: (Attach a map with location marked; street, route no. or other specific identifier)
Street: 1030 VAN HOUSEN ROAD
City: FLOMATON County: ESCAMBIA State: AL Zip: 36441
Facility Location (Front Gate): Latitude: 31.009225 Longitude: -87.242126
- Facility Mailing Address: PO BOX 889
City: JAY County: SANTA ROSA State: FL Zip: 32565
- Responsible Official (as described on the last page of this application):
Name and Title: MR. AUSTIN TRAMELL, HSE MANAGER
Address: 1111 BAGBY ST., SUITE 1600
City: HOUSTON State: TEXAS Zip: 77002
Phone Number: 713-437-8000 Email Address: Austin.Tramell@mavresources.com
- Designated Facility Contact:
Name and Title: MR. LARRY DILMORE, HSE ADVISOR II
Phone Number: 850-675-1735 Email Address: Larry.Dilmore@mavresources.com

9. Designated Discharge Monitoring Report (DMR) Contact:

Name and Title: MR. LARRY DILMORE, HSE ADVISOR III
Phone Number: 850-675-1735 Email Address: Larry.Dilmore@mavresources.com

10. Type of Business Entity:

- Corporation General Partnership Limited Partnership Limited Liability Company Sole Proprietorship
 Other (Please Specify) _____

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

a) Location of Incorporation:

Address: 1111 BAGBY ST., SUITE 1600
City: HOUSTON County: HARRIS State: TEXAS Zip: 77002

b) Parent Corporation of Applicant:

Name: MAVERICK NATURAL RESOURCES, LLC
Address: 1111 BAGBY ST., SUITE 1600
City: HOUSTON State: TEXAS Zip: 77002

c) Subsidiary Corporation(s) of Applicant:

Name: _____
Address: _____
City: _____ State: _____ Zip: _____

d) Corporate Officers:

Name: MR. GREET GATLIN, SENIOR VICE PRESIDENT OF OPERATIONS
Address: 1111 BAGBY ST., SUITE 1600
City: HOUSTON State: TX Zip: 77002

Name: _____
Address: _____
City: _____ State: _____ Zip: _____

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: _____ Name: _____
Address: _____ Address: _____
City: _____ State: _____ Zip: _____ 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:

<u>Permit Name</u>	<u>Permit Number</u>	<u>Held By</u>
FLOMATON NITROGEN GENERATION FACILITY	AL0079529	BREITBURN OPERATING LP
_____	_____	_____
_____	_____	_____
_____	_____	_____

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):

<u>Facility Name</u>	<u>Permit Number</u>	<u>Type of Action</u>	<u>Date of Action</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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. 2813 INDUSTRIAL GASES
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____

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

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

THIS FACILITY PRODUCES NITROGEN GAS VIA THE CRYOGENIC SEPARATION OF AMBIENT AIR. TWO (2) PARALLEL NITROGEN GENERATION PLANTS EACH PRODUCE 17 MMSCFD, FOR A TOTAL OF 34 MMSCFD OF PURE NITROGEN GAS. USING THE CONVERSION 1 SCF = 13.8 LBS NITROGEN, THE FACILITY MANUFACTURES AND ESTIMATED 2,463,768 LBS/DAY OF NITROGEN. SEE ATTACHED FACILITY FACT SHEET.

SECTION C – WASTEWATER DISCHARGE INFORMATION

Facilities that checked activities in B.2 and are considered Categorical Industrial Users should skip to C.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), enter the description that corresponds to each process. **(The flow schematic should include all treatment units as well as monitoring and discharge points).** [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)
NITROGEN PRODUCTION	INORGANIC CHEMICAL MANUFACTURING	AW-OXYGEN & NITROGEN PRODUCTION	CONTINUOUS
_____	_____	_____	_____

2b.

Process Description	Last 12 Months (gals/day), (lbs/day), etc. Highest Month Average*	Highest Flow Year of Last 5 (gals/day), (lbs/day), etc. Monthly Average*	Discharge Type (batch, continuous, intermittent)
NITROGEN PRODUCTION	2,463,768 LBS/DAY	2,378,500 LBS/DAY	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 _____ at _____
(days of week) (hours of day)
- d. Flow rate: _____ gallons/minute
- e. 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 _____ at _____
(days of week) (hours of day)
- d. Flow rate: _____ gallons/minute
- e. 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
_____	_____	_____
_____	_____	_____

All Applicants must complete C.3 – C.6.

3. Do you share an outfall with another facility? Yes No (If no, continue to C.4)

For each shared outfall, provide the following:

Applicant's Outfall No.	Name of Other Permittee/Facility	NPDES Permit No.	Where is sample collected by Applicant?
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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

- Current:**
 - Flow Metering Yes No N/A
 - Sampling Equipment Yes No N/A
- Planned:**
 - Flow Metering Yes No N/A
 - Sampling Equipment Yes No N/A

If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

5. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics?
 Yes No (If no, continue to C.6)

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

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

Trade Name	Chemical Composition
PhosZero 1500	SEE ATTACHED MSDS SHEETS
Biotrol 12.5	SEE ABOVE

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 Surface Water
 Municipal Water Utility (Specify City): Other (Specify): FLOMATON, AL

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

City: 0.185 MGD* Well: _____ MGD* Well Depth: _____ Ft. Latitude: _____ Longitude: _____

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 D.1 and D.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: CITY OF FLOMATON b) Location of Provider: FLOMATON, ALABAMA
 c) Latitude: 31.00182 Longitude: -87.260807

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 D.6 – D.17)
6. a. Is the cooling water used in a once-through cooling system? Yes No
 b. Is the cooling water used in a 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. What is the actual intake flow (AIF) as defined in 40 CFR §125.92(a)? _____ MGD
11. How is the intake operated? (e.g., continuously, intermittently, batch) _____
12. What is the mesh size of the screen on your intake? _____
13. What is the intake screen flow-through area? _____
14. What is the through-screen design intake flow velocity? _____ ft/sec
15. What is the through-screen actual velocity (in ft/sec)? _____ ft/sec
16. What is the mechanism for cleaning the screen? (e.g., does it rotate for cleaning) _____
17. Do you have any additional fish detraction technology on your intake? Yes No
18. Have there been any studies to determine the impact of the intake on aquatic organisms? Yes No (If yes, please provide.)
19. 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 LUBE OIL	(2) - 500 GALLON TANKS - ABOVE GROUND
USED PETROLEUM NAPHTHA	PARTS WASHER - APPROXIMATELY 35 GALLONS

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*
USED LUBE OIL	42 LBS/ DAY	RECYCLE/ DISPOSE OFFSITE
USED PETROLEM NAPHTHA	2 LBS/ DAY	RECYCLE/ DISPOST OFFSITE

*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 the 10-foot elevation contour and within the limits of Mobile or Baldwin County? Yes No
If yes, complete items F.1 – F.12:

- | | Yes | No |
|-------------------------------------------------------------|--------------------------|--------------------------|
| 1. Does the project require new construction? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Will the project be a source of new air emissions? | <input type="checkbox"/> | <input type="checkbox"/> |

	Yes	No
3. Does the project involve dredging and/or filling of a wetland area or water way?	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, has the Corps of Engineers (COE) permit been received?	<input type="checkbox"/>	<input type="checkbox"/>
COE Project No. _____		
4. Does the project involve wetlands and/or submersed grassbeds?	<input type="checkbox"/>	<input type="checkbox"/>
5. Are oyster reefs located near the project site?	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, include a map showing project and discharge location with respect to oyster reefs		
6. Does the project involve the site development, construction and operation of an energy facility as defined in ADEM Admin. Code r. 335-8-1-.02(bb)?	<input type="checkbox"/>	<input type="checkbox"/>
7. Does the project involve mitigation of shoreline or coastal area erosion?	<input type="checkbox"/>	<input type="checkbox"/>
8. Does the project involve construction on beaches or dune areas?	<input type="checkbox"/>	<input type="checkbox"/>
9. Will the project interfere with public access to coastal waters?	<input type="checkbox"/>	<input type="checkbox"/>
10. Does the project lie within the 100-year floodplain?	<input type="checkbox"/>	<input type="checkbox"/>
11. Does the project involve the registration, sale, use, or application of pesticides?	<input type="checkbox"/>	<input type="checkbox"/>
12. Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)?	<input type="checkbox"/>	<input type="checkbox"/>
If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	<input type="checkbox"/>	<input type="checkbox"/>

SECTION G – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR §131.12 and the ADEM Admin. Code r. 335-6-10-.04 for anti-degradation, 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 G.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 G.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 G.2.A – G.2.F below and ADEM Forms 311 and 313 (attached). ADEM 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. The EPA application forms are found on the Department’s website at <http://www.adem.alabama.gov/programs/water/waterforms.cnt> . 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

Outfall No.	Receiving Water(s)	303(d) Segment?		Included in TMDL?*	
	BIG ESCAMBIA CREEK	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

*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 Code r. 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."

Signature of Responsible Official:  Date Signed: 01/24/2020

Name and Title: AUSTIN TRAMELL, HSE MANAGER; Austin.Trammell@Mavresources.com

If the Responsible Official signing this application is not identified in Section A.7, provide the following information:


Mailing Address: 1111 BAGBY ST., SUITE 1600

City: HOUSTON State: TEXAS Zip: 77002

Phone Number: 713-437-8000 Email Address: _____

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.

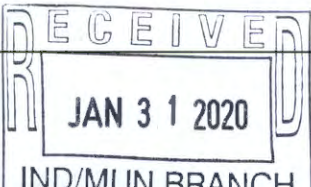
Form 1 NPDES		U.S. Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater GENERAL INFORMATION
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SECTION 1. ACTIVITIES REQUIRING AN NPDES PERMIT (40 CFR 122.21(f) and (f)(1))

Activities Requiring an NPDES Permit	1.1 Applicants Not Required to Submit Form 1	
	1.1.1	Is the facility a new or existing publicly owned treatment works ? If yes, STOP. Do NOT complete Form 1. Complete Form 2A. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	1.1.2	Is the facility a new or existing treatment works treating domestic sewage ? If yes, STOP. Do NOT complete Form 1. Complete Form 2S. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	1.2 Applicants Required to Submit Form 1	
	1.2.1	Is the facility a concentrated animal feeding operation or a concentrated aquatic animal production facility ? <input type="checkbox"/> Yes → Complete Form 1 and Form 2B. <input checked="" type="checkbox"/> No
	1.2.2	Is the facility an existing manufacturing, commercial, mining, or silvicultural facility that is currently discharging process wastewater ? <input checked="" type="checkbox"/> Yes → Complete Form 1 and Form 2C. <input type="checkbox"/> No
1.2.3	Is the facility a new manufacturing, commercial, mining, or silvicultural facility that has not yet commenced to discharge ? <input type="checkbox"/> Yes → Complete Form 1 and Form 2D. <input checked="" type="checkbox"/> No	
1.2.4	Is the facility a new or existing manufacturing, commercial, mining, or silvicultural facility that discharges only nonprocess wastewater ? <input type="checkbox"/> Yes → Complete Form 1 and Form 2E. <input checked="" type="checkbox"/> No	
1.2.5	Is the facility a new or existing facility whose discharge is composed entirely of stormwater associated with industrial activity or whose discharge is composed of both stormwater and non-stormwater ? <input checked="" type="checkbox"/> Yes → Complete Form 1 and Form 2F unless exempted by 40 CFR 122.26(b)(14)(x) or (b)(15). <input type="checkbox"/> No	

SECTION 2. NAME, MAILING ADDRESS, AND LOCATION (40 CFR 122.21(f)(2))

Name, Mailing Address, and Location	2.1 Facility Name		
	FLOMATON NITROGEN GENERATION FACILITY		
	2.2 EPA Identification Number		
	2.3 Facility Contact		
		Name (first and last)	Title
	LARRY DILMORE	HSE ADVISOR III	(850) 675-1735
	Email address Larry.Dilmore@mavresources.com		
2.4 Facility Mailing Address			
Street or P.O. box PO BOX 889			
	City or town JAY	State FL	ZIP code 32565



Name, Mailing Address, and Location Continued	2.5	Facility Location		
	Street, route number, or other specific identifier 1030 VAN HOUSEN ROAD			
	County name ESCAMBIA		County code (if known)	
	City or town FLOMATON		State AL	ZIP code 36441

SECTION 3. SIC AND NAICS CODES (40 CFR 122.21(f)(3))

SIC and NAICS Codes	3.1	SIC Code(s)		Description (optional)
		2813		INDUSTRIAL GASES - NITROGEN
	3.2	NAICS Code(s)		Description (optional)

SECTION 4. OPERATOR INFORMATION (40 CFR 122.21(f)(4))

Operator Information	4.1	Name of Operator		
	BREITBURN OPERATING LP			
	4.2	Is the name you listed in Item 4.1 also the owner? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
	4.3	Operator Status <input type="checkbox"/> Public—federal <input type="checkbox"/> Public—state <input type="checkbox"/> Other public (specify) _____ <input checked="" type="checkbox"/> Private <input type="checkbox"/> Other (specify) _____		
4.4	Phone Number of Operator			
	(713) 437-8000			

Operator Information Continued	4.5	Operator Address		
	Street or P.O. Box 1111 BAGBY ST., SUITE 1600			
	City or town HOUSTON		State TEXAS	ZIP code 77002
Email address of operator AUSTIN.TRAMELL@MAVRESOURCES.COM				

SECTION 5. INDIAN LAND (40 CFR 122.21(f)(5))

Indian Land	5.1	Is the facility located on Indian Land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
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EPA Identification Number	NPDES Permit Number AL 0079529	Facility Name FLOMATON N GENERATION
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SECTION 6. EXISTING ENVIRONMENTAL PERMITS (40 CFR 122.21(f)(6))

Existing Environmental Permits	6.1	Existing Environmental Permits (check all that apply and print or type the corresponding permit number for each)				
	<input checked="" type="checkbox"/>	NPDES (discharges to surface water)	<input type="checkbox"/>	RCRA (hazardous wastes)	<input type="checkbox"/>	UIC (underground injection of fluids)
	<input type="checkbox"/>	PSD (air emissions)	<input type="checkbox"/>	Nonattainment program (CAA)	<input type="checkbox"/>	NESHAPs (CAA)
<input type="checkbox"/>	Ocean dumping (MPRSA)	<input type="checkbox"/>	Dredge or fill (CWA Section 404)	<input type="checkbox"/>	Other (specify)	

SECTION 7. MAP (40 CFR 122.21(f)(7))

Map	7.1	Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> CAFO—Not Applicable (See requirements in Form 2B.)
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SECTION 8. NATURE OF BUSINESS (40 CFR 122.21(f)(8))

Nature of Business	8.1	Describe the nature of your business. THIS INDUSTRIAL FACILITY PRODUCES NITROGEN GAS VIA THE CRYOGENIC SEPERATION OF AMBIENT AIR. TWO (2) PARALLEL NITROGEN GENERATION PLANTS EACH PRODUCE 17 MMSCFD FOR A TOTAL OF 34 MMSCFD OF PURE NITROGEN GAS. USING THE CONVERSTION FACTOR OF 1 SCF NITROGEN = 13.8 LBS NITROGEN, THE FACILITY CAN MANUFACTURE UP TO 2,463,768 LBS/DAY OF NITROGEN. THE NITROGEN IS SENT VIA PIPELINE TO THE BREITBURN - ST. REGIS FACILITY AND JAY GAS PLANT LOCATED IN JAY,FL. THIS FACILITY OPERATES 24 HOURS/DAY, 7 DAYS/WEEK AND 52 WEEKS PER YEAR.
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SECTION 9. COOLING WATER INTAKE STRUCTURES (40 CFR 122.21(f)(9))

Cooling Water Intake Structures	9.1	Does your facility use cooling water? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 10.1.
	9.2	Identify the source of cooling water. (Note that facilities that use a cooling water intake structure as described at 40 CFR 125, Subparts I and J may have additional application requirements at 40 CFR 122.21(r). Consult with your NPDES permitting authority to determine what specific information needs to be submitted and when.) CITY OF FLOMATON - WATER SYSTEM

SECTION 10. VARIANCE REQUESTS (40 CFR 122.21(f)(10))

Variance Requests	10.1	Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(m)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)
	<input type="checkbox"/>	Fundamentally different factors (CWA Section 301(n))
	<input type="checkbox"/>	Non-conventional pollutants (CWA Section 301(c) and (g))
	<input checked="" type="checkbox"/>	Not applicable
	<input type="checkbox"/>	Water quality related effluent limitations (CWA Section 302(b)(2))
	<input type="checkbox"/>	Thermal discharges (CWA Section 316(a))

EPA Identification Number

NPDES Permit Number


Facility Name

Form Approved 03/05/19
OMB No. 2040-0004

AL 0079529

FLOMATON N GENERATION

SECTION 11. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement	11.1	In Column 1 below, mark the sections of Form 1 that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.	
		Column 1	Column 2
	<input checked="" type="checkbox"/>	Section 1: Activities Requiring an NPDES Permit	<input checked="" type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 2: Name, Mailing Address, and Location	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 3: SIC Codes	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 4: Operator Information	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 5: Indian Land	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 6: Existing Environmental Permits	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 7: Map	<input checked="" type="checkbox"/> w/ topographic map <input type="checkbox"/> w/ additional attachments
	<input checked="" type="checkbox"/>	Section 8: Nature of Business	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 9: Cooling Water Intake Structures	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 10: Variance Requests	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 11: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments
11.2	Certification Statement		
	<i>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>		
	Name (print or type first and last name) AUSTIN TRAMELL	Official title HSE MANAGER	
	Signature 	Date signed 01/24/2010	

Form 2C NPDES		U.S. Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURE OPERATIONS
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SECTION 1. OUTFALL LOCATION (40 CFR 122.21(g)(1))

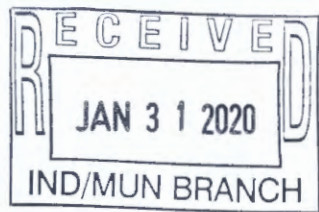
Outfall Location	1.1	Provide information on each of the facility's outfalls in the table below.			
		Outfall Number	Receiving Water Name	Latitude	Longitude
		DSN0003	Big Escambia Creek(BEC)	31° 00' 32.47" N	87° 14' 33.64" W
		DSN0002	Unnamed Tributary to BEC	31° 00' 21.64" N	87° 14' 39.81" W
		DSN0001	Unnamed Tributary to BEC	31° 00' 2.32" N	87° 14' 51.98" W

SECTION 2. LINE DRAWING (40 CFR 122.21(g)(2))

Line Drawing	2.1	Have you attached a line drawing to this application that shows the water flow through your facility with a water balance? (See instructions for drawing requirements. See Exhibit 2C-1 at end of instructions for example.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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SECTION 3. AVERAGE FLOWS AND TREATMENT (40 CFR 122.21(g)(3))

Average Flows and Treatment	3.1	For each outfall identified under Item 1.1, provide average flow and treatment information. Add additional sheets if necessary.		
		Outfall Number <u>DSN003</u>		
		Operations Contributing to Flow		
		Operation	Average Flow	
		1. COOLING TOWER BLOWDOWN	.022 mgd	
		2. COMPRESSOR CONDENSATE	.004 mgd	
		3. STORMWATER	.0005 mgd	
		4. EQUIPMENT WASHER ; 5.LAB SINK=.000010 mgd	.000075 mgd	
		Treatment Units		
		Description (include size, flow rate through each treatment unit, retention time, etc.)	Code from Table 2C-1	Final Disposal of Solid or Liquid Wastes Other Than by Discharge
	1. CHEMICAL OXIDATION	2-B		
	2-4. FLOTATION - OIL AND GREASE SEPERATION	1-H		
	5. NONE	-		



Average Flows and Treatment Continued

3.1
cont.

****Outfall Number**** DSN002

Operations Contributing to Flow

Operation	Average Flow
1. COOLING TOWER BLOWDOWN	0 mgd
2. COMPRESSOR CONDENSATE	0 mgd
3. STORMWATER	0 mgd
4. EQUIPMENT WASHER ; 5.LAB SINK	0 mgd

Treatment Units

Description (include size, flow rate through each treatment unit, retention time, etc.)	Code from Table 2C-1	Final Disposal of Solid or Liquid Wastes Other Than by Discharge
1. CHEMICAL OXIDATION	2-B	
2-4. FLOTATION - OIL AND GREASE SEPERATION	1-H	
5. NONE	-	

****Outfall Number**** DSN001

Operations Contributing to Flow

Operation	Average Flow
1. COOLING TOWER BLOWDOWN	0 mgd
2. COMPRESSOR CONDENSATE	0 mgd
3. STORMWATER	0 mgd
4. EQUIPMENT WASHER ; 5.LAB SINK	0 mgd

Treatment Units

Description (include size, flow rate through each treatment unit, retention time, etc.)	Code from Table 2C-1	Final Disposal of Solid or Liquid Wastes Other Than by Discharge
1. CHEMICAL OXIDATION	2-B	
2-4. FLOTATION - OIL AND GREASE SEPERATION	1-H	
5. NONE	-	

System Users

3.2

Are you applying for an NPDES permit to operate a privately owned treatment works?
 Yes No → SKIP to Section 4.

