LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov

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

SEPTEMBER 28, 2022

NEAL STEPHENSON, PLANT MANAGER
NGC INDUSTRIES, INC.
4811 US HIGHWAY 78 WEST
OXFORD, AL 36203

RE: DRAFT PERMIT
NPDES PERMIT NUMBER AL0003930

Dear Mr. Stephenson:

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 have utilized the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs). The Department transitioned from the E2 Reporting System to the Alabama Environmental Permitting and Compliance System (AEPACS) for the submittal of DMRs on November 15, 2021. AEPACS is an electronic system that allows facilities to apply for and maintain permits as well as submit other required applications, registrations, and certifications. In addition, the system allows facilities to submit required compliance reports or other information to the Department. The Department has used the E2 User account information to set up a similar User Profile in AEPACS based on the following criteria:

1. The user has logged in to E2 since October 1, 2019; and
2. The E2 user account is set up using a unique email address.

E2 users that met the above criteria will only need to establish an ADEM Web Portal account (https://prd.adem.alabama.gov/awp) under the same email address as their E2 account to have the same permissions in AEPACS as they did in E2. They will also automatically be linked to the same facilities they were in E2.

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

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

Sincerely,

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

Enclosure: Draft Permit

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

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

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

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

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

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: GOLD BOND BUILDING PRODUCTS

FACILITY: GOLD BOND BUILDING PRODUCTS, LLC
4811 US HIGHWAY 78 WEST
OXFORD, ALABAMA 36203
CALHOUN COUNTY

PERMIT NUMBER: AL0003930

RECEIVING WATERS: 001 - CHOCCOLOCCO CREEK
002 - 007 UNNAMED TRIBUTARY TO COLDWATER SPRING BRANCH

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

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

INDUSTRIAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

DSN 001-1 Process wastewater from gypsum liner board manufacturing, seal water, cooling water, condensate, RO system reject water, air compressor blowdown, boiler blowdown, and storm water.

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 DSN 001, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	695 Monthly Average	1060 Maximum Daily	lbs/day	*****	180 Monthly Average	270 Maximum Daily	mg/l	5X Weekly	Composite	All Months
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	5X Weekly	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	1400 Monthly Average	2350 Maximum Daily	lbs/day	*****	*****	*****	*****	5X Weekly	Composite	All Months
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Weekly	Grab	All Months
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Maximum Daily	mg/l	Weekly	Composite	All Months
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct
Phosphorus, Total (As P) (00665) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Daily	Totalizer	All Months

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.

DSN 001-Q Process wastewater from gypsum liner board manufacturing, seal water, cooling water, condensate, RO system reject water, air compressor blowdown, boiler blowdown, and storm water.

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 DSN 001, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
Toxicity, Ceriodaphnia Chronic (61426) Effluent Gross Value	*****	0 Maximum Daily	pass=0;fail=1	*****	*****	*****	*****	Quarterly	Composite	All Months
Toxicity, Pimephales Chronic (61428) Effluent Gross Value	*****	0 Maximum Daily	pass=0;fail=1	*****	*****	*****	*****	Quarterly	Composite	All Months

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.C for Effluent Toxicity Requirements.

DSN 001-Y Process wastewater from gypsum liner board manufacturing, seal water, cooling water, condensate, RO system reject water, air compressor blowdown, boiler blowdown, and storm water.

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 DSN 001, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
Pentachlorophenol (39032) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	lbs/day	*****	*****	*****	*****	Annually	Grab	All Months
Trichlorophenol (81848) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	lbs/day	*****	*****	*****	*****	Annually	Grab	All Months

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/ In lieu of monitoring Pentachlorophenol and Trichlorophenol, the permittee may submit a certification of non-use according to the requirements at 40 CFR 430.100 – Subpart J at the same frequency indicated for the discharge monitoring report above. If the permittee chooses to submit a certification of non-use, the non-numeric code *9 should be reported for the Pentachlorophenol and Trichlorophenol value.

DSN 002-S - 004-S Storm water runoff associated with gypsum board liner paper manufacturing and hydrostatic test water. 5/

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 DSN 002, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months
pH (00400) Effluent Gross Value	*****	*****	*****	(Report) Minimum Daily	*****	(Report) Maximum Daily	S.U.	Semi-Annually	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	15 Maximum Daily	mg/l	Semi-Annually	Grab	All Months
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Semi-Annually	Estimate	All Months

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/ Outfalls DSN 003 and 004 shall be represented by Outfall DSN 002. Outfalls DSN 006 and 007 shall be represented by Outfall DSN 005.

DSN 002-Y – 004- Y Storm water runoff associated with gypsum board liner paper manufacturing and hydrostatic test water. 5/

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 DSN 002, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Annually	Grab	All Months

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/ Outfalls DSN 003 and 004 shall be represented by Outfall DSN 002. Outfalls DSN 006 and 007 shall be represented by Outfall DSN 005. Monitoring requirements are only required at DSN 002 and DSN005.

DSN 005-S – 007-S Storm water runoff associated with gypsum board liner paper manufacturing. 5/

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 DSN 005, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months
pH (00400) Effluent Gross Value	*****	*****	*****	(Report) Minimum Daily	*****	(Report) Maximum Daily	S.U.	Semi-Annually	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	15 Maximum Daily	mg/l	Semi-Annually	Grab	All Months
Aluminum, Total Recoverable (01104) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Semi-Annually	Estimate	All Months

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/ Outfalls DSN 003 and 004 shall be represented by Outfall DSN002. Outfalls DSN006 and 007 shall be represented by Outfall DSN005.

DSN 005-Y – 007-Y Storm water runoff associated with gypsum board liner paper manufacturing. 5/

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 DSN 005, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Annually	Grab	All Months

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/ Outfalls DSN 003 and 004 shall be represented by Outfall DSN002. Outfalls DSN006 and 007 shall be represented by Outfall DSN005.

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 electronically.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's electronic 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 Department's electronic 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 Department's electronic system resuming operation, the permittee shall enter the data into the Department's electronic system, unless an alternate timeframe is approved by the Department. A comment should be included on the electronic 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
Water Division
Office of Water Services
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
Water Division
Office of Water Services
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;

      (3) quantities to be used;

      (4) frequencies of use;

      (5) 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 30l(c), 30l(g), 30l(h), 30l(k), or 3l6(a) of the FWPCA or for fundamentally different factors;

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

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

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

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

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

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

5. Permit Termination

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

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

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

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

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

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

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

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines 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. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS

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

   a. Test Requirements, (Screening Test)

      (1) The samples shall be diluted using appropriate control water, to the Instream Waste Concentration (IWC) which is 1.75% effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year flow period.

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

      (3) Noncompliance with the toxicity limit will be demonstrated if the IC_{25} (Inhibition Concentration) for reproduction or growth is less than the IWC. The average reproduction for Ceriodaphnia shall be calculated by dividing the total number of live Ceriodaphnia young in each concentration by the total number of organisms used to initiate that concentration; the average growth for the fathead minnows shall be calculated by dividing the total weight of the surviving minnow larvae in each replicated by the total number of organisms used to initiate that replicate.

   b. General Test Requirements

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

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

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

c. Reporting Requirements

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

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

d. Additional Testing Requirements

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

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

e. Test Methods

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

2. Effluent Toxicity Testing Reports

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

a. Introduction

(1) Facility name, location, and county

(2) Permit number

(3) Toxicity testing requirements of permit

(4) Name of receiving water body

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

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

(6) Objective of test

b. Plant Operation

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

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

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

c. Source of Effluent and Dilution Water

(1) Effluent samples

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

(2) Dilution Water

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

d. Test Conditions

(1) Toxicity test method utilized

(2) End point(s) of test

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

(4) Date and time test started

(5) Date and time test terminated

(6) Type and volume of test chambers

(7) Volume of solution per chamber

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

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

(11) Specify if aeration was needed

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

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

(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

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

f. Quality Assurance

(1) Reference toxicant utilized and source

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

(3) Dilution water utilized in reference toxicant test

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

(5) Physical and chemical methods utilized

g. Results

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

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

(3) Indicate statistical methods used to calculate endpoints

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

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

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

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

D. COOLING WATER INTAKE STRUCTURE (CWIS) REQUIREMENTS

1. The facility uses well water for cooling water; therefore, 316(b) is not applicable.

ADEM PERMIT RATIONALE

PREPARED DATE: March 9, 2022
PREPARED BY: Rachel Lounsberry
PREPARED DATE: October 28, 2022
PREPARED BY: Rachel Lounsberry

Permittee Name:	Gold Bond Building Products
Facility Name:	Gold Bond Building Products, LLC
Permit Number:	AL0003930

PERMIT IS REISSUANCE DUE TO EXPIRATION

DISCHARGE SERIAL NUMBERS & DESCRIPTIONS:
DSN001:Process wastewater from gypsum liner board manufacturing, seal water, cooling water, condensate, RO system reject water, air compressor blowdown, boiler blowdown, and storm water.

DSN002 through DSN007: Storm water runoff associated with gypsum board liner paper manufacturing and hydrostatic test water.

INDUSTRIAL CATEGORY: 40 CFR Part 430 Subpart J - Secondary Fiber Non-Deink Subcategory

MAJOR: Yes

STREAM INFORMATION:

Receiving Stream:	Choccolocco Creek
Classification:	Fish & Wildlife
River Basin:	Coosa
7Q10:	52.62 cfs
7Q2:	213.36 cfs
1Q10:	35.39 cfs
Annual Average Flow:	70.14 cfs
303(d) List:	YES
Impairment:	Pathogens, Priority Organics (PCBs), & Metals (Mercury)
TMDL:	NO

Receiving Stream:	Unnamed Tributary to Coldwater Creek
Classification:	Fish & Wildlife
River Basin:	Coosa
7Q10:	0.0 cfs
7Q2:	0.0 cfs
1Q10:	0.0 cfs
Annual Average Flow:	0 cfs
303(d) List:	NO
Impairment:	N/A

TMDL: NO

DISCUSSION:
Gold Bond Building Products has applied for reissuance of their NPDES permit to discharge process wastewater and storm water resulting from the production of Gypsum board liner paper from recycled paper.

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 new or expanded discharge. Therefore, the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

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DSN 001-1: Process wastewater from gypsum liner board manufacturing, seal water, cooling water, condensate, RO system reject water, air compressor blowdown, boiler blowdown, storm water

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	695 Monthly Average	1060 Maximum Daily	lbs/day	*****	180 Monthly Average	270 Maximum Daily	mg/l	5X Weekly	Composite	All Months	EGL/ WQBEL
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	5X Weekly	Grab	All Months	WQBEL
Solids, Total Suspended (00530) Effluent Gross Value	1400 Monthly Average	2350 Maximum Daily	lbs/day	*****	*****	*****	*****	5X Weekly	Composite	All Months	EGL
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Weekly	Grab	All Months	BPJ
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Maximum Daily	mg/l	Weekly	Composite	All Months	WQBEL
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	BPJ
Phosphorus, Total (As P) (00665) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	BPJ
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Daily	Totalizer	All Months	BPJ

DSN 001-Q: Process wastewater from gypsum liner board manufacturing, seal water, cooling water, condensate, RO system reject water, air compressor blowdown, boiler blowdown, storm water

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
Toxicity, Ceriodaphnia Chronic (61426) Effluent Gross Value	*****	0 Maximum Daily	pass=0; fail=1	*****	*****	*****	*****	Quarterly	Composite	All Months	WQBEL
Toxicity, Pimephales Chronic (61428) Effluent Gross Value	*****	0 Maximum Daily	pass=0; fail=1	*****	*****	*****	*****	Quarterly	Composite	All Months	WQBEL

DSN 001-Y: Process wastewater from gypsum liner board manufacturing, seal water, cooling water, condensate, RO system reject water, air compressor blowdown, boiler blowdown, storm water

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
Pentachlorophenol (39032) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	lbs/day	*****	*****	*****	*****	Annually	Grab	All Months	EGL
Trichlorophenol (81848) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	lbs/day	*****	*****	*****	*****	Annually	Grab	All Months	EGL

DSN 002-S – 004-S: Storm water runoff associated with gypsum board liner paper manufacturing.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months	BPJ
pH (00400) Effluent Gross Value	*****	*****	*****	(Report) Minimum Daily	*****	(Report) Maximum Daily	S.U.	Semi-Annually	Grab	All Months	BPJ
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months	BPJ
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	15 Maximum Daily	mg/l	Semi-Annually	Grab	All Months	BPJ
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Semi-Annually	Estimate	All Months	BPJ

DSN 002-Y -004-Y: Storm water runoff associated with gypsum board liner paper manufacturing.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Annually	Grab	All Months	BPJ

DSN 005-S – 007-S: Storm water runoff associated with gypsum board liner paper manufacturing.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months	BPJ
pH (00400) Effluent Gross Value	*****	*****	*****	(Report) Minimum Daily	*****	(Report) Maximum Daily	S.U.	Semi-Annually	Grab	All Months	BPJ
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months	BPJ
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	15 Maximum Daily	mg/l	Semi-Annually	Grab	All Months	BPJ
Aluminum, Total Recoverable (01104) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Semi-Annually	Grab	All Months	BPJ
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Semi-Annually	Estimate	All Months	BPJ

DSN 005-Y -007-Y: Storm water runoff associated with gypsum board liner paper manufacturing.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	*****	*****	*****	*****	(Report) Monthly Average	(Report) Maximum Daily	mg/l	Annually	Grab	All Months	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

DSN011: Process wastewater from gypsum liner board manufacturing, seal water, cooling water, condensate, RO system reject water, air compressor blowdown, boiler blowdown, and storm water.

Federal Effluent Guidelines (EGL)
The discharge of process wastewater from this facility is subject to the federal effluent guidelines for paperboard from wastewater manufacturing contained in 40 CFR Part 430.100 - Subpart J. The following values were calculated using production data that was submitted with the application. See attached calculations for details.

Total Guideline Allocation

Parameter	Daily Max (lbs/day)	Monthly Avg (lbs/day)
BOD (5-day)	2697.009	1327.830
TSS	4370.971	2185.485

The existing permit limits are more stringent than the above calculated federal effluent guidelines. Therefore, to avoid anti-backsliding, the existing permit limits will remain the same and are as follows:

Parameter	Daily Max (lbs/day)	Monthly Avg (lbs/day)
BOD (5-day)	1060	695
TSS	2350	1400

Pentachlorophenol (PCP) and Trichlorophenol (TCP)
The permittee does not use these chlorophenolic compounds as biocides. Therefore, as allowed by the guidelines, in lieu of BAT limitations the permit stipulates that there is to be no process addition of these compounds and that the permittee submit annual certification to this effect.

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 should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

pH
ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)e2 – Specific Water Quality for Fish and Wildlife classified streams states: “Sewage, industrial waste or other wastes shall not cause the pH to deviate more than one unit from then normal or natural pH, nor be less than 6.0, nor greater than 8.5 standard units.”

Nutrients
In order to be consistent with monitoring requirements at other major facilities, the permittee will be required to monitor nutrients. These parameters include Total Kjeldahl Nitrogen, Total Nitrate plus Nitrite, and Total Phosphorus. Monitoring for these parameters will be required monthly during the months of April – October.

Water Quality Based Effluent Limits (WQBEL)
The Water Quality Branch (WQB) is currently conducting an intensive survey on Choccolocca Creek. Data from this study will be used to develop an updated water quality model that will include the Gold Bond’s discharge. Therefore, at this time, the WQB recommends that the permit be reissued with the existing limits for DO, CBOD5, and NH3-N until the new model is developed.

Total Ammonia as N

Total Ammonia as N will be in the permit with a daily maximum of 15.0 mg/l and a monthly average of 10.0 mg/l. These limits are based on the Water Quality Model run by the ADEM Water Quality Branch. The monitoring frequency will continue to be once per week.

Biochemical Oxygen Demand

Biochemical Oxygen Demand will have a mass based daily maximum of 1,060 ppd and a monthly average of 695 ppd. They are more stringent than the guideline standards as shown in the above calculations. The concentration based daily maximum will be 270 mg/l and the monthly average will be 180 mg/l. These limits are based on the Water Quality Model run by ADEM Water Quality Branch. The monitoring frequency will continue to be 5/week.

Chronic Toxicity Biomonitoring

Chronic toxicity biomonitoring will be required once per quarter. The test will be run at the instream waste concentration (IWC) of 3 %. The IWC calculations are as follows:

$$IWC = \frac{0.606\ MGD}{34\ MGD + 0.606\ MGD} = 1.75\%$$

Cooling Water Intake Structure (CWIS)

The facility uses well water for cooling water; therefore, 316(b) is not applicable.

DSN002 through DSN007: Storm water runoff associated with gypsum board liner paper manufacturing and hydrostatic test water.

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.

All Parameters

The monitoring parameters and frequencies will remain the same as in the previous permit as it has shown to adequately protect the receiving stream. The permit will require the facility to sample for Flow, pH, Oil & Grease, BOD5, TSS, and Ammonia as Nitrogen. All parameters will be required to sample once per six months except Ammonia as Nitrogen which will be required to sample once per year. All parameters are monitor only with the exception oil & grease which will have a daily maximum limits of 15 mg/l.

Representative Sampling

The facility has submitted a request to have representative sampling at DSN002 for the discharges from DSN002, DSN003, and DSN004, and DSN005 be repetitive of DSN005, DSN006, and DSN007. Based on historic monitoring data and the facility's re-issuance application, this request is granted.

Hydrostatic Water

Hydrostatic test water discharges was added in the previous permit to the descriptions for outfalls DSN002 through DSN007. The facility submitted a letter (see previous draft) describing the source water for hydrostatic testing as well water. The testing does not come into contact with any raw material or finished product. In addition, no chemicals are added prior to hydrostatic testing. As a result, no additional monitoring requirements are being added to this draft permit as a result of the addition of hydrostatic test water.

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

The facility is not considered to be a source of Pathogens, PCBs, or Mercury based on the type of process and the sampling data provided in the re-issuance application, therefore no monitoring is required.

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.

Revision 10/28/2022

The draft was revised to fix a typographical error with storm water outfalls DSN002 –DSN007.

Facility Name: **Gold Bond**

NPDES No.: **AL0003930**

8/13/2017

$$Q_d*C_d + Q_{d2}*C_{d2} + Q_s*C_s = Q_r*C_r$$

ID	Pollutant	Carcinogen "Yes"	Type	Background from upstream source (C_{d2}) Daily Max ug/l	Background from upstream source (C_{d2}) Monthly Ave ug/l	Background Instream (C_s) Daily Max ug/l	Background Instream (C_s) Monthly Ave ug/l	Enter Max Daily Discharge as reported by Applicant (C_d) Max ug/l	Enter Avg Daily Discharge as reported by Applicant (C_d) Ave ug/l	Partition Coefficient (Stream / Lake)
1	Antimony		Metals	0	0	0	0	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	0	0	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	-
7	Copper**		Metals	0	0	0	0	0	0	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.206
9	Mercury**		Metals	0	0	0	0	0	0	0.302
10	Nickel**		Metals	0	0	0	0	0	0	0.505
11	Selenium		Metals	0	0	0	0	13.1	13.1	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	0	0	0	0	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	200	200	-
17	Hardness (As CaCO3)		Metals	0	0	0	0	0	0	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibromo-Methane***	YES	VOC	0	0	0	0	0	0	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	0	0	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4,4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobromo-Methane***	YES	VOC	0	0	0	0	0	0	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichlorethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dinitro-2-methylophenol**	YES	Acids	0	0	0	0	0	0	-
61	**Dioxin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocycloPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indeno(1, 2, 3-CK)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

0.623	Enter Q_d = wastewater discharge flow from facility (MGD)
0.96392367	Q_d = wastewater discharge flow (cfs) (this value is calculated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
52.62	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
35.39	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
70.14	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
213.36	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Lake	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q_d +Qd2+Q_s	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
100.00	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of
7.00 s.u.	Enter, Background pH above point of discharge
YES	Enter, is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