3.3

Have you attached a list that identifies each user of the treatment works?
 Yes No

SECTION 4. INTERMITTENT FLOWS (40 CFR 122.21(g)(4))

Intermittent Flows	4.1	Except for storm runoff, leaks, or spills, are any discharges described in Sections 1 and 3 intermittent or seasonal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 5.						
	4.2	Provide information on intermittent or seasonal flows for each applicable outfall. Attach additional pages, if necessary.						
		Outfall Number	Operation (list)	Frequency		Flow Rate		Duration
				Average Days/Week	Average Months/Year	Long-Term Average	Maximum Daily	
				days/week	months/year	mgd	mgd	days
				days/week	months/year	mgd	mgd	days
				days/week	months/year	mgd	mgd	days
				days/week	months/year	mgd	mgd	days
				days/week	months/year	mgd	mgd	days
				days/week	months/year	mgd	mgd	days

SECTION 5. PRODUCTION (40 CFR 122.21(g)(5))

Applicable ELGs	5.1	Do any effluent limitation guidelines (ELGs) promulgated by EPA under Section 304 of the CWA apply to your facility? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 6.		
	5.2	Provide the following information on applicable ELGs.		
		ELG Category	ELG Subcategory	Regulatory Citation
		INORGANIC CHEMICALS	OXYGEN AND NITROGEN PRODUCTION	415.490
	MANUFACTURING POINT SOURCE			
Production-Based Limitations	5.3	Are any of the applicable ELGs expressed in terms of production (or other measure of operation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 6.		
	5.4	Provide an actual measure of daily production expressed in terms and units of applicable ELGs.		
		Outfall Number	Operation, Product, or Material	Quantity per Day
		DSN003	NITROGEN PRODUCTION	2,463

SECTION 6. IMPROVEMENTS (40 CFR 122.21(g)(6))

Upgrades and Improvements

6.1 Are you presently required by any federal, state, or local authority to meet an implementation schedule for constructing, upgrading, or operating wastewater treatment equipment or practices or any other environmental programs that could affect the discharges described in this application?
 Yes No → SKIP to Item 6.3.

6.2 Briefly identify each applicable project in the table below.

Brief Identification and Description of Project	Affected Outfalls (list outfall number)	Source(s) of Discharge	Final Compliance Dates	
			Required	Projected

6.3 Have you attached sheets describing any additional water pollution control programs (or other environmental projects that may affect your discharges) that you now have underway or planned? (optional item)
 Yes No Not applicable

SECTION 7. EFFLUENT AND INTAKE CHARACTERISTICS (40 CFR 122.21(g)(7))

Effluent and Intake Characteristics

See the instructions to determine the pollutants and parameters you are required to monitor and, in turn, the tables you must complete. Not all applicants need to complete each table.

Table A. Conventional and Non-Conventional Pollutants

7.1 Are you requesting a waiver from your NPDES permitting authority for one or more of the Table A pollutants for any of your outfalls?
 Yes No → SKIP to Item 7.3.

7.2 If yes, indicate the applicable outfalls below. Attach waiver request and other required information to the application.
 Outfall Number _____ Outfall Number _____ Outfall Number _____

7.3 Have you completed monitoring for all Table A pollutants at each of your outfalls for which a waiver has not been requested and attached the results to this application package?
 Yes No; a waiver has been requested from my NPDES permitting authority for all pollutants at all outfalls.

Table B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants

7.4 Do any of the facility's processes that contribute wastewater fall into one or more of the primary industry categories listed in Exhibit 2C-3? (See end of instructions for exhibit.)
 Yes No → SKIP to Item 7.8.

7.5 Have you checked "Testing Required" for all toxic metals, cyanide, and total phenols in Section 1 of Table B?
 Yes No

7.6 List the applicable primary industry categories and check the boxes indicating the required GC/MS fraction(s) identified in Exhibit 2C-3.

Primary Industry Category	Required GC/MS Fraction(s) (Check applicable boxes.)			
INORGANIC CHEMICALS MANUFACTURING	<input checked="" type="checkbox"/> Volatile	<input checked="" type="checkbox"/> Acid	<input checked="" type="checkbox"/> Base/Neutral	<input type="checkbox"/> Pesticide
	<input type="checkbox"/> Volatile	<input type="checkbox"/> Acid	<input type="checkbox"/> Base/Neutral	<input type="checkbox"/> Pesticide
	<input type="checkbox"/> Volatile	<input type="checkbox"/> Acid	<input type="checkbox"/> Base/Neutral	<input type="checkbox"/> Pesticide

EPA Identification Number		NPDES Permit Number AL0079529		Facility Name FLOMATON N GENERATION		Form Approved 03/05/19 OMB No. 2040-0004		
Effluent and Intake Characteristics Continued	7.7	Have you checked "Testing Required" for all required pollutants in Sections 2 through 5 of Table B for each of the GC/MS fractions checked in Item 7.6? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
	7.8	Have you checked "Believed Present" or "Believed Absent" for all pollutants listed in Sections 1 through 5 of Table B where testing is not required? <input type="checkbox"/> Yes <input type="checkbox"/> No						
	7.9	Have you provided (1) quantitative data for those Section 1, Table B, pollutants for which you have indicated testing is required or (2) quantitative data or other required information for those Section 1, Table B, pollutants that you have indicated are "Believed Present" in your discharge? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
	7.10	Does the applicant qualify for a small business exemption under the criteria specified in the instructions? <input type="checkbox"/> Yes → Note that you qualify at the top of Table B, then SKIP to Item 7.12. <input checked="" type="checkbox"/> No						
	7.11	Have you provided (1) quantitative data for those Sections 2 through 5, Table B, pollutants for which you have determined testing is required or (2) quantitative data or an explanation for those Sections 2 through 5, Table B, pollutants you have indicated are "Believed Present" in your discharge? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
	Table C. Certain Conventional and Non-Conventional Pollutants							
	7.12	Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table C for all outfalls? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
	7.13	Have you completed Table C by providing (1) quantitative data for those pollutants that are limited either directly or indirectly in an ELG and/or (2) quantitative data or an explanation for those pollutants for which you have indicated "Believed Present"? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
	Table D. Certain Hazardous Substances and Asbestos							
	7.14	Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed in Table D for all outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No						
	7.15	Have you completed Table D by (1) describing the reasons the applicable pollutants are expected to be discharged and (2) by providing quantitative data, if available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
	Table E. 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (2,3,7,8-TCDD)							
	7.16	Does the facility use or manufacture one or more of the 2,3,7,8-TCDD congeners listed in the instructions, or do you know or have reason to believe that TCDD is or may be present in the effluent? <input type="checkbox"/> Yes → Complete Table E. <input checked="" type="checkbox"/> No → SKIP to Section 8.						
	7.17	Have you completed Table E by reporting <i>qualitative</i> data for TCDD? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
SECTION 8. USED OR MANUFACTURED TOXICS (40 CFR 122.21(g)(9))								
Used or Manufactured Toxics	8.1	Is any pollutant listed in Table B a substance or a component of a substance used or manufactured at your facility as an intermediate or final product or byproduct? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 9.						
	8.2	List the pollutants below.						
		1.	4.	7.				
		2.	5.	8.				
	3.	6.	9.					

SECTION 9. BIOLOGICAL TOXICITY TESTS (40 CFR 122.21(g)(11))**Biological Toxicity Tests**

9.1 Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made within the last three years on (1) any of your discharges or (2) on a receiving water in relation to your discharge?

 Yes No → SKIP to Section 10.

9.2 Identify the tests and their purposes below.

Test(s)	Purpose of Test(s)	Submitted to NPDES Permitting Authority?		Date Submitted
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	

SECTION 10. CONTRACT ANALYSES (40 CFR 122.21(g)(12))**Contract Analyses**

10.1 Were any of the analyses reported in Section 7 performed by a contract laboratory or consulting firm?

 Yes No → SKIP to Section 11.

10.2 Provide information for each contract laboratory or consulting firm below.

	Laboratory Number 1	Laboratory Number 2	Laboratory Number 3
Name of laboratory/firm	TEST AMERICA		
Laboratory address	3355 McLemore Drive Pensacola, FL 32514		
Phone number	1-850-474-1001		
Pollutant(s) analyzed	oil & grease, CL - Total Residual, Metals, Copper, Molybdenum, Nickel, Zinc, Ammonia, N(Kjeldahl), Phosphate as P, Sulfate, TOC, N(organic), TSS, BOD, COD, Sulfite, pH,		

SECTION 11. ADDITIONAL INFORMATION (40 CFR 122.21(g)(13))**Additional Information**

11.1 Has the NPDES permitting authority requested additional information?

 Yes No → SKIP to Section 12.

11.2 List the information requested and attach it to this application.

1.

4.

2.

5.

3.

6.

SECTION 12. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

12.1	In Column 1 below, mark the sections of Form 2C that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to complete all sections or provide attachments.	
	Column 1	Column 2
<input checked="" type="checkbox"/>	Section 1: Outfall Location	<input checked="" type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/>	Section 2: Line Drawing	<input checked="" type="checkbox"/> w/ line drawing <input type="checkbox"/> w/ additional attachments
<input checked="" type="checkbox"/>	Section 3: Average Flows and Treatment	<input type="checkbox"/> w/ attachments <input type="checkbox"/> w/ list of each user of privately owned treatment works
<input checked="" type="checkbox"/>	Section 4: Intermittent Flows	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/>	Section 5: Production	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/>	Section 6: Improvements	<input type="checkbox"/> w/ attachments <input type="checkbox"/> w/ optional additional sheets describing any additional pollution control plans
<input checked="" type="checkbox"/>	Section 7: Effluent and Intake Characteristics	<input type="checkbox"/> w/ request for a waiver and supporting information <input type="checkbox"/> w/ small business exemption request <input checked="" type="checkbox"/> w/ Table A <input checked="" type="checkbox"/> w/ Table C <input checked="" type="checkbox"/> w/ Table E <input type="checkbox"/> w/ explanation for identical outfalls <input type="checkbox"/> w/ other attachments <input checked="" type="checkbox"/> w/ Table B <input checked="" type="checkbox"/> w/ Table D <input checked="" type="checkbox"/> w/ analytical results as an attachment
<input checked="" type="checkbox"/>	Section 8: Used or Manufactured Toxics	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/>	Section 9: Biological Toxicity Tests	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/>	Section 10: Contract Analyses	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/>	Section 11: Additional Information	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/>	Section 12: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments

12.2 **Certification Statement**

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.

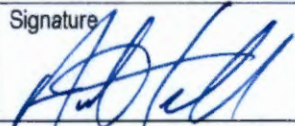
Name (print or type first and last name)

AUSTIN TRAMELL

Official title

HSE MANAGER

Signature



Date signed

02/25/2020

EPA Identification Number	NPDES Permit Number AL0079529	Facility Name FLOMATON N GENERATION	Outfall Number 001
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TABLE A. CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(g)(7)(iii))¹

Pollutant	Waiver Requested (if applicable)	Units (specify)	Effluent				Intake (Optional)	
			Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
<input type="checkbox"/> Check here if you have applied to your NPDES permitting authority for a waiver for <i>all</i> of the pollutants listed on this table for the noted outfall.								
1. Biochemical oxygen demand (BOD ₅)	<input type="checkbox"/>	Concentration	MG/L	4.2			1	
		Mass	LBS/DAY	0.11			1	
2. Chemical oxygen demand (COD)	<input type="checkbox"/>	Concentration	MG/L	21			1	
		Mass	LBS/DAY	0.56			1	
3. Total organic carbon (TOC)	<input type="checkbox"/>	Concentration	MG/L	2.6			1	
		Mass	LBS/DAY	0.07			1	
4. Total suspended solids (TSS)	<input type="checkbox"/>	Concentration	MG/L	5.0			1	
		Mass	LBS/DAY	0.13			1	
5. Ammonia (as N)	<input type="checkbox"/>	Concentration	MG/L	<0.016			1	
		Mass	LBS/DAY	<0.0004			1	
6. Flow	<input type="checkbox"/>	Rate	MGD	.0032			1	
7. Temperature	<input type="checkbox"/>	winter	°C	°C	66 DEG F		1	
		summer	°C	°C	84 DEG F		1	
8. pH	<input type="checkbox"/>	minimum	Standard units	s.u.	7.6		1	
		maximum	Standard units	s.u.	-			

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number AL0079529	Facility Name FLOMATON N GENERATION	Outfall Number 001
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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))¹

Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)	
		Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
<input type="checkbox"/> Check here if you qualify as a small business per the instructions to Form 2C and, therefore, do not need to submit quantitative data for any of the organic toxic pollutants in Sections 2 through 5 of this table. Note, however, that you must still indicate in the appropriate column of this table if you believe any of the pollutants listed are present in your discharge.										

Section 1. Toxic Metals, Cyanide, and Total Phenols

1.1	Antimony, total (7440-36-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
					Mass						
1.2	Arsenic, total (7440-38-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
					Mass						
1.3	Beryllium, total (7440-41-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
					Mass						
1.4	Cadmium, total (7440-43-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
					Mass						
1.5	Chromium, total (7440-47-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
					Mass						
1.6	Copper, total (7440-50-8)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concentration	MG/L	0.067			1	
					Mass	LBS/DAY	0.002			1	
1.7	Lead, total (7439-92-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
					Mass						
1.8	Mercury, total (7439-97-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						
					Mass						
1.9	Nickel, total (7440-02-0)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concentration	MG/L	0.0035			1	
					Mass	LBS/DAY	.00001			1	
1.10	Selenium, total (7782-49-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						
					Mass						
1.11	Silver, total (7440-22-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						
					Mass						

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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))'

Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)		
		Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
1.12 Thallium, total (7440-28-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
1.13 Zinc, total (7440-66-6)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concentration	MG/L	0.017			1		
				Mass	LBS/DAY	0.005			1		
1.14 Cyanide, total (57-12-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
1.15 Phenols, total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							

Section 2. Organic Toxic Pollutants (GC/MS Fraction—Volatile Compounds)

2.1 Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.2 Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.3 Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.4 Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.5 Carbon tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.6 Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.7 Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.8 Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							

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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))¹

Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)		
		Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
2.9 2-chloroethylvinyl ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.10 Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.11 Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.12 1,1-dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.13 1,2-dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.14 1,1-dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.15 1,2-dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.16 1,3-dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.17 Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.18 Methyl bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.19 Methyl chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.20 Methylene chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							
2.21 1,1,2,2-tetrachloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
				Mass							

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Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)	
		Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
2.22 Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
2.23 Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
2.24 1,2-trans-dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
2.25 1,1,1-trichloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
2.26 1,1,2-trichloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
2.27 Trichloroethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
2.28 Vinyl chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
Section 3. Organic Toxic Pollutants (GC/MS Fraction—Acid Compounds)										
3.1 2-chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
3.2 2,4-dichlorophenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
3.3 2,4-dimethylphenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
3.4 4,6-dinitro-o-cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
3.5 2,4-dinitrophenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						

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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))¹

	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)		
			Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
3.6	2-nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
3.7	4-nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
3.8	p-chloro-m-cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
3.9	Pentachlorophenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
3.10	Phenol (108-95-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
3.11	2,4,6-trichlorophenol (88-05-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
Section 4. Organic Toxic Pollutants (GC/MS Fraction—Base /Neutral Compounds)												
4.1	Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.2	Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.3	Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.4	Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.5	Benzo (a) anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.6	Benzo (a) pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							

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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))¹

	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)		
			Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
4.7	3,4-benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.8	Benzo (ghi) perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.9	Benzo (k) fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.10	Bis (2-chloroethoxy) methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.11	Bis (2-chloroethyl) ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.12	Bis (2-chloroisopropyl) ether (102-80-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.13	Bis (2-ethylhexyl) phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.14	4-bromophenyl phenyl ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.15	Butyl benzyl phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.16	2-chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.17	4-chlorophenyl phenyl ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.18	Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.19	Dibenzo (a,h) anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							

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001Form Approved 03/05/19
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	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)		
			Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
4.20	1,2-dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.21	1,3-dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.22	1,4-dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.23	3,3-dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.24	Diethyl phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.25	Dimethyl phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.26	Di-n-butyl phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.27	2,4-dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.28	2,6-dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.29	Di-n-octyl phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.30	1,2-Diphenylhydrazine (as azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.31	Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.32	Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							

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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))¹

	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)		
			Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
4.33	Hexachlorobenzene (118-74-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.34	Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.35	Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.36	Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.37	Indeno (1,2,3-cd) pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.38	Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.39	Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.40	Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.41	N-nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.42	N-nitrosodi-n-propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.43	N-nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.44	Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
4.45	Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							

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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))¹

	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)		
			Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
4.46	1,2,4-trichlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
Section 5. Organic Toxic Pollutants (GC/MS Fraction—Pesticides)												
5.1	Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.2	α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.3	β-BHC (319-85-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.4	γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.5	δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.6	Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.7	4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.8	4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.9	4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.10	Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.11	α-endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							

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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))¹

	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)		
			Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
5.12	β-endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.13	Endosulfan sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.14	Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.15	Endrin aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.16	Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.17	Heptachlor epoxide (1024-57-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.18	PCB-1242 (53469-21-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.19	PCB-1254 (11097-69-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.20	PCB-1221 (11104-28-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.21	PCB-1232 (11141-16-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.22	PCB-1248 (12672-29-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.23	PCB-1260 (11096-82-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							
5.24	PCB-1016 (12674-11-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration							
					Mass							

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TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(g)(7)(v))¹

Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence (check one)		Units (specify)	Effluent				Intake (optional)	
		Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
5.25 Toxaphene (8001-35-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE C. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(g)(7)(vi))¹

Pollutant	Presence or Absence (check one)		Units (specify)	Effluent				Intake (Optional)	
	Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
<input type="checkbox"/> Check here if you believe all pollutants on Table C to be present in your discharge from the noted outfall. You need <i>not</i> complete the "Presence or Absence" column of Table C for each pollutant.									
<input type="checkbox"/> Check here if you believe all pollutants on Table C to be absent in your discharge from the noted outfall. You need <i>not</i> complete the "Presence or Absence" column of Table C for each pollutant.									
1. Bromide (24959-67-9)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
2. Chlorine, total residual	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration	MG/L	<0.01			1	
			Mass	LBS/DAY	0.0003			1	
3. Color	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
4. Fecal coliform	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
5. Fluoride (16984-48-8)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
6. Nitrate-nitrite	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
7. Nitrogen, total organic (as N)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
8. Oil and grease	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concentration	MG/L	<1.2			1	
			Mass	LBS/DAY	0.0003			1	
9. Phosphorus (as P), total (7723-14-0)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concentration	MG/L	0.22			1	
			Mass	LBS/DAY	0.006			1	
10. Sulfate (as SO ₄) (14808-79-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concentration	MG/L	5.4			1	
			Mass	LBS/DAY	0.14			1	
11. Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						

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TABLE C. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(g)(7)(vi))'

	Pollutant	Presence or Absence (check one)		Units (specify)	Effluent				Intake (Optional)	
		Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
12.	Sulfite (as SO ₃) (14265-45-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concentration	MG/L	<5.0			1	
				Mass	LBS/DAY	0.13			1	
13.	Surfactants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
14.	Aluminum, total (7429-90-5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
15.	Barium, total (7440-39-3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
16.	Boron, total (7440-42-8)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
17.	Cobalt, total (7440-48-4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
18.	Iron, total (7439-89-6)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
19.	Magnesium, total (7439-95-4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
20.	Molybdenum, total (7439-98-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concentration	MG/L	0.01			1	
				Mass	LBS/DAY	0.0003			1	
21.	Manganese, total (7439-96-5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
22.	Tin, total (7440-31-5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						
23.	Titanium, total (7440-32-6)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
				Mass						

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TABLE C. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(g)(7)(vi))¹

Pollutant	Presence or Absence (check one)		Units (specify)	Effluent				Intake (Optional)	
	Believed Present	Believed Absent		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
24. Radioactivity									
Alpha, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
Beta, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
Radium, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						
Radium 226, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Concentration						
			Mass						

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE D. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(g)(7)(vii))¹

	Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
1.	Asbestos	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
2.	Acetaldehyde	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3.	Allyl alcohol	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
4.	Allyl chloride	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5.	Amyl acetate	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
6.	Aniline	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
7.	Benzonitrile	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
8.	Benzyl chloride	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
9.	Butyl acetate	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
10.	Butylamine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
11.	Captan	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
12.	Carbaryl	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
13.	Carbofuran	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
14.	Carbon disulfide	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
15.	Chlorpyrifos	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
16.	Coumaphos	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
17.	Cresol	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
18.	Crotonaldehyde	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
19.	Cyclohexane	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

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001Form Approved 03/05/19
OMB No. 2040-0004**TABLE D. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(g)(7)(vii))¹**

	Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
20.	2,4-D (2,4-dichlorophenoxyacetic acid)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
21.	Diazinon	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
22.	Dicamba	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
23.	Dichlobenil	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
24.	Dichlone	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
25.	2,2-dichloropropionic acid	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
26.	Dichlorvos	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
27.	Diethyl amine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
28.	Dimethyl amine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
29.	Dinitrobenzene	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
30.	Diquat	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
31.	Disulfoton	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
32.	Diuron	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
33.	Epichlorohydrin	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
34.	Ethion	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
35.	Ethylene diamine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
36.	Ethylene dibromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
37.	Formaldehyde	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
38.	Furfural	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

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TABLE D. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(g)(7)(vii)) ¹					
	Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
39.	Guthion	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
40.	Isoprene	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
41.	Isopropanolamine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
42.	Kelthane	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
43.	Kepone	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
44.	Malathion	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
45.	Mercaptodimethur	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
46.	Methoxychlor	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
47.	Methyl mercaptan	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
48.	Methyl methacrylate	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
49.	Methyl parathion	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
50.	Mevinphos	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
51.	Mexacarbate	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
52.	Monoethyl amine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
53.	Monomethyl amine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
54.	Naled	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
55.	Naphthenic acid	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
56.	Nitrotoluene	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
57.	Parathion	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

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TABLE D. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(g)(7)(vii))¹

	Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
58.	Phenolsulfonate	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
59.	Phosgene	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
60.	Propargite	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
61.	Propylene oxide	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
62.	Pyrethrins	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
63.	Quinoline	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
64.	Resorcinol	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
65.	Strontium	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
66.	Strychnine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
67.	Styrene	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
68.	2,4,5-T (2,4,5-trichlorophenoxyacetic acid)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
69.	TDE (tetrachlorodiphenyl ethane)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
70.	2,4,5-TP [2-(2,4,5-trichlorophenoxy) propanoic acid]	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
71.	Trichlorofon	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
72.	Triethanolamine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
73.	Triethylamine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
74.	Trimethylamine	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
75.	Uranium	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
76.	Vanadium	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

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TABLE D. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(g)(7)(vii)) ¹					
	Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
77.	Vinyl acetate	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
78.	Xylene	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
79.	Xylenol	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
80.	Zirconium	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE E. 2,3,7,8 TETRACHLORODIBENZO P DIOXIN (2,3,7,8 TCDD) (40 CFR 122.21(g)(7)(viii))

Pollutant	TCDD Congeners Used or Manufactured	Presence or Absence (check one)		Results of Screening Procedure
		Believed Present	Believed Absent	
2,3,7,8-TCDD	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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2F
NPDESU.S Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

SECTION 1. OUTFALL LOCATION (40 CFR 122.21(g)(1))

Outfall Location

1.1 Provide information on each of the facility's outfalls in the table below

Outfall Number	Receiving Water Name	Latitude	Longitude
002	Discharge at grade to the	31° 00' 18"	87° 14' 40"
	undeveloped portion of the	° ' "	° ' "
	property. The runoff then	° ' "	° ' "
	flows into the natural	° ' "	° ' "
	drainage system for the	° ' "	° ' "
	area.	° ' "	° ' "

SECTION 2. IMPROVEMENTS (40 CFR 122.21(g)(6))

Improvements

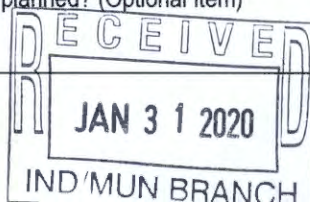
2.1 Are you presently required by any federal, state, or local authority to meet an implementation schedule for constructing, upgrading, or operating wastewater treatment equipment or practices or any other environmental programs that could affect the discharges described in this application?