Facility Name: Gold Bond

NPDES No.: AL0003930

Freshwater F&W classification						Freshwater Acute (µg/l) Q_s =1Q10						Freshwater Chronic (µg/l) Q_s = 7Q10				Human Health Consumption Fish only (µg/l)			
																Carcinogen Q_s = Annual Average			
																Non-Carcinogen Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max	Max Daily Discharge as reported by Applicant (C_{max})	Water Quality Criteria (C_a)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Ave	Avg Daily Discharge as reported by Applicant (C_{avg})	Water Quality Criteria (C_c)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_c)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	3.73E+02	2.08E+04	4.15E+03	No
2	Arsenic		YES	0	0	592.334	22339.614	4467.923	No	0	0	261.324	14526.843	2905.369	No	0.3030	22.3531	4.4706	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	6.533	321.808	64.362	No	0	0	1.042	57.944	11.589	No	-	-	-	-
5	Chromium/ Chromium III			0	0	2713.109	102325.519	20465.104	No	0	0	352.826	19618.958	3923.791	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	603.432	120.686	No	0	0	11.000	611.483	122.297	No	-	-	-	-
7	Copper			0	0	34.637	1306.314	261.263	No	0	0	23.082	1283.105	256.621	No	-	-	-	-
8	Lead			0	0	313.502	11823.574	2364.715	No	0	0	12.217	679.120	135.824	No	-	-	-	-
9	Mercury			0	0	2.400	90.515	18.103	No	0	0	0.012	0.667	0.133	No	4.24E-02	2.36E+00	4.72E-01	No
10	Nickel			0	0	927.200	34968.892	6993.778	No	0	0	102.983	5724.775	1144.955	No	9.93E+02	5.52E+04	1.10E+04	No
11	Selenium			0	13.1	20.000	754.291	150.858	No	0	13.1	5.000	277.947	55.589	No	2430.56	135113.09	27022.62	No
12	Silver			0	0	3.217	121.318	24.264	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	2.74E-01	1.52E+01	3.04E+00	No
14	Zinc			0	0	355.982	13382.137	2676.427	No	0	0	357.067	19900.829	3980.166	No	1.49E+04	8.28E+05	1.66E+05	No
15	Cyanide			0	0	22.000	829.720	165.944	No	0	0	5.200	289.065	57.813	No	9.33E+03	5.18E+05	1.04E+05	No
16	Total Phenolic Compounds			0	200	-	-	-	-	0	200	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	5.43E+00	3.02E+02	6.03E+01	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.44E-01	1.06E+01	2.12E+00	No
20	Aldrin		YES	0	0	3.000	113.144	22.629	No	0	0	-	-	-	-	2.94E-05	2.17E-03	4.34E-04	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.55E+01	1.14E+03	2.28E+02	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.86E+01	5.81E+03	1.16E+03	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.57E-01	7.06E+01	1.41E+01	No
24	Chlordane		YES	0	0	2.400	90.515	18.103	No	0	0	0.0043	0.239	0.048	No	4.73E-04	3.49E-02	6.98E-03	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	9.06E+02	5.04E+04	1.01E+04	No
26	Chlorodibromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.41E+00	5.46E+02	1.09E+02	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.02E+02	7.52E+03	1.50E+03	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.41E-04	1.34E-02	2.66E-03	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.29E-04	9.44E-03	1.89E-03	No
32	4,4' - DDT		YES	0	0	1.100	41.486	8.297	No	0	0	0.001	0.056	0.011	No	1.29E-04	9.44E-03	1.89E-03	No
33	Dichlorobromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.00E+01	7.40E+02	1.48E+02	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.14E+01	1.58E+03	3.15E+02	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	5.91E+03	3.28E+05	6.57E+04	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.17E+03	3.07E+05	6.15E+04	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	8.40E+00	4.72E+02	9.44E+01	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	1.22E+01	6.63E+02	1.37E+02	No
40	Dieldrin		YES	0	0	0.240	9.051	1.810	No	0	0	0.056	3.113	0.623	No	3.12E-05	2.30E-03	4.61E-04	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.24E+03	6.92E+04	1.38E+04	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+02	4.84E+04	9.68E+03	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.46E+02	2.55E+04	5.10E+03	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.33E+00	1.72E+02	3.44E+01	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	1.41E+02	2.83E+01	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	6.72E+03	4.85E+05	9.70E+04	No
48	Toxaphene		YES	0	0	0.730	27.532	5.506	No	0	0	0.0002	0.011	0.002	No	1.62E-04	1.19E-02	2.39E-03	No
49	Tributyltin (TBT)		YES	0	0	0.460	17.349	3.470	No	0	0	0.072	4.002	0.800	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.35E+00	6.71E+02	1.34E+02	No
52	Trichlorethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.75E+01	1.29E+03	2.58E+02	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.42E+00	1.05E+02	2.10E+01	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+01	4.84E+03	9.68E+02	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	1.72E+02	9.56E+03	1.91E+03	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	4.98E+02	2.77E+04	5.53E+03	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	1.73E+05	3.46E+04	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.65E+02	1.22E+04	2.44E+03	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.87E-08	1.97E-06	3.93E-07	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	6.723	328.996	65.799	No	0	0	6.693	372.037	74.407	No	1.77E+00	1.30E+02	2.61E+01	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	5.00E+05	2.78E+07	5.56E+06	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.41E+00	1.04E+02	2.09E+01	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	5.75E+02	3.22E+04	6.43E+03	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+04	1.30E+06	2.59E+05	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	1.16E-04	6.45E-03	1.29E-03	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	7.86E-01	1.57E-01	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	7.86E-01	1.57E-01	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.92E-01	1.18E-01	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	5.92E-01	1.18E-01	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.07E-01	2.27E+01	4.54E+00	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	3.76E+04	2.10E+06	4.20E+05	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E+00	9.46E+01	1.89E+01	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	1.13E+03	6.27E+04	1.25E+04	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	9.24E+02	5.14E+04	1.03E+04	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	7.86E-01	1.57E-01	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.62E+03	1.46E+05	2.91E+04	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	7.86E-01	1.57E-01	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	7.55E+02	4.20E+04	8.40E+03	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	5.62E+02	3.13E+04	6.25E+03	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.12E+02	6.25E+03	1.25E+03	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.96E-02	1.23E+00	2.45E-01	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.56E+04	1.42E+06	2.84E+05	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	6.48E+05	3.60E+07	7.21E+06	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.96E+00	1.46E+02	2.92E+01	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	1.17E-01	6.51E+00	1.30E+00	No
97	Endosulfan (alpha)		YES	0	0	0.22	8.297	1.659	No	0	0	0.056	3.113	0.623	No	5.19E+01	3.82E+03	7.65E+02	No
98	Endosulfan (beta)		YES	0	0	0.22	8.287	1.658	No	0	0	0.056	3.113	0.623	No	5.19E+01	3.82E+03	7.65E+02	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	5.19E+01	3.82E+03	7.65E+02	No
100	Endrin		YES	0	0	0.086	3.243	0.649	No	0	0	0.036	2.001	0.400	No	3.53E-02	2.60E+00	5.20E-01	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.78E-01	1.30E+01	2.60E+00	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	8.12E+01	4.51E+03	9.02E+02	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	1.73E+05	3.46E+04	No
104	Heptochlor		YES	0	0	0.52	19.612	3.922	No	0	0	0.0038	0.211	0.042	No	4.83E-05	3.42E-03	6.83E-04	No
105	Heptachlor Epoxide		YES	0	0	0.52	19.612	3.922	No	0	0	0.0038	0.211	0.042	No	2.22E-05	1.68E-03	3.38E-04	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.68E-04	1.24E-02	2.48E-03	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.06E+01	7.94E+02	1.59E+02	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.85E-03	2.10E-01	4.20E-02	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.97E-03	7.36E-01	1.47E-01	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	0.95	35.829	7.166	No	0	0	-	-	-	-	1.08E+00	7.94E+01	1.59E+01	No
111	HexachlorocycloPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	6.45E+02	3.59E+04	7.17E+03	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	1.07E+02	2.13E+01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	7.86E-01	1.57E-01	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	5.81E+02	3.12E+04	6.23E+03	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.04E+02	2.24E+04	4.49E+03	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.95E-01	2.18E+01	4.35E+00	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.78E+00	1.30E+02	2.60E+01	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.50E+00	2.56E+02	5.17E+01	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	0.014	0.778	0.156	No	3.74E-05	2.76E-03	5.52E-04	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	0.014	0.778	0.156	No	3.74E-05	2.76E-03	5.52E-04	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	0.014	0.778	0.156	No	3.74E-05	2.76E-03	5.52E-04	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	0.014	0.778	0.156	No	3.74E-05	2.76E-03	5.52E-04	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	0.014	0.778	0.156	No	3.74E-05	2.76E-03	5.52E-04	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	0.014	0.778	0.156	No	3.74E-05	2.76E-03	5.52E-04	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	0.014	0.778	0.156	No	3.74E-05	2.76E-03	5.52E-04	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+03	1.30E+05	2.59E+04	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.09E+01	2.28E+03	4.55E+02	No

Lounsberry, Rachel E

From: Holley, Shae
Sent: Tuesday, August 9, 2022 12:10 PM
To: Lounsberry, Rachel E
Subject: Flows RE: Choccolocco Creek

Hi Rachel –

Flow calcs below:

33.579333 -85.912778

Ratioed Site Data Results		Gold Bond (NGC)
$7Q_{10}$:	*52.62*	*cfs*
$7Q_2$:	*213.36*	*cfs*
$1Q_{10}$:	*35.39*	*cfs*
Mean Annual Flow:	*70.14*	*cfs*
Drainage Area:	*252.00*	mi^2
Lat / Long:	*33.5793°*	*-85.9128°*

33.58000 -85.916389

Ratioed Site Data Results		
$7Q_{10}$:	*57.84*	*cfs*
$7Q_2$:	*234.52*	*cfs*
$1Q_{10}$:	*38.90*	*cfs*
Mean Annual Flow:	*77.10*	*cfs*
Drainage Area:	*277.00*	mi^2
Lat / Long:	*33.5800°*	*-85.9164°*

Thanks! Let me know if you need anything else.

Shae Holley
Senior Environmental Engineering Specialist
Water Division
Water Quality Branch
Modeling and Analysis Section
(334) 279-3068
adem.alabama.gov

ADEM

From: Lounsberry, Rachel E <restanaland@adem.alabama.gov>
Sent: Wednesday, August 3, 2022 4:18 PM
To: Holley, Shae <shae.holley@adem.alabama.gov>
Subject: Choccolocco Creek

Shae,

When you get a chance, can you give me the flow information for Choccolocco Creek? At the Gold Bond (Formally NGC) discharge and the Anniston Army Depot discharge.
33.579333 -85.912778
33.58000 -85.916389

Thanks!

Rachel Lounsberry
Industrial Section
Industrial/Municipal Branch
Water Division
Alabama Department of Environmental Management
Post Office Box 301463
Montgomery, Alabama 36130-1463

Work: (334) 279-3065
Fax: (334) 279-3065
Email: restanaland@adem.alabama.gov

NEW ADEM ELECTRONIC SYSTEM: Alabama Environmental Permitting and Compliance System (AEPACS)

AEPACS is an electronic system that allows facilities to apply for and maintain permits as well as submit other required applications, registrations, and certifications. In addition, the system allows facilities to submit required compliance reports or other information to the Department. For general information about AEPACS, go to: http://adem.alabama.gov/egov/AEPACS.cnt. For NPDES and SID program specific information about AEPACS, go to http://adem.alabama.gov/egov/AEPACSwater.cnt.

If you have questions or need assistance with AEPACS, please contact the ADEM Web Portal/AEPACS Help Desk at ademwebportal@adem.alabama.gov. The email box is monitored Monday through Friday, 7:00 am –5:00 pm.

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

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

FACT SHEET

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

Date: August 3, 2022 **Prepared By:** Rachel Lounsberry

NPDES Permit No. AL0003930

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

   Gold Bond Building Products
   4811 US Highway 78 West
   Oxford, AL 36203)

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

   Gold Bond Building Products, LLC
   4811 US Highway 78 West
   Oxford, AL 36203

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

   Standard

4. **Applicant's Receiving Waters**

Receiving Waters	Classification
Choccolocco Creek	Fish & Wildlife
Unnamed Tributary to Coldwater Creek	Fish & Wildlife

   For the Outfall latitude and longitude, see the permit application.

5. **Permit Conditions:**

   See attached Rationale and Draft Permit.

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

   a. **Comment Period**

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

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

Jeffery W. Kitchens, Chief
ADEM-Water Division
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400
(334) 271-7823
water-permits@adem.alabama.gov

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

b. Public Hearing

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

Jeffery W. Kitchens, Chief
ADEM-Water Division
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400
(334) 271-7823
water-permits@adem.alabama.gov

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

c. Issuance of the Permit

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

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

d. Appeal Procedures

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

Alabama Environmental Management Commission
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400

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

Waste Load Allocation Summary

Comments included: [x] Yes [ ] No

General Information

Information Verified By: DWT

Receiving Stream Name	Choccolocco Creek
Year File Was Created	1989
Previous File Name	
OR: Local Name (If applicable)	
Facility Name	NGC Industries Inc
Previous Discharger Name	National Gypsum Company/Gold Bond
Or-AKA (includes previous file name)	
11 Digit HUC Code	03150106250
12 Digit HUC Code	031501060607
River Basin	Coosa
County	Calhoun
Use Classification	F&W
Discharge Latitude	33.57921
Discharge Longitude	-85.91246
Site Visit Completed?	[x] Yes [ ] No
Date of Site Visit	9/7/2006
Waterbody Impaired?	[x] Yes [ ] No
Antidegradation	[ ] Yes [x] No
Waterbody Tier Level	Tier I
Use Support Category	5
Other Point Sources?	[x] Yes [ ] No

Print Record | Close Form

Date of WLA Response	3/7/2007
Lat/Long Method	GPS

Approved TMDL? [ ] Yes [x] No

Approval Date of TMDL	

Permit Information

Permit Number	AL0003930
Permit Status	Active

Sources Included in Model

Anniston WWTP
Oxford Tull C Allen WWTP
Anniston Army Depot WWTP

Type of Discharger

- [ ] Municipal
- [x] Industrial
- [ ] Semipublic/Private

Waste Load Allocation Information

Modeled Reach Length	30.17 Miles	Date of Allocation	2/28/2007
Name of Model Used	SWQM	Allocation Type	2 Seasons
Model Completed by	NGC's Consultant "BBL"	Type of Model Used	Desk-top
Allocation Developed by	Consultant		

Waste Load Allocation Summary

Seasonal Effluent Limits

Annual Effluent Limits		Seasonal Effluent Limits			
		Qw 0.65 MGD	Qw 1 MGD	Qw MGD	Qw MGD
		Season Summer	Season Winter	Season	Season
Qw MGD		From May	From Dec	From	From
		Through Nov	Through Apr	Through	Through
CBOD5 mg/l		CBOD5 180 mg/l	CBOD5 180 mg/l	CBOD5 mg/l	CBOD5 mg/l
NH3-N mg/l		NH3-N 10 mg/l	NH3-N 10 mg/l	NH3-N mg/l	NH3-N mg/l
TKN mg/l		TKN mg/l	TKN mg/l	TKN mg/l	TKN mg/l
D.O. mg/l		D.O. 5 mg/l	D.O. 5 mg/l	D.O. mg/l	D.O. mg/l

"Monitor Only" Parameters for Effluent:	Parameter	Frequency	Parameter	Frequency

Water Quality Characteristics Immediately Upstream of Discharge

Parameter	Summer		Winter	
CBODu	4.32	mg/l	7.03	mg/l
NH3-N	0.44	mg/l	3.04	mg/l
Temperature	28	°C	15	°C
pH	7	su	7	su

Hydrology at Discharge Location

Drainage Area Qualifier				Method Used to Calculate
Exact	Drainage Area	251	sq mi	
	Stream 7Q10	31	cfs	ADEM Estimate w/USGS Gage Data
	Stream 1Q10	23	cfs	75%of 7Q10
	Stream 7Q2	51	cfs	ADEM Estimate w/USGS Gage Data
	Annual Average	377	cfs	ADEM Estimate w/USGS Gage Data

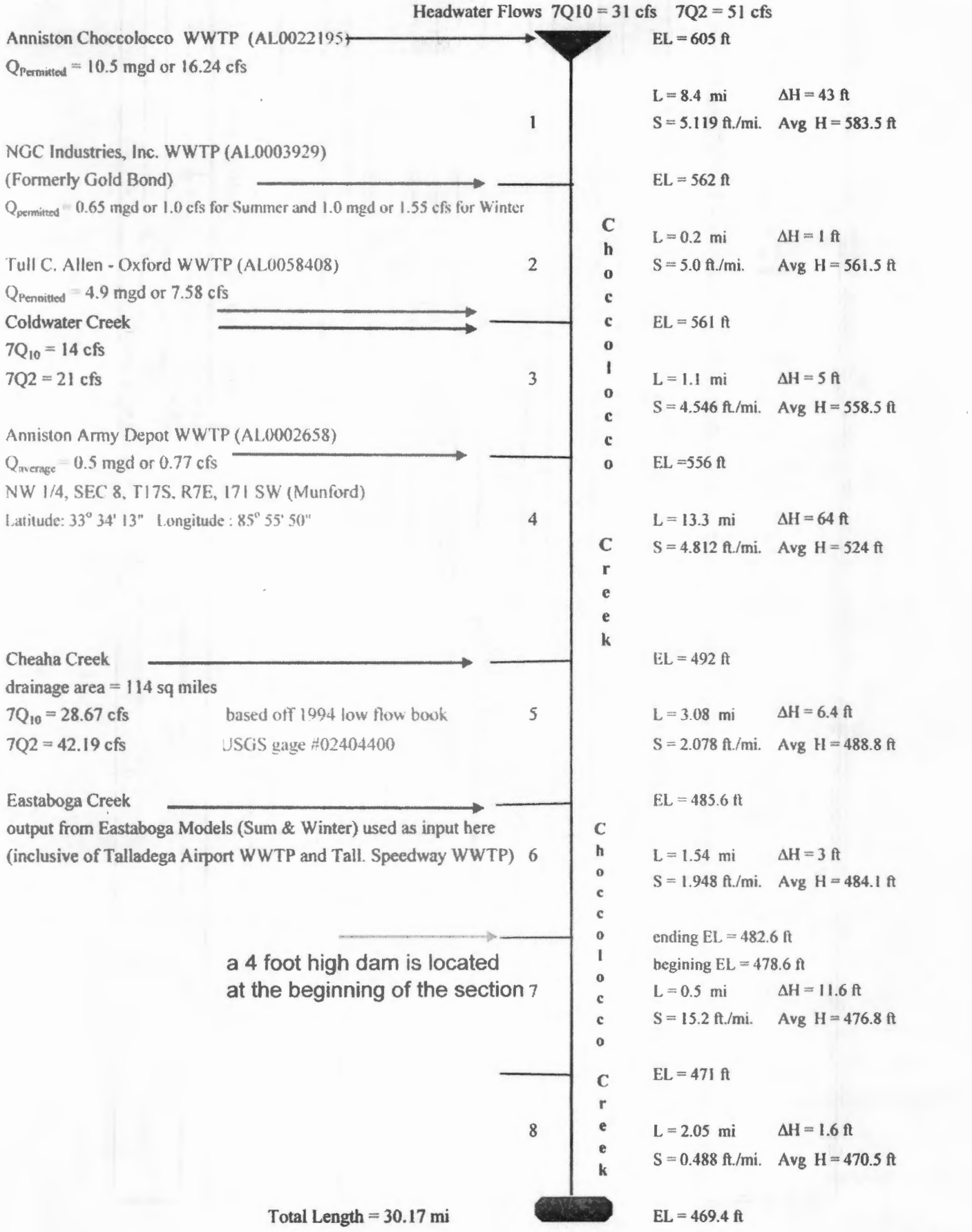
Comments and/or Notations

This WLA Response was completed based on a review of the most current model for Choccolocco Creek being modified by NGC's consultant (BBL) and submitted to the department for an increase in design flow for the NGC plant.

If comments are made, check the "yes" box at the top of page one.

Last Revision: 8/30/06

Choccolocco Creek Wasteload Allocation Flow Diagram



Spreadsheet Water Quality Model

Stream Name :	**Choccolocco Creek**
River Basin :	**Coosa**
County :	**Calhoun/Talladega**

Modeled Reach :	Upstream Longitude	Upstream Latitude	Section	Township	Range
	-85.82661	33.60143	29	16 s	8 e
	Downstream Longitude	Downstream Latitude	Section	Township	Range
	-86.11744	33.55895	16	17 s	5 e
	Total Stream Length, miles	30.17			

Analysis Date :	**March 9, 2007**
Number of Sections :	**8**

Analysis Performed By :	**DWT**

Applicable Season:	Annual	May - Nov. (Summer)	Dec. - Apr. (Winter)
		XX	

Point Sources Included in the Model :	
Anniston	
NGC	
Oxford	
Army Depot	

Model Input :

Headwater Conditions :

CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
2.0000	0.1100	0.2200	6.4	31	29

Tributary Conditions :

Section #	CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
1	0.0000	0.0000	0.0000			
2	0.0000	0.0000	0.0000			
3	2.0000	0.1100	0.2200	6.80	14.00	26.0
4	0.0000	0.0000	0.0000			
5	2.0000	0.1100	0.2200	6.65	28.67	28.0
6	5.1039	0.4394	0.6078	7.30	5.88	28.0
7	0.0000	0.0000	0.0000			
8	0.0000	0.0000	0.0000			
9	0.0000	0.0000	0.0000			
10	0.0000	0.0000	0.0000			
11	0.0000	0.0000	0.0000			
12	0.0000	0.0000	0.0000			
13	0.0000	0.0000	0.0000			
14	0.0000	0.0000	0.0000			
15	0.0000	0.0000	0.0000			
16	0.0000	0.0000	0.0000			
17	0.0000	0.0000	0.0000			
18	0.0000	0.0000	0.0000			
19	0.0000	0.0000	0.0000			
20	0.0000	0.0000	0.0000			
21	0.0000	0.0000	0.0000			
22	0.0000	0.0000	0.0000			
23	0.0000	0.0000	0.0000			
24	0.0000	0.0000	0.0000			

Model Input : Continued

Incremental Inflow Conditions :

Section #	CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
1	0.0000	0.0000	0.0000			
2	0.0000	0.0000	0.0000			
3	0.0000	0.0000	0.0000			
4	0.0000	0.0000	0.0000			
5	0.0000	0.0000	0.0000			
6	0.0000	0.0000	0.0000			
7	0.0000	0.0000	0.0000			
8	0.0000	0.0000	0.0000			
9	0.0000	0.0000	0.0000			
10	0.0000	0.0000	0.0000			
11	0.0000	0.0000	0.0000			
12	0.0000	0.0000	0.0000			
13	0.0000	0.0000	0.0000			
14	0.0000	0.0000	0.0000			
15	0.0000	0.0000	0.0000			
16	0.0000	0.0000	0.0000			
17	0.0000	0.0000	0.0000			
18	0.0000	0.0000	0.0000			
19	0.0000	0.0000	0.0000			
20	0.0000	0.0000	0.0000			
21	0.0000	0.0000	0.0000			
22	0.0000	0.0000	0.0000			
23	0.0000	0.0000	0.0000			
24	0.0000	0.0000	0.0000			

Model Input : Continued

Effluent Conditions :

Section #	Discharger	Flow, MGD	Flow, cfs	$CBOD_5$, mg/l	$CBODu/CBOD_5$	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
1	Anniston	10.5	16.244	15	1.5	22.500	2	2	6	26.0
2	NGC	0.65	1.006	180	2	360.000	10	10	5	26.0
3	Oxford	4.9	7.580	8	1.5	12.000	1	1	6	28.0
4	Army Depot	0.5	0.774	30	1.5	45.000	10	10	5	26.0
5			0.000			0.000				
6			0.000			0.000				
7			0.000			0.000				
8			0.000			0.000				
9			0.000			0.000				
10			0.000			0.000				
11			0.000			0.000				
12			0.000			0.000				
13			0.000			0.000				
14			0.000			0.000				
15			0.000			0.000				
16			0.000			0.000				
17			0.000			0.000				
18			0.000			0.000				
19			0.000			0.000				
20			0.000			0.000				
21			0.000			0.000				
22			0.000			0.000				
23			0.000			0.000				
24			0.000			0.000				

Model Input : Continued

Section Characteristics :								*Dam Characteristics :*		
Section #	Length, miles	Upstream Elevation, feet	Downstream Elevation, feet	Average Elev., feet	Slope, ft/mile	Calculated Velocity or User Input Velocity?	User Input Velocity, feet/sec	Dam Height, feet	Water Quality Factor	Weir Coefficient
1	8.4	605	562	583.5	5.1190	Input	0.4			
2	0.2	562	561	561.5	5.0000	Input	0.4			
3	1.1	561	556	558.5	4.5455	Input	0.45			
4	13.3	556	492	524	4.8120	Input	0.45			
5	3.08	492	485.6	488.8	2.0779	Input	0.4			
6	1.54	485.6	482.6	484.1	1.9481	Input	0.4			
7	0.5	478.6	471	474.8	15.2000	Input	0.5	4.00	0.80	0.80
8	2.05	471	470	470.5	0.4878	Input	0.4			
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Model Input : Continued

Reaction Rates :

	Reaction Rates at 20° C					Reaction Rates at Ambient Temperature				
Section #	Kd, 1/day	K_{NH3}, 1/day	K_{TON}, 1/day	Computed Ka, 1/day	User Input Ka, 1/day	Ka, 1/day	Kd, 1/day	K_{NH3}, 1/day	K_{TON}, 1/day	Average Temp., °C
1	0.4	0.3	0.05	1.8019		2.1767	0.5768	0.5322	0.0923	27.9685
2	0.4	0.3	0.05	1.7600		2.1241	0.5757	0.5197	0.0920	27.9275
3	0.4	0.3	0.05	1.7905		2.1415	0.5658	0.5081	0.0894	27.5489
4	0.4	0.3	0.05	1.9056		2.2783	0.5653	0.5013	0.0893	27.5320
5	0.3	0.3	0.05	0.7358		0.8825	0.4266	0.5218	0.0902	27.6671
6	0.3	0.3	0.05	0.6857		0.8228	0.4270	0.5202	0.0903	27.6857
7	0.3	0.3	0.05	6.6243		7.9488	0.4270	0.5286	0.0903	27.6857
8	0.3	0.3	0.05	0.1738		0.2085	0.4270	0.5328	0.0903	27.6857
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Model Input : Continued

Reaction Rates : Continued (OPTIONAL)

		Reaction Rates at 20° C			Reaction Rates at Ambient Temperature		
Section #	Stream Depth, feet	SOD, gm-O_2/ft^2/day	$CBOD_{settling}$, 1/day	$TON_{settling}$, 1/day	SOD, gm-O_2/ft^2/day	$CBOD_{settling}$, 1/day	$TON_{settling}$, 1/day
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Model Output:

Minimum Dissolved Oxygen:	*5.2787 mg/l*
The Minimum DO occurs at:	*12.3600 miles*

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
1	1	0.0000	47.2435	0.4000	0.0000	9.0484	0.7598	0.8320	6.2625	27.9685
1	2	0.4200	47.2435	0.4000	0.0642	8.7197	0.7382	0.8282	6.0277	27.9685
1	3	0.8400	47.2435	0.4000	0.1283	8.4028	0.7174	0.8243	5.8387	27.9685
1	4	1.2600	47.2435	0.4000	0.1925	8.0975	0.6975	0.8205	5.6887	27.9685
1	5	1.6800	47.2435	0.4000	0.2567	7.8033	0.6783	0.8168	5.5721	27.9685
1	6	2.1000	47.2435	0.4000	0.3208	7.5198	0.6598	0.8130	5.4838	27.9685
1	7	2.5200	47.2435	0.4000	0.3850	7.2466	0.6420	0.8092	5.4196	27.9685
1	8	2.9400	47.2435	0.4000	0.4492	6.9833	0.6248	0.8055	5.3759	27.9685
1	9	3.3600	47.2435	0.4000	0.5133	6.7296	0.6082	0.8018	5.3494	27.9685
1	10	3.7800	47.2435	0.4000	0.5775	6.4851	0.5922	0.7981	5.3375	27.9685
1	11	4.2000	47.2435	0.4000	0.6417	6.2494	0.5766	0.7944	5.3377	27.9685
1	12	4.6200	47.2435	0.4000	0.7058	6.0224	0.5616	0.7907	5.3481	27.9685
1	13	5.0400	47.2435	0.4000	0.7700	5.8036	0.5470	0.7871	5.3670	27.9685
1	14	5.4600	47.2435	0.4000	0.8342	5.5927	0.5328	0.7834	5.3929	27.9685
1	15	5.8800	47.2435	0.4000	0.8983	5.3895	0.5191	0.7798	5.4246	27.9685
1	16	6.3000	47.2435	0.4000	0.9625	5.1937	0.5058	0.7762	5.4609	27.9685
1	17	6.7200	47.2435	0.4000	1.0267	5.0050	0.4929	0.7726	5.5009	27.9685
1	18	7.1400	47.2435	0.4000	1.0908	4.8231	0.4803	0.7691	5.5439	27.9685
1	19	7.5600	47.2435	0.4000	1.1550	4.6479	0.4682	0.7655	5.5891	27.9685
1	20	7.9800	47.2435	0.4000	1.2192	4.4790	0.4563	0.7620	5.6361	27.9685
1	21	8.4000	47.2435	0.4000	1.2833	4.3163	0.4449	0.7585	5.6843	27.9685

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
2	1	8.4000	48.2491	0.4000	1.2833	11.7290	0.6440	0.9511	5.6700	27.9275
2	2	8.4100	48.2491	0.4000	1.2849	11.7187	0.6436	0.9510	5.6639	27.9275
2	3	8.4200	48.2491	0.4000	1.2864	11.7084	0.6432	0.9509	5.6578	27.9275
2	4	8.4300	48.2491	0.4000	1.2879	11.6981	0.6428	0.9508	5.6517	27.9275
2	5	8.4400	48.2491	0.4000	1.2894	11.6878	0.6424	0.9507	5.6456	27.9275
2	6	8.4500	48.2491	0.4000	1.2910	11.6776	0.6420	0.9506	5.6396	27.9275
2	7	8.4600	48.2491	0.4000	1.2925	11.6673	0.6416	0.9505	5.6336	27.9275
2	8	8.4700	48.2491	0.4000	1.2940	11.6570	0.6412	0.9504	5.6276	27.9275
2	9	8.4800	48.2491	0.4000	1.2956	11.6468	0.6408	0.9502	5.6216	27.9275
2	10	8.4900	48.2491	0.4000	1.2971	11.6366	0.6404	0.9501	5.6157	27.9275
2	11	8.5000	48.2491	0.4000	1.2986	11.6263	0.6400	0.9500	5.6098	27.9275
2	12	8.5100	48.2491	0.4000	1.3001	11.6161	0.6396	0.9499	5.6040	27.9275
2	13	8.5200	48.2491	0.4000	1.3017	11.6059	0.6392	0.9498	5.5982	27.9275
2	14	8.5300	48.2491	0.4000	1.3032	11.5957	0.6388	0.9497	5.5924	27.9275
2	15	8.5400	48.2491	0.4000	1.3047	11.5855	0.6383	0.9496	5.5866	27.9275
2	16	8.5500	48.2491	0.4000	1.3063	11.5753	0.6379	0.9495	5.5809	27.9275
2	17	8.5600	48.2491	0.4000	1.3078	11.5651	0.6375	0.9494	5.5752	27.9275
2	18	8.5700	48.2491	0.4000	1.3093	11.5550	0.6371	0.9493	5.5695	27.9275
2	19	8.5800	48.2491	0.4000	1.3108	11.5448	0.6368	0.9492	5.5638	27.9275
2	20	8.5900	48.2491	0.4000	1.3124	11.5347	0.6364	0.9491	5.5582	27.9275
2	21	8.6000	48.2491	0.4000	1.3139	11.5245	0.6360	0.9490	5.5526	27.9275
3	1	8.6000	69.8294	0.4000	1.3139	9.6666	0.5700	0.8084	5.8513	27.5489
3	2	8.6550	69.8294	0.4500	1.3214	9.6258	0.5683	0.8079	5.8309	27.5489
3	3	8.7100	69.8294	0.4500	1.3288	9.5852	0.5666	0.8075	5.8109	27.5489
3	4	8.7650	69.8294	0.4500	1.3363	9.5448	0.5649	0.8071	5.7916	27.5489
3	5	8.8200	69.8294	0.4500	1.3438	9.5046	0.5631	0.8067	5.7727	27.5489
3	6	8.8750	69.8294	0.4500	1.3512	9.4645	0.5614	0.8062	5.7544	27.5489
3	7	8.9300	69.8294	0.4500	1.3587	9.4246	0.5597	0.8058	5.7365	27.5489
3	8	8.9850	69.8294	0.4500	1.3662	9.3848	0.5581	0.8054	5.7191	27.5489
3	9	9.0400	69.8294	0.4500	1.3736	9.3452	0.5564	0.8050	5.7022	27.5489
3	10	9.0950	69.8294	0.4500	1.3811	9.3058	0.5547	0.8045	5.6858	27.5489
3	11	9.1500	69.8294	0.4500	1.3886	9.2666	0.5530	0.8041	5.6699	27.5489
3	12	9.2050	69.8294	0.4500	1.3960	9.2275	0.5514	0.8037	5.6544	27.5489
3	13	9.2600	69.8294	0.4500	1.4035	9.1886	0.5497	0.8033	5.6393	27.5489
3	14	9.3150	69.8294	0.4500	1.4110	9.1499	0.5481	0.8028	5.6247	27.5489
3	15	9.3700	69.8294	0.4500	1.4185	9.1113	0.5465	0.8024	5.6105	27.5489
3	16	9.4250	69.8294	0.4500	1.4259	9.0729	0.5448	0.8020	5.5967	27.5489
3	17	9.4800	69.8294	0.4500	1.4334	9.0346	0.5432	0.8016	5.5834	27.5489
3	18	9.5350	69.8294	0.4500	1.4409	8.9965	0.5416	0.8011	5.5704	27.5489
3	19	9.5900	69.8294	0.4500	1.4483	8.9586	0.5400	0.8007	5.5579	27.5489

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
3	20	9.6450	69.8294	0.4500	1.4558	8.9208	0.5384	0.8003	5.5457	27.5489
3	21	9.7000	69.8294	0.4500	1.4633	8.8832	0.5368	0.7999	5.5339	27.5489
4	1	9.7000	70.6029	0.4500	1.4633	9.2789	0.6405	0.9007	5.5281	27.5320
4	2	10.3650	70.6029	0.4500	1.5536	8.8170	0.6179	0.8949	5.4023	27.5320
4	3	11.0300	70.6029	0.4500	1.6439	8.3782	0.5963	0.8893	5.3255	27.5320
4	4	11.6950	70.6029	0.4500	1.7342	7.9612	0.5758	0.8836	5.2871	27.5320
4	5	12.3600	70.6029	0.4500	1.8245	7.5649	0.5562	0.8780	5.2787	27.5320
4	6	13.0250	70.6029	0.4500	1.9148	7.1884	0.5374	0.8724	5.2935	27.5320
4	7	13.6900	70.6029	0.4500	2.0051	6.8306	0.5194	0.8668	5.3259	27.5320
4	8	14.3550	70.6029	0.4500	2.0954	6.4906	0.5021	0.8613	5.3717	27.5320
4	9	15.0200	70.6029	0.4500	2.1857	6.1676	0.4855	0.8558	5.4274	27.5320
4	10	15.6850	70.6029	0.4500	2.2760	5.8606	0.4695	0.8504	5.4903	27.5320
4	11	16.3500	70.6029	0.4500	2.3664	5.5689	0.4542	0.8450	5.5581	27.5320
4	12	17.0150	70.6029	0.4500	2.4567	5.2917	0.4394	0.8396	5.6292	27.5320
4	13	17.6800	70.6029	0.4500	2.5470	5.0284	0.4253	0.8343	5.7022	27.5320
4	14	18.3450	70.6029	0.4500	2.6373	4.7781	0.4116	0.8290	5.7760	27.5320
4	15	19.0100	70.6029	0.4500	2.7276	4.5403	0.3985	0.8237	5.8499	27.5320
4	16	19.6750	70.6029	0.4500	2.8179	4.3143	0.3859	0.8185	5.9231	27.5320
4	17	20.3400	70.6029	0.4500	2.9082	4.0996	0.3738	0.8132	5.9951	27.5320
4	18	21.0050	70.6029	0.4500	2.9985	3.8955	0.3621	0.8081	6.0657	27.5320
4	19	21.6700	70.6029	0.4500	3.0888	3.7016	0.3509	0.8029	6.1345	27.5320
4	20	22.3350	70.6029	0.4500	3.1791	3.5174	0.3402	0.7978	6.2014	27.5320
4	21	23.0000	70.6029	0.4500	3.2694	3.3423	0.3298	0.7928	6.2661	27.5320
5	1	23.0000	99.2729	0.4500	3.2694	2.9547	0.2663	0.6273	6.3770	27.6671
5	2	23.1540	99.2729	0.4000	3.2930	2.9251	0.2641	0.6263	6.3606	27.6671
5	3	23.3080	99.2729	0.4000	3.3165	2.8959	0.2620	0.6252	6.3450	27.6671
5	4	23.4620	99.2729	0.4000	3.3400	2.8670	0.2598	0.6242	6.3300	27.6671
5	5	23.6160	99.2729	0.4000	3.3636	2.8384	0.2577	0.6232	6.3159	27.6671
5	6	23.7700	99.2729	0.4000	3.3871	2.8100	0.2556	0.6221	6.3024	27.6671
5	7	23.9240	99.2729	0.4000	3.4106	2.7820	0.2535	0.6211	6.2896	27.6671
5	8	24.0780	99.2729	0.4000	3.4341	2.7542	0.2515	0.6200	6.2774	27.6671
5	9	24.2320	99.2729	0.4000	3.4577	2.7267	0.2495	0.6190	6.2659	27.6671
5	10	24.3860	99.2729	0.4000	3.4812	2.6994	0.2475	0.6180	6.2550	27.6671
5	11	24.5400	99.2729	0.4000	3.5047	2.6725	0.2455	0.6169	6.2447	27.6671
5	12	24.6940	99.2729	0.4000	3.5283	2.6458	0.2435	0.6159	6.2351	27.6671
5	13	24.8480	99.2729	0.4000	3.5518	2.6194	0.2416	0.6149	6.2259	27.6671
5	14	25.0020	99.2729	0.4000	3.5753	2.5932	0.2397	0.6138	6.2174	27.6671
5	15	25.1560	99.2729	0.4000	3.5988	2.5673	0.2378	0.6128	6.2094	27.6671
5	16	25.3100	99.2729	0.4000	3.6224	2.5417	0.2359	0.6118	6.2019	27.6671
5	17	25.4640	99.2729	0.4000	3.6459	2.5163	0.2341	0.6108	6.1950	27.6671

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
5	18	25.6180	99.2729	0.4000	3.6694	2.4911	0.2323	0.6097	6.1885	27.6671
5	19	25.7720	99.2729	0.4000	3.6929	2.4663	0.2305	0.6087	6.1825	27.6671
5	20	25.9260	99.2729	0.4000	3.7165	2.4416	0.2287	0.6077	6.1770	27.6671
5	21	26.0800	99.2729	0.4000	3.7400	2.4172	0.2270	0.6067	6.1720	27.6671
6	1	26.0800	105.1529	0.4000	3.7400	2.5675	0.2388	0.6068	6.2350	27.6857
6	2	26.1570	105.1529	0.4000	3.7518	2.5546	0.2379	0.6063	6.2299	27.6857
6	3	26.2340	105.1529	0.4000	3.7635	2.5418	0.2369	0.6057	6.2250	27.6857
6	4	26.3110	105.1529	0.4000	3.7753	2.5291	0.2360	0.6052	6.2202	27.6857
6	5	26.3880	105.1529	0.4000	3.7871	2.5164	0.2351	0.6047	6.2155	27.6857
6	6	26.4650	105.1529	0.4000	3.7988	2.5038	0.2341	0.6042	6.2109	27.6857
6	7	26.5420	105.1529	0.4000	3.8106	2.4913	0.2332	0.6037	6.2065	27.6857
6	8	26.6190	105.1529	0.4000	3.8223	2.4788	0.2323	0.6032	6.2022	27.6857
6	9	26.6960	105.1529	0.4000	3.8341	2.4663	0.2314	0.6027	6.1981	27.6857
6	10	26.7730	105.1529	0.4000	3.8459	2.4540	0.2305	0.6022	6.1941	27.6857
6	11	26.8500	105.1529	0.4000	3.8576	2.4417	0.2296	0.6017	6.1902	27.6857
6	12	26.9270	105.1529	0.4000	3.8694	2.4295	0.2287	0.6012	6.1864	27.6857
6	13	27.0040	105.1529	0.4000	3.8812	2.4173	0.2278	0.6007	6.1828	27.6857
6	14	27.0810	105.1529	0.4000	3.8929	2.4052	0.2269	0.6002	6.1792	27.6857
6	15	27.1580	105.1529	0.4000	3.9047	2.3931	0.2260	0.5997	6.1758	27.6857
6	16	27.2350	105.1529	0.4000	3.9165	2.3811	0.2252	0.5992	6.1725	27.6857
6	17	27.3120	105.1529	0.4000	3.9282	2.3692	0.2243	0.5987	6.1694	27.6857
6	18	27.3890	105.1529	0.4000	3.9400	2.3573	0.2234	0.5982	6.1663	27.6857
6	19	27.4660	105.1529	0.4000	3.9518	2.3455	0.2226	0.5977	6.1634	27.6857
6	20	27.5430	105.1529	0.4000	3.9635	2.3338	0.2217	0.5972	6.1605	27.6857
6	21	27.6200	105.1529	0.4000	3.9753	2.3221	0.2209	0.5967	6.1578	27.6857
7	1	27.6200	105.1529	0.4000	3.9753	2.3221	0.2209	0.5967	6.7695	27.6857
7	2	27.6450	105.1529	0.5000	3.9783	2.3190	0.2206	0.5966	6.7880	27.6857
7	3	27.6700	105.1529	0.5000	3.9814	2.3160	0.2204	0.5964	6.8061	27.6857
7	4	27.6950	105.1529	0.5000	3.9844	2.3130	0.2202	0.5963	6.8238	27.6857
7	5	27.7200	105.1529	0.5000	3.9875	2.3100	0.2200	0.5962	6.8410	27.6857
7	6	27.7450	105.1529	0.5000	3.9906	2.3070	0.2197	0.5960	6.8579	27.6857
7	7	27.7700	105.1529	0.5000	3.9936	2.3040	0.2195	0.5959	6.8743	27.6857
7	8	27.7950	105.1529	0.5000	3.9967	2.3010	0.2193	0.5958	6.8904	27.6857
7	9	27.8200	105.1529	0.5000	3.9997	2.2980	0.2191	0.5956	6.9060	27.6857
7	10	27.8450	105.1529	0.5000	4.0028	2.2950	0.2188	0.5955	6.9213	27.6857
7	11	27.8700	105.1529	0.5000	4.0058	2.2920	0.2186	0.5954	6.9363	27.6857
7	12	27.8950	105.1529	0.5000	4.0089	2.2890	0.2184	0.5953	6.9508	27.6857
7	13	27.9200	105.1529	0.5000	4.0119	2.2860	0.2182	0.5951	6.9651	27.6857
7	14	27.9450	105.1529	0.5000	4.0150	2.2830	0.2179	0.5950	6.9790	27.6857
7	15	27.9700	105.1529	0.5000	4.0181	2.2800	0.2177	0.5949	6.9925	27.6857

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
7	16	27.9950	105.1529	0.5000	4.0211	2.2771	0.2175	0.5947	7.0058	27.6857
7	17	28.0200	105.1529	0.5000	4.0242	2.2741	0.2173	0.5946	7.0187	27.6857
7	18	28.0450	105.1529	0.5000	4.0272	2.2711	0.2170	0.5945	7.0313	27.6857
7	19	28.0700	105.1529	0.5000	4.0303	2.2682	0.2168	0.5944	7.0437	27.6857
7	20	28.0950	105.1529	0.5000	4.0333	2.2652	0.2166	0.5942	7.0557	27.6857
7	21	28.1200	105.1529	0.5000	4.0364	2.2623	0.2164	0.5941	7.0675	27.6857
8	1	28.1200	105.1529	0.5000	4.0364	2.2623	0.2164	0.5941	7.0675	27.6857
8	2	28.2225	105.1529	0.4000	4.0520	2.2472	0.2152	0.5934	7.0463	27.6857
8	3	28.3250	105.1529	0.4000	4.0677	2.2322	0.2141	0.5928	7.0254	27.6857
8	4	28.4275	105.1529	0.4000	4.0834	2.2173	0.2130	0.5921	7.0047	27.6857
8	5	28.5300	105.1529	0.4000	4.0990	2.2026	0.2119	0.5915	6.9842	27.6857
8	6	28.6325	105.1529	0.4000	4.1147	2.1879	0.2108	0.5908	6.9640	27.6857
8	7	28.7350	105.1529	0.4000	4.1303	2.1733	0.2097	0.5901	6.9439	27.6857
8	8	28.8375	105.1529	0.4000	4.1460	2.1588	0.2086	0.5895	6.9240	27.6857
8	9	28.9400	105.1529	0.4000	4.1617	2.1444	0.2075	0.5888	6.9044	27.6857
8	10	29.0425	105.1529	0.4000	4.1773	2.1301	0.2065	0.5882	6.8849	27.6857
8	11	29.1450	105.1529	0.4000	4.1930	2.1159	0.2054	0.5875	6.8657	27.6857
8	12	29.2475	105.1529	0.4000	4.2086	2.1018	0.2044	0.5869	6.8466	27.6857
8	13	29.3500	105.1529	0.4000	4.2243	2.0878	0.2033	0.5862	6.8278	27.6857
8	14	29.4525	105.1529	0.4000	4.2400	2.0739	0.2023	0.5855	6.8091	27.6857
8	15	29.5550	105.1529	0.4000	4.2556	2.0601	0.2013	0.5849	6.7907	27.6857
8	16	29.6575	105.1529	0.4000	4.2713	2.0464	0.2003	0.5842	6.7724	27.6857
8	17	29.7600	105.1529	0.4000	4.2869	2.0327	0.1993	0.5836	6.7543	27.6857
8	18	29.8625	105.1529	0.4000	4.3026	2.0192	0.1983	0.5829	6.7364	27.6857
8	19	29.9650	105.1529	0.4000	4.3183	2.0057	0.1973	0.5823	6.7187	27.6857
8	20	30.0675	105.1529	0.4000	4.3339	1.9924	0.1963	0.5816	6.7012	27.6857
8	21	30.1700	105.1529	0.4000	4.3496	1.9791	0.1954	0.5810	6.6839	27.6857

CHRONIC MASS BALANCE CALCULATION TO DETERMINE THE MAXIMUM ALLOWABLE EFFLUENT AMMONIA-NITROGEN CONCENTRATION

31	Enter headwaters stream flow (in cfs) in the cell at the left (cell A4)*		
1	Enter effluent wasteflow (in mgd) in the cell at the left (cell A6)		
0.45	Enter headwaters ammonia-nitrogen concentration (in mg/l) in the cell at the left (cell A8)**		
7	Enter the pH in the cell at the left (cell A10)		
28	Enter the temperature in the cell at the left (cell A12)		
The maximum allowable instream ammonia-nitrogen concentration is		**2.48**	**mg/l*** **

*The headwaters stream flow is typically the $7Q_{10}$ value for summer and the $7Q_2$ value for winter.