 Yes No → SKIP to Section 3.

2.2 Briefly identify each applicable project in the table below.

Brief Identification and Description of Project	Affected Outfalls (list outfall numbers)	Source(s) of Discharge	Final Compliance Dates	
			Required	Projected

2.3 Have you attached sheets describing any additional water pollution control programs (or other environmental projects that may affect your discharges) that you now have underway or planned? (Optional Item)

 Yes No

SECTION 3. SITE DRAINAGE MAP (40 CFR 122.26(c)(1)(i)(A))

Site
Drainage
Map

3.1 Have you attached a site drainage map containing all required information to this application? (See instructions for specific guidance.)
 Yes No

SECTION 4. POLLUTANT SOURCES (40 CFR 122.26(c)(1)(i)(B))

Pollutant Sources

4.1 Provide information on the facility's pollutant sources in the table below.

Outfall Number	Impervious Surface Area (within a mile radius of the facility)	Total Surface Area Drained (within a mile radius of the facility)
002	75,000 sf of graveled area <i>specify units</i> SF	<i>specify units</i>
	with no significant impervious <i>specify units</i>	<i>specify units</i>
	area. <i>specify units</i>	<i>specify units</i>
	<i>specify units</i>	<i>specify units</i>
	<i>specify units</i>	<i>specify units</i>
	<i>specify units</i>	<i>specify units</i>

4.2 Provide a narrative description of the facility's significant material in the space below. (See instructions for content requirements.)
There are 3 non-PCB filled transformers on concrete pads located within this facility. These pads are situated upgradient of the grave areas. Each transformer holds 325 gallons. Spills are unlikely, but if they do occur then the oil will be contained in the gravel area and absorbent materials would be used to collect the oil prior to reaching the catch basin leading to Outfall 002.

4.3 Provide the location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff. (See instructions for specific guidance.)

Stormwater Treatment		
Outfall Number	Control Measures and Treatment	Codes from Exhibit 2F-1 (list)
002	All oil containing process equipment in this facility are situated on diked concrete pads which drain to an oil water separator that ultimately discharges to Outfall 002.	1-X

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OMB No. 2040-0004**SECTION 5. NON STORMWATER DISCHARGES (40 CFR 122.26(c)(1)(i)(C))**

Non-Stormwater Discharges

5.1 I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of non-stormwater discharges. Moreover, I certify that the outfalls identified as having non-stormwater discharges are described in either an accompanying NPDES Form 2C, 2D, or 2E application.

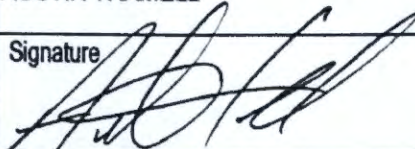
Name (print or type first and last name)

AUSTIN TRAMELL

Official title

HSE MANAGER

Signature



Date signed

01/29/2020

5.2 Provide the testing information requested in the table below.

Outfall Number	Description of Testing Method Used	Date(s) of Testing	Onsite Drainage Points Directly Observed During Test
002	GRAB SAMPLE	2/12/13	OUTFALL 002

SECTION 6. SIGNIFICANT LEAKS OR SPILLS (40 CFR 122.26(c)(1)(i)(D))

Significant Leaks or Spills

6.1 Describe any significant leaks or spills of toxic or hazardous pollutants in the last three years.
NONE

SECTION 7. DISCHARGE INFORMATION (40 CFR 122.26(c)(1)(i)(E))

Discharge Information

See the instructions to determine the pollutants and parameters you are required to monitor and, in turn, the tables you must complete. Not all applicants need to complete each table.

7.1 Is this a new source or new discharge?

 Yes → See instructions regarding submission of estimated data.

 No → See instructions regarding submission of actual data.

Tables A, B, C, and D

7.2 Have you completed Table A for each outfall?

 Yes

 No

Discharge Information Continued

7.3	Is the facility subject to an effluent limitation guideline (ELG) or effluent limitations in an NPDES permit for its process wastewater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 7.5.
7.4	Have you completed Table B by providing quantitative data for those pollutants that are (1) limited either directly or indirectly in an ELG and/or (2) subject to effluent limitations in an NPDES permit for the facility's process wastewater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7.5	Do you know or have reason to believe any pollutants in Exhibit 2F-2 are present in the discharge? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 7.7.
7.6	Have you listed all pollutants in Exhibit 2F-2 that you know or have reason to believe are present in the discharge and provided quantitative data or an explanation for those pollutants in Table C? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7.7	Do you qualify for a small business exemption under the criteria specified in the Instructions? <input type="checkbox"/> Yes → SKIP to Item 7.18. <input checked="" type="checkbox"/> No
7.8	Do you know or have reason to believe any pollutants in Exhibit 2F-3 are present in the discharge? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.10.
7.9	Have you listed all pollutants in Exhibit 2F-3 that you know or have reason to believe are present in the discharge in Table C? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7.10	Do you expect any of the pollutants in Exhibit 2F-3 to be discharged in concentrations of 10 ppb or greater? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.12.
7.11	Have you provided quantitative data in Table C for those pollutants in Exhibit 2F-3 that you expect to be discharged in concentrations of 10 ppb or greater? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7.12	Do you expect acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol to be discharged in concentrations of 100 ppb or greater? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.14.
7.13	Have you provided quantitative data in Table C for the pollutants identified in Item 7.12 that you expect to be discharged in concentrations of 100 ppb or greater? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7.14	Have you provided quantitative data or an explanation in Table C for pollutants you expect to be present in the discharge at concentrations less than 10 ppb (or less than 100 ppb for the pollutants identified in Item 7.12)? <input type="checkbox"/> Yes <input type="checkbox"/> No
7.15	Do you know or have reason to believe any pollutants in Exhibit 2F-4 are present in the discharge? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 7.17.
7.16	Have you listed pollutants in Exhibit 2F-4 that you know or believe to be present in the discharge and provided an explanation in Table C? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7.17	Have you provided information for the storm event(s) sampled in Table D? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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Discharge Information Continued	Used or Manufactured Toxics				
	7.18	Is any pollutant listed on Exhibits 2F-2 through 2F-4 a substance or a component of a substance used or manufactured as an intermediate or final product or byproduct? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 8.			
	7.19	List the pollutants below, including TCDD if applicable.			
		1.	4.	7.	
2.		5.	8.		
	3.	6.	9.		
SECTION 8. BIOLOGICAL TOXICITY TESTING DATA (40 CFR 122.21(g)(11))					
Biological Toxicity Testing Data	8.1	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 three years? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 9.			
	8.2	Identify the tests and their purposes below.			
		Test(s)	Purpose of Test(s)	Submitted to NPDES Permitting Authority?	Date Submitted
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
			<input type="checkbox"/> Yes <input type="checkbox"/> No		
		<input type="checkbox"/> Yes <input type="checkbox"/> No			
SECTION 9. CONTRACT ANALYSIS INFORMATION (40 CFR 122.21(g)(12))					
Contract Analysis Information	9.1	Were any of the analyses reported in Section 7 (on Tables A through C) performed by a contract laboratory or consulting firm? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 10.			
	9.2	Provide information for each contract laboratory or consulting firm below.			
			Laboratory Number 1	Laboratory Number 2	Laboratory Number 3
		Name of laboratory/firm	TEST AMERICA		
		Laboratory address	3355 McLemore Drive Pensacola, FL 32514		
Phone number	(850) 474-1001				
Pollutant(s) analyzed	oil & grease, ammonia, N(kjeldahl), Phosphates as P, N(organic), TSS, CL-total residual, CL-residual, BOD, COD, pH, temp, flow				

SECTION 10. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

10.1 In Column 1 below, mark the sections of Form 2F that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to complete all sections or provide attachments.

Column 1	Column 2
<input checked="" type="checkbox"/> Section 1	<input type="checkbox"/> w/ attachments (e.g., responses for additional outfalls)
<input checked="" type="checkbox"/> Section 2	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 3	<input checked="" type="checkbox"/> w/ site drainage map
<input checked="" type="checkbox"/> Section 4	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 5	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 6	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 7	<input checked="" type="checkbox"/> Table A <input type="checkbox"/> w/ small business exemption request <input checked="" type="checkbox"/> Table B <input checked="" type="checkbox"/> w/ analytical results as an attachment <input checked="" type="checkbox"/> Table C <input checked="" type="checkbox"/> Table D
<input checked="" type="checkbox"/> Section 8	<input type="checkbox"/> w/attachments
<input checked="" type="checkbox"/> Section 9	<input type="checkbox"/> w/attachments (e.g., responses for additional contact laboratories or firms)
<input checked="" type="checkbox"/> Section 10	<input type="checkbox"/>

10.2 **Certification Statement**

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.

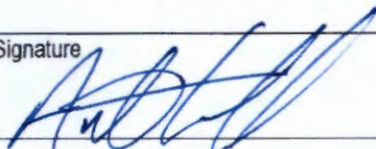
Name (print or type first and last name)

AUSTIN TRAMELL

Official title

HSE MANAGER

Signature



Date signed

01/28/2020

EPA Identification Number	NPDES Permit Number AL0079529	Facility Name FLOMATON N GENERATION	Outfall Number 002
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))¹

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 and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information <small>(new source/new dischargers only; use codes in instructions)</small>
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	<1.2 MG/L				1	
2. Biochemical oxygen demand (BOD ₅)	<6.0 MG/L				1	
3. Chemical oxygen demand (COD)	22 MG/L	11 MG/L			1	
4. Total suspended solids (TSS)	43 MG/L	4.0 MG/L			1	
5. Total phosphorus	0.14 MG/L	<0.26 MG/L			1	
6. Total Kjeldahl nitrogen (TKN)	<0.26 MG/L	<0.26 MG/L			1	
7. Total nitrogen (as N)	<0.26 MG/L	<0.26 MG/L			1	
8. pH (minimum)	-					
pH (maximum)	-					

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number AL0079529	Facility Name FLOMATON N GENERATION	Outfall Number 002
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Form Approved 03/05/19
OMB No. 2040-0004

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))¹

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
pH	8.1				1	
AMMONIA	<0.016 MG/L	<0.016 MG/L			1	
RESIDUAL CL	<0.043 MG/L (LAB)	<0.043 MG/L			1	
	<0.01 MG/L (FIELD)				1	
TOTAL KJELDAHL NITROGEN	<0.26 MG/L	<0.26 MG/L			1	

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number AL0079529	Facility Name FLOMATON N GENERATION	Outfall Number 002
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TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))¹

List each pollutant shown in Exhibits 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information <small>(new source/new dischargers only; use codes in instructions)</small>
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
NONE						

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number

NPDES Permit Number
AL0079529Facility name
FLOMATON N GENERATIONOutfall Number
002Form Approved 03/05/19
OMB No. 2040-0004**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
02/13/2013	135 MINUTES	1.0 INCHES	19.25	1010 GPM	28,050 GALLONS

Provide a description of the method of flow measurement or estimate.

COMPANY:

Flomaton Nitrogen Generation Facility

LOCATION: 1030 Van Hoosen Road

NPDES Permit No.: AL0079529

AREA: MB

DSN0031

Flomaton, AL

PARAM	Temp	pH	TSS	Ni, TR	Zn, TR	Cu, TR	O & G	TRC	FLOW	STREAM	O & G	
MIN	-	6.0	-	-	-	-	-	-	-		-	
MAX	90	8.5	REPORT	REPORT	REPORT	REPORT	7.39	0.019	REPORT		-	
MO.AVG	-	-	REPORT	REPORT	REPORT	REPORT	3.70	0.011	REPORT		-	
FREQ	Weekly	Daily	Weekly	2/Month	2/Month	2/Month	Weekly	Weekly	Daily	Daily	Weekly	
UNITS	°F	s.u.	mg/l	mg/l	mg/l	mg/l	lbs/day	mg/l	MGD	cfs	mg/l	
January	73	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.000	N/A	0.0050	N/A	<1.4	
February	68	7.0	6.3	<0.0030	<0.0080	<0.0020	0.056	N/A	0.0050	N/A	1.4	
March	No	Discharge						N/A		N/A		
April	No	Discharge						N/A		N/A		
May	No	Discharge						N/A		N/A		
June	No	Discharge						N/A		N/A		
July	No	Discharge						N/A		N/A		
August	No	Discharge						N/A		N/A		
September	No	Discharge						N/A		N/A		
October	No	Discharge						N/A		N/A		
November	No	Discharge						N/A		N/A		
December	No	Discharge						N/A		N/A		
Annual Average	71	7.0	3.2	<0.0030	<0.0080	<0.0020	0.03		0.0050		0.70	

COMPANY:

Flomaton Nitrogen Generation Facility

LOCATION: 1030 Van Hoosen Road

Flomaton, AL

NPDES Permit No.: AL0079529

AREA: MB

DSN0031

PARAM	Temp	pH	TSS	Ni, TR	Zn, TR	Cu, TR	O & G	TRC	FLOW	STREAM	O & G
MIN	-	6.0	-	-	-	-	-	-	-	-	-
MAX	90	8.5	REPORT	REPORT	REPORT	REPORT	7.39	0.019	REPORT	-	-
MO.AVG	-	-	REPORT	REPORT	REPORT	REPORT	3.70	0.011	REPORT	-	-
FREQ	Weekly	Daily	Weekly	2/Month	2/Month	2/Month	Weekly	Weekly	Daily	Daily	Weekly
UNITS	°F	s.u.	mg/l	mg/l	mg/l	mg/l	lbs/day	mg/l	MGD	cfs	mg/l
January	67	7.0	<5.0	<0.0030	0.0125	0.0063	0.040	N/A	0.0050	N/A	0.95
February	71	7.0	1.5	<0.0030	0.0155	0.0074	0.000	N/A	0.0050	N/A	0.0
March	70	7.0	<5.0	<0.0030	0.01370	0.0068	0.036	N/A	0.0050	N/A	0.86
April	71	7.0	<5.0	<0.0030	0.01500	0.0013	0.035	N/A	0.0050	N/A	0.85
May	75	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.052	N/A	0.0050	N/A	1.24
June	77	7.1	<5.0	<0.0030	<0.0080	<0.0020	0.036	N/A	0.0050	N/A	0.88
July	80	7.1	<5.0	<0.0030	<0.0080	0.0011	0.066	N/A	0.0050	N/A	1.58
August	80	7.0	1	<0.0030	<0.0080	<0.0020	0.100	N/A	0.0050	N/A	2.4
September	78	7.0	<5.0	<0.0030	<0.0080	0.0011	0.069	N/A	0.0050	N/A	1.65
October	76	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.069	N/A	0.0050	N/A	1.7
November	73	7.0	<5.0	<0.0030	<0.0080	0.0021	0.045	N/A	0.0050	N/A	1.08
December	72	7.0	<5.0	0.0025	<0.0080	0.0022	0.046	N/A	0.0050	N/A	1.1
Annual Average	74	7.0	0.2	0.0002	0.0047	0.0024	0.05		0.0050		1.19

COMPANY: Flomaton Nitrogen Generation Facility

LOCATION: 1030 Van Hoosen Road

DSN0014 & DSN0031

Flomaton, AL

NPDES Permit No.: AL0079529

AREA: MB

	PARAM	Temp	pH	TSS	Ni, TR	Zn, TR	Cu, TR	O & G	TRC	FLOW	STREAM	O & G	
	MIN	-	6.0	-	-	-	-	-	-	-		-	
	MAX	90	8.5	REPORT	REPORT	REPORT	REPORT	7.39	0.019	REPORT		-	
	MO.AVG	-	-	REPORT	REPORT	REPORT	REPORT	3.70	0.011	REPORT		-	
	FREQ	Weekly	Daily	Weekly	2/Month	2/Month	2/Month	Weekly	Weekly	Daily	Daily	Weekly	
	UNITS	°F	s.u.	mg/l	mg/l	mg/l	mg/l	lbs/day	mg/l	MGD	cfs	mg/l	
DSN0014	January	70	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.051	N/A	0.0050	4.3514	1.2	
DSN0014	February	70	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.045	N/A	0.0050	3.8558	1.1	
DSN0014	March	70	7.0	<5.0	<0.0030	<0.0080	0.0015	0.000	N/A	0.0050	3.3068	0	
DSN0014	April	70	7.0	<5.0	<0.0030	<0.0080	0.0011	0.000	N/A	0.0390	N/A	0	
DSN0031	May	71	7.0	<5.0	<0.0030	<0.0080	0.0007	0.044	N/A	0.0050	N/A	1.1	
DSN0031	June	72	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.057	N/A	0.0050	N/A	1.4	
DSN0031	July	71	7.0	<5.0	<0.0030	0.0045	<0.0020	0.022	N/A	0.0050	N/A	0.5	
DSN0031	August	71	7.0	<5.0	<0.0030	0.0041	<0.0020	0.012	N/A	0.0050	N/A	0.3	
DSN0031	September	72	7.0	<5.0	<0.0030	0.0084	<0.0020	0.042	N/A	0.0050	N/A	1	
DSN0031	October	77	7.0	<5.0	<0.0030	0.019	0.0045	0.048	N/A	0.0074	N/A	0.8	
DSN0031	November	73	7.0	<5.0	<0.0030	0.0119	0.0055	0.012	N/A	0.0050	N/A	0.3	
DSN0031	December	72	7.1	<5.0	<0.0030	<0.0080	0.0015	0.077	N/A	0.0050	N/A	1.9	
	Annual Average	72	7.0	<5.0	<0.0030	0.004	0.0012	0.03		0.0080	3.8380	0.80	

COMPANY: Flomaton Nitrogen Generation Facility

LOCATION: 1030 Van Hoosen Road

DSN0012 THRU DSN0014

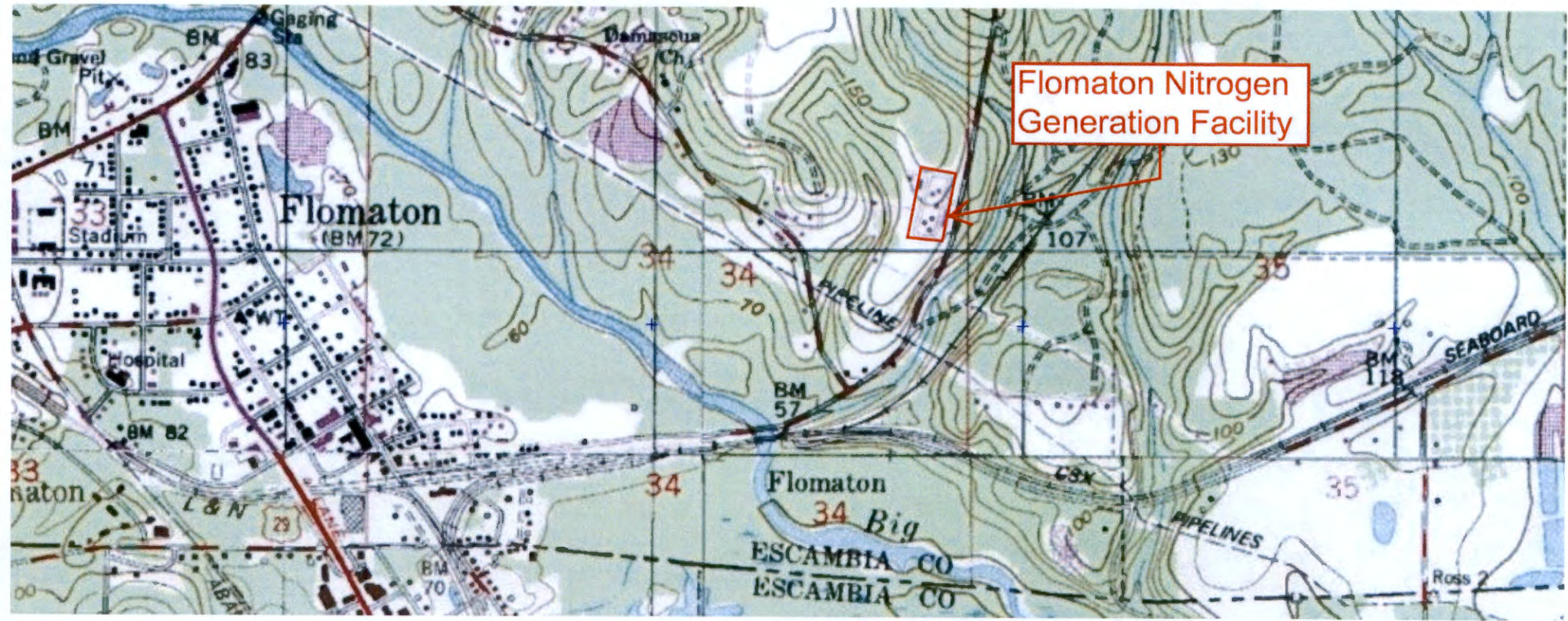
Flomaton, AL

NPDES Permit No.: AL0079529

AREA: MB

	PARAM	Temp	pH	TSS	Ni, TR	Zn, TR	Cu, TR	O & G	TRC	FLOW	STREAM	O & G	
	MIN	-	6.0	-	-	-	-	-	-	-	-	-	
	MAX	90	8.5	REPORT	REPORT	REPORT	REPORT	7.39	0.019	REPORT		-	
	MO.AVG	-	-	REPORT	REPORT	REPORT	REPORT	3.70	0.011	REPORT		-	
	FREQ	Weekly	Daily	Weekly	2/Month	2/Month	2/Month	Weekly	Weekly	Daily		Weekly	
	UNITS	°F	s.u.	mg/l	mg/l	mg/l	mg/l	lbs/day	mg/l	MGD		mg/l	
DSN0012	January	70	7.0	<5.0	<0.0030	<0.0080	0.0016	0.036	N/A	0.0050	1.1609	1.8	
DSN0014	February	71	7.0	<5.0	<0.0030	<0.0080	0.0023	0.028	N/A	0.0050	1.7220	0.7	
DSN0014	March	70	7.0	<5.0	<0.0030	0.0055	0.0010	0.000	N/A	0.0050	1.9704	<1.4	
DSN0014	April	70	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.017	N/A	0.0050	4.4235	0.4	
DSN0014	May	70	7.0	<5.0	<0.0030	<0.0080	0.0120	0.000	N/A	0.0050	3.9353	0	
DSN0013	June	70	7.0	<5.0	<0.0030	<0.0080	0.0009	0.013	N/A	0.0050	3.3818	0.3	
DSN0012	July	71	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.040	N/A	0.0050	0.7010	0.95	
DSN0014	August	71	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.000	N/A	0.0050	3.4155	<1.4	
DSN0012	September	72	7.0	<5.0	<0.0030	0.0045	<0.0020	0.065	N/A	0.0050	1.8945	1.55	
DSN0012	October	70	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.019	N/A	0.0050	0.7414	0.45	
DSN0012	November	70	7.0	<5.0	<0.0030	<0.0080	<0.0020	0.023	N/A	0.0050	0.4824	0.56	
DSN0012	December	70	7.0	<5.0	<0.0030	<0.0080	0.0014	0.000	N/A	0.0050	1.2368	0	
	Annual Average	70	7.0	<5.0	<0.0030	0.001	0.002	0.02		0.0050	2.0888	0.56	