**Unless actual data is available, the headwaters ammonia-nitrogen value is assumed to be 0.11 mg/l.

***This is the CCC ammonia-nitrogen value determined from revised ammonia toxicity criteria.

The maximum allowable effluent ammonia-nitrogen concentration is	**43.1**	**mg/l**

CPR: 9/18/00

Spreadsheet Water Quality Model

Stream Name :	***Choccolocco Creek***
River Basin :	***Coosa***
County :	***Calhoun/Talladega***

Modeled Reach :

Upstream Longitude	Upstream Latitude	Section	Township	Range
-85.82661	33.60143	29	16 s	8 e
Downstream Longitude	**Downstream Latitude**	**Section**	**Township**	**Range**
-86.11744	33.55895	16	17 s	5 e
Total Stream Length, miles	30.17			

Analysis Date :	**March 9, 2007**
Number of Sections :	**8**

Applicable Season:	Annual	May - Nov. (Summer)	Dec. - Apr. (Winter)
			x

Analysis Performed By :	**DWT**

Point Sources Included in the Model :	
Anniston	
NGC	
Oxford	
Army Depot	

W/O MODEL

Model Input :

Headwater Conditions :

CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
2.0000	0.1100	0.2200	8.0672	51	15

Tributary Conditions :

Section #	CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
1	0.0000	0.0000	0.0000			
2	0.0000	0.0000	0.0000			
3	2.0000	0.1100	0.2200	8.07	21.00	15.0
4	0.0000	0.0000	0.0000			
5	2.0000	0.1100	0.2200	8.07	42.19	15.0
6	4.0600	0.3351	0.4507	8.93	10.09	18.0
7	0.0000	0.0000	0.0000			
8	0.0000	0.0000	0.0000			
9	0.0000	0.0000	0.0000			
10	0.0000	0.0000	0.0000			
11	0.0000	0.0000	0.0000			
12	0.0000	0.0000	0.0000			
13	0.0000	0.0000	0.0000			
14	0.0000	0.0000	0.0000			
15	0.0000	0.0000	0.0000			
16	0.0000	0.0000	0.0000			
17	0.0000	0.0000	0.0000			
18	0.0000	0.0000	0.0000			
19	0.0000	0.0000	0.0000			
20	0.0000	0.0000	0.0000			
21	0.0000	0.0000	0.0000			
22	0.0000	0.0000	0.0000			
23	0.0000	0.0000	0.0000			
24	0.0000	0.0000	0.0000			

Model Input : Continued

Incremental Inflow Conditions :						
Section #	CBODu, mg/l	NH3-N, mg/l	TON, mg/l	D.O., mg/l	Flow, cfs	Temp., °C
1	0.0000	0.0000	0.0000			
2	0.0000	0.0000	0.0000			
3	0.0000	0.0000	0.0000			
4	0.0000	0.0000	0.0000			
5	0.0000	0.0000	0.0000			
6	0.0000	0.0000	0.0000			
7	0.0000	0.0000	0.0000			
8	0.0000	0.0000	0.0000			
9	0.0000	0.0000	0.0000			
10	0.0000	0.0000	0.0000			
11	0.0000	0.0000	0.0000			
12	0.0000	0.0000	0.0000			
13	0.0000	0.0000	0.0000			
14	0.0000	0.0000	0.0000			
15	0.0000	0.0000	0.0000			
16	0.0000	0.0000	0.0000			
17	0.0000	0.0000	0.0000			
18	0.0000	0.0000	0.0000			
19	0.0000	0.0000	0.0000			
20	0.0000	0.0000	0.0000			
21	0.0000	0.0000	0.0000			
22	0.0000	0.0000	0.0000			
23	0.0000	0.0000	0.0000			
24	0.0000	0.0000	0.0000			

Model Input : Continued

Effluent Conditions :

Section #	Discharger	Flow, MGD	Flow, cfs	$CBOD_5$, mg/l	$CBODu/CBOD_5$	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
1	Anniston	10.5	16.244	25	1.5	37.500	15	15	6	15.0
2	NGC	1	1.547	180	2	360.000	10	10	5	15.0
3	Oxford	4.9	7.580	25	1.5	37.500	20	20	6	15.0
4	Army Depot	0.5	0.774	30	1.5	45.000	10	10	5	15.0
5			0.000			0.000				
6			0.000			0.000				
7			0.000			0.000				
8			0.000			0.000				
9			0.000			0.000				
10			0.000			0.000				
11			0.000			0.000				
12			0.000			0.000				
13			0.000			0.000				
14			0.000			0.000				
15			0.000			0.000				
16			0.000			0.000				
17			0.000			0.000				
18			0.000			0.000				
19			0.000			0.000				
20			0.000			0.000				
21			0.000			0.000				
22			0.000			0.000				
23			0.000			0.000				
24			0.000			0.000				

Model Input : Continued

Section Characteristics :								*Dam Characteristics :*		
Section #	Length, miles	Upstream Elevation, feet	Downstream Elevation, feet	Average Elev., feet	Slope, ft/mile	Calculated Velocity or User Input Velocity?	User Input Velocity, feet/sec	Dam Height, feet	Water Quality Factor	Weir Coefficient
1	8.4	605	562	583.5	5.1190	Input	0.4			
2	0.2	562	561	561.5	5.0000	Input	0.4			
3	1.1	561	556	558.5	4.5455	Input	0.45			
4	13.3	556	492	524	4.8120	Input	0.45			
5	3.08	492	485.6	488.8	2.0779	Input	0.4			
6	1.54	485.6	482.6	484.1	1.9481	Input	0.4			
7	0.5	478.6	471	474.8	15.2000	Input	0.5	4.00	0.80	0.80
8	2.05	471	470	470.5	0.4878	Input	0.4			
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10										
11										
12										
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14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Model Input : Continued

Reaction Rates :

	Reaction Rates at 20° C					Reaction Rates at Ambient Temperature				
Section #	Kd, 1/day	K_{NH3}, 1/day	K_{TOX}, 1/day	Computed Ka, 1/day	User Input Ka, 1/day	Ka, 1/day	Kd, 1/day	K_{NH3}, 1/day	K_{TOX}, 1/day	Average Temp., °C
1	0.4	0.3	0.05	1.8019		1.6004	0.3179	0.2031	0.0340	15.0000
2	0.4	0.3	0.05	1.7600		1.5632	0.3179	0.1977	0.0340	15.0000
3	0.4	0.3	0.05	1.7905		1.5903	0.3179	0.1991	0.0340	15.0000
4	0.4	0.3	0.05	1.9056		1.6925	0.3179	0.1969	0.0340	15.0000
5	0.3	0.3	0.05	0.7358		0.6535	0.2384	0.2004	0.0340	15.0000
6	0.3	0.3	0.05	0.6857		0.6120	0.2407	0.2016	0.0346	15.2012
7	0.3	0.3	0.05	6.6243		5.9117	0.2407	0.2063	0.0346	15.2012
8	0.3	0.3	0.05	0.1738		0.1551	0.2407	0.2087	0.0346	15.2012
9										
10										
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24										

WQ MODEL

Model Input : Continued

Reaction Rates : Continued (OPTIONAL)

		Reaction Rates at 20° C			Reaction Rates at Ambient Temperature		
Section #	Stream Depth, feet	SOD, gm-O_2/ft^2/day	$CBOD_{settlings}$ 1/day	$TON_{settlings}$ 1/day	SOD, gm-O_2/ft^2/day	$CBOD_{settlings}$ 1/day	$TON_{settlings}$ 1/day
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
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23							
24							

Model Output:

Minimum Dissolved Oxygen:	*5.9660 mg/l*
The Minimum DO occurs at:	*13.6900 miles*

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
1	1	0.0000	67.2435	0.4000	0.0000	10.5755	3.7069	3.7903	7.5678	15.0000
1	2	0.4200	67.2435	0.4000	0.0642	10.3619	3.6685	3.7806	7.3794	15.0000
1	3	0.8400	67.2435	0.4000	0.1283	10.1527	3.6308	3.7710	7.2166	15.0000
1	4	1.2600	67.2435	0.4000	0.1925	9.9476	3.5938	3.7614	7.0767	15.0000
1	5	1.6800	67.2435	0.4000	0.2567	9.7468	3.5574	3.7518	6.9572	15.0000
1	6	2.1000	67.2435	0.4000	0.3208	9.5499	3.5216	3.7423	6.8559	15.0000
1	7	2.5200	67.2435	0.4000	0.3850	9.3571	3.4863	3.7327	6.7709	15.0000
1	8	2.9400	67.2435	0.4000	0.4492	9.1681	3.4515	3.7232	6.7003	15.0000
1	9	3.3600	67.2435	0.4000	0.5133	8.9830	3.4173	3.7138	6.6427	15.0000
1	10	3.7800	67.2435	0.4000	0.5775	8.8016	3.3835	3.7043	6.5965	15.0000
1	11	4.2000	67.2435	0.4000	0.6417	8.6239	3.3502	3.6949	6.5604	15.0000
1	12	4.6200	67.2435	0.4000	0.7058	8.4497	3.3173	3.6855	6.5334	15.0000
1	13	5.0400	67.2435	0.4000	0.7700	8.2791	3.2849	3.6761	6.5144	15.0000
1	14	5.4600	67.2435	0.4000	0.8342	8.1119	3.2528	3.6667	6.5025	15.0000
1	15	5.8800	67.2435	0.4000	0.8983	7.9481	3.2212	3.6574	6.4968	15.0000
1	16	6.3000	67.2435	0.4000	0.9625	7.7876	3.1899	3.6480	6.4967	15.0000
1	17	6.7200	67.2435	0.4000	1.0267	7.6303	3.1590	3.6388	6.5014	15.0000
1	18	7.1400	67.2435	0.4000	1.0908	7.4763	3.1285	3.6295	6.5105	15.0000
1	19	7.5600	67.2435	0.4000	1.1550	7.3253	3.0983	3.6202	6.5233	15.0000
1	20	7.9800	67.2435	0.4000	1.2192	7.1774	3.0685	3.6110	6.5395	15.0000
1	21	8.4000	67.2435	0.4000	1.2833	7.0324	3.0389	3.6018	6.5585	15.0000

WQ MODEL

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
2	1	8.4000	68.7905	0.4000	1.2833	14.9702	3.1955	3.7457	6.5235	15.0000
2	2	8.4100	68.7905	0.4000	1.2849	14.9629	3.1948	3.7455	6.5198	15.0000
2	3	8.4200	68.7905	0.4000	1.2864	14.9556	3.1940	3.7453	6.5161	15.0000
2	4	8.4300	68.7905	0.4000	1.2879	14.9484	3.1933	3.7450	6.5125	15.0000
2	5	8.4400	68.7905	0.4000	1.2894	14.9411	3.1925	3.7448	6.5088	15.0000
2	6	8.4500	68.7905	0.4000	1.2910	14.9338	3.1918	3.7446	6.5052	15.0000
2	7	8.4600	68.7905	0.4000	1.2925	14.9266	3.1911	3.7444	6.5016	15.0000
2	8	8.4700	68.7905	0.4000	1.2940	14.9193	3.1903	3.7441	6.4979	15.0000
2	9	8.4800	68.7905	0.4000	1.2956	14.9121	3.1896	3.7439	6.4944	15.0000
2	10	8.4900	68.7905	0.4000	1.2971	14.9049	3.1889	3.7437	6.4908	15.0000
2	11	8.5000	68.7905	0.4000	1.2986	14.8976	3.1881	3.7434	6.4872	15.0000
2	12	8.5100	68.7905	0.4000	1.3001	14.8904	3.1874	3.7432	6.4837	15.0000
2	13	8.5200	68.7905	0.4000	1.3017	14.8832	3.1867	3.7430	6.4801	15.0000
2	14	8.5300	68.7905	0.4000	1.3032	14.8759	3.1859	3.7428	6.4766	15.0000
2	15	8.5400	68.7905	0.4000	1.3047	14.8687	3.1852	3.7425	6.4731	15.0000
2	16	8.5500	68.7905	0.4000	1.3063	14.8615	3.1845	3.7423	6.4696	15.0000
2	17	8.5600	68.7905	0.4000	1.3078	14.8543	3.1837	3.7421	6.4661	15.0000
2	18	8.5700	68.7905	0.4000	1.3093	14.8471	3.1830	3.7419	6.4626	15.0000
2	19	8.5800	68.7905	0.4000	1.3108	14.8398	3.1823	3.7416	6.4592	15.0000
2	20	8.5900	68.7905	0.4000	1.3124	14.8326	3.1815	3.7414	6.4557	15.0000
2	21	8.6000	68.7905	0.4000	1.3139	14.8254	3.1808	3.7412	6.4523	15.0000
3	1	8.6000	97.3708	0.4000	1.3139	13.8246	3.8279	4.2475	6.7654	15.0000
3	2	8.6550	97.3708	0.4500	1.3214	13.7918	3.8235	4.2462	6.7438	15.0000
3	3	8.7100	97.3708	0.4500	1.3288	13.7591	3.8190	4.2450	6.7225	15.0000
3	4	8.7650	97.3708	0.4500	1.3363	13.7264	3.8146	4.2437	6.7017	15.0000
3	5	8.8200	97.3708	0.4500	1.3438	13.6939	3.8102	4.2425	6.6812	15.0000
3	6	8.8750	97.3708	0.4500	1.3512	13.6614	3.8058	4.2412	6.6611	15.0000
3	7	8.9300	97.3708	0.4500	1.3587	13.6290	3.8015	4.2399	6.6414	15.0000
3	8	8.9850	97.3708	0.4500	1.3662	13.5967	3.7971	4.2387	6.6220	15.0000
3	9	9.0400	97.3708	0.4500	1.3736	13.5644	3.7927	4.2374	6.6029	15.0000
3	10	9.0950	97.3708	0.4500	1.3811	13.5323	3.7884	4.2362	6.5842	15.0000
3	11	9.1500	97.3708	0.4500	1.3886	13.5002	3.7840	4.2349	6.5659	15.0000
3	12	9.2050	97.3708	0.4500	1.3960	13.4681	3.7797	4.2337	6.5479	15.0000
3	13	9.2600	97.3708	0.4500	1.4035	13.4362	3.7754	4.2324	6.5302	15.0000
3	14	9.3150	97.3708	0.4500	1.4110	13.4043	3.7711	4.2311	6.5128	15.0000
3	15	9.3700	97.3708	0.4500	1.4185	13.3725	3.7668	4.2299	6.4958	15.0000
3	16	9.4250	97.3708	0.4500	1.4259	13.3408	3.7625	4.2286	6.4791	15.0000
3	17	9.4800	97.3708	0.4500	1.4334	13.3092	3.7582	4.2274	6.4627	15.0000
3	18	9.5350	97.3708	0.4500	1.4409	13.2776	3.7539	4.2261	6.4466	15.0000
3	19	9.5900	97.3708	0.4500	1.4483	13.2461	3.7496	4.2249	6.4308	15.0000

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
3	20	9.6450	97.3708	0.4500	1.4558	13.2147	3.7453	4.2236	6.4153	15.0000
3	21	9.7000	97.3708	0.4500	1.4633	13.1834	3.7411	4.2224	6.4002	15.0000
4	1	9.7000	98.1443	0.4500	1.4633	13.4341	3.7904	4.2679	6.3891	15.0000
4	2	10.3650	98.1443	0.4500	1.5536	13.0539	3.7389	4.2526	6.2471	15.0000
4	3	11.0300	98.1443	0.4500	1.6439	12.6844	3.6885	4.2374	6.1405	15.0000
4	4	11.6950	98.1443	0.4500	1.7342	12.3254	3.6392	4.2222	6.0635	15.0000
4	5	12.3600	98.1443	0.4500	1.8245	11.9766	3.5908	4.2071	6.0114	15.0000
4	6	13.0250	98.1443	0.4500	1.9148	11.6376	3.5434	4.1920	5.9800	15.0000
4	7	13.6900	98.1443	0.4500	2.0051	11.3082	3.4967	4.1770	5.9660	15.0000
4	8	14.3550	98.1443	0.4500	2.0954	10.9881	3.4509	4.1620	5.9663	15.0000
4	9	15.0200	98.1443	0.4500	2.1857	10.6771	3.4058	4.1471	5.9785	15.0000
4	10	15.6850	98.1443	0.4500	2.2760	10.3749	3.3614	4.1322	6.0005	15.0000
4	11	16.3500	98.1443	0.4500	2.3664	10.0813	3.3177	4.1174	6.0306	15.0000
4	12	17.0150	98.1443	0.4500	2.4567	9.7960	3.2747	4.1027	6.0672	15.0000
4	13	17.6800	98.1443	0.4500	2.5470	9.5187	3.2322	4.0880	6.1092	15.0000
4	14	18.3450	98.1443	0.4500	2.6373	9.2493	3.1904	4.0733	6.1555	15.0000
4	15	19.0100	98.1443	0.4500	2.7276	8.9875	3.1492	4.0588	6.2053	15.0000
4	16	19.6750	98.1443	0.4500	2.8179	8.7331	3.1085	4.0442	6.2577	15.0000
4	17	20.3400	98.1443	0.4500	2.9082	8.4860	3.0684	4.0297	6.3121	15.0000
4	18	21.0050	98.1443	0.4500	2.9985	8.2458	3.0289	4.0153	6.3681	15.0000
4	19	21.6700	98.1443	0.4500	3.0888	8.0124	2.9899	4.0009	6.4252	15.0000
4	20	22.3350	98.1443	0.4500	3.1791	7.7856	2.9515	3.9866	6.4830	15.0000
4	21	23.0000	98.1443	0.4500	3.2694	7.5653	2.9136	3.9723	6.5412	15.0000
5	1	23.0000	140.3343	0.4500	3.2694	5.8921	2.0707	2.8442	7.0000	15.0000
5	2	23.1540	140.3343	0.4000	3.2930	5.8592	2.0637	2.8415	6.9670	15.0000
5	3	23.3080	140.3343	0.4000	3.3165	5.8264	2.0566	2.8389	6.9349	15.0000
5	4	23.4620	140.3343	0.4000	3.3400	5.7938	2.0496	2.8362	6.9037	15.0000
5	5	23.6160	140.3343	0.4000	3.3636	5.7614	2.0427	2.8336	6.8733	15.0000
5	6	23.7700	140.3343	0.4000	3.3871	5.7291	2.0357	2.8309	6.8437	15.0000
5	7	23.9240	140.3343	0.4000	3.4106	5.6971	2.0288	2.8283	6.8150	15.0000
5	8	24.0780	140.3343	0.4000	3.4341	5.6652	2.0220	2.8257	6.7870	15.0000
5	9	24.2320	140.3343	0.4000	3.4577	5.6335	2.0152	2.8230	6.7598	15.0000
5	10	24.3860	140.3343	0.4000	3.4812	5.6020	2.0084	2.8204	6.7334	15.0000
5	11	24.5400	140.3343	0.4000	3.5047	5.5707	2.0017	2.8177	6.7077	15.0000
5	12	24.6940	140.3343	0.4000	3.5283	5.5395	1.9949	2.8151	6.6828	15.0000
5	13	24.8480	140.3343	0.4000	3.5518	5.5085	1.9883	2.8125	6.6586	15.0000
5	14	25.0020	140.3343	0.4000	3.5753	5.4777	1.9816	2.8098	6.6351	15.0000
5	15	25.1560	140.3343	0.4000	3.5988	5.4471	1.9750	2.8072	6.6123	15.0000
5	16	25.3100	140.3343	0.4000	3.6224	5.4166	1.9685	2.8046	6.5902	15.0000
5	17	25.4640	140.3343	0.4000	3.6459	5.3863	1.9619	2.8020	6.5688	15.0000