Flomaton Nitrogen
Generation Facility





DSN-001

LAT: N31° 00' 32.47"
LONG: W87° 14' 33.64"

DSN-002

LAT: N31° 00' 21.64"
LONG: W87° 14' 39.81"

NITROGEN
GENERATION
FACILITY

MARTIN LUTHER
KING DRIVE

VAN HOOESEN ROAD

JUNCTION ROAD

BIG ESCAMBIA
CREEK

DSN-003

LAT: N31° 00' 02.32"
LONG: W87° 14' 51.98"



Scale: 1" = 250'



3298 SUMMIT BOULEVARD, SUITE 32
PENSACOLA, FLORIDA 32503
PHONE: (850) 332-7912
CERTIFICATE OF AUTHORIZATION #26889



BREITBURN OPERATING LP
FLOMATON NITROGEN
GENERATION FACILITY

OVERALL MAP

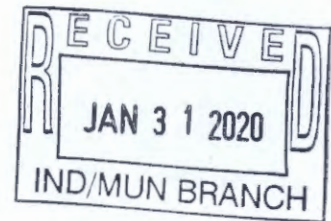
Project Number:	191103
Date:	JANUARY 2020
Drawn By:	F.E.A.
Designed By:	F.E.A.
Checked By:	J.L.L.
Sheet:	1



3298 Summit Boulevard
Suite 32
Pensacola, FL 32503
Phone (850) 332-7912
www.sigmacg.com

January 27, 2020

Mr. Wayne Holt
Industrial Section
Industrial/Municipal Branch
Water Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery Alabama
Breitburn Operating LP



**RE: Breitburn Operating LP – Flomaton Nitrogen Generation Facility
NPDES Permit # AL0079529 Permit Modification/Update
Request and Supporting Documentation**

Dear Wayne:

Per our previous telephone conversations and email correspondence below you will find the information and/or responses required to modify the existing permit for the facility referenced above. The modification to the existing permit will include the addition/utilization of the following chemicals:

- Dechlor 104 – Liquid Chlorine Scavenger
- CWT 405 – Organic Dispersant
- PhosZero 1500 – Scale Corrosion and Fouling Inhibitor
- Biotrol 12.5 - Industrial Biocide and Sanitizer

In accordance with Part I.D.5.A of the original permit, below you will find the following responses and additional information.

(1) Name and general composition of biocide or chemical additive proposed for use with cooling towers

- *Dechlor 104 – Liquid Chlorine Scavenger*
- *CWT 405 – Organic Dispersant*
- *PhosZero 1500 – Scale Corrosion and Fouling Inhibitor*
- *Biotrol 12.5 - Industrial Biocide and Sanitizer*

(2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach. This information to be provided by biocide/chemical additive supplier.

See Appendix A – Safety Data Sheets

(3) Quantities to be used

The quantities scheduled to be used will vary based upon the cooling tower control panel. The control panel will measure conductivity and based upon these measurements the biocide or chemical additives will be added accordingly to the cooling tower system. A schematic detailing this process is included in Appendix B.

(4) Frequencies of use

The frequency of use will vary based upon the cooling tower control panel. The control panel will measure conductivity and based upon these measurements the biocide or chemical additives will be added accordingly to the cooling tower system. A schematic detailing this process is included in Appendix B.

(5) Proposed Discharge Concentrations

The proposed discharge concentrations for chlorine will be zero.

(6) EPA Registration number, if applicable

The EPA registration numbers, if applicable, are included in Appendix A.

The modifications to the cooling tower system will also include updating the control panel to the *Tower Assure (TA) 3000*. This panel will provide a "real-time" system for the application and monitoring of the chemical additives and discharge levels for the cooling tower system. As shown in the attached process flow diagram, the TA-3000 will provide the following safeguards to maintain the minimum Chlorine (CL) discharge levels.

- Dechlorination 104 Injection Point
- Two (2) Bag Filters
 - Traps waste solids
- Two (2) Activated Carbon Filters (ACF)
 - Polishes effluent before discharge
 - Traps organics and CL residual
- ORP Probe (*Real Time Monitoring Alternative-1*)
 - Measures CL residual
- Effluent Recycle
 - Effluent will recycle if CL >.002 ppm
- Gateway Continuous & Real-time Monitoring (*Real Time Monitoring Alternative-1*)
 - Onsite and Offsite Real-time Monitoring
 - Automatic Weekly Monitoring Reports

Real Time Monitoring Alternative-2

As a backup to the ORP Probe we would like to propose the optional use of the CL17 – Chlorine Analyzer, as detailed in Appendix C, if necessary.

Currently, under the existing NPDES permit Breitburn/Maverick is not required to provide weekly monitoring via grab samples for Cl-Total Residual.

Previously, Breitburn/Maverick utilized Chlorine as a chemical additive for the cooling system discharge. Under that permit Cl-Total Residual was required to meet the following requirements:

Discharge Limitations:

- Daily Maximum = .019 mg/L
- Monthly Average = .011 mg/L

Monitoring Requirements:

- Measurement/Frequency = Weekly
- Sample Type = Grab

We understand that the discharge limitations/requirements are subject to be different than those shown above for CI based upon the new discharge point to Big Escambia Creek. With regards to the above monitoring requirements for CI, we would like to request monthly grab samples. The proposed process provides several additional means/alternatives to maintain/monitor CL discharge levels and we feel that these additional safeguards justify the requested monitoring frequency.

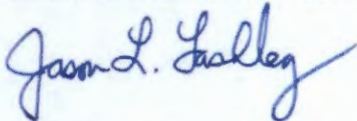
Cooling Tower Maintenance/Updates

The modifications will also include the updating/replacement of the existing cooling towers. In February 2019, the facility was shut down to address the continual maintenance issues associated with the existing cooling towers. The towers are currently being replaced with a "Marley Cooling Tower," see Appendix D for more detail. The anticipated flow rates from these is expected to be less than or equal to the historical flow rates for the facility. Testing for flow rates, stormwater sampling/testing and process wastewater sampling/testing will occur in accordance with the approved NPDES permit within 6 months of the facility coming online. The results of these events will be reported to ADEM.

If you have any further questions or comments, please feel free to contact us.

Sincerely,

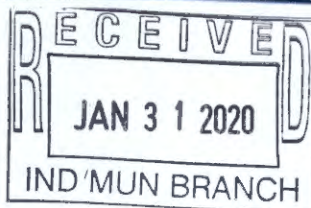
SIGMA CONSULTING GROUP, INC.



Jason L. Lashley, P.E.
Vice President/ Senior Project Manager

Biotrol 12.5

Industrial Biocide and Sanitizer



PRODUCT BENEFITS

- Convenient liquid biocide is easy to feed.
- Liquid form is safer than gaseous chlorine
- Cost Effective chemistry for cooling water bacteria control and process sanitation
- Rapid Kill Rate for most biocide.

PRODUCT DESCRIPTION

Biotrol 12.5 is 12.5% sodium hypochlorite that is an EPA registered biocide and sanitizer, for use in cooling water and evaporative condensers, waste water, and in fruit and vegetable washing applications.

FEATURES

Convenient to Use – Biotrol 12.5 is available in totes, many drum sizes and in pails. It is easily fed from metering pumps directly from the shipping container. Residual testing is quick and easy in the field. On-line real time control is also simple to set up.

Cost Effective – Oxidizing biocide and sanitizer that bacteria can not develop a resistance to.

Rapid Bacteria Kill Rate – Rinses away easily in sanitation applications, leaving no deposits or film. In cooling applications, effective bacteria control can be seen in 30 minutes. Continuous feed at low doses can also be effective.

Biotrol 12.5

Industrial Biocide and Sanitizer

DOSAGE

Dosage depends on the system demand and intended purpose of the application. Your water treatment representative will recommend proper dosage for your application, but all dosing must be within EPA approved limits. See product label for most complete information.

Cooling Towers and Evaporative Condensers

SLUG FEED METHOD: Initial dose for noticeably fouled systems, apply 52 to 104 oz of Biotrol 12.5 per 10,000 gallons of water to obtain 5 to 10 ppm available chlorine.

SUBSEQUENT DOSE: When microbiological control is evident, add 11 oz per 10,000 gallons daily, or as needed to keep the chlorine free residual at 1 ppm.

CONTINUOUS FEED: To maintain control in a system, add enough Biotrol 12.5 to maintain a minimum of 0.3 ppm free chlorine residual. This will require approximately 1 oz per 10,000 gallons of water treated. For continuously treated systems, it is not normally recommended to maintain a free residual higher than 1.0 ppm for long times, since this can result in excessive equipment corrosion.

Fruit and Vegetable Washing

Thoroughly clean all fruits and vegetables in wash tank. Mix 5 oz Biotrol 12.5 per 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. Submerge the fruits or vegetables for 2 minutes in a tank containing the recirculating sanitizing solution. Spray rinse vegetable with the sanitizing solution prior to packaging. Rinse fruit with potable water only, prior to packaging.

STORAGE & HANDLING

For complete handling and storage refer to the Material Safety Data Sheet. Biotrol 12.5 is a strong oxidizing agent and proper PPE are required.

Store between 40 - 95°F. In these conditions, shelf life is 3 months from manufacture date. Biotrol 12.5 will slowly lose oxidizing strength over time. Feed dosage will need to be increased to achieve the same biocidal activity with older product as compared to newer product. This is normal.

Biotrol 12.5 feed is best accomplished with a metering pump set up to receive flooded suction, and equipped with a gas relief head. Peristaltic pumps can also be used, and are less sensitive to suction rise.

PACKAGING

Biotrol 12.5 comes in:

- 5 Gallon Pail
- 15 Gallon Drum
- 30 Gallon Drum
- 55 Gallon Drum
- 275 Gallon Tote

COMPATIBILITY

Undiluted Biotrol 12.5 is compatible with HDPE, polypropylene, PVC, CPVC, Viton, Tygon, PTFE (Teflon), chlorobutyl rubber, hypalon, titanium, Hastelloy C-276, and Monel.

Incompatible materials include carbon steel, stainless steel, galvanized steel & copper, brass, aluminum, Buna-N-rubber, neoprene, silicone gasketing, nylon and Plaste 4300.

BIOTROL 12.5**1 PRODUCT AND COMPANY IDENTIFICATION**

Product Identifier: BIOTROL 12.5
Common Name: Mixture
SDS Number: 1533
Revision Date: 9/3/2015
Version: 1
Internal ID: 301C
Product Use: Industrial chlorine based biocide
Supplier Details: U. S. Water Services
12270 43rd St. NE
St. Michael, MN 55376

Contact: Non-emergency #: 866-663-7632
Email: SDS@uswaterservices.com
Web: www.uswaterservices.com

EMERGENCY RESPONSE: (Chem Tel)
US & Canada: 800-255-3924
International: +01-813-248-0585

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 1 B

Physical, Corrosive to Metals, 1

Health, Specific target organ toxicity - Single exposure, 1

GHS Label elements, including precautionary statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H314 - Causes severe skin burns and eye damage

H290 - May be corrosive to metals

H370 - Causes damage to organs

GHS Precautionary Statements:

P234 - Keep only in original container.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P264 - Wash thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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- P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P363 - Wash contaminated clothing before reuse.
- P404 - Store in a closed container.
- P406 - Store in a corrosive resistant container with a resistant inner liner.
- P501 - Dispose of contents/container in accordance with local, regional, and international regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS

PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
7681-52-9	12.5	Sodium hypochlorite
1310-73-2	0.2-5.0%	Sodium hydroxide

4 FIRST AID MEASURES

- Inhalation:** If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. **GET MEDICAL ATTENTION IMMEDIATELY.** Symptoms of pulmonary edema can be delayed up to 48 hours after exposure.
- Skin Contact:** If on skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Do not apply oils or ointments unless ordered by the physician. If skin feels slippery, caustic may still be present in sufficient quantities to cause rash or burn. Continue washing skin until slick feeling is gone. Discard footwear which cannot be decontaminated. Discard contaminated leather articles such as shoes and belt.
- Eye Contact:** If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Do not attempt to neutralize with chemical agents. Washing eyes within several seconds is essential to achieve maximum effectiveness. Oils or ointments should not be used at this time. Remove contact lenses after the first 5 minutes and continue flushing.
- Ingestion:** If swallowed: If fully conscious, drink a quart of water. **DO NOT** induce vomiting. **CALL A PHYSICIAN IMMEDIATELY.** If unconscious or in convulsions, take immediately to a hospital or a physician. **NEVER** induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Do not give sodium bicarbonate, fruit juices or vinegar. If vomiting occurs spontaneously, keep airway clear and give more water.

Most important symptoms & effects (acute & delayed): No data available

Indication of need for immediate medical attention: None

Special treatment needs: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be

BIOTROL 12.5

dangerous to the person providing aid to give mouth-to-mouth resuscitation. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage.

5 FIRE FIGHTING MEASURES

Flammability: Not flammable
Flash Point: None
Flash Point Method: Pensky Martens Closed cup
Burning Rate: No data available
Autoignition Temp: No data available
LEL: Not applicable
UEL: Not applicable

Extinguishing Media:

Suitable: Use extinguishing media suitable for surrounding fire.

Unsuitable: None

Hazardous combustion products: Chlorine-containing gases. Metal oxides. Oxygen. Halogenated compounds. Toxic fumes. Carbon dioxide. Carbon monoxide. Sodium oxides. Irritating and/or toxic gases.
Unusual Fire or Explosion Hazards: OXIDIZER. May generate potentially explosive oxygen. Contact with combustible materials may cause a fire.
Special protective equipment/precautions: Wear self-contained breathing apparatus

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective equipment, emergency procedures: Avoid contact with the material. See section 8 of SDS for PPE recommendations
Environmental Precautions: Keep runoff from entering drains or waterways
Spill/Leak procedures: Contain spill or leak. Dike area if necessary to prevent spill from spreading or entering sewers and waterways. Recover as much as possible then absorb remainder with inert material. Place into closed container for disposal.
Regulatory Requirements: Dispose of recovered material in accordance with all applicable state and federal regulations.

7 HANDLING AND STORAGE

Handling Precautions: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. Mixing this product with gross filth such as feces, urine, etc. or with ammonia, acids, detergents or other chemicals may release hazardous gases irritating to eyes, lungs and mucous

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Storage Requirements: membranes. CORROSIVE MATERIAL. Avoid dust or mist formation. CORROSIVE MATERIAL. Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Relieve pressure in containers weekly. Do not freeze. Avoid temperatures greater than 70 Deg. F. Product degrades more rapidly with increasing temperature. Avoid contact with combustible materials, wood and organic materials. Avoid storage on wood floors or near wooden walls, etc.. DO NOT contaminate water, food or feed by storage or disposal. Highly corrosive to most metals with evolution of hydrogen gas.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide local exhaust ventilation as needed to control misting.
Personal Protective Equipment: HMIS PP, C | Safety Glasses, Gloves, Apron

Respiratory protection: If needed use MSHA/NIOSH approved respirator for dusts and mists. Seek professional advice prior to respirator selection and use. Follow all requirements of OSHA respirator regulations (29 CFR 1910.134)
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
General Hygiene: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, using the toilet, or applying cosmetics.
PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

Exposure Limits: Sodium Hypochlorite Sodium Hydroxide
OSHA PEL: 1ppm (Ceiling) as Chlorine* 2 mg/m³ (TWA)
NIOSH/REL: 0.5ppm (Ceiling) as Chlorine*

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, yellow-green	Odor:	Chlorine
Physical State:	Liquid	Solubility:	Complete in water
Odor Threshold:	Not determined	Freezing/Melting Pt.:	appx -10F
Spec Grav./Density:	10.01 lb/gal	Flash Point:	None
Viscosity:	Not determined	Vapor Density:	Not determined
Boiling Point:	Not determined	Auto-Ignition Temp:	Not determined
Partition Coefficient:	Not determined	UFL/LFL:	Not determined
Vapor Pressure:	Not determined		
pH:	>12		
Evap. Rate:	Not determined		
Decomp Temp:	Not determined		

10 STABILITY AND REACTIVITY

Stability: Product is stable under normal storage and use conditions.
Conditions to Avoid: Avoid exposure to light. Avoid temperatures greater than 70 Deg. F. Product

BIOTROL 12.5

Materials to Avoid:	degrades more rapidly with increasing temperature. Keep away from incompatibles. Heavy metals. Nickel. Iron. Copper. Cobalt. Acids. Ammonia. Ammonium compounds. Hydrogen peroxide. Alum. Oxidizing agents. Reducing agents. Combustible materials. Wood. Organic materials. Organic solvents. Amines. Methanol. Cleaners. Solvents. Magnesium. Aluminum. Chromium. Carbon steel. Manganese. Steel. Tin. Zinc. Sodium sulfite. Sodium thiosulfate. Bronze. Brass. Reacts with other household chemicals, such as toilet bowl cleaners, pool/hot tub chemicals/materials, peroxides, brick and concrete cleaners, insecticides, windshield wash, gasoline, greases, oils, fuels, rust removers, vinegar, human and animal waste to produce hazardous gases such as chlorine. Ether, ammonia compounds, cloth, propane, organic polymers, ethylene glycol, sodium bisulfite, sodium hydrosulfite may release hazardous gases. Alcohols. Chlorinated compounds. Cyanides. Hydrocarbons. Metals such as aluminum, zinc, tin, etc. Lead. Other alkali sensitive metals or alloys. Organic nitro compounds. Chlorinated hydrocarbons. Fluorinated hydrocarbons. Acetaldehyde. Chlorine trifluoride. Hydroquinone. Maleic anhydride. Tetrahydrofuran. Acrolein. Phosphorous. Trichloroethylene. Leather. Wool. Phosphorous pentoxide. Halogenated compounds. Glycols. Explosives. Acrylonitrile. 1,2- Dichloroethylene. Tetrachloroethane. Organic peroxides. Sodium tetrahydroborate. Food sugars. Silver nitrate. Chloroform. Zirconium.
Hazardous Decomposition:	Chlorine-containing gases. Reacts with acids to release poisonous chlorine gas. Sodium oxide. Hypochlorous acid. Oxygen. Hydrogen chloride. Hydrogen gas. Carbon monoxide. Phosphine. Thermal decomposition may release:
Hazardous Polymerization:	Hazardous polymerization will not occur under normal conditions. Sodium hydroxide can induce hazardous polymerization of acetaldehyde, acrolein, and acrylonitrile. Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product. Contact with acid or incompatible materials may cause a violent reaction with evolution of heat. May react with certain metals to produce flammable hydrogen gas. Contact with acids, halogenated organics, organic nitro compounds, glycols, or sodium tetrahydroborate may produce flammable hydrogen gas. Contact with 1,2-dichloroethylene, trichloroethylene, tetrachloroethane, or phosphorous can form spontaneously flammable chemicals. Reactions with various food sugars may form carbon monoxide.