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Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
5	18	25.6180	140.3343	0.4000	3.6694	5.3562	1.9554	2.7994	6.5480	15.0000
5	19	25.7720	140.3343	0.4000	3.6929	5.3262	1.9490	2.7967	6.5279	15.0000
5	20	25.9260	140.3343	0.4000	3.7165	5.2964	1.9425	2.7941	6.5084	15.0000
5	21	26.0800	140.3343	0.4000	3.7400	5.2668	1.9361	2.7915	6.4895	15.0000
6	1	26.0800	150.4243	0.4000	3.7400	5.1858	1.8287	2.6345	6.6532	15.2012
6	2	26.1570	150.4243	0.4000	3.7518	5.1712	1.8257	2.6333	6.6418	15.2012
6	3	26.2340	150.4243	0.4000	3.7635	5.1565	1.8226	2.6320	6.6306	15.2012
6	4	26.3110	150.4243	0.4000	3.7753	5.1420	1.8195	2.6308	6.6196	15.2012
6	5	26.3880	150.4243	0.4000	3.7871	5.1274	1.8164	2.6295	6.6087	15.2012
6	6	26.4650	150.4243	0.4000	3.7988	5.1129	1.8134	2.6283	6.5980	15.2012
6	7	26.5420	150.4243	0.4000	3.8106	5.0985	1.8103	2.6270	6.5874	15.2012
6	8	26.6190	150.4243	0.4000	3.8223	5.0841	1.8073	2.6258	6.5770	15.2012
6	9	26.6960	150.4243	0.4000	3.8341	5.0697	1.8043	2.6246	6.5667	15.2012
6	10	26.7730	150.4243	0.4000	3.8459	5.0554	1.8012	2.6233	6.5566	15.2012
6	11	26.8500	150.4243	0.4000	3.8576	5.0411	1.7982	2.6221	6.5467	15.2012
6	12	26.9270	150.4243	0.4000	3.8694	5.0268	1.7952	2.6209	6.5369	15.2012
6	13	27.0040	150.4243	0.4000	3.8812	5.0126	1.7922	2.6196	6.5272	15.2012
6	14	27.0810	150.4243	0.4000	3.8929	4.9984	1.7892	2.6184	6.5177	15.2012
6	15	27.1580	150.4243	0.4000	3.9047	4.9843	1.7862	2.6172	6.5083	15.2012
6	16	27.2350	150.4243	0.4000	3.9165	4.9702	1.7833	2.6159	6.4991	15.2012
6	17	27.3120	150.4243	0.4000	3.9282	4.9562	1.7803	2.6147	6.4900	15.2012
6	18	27.3890	150.4243	0.4000	3.9400	4.9421	1.7773	2.6134	6.4811	15.2012
6	19	27.4660	150.4243	0.4000	3.9518	4.9282	1.7744	2.6122	6.4723	15.2012
6	20	27.5430	150.4243	0.4000	3.9635	4.9142	1.7714	2.6110	6.4637	15.2012
6	21	27.6200	150.4243	0.4000	3.9753	4.9003	1.7685	2.6098	6.4551	15.2012
7	1	27.6200	150.4243	0.4000	3.9753	4.9003	1.7685	2.6098	7.5561	15.2012
7	2	27.6450	150.4243	0.5000	3.9783	4.8967	1.7677	2.6094	7.5890	15.2012
7	3	27.6700	150.4243	0.5000	3.9814	4.8931	1.7669	2.6091	7.6214	15.2012
7	4	27.6950	150.4243	0.5000	3.9844	4.8895	1.7661	2.6088	7.6532	15.2012
7	5	27.7200	150.4243	0.5000	3.9875	4.8860	1.7653	2.6085	7.6844	15.2012
7	6	27.7450	150.4243	0.5000	3.9906	4.8824	1.7645	2.6082	7.7151	15.2012
7	7	27.7700	150.4243	0.5000	3.9936	4.8788	1.7637	2.6078	7.7452	15.2012
7	8	27.7950	150.4243	0.5000	3.9967	4.8752	1.7629	2.6075	7.7748	15.2012
7	9	27.8200	150.4243	0.5000	3.9997	4.8716	1.7621	2.6072	7.8038	15.2012
7	10	27.8450	150.4243	0.5000	4.0028	4.8680	1.7613	2.6069	7.8323	15.2012
7	11	27.8700	150.4243	0.5000	4.0058	4.8644	1.7605	2.6066	7.8604	15.2012
7	12	27.8950	150.4243	0.5000	4.0089	4.8609	1.7597	2.6062	7.8879	15.2012
7	13	27.9200	150.4243	0.5000	4.0119	4.8573	1.7589	2.6059	7.9149	15.2012
7	14	27.9450	150.4243	0.5000	4.0150	4.8537	1.7581	2.6056	7.9414	15.2012
7	15	27.9700	150.4243	0.5000	4.0181	4.8502	1.7573	2.6053	7.9675	15.2012

Section Number	Increment Number	Distance, miles	Flow, cfs	Velocity, feet/sec	Total Travel Time, days	CBODu, mg/l	NH_3-N, mg/l	TON, mg/l	D.O., mg/l	Temp., °C
7	16	27.9950	150.4243	0.5000	4.0211	4.8466	1.7565	2.6050	7.9931	15.2012
7	17	28.0200	150.4243	0.5000	4.0242	4.8430	1.7557	2.6046	8.0182	15.2012
7	18	28.0450	150.4243	0.5000	4.0272	4.8395	1.7549	2.6043	8.0429	15.2012
7	19	28.0700	150.4243	0.5000	4.0303	4.8359	1.7541	2.6040	8.0671	15.2012
7	20	28.0950	150.4243	0.5000	4.0333	4.8324	1.7533	2.6037	8.0909	15.2012
7	21	28.1200	150.4243	0.5000	4.0364	4.8288	1.7525	2.6034	8.1143	15.2012
8	1	28.1200	150.4243	0.5000	4.0364	4.8288	1.7525	2.6034	8.1143	15.2012
8	2	28.2225	150.4243	0.4000	4.0520	4.8106	1.7485	2.6017	8.0743	15.2012
8	3	28.3250	150.4243	0.4000	4.0677	4.7925	1.7444	2.6001	8.0344	15.2012
8	4	28.4275	150.4243	0.4000	4.0834	4.7745	1.7403	2.5985	7.9949	15.2012
8	5	28.5300	150.4243	0.4000	4.0990	4.7566	1.7363	2.5968	7.9555	15.2012
8	6	28.6325	150.4243	0.4000	4.1147	4.7387	1.7323	2.5952	7.9165	15.2012
8	7	28.7350	150.4243	0.4000	4.1303	4.7208	1.7283	2.5936	7.8776	15.2012
8	8	28.8375	150.4243	0.4000	4.1460	4.7031	1.7243	2.5919	7.8390	15.2012
8	9	28.9400	150.4243	0.4000	4.1617	4.6854	1.7203	2.5903	7.8007	15.2012
8	10	29.0425	150.4243	0.4000	4.1773	4.6678	1.7164	2.5887	7.7625	15.2012
8	11	29.1450	150.4243	0.4000	4.1930	4.6502	1.7125	2.5871	7.7246	15.2012
8	12	29.2475	150.4243	0.4000	4.2086	4.6327	1.7085	2.5854	7.6870	15.2012
8	13	29.3500	150.4243	0.4000	4.2243	4.6153	1.7046	2.5838	7.6496	15.2012
8	14	29.4525	150.4243	0.4000	4.2400	4.5979	1.7007	2.5822	7.6124	15.2012
8	15	29.5550	150.4243	0.4000	4.2556	4.5806	1.6969	2.5806	7.5754	15.2012
8	16	29.6575	150.4243	0.4000	4.2713	4.5634	1.6930	2.5790	7.5387	15.2012
8	17	29.7600	150.4243	0.4000	4.2869	4.5462	1.6892	2.5773	7.5022	15.2012
8	18	29.8625	150.4243	0.4000	4.3026	4.5291	1.6854	2.5757	7.4660	15.2012
8	19	29.9650	150.4243	0.4000	4.3183	4.5121	1.6816	2.5741	7.4299	15.2012
8	20	30.0675	150.4243	0.4000	4.3339	4.4951	1.6778	2.5725	7.3941	15.2012
8	21	30.1700	150.4243	0.4000	4.3496	4.4782	1.6740	2.5709	7.3585	15.2012

CHRONIC MASS BALANCE CALCULATION TO DETERMINE THE MAXIMUM ALLOWABLE EFFLUENT AMMONIA-NITROGEN CONCENTRATION

51	Enter headwaters stream flow (in cfs) in the cell at the left (cell A4)*		
1	Enter effluent wasteflow (in mgd) in the cell at the left (cell A6)		
3.04	Enter headwaters ammonia-nitrogen concentration (in mg/l) in the cell at the left (cell A8)**		
7	Enter the pH in the cell at the left (cell A10)		
15	Enter the temperature in the cell at the left (cell A12)		
The maximum allowable instream ammonia-nitrogen concentration is		**5.73**	**mg/l*** **

*The headwaters stream flow is typically the $7Q_{10}$ value for summer and the $7Q_2$ value for winter.

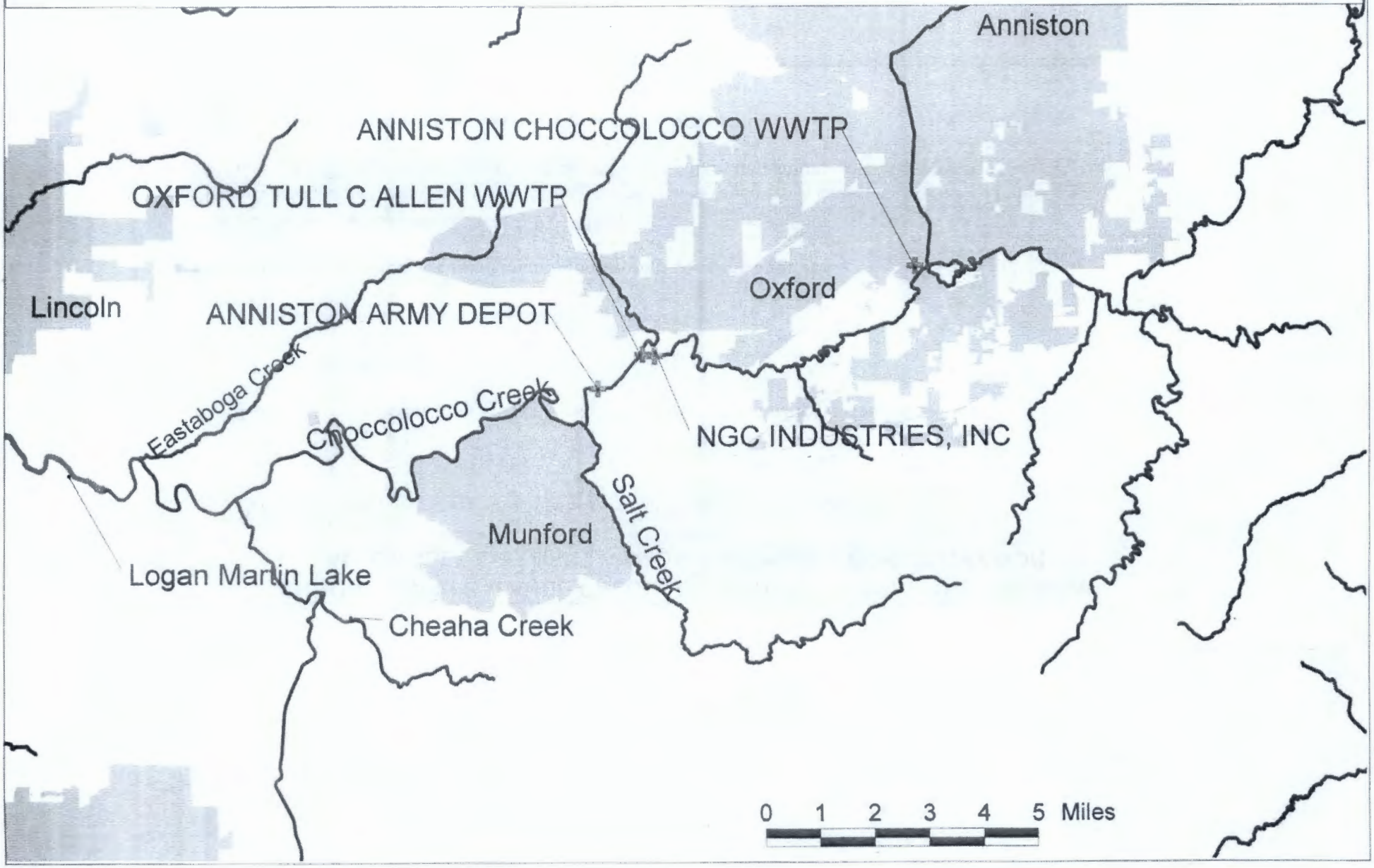
**Unless actual data is available, the headwaters ammonia-nitrogen value is assumed to be 0.11 mg/l.

***This is the CCC ammonia-nitrogen value determined from revised ammonia toxicity criteria.

The maximum allowable effluent ammonia-nitrogen concentration is	**94.4**	**mg/l**

CPR: 9/18/00

Choccolocco Creek WLA Point Sources



ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POST OFFICE BOX 301463 36130-1463 ♦ 1400 COLISEUM BLVD. 36110-2059

MONTGOMERY, ALABAMA

WWW.ADEM.STATE.AL.US

(334) 271-7700

ONIS "TREY" GLENN, III, P.E.
DIRECTOR

BOB RILEY
GOVERNOR

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Administration: 271-7950
General Counsel: 394-4332
Communication: 394-4383
Air: 279-3044
Land: 279-3050
Water: 279-3051
Groundwater: 270-5631
Field Operations: 272-8131
Laboratory: 277-6718
Mining: 394-4326

March 7, 2007

MEMORANDUM

To: WLA File

From David Thompson
Technical Support Section/Water Quality Branch

Subject: Site Visit to NGC
Choccolocco Creek /Calhoun & Talladega Counties

A site visit was conducted by David Thompson on 09/07/06. The following were noted from the trip.

1. It should be noted that the NGC facility and lagoons are located in Calhoun County but the end of the discharge pipe is in Talladega County.
2. Mr. Edward Brown was met at the facility and took me to the discharge location which is ~ 1 mile away from the waste water lagoons.
3. The discharge pipe is located on private property that can be accessed by going past the Oxford Tull C Allen WWTP.
4. On the day of the site visit, the discharge was cloudy and Mr. Brown stated that the facility had been shut down for a short time and was being restarted which caused the cloudy discharge.
5. From observations made during the site visits, no corrections to modeled velocities will be made.
6. Photos from the visit are attached.

DWT:dwt

Birmingham Branch
110 Vulcan Road
Birmingham, Alabama 35209-4702
(205) 942-6168
(205) 941-1603 [Fax]

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, Alabama 35603-1333
(256) 353-1713
(256) 340-9359 [Fax]

Mobile Branch
2204 Perimeter Road
Mobile, Alabama 36615-1131
(251) 450-3400
(251) 479-2593 [Fax]

Mobile – Coastal
4171 Commanders Drive
Mobile, Alabama 36615-1421
(251) 432-6533
(251) 432-6598 [Fax]

NGC outfall pipe at Choccolocco Creek
Talladega County, dwt

Choccolocco Creek looking US at NGC outfall,
Talladega County, dwt

Choccolocco Creek looking DS at NGC outfall,
Talladega County, dwt

David 9/5/06

WASTE LOAD ALLOCATION REQUEST FORM

MEMORANDUM **ALL ITEMS MUST BE COMPLETED**

To: Chief, Technical Support Section

From: ( ) Municipal (X) Industrial (Check one)

Responsible Engineer (**Employee** making request): Sandra Lee

1) Date submitted: 9/6/2006 2) Date Required: 9/20/2006

3) Fund Code: 210

***Receiving Waterbody MUST be the location at which the facility's outfall is located.**

4) Discharge Location: **Receiving Waterbody:** **Choccolocco Creek**

DO NOT write/stamp in this space.

River Basin: Coosa

County: Calhoun

Outfall Latitude: 33 deg. 34 min. 45 sec.

Outfall Longitude: 85 deg. 54 min. 45 sec.

Township: Range:

Section: Quad Name & No.:

5) Applicant Name:

6) Project Name: NGC inc. (If different from applicant)

7) Contact Name: Edward Brown 8) Phone Number: 256-831-6900

9) Permit Number: 0003930 10) Expiration Date: 10/31/2009

11) Permit application submitted as part of modeling request? Yes

12) Date Permit application received: 8/25/2006

13) Permit is: ( ) New Discharge and Permit ( ) Permit Re-issuance
(X) Expansion and Permit Modification ( ) Expansion and Permit Re-issuance

14) Modeling Fee Received:
( ) $35,765-Modeling with Data Collection-Major (10 stations or more)
( ) $29,210-Modeling with Data Collection-Minor (1-9 stations)
(X) $1,600-Model Review Only
( ) $2,875-Desktop Model
( ) $2,875-Mixing Zone Model (CORMIX)
( ) $2,500 Per Additional Season (Desktop and/or CORMIX Model)

Total Fee= 1600

15) Seasonal Limits Requested?: No Number of Seasons Requested:

16) Existing Discharge Flow Rate (MGD): 0.425 Proposed (MGD): 0.8

Note: The Flow Rates given should be those requested for modeling.

17) Do any other discharges exist that could potentially impact the model?: No

If yes, list the permit name and number:

Name: Permit #:

Attachments: ( ) Photocopy of 7.5 minute series topographip map (discharge location marked)
( ) Other:

Comments:

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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ONIS "TREY" GLENN, III, P.E.
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Land: 279-3050
Water: 279-3051
Groundwater: 270-5631
Field Operations: 272-8131
Laboratory: 277-6718
Mining: 394-4326

September 19, 2006

MEMORANDUM

To: Sandy Lee/Industrial Section

From: David Thompson/Water Quality Branch D.T.

RE: Model Review for National Gypsum Company (AL 0003930)

Per you're subject request received September 6, 2006, model reviews have been conducted for National Gypsum Company (NGC) (AL 0003930). The facility discharges directly to Choccolocco Creek. The model for Choccolocco Creek which includes NGC begins at the Anniston WWTP and ends at Cheaha Creek. Point Source discharges included in the model, from upstream to downstream, are Anniston WWTP, NGC, Oxford WWTP, and the Anniston Army Depot.

Based on an email from NGC's consultant it is assumed that NGC is requesting seasonal limits rather than their current annual limits. After review of the models the list of changes for the summer and winter models listed below must be made before the Water Quality Branch will concur the WLA Request. An electronic copy of the revised summer and winter models should be submitted for our review.

Summer Model:

1. The cell for "Analysis Performed By" should be changed to "NGC."
2. The Headwater Flow must = 31 cfs to be consistent with established 7Q10.
3. After the Headwater Flow is reduced NGC's effluent conditions must be reduced to keep the minimum dissolved oxygen above 5.0 mg/l.

Winter Model:

1. The cell for "Analysis Performed By" should be changed to "NGC."

2. Under "Headwater Conditions" the following parameters should be changed
   - D.O. should be changed from 6.4 mg/l to 8.06 mg/l to account for change in temperature.
   - Flow should be changed from 57.5 cfs to 51 cfs to be consistent with established 7Q2.
   - Temperature should be changed from 18° C to15° C to be consistent with previous modeling.

3. Under "Tributary Conditions" the following parameters should be changed
   - D.O. should be changed from 6.4 mg/l to 8.06 mg/l to account for change in temperature.
   - In Section # 3 the flow should be changed from 14 cfs to 21 cfs to be consistent with established 7Q2.
   - Temperature should be changed from 26° C to15° C to be consistent with previous modeling.

4. Under "Effluent Conditions" the following parameters should be changed
   - Anniston's "NH3-N" and "TON" concentrations should be set equal to 15 mg/l to be consistent with permitted limits.
   - Oxford's "NH3-N" and "TON" concentrations should be set equal to 20 mg/l to be consistent with permitted limits.
   - All Temperatures should be set equal to 15° C to be consistent with previous modeling.

5. Under "Section Characteristics" the following parameters should be changed
   - The "User Input Velocity" should be changed from 0.33 feet/sec to 0.40 feet/sec for section #s 1 and 2 to be consistent with previous modeling.
   - The "User Input Velocity" should be changed from 0.38 feet/sec to 0.45 feet/sec for section #s 3 and 4 to be consistent with previous modeling.

6. Under "Reaction Rates" the following parameters should be changed
   - The "TON Hydrolysis rate" should be changed from 0.1/day to 0.05/day for all sections to be consistent with previous modeling.
   - After all the above changes are made the "BOD Decay Rates" for each section should be checked to make sure they are consistent with EPA Region 4 guidelines.

If you have any questions don't hesitate to contact me.

DWT/nf

Thompson, David

From: CINDY JEFFERS [CJEFFERS@bbl-inc.com]

Sent: Thursday, August 10, 2006 12:43 PM

To: Kelly, Russell

Cc: Marshall, Brian C; Johnson, Chris; Thompson, David; Lee, Sandra; ANDREW PAWLISZ; DANIEL O'NEILL; PKRadigan@NationalGypsum.com

Subject: Request for the Modification of NPDES Permit #AL0003930 (NGCIndustries, Inc.)

Attachments: NPDES Letter Request.pdf

Mr. Kelly,

Please find attached a letter regarding a request for the modification of NPDES Permit #AL0003930 for the NGC Industries, Inc., facility located at 4811 US Highway 78 West in Oxford, Alabama.

If you should have any questions regarding this letter, please contact Patrick K. Radigan, New NGC, Inc., at 704-365-7538.

Thanks and have a nice day.

Cindy Jeffers
BBL - Brighton
10559 Citation Drive STE 100
Brighton, Michigan 48116
810-229-8823 x-129
810-229-8841 (Fax)
cjeffers@bbl-inc.com

National Gypsum COMPANY

Corporate Offices: 2001 Rexford Road
Charlotte, NC 28211
704-365-7300

August 10, 2006

Mr. Russell Kelly
Permits and Services Division
1400 Coliseum Boulevard
Post Office Box 301463
Montgomery, AL 36130-1463
Tel. 1-334-271-7700

Subject: A Request for the Modification of NPDES Permit #AL0003930

Dear Mr. Kelly:

This letter is a request for modification of the existing National Pollutant Discharge Elimination System (NPDES) permit for the NGC Industries, Inc., facility located at 4811 US Highway 78 West in Oxford, Alabama. This permit modification is being requested to accommodate an anticipated increased wastewater discharge due to a planned expansion of the recycled paper plant. The expansion will include installation of a new paper machine with capabilities to increase the present production by approximately 300% to 700 tons per day. This increase in production is forecasted to raise the effluent flow from the current average of 0.425 million gallons per day (MGD) to approximately 0.8 MGD. The remainder of this letter discusses the present permit limits and provides proposed new limits for 5-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and ammonia (NH_3). Justifications for the new limits, discussed below, are based on the results of using ADEM's Spreadsheet Water Quality Model (SWQM) and are, therefore, protective of the receiving water body, Choccolocco Creek.

Existing Permit Limits

The NGC Oxford plant is currently operating under an NPDES permit issued on October 28, 2004. This permit became effective on November 1, 2004 and is scheduled to remain in effect until October 31, 2009. The permit lists specific discharge limitations and monitoring requirements for several parameters. The key factors relevant to the operation of the treatment system and, therefore, the subject of this request include the BOD_5, TSS, and NH_3.