11**TOXICOLOGICAL INFORMATION****Acute Toxicity:****Sodium Hypochlorite**Oral LD₅₀ (rat) 8,200 mg/kgDermal LD₅₀ (rabbit) >10,000 mg/kg**Sodium Hydroxide**Dermal LD₅₀ (rabbit) 1,350 mg/kgs**ATE (Acute Toxicity Estimate)**

Dermal 27,000 mg/kg

Skin Corrosion/Irritation: Corrosive

Serious eye damage/irritation: Corrosive

Respiratory or skin sensitization: Corrosive (Inhalation)

Specific target organ toxicity (single exposure): No data available

Specific target organ toxicity (repeated exposure): No data available

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Aspiration hazard: No data available

Carcinogenicity: No carcinogenic effects are known for the components of this product

Germ Cell Mutagenicity: No mutagenic effects are known for the components of this product

Teratogenicity: No teratogenic effects are known for the components of this product

12 ECOLOGICAL INFORMATION

Aquatic Toxicity: Data provided is for Sodium Hypochlorite

Freshwater Fish Toxicity:

LC₅₀ clupea harengus 0.033 - 0.097 mg/l/96 hr, flow through bioassay (pH: 8)

LC₅₀ cymatogaster aggregata 0.045 - 0.098 mg/l/96 hr, flow through bioassay (pH: 8)

LC₅₀ gasterosteus aculeatus 0.141 - 0.193 mg/l/96 hr, flow through bioassay (pH: 8)

LC₅₀ oncorhynchus gorboscha 0.023 - 0.052 mg/l/96 hr, flow through bioassay (pH: 8)

LC₅₀ oncorhynchus kisutch 0.026 - 0.038 mg/l/96 hr, flow through bioassay (pH: 8)

LC₅₀ oncorhynchus mykiss: 0.05-0.771 mg/L/96 hr, flow through

LC₅₀ oncorhynchus mykiss: >0.03-<0.19 mg/L/96 hr, semi-static

LC₅₀ oncorhynchus mykiss: 0.18-0.22 mg/L/96 hr, static

LC₅₀ parophrys vetulus 0.044 - 0.144 mg/l/96 hr, flow through bioassay (pH: 8)

LC₅₀ pimephales promelas 0.22 - 0.62 mg/l/96 hr, flow through bioassay (pH: 7)

LC₅₀ pimephales promelas: 4.5-7.6 mg/L/96 hr, static

LC₅₀ lepomis macrochirus: 0.4-0.8 mg/L/96 hr, static

LC₅₀ lepomis macrochirus: 0.28-1 mg/L/96 hr, flow through

Invertebrate Toxicity:

EC₅₀ ceriodaphnia sp. 0.006 mg/l/24 hr

EC₅₀ daphnia magna 0.07 - 0.7 mg/l/24 hr

EC₅₀ daphnia magna 2.1mg/l/96 hr

EC₅₀ gammarus fasciatus 4 mg/l/96 hr

EC₅₀ nitocra spinipes 40 mg/l/96 hr

EC₅₀ palaemonetes pugio 52 mg/l/96 hr

Algae:

ErC₅₀ dunaliella sp. 0.6 mg/l/24 hr

ErC₅₀ dunaliella tertiolecta 0.11 mg/l/24 hr

ErC₅₀ skeletonema costatum 0.095 mg/l/24 hr

Elimination (persistence & degradability): Material is inorganic

Bioaccumulative potential: Not expected to bioaccumulate

Mobility in soil: No data available

Other adverse effects: No data available

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

This material should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

BIOTROL 12.5**14 TRANSPORT INFORMATION**

UN1791, Hypochlorite solutions, 8, PGIII, (Sodium Hypochlorite)

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

DOT Transportation data (49 CFR 172.101)

See section 15 for information on Reportable Quantity chemicals (RQ)

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

RQ(100LBS), Sodium hypochlorite (7681-52-9) [12.5] CERCLA, CSWHS, MASS, PA, TSCA

RQ(1000LBS), Sodium hydroxide (1310-73-2) [0.2-5.0%] CERCLA, CSWHS, MASS, OSHAWAC, PA, TSCA, TXAIR

Regulatory CODE Descriptions

RQ = Reportable Quantity

CERCLA = Superfund clean up substance

CSWHS = Clean Water Act Hazardous substances

MASS = MA Massachusetts Hazardous Substances List

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

OSHA WAC = OSHA Workplace Air Contaminants

TXAIR = TX Air Contaminants with Health Effects Screening Level

EPA / CERCLA / SARA TITLE III:

Toxic Chemical List (SARA 313): This product does not contain any chemicals subject to routine annual toxic chemical release reporting.

Extremely Hazardous Substance (SARA 302/304): This product does not contain any extremely hazardous substances subject to emergency planning requirements.

SARA 312: Acute, Fire

RCRA: Corrosive, D002

TSCA: All components of this product are listed (or are not required to be listed) in the TSCA inventory

California Proposition 65: This product does not contain any proposition 65 chemicals.

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16 OTHER INFORMATION

HMIS III: Health = 3(Chronic), Fire = 0, Physical Hazard = 1

HMIS PPE: C - Safety Glasses, Gloves, Apron

HMIS	
HEALTH <input checked="" type="checkbox"/>	3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	C

Author: U.S. Water Services

Revision Notes: Updated to GHS format

Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s). The above information is not claiming characteristics of the product in term of legal claims of performance / guarantee. This information only describes safety measures and no liability may arise from the use or application of the product described herein. This information is given in good faith and based on our current knowledge of the product.

PRODUCT BENEFITS

- Significantly improves biocide program effectiveness and can reduce biocide treatment cost
- Fast acting chemistry is especially helpful in troubleshooting fouled systems
- Improves cooling system efficiency which can reduce chiller operation costs

FEATURES

Synergistic with Biocides – Augments the activity of registered biocides especially in badly fouled systems.

Disperses Organic Debris – Facilitates the removal of organic deposits from pipe walls, tower fill and heat exchangers.

Non-Polluting – Solvent free and biodegradable. Regular use reduces the use rate for biocides.

Stable – Stable at High Temperature and pH. Stable to ammonial and sour gas.

PRODUCT DESCRIPTION

CWT – 405 is a water stable, biodegradable, safe to handle, solvent free liquid organic film penetrant and dispersant.

CWT-405 is meant to be used as an enhancer for a registered biocide program in cooling tower treatment programs, and can be used with both oxidizing and non-oxidizing biocides. It works by loosening organic deposits, greatly improving the contact of the biocide chemistry with bacteria.

CWT-405 meets the EPA Green Criteria for environmentally friendly manufacturing and composition.



Fill –Before CWT-405



Fill – After CWT-405



CWT – 405

Organic Dispersant

DOSAGE

Typical dosage for CWT-405 is 30 - 100 ppm based on total cooling system volume, and slug dosed all at once. Actual dosage can be adjusted depending on the severity of the fouling.

Typical treatment frequency is 1 – 3 times per week.

Regular treatment with CWT-405 can often reduce the necessary dosage of both oxidizing and non-oxidizing biocides.

CWT-405 can be fed simultaneously with oxidizing biocides, as long as the point of injection is separated.

When used in conjunction with intermittently fed non-oxidizing biocides, best results will be obtained when the CWT-405 is fed one hour prior to biocide application.

Note: CWT-405 will react with Glutaraldehyde biocides (Biotrol 515 or Biotrol 550) if fed together with insufficient dilution. The reaction will cause a pink color to form, and can result in the generation of disagreeable fumes. CWT-405 and Glutaraldehyde biocides can be used successfully together, and in fact often are. However, it is important to separate the feed points or feed times of these two chemistries. Feeding both products into the same dilution line is not recommended unless the feed times are at least one hour apart.

For more information, see our technical bulletin: Successful feed of CWT-405 with Glutaraldehyde, or contact technical marketing.

FEEDING

CWT-405 can be fed undiluted directly from the shipping container. CWT-405 is most effective when rapidly slug fed to any convenient point in the system with some turbulence. CWT-405 is not a high foaming formulation, but foaming can be the result of organic matter dispersing into the bulk cooling water. If foaming is a problem, CWT-101 AF or CWT-800 Antifoam should be added as needed.

PACKAGING

CWT – 405 comes in:

6 Gallon Pail
15 Gallon Drum
30 Gallon Drum
55 Gallon Drum

MATERIAL COMPATIBILITY

Undiluted product is compatible with mild steel, stainless steel, copper, brass, PVC, cross linked polyethylene, Kynar, nylon, Teflon, Viton, urethane, neoprene, natural rubber, and polypropylene.

Avoid aluminum, Hypalon, and Tygon.

HANDLING AND SAFETY

CWT-405 is a stable liquid formula. Unopened containers of CWT-405 stored between 45 - 95°F have a shelf life of 12 months from purchase date. Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use.

Read MSDS prior to use.

CWT 405

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: CWT 405
Common Name: MIXTURE
SDS Number: 0333
Product Code: CT0108
Revision Date: 1/8/2015
Version: 1
Internal ID: 210C
Product Use: WATER TREATMENT
Supplier Details: U. S. Water Services
12270 43rd St. NE
St. Michael, MN 55376

Contact: Non-emergency #: 866-663-7632
Email: SDS@uswaterservices.com
Web: www.uswaterservices.com

EMERGENCY RESPONSE: (ChemTel)
US & Canada: 800-255-3924
International: +01-813-248-0585

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

- Health, Serious Eye Damage/Eye Irritation, 2 A
- Health, Acute toxicity, 5 Oral
- Health, Specific target organ toxicity - Single exposure, 3
- Health, Skin corrosion/irritation, 3
- Health, Skin sensitization, 1

GHS Label elements, including precautionary statements

GHS Signal Word: **WARNING**

GHS Hazard Pictograms:



GHS Hazard Statements:

- H319 - Causes serious eye irritation
- H303 - May be harmful if swallowed
- H335 - May cause respiratory irritation
- H316 - Causes mild skin irritation
- H317 - May cause an allergic skin reaction

GHS Precautionary Statements:

- P281 - Use personal protective equipment as required.

CWT 405

P302+352 - IF ON SKIN: Wash with soap and water.

P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P313 - Get medical advice/attention.

Hazards not otherwise classified (HNOC) or not covered by GHS

PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Proprietary alkylamide hydrolysates: 15%

CAS#: Proprietary; Use NJTS No. TSRN 989-383-230-0604 as equivalent

4 FIRST AID MEASURES

Inhalation: Remove from contamination. If person has stopped breathing administer artificial respiration. If symptoms persist, seek medical attention.

Skin Contact: Wash off with soap and plenty of water. Remove contaminated garments and wash or destroy. Consult a physician if irritation develops.

Eye Contact: Flush eyes with plenty of running water for at least 30 minutes. Seek medical attention.

Ingestion: If conscious, give plenty of water. Do not induce vomiting. Seek medical attention.

Most important symptoms & effects (acute & delayed): No data available

Indication of need for immediate medical attention: No data available

Special treatment needs: No specific data has been determined but based on similar materials: the materials may cause tissue destruction leading to stricture. If lavage is performed, suggest entotracheal and/or esophagosopic control. If burn is present, treat as any thermal burn, after decontamination. No special antidote.

5 FIRE FIGHTING MEASURES

Flash Point: No data available

Flash Point Method: No data available

Burning Rate: No data available

Autoignition Temp: No data available

LEL: No data available

UEL: No data available

Extinguishing Media:

Suitable: Water fog, carbon dioxide, dry chemical or foam. This material is not expected to burn unless all water is boiled away. The remaining organics may be ignitable. Use extinguishing media suitable for surrounding fire.

CWT 405

Unsuitable: No information available

Hazardous combustion products: Under fire conditions, some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Hazardous combustion products may include but are not limited to: nitrogen oxides, carbon monoxide and carbon dioxide.

Unusual Fire or Explosion Hazards: None Known

Special protective equipment/precautions: Wear self-contained breathing apparatus

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective equipment, emergency procedures: Avoid contact with the material. See section 8 of SDS for PPE recommendations

Environmental Precautions: Keep runoff from entering drains or waterways

Spill/Leak procedures: Contain spill or leak. Spill may be slippery. Barricade and control area. Dike area if necessary to prevent spill from spreading or entering sewers and waterways. Recover as much as possible then absorb remainder with inert material. Place into closed container for disposal.

Regulatory Requirements: Dispose of recovered material in accordance with all applicable state and federal regulations.

7 HANDLING AND STORAGE

Handling Precautions: Avoid contact with eyes, skin, or clothing. Do not taste or swallow. Do not inhale vapor or mist. Use with adequate ventilation. For industrial use only!

Storage Requirements: Keep containers tightly closed when not in use. Do not store near food, foodstuff, drugs or potable water supplies. Storage must only be in original containers. If exposed to temperatures below freezing point (40F, 5C), assure product reaches 50F/10C prior to use. Gently agitate contents of container. Vigorous agitation is not required. Please note: Freezing will not harm product performance. Simply bring to room temperature by storing at room temperature and allowing it to warm up. It is not recommended to heat or to put a heating device into contact with the liquid product. Shelf life: Minimum one year. Store in properly labeled containers in accordance with all local, state and federal guidelines.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide local exhaust ventilation as needed to control misting.

Personal Protective Equipment: HMIS PP, C | Safety Glasses, Gloves, Apron

Respiratory protection: If needed use MSHA/NIOSH approved respirator. Seek professional advice prior to respirator selection and use. Follow all requirements of OSHA respirator regulations (29 CFR 1910.134)

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

General Hygiene: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, using the toilet, or applying cosmetics.

PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

CWT 405

Exposure Limits:
OSHA (TWA)/PEL: Not Established
ACGIH (TWA/TLV): Not Established

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Tea brown to tan, but can be near white. Color does not affect performance		
Physical State:	Liquid	Odor:	Vinegar-like
Odor Threshold:	No data available	Solubility:	Miscible in all proportions
Spec Grav./Density:	8.31 lb/gal	Freezing/Melting Pt.:	Below 35F
Viscosity:	No data available	Flash Point:	No data available
Boiling Point:	250°F (active ingredient)	Vapor Density:	2.25 (Air = 1)
Partition Coefficient:	No data available	Auto-Ignition Temp:	No data available
Vapor Pressure:	23.7mm Hg (est)	UFL/LFL:	No data available
pH:	6.0		
Evap. Rate:	No data available		
Decomp Temp:	No data available		

10 STABILITY AND REACTIVITY

Stability: Product is stable under normal storage and use conditions. As in general with any organic chemical, do not mix or formulate with oxidizers such as chlorine; formulating with oxidizer is not the same as using it in systems containing low use levels of oxidizers. See storage section.

Conditions to Avoid: Product can decompose at elevated temperatures

Materials to Avoid: Avoid use with aldehydes in concentrated form as under some conditions it can cause a pink color to form. The reaction between aldehydes and this material has not been studied, but it is known that materials of this type which contain an amine function can react with aldehydes.

Hazardous Decomposition: Hazardous decomposition products depend on temperature, air supply and the presence of other materials.

Hazardous Polymerization: Will not occur.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity:
Oral LD₅₀: (rat) >5,000 mg/kg (est. from similar product)
Dermal LD₅₀ (rabbit) >2,000mg/kg (est. from similar product)

Skin Corrosion/Irritation: Non-irritant 1.3/8.0 Draize score (est. from similar product)

Serious eye damage/irritation: Severe eye irritant 59-92/110 Draize score (est. from similar product)

Respiratory or skin sensitization: No data available

Specific target organ toxicity (single exposure): No data available

Specific target organ toxicity (repeated exposure): No data available

Aspiration hazard: No data available

Carcinogenicity: No carcinogenic effects are known for the components of this product

Germ Cell Mutagenicity: No mutagenic effects are known for the components of this product

Teratogenicity: No teratogenic effects are known for the components of this product

CWT 405

12 ECOLOGICAL INFORMATION

Aquatic Toxicity

Ceriodaphnia dubia

LC₅₀ 11 mg/L (24hr); 10 mg/L (48hr)

NOEC 8 mg/L

LOEC 16 mg/L

Fathead Minnow

LC₅₀ 9 mg/L (24hr); 5 mg/L (48hr); 4 mg/L (72hr); 3 mg/L (96hr)

NOEC 2 mg/L

LOEC 4 mg/L

Elimination (persistence & degradability): No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: No data available

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

This material should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14 TRANSPORT INFORMATION

Proper Shipping Name: Non-regulated

DOT Transportation data (49 CFR 172.101)

15 REGULATORY INFORMATION

TSCA: All components of this product are listed (or are not required to be listed) in the TSCA inventory

REGULATORY KEY DESCRIPTIONS

TSCA = Toxic Substances Control Act

EPA / CERCLA / SARA TITLE III:

CERCLA List: This product does not contain any CERCLA listed hazardous substances.

Toxic Chemical List (SARA 313): This product does not contain any chemicals subject to routine annual toxic chemical release reporting.

Extremely Hazardous Substance (SARA 302/304): This product does not contain any extremely hazardous substances subject to emergency planning requirements.

SARA 312: No data available

CWT 405

RCRA: No data available

16**OTHER INFORMATION**

HMIS III: Health = 2, Fire = 0, Physical Hazard = 1

HMIS PPE: C - Safety Glasses, Gloves, Apron

HMIS	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	C

Author: U.S. Water Services

Revision Notes: Updated to GHS format

Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s). The above information is not claiming characteristics of the product in term of legal claims of performance / guarantee. This information only describes safety measures and no liability may arise from the use or application of the product described herein. This information is given in good faith and based on our current knowledge of the product.

Dechlor 104

Liquid Chlorine Scavenger

CHEMICAL WATER TREATMENT

BULLETIN

PRODUCT BENEFITS

- Reduces chlorine prior to Reverse Osmosis and in cooling water discharge

PRODUCT DESCRIPTION

Dechlor 104 is a liquid supplementary chlorine scavenger which will rapidly reduce chlorine prior to Reverse Osmosis systems, and in cooling water discharge.

FEATURES

Easy To Use – Liquid can be fed direct from container.

Compatible – May be mixed with other treatment chemicals.

Easy To Control – Simple sulfite drop test.

Chlorine Reduction – Reduction of chlorine to protect RO membranes from damage due to oxidation.

For NSF / ANSI 60 potable applications, the maximum feed rate is 40 mg/l to the RO supply.



This product is listed under
NSF/ANSI Standard 60 for
Water Treatment Chemicals

Dechlor 104

Liquid Chlorine Scavenger

FEEDING

Dechlor 104 may be fed directly from the drum to the boiler feedwater line or deaerator storage section. Dechlor 104 may be mixed with chemical solutions of softening treatments and sludge conditioners.

DOSAGE

Chlorine Scavenging

For RO permeate or discharge water dechlorination, feed 4.5 to 9.0 ppm of Dechlor 104 for each ppm of chlorine (as free chlorine) in the water to be treated.

MATERIAL COMPATIBILITY

Undiluted product is rated "A" compatibility with aluminum, neoprene, Tygon, Butyl, Teflon. It is rated "B" compatibility with brass, eurathane, Buna, Hypalon, EPDM, Polyethylene, Viton, Kynar and nylon. It is rated "C" compatibility with stainless steel.

Undiluted product is not compatible with mild steel

PACKAGING

Dechlor 104 comes in:

6 Gallon Pail
15 Gallon Drum
30 Gallon Drum
55 Gallon Drum
275 Gallon Tote

HANDLING

Harmful if swallowed. Avoid prolonged contact with skin. If material gets on skin, wash with plenty of water. If eyes are affected, immediately flush with water for at least 10 minutes and get medical attention.

DECHLOR 104**1 PRODUCT AND COMPANY IDENTIFICATION**

Product Identifier: DECHLOR 104
Synonyms: 201C
Common Name: Mixture
SDS Number: 0533
Revision Date: 12/12/2014
Version: 1
Product Use: Water Treatment
Supplier Details: U.S. Water Services
12270 43rd St. NE
St. Michael, MN 55376

Contact: Non-emergency #: 866-663-7632
Email: SDS@uswaterservices.com
Web: www.uswaterservices.com

EMERGENCY RESPONSE: (ChemTel)
US & Canada: 800-255-3924
International: +01-813-248-0585

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 2
Health, Acute toxicity, 4 Oral
Health, Serious Eye Damage/Eye Irritation, 1

GHS Label elements, including precautionary statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H315 - Causes skin irritation
H302 - Harmful if swallowed
H318 - Causes serious eye damage

GHS Precautionary Statements:

P102 - Keep out of reach of children.
P281 - Use personal protective equipment as required.
P302+352 - IF ON SKIN: Wash with soap and water.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Hazards not otherwise classified (HNOC) or not covered by GHS

DECHLOR 104

PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
7631-90-5	35-40	Sodium bisulfite

4 FIRST AID MEASURES

- Inhalation:** Remove from contamination. If person has stopped breathing administer artificial respiration. Seek medical attention.
- Skin Contact:** Wash off with soap and plenty of water. Remove contaminated garments and wash or destroy. Consult a physician if irritation develops.
- Eye Contact:** Flush eyes with plenty of running water for several minutes. Seek medical attention.
- Ingestion:** If conscious, give plenty of water. Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention

Most important symptoms & effects (acute & delayed): No data available

Indication of need for immediate medical attention: No data available

Special treatment needs: No data available

5 FIRE FIGHTING MEASURES

- Flammability:** Not flammable
- Flash Point:** Not applicable
- Flash Point Method:** Pensky Martens Closed cup
- Burning Rate:** No data available
- Autoignition Temp:** No data available
- LEL:** Not applicable
- UEL:** Not applicable

Extinguishing Media:

Suitable: Use extinguishing media suitable for surrounding fire.

Unsuitable: No information available

Hazardous combustion products: Sulfur Dioxide will be released.

Unusual Fire or Explosion Hazards: Sulfur Dioxide gas will be released at a rate increasing with temperature.

Special protective equipment/precautions: Wear self-contained breathing apparatus

DECHLOR 104**6 ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective equipment, emergency procedures: Avoid contact with the material. See section 8 of SDS for PPE recommendations

Environmental Precautions: Keep runoff from entering drains or waterways

Spill/Leak procedures: Corrosive. Evacuation unprotected personnel from area. Contain spill or leak. Dike area if necessary to prevent spill from spreading or entering sewers and waterways. Recover as much as possible then absorb remainder with inert material. Place into closed container for disposal. Flush remaining area with water and neutralize with dilute Sodium Hypochlorite solution and dispose of properly.

Regulatory Requirements: Dispose of recovered material in accordance with all applicable state and federal regulations.

7 HANDLING AND STORAGE

Handling Precautions: Avoid contact with eyes, skin, or clothing. Do not taste or swallow. Do not inhale vapor or mist. Use with adequate ventilation. For industrial use only!

Storage Requirements: Store in closed containers away from temperature extremes and incompatible materials such as strong acids or oxidizers. Store in properly labeled containers in accordance with all local, state and federal guidelines.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide local exhaust ventilation as needed to control misting.

Personal Protective Equipment: HMIS PP, C | Safety Glasses, Gloves, Apron

Respiratory protection: May be required if exposure levels are exceeded. Seek professional advice prior to respirator selection and use. Not required under normal use conditions. If needed use MSHA/NIOSH approved respirator for dusts and mists. Seek professional advice prior to respirator selection and use. Follow all requirements of OSHA respirator regulations (29 CFR 1910.134)

Safety Stations: Make sure eye wash and safety/quick-drench showers are available in work area.

General Hygiene: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, using the toilet, or applying cosmetics.

PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

Exposure Limits:
NIOSH (REL): TWA (Sodium Bisulfite) 5 mg/m³

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, yellow-green

Physical State: Liquid

Odor Threshold: No data available

Spec Grav./Density: 11.09 Lb/Gal

Viscosity: No data available

Boiling Point: No data available

Odor: Sulfur Dioxide

Solubility: Complete

Freezing/Melting Pt.: 40°F

Flash Point: Non-Flammable

Vapor Density: No data available

DECHLOR 104

Partition Coefficient: No data available
Vapor Pressure: No data available
pH: 3.7 - 5.3
Evap. Rate: No data available
Decomp Temp: No data available

Auto-Ignition Temp: No data available
UFL/LFL: No data available

10 STABILITY AND REACTIVITY

Stability: Product is stable under normal storage and use conditions.
Conditions to Avoid: Avoid temperature extremes. Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Protect from freezing
Materials to Avoid: Strong oxidizing agents, strong acids.
Hazardous: Sulfur dioxide gas. Sodium sulfide.
Decomposition:
Hazardous: Will not occur.
Polymerization:

11 TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available
Skin Corrosion/Irritation: No data available
Serious eye damage/irritation: No data available
Respiratory or skin sensitization: No data available
Specific target organ toxicity (single exposure): No data available
Specific target organ toxicity (repeated exposure): No data available
Aspiration hazard: No data available
Carcinogenicity: No carcinogenic effects are known for the components of this product
Germ Cell Mutagenicity: No mutagenic effects are known for the components of this product
Teratogenicity: No teratogenic effects are known for the components of this product

12 ECOLOGICAL INFORMATION**Aquatic Toxicity**

Aquatic Toxicity Acute LC₅₀ (24 Hr)
Ceriodaphnia (Water Flea): 955 mg/L; Fathead Minnow: >1000 mg/L; Trout (Rainbow): 266 mg/L
Acute LC₅₀ (48 Hr)
Ceriodaphnia (Water Flea): 632 mg/L; Fathead Minnow: >1000 mg/L; Trout (Rainbow): 266 mg/L
Acute LC₅₀ (72 Hr)
Fathead Minnow: >1000 mg/L; Trout (Rainbow): 266 mg/L
Acute LC₅₀ (96 Hr)
Fathead Minnow: >1000 mg/L; Trout (Rainbow): 266 mg/L
Acute NOEC
Ceriodaphnia (Water Flea): 600 mg/L (48 Hr); Fathead Minnow: 600 mg/L (96 Hr); Trout (Rainbow): 188 mg/L (96 Hr)
Acute LOEC
Ceriodaphnia (Water Flea): 1000 mg/L (48 Hr); Fathead Minnow: 1000 mg/L (96 Hr); Trout (Rainbow): 375 mg/L (96 Hr)
Elimination (persistence & degradability): No data available

DECHLOR 104

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: No data available

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

This material should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14 TRANSPORT INFORMATION

UN2693, Bisulfites, aqueous solutions, n.o.s., 8, PGIII, (Sodium Bisulfite)

DOT Transportation data (49 CFR 172.101)

See section 15 of SDS for information on Reportable Quantity chemicals (RQ)

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

RQ(5000LBS), Sodium bisulfite (7631-90-5) [35-40] CERCLA, CSWHS, MASS, OSHAWAC, PA, TSCA, TXAIR

Regulatory CODE Descriptions

CERCLA = Superfund clean up substance

CSWHS = Clean Water Act Hazardous substances

MASS = MA Massachusetts Hazardous Substances List

OSHA WAC = OSHA Workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

TXAIR = TX Air Contaminants with Health Effects Screening Level

EPA / CERCLA / SARA TITLE III:

Toxic Chemical List (SARA 313): This product does not contain any chemicals subject to routine annual toxic chemical release reporting.

Extremely Hazardous Substance (SARA 302/304): This product does not contain any extremely hazardous substances subject to emergency planning requirements.

SARA 312: No data available

California Proposition 65: This product does not contain any chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

RCRA: No data available

DECHLOR 104

16 OTHER INFORMATION

HMIS III: Health = 2, Fire = 0, Physical Hazard = 1
HMIS PPE: C - Safety Glasses, Gloves, Apron

HMIS	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	C

Author: U.S. Water Services

Revision Notes: Updated to GHS format

Disclaimer:

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U.S. WATER
The *future* of water™

PhosZero™ 1500

with E-FeX™ Technology
Zero Phosphorous Scale and Corrosion
Inhibition for Cooling Water

CHEMICAL WATER TREATMENT
PRODUCT DATA SHEET



PRODUCT BENEFITS

- Favorable aquatic toxicity profile makes NPDES permit applications easier.
- Absolutely no phosphorus contribution from treatment, which eliminates the need to pay for credits or removal when discharging to sensitive waterways.
- Excellent corrosion inhibition reduces maintenance costs and helps extend equipment life.
- Effective scale inhibitors will ensure high heat transfer in soft to high hardness waters.

PRODUCT DESCRIPTION

PhosZero™ 1500 is an effective scale and corrosion inhibitor for open recirculating cooling water systems. *It is designed for use in soft to moderate hardness water.*

PhosZero™ 1500 is ideal for use in applications where phosphorus discharge is restricted. The formula can lower overall treatment costs by eliminating the costs associated with phosphorus discharge. Because this is an alkaline treatment program, acid use is reduced when compared to traditional corrosion inhibition chemistries like stabilized phosphate or zinc/phosphate programs.

FEATURES

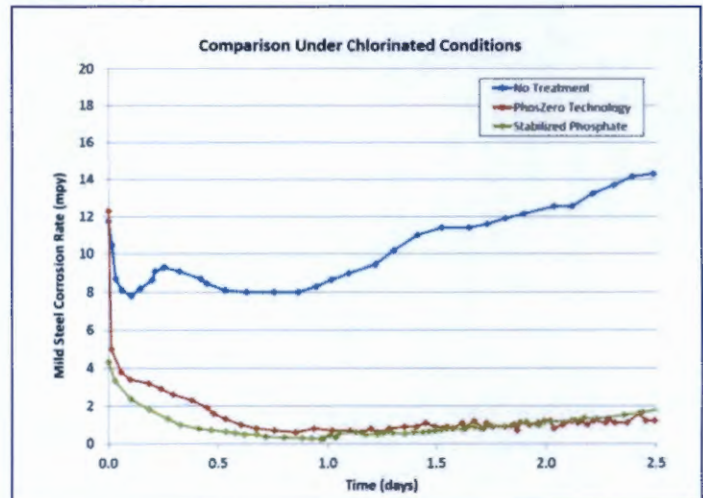
Proprietary Chemistry – Unique US Water developed, state of the art technology.

Non Polluting – PhosZero™ contains no molybdate, zinc, borate or chromate. The total phosphorus contribution to plant discharge is zero. Independent testing has shown that the environmental impact of this product in cooling discharge is negligible.

Superior Corrosion Control – Proprietary E-FeX™ Technology creates a tightly adherent iron oxide passivation layer on mild steel, providing excellent corrosion control with no loss of heat transfer efficiency. Contains effective copper corrosion inhibitors for excellent multi-metal protection.

Laboratory Results

Laboratory results under stressed cooling system conditions are shown below. Mild steel corrosion rates in the sample treated with PhosZero™ were equivalent to results from traditional stabilized phosphate chemistry, and significantly improved over the tests run with no corrosion inhibitor chemistry.



PhosZero™ 1500

with E-FeX™ Technology



Zero Phosphorous Scale and Corrosion Inhibition for Cooling Water

Field Trial Results

Trial results from industrial cooling systems have proven PhosZero's ability to inhibit deposit formation and to significantly reduce corrosion rates. The proprietary E-FeX™ Technology minimizes corrosion in soft and hard water applications.

Mild Steel Coupons – Industrial BioRefinery

BEFORE: Alkaline Phosphonate/Phosphate Treatment Program

	Coupon Before Cleaning
	Coupon After Cleaning 3.217 MPY

AFTER: PhosZero™ Treatment Program

	Coupon Before Cleaning
	Coupon After Cleaning 0.702 MPY

DOSAGE

The target dosage of PhosZero™ 1500 is normally in the range of 120 – 180 ppm as maintained in the recirculating cooling water.

The recommended test method for PhosZero™ 1500 is UV Fluorescence for PTSA. At the target dose of 150 ppm product, the UV fluorescence will register at 75 ppb of PTSA.

Best performance is achieved by maintaining water conditions of total dissolved solids, hardness, alkalinity, temperature and pH to control the RSI scaling index between 3.6 – 8.0. (LSI between -1.0 to +2.4)

FEEDING

PhosZero™ 1500 can be fed directly from the shipping container to any convenient point in the recirculating water system. Best results will be achieved by feeding with a US Water TowerAssurance or Lumyn™ real time monitor and dose control system.

PACKAGING

PhosZero™ 1500 comes in:

5 Gallon Pail	55 Gallon Drum
15 Gallon Drum	275 Gallon Tote
30 Gallon Drum	

MATERIALS COMPATABILITY

Neat product is compatible with stainless steel (304 or 316), Hastelloy, EPDM, Kynar, Viton, PVC, Tygon, Teflon, polypropylene and polyethylene.

Neat product is not compatible with aluminum, mild steel, or yellow metal.

HANDLING

Harmful if swallowed. Not approved for use in potable water systems. Avoid prolonged or repeated contact with skin or eyes. Flush from skin with water. In case of eye contact, flush with water and get medical attention.

PRODUCT CHARACTERISTICS

Appearance:	Amber Liquid
Odor:	Sweet
Density:	9.43 lbs / gallon
pH:	3.5 – 4.0

PHOSZERO 1500**1 PRODUCT AND COMPANY IDENTIFICATION**

Product Identifier: PHOSZERO 1500
Common Name: MXITURE
SDS Number: 0470
Product Code: CT0274
Revision Date: 6/18/2019
Version: 2
Product Use: Scale & Corrosion Inhibitor

Supplier Details: U.S. Water Services
12270 43rd St. NE
St. Michael, MN 55376

Contact: Non-Emergency #: 866-663-7633
Email: SDS@uswaterservices.com
Web: www.uswaterservices.com

EMERGENCY RESPONSE: (ChemTel)
US & Canada: 800-255-3924
International: +01-813-248-0585

2 HAZARDS IDENTIFICATION**Classification of the Substance or Mixture****GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):**

Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 2 B

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **WARNING**

GHS Hazard Pictograms:

**GHS Hazard Statements:**

H315 - Causes skin irritation
H320 - Causes eye irritation

GHS Precautionary Statements:

P281 - Use personal protective equipment as required.
P302+352 - IF ON SKIN: Wash with soap and water.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P313 - Get medical advice/attention.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

PHOSZERO 1500

PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

3 COMPOSITION/INFORMATION OF INGREDIENTS

No OSHA hazardous ingredients

4 FIRST AID MEASURES

Inhalation: Remove from contamination. If symptoms persist, seek medical attention.
Skin Contact: Wash off with soap and plenty of water. Remove contaminated clothing and wash or destroy. Seek medical attention if irritation develops.
Eye Contact: Flush eyes with plenty of running water for at least 15 minutes. Seek immediate medical attention.
Ingestion: If conscious, rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention.
Most important symptoms & effects (acute & delayed): No data available
Indication of need for immediate medical attention: No data available
Special treatment needs: No data available

5 FIRE FIGHTING MEASURES

Flash Point: None
Flash Point Method: Pensky Martens Closed Cup
Burning Rate: Not applicable
Autoignition Temp: Not applicable
LEL: Not applicable
UEL: Not applicable
Special protective equipment/precautions: Wear self-contained breathing apparatus
Extinguishing Media: Suitable: Use extinguishing media suitable for surrounding fire.
Unsuitable: No information available.
Hazardous combustion Products: Thermal decomposition under fire conditions may produce toxic nitrogen dioxide fumes.
Unusual fire or explosion hazards: None Known.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective equipment, emergency procedures: Avoid contact with the material. See section 8 of SDS for PPE recommendations
Environmental Precautions: Keep runoff from entering drains or waterways
Spill/Leak procedures: Contain spill or leak. Dike area if necessary to prevent spill from spreading or entering sewers and waterways. Recover as much as possible then absorb remainder with inert material. Place into closed container for disposal.
Regulatory Requirements: Dispose of recovered material in accordance with all applicable state and federal regulations.

PHOSZERO 1500**7 HANDLING AND STORAGE**

- Handling Precautions:** Avoid contact with eyes, skin, or clothing. Do not taste or swallow. Do not inhale vapor or mist. Use with adequate ventilation. For industrial use only!
- Storage Requirements:** Store in closed containers away from temperature extremes and incompatible materials. Store in properly labeled containers in accordance with all local, state and federal guidelines.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Controls:** Provide local exhaust ventilation as needed to control misting.
- Personal Protective Equipment:** Respiratory protection: Not required under normal use conditions. If needed use MSHA/NIOSH approved respirator. Seek professional advice prior to respirator selection and use. Follow all requirements of OSHA respirator regulations (29 CFR 1910.134)
- Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
- General Hygiene: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, using the toilet, or applying cosmetics.
- PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

Exposure Limits:
USA OSHA (TWA)/PEL): 2mg/m³

9 PHYSICAL AND CHEMICAL PROPERTIES

- | | | | |
|----------------------------|--------------------|------------------------------|-------------------|
| Appearance: | Amber | Odor: | Slightly sweet |
| Physical State: | Liquid | Solubility: | Complete |
| Odor Threshold: | No data available | Freezing/Melting Pt.: | No data available |
| Spec Grav./Density: | 1.13 / 9.43 Lb/Gal | Flash Point: | None |
| Viscosity: | No data available | Vapor Density: | No data available |
| Boiling Point: | No data available | Auto-Ignition Temp: | No data available |
| Vapor Pressure: | No data available | UFL/LFL: | No data available |
| pH: | 3.7-4.7 | | |
| Evap. Rate: | No data available | | |
| Decomp Temp: | No data available | | |

10 STABILITY AND REACTIVITY

- Chemical Stability:** Product is stable under normal storage and use conditions.
- Conditions to Avoid:** Avoid temperature extremes. Protect from freezing
- Materials to Avoid:** Strong oxidizing agents, strong acids
- Hazardous Decomposition:** None under normal storage and use conditions. See section 5.
- Hazardous Polymerization:** Will not occur.

PHOSZERO 1500

11 TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available

Skin Corrosion/Irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or skin sensitization: No data available

Specific target organ toxicity (single exposure): No data available

Specific target organ toxicity (repeated exposure): No data available

Aspiration hazard: No data available

Carcinogenicity: No carcinogenic effects are known for the components of this product

Germ Cell Mutagenicity: No mutagenic effects are known for the components of this product

Teratogenicity: No teratogenic effects are known for the components of this product

12 ECOLOGICAL INFORMATION

Aquatic Toxicity

Acute:

Species	Test Duration	LC50
Water Flea (<i>Daphnia magna</i>)	48 hour	3300 mg / L
Water Flea (<i>Ceriodaphnia dubia</i>)	48 hour	3540 mg / L
Fathead Minnow (<i>Pimephales promelas</i>)	96 hour	2100 mg / L
Sheepshead Minnow (<i>Cyprinodon variegates</i>)	96 hour	2830 mg / L
Midge Fly Larvae (<i>Chironomus dilutes</i>)	48 hour	5550 mg / L
Black Worm (<i>Lumbriculus variegatus</i>)	96 hour	13200 mg / L

Chronic:

Species	Test Duration	IC25
Water Flea (<i>Daphnia magna</i>)	21 days	1750 mg / L
Fathead Minnow (<i>Pimephales promelas</i>)	7 days	1430 mg / L

Elimination (persistence & degradability): No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: No data available

PHOSZERO 1500**13 DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local regulations.

This material should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14 TRANSPORT INFORMATION

Proper Shipping Name: Non Regulated

15 REGULATORY INFORMATION**COMPONENT / (CAS/PERC) / CODES**

TSCA: All components of this product are listed (or are not required to be listed) in the TSCA inventory.

This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

REGULATORY KEY DESCRIPTIONS

CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
MASS = MA Massachusetts Hazardous Substances List
OSHA = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level

EPA / CERCLA / SARA TITLE III:

Toxic Chemical List (SARA 313): This product does not contain any chemicals subject to routine annual toxic chemical release reporting.

Extremely Hazardous Substance (SARA 302/304): This product does not contain any extremely hazardous substances subject to emergency planning requirements.

California Proposition 65: This product does not contain any chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

PHOSZERO 1500**16****OTHER INFORMATION**

Author: U.S. Water Services - Canada, Inc.









Revision Notes: Updated to GHS format

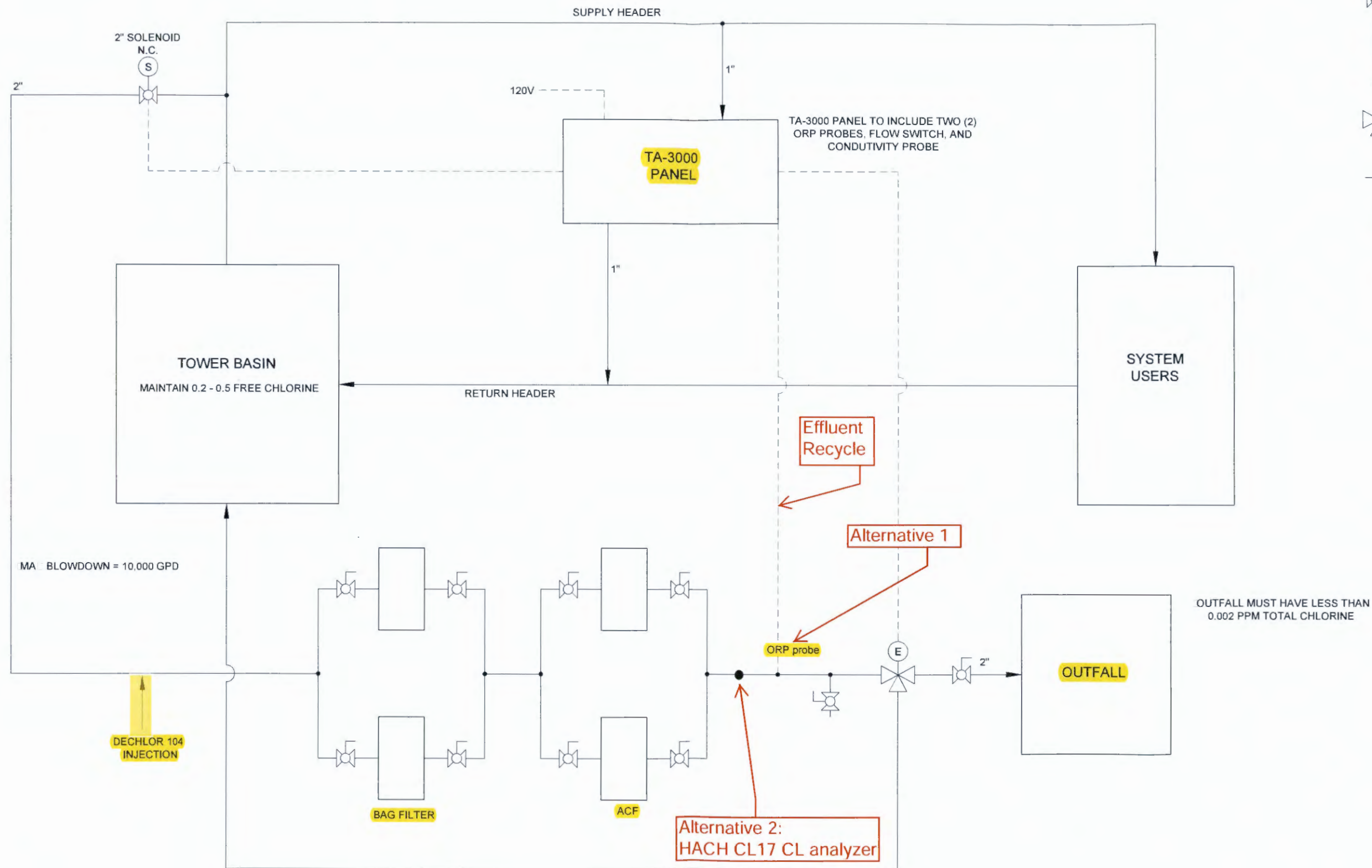
Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s). The above information is not claiming characteristics of the product in term of legal claims of performance / guarantee. This information only describes safety measures and no liability may arise from the use or application of the product described herein. This information is given in good faith and based on our current knowledge of the product.

Revision Date: 6/18/2019

LEGEND

-  BALL VALVE
-  FLOW DIRECTION
-  CONNECTION POINT
-  THREE-WAY VALVE
-  PIPING CROSSOVER
-  SOLENOID ACTUATED
-  ELECTRIC ACTUATED
-  LEVER ACTUATED



REV.	DESCRIPTION	DATE	DRWN	CHK'D	APP'D
0	Pr al Ora	8 10 2018	MRR		



PROCESS FLOW DIAGRAM

Designer: MRR Date: 8/10/2018
 Page: 1 of 1

BREITBURN ASU CONDENSER DECHLORINATION

PROPOSAL NUMBER:

REV 0

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CL17 CHLORINE ANALYZER



Applications

- Beverage
- Collection Systems
- Drinking Water
- Field Use
- Food QC Lab
- Pharmaceutical
- Power
- Semiconductor
- Wastewater

Dependable, colorimetric DPD free or total chlorine analysis.