The current limits are (based on the average flow at 0.425 MGD and average BOD_5 at 180 ppm):

Table 1. Existing BOD, TSS, and NH_3 Limits

Parameter	Existing Limits	
	Summer	Winter
BOD	0.425 MGD@180 ppm	0.425 MGD@180 ppm
	ave: 695 PPD max: 1,060 PPD	ave: 695 PPD max: 1,060 PPD
TSS	ave: 1,400 PPD max: 2,350 PPD	ave: 1,400 PPD max: 2,350 PPD
NH_3	ave: 5.0 ppm max: 7.5 ppm	ave: 5.0 ppm max: 7.5 ppm

MGD – million gallons per day; PPD – pounds per day; ppm – parts per million

Requested Permit Limits

NGC requests modifications to BOD_5, TSS, and NH_3 limits prior to proceeding with the proposed expansion. The supporting data for the proposed limits were obtained via numerous telephone and e-mail exchanges between NGC's contractor (BBL) and ADEM staff as well as public information sources and the Oxford wastewater treatment plant (WWTP). This information was used to populate the SWQM forwarded to BBL by ADEM. The results from this model form the basis for the requested BOD_5 and NH_3 limits. The TSS limits were calculated using the projected production level (1,400 Klbs/day) and effluent limitation guidelines (ELGs) for the secondary fiber non-deink subcategory (Subpart J; non-corrugated and corrugated medium furnish). The anticipated mixture ratio of non-corrugated to corrugated furnish is 1:2. This ratio is used to estimate the TSS limits for each medium type; those limits were subsequently added together to yield a final TSS limit. Limits for ammonia were based on the results of the SWQM adjusted to local conditions, BOD_5 limits, and reasonable needs.

The table below summarizes the key model input parameters.

Table 2. Key Model Input Parameters used to Calculate the Proposed BOD_5, TSS, and NH_3 Limits

Parameter	Value	Units	Notes
Production level	1,400	Klbs/day	Projected value
Effluent flow average (Summer)	0.74	MGD	Projected value
Effluent flow average (Winter)	1.0	MGD	Projected value
Effluent temperature	26	°C	Projected value
7Q10	35.4	MGD	Calculated; ADEM
7Q2	57.5	MGD	Calculated; ADEM
Summer temp	29	°C	Average; ADEM
Winter temp	18	°C	Average; ADEM
ELGs (non-corr. med)			
Ave	2.5	lbs/1,000 lbs	TSS; 40CFR 430.102
Max	5.0	lbs/1,000 lbs	TSS; 40CFR 430.102
ELGs (corr. med)			
Ave	4.6	lbs/1,000 lbs	TSS; 40CFR 430.102
Max	9.2	lbs/1,000 lbs	TSS; 40CFR 430.102

Biochemical Oxygen Demand Limits

According to the SWQM model run results, the average BOD_5 limits in summer effluent may reach 180 ppm BOD_5 at the effluent flow of up to 0.74 MGD. This combination of BOD_5 concentration and flow does not result in reducing the DO in the receiving water body (Choccolocco Creek) below the minimum DO concentration of 5 ppm even when modeled in conjunction with the BOD_5 posed by other point sources (i.e. Anniston WWTP, Oxford WWTP, and Army Depot). This BOD_5 limit was also determined taking into consideration the BOD_5 demand from the proposed ammonia limit (see below). Figure 1 shows the oxygen sag curve in the receiving stream.

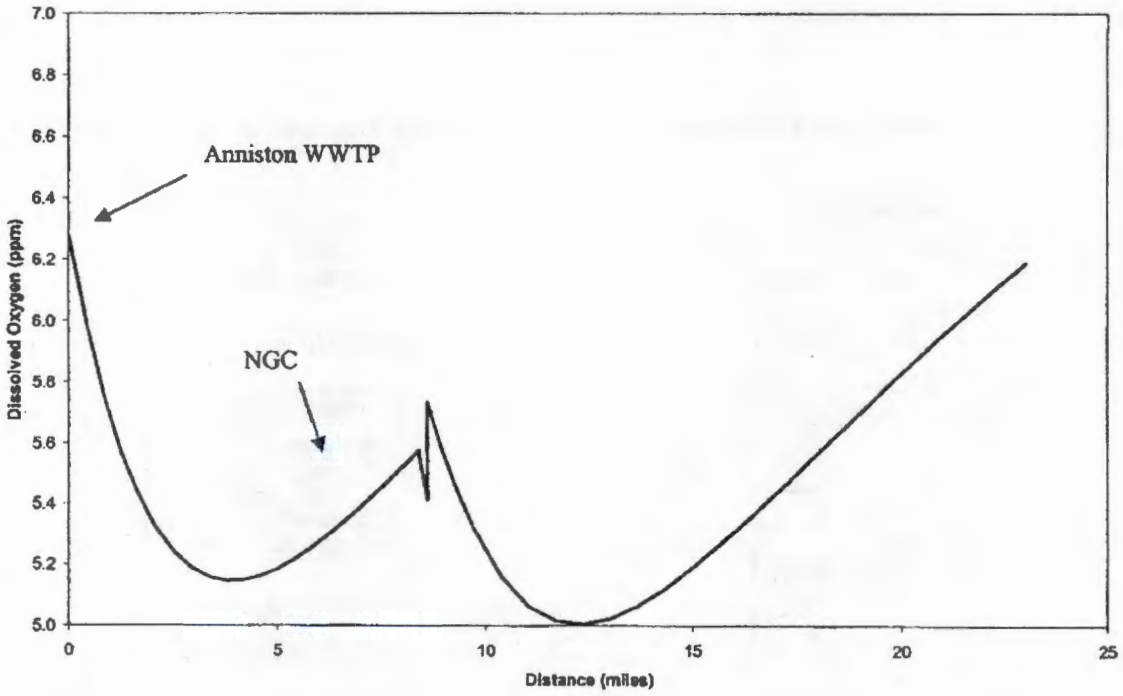
The new average summer loading limit can be estimated as follows:

$$0.74 \text{ MGD} \times 180 \text{ ppm} \times 8.34 = 1{,}111 \text{ lbs/day},$$

and the maximum summer loading limit can be calculated at:

$$1{,}111 \text{ lbs/day} + (1{,}111 \text{ lbs/day} \times 50\%) = 1{,}666 \text{ lbs/day}.$$

Figure 1. Summer Oxygen Sag Curve for Choccolocco Creek under the Poposed BOD Limits



In winter, Choccolocco Creek has a greater capacity for assimilating BOD_5 (due to lower temperatures and higher flows). This is reflected in the SWQM model results where the average BOD_5 in the effluent may reach 320 ppm at a flow of 1.0 MGD. The new average winter loading limit can be estimated as follows:

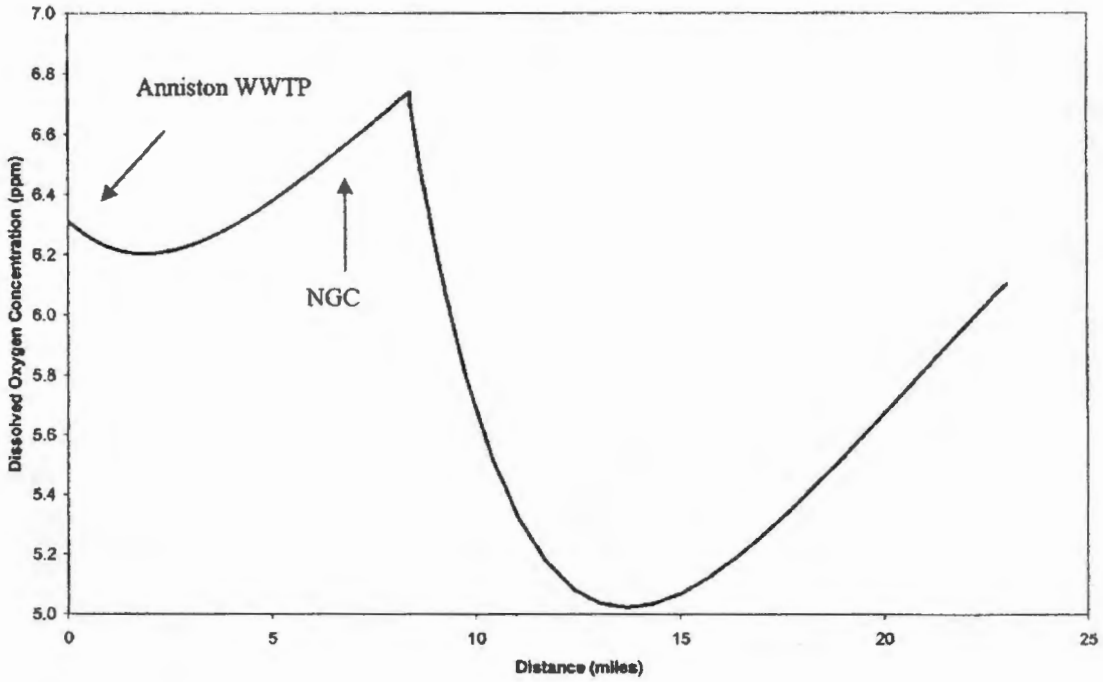
$$1.0 \text{ MGD} \times 320 \text{ ppm} \times 8.34 = 2{,}669 \text{ lbs/day},$$

and the maximum winter loading limit can be calculated at:

$$2{,}669 \text{ lbs/day} + (2{,}669 \text{ lbs/day} \times 50\%) = 4{,}003 \text{ lbs/day}.$$

Figure 2 depicts the oxygen sag curve for winter conditions.

Figure 2. Winter Oxygen Sag Curve for Choccolocco Creek under the Poposed BOD Limits



Total Suspended Solids Limits

As mentioned above, TSS limits are calculated using anticipated production rates and ELGs load factors. The new TSS limits are calculated as:

FURNISH	**AVG (lbs TSS/day)**	**MAX (lbs TSS/day)**
Non-corrugated	1,400 Klbs/day x 1/3 x 2.5 = 1,167	1,400 Klbs/day x 1/3 x 5.0 = 2,333
Corrugated	1,400 Klbs/day x 2/3 x 4.6 = 4,293	1,400 Klbs/day x 2/3 x 9.2 = 8,587
Total:	5,460 lbs TSS/day	10,920 lbs TSS/day

Ammonia as Nitrogen Limits

The ammonia limits are based on the SWQM model calculations, which take into consideration the criteria continuous concentration (CCC; chronic toxicity) and the criteria maximum concentration (CMC; acute toxicity) for ammonia (USEPA's formula based on pH) and the receiving water body assimilative capacity (i.e. dilution). According to model results, the summer CCC for ammonia (in-stream) can be as high as 2.5 ppm and the effluent ammonia concentration can be as high as 75.7 ppm. The CMC-based values are 36 ppm and 1,149 ppm for in-stream and effluent, respectively. In winter, the chronic toxicity-based limits are 4.72 ppm (in-stream) and 176 ppm (effluent) and the acute toxicity-based numbers are 36 ppm (in-stream) and 1,374 ppm (effluent). Although these maximum values could theoretically be adopted as the

permit limits, in practice they are rarely adopted due to the BOD_5 limitations. Instead, a minimum ammonia value that could reasonably be achieved by a given treatment system is adopted as the monthly average. A daily maximum limit is set as the 150% of the average number. For the purpose of the current request, NGC proposes 10 ppm as the monthly average and 15 ppm as the daily maximum limit. These limits are comparable to those given to the Army Depot by ADEM. The proposed monthly average was entered into the SWQM to account for the ammonia-based BOD_5.

Summary of Proposed Limits

Table below summarizes the previous as well as the proposed permit limits.

Table 3. Summary of BOD_5, TSS, and NH_3 Limits

Limit	Existing		Proposed	
	Summer	Winter	Summer	Winter
BOD	0.425 MGD@180 ppm	0.425 MGD@180 ppm	0.74 MGD@180 ppm	1.0 MGD@320 ppm
	ave: 695 PPD max: 1,060 PPD	ave: 695 PPD max: 1,060 PPD	ave: 1,111 PPD max: 1,666 PPD	ave: 2,669 PPD max: 4,003 PPD
TSS	ave: 1,400 PPD max: 2,350 PPD	ave: 1,400 PPD max: 2,350 PPD	ave: 5,460 PPD max: 10,920 PPD	ave: 5,460 PPD max: 10,920 PPD
NH_3	ave: 5.0 ppm max: 7.5 ppm	ave: 5.0 ppm max: 7.5 ppm	ave: 10 ppm max: 15 ppm	ave: 10 ppm max: 15 ppm

MGD – million gallons per day; PPD – pounds per day

In summary, this letter forms the basis for a formal request for a permit modification to the NGC facility NPDES permit number **AL0003930**. The proposed limits discussed herein were developed using the SWQM utilizing current conditions of the receiving water body, point sources discharging to the same body of water, and parameterization of the SWQM. We believe that the limits have been calculated following accepted procedures and by utilization of the established ADEM water quality model, and, as such, are protective of the Choccolocco Creek. Furthermore, NGC will make any modifications to the WWTP system at the facility necessary to treat the anticipated increase in the volume of wastewater. NGC is looking forward to working with ADEM on finalizing the NPDES permit modification in a timely manner. If you have any questions or concerns, please do not hesitate to call me at 704-365-7538.

Sincerely,

Patrick K. Radigan
New NGC, Inc.

Rationale
Choccolocco Creek
Anniston WWTP, NGC, Oxford WWTP, Anniston Army Depot WWTP

On 07/05/06 a teleconference was held in Russell Kelly's office to discuss a proposed expansion of the NGC facility discharge to Choccolocco Creek. The discussions lead us to believe that NGC was going to submit an application for us to model Choccolocco Creek for an increase from 0.465 mgd to 0.8 mgd. The next day NGC's consultant, Blasland, Bouck & Lee, Inc, (BBL) handling the permit application, requested a copy of the model that would be used to perform the WLA. Instead of sending them to the website to download a blank copy of the SWQM, I sent the most current copy of the Choccolocco Creek WLA spreadsheet model. Instead of ~~the~~ sending in a request for ADEM to perform the modeling, BBL decided to take the model already set up for Choccolocco Creek and adjust it to fit their needs. On 08/16/06 BBL emailed a summer and winter model for ADEM to review. After review of the model by WQ, a memo dated 09/19/06 was sent to the Industrial Section detailing a list of changes that must be made before WQ would concur with the WLA. On 10/25/06 BBL resubmitted models with changes made based on the 09/19/06 memo.

After further review of the revised model it was noted that the ending concentrations for CBOD and NH3 were significantly above background for the Winter model. Then it was discovered that previously there were different models for Winter and Summer for Choccolocco Creek. Originally the summer model only had 4 sections and ended at the confluence of Cheaha Creek with ending conditions being close to background. The Winter model was extended down to where it is considered to have influence from Logan Martin Lake and includes Cheaha Creek and Eastaboga Creek in order to get the ending model concentrations closer to background. Eastaboga Creek has two WWTP systems discharging to it (Talladega Airport and Talladega Super Speedway). The decision was made to keep the Summer and Winter models for Choccolocco Creek consistent and extend the summer model to the influence from Logan Martin Lake. The Eastaboga Creek model was revised since it was originally set up for Choccolocco Creek being entered as a tributary to Eastaboga Creek. The Eastaboga Creek model now stops at the confluence with Choccolocco Creek and its ending concentrations are input as a tributary into the Choccolocco Creek WLA. To get winter values, an Eastaboga Creek model was set up to reflect winter conditions using Seasonal permit limits for the point sources.

To expedite the process and avoid confusion, WQ ran the models. There should be no issue with this because NGC is retaining the same limits they requested in the last correspondence to ADEM. It should be noted that they requested different flow rates for Summer and Winter.

All flows and velocities were kept consistent with previous models.

Correspondences (emails and Memos) are attached to this Rationale.

dwt
03/09/07

Thompson, David

From: Pawlisz, Andrew [Andrew.Pawlisz@arcadis-us.com]
Sent: Tuesday, January 30, 2007 9:25 AM
To: Thompson, David
Cc: Radigan, Patrick K; O'Neill, Daniel
Subject: RE: revised Winter model for NGC/Choccolocco Creek
Attachments: Choccolocco_Creek_(Anniston_WWTP)_Winter_R1_AP.xls

Hi Dave,

I apologize for a delay in getting back to you; we needed to work some things out. Anyway, we accept your revised model for Winter and seek to obtain the indicated limits (based on the results of the revised model - attached). Please do not hesitate to contact me if you have any questions. With this hurdle cleared, we are looking forward to the completion of the permitting process.

Cheers,

Andrew

Parameter	Season	
	Summer	Winter
BOD	0.65 MGD@180 ppm	1.0 MGD@180 ppm
	ave: 976 PPD max: 1,464 PPD	ave: 1,501 PPD max: 2,252 PPD
TSS	ave: 5,460 PPD max: 10,920 PPD	ave: 5,460 PPD max: 10,920 PPD
NH_3	ave: 10.0 ppm max: 15.0 ppm	ave: 10.0 ppm max: 15.0 ppm

From: Thompson, David [mailto:DWT@adem.state.al.us]
Sent: Wednesday, January 17, 2007 2:16 PM
To: Pawlisz, Andrew
Cc: Smart, Daphne Y; Lee, Sandra; Sanderson, Eric
Subject: FW: revised Winter model for NGC/Choccolocco Creek

Andrew,

I am resending the below email in response to our phone conservation we had a couple weeks ago. You called me to find out the status of the NGC permit. In the conservation I asked you what your thoughts were to the below email. You indicated that you may not have gotten the email due to some network changes at your office. During the same conversation you said you would check into it and get back with me.

This email is to let you know that ADEM is waiting on a response from you before proceeding with the permitting process for NGC.

Please contact me at your convenience.

Thanks

David

334-271-7958

From: Thompson, David
Sent: Tuesday, November 14, 2006 8:28 AM
To: ANDREW PAWLISZ
Cc: Johnson, Chris; Lee, Sandra
Subject: revised Winter model for NGC/Choccolocco Creek

Hi Andrew

I'm attaching a revised Winter model for Choccolocco Creek. The revised model extends further downstream then the model you previously submitted. The reason for extending the model is to allow for CBOD and NH3-N concentrations to get closer to background concentrations. Effluent conditions for NGC had to be lowered slightly also to help get closer to background conditions.

After you get a chance to review the revised model please call me to discuss any issues you may have.

David Thompson

334-271-7958

<<Choccolocco_Creek_NGC-ADEM_Winter_111406.xls>>

Thompson, David

From: ANDREW PAWLISZ [APAWLISZ@bbl-inc.com]
Sent: Friday, July 07, 2006 10:53 AM
To: Marshall, Brian C; Johnson, Chris; Thompson, David
Cc: Kelly, Russell; Lee, Sandra
Subject: Re: FW: SWQM Spreadsheet
Attachments: ANDREW PAWLISZ2.vcf

Hi Brian,

Just to follow up on my phone message of this AM; we have additional questions that perhaps you could answer or redirect to appropriate personnel.

1. We will definitely need the spreadsheet that was used to derive the original limits (or the list of input values).

2. According to model guidance, it is possible to substitute default values with measured ones. Is that so?

3. We need to know how is the low flow (i.e. 7Q10 calculated). Is it an average from all available data reaching back to xx date? Or is it an average based on summer months only? In summer limit calculations, is the whole year 7Q10 used or is it the summer-months based 7Q10?

4. What are the QA/QC and procedural steps required for us to run the model and have the results accepted by the Department?

5. Does the Department accept/endorse the use of dynamic models to calculate WLAs / concentration limits?

We are working with real time constraints and a prompt response would be greatly appreciated,

Andrew

PS. Please call me on my cell when you get the chance.

Andrew Pawlisz
Senior Toxicologist/ Manager
3350 Buschwood Park Drive Suite 100
Tampa, Florida 33618
Tel. 813-933-0697 x15
Fax. 813-932-9514
Cell. 850-228-1664

>>> "Marshall, Brian C" <BMarshall@adem.state.al.us> 7/6/2006 11:23:04 AM >>>

David/Chris,

I spoke with Andrew this morning and informed him of David's current circumstances.

Andrew has a few questions about the WQ Model for the stretch of Choccolocco Creek impacted by the National Gypsum discharge.

- Is the model available on the ADEM website the most recent version?
- If so, is it the one that the WQ Branch will utilize when running the model reflecting the changes at

National Gypsum?

- Can Andrew get access to the input utilized in the model that outlines the current allocation reflected in National Gypsum's existing permit?

I have asked Andrew to let us know if my interpretation of his questions is accurate.

Please let me know if you have any questions or concerns.

Thanks!

Brian

From: ANDREW PAWLISZ [mailto:APAWLISZ@bbl-inc.com]
Sent: Thursday, July 06, 2006 8:56 AM
To: Thompson, David
Cc: Marshall, Brian C; DANIEL O'NEILL
Subject: SWQM Spreadsheet

Brian/David,

I would like to make a quick follow up call regarding the status of the SWQM spreadsheet mentioned during our teleconference of yesterday. I will call you shortly.

Cheers,

Andrew

Andrew Pawlisz
Senior Toxicologist/ Manager
3350 Buschwood Park Drive Suite 100
Tampa, Florida 33618
Tel. 813-933-0697 x15
Fax. 813-932-9514
Cell. 850-228-1664

Thompson, David

From: ANDREW PAWLISZ [APAWLISZ@bbl-inc.com]
Sent: Thursday, July 06, 2006 10:45 AM
To: Marshall, Brian C; Johnson, Chris; Thompson, David
Cc: Kelly, Russell; Lee, Sandra
Subject: Re: FW: SWQM Spreadsheet
Attachments: ANDREW PAWLISZ2.vcf

Brian,

Thanks for jumping in on this. Yes, your interpretation is right on!

Cheers,

Andrew

Andrew Pawlisz
Senior Toxicologist/ Manager
3350 Buschwood Park Drive Suite 100
Tampa, Florida 33618
Tel. 813-933-0697 x15
Fax. 813-932-9514
Cell. 850-228-1664

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I have asked Andrew to let us know if my interpretation of his questions is accurate.

Please let me know if you have any questions or concerns.

Thanks!

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Sent: Thursday, July 06, 2006 8:56 AM

To: Thompson, David
Cc: Marshall, Brian C; DANIEL O'NEILL
Subject: SWQM Spreadsheet

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Cheers,

Andrew

Andrew Pawlisz
Senior Toxicologist/ Manager
3350 Buschwood Park Drive Suite 100
Tampa, Florida 33618
Tel. 813-933-0697 x15
Fax. 813-932-9514
Cell. 850-228-1664

Thompson, David

From: ANDREW PAWLISZ [APAWLISZ@bbl-inc.com]
Sent: Wednesday, August 16, 2006 1:03 PM
To: Marshall, Brian C; Thompson, David
Cc: DANIEL O'NEILL; Pat Radigan
Subject: NGC Summer and Winter SWQM
Attachments: Choccolocco_Creek_(Anniston_WWTP)_Winter_1AP.xls; Choccolocco_Creek_(Anniston_WWTP)_Summer_1AP.xls; ANDREW PAWLISZ2.vcf

Hi Dave,

As you are aware, we are in the process of applying for the NPDES permit modification for the NGC plant in Anniston, AL. We have submitted the permit modification supporting document last week. The actual application paperwork (ADEM and USEPA forms with the payment) were delivered to ADEM this AM. With the attached files, hopefully, this is all you need to start the permit modification process.

Cheers,

Andrew

Andrew Pawlisz
Senior Toxicologist/ Manager
3350 Buschwood Park Drive Suite 100
Tampa, Florida 33618
Tel. 813-933-0697 x15
Tel. 941-351-5328 x10 (Sarasota field office)
Fax. 813-932-9514
Cell. 850-228-1664

BBL®

an ARCADIS company

Transmitted Via email

October 25, 2006

Mr. David Thompson
ADEM
Water Quality Branch
1400 Coliseum Boulevard
Post Office Box 301463
Montgomery, AL 36130-1463
Tel. 1-334-271-7700

Subject: Response to Comments on Draft Model Result for NPDES Permit #AL0003930

Dear Dave,

Please accept our thanks for the prompt and a thorough review of the draft SWQM results submitted on August 15, 2006. Every comment from your September 19, 2006 memo has been carefully considered and incorporated into the new version of the summer and winter SWQM predictions. The revised models are forwarded to you along with this letter.

I would also thank you for a thorough discussion on the receiving water flow rates. As you recall, the summer 7Q10 was set to 31 cfs (cubic feet per second) at the head of the modeled reach (at the Anniston WWTP; Table 1). However, the 7Q10 at the point of NGC discharge is likely 35.4 cfs (as per my discussion of Jonathan Hall; due to groundwater recharge). Similar conditions exist in winter where the actual flow is higher than the modeled flow. Therefore, the model predictions (presented below) for NGC have additional conservatism build into them. I trust that this will help ADEM to feel more comfortable granting the requested limits.

Table 1. Revised Key Model Input Parameters used to Calculate the Proposed BOD_5, TSS, and NH_3 Limits

Parameter	Value	Units	Notes
Production level	1,400	Klbs/day	Projected value
Average effluent flow			
summer	0.65	MGD	Projected value
winter	1.0	MGD	Projected value
Effluent temperature	26	°C	Projected value
7Q10	31	cfs	Calculated; ADEM
7Q2	51	cfs	Calculated; ADEM
Summer temp	29	°C	Average; ADEM
Winter temp	15	°C	Average; ADEM
ELGs (non-corr. med)			
Ave	2.5	lbs/1000 lbs	TSS; 40CFR 430.102
Max	5.0	lbs/1000 lbs	TSS; 40CFR 430.102
ELGs (corr. med)			
Ave	4.6	lbs/1000 lbs	TSS; 40CFR 430.102
Max	9.2	lbs/1000 lbs	TSS; 40CFR 430.102

cfs – cubic feet per second

Revised Permit Limits

Based on the updated models, the anticipated permits limits are as follows (see Table 2). Please note that the revised models apply to BOD and ammonia. The limits for TSS were not affected by model revisions.

Table 2. Revised BOD, TSS, and NH_3 Limits

Parameter	Proposed Limits	
	Summer	Winter
BOD	0.65 MGD@180 ppm	1.0 MGD@250 ppm
	ave: 976 PPD max: 1,464 PPD	ave: 2,085 PPD max: 3,128 PPD
TSS	ave: 5,460 PPD max: 10,920 PPD	ave: 5,460 PPD max: 10,920 PPD
NH_3	ave: 10.0 ppm max: 15.0 ppm	ave: 10.0 ppm max: 15.0 ppm

MGD – million gallons per day; PPD – pounds per day; ppm – parts per million

Sincerely,

Andrew V. Pawlisz

BLASLAND, BOUCK & LEE, INC.

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
ALR000014167	AL0003930	NGC Industries, LLC	OMB No. 2040-0004

Form 2C NPDES — **EPA**

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater
EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURE OPERATIONS

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
001	Choccolocco Creek	33.00° 34.00′ 45.60″ N	85.00° 54.00′ 46.00″ 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.)

☑ Yes ☐ No

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**** 001

Operations Contributing to Flow

Operation	Average Flow
Process Water	0.44828 mgd
Seal Water	0.072 mgd
Cooling Water	0 mgd
Condensate	0.0144 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
Flocculation and Floatation	1-G, 1-H	
Clarification	1-U, 4-C	
Neutralization (if needed)	2-K	
Aeration Ponds - mixing	3-B, 1-O	

Average Flows and Treatment Continued

3.1 cont.

****Outfall Number**** 001

Operations Contributing to Flow

Operation	Average Flow
Runoff from Stock Rejects Area	0.0144 mgd
	mgd
No Individual flow info available	mgd
	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
Coagulation	2-D	
Clarification	1-U	
Additional Settling (if needed)	1-U	
Discharge	4-A	

****Outfall Number**** 001

Operations Contributing to Flow

Operation	Average Flow
Stormwater from Boiler Area	0.0013 mgd
Boiler Blowdown	0.00432 mgd
RO System Reject Water	0.0225 mgd
Air Compressor B/D	0.0288 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
Settling Pond	1-U	
Neutralization (if Needed) >> Aeration Pond - Mixing	2-K >> 3-B, 1-O	
Coagulation >> Clarification	2-D >> 1-U	
Additional Settling (If Needed) >> Disharge	1-U >> 4-A	

System Users

3.2 Are you applying for an NPDES permit to operate a privately owned treatment works?

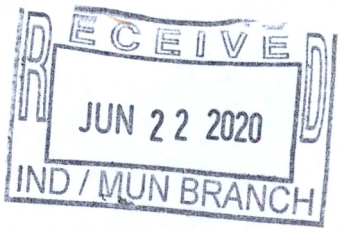
☐ Yes ☑ No ➔ SKIP to Section 4.

3.3 Have you attached a list that identifies each user of the treatment works?

☐ Yes ☐ No

NGC Industries, Inc.
A subsidiary of National Gypsum Company

Anniston Plant: 4811 US Highway 78 West
Oxford Al 36203
256-835-2688 Fax
256-831-6900



R#20-51899

June 15, 2020

Rachel Lounsberry, Engineer
Industrial/Mining Permit Section
NPDES Permit Branch, Water Division
Alabama Dept. of Environmental Management
P. O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Marshall,

Please find attached our application and check for the fees for the renewal of NPDES permit AL0003930.

We are filing ADEM Form 450 to request that our stormwater outfall 002 continues to represent 003 and 004 and stormwater outfall 005 continues to represent 006 and 007 as in our current NPDES permit.

If you need more information, please contact us.

Sincerely,

David Lambert
Plant Engineer

cc: Neal Stephenson - Anniston
James Phipps – Charlotte
File

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

RECEIVED
JUN 22 2020
IND / MUN BRANCH

PURPOSE OF THIS APPLICATION

- ☐ Initial Permit Application for New Facility*
- ☐ Initial Permit Application for Existing Facility*
- ☐ Modification of Existing Permit
- ■ Reissuance of Existing Permit
- ☐ Revocation & Reissuance of Existing Permit

* *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

1. Facility Name: NGC Industries, LLC
   a. Operator Name: NGC Industries, LLC
   b. 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.
2. NPDES Permit Number: AL 0 0 0 3 9 3 0 (not applicable if initial permit application)
3. SID Permit Number (if applicable): IU ___ ___ - ___ ___ - ___ ___ ___ ___ ___
4. NPDES General Permit Number (if applicable): ALG ___ ___ ___ ___ ___ ___
5. Facility Physical Location: **(Attach a map with location marked; street, route no. or other specific identifier)**
   Street: 4811 US Highway 78 West
   City: Oxford County: Calhoun State: Alabama Zip: 36203
   Facility Location (Front Gate): Latitude: N33 55 41.4 Longitude: W85 55 33.4
6. Facility Mailing Address: 4811 US Highway 78 West
   City: Oxford County: Calhoun State: Alabama Zip: 36203
7. Responsible Official (as described on the last page of this application):
   Name and Title: Neal Stephenson , Plant Manager
   Address: 4811 US highway 78 West
   City: Oxford State: Alabama Zip: 36203
   Phone Number: 253-831-6900 Email Address: enstephenson@nationalgypsum.com
8. Designated Facility Contact:
   Name and Title: David Lambert , Plant Engineer
   Phone Number: 256-831-6900 Email Address: davidla@nationalgypsum.com

9. Designated Discharge Monitoring Report (DMR) Contact:

Name and Title: David Lambert , Plant Engineer

Phone Number: 256-831-6900 Email Address: davidla@nationalgypsum.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: Incorporated in Delaware Physical Location : 2001 Rexford Rd

City: Charlotte County: Mecklenburg State: NC Zip: 28211

b) Parent Corporation of Applicant:

Name: New NGC, Inc., d/b/a National Gypsum Company

Address: 2001 Rexford Rd.

City: Charlotte State: NC Zip: 28211

c) Subsidiary Corporation(s) of Applicant:

Name: None

Address:

City: State: Zip:

d) Corporate Officers:

Name: See attached sheet

Address: 2001 Rexford Rd.

City: Charlotte State: NC Zip: 28211

Name:

Address:

City: State: Zip:

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

Name: Corporation Service Company

Address: 2711 Centerville Rd.

City: Wilmington State: DE Zip: 19808

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:

Permit Name	Permit Number	Held By
RCRA	ALR000014167	NGC Industries, LLC
General Stormwater Included in NPDES	ALG140543	NGC Industries, LLC
Air Permits (New Boilers - No longer req. old shutdown)	301008Z001 & 301008Z002	NGC Industries, LLC

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

Facility Name	Permit Number	Type of Action	Date of Action
NGC Industries, LLC	AL0003930	Notice of Violation	06/08/2018
NGC Industries, LLC	AL0003930	3rd party litigation - Dismissed	06/22/2018

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. 2631

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

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

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):

Production of gypsum board liner paper from recycled paper

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)
N/A			

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

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

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

d. Flow rate: _____ gallons/minute

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)
Gypsum Board Paper	Secondary Fiber Non-Dein	Subpart J	Continuous
		78% Corrugated	
		& 22% non-corrugated	

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)

*** 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: N/A per day

b. Average discharge per batch: N/A (GPD)

c. Time of batch discharges N/A (days of week) at N/A (hours of day)

d. Flow rate: N/A gallons/minute

e. Percent of total discharge: N/A

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)
N/A			

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

a. Number of batch discharges: N/A per day

b. Average discharge per batch: N/A (GPD)

c. Time of batch discharges N/A (days of week) at N/A (hours of day)

d. Flow rate: N/A gallons/minute

e. Percent of total discharge: N/A

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
N/A		

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:

Location marked on schematic - Consists of H-Flume with ISCO 4210 flowmeter and ISCO automatic sampler located at the discharge of the secondary clarifier

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:

Rebuild of paper machine to increase production speed. It could possibly increase wastewater volume. wastewater characterisitcs expected not to change.

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

Trade Name	Chemical Composition
Lanxess Sporegard WB-Added to paper -142,855# in 2019	See attached SDS
Buckman Busan 85 - Used ~1375# in 2019	See attached SDS

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

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

SECTION D – WATER SUPPLY

Water Sources (check as many as are applicable):

- ■ Private Well
- ■ Municipal Water Utility (Specify City):
- ☐ Surface Water
- ☐ Other (Specify): _____

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

City: 0.0020 MGD* Well: 0.680 MGD* Well Depth: 146 Ft. Latitude: N33 55 36.6 Longitude: W85 55 33.7

Surface Intake Volume: N/A 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 Anniston b) Location of Provider: Coldwater Spring, Anniston, AL

   c) Latitude: N33 36 11.214 Longitude: W85 55 32.6856

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
Solids rejects from stock preparation screening	Dewatering area west side of plant - marked on map

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*
Primary & Secondary Sludge	unknown	returned to process

***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?	☐	☐
2. Will the project be a source of new air emissions?	☐	☐

		Yes	No
3.	Does the project involve dredging and/or filling of a wetland area or water way?	☐	☐
	If Yes, has the Corps of Engineers (COE) permit been received?	☐	☐
	COE Project No. _____		
4.	Does the project involve wetlands and/or submersed grassbeds?	☐	☐
5.	Are oyster reefs located near the project site?	☐	☐
	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)?	☐	☐
7.	Does the project involve mitigation of shoreline or coastal area erosion?	☐	☐
8.	Does the project involve construction on beaches or dune areas?	☐	☐
9.	Will the project interfere with public access to coastal waters?	☐	☐
10.	Does the project lie within the 100-year floodplain?	☐	☐
11.	Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
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)?	☐	☐
	If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	☐	☐

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?*	
DSN001	Choccolocco Creek	■ Yes	☐ No	☐ Yes	■ No
DSN002-007	Unnamed Tributary of Coldwater Creek	■ Yes	☐ No	☐ Yes	■ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ 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: Neal Stephenson Date Signed: 6/15/2020

Name and Title: Neal Stephenson , Plant Manager

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

Mailing Address: 4811 US Highway 78 West

City: Oxford State: Alabama Zip: 36203

Phone Number: 256-831-6900 Email Address: enstephenson@nationalgypsum.com

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

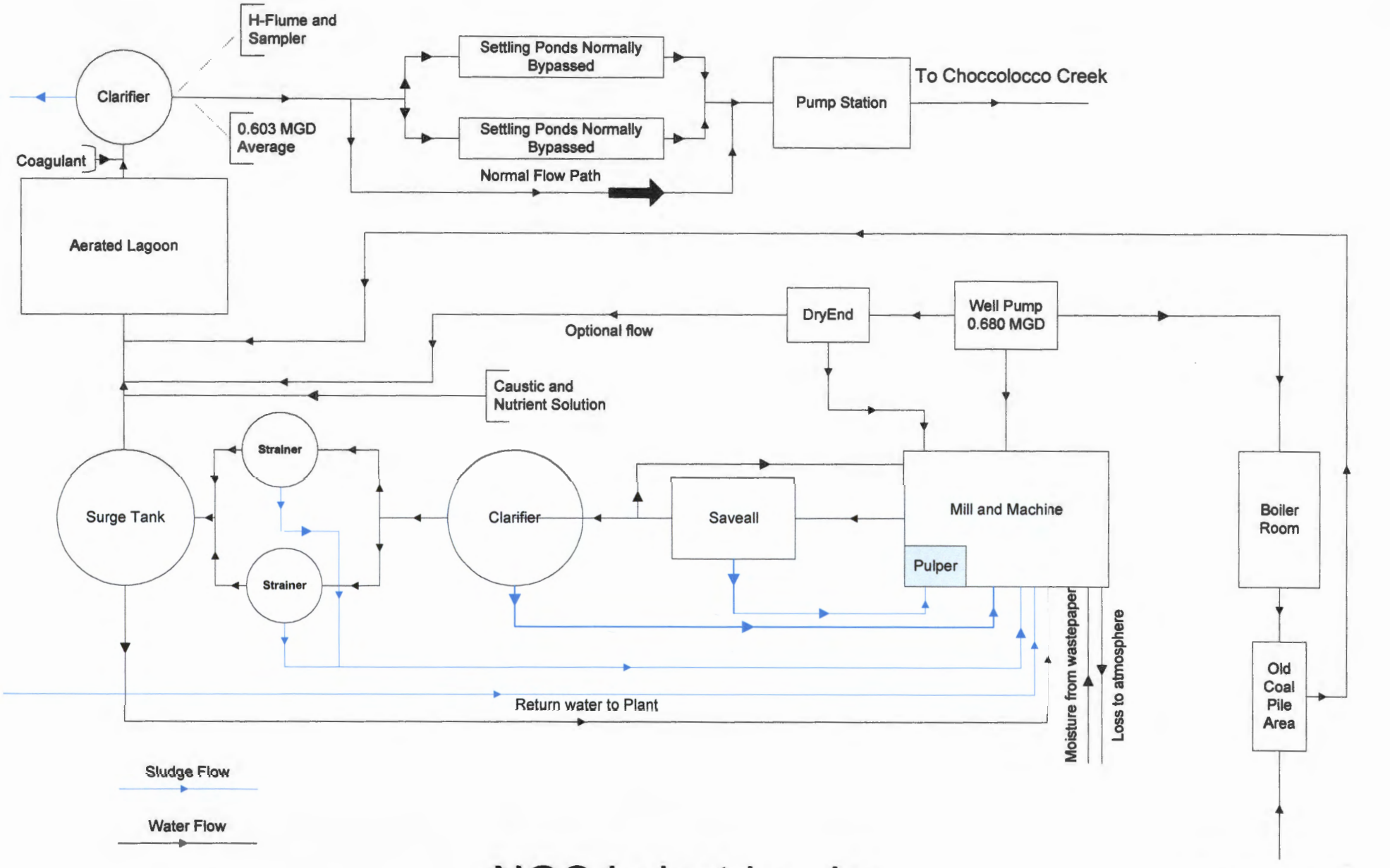
(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:

(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.



NGC Industries, Inc.

Oxford, AL

Form 187, Question 11d.

Corporate Officers of NationalGypsum:

Thomas C. Nelson, Chairman, CEO & President

John Corsi – Vice President, Manufacturing

John Mixson – Vice President, Sales

Laura Budzichowski – Vice President and General Counsel

Craig Robertson – Vice President, R&D

George Beckwith – Vice President & Chief Financial Officer

Dennis Merriam – Vice President, Human Resources

Richard Parkhurst – Treasurer

Address:

2001 Rexford Rd

Charlotte, NC 28211


NGC Industries, LLC
4811 Highway 78 West
Oxford, AL
Ditches
Direction of Drainage
Storm Drains
Area Draining to Plant
U.S. Hwy 78
N.
003
002
004
Roof Drains to 002
Goldwater Rd
Low Area
Flow Breaks North & South
007
006
005
From Adjacent Property

	2019 Waste Paper Usage (Tons)					
	Kraft	Sections	Fly Leaf	Corrugated	Mixed	Blanks
	1145.057	447.377	1094.63	4886.771	0	0
	684.179	691.898	538.19	4105.142	0	0
	806.043	516.469	1061.658	5256.663	0	0
	749.752	259.012	751.361	3121.258	0	0
	730.324	548.565	728.188	4026.163	0	0
	767.581	443.638	908.115	4346.13	0	15.573
	571.614	501.138	577.329	3551.33	21.918	37.928
	672.286	312.509	889.639	3586.56	0	52.299
	1096.694	614.194	922.209	3922.194	0	29.43
	873.489	392.537	945.069	3668.429	0	0
	728.994	619.06	512.486	3239.732	0	0
	1372.239	424.94	838.941	3175.029	0	0
Annual Total	10198.25	5771.337	9767.815	46885.401	21.918	135.23
Monthly Average	849.8543	480.9448	813.9846	3907.1168	1.8265	11.26917

Percent Corrugated and Non-Corrugated	
Corrugated	0.784
Non Corruaged	0.215
Mixed	0.0003

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
ALR000014167	AL0003930	NGC Industries, LLC	OMB No. 2040-0004

Form 1 NPDES | EPA

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

GENERAL INFORMATION

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. ☑ 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. ☑ 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**? ☐ Yes → Complete Form 1 ***and*** Form 2B. ☑ No	1.2.2	Is the facility an **existing** manufacturing, commercial, mining, or silvicultural **facility** that **is currently discharging process wastewater**? ☑ Yes → Complete Form 1 ***and*** Form 2C. ☐ No
1.2.3	Is the facility a **new** manufacturing, commercial, mining, or silvicultural **facility** that has **not yet commenced to discharge**? ☐ Yes → Complete Form 1 ***and*** Form 2D. ☑ No	1.2.4	Is the facility a **new or existing** manufacturing, commercial, mining, or silvicultural **facility** that **discharges only nonprocess wastewater**? ☐ Yes → Complete Form 1 ***and*** Form 2E. ☑ 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**? ☑ Yes → Complete Form 1 ***and*** Form 2F unless exempted by 40 CFR 122.26(b)(14)(x) or (b)(15). ☐ No		

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

Name, Mailing Address, and Location

2.1 Facility Name

NGC Industries, LLC

2.2 EPA Identification Number

ALR000014167

2.3 Facility Contact

Name (first and last)	Title	Phone number
David Lambert	Plant Engineer	256-831-6900 Ext. 4497

Email address
DavidLa@NationalGypsum.com

2.4 Facility Mailing Address

Street or P.O. box
4811 U.S. Highway 78 W

City or town	State	ZIP code
Oxford	AL	36203

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Name, Mailing Address, and Location Continued

2.5	**Facility Location**		
	Street, route number, or other specific identifier 4811 U.S. Highway 78 W		
	County name Calhoun	County code (if known)	
	City or town Oxford	State Alabama	ZIP code 36203

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

SIC and NAICS Codes

3.1	**SIC Code(s)**	**Description** (optional)
	2631	Paperboard Mills

3.2	**NAICS Code(s)**	**Description** (optional)
	322130	Paperboard Mills

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

Operator Information

4.1	**Name of Operator**
	NGC Industries, LLC
4.2	Is the name you listed in Item 4.1 also the owner? ☑ Yes ☐ No
4.3	**Operator Status** ☐ Public—federal ☐ Public—state ☐ Other public (specify)_____ ☑ Private ☐ Other (specify) _____
4.4	**Phone Number of Operator**
	256-831-6900

Operator Information Continued

4.5	**Operator Address**		
	Street or P.O. Box 4811 U.S. Highway 78 W		
	City or town Oxford	State Alabama	ZIP code 36203
	Email address of operator		

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

Indian Land

5.1	Is the facility located on Indian Land? ☐ Yes ☑ No

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
ALR000014167	AL0003930	NGC Industries, LLC	

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)

☑ NPDES (discharges to surface water) AL0003930	☑ RCRA (hazardous wastes) ALR000014167 - Conditionally Exemp	☐ UIC (underground injection of fluids)
☐ PSD (air emissions)	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☐ Ocean dumping (MPRSA)	☐ Dredge or fill (CWA Section 404)	☑ Other (specify) Septic Tank - Permit 18-11-14120

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.)

☑ Yes ☐ No ☐ CAFO—Not Applicable (See requirements in Form 2B.)

SECTION 8. NATURE OF BUSINESS (40 CFR 122.21(f)(8))

Nature of Business

8.1 Describe the nature of your business.
Manufacturing a recycled grade of paperboard to be converted to gypsum wallboard.

SECTION 9. COOLING WATER INTAKE STRUCTURES (40 CFR 122.21(f)(9))

Cooling Water Intake Structures

9.1 Does your facility use cooling water?

☐ Yes ☑ 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.)