Accurate, Reliable Results

The Hach CL17 Chlorine Analyzer uses colorimetric DPD chemistry to monitor water continuously for free or total residual chlorine. The CL17 analysis method is not affected by changes in chlorine concentration, sample pH, temperature, flow or pressure, thus offering more accuracy than other methods in today's market.

Simple, Predictable Maintenance

Monthly routine maintenance for the CL17 can usually be performed in 15 minutes, including changing reagents and cleaning the colorimetric cell. No special tools are required. For typical use, the CL17 will operate unattended for 30 days. Challenging applications may require more frequent cleaning.

Factory Calibrated

The CL17 Chlorine Analyzer is factory calibrated. A built-in electronic calibration curve is preprogrammed into the instrument. This instrument does not require recalibration unless specified by your regulatory agency for compliance reporting purposes.

EPA Compliant

The CL17 is compliant with US EPA regulation 40 CFR 140.74. Both Method 4500-CL G and Method 334.0 can be used for measuring residual chlorine in drinking water.



Be Right™

Specifications*

Range	0 to 5 mg/L free or total residual chlorine
Accuracy	± 5 % or ±0.03 mg/L (ppm) as Cl_2 , whichever is greater
Lower Limit of Detection (LOD)	0.03 mg/L (ppm)
Cycle Time	2.5 minutes
Inlet Pressure	1 to 5 psig (0.07 to 0.34 bar), .5 psi is optimum
Pressure Limit	Inlet Pressure to Sample Conditioning: 1.5 to 75 psi (0.1 bar to 5.2 bar)
Inlet	1/4-inch OD polyethylene tube, quick-disconnect fitting
Drain	1/2-inch ID flexible hose, hose barb
Air Purge	0.1 cfm (0.17 m ³ /h) instrument quality air at max. 20 psig (ca. 1.4 bar) with 1/4-inch OD tube, quick disconnect fitting
Sample Flow Rate	200 to 500 mL per minute minimum
Sample Temperature	5 to 40 °C (41 to 104 °F)
Operating Temperature Range	5 to 40 °C (41 to 104 °F)
Operating Humidity	Up to 90% at 40 °C (104 °F) maximum
Interferences	Other oxidizing agents such as bromide, chlorine dioxide, permanganate and ozone will cause a positive interference. Hexavalent chromium will cause a positive interference: 1 mg/L Cr^{6+} = approximately 0.02 mg/L as Cl_2 . Hardness must not exceed 1,000 mg/L as $CaCO_3$.
Recorder Outputs	One 0/4-20 mA with an output span programmable over any portion of the 0 to 5 mg/L range. Recommended load impedance 3.6 to 500 ohms, 130 V isolation from earth ground.

Alarm	Two alarms selectable for sample concentration alarm, analyzer system warning, or analyzer system shut-down alarm. Each is equipped with an SPDT relay with contacts rated for 5A resistive load at 230 V AC.
Certifications	Europe, CE Approved with: EN 61326-1 CISPR 11 EN 61010-1 IEC 60529 North America: UL 61010A-1 CAN/CSA C22.2 No. 1010.1-92
Power Requirements (Voltage)	100 - 115/230 V AC
Power Requirements (Amps)	2.5 A
Power Requirements (Hz)	50/60 Hz
Display	LCD, 3-1/2 inch digit measurement readout and six-character alphanumeric scrolling text line
Light Source	Class 1 LED (light emitting diode) with a peak wavelength of 520 nm; 50,000 hours estimated minimum life
Enclosure Construction	ABS plastic, two clear polycarbonate windows, IP62-rated with the gasketed door latched.
Mounting Style	Wall mount
Dimensions Metric (H x W x D)	454 mm x 314 mm x 179 mm
Weight	23.13 lbs. (10.49 kg)

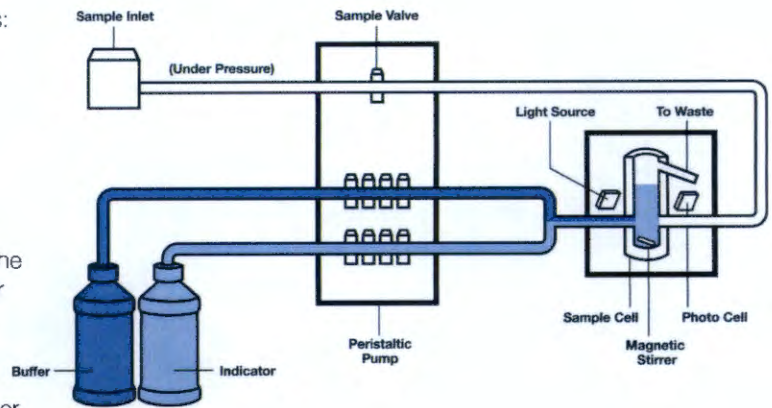
*Subject to change without notice.

Principle of Operation

The CL17 Chlorine Analyzer has three operating components:

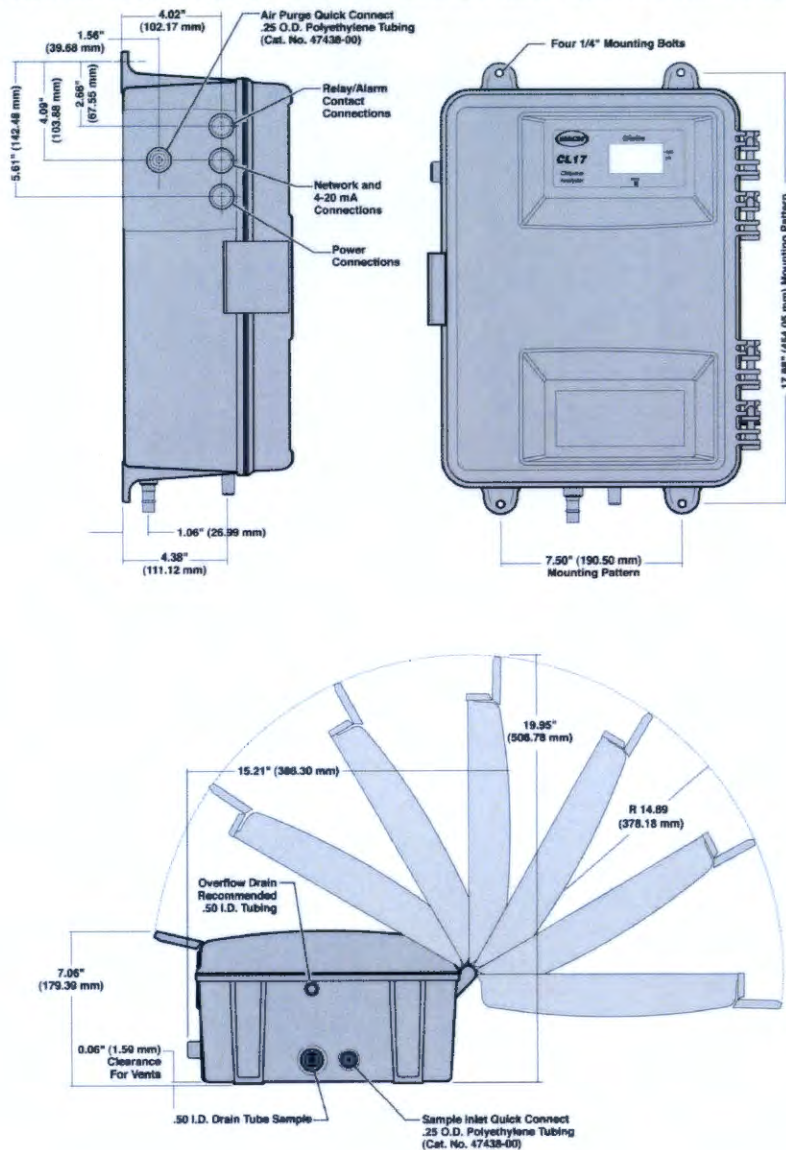
- A linear peristaltic pump to precisely control the volume of incoming samples and reagents.
- A colorimeter with seal-free, solid-state mixing system that includes a self-cleaning stir bar.
- One-month supply of reagents (indicator and buffer)

A zero reference point is established with the first sample in the cycle by measuring blank absorbance. (This compensates for the sample's color intensity and turbidity before the chlorine measurement is made.) Then, indicator and buffer reagents are added to the sample while a magnetic stirrer mixes the solution and the sample changes color. A compact colorimeter then measures the light transmitted through the sample. The measured color intensity is compared to a reference standard. Finally, the sample cell is flushed with new sample so that the cycle can repeat itself every 2.5 minutes.



Dimensions

The CL17 is designed to be wall-mounted with four 1/4-inch screws. Adequate clearance must be left at the sides and bottom of the case for plumbing and electrical connections. The sample inlet connection is 1/4-inch quick-disconnect fitting and the drain connection is 1/2-inch I.D. flexible hose. Electrical connections are inside the instrument case. Holes for three 1/2-inch conduit fittings are provided.



Ordering Information

Hach CL17 Chlorine Analyzers are shipped with a one-month supply of reagents, maintenance kit, installation kit, and manual. (The power cord is ordered separately.)

- 5440001** Model CI17 Free Residual Chlorine Analyzer
- 5440002** Model CI17 Total Residual Chlorine Analyzer
- 5440003** Model CI17 Free Residual Chlorine Analyzer with AquaTrend® Network Capability
- 5440004** Model CI17 Total Residual Chlorine Analyzer with AquaTrend® Network Capability



Accessories

- 5448800** North American Power Cord Kit with Strain Relief, 125V
- 5448900** European Power Cord Kit with Strain Relief, 230V
- 5444300** Maintenance Kit, 1 year, includes tubing, caps, funnel, and fittings
- 5444301** Maintenance kit, 1 year, includes preassembled tubing, caps, funnel, and fittings.
- 4643600** Sample Inlet Flow Meter
- 5449000** CI17 Calibration/Verification Kit

Reagents

Reagents

- 2556900** Free Chlorine Reagent Set
- 2557000** Total Chlorine Reagent Set
- 2297255** CI17 DPD Indicator Powder (Free and Total)
- 2314011** CL17 Free Chlorine Indicator Solution
- 8867711** CL17 Free Chlorine Buffer Solution
- 2263411** CL17 Total Chlorine Indicator Solution
- 2263511** CL17 Total Chlorine Buffer Solution



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United States: 800-227-4224 tel 970-669-2932 fax orders@hach.com
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hach.com

LIT1626 Rev 7

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In the interest of improving and updating its equipment,

Hach Company reserves the right to alter specifications to equipment at any time.



Be Right™

NC[®] steel cooling tower

MORE CAPACITY. MORE VALUE.

MARLEY[®] 



Marley Is Raising The Industry Bar – Again.



SACRIFICE NOTHING

If you're looking for maximum value in a package cooling tower, look no further than the NC from Marley. After all, why sacrifice productivity for value when you can have both with the Marley NC?

HIGHEST CAPACITY

More fully assembled, CTI-certified, deliverable tons of cooling than any other package cooling tower on the market. The NC makes it easier to cool larger applications with more value and shorter installation times.

HIGHEST EFFICIENCY

All that capacity is achieved with even less power – lowering operation costs and energy usage – accomplishing ASHRAE 90.1 efficiencies up to six times more than required.

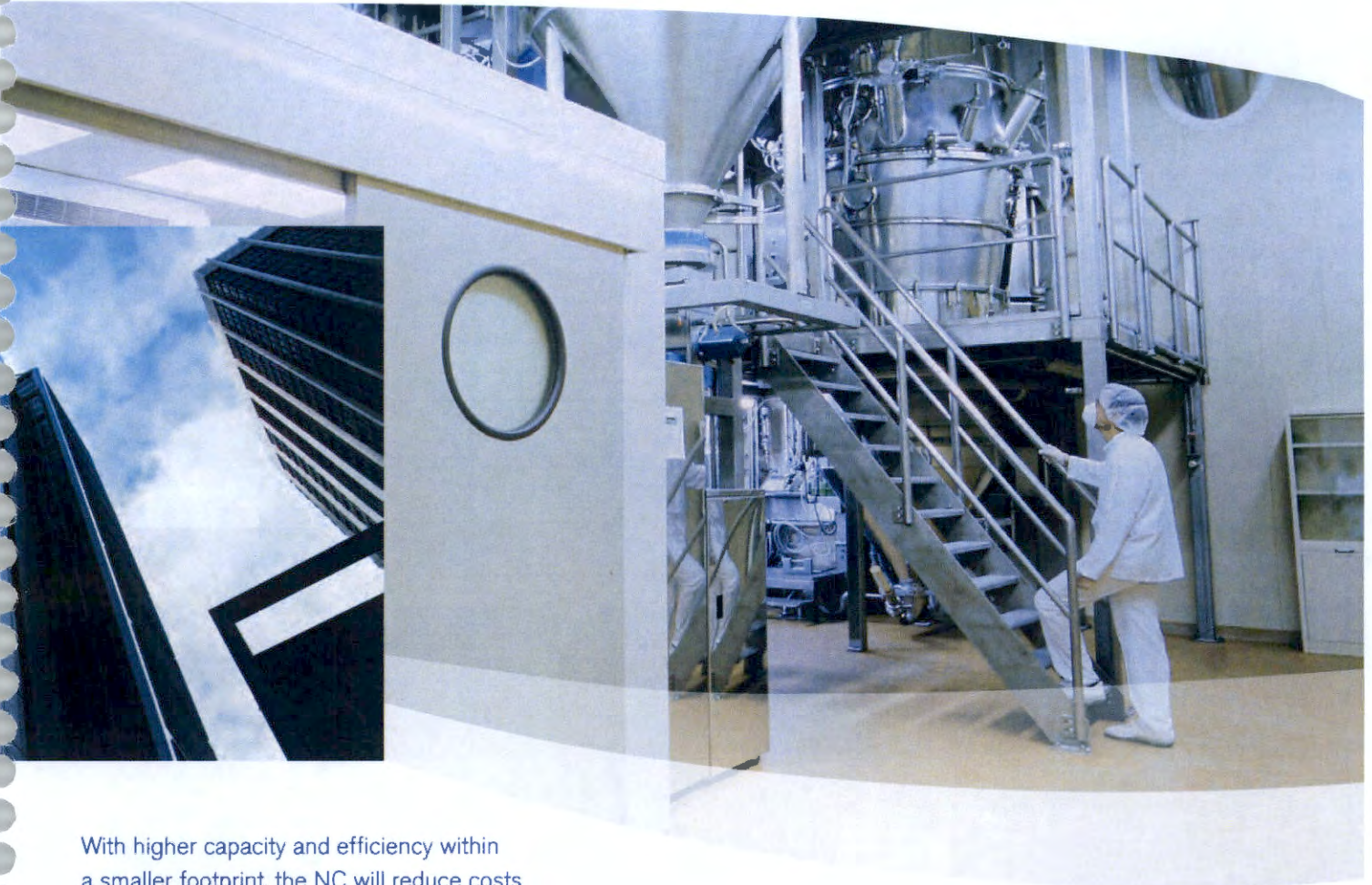
SMALLER PROFILE

Increasing capacity and efficiency typically means increasing size. Not with the Marley NC. Most models are the same or smaller footprint than before. In addition, there is a one- to two-foot height reduction from previous comparable models, saving costs for architectural walls and enclosures.

INDEPENDENTLY VERIFIED SOUND DATA

We recognize how important sound control is and how difficult it is to measure cooling tower sound at various locations where background noise may interfere with testing. All published sound data for Marley NC cooling towers has been independently verified by a CTI-licensed test agency so you can trust that your cooling tower will meet sound levels as specified.

MARLEY 



With higher capacity and efficiency within a smaller footprint, the NC will reduce costs for an even wider array of applications.

MORE APPLICATIONS

The NC has the right combination of increased efficiency and reduced footprint to bring the performance of a crossflow cooling tower to more applications than ever before.

MARLEY RELIABILITY

As a recognized leader in product quality, the greatest value of all might just be the name on the side. Our reputation, our service and our 90-year history of excellence deliver the peace of mind that comes from knowing you've made a quality choice. Now, more than ever, value is important when looking for the best cooling solution. The NC from Marley delivers more value than ever before.

Is the Marley NC Right for Your Application?

The best way to see if a Marley NC suits your needs is to run a complimentary product match analysis of your specific installation or plans. You can do it yourself or contact your local Marley sales representative.

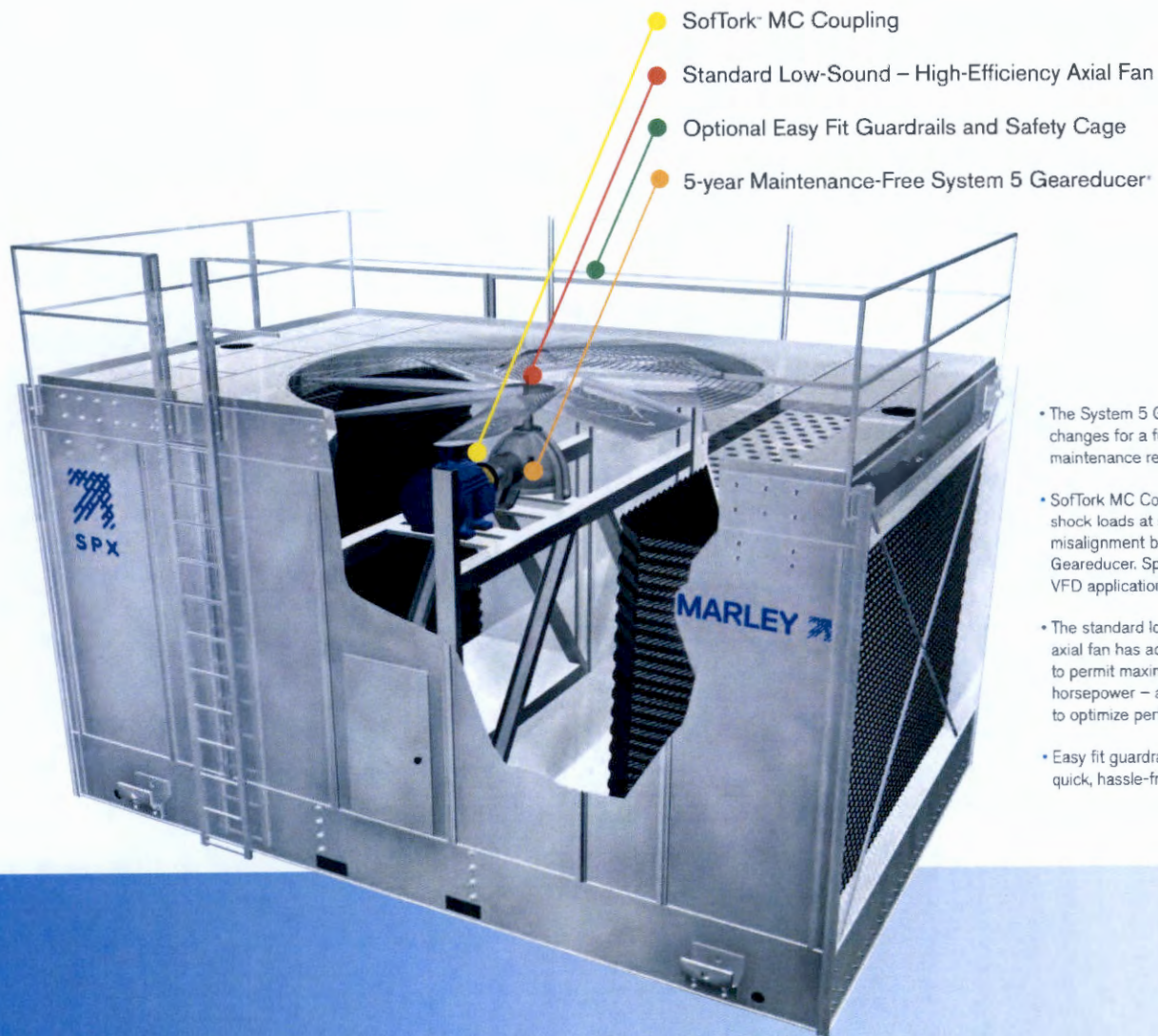
Find out at spxcooling.com/update

Enter the key specs you're working with and make your own product selection.

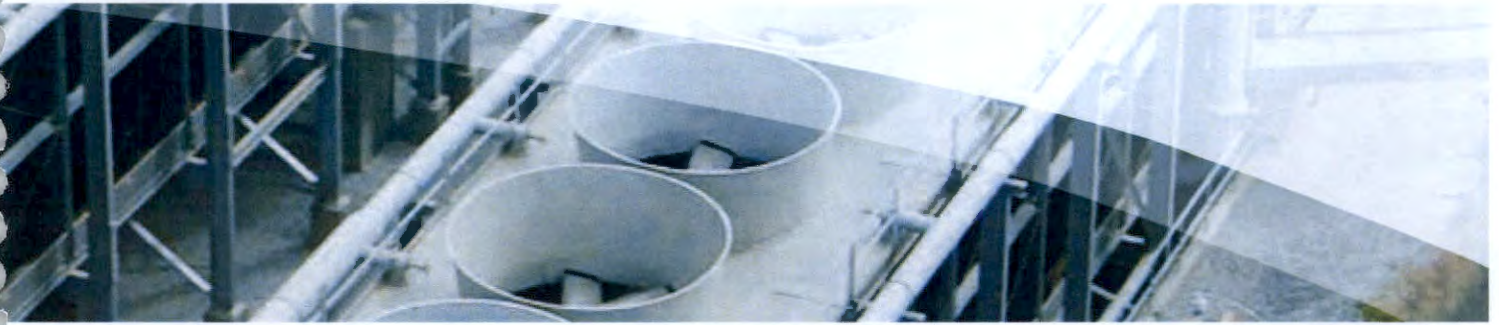
The NC is redefining crossflow package cooling towers.

SEE INCREASED VALUE FROM THE VERY BEGINNING.

- Lower shipping costs and global availability. Affordable performance – delivered when you need it, wherever you need it.
- Ease of installation. 90 years in the business have taught us to streamline the installation process and to anticipate the installation needs for numerous applications.



- The System 5 Geareducer requires no oil changes for a full five years – the lowest maintenance requirements in the industry.
- SofTork MC Coupling absorbs excessive shock loads at start-up – forgives minor misalignment between the motor and Geareducer. Specifically designed for VFD applications and cooling towers.
- The standard low-sound, high-efficiency axial fan has adjustable-pitch fan blades to permit maximum utilization of rated horsepower – allowing field adjustments to optimize performance.
- Easy fit guardrail and safety cage option for quick, hassle-free field installation.



The perfect fit makes all the difference.

See how the best gets even better. There's a Marley NC that's ideal for your application.

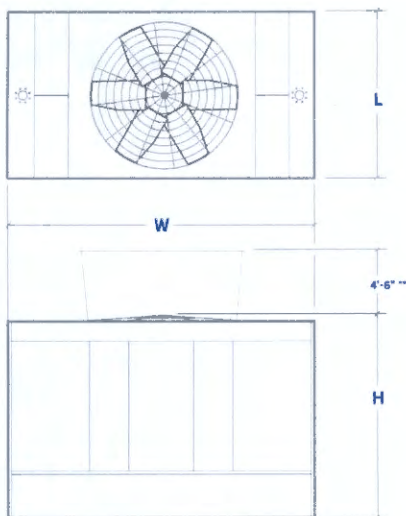
INDUSTRY-LEADING FEATURES AND OPTIONS OF THE MARLEY NC.

- Improved efficiency and increased capacity: At its largest capacity, the Marley NC has the ability to deliver more tons of cooling than any other package cooling tower on the market, as high as 2189 tons in a single unit.
- Drift rates as low as .0005% of design flow rate are available on many standard models – the exclusive patent-pending MarKey™ drift eliminator achieves the lowest drift rates of any standard crossflow configuration.
- Optional belt drive – the choice is yours. Choose the belt drive system for all models up to 60 hp.
- Largest selection of options and accessories. Select and customize your NC with the most optional features of any factory-assembled cooling tower.
- The most CTI-certified low-sound options, with low-sound fans standard on all NC models.

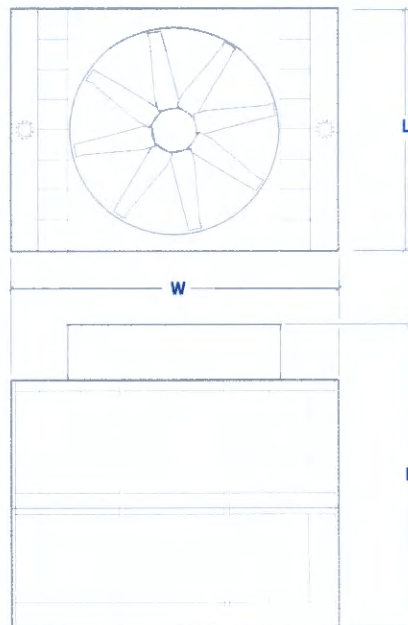
Models	Tons	L	W	H
NC8401	101–198	6'-6"	12'-10"	10'-2"
NC8402	156–308	8'-5"	14'-2"	10'-3"***
NC8403	196–489	8'-5"	18'-2"	11'-11"***
NC8405	242–591	9'-11"	19'-11"	12'-0"***
NC8407	320–736	11'-11"	21'-0"	12'-0" **
NC8409	417–865	13'-11"	22'-5"	12'-0" **
NC8410*	498–966	11'-11"	22'-5"	16'-0" **
NC8411*	546–1032	11'-11"	22'-5"	18'-10" **
NC8412*	693–1240	13'-11"	22'-5"	18'-10" **
NC8413*	598–1214	11'-11"	22'-5"	22'-7" **
NC8414*	761–1455	13'-11"	22'-5"	22'-7" **
NC8422	1311–2189	22'-5"	29'-6"	27'-1"

*Two-story modular cells

**Velocity recovery fan cylinders required on some models in this box size



NC8401 - NC8414



NC8422



The Marley NC sets the standard on certifications and standards.



MORE FACTORY MUTUAL APPROVED FEATURES THAN EVER.

We've added more FM options than ever before, including high wind load applications. The NC will help bring more affordable operation insurance for mission-critical facilities and lower the cost for FM customers. What's more, Marley is still the only manufacturer to provide an FM-approved single-cell crossflow cooling tower.



THE NC HAS CODES AND CERTIFICATIONS COVERED.

CTI, ASHRAE, ASCE, OSHA, OSHPD, ACOP L8, IBC, FBC, FM, China GB7, Eurovent, ISO, BSI – the NC is covered with the codes you need now and for the future. Plus, we have more models meeting the China efficiency standards than ever before. And all models are ASHRAE 90.1 compliant.





**COOL IS
GREEN
IS COOL**

The new NC is greener, too.

Greater energy efficiency is just the beginning of the green story. The NC employs water-saving strategies to help achieve sustainable building goals. Being green can do more than help with LEED projects – it can boost your bottom line.

Simply put, the NC from Marley is a package crossflow cooling tower like no other.



ADDITIONAL NC COOLING TOWER PUBLICATIONS

For further information about the NC cooling tower – including engineering schematics, data, layout requirements and more – download these NC publications and others at spxcooling.com.



Engineering Data



Specifications



Marley NC Alpha
Splash-Fill
Cooling Tower

OTHER SPX COOLING TECHNOLOGIES PRODUCTS

SPX Cooling Technologies offers a full line of industry leading products – with exceptional support and innovation designed to help you get the most out of your cooling process. Take a look at these other Marley products at spxcooling.com.



Marley MD
Cooling Tower



Marley AV Series
Cooling Tower



Marley Aquatower
Cooling Tower

SPX COOLING TECHNOLOGIES, INC.

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OVERLAND PARK, KS 66213 USA
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spxcooling.com

NC-18 | ISSUED 5/2018

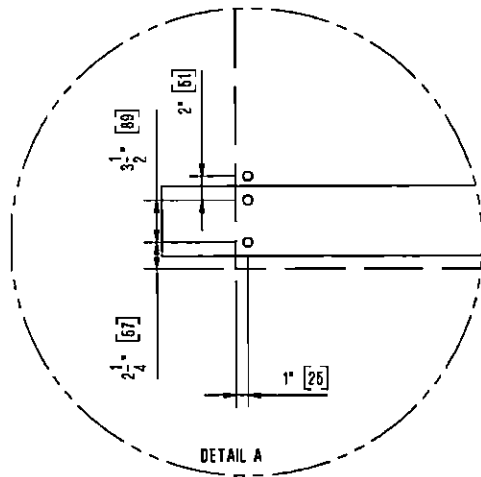
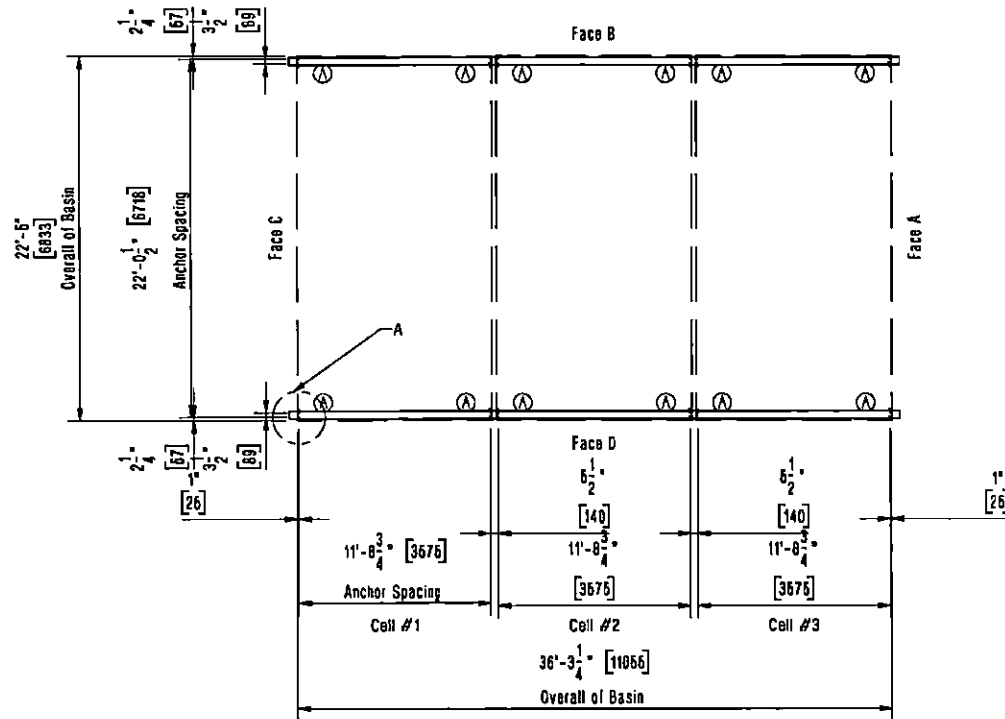
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In the interest of technological progress, all products are subject to design and/or material change without notice.



Shipping Weight		Design Operating Loads			Wind Load		Seismic Load	
per Tower	Heaviest Lift	per Tower	per Cell	at A	Vert. Reaction at A	Horiz. Reaction at A	Vert. Reaction at A	Horiz. Reaction at A
62174 lb (28202 kg)	11317 lb (5133 kg)	129272 lb (58637 kg)	43091 lb (19546 kg)	11809 lb (5356 kg)	261.85 x P lb (24.33 x P kgf)	130.63 x P lb (12.14 x P kgf)	23544 x G lb (10679 x G kgf)	11672 x G lb (5294 x G kgf)

(B) 3/4" ASTM A307 or M20 Grade 4.8 anchor bolts are required per cell. These anchor bolts are capable of resisting 66 psi (2881 N/m²) wind load or 0.77 G seismic load applied to the tower. Wind and Seismic capacities are un-factored loads as determined by ASCE7-10. Determination of the site specific design wind and seismic loads are by others.

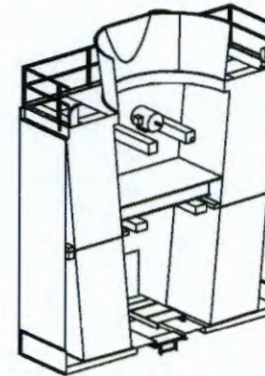
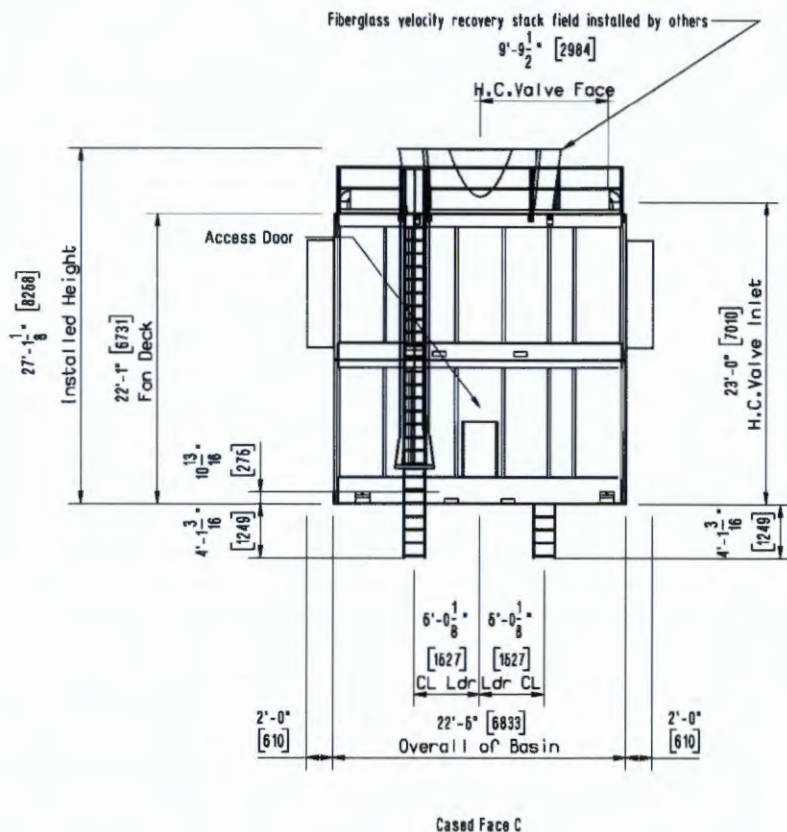


The first anchor bolt hole is the closest to the end of the cold water basin flange. The second anchor bolt should use the hole that matches the gauge of the beam.

NOTES

- SUPPORTING STEEL:** The supporting steel is to be designed, constructed and furnished by the customer. It shall include customer supplied anchor bolts to suit the general dimensions of this drawing and of the Outfall Piping Plan drawing. The top surface of the supporting steel must be framed flush and level. The maximum beam deflection shall be limited to 1/380 of span, not to exceed 1/2" (13 mm) at the anchor bolts in order to assure that the cooling tower is level and plumb.
- DESIGN OPERATING LOADS:** The design operating loads shown in the above table are based upon the volume of water in the collection basin at shutdown. The shutdown water level has been sized to accommodate the maximum allowable flow rates. The design loads are shown for your use as a quick reference. The actual operating load is variable, and dependent upon the design flow rate per cell. Design loads are all based upon the recommended operating water level. Operating levels in excess of that recommended will result in loads exceeding the values stated. Consult a SPX CT representative for greater detail on this or any other subject.
- WIND & SEISMIC LOADS:** Reactions shown are the result of the wind/seismic load being applied perpendicular to the face of the tower structure. Loads are additive to the operating loads. Wind reactions can be calculated by multiplying by P, which is the wind pressure in psi for Imperial units and kgf/m² for metric units. Seismic reactions can be calculated by design G.
- SHIPPING WEIGHTS AND MAXIMUM OPERATING LOADS:** Values shown in table include the optional equipment weights.
- NON-STANDARD ANCHORAGE LOCATION:** The anchor bolt dimension shown can be varied upon request. Consult a SPX CT representative for specifics and to ensure that the appropriate modifications are added to the structure.
- PIER SUPPORTS:** The tower may be supported from piers at each anchor bolt location as an alternate. A pier should be at least 6" (152 mm) x 6" (152 mm).
- VIBRATION ISOLATORS:** The towers may be supported on vibration isolators. The isolators must be placed UNDER the supporting steel beams and not between the support beams and the tower.
- The tower assembly tolerance applicable to all dimensions is + or - 1/8" (3 mm). Consult suppliers of supporting structure for construction tolerances.
- The units of measure are in IP (SI) units unless otherwise noted.

NC8413VAS3BGF - Supporting Steel Plan and Details							MARLEY	
Breitburn Energy Partners LP							ORDER	
United States								
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Interior View

NOTES

1. The fan motor must be locked out and inoperable before entering the tower. This warning has been placed on the access door.
2. Horizontal Control (HC) valves can withstand a maximum static shut-off pressure of 26 psi (172 kPa)
3. Full flat face flange gaskets are supplied by SPX CT.
4. An incoming riser and manifold must allow clearance for entry to the tower access doors. 4'-2" (1270 mm) is the minimum clearance needed to clear the optional access door or motor access platform.
5. To ensure maximum thermal performance the cooling tower must be installed level and plumb. Both of the air inlet faces must have adequate air supply. If obstructions exist, consult your SPX CT representative.
6. Hoisting clips are provided for ease of unloading and positioning. For overhead lifts or where additional safety precautions are prudent, add slings beneath the tower. Adequate space has been provided for removal of the shackles and the 5 1/4" (133 mm) long pins from the hoist clips between the cells of a multi-cell tower. If the pin used is longer than 5 1/4" (133 mm), the cell may be slid into its final position by using come-alongs at the base of the unit, after removal of shackle pins. See Hoisting Details drawing.
7. The vertical weight of the piping illustrated within the tower perimeter may be supported by the tower structure. All other piping shall be supported independent of the tower (see section A-A for specific details). The piping, their supports, the design of both piping and supports, and the lateral restraint of piping loads shall be supplied by others.
8. Flanged connections conform to Class 125 ANSI B16.1 specification. The bolt holes straddle the centerlines.
9. Construction of the ladder and guardrail: The guardrail is fabricated from galvanized structural tubing. Top rail, middle rail and posts are 1 1/2" (38 mm) square tube 1/8" (3 mm) thick. Toeboards are 12 gauge heavy mill galvanized steel. The ladder is aluminum 3" (76 mm) x 1 1/8" (29 mm) I-beam side rails and 1 1/4" (32 mm) serrated rungs.
10. The ladder and guardrail are field installed by others. The tower is shop modified to accept this option. The clips and hardware are provided by SPX CT for the field installation. The installation detail drawings are included in the literature package shipped with the tower.
11. Ladder extensions are provided in nominal lengths of 5' (1524mm) and 11' (4672mm) only. Field modification by others is required for extensions of different lengths. Anchorage of the bottom of the ladder extension for proper stability is by others.
12. O.S.H.A. standards recommend the use of a Safety Cage when the length of a single ladder exceeds 20'-0" (6096 mm).
13. The Plenum Walkway consists of 11 gauge steel supports and 16 gauge steel walkway panels. The elevation of the Plenum Walkway is above the overflow water level of the collection basin. The distance from the top of the Plenum Walkway to the fan is 18'-4 7/8" (5610 mm).
14. The Interior Mechanical Equipment Platform consists of the Plenum Walkway plus an elevated platform for access to the mechanical equipment. A ladder is provided from the Plenum Walkway to the elevated platform along with a handrail system for the elevated platform.
15. The distance from the elevated platform to the fan exceeds 7'-0 13/16" (2164 mm).
16. O.S.H.A. standards recommend the use of an Access Door Platform if the door is 4'-0" (1219 mm) or higher above grade.
17. The tower assembly tolerance applicable to all dimensions is + or - 1/8" (3 mm). Consult suppliers of supporting structure for construction tolerances.
18. The units of measure are in IP (SI) units unless otherwise noted.

NC8413VAS3BGF - Schematic Cased Elevation and Notes
Breitburn Energy Partners LP
United States

MARLEY

ORDER

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Mark Sims_180603_140947246 V1

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QTC

REV BY
REV CHG

DATE
05/15/18

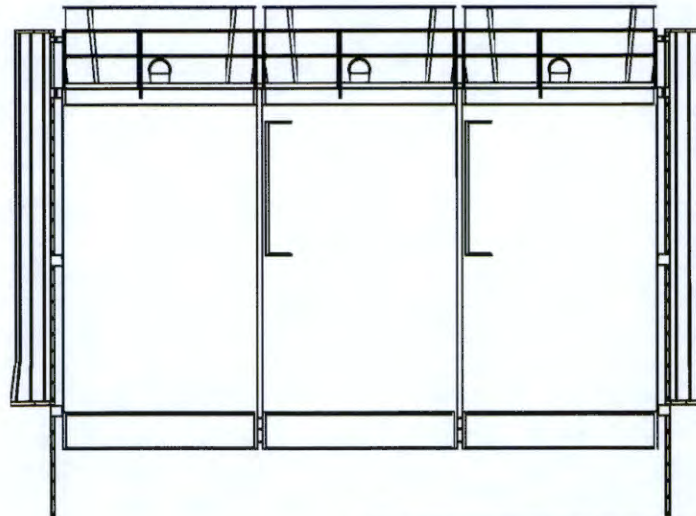
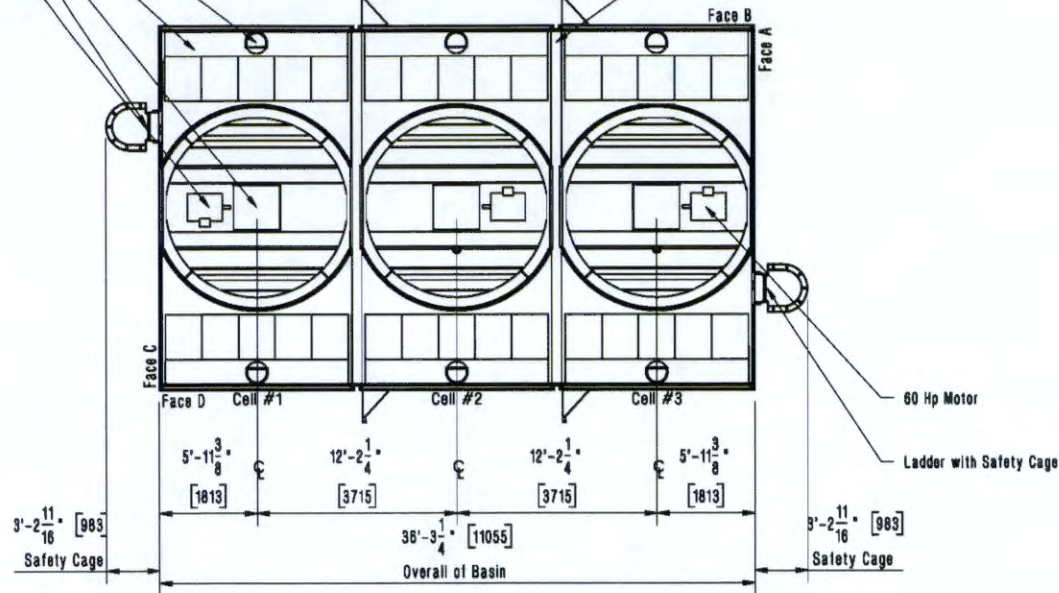
APPROVED
SYS

DRAWING NUMBER
MS670958M

REV.

10" Dia. Standard Inlet with HC Valve.
 May be rotated 90 or 180 degrees.
 Hot Water Basin Covers
 11'-0" (3353 mm) Fan Diameter
 Ladder with Safety Cage
 60 Hp Motor

Fan Deck Walkway



NOTES

1. The tower assembly tolerance applicable to all dimensions is + or - 1/8" (3 mm). Consult suppliers of supporting structure for construction tolerances.
2. The units of measure are in IP (SI) units unless otherwise noted.
3. See Schematic Cased Elevation and Notes drawing for additional notes.

NC8413VAS3BGF - Schematic Plan and Louver Elevation
 Breitburn Energy Partners LP
 United States

MARLEY

ORDER

MARKED BY
 Mark Sims_180503_140947245 V1

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REV DIR

DATE
 05/08/18

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