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.)

- ☐ Fundamentally different factors (CWA Section 301(n))
- ☐ Non-conventional pollutants (CWA Section 301(c) and (g))
- ☑ Not applicable
- ☐ Water quality related effluent limitations (CWA Section 302(b)(2))
- ☐ Thermal discharges (CWA Section 316(a))

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
ALR000014167	AL0003930	NGC Industries, LLC	

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

Checklist and Certification Statement

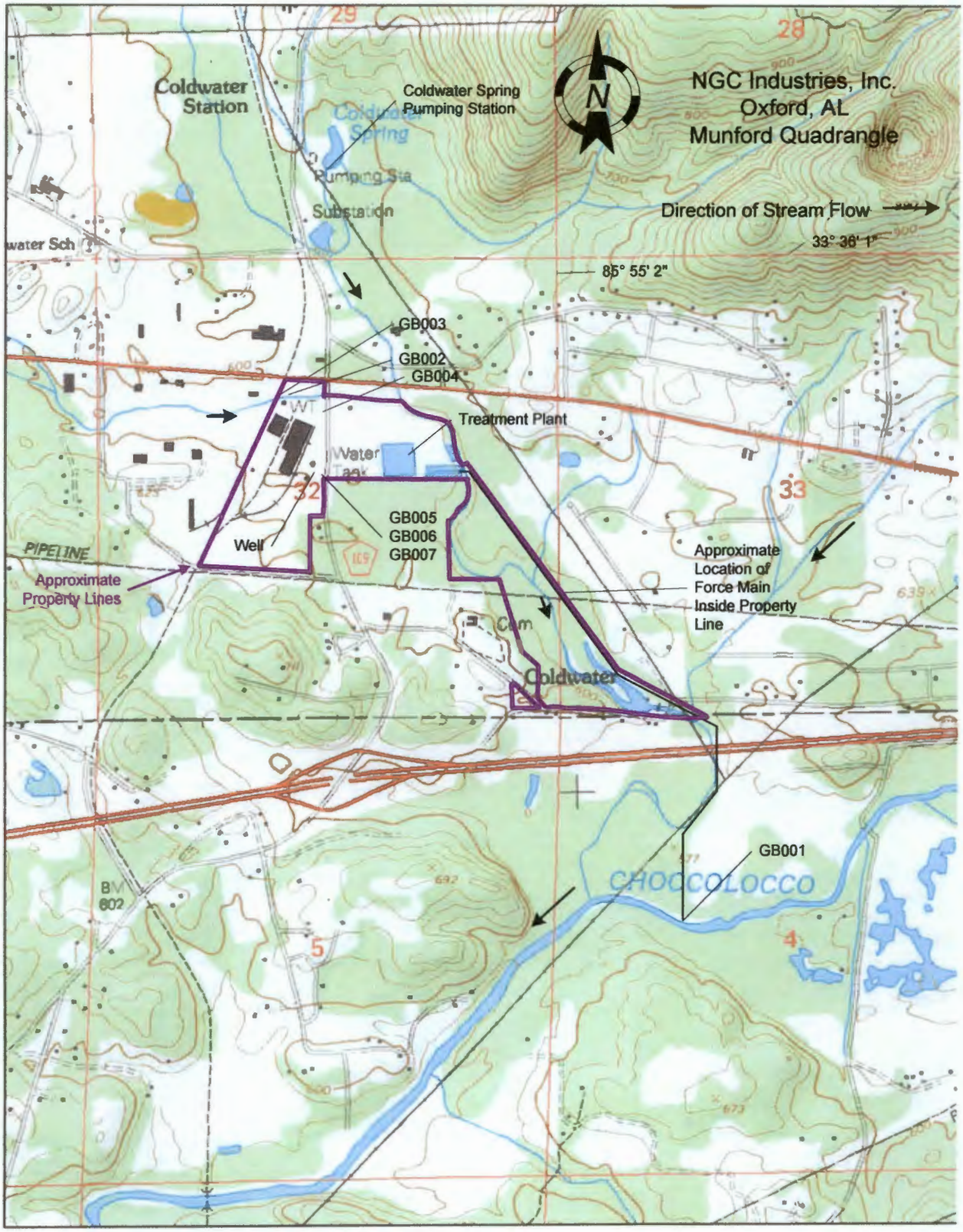
11.1 In Column 1 below, mark the sections of Form 1 that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2
☑ Section 1: Activities Requiring an NPDES Permit	☐ w/ attachments
☑ Section 2: Name, Mailing Address, and Location	☐ w/ attachments
☑ Section 3: SIC Codes	☐ w/ attachments
☑ Section 4: Operator Information	☐ w/ attachments
☑ Section 5: Indian Land	☐ w/ attachments
☑ Section 6: Existing Environmental Permits	☐ w/ attachments
☑ Section 7: Map	☑ w/ topographic map ☐ w/ additional attachments
☑ Section 8: Nature of Business	☐ w/ attachments
☑ Section 9: Cooling Water Intake Structures	☐ w/ attachments
☑ Section 10: Variance Requests	☐ w/ attachments
☑ Section 11: Checklist and Certification Statement	☐ w/ attachments

11.2 **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)	Official title
Neal Stephenson	Plant Manager
Signature	**Date signed**
Neal Stephenson	6/15/2020


NGC Industries, Inc.
Oxford, AL
Munford Quadrangle
Coldwater Station
Coldwater Spring Pumping Station
Coldwater Spring
Pumping Sta
Substation
Direction of Stream Flow
33° 36' 1"
85° 55' 2"
GB003
GB002
GB004
WT
Treatment Plant
Water Tank
GB005
GB006
GB007
Well
PIPELINE
Approximate Property Lines
Approximate Location of Force Main Inside Property Line
Coldwater
GB001
CHOCCOLOCCO
BM 602
29
28
32
33
5
4
0 0.5 Mi
0 2000 Ft
Map provided by MyTopo.com

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
ALR000014167	AL0003930	NGC Industries, LLC	OMB No. 2040-0004

Form 2C NPDES | **EPA**

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater
EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURE OPERATIONS

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
001	Choccolocco Creek	33.00° 34.00' 45.60" N	85.00° 54.00' 46.00" 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.)

☑ Yes ☐ No

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**** 001

Operations Contributing to Flow

Operation	Average Flow
Process Water	N/A mgd
Seal Water	N/A mgd
Cooling Water	N/A mgd
Condensate	N/A 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
Flocculation and Floatation	1-G , 1-H	
Clarification	1-U, 4-C	
Neutralization (if needed)	2-K	
Aeration Ponds - mixing	3-B , 1-O	

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Average Flows and Treatment Continued

3.1 cont.

****Outfall Number**** 001

Operations Contributing to Flow

Operation	Average Flow
Runoff from Stock Rejects Area	mgd
	mgd
No Individual flow info available	mgd
	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
Coagulation	2-D	
Clarification	1-U	
Additional Settling (if Needed)	1-U	
Discharge	4-A	

****Outfall Number**** 001

Operations Contributing to Flow

Operation	Average Flow
Stormwater from Boiler Area	N/A mgd
Boiler Blowdown	N/A mgd
RO System Reject Water	N/A mgd
Air Compressor B/D	N/A 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
Settling Pond	1-U	
Neutralization (If Needed) >> Aeration Pond - Mixing	2-K >> 3-B , 1-O	
Coagulation >> Clarification	2-D >> 1-U	
Additional Settling (If Needed) >> Discharge	1-U >> 4-A	

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?

☐ Yes ☑ 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
		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?

☑ Yes ☐ No ➔ SKIP to Section 6.

5.2 Provide the following information on applicable ELGs.

ELG Category	ELG Subcategory	Regulatory Citation
Pulp, Paper, and Paperboard Poin	Secondary Fiber Non-Deink Subcategory	40 CFR 430, Subpart J

Production-Based Limitations

5.3 Are any of the applicable ELGs expressed in terms of production (or other measure of operation)?

☑ Yes ☐ 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	Unit of Measure
001	Production of Gypsum Board Liner Paper	195	Tons

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.)			
Pulp & Paperboard Mills	☑ Volatile	☑ Acid	☑ Base/Neutral	☑ Pesticide
	☐ Volatile	☐ Acid	☐ Base/Neutral	☐ Pesticide
	☐ Volatile	☐ Acid	☐ Base/Neutral	☐ Pesticide

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? ☑ Yes ☐ 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? ☑ Yes ☐ 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? ☑ Yes ☐ No
7.10	Does the applicant qualify for a small business exemption under the criteria specified in the instructions? ☐ Yes ➔ Note that you qualify at the top of Table B, then SKIP to Item 7.12. ☑ 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? ☑ Yes ☐ 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? ☑ Yes ☐ 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"? ☑ Yes ☐ 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? ☑ Yes ☐ 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? ☑ Yes ☐ 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? ☐ Yes ➔ Complete Table E. ☑ No ➔ SKIP to Section 8.
7.17	Have you completed Table E by reporting *qualitative* data for TCDD? ☐ Yes ☐ 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? ☐ Yes ☑ 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
Toxicity, Ceriodaphnia Chronic	Premit Requirement	☑ Yes ☐ No	01/28/2020
Toxicity, Pimephales Chronic	Permit Requirement	☑ Yes ☐ No	01/28/2020
		☐ Yes ☐ 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	EMC Birmingham		
Laboratory address	2607 Commerce Boulevard Birmingham, AL 35210		
Phone number	(205) 951-3400		
Pollutant(s) analyzed	All but temperature, flow, pH, BOD, and TSS		

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			
☑ Section 1: Outfall Location	☐ w/ attachments			
☑ Section 2: Line Drawing	☑ w/ line drawing		☐ w/ additional attachments	
☑ Section 3: Average Flows and Treatment	☐ w/ attachments		☐ w/ list of each user of privately owned treatment works	
☐ Section 4: Intermittent Flows	☐ w/ attachments			
☑ Section 5: Production	☐ w/ attachments			
☐ Section 6: Improvements	☐ w/ attachments		☐ w/ optional additional sheets describing any additional pollution control plans	
☑ Section 7: Effluent and Intake Characteristics	☐ w/ request for a waiver and supporting information		☐ w/ explanation for identical outfalls	
	☐ w/ small business exemption request		☐ w/ other attachments	
	☑ w/ Table A		☑ w/ Table B	
	☑ w/ Table C		☑ w/ Table D	
	☑ w/ Table E		☐ w/ analytical results as an attachment	
☐ Section 8: Used or Manufactured Toxics	☐ w/ attachments			
☑ Section 9: Biological Toxicity Tests	☐ w/ attachments			
☑ Section 10: Contract Analyses	☐ w/ attachments			
☐ Section 11: Additional Information	☐ w/ attachments			
☑ Section 12: Checklist and Certification Statement	☐ 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)	Official title
Neal Stephenson	Plant Manager
Signature	**Date signed**
Neal Stephenson	6/15/2020

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	001

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

TABLE A. CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(g)(7)(iii))[1]

	Pollutant	Waiver Requested (if applicable)	Units (specify)		Effluent: Maximum Daily Discharge (required)	Effluent: Maximum Monthly Discharge (if available)	Effluent: Long-Term Average Daily Discharge (if available)	Effluent: Number of Analyses	Intake (Optional): Long-Term Average Value	Intake (Optional): Number of Analyses
☐	Check here if you have applied to your NPDES permitting authority for a waiver for *all* of the pollutants listed on this table for the noted outfall.									
1.	Biochemical oxygen demand (BOD_5)	☐	Concentration	mg/L	141.2	112.9	69.2	260	N/A	N/A
			Mass	lbs/day	1015.1	610.1	359.9	260	N/A	N/A
2.	Chemical oxygen demand (COD)	☐	Concentration	mg/L	514	N/A	N/A	1	N/A	N/A
			Mass	lbs/day	3406.5	N/A	N/A	1	N/A	N/A
3.	Total organic carbon (TOC)	☐	Concentration	mg/L	1.67	N/A	N/A	1	N/A	N/A
			Mass	lbs/day	11.1	N/A	N/A	1	N/A	N/A
4.	Total suspended solids (TSS)	☐	Concentration	mg/L	230.0	149.7	98.5	261	N/A	N/A
			Mass	lbs/day	1152.9	800.6	506.8	261	N/A	N/A
5.	Ammonia (as N)	☐	Concentration	mg/L	1.50	1.10	0.54	52	N/A	N/A
			Mass	lbs/day	7.34	5.44	2.71	52	N/A	N/A
6.	Flow	☐	Rate	MGD	1.076	0.685	0.606	365	N/A	N/A
7.	Temperature (winter)	☐	°C	°C	26.8	22.0	16.6	130	N/A	N/A
	Temperature (summer)	☐	°C	°C	30.3	27.6	25.1	132	N/A	N/A
8.	pH (minimum)	☐	Standard units	s.u.	7.0	7.5	7.7	262	N/A	N/A
	pH (maximum)	☐	Standard units	s.u.	8.1	7.8	7.7	262	N/A	N/A

[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	Facility Name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	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
☐	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)	☑	☐	☐	Concentration	mg/L	<0.010	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0663	N/A	N/A	1	N/A	N/A
1.2	Arsenic, total (7440-38-2)	☑	☐	☐	Concentration	mg/L	<0.010	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0663	N/A	N/A	1	N/A	N/A
1.3	Beryllium, total (7440-41-7)	☑	☐	☐	Concentration	mg/L	<0.010	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0663	N/A	N/A	1	N/A	N/A
1.4	Cadmium, total (7440-43-9)	☑	☐	☐	Concentration	mg/L	<0.07	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.464	N/A	N/A	1	N/A	N/A
1.5	Chromium, total (7440-47-3)	☑	☐	☐	Concentration	mg/L	<0.07	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.464	N/A	N/A	1	N/A	N/A
1.6	Copper, total (7440-50-8)	☑	☐	☐	Concentration	mg/L	<0.04	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.265	N/A	N/A	1	N/A	N/A
1.7	Lead, total (7439-92-1)	☑	☐	☐	Concentration	mg/L	<0.05	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.331	N/A	N/A	1	N/A	N/A
1.8	Mercury, total (7439-97-6)	☑	☐	☐	Concentration	mg/L	<0.0005	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00331	N/A	N/A	1	N/A	N/A
1.9	Nickel, total (7440-02-0)	☑	☐	☐	Concentration	mg/L	<0.07	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.464	N/A	N/A	1	N/A	N/A
1.10	Selenium, total (7782-49-2)	☑	☐	☐	Concentration	mg/L	<0.010	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	0.0663	N/A	N/A	1	N/A	N/A
1.11	Silver, total (7440-22-4)	☑	☐	☐	Concentration	mg/L	<0.04	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.265	N/A	N/A	1	N/A	N/A

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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
1.12	Thallium, total (7440-28-0)	☑	☐	☐	Concentration	mg/L	<0.010	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0663	N/A	N/A	1	N/A	N/A
1.13	Zinc, total (7440-66-6)	☑	☐	☐	Concentration	mg/L	<0.02	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.132	N/A	N/A	1	N/A	N/A
1.14	Cyanide, total (57-12-5)	☑	☐	☐	Concentration	mg/L	<0.02	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.132	N/A	N/A	1	N/A	N/A
1.15	Phenols, total	☑	☐	☐	Concentration	mg/L	0.20	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<1.325	N/A	N/A	1	N/A	N/A
Section 2. Organic Toxic Pollutants (GC/MS Fraction—Volatile Compounds)												
2.1	Acrolein (107-02-8)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.2	Acrylonitrile (107-13-1)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.3	Benzene (71-43-2)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.4	Bromoform (75-25-2)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.5	Carbon tetrachloride (56-23-5)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.6	Chlorobenzene (108-90-7)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.7	Chlorodibromomethane (124-48-1)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.8	Chloroethane (75-00-3)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A

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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)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.10	Chloroform (67-66-3)	☑	☐	☐	Concentration	µg/L	<10	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0663	N/A	N/A	1	N/A	N/A
2.11	Dichlorobromomethane (75-27-4)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.12	1,1-dichloroethane (75-34-3)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.13	1,2-dichloroethane (107-06-2)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.14	1,1-dichloroethylene (75-35-4)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.15	1,2-dichloropropane (78-87-5)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.16	1,3-dichloropropylene (542-75-6)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.17	Ethylbenzene (100-41-4)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.18	Methyl bromide (74-83-9)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.19	Methyl chloride (74-87-3)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.20	Methylene chloride (75-09-2)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.21	1,1,2,2- tetrachloroethane (79-34-5)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A

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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
2.22	Tetrachloroethylene (127-18-4)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.23	Toluene (108-88-3)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.24	1,2-trans-dichloroethylene (156-60-5)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.25	1,1,1-trichloroethane (71-55-6)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.26	1,1,2-trichloroethane (79-00-5)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.27	Trichloroethylene (79-01-6)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
2.28	Vinyl chloride (75-01-4)	☑	☐	☐	Concentration	µg/L	<2	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0133	N/A	N/A	1	N/A	N/A
Section 3. Organic Toxic Pollutants (GC/MS Fraction—Acid Compounds)												
3.1	2-chlorophenol (95-57-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
3.2	2,4-dichlorophenol (120-83-2)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
3.3	2,4-dimethylphenol (105-67-9)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
3.4	4,6-dinitro-o-cresol (534-52-1)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
3.5	2,4-dinitrophenol (51-28-5)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A

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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)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
3.7	4-nitrophenol (100-02-7)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
3.8	p-chloro-m-cresol (59-50-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
3.9	Pentachlorophenol (87-86-5)	☑	☐	☐	Concentration	µg/L	<40	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.2651	<0.2651	N/A	1	N/A	N/A
3.10	Phenol (108-95-2)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
3.11	2,4,6-trichlorophenol (88-05-2)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
Section 4. Organic Toxic Pollutants (GC/MS Fraction—Base /Neutral Compounds)												
4.1	Acenaphthene (83-32-9)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.2	Acenaphthylene (208-96-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.3	Anthracene (120-12-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.4	Benzidine (92-87-5)	☑	☐	☐	Concentration	µg/L	<20	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.1268	N/A	N/A	1	N/A	N/A
4.5	Benzo (a) anthracene (56-55-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.6	Benzo (a) pyrene (50-32-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A

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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)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.8	Benzo (ghi) perylene (191-24-2)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.9	Benzo (k) fluoranthene (207-08-9)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.10	Bis (2-chloroethoxy) methane (111-91-1)	☑	☐	☐	Concentration	µg/L	<2	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0133	N/A	N/A	1	N/A	N/A
4.11	Bis (2-chloroethyl) ether (111-44-4)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
4.12	Bis (2-chloroisopropyl) ether (102-80-1)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
4.13	Bis (2-ethylhexyl) phthalate (117-81-7)	☑	☐	☐	Concentration	µg/L	<2	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0133	N/A	N/A	1	N/A	N/A
4.14	4-bromophenyl phenyl ether (101-55-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.15	Butyl benzyl phthalate (85-68-7)	☑	☐	☐	Concentration	µg/L	<2	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0133	N/A	N/A	1	N/A	N/A
4.16	2-chloronaphthalene (91-58-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.17	4-chlorophenyl phenyl ether (7005-72-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.18	Chrysene (218-01-9)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.19	Dibenzo (a,h) anthracene (53-70-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A

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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
4.20	1,2-dichlorobenzene (95-50-1)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.21	1,3-dichlorobenzene (541-73-1)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.22	1,4-dichlorobenzene (106-46-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.23	3,3-dichlorobenzidine (91-94-1)	☑	☐	☐	Concentration	µg/L	<2.6	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0165	N/A	N/A	1	N/A	N/A
4.24	Diethyl phthalate (84-66-2)	☑	☐	☐	Concentration	µg/L	<2	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0133	N/A	N/A	1	N/A	N/A
4.25	Dimethyl phthalate (131-11-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.26	Di-n-butyl phthalate (84-74-2)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
4.27	2,4-dinitrotoluene (121-14-2)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.28	2,6-dinitrotoluene (606-20-2)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.29	Di-n-octyl phthalate (117-84-0)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.30	1,2-Diphenylhydrazine (as azobenzene) (122-66-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
4.31	Fluoranthene (206-44-0)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.32	Fluorene (86-73-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A

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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)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.34	Hexachlorobutadiene (87-68-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.35	Hexachlorocyclopentadiene (77-47-4)	☑	☐	☐	Concentration	µg/L	<50	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.331	N/A	N/A	1	N/A	N/A
4.36	Hexachloroethane (67-72-1)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.37	Indeno (1,2,3-cd) pyrene (193-39-5)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.38	Isophorone (78-59-1)	☑	☐	☐	Concentration	µg/L	<5	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.0331	N/A	N/A	1	N/A	N/A
4.39	Naphthalene (91-20-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.40	Nitrobenzene (98-95-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.41	N-nitrosodimethylamine (62-75-9)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.42	N-nitrosodi-n-propylamine (621-64-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.43	N-nitrosodiphenylamine (86-30-6)	☑	☐	☐	Concentration	µg/L	<0.18	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00114	N/A	N/A	1	N/A	N/A
4.44	Phenanthrene (85-01-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
4.45	Pyrene (129-00-0)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A

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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)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	1
					Mass	lbs/day	<0.00663	N/A	N/A	1	N/A	N/A
Section 5. Organic Toxic Pollutants (GC/MS Fraction—Pesticides)												
5.1	Aldrin (309-00-2)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.2	α-BHC (319-84-6)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.3	β-BHC (319-85-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.4	γ-BHC (58-89-9)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.5	δ-BHC (319-86-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.6	Chlordane (57-74-9)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.7	4,4'-DDT (50-29-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.8	4,4'-DDE (72-55-9)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.9	4,4'-DDD (72-54-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.10	Dieldrin (60-57-1)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.11	α-endosulfan (115-29-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A

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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
5.12	β-endosulfan (115-29-7)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.13	Endosulfan sulfate (1031-07-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.14	Endrin (72-20-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.15	Endrin aldehyde (7421-93-4)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.16	Heptachlor (76-44-8)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.17	Heptachlor epoxide (1024-57-3)	☑	☐	☐	Concentration	µg/L	<1	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.00634	N/A	N/A	1	N/A	N/A
5.18	PCB-1242 (53469-21-9)	☑	☐	☐	Concentration	µg/L	<0.01	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.000066	N/A	N/A	1	N/A	N/A
5.19	PCB-1254 (11097-69-1)	☑	☐	☐	Concentration	µg/L	<0.01	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.000066	N/A	N/A	1	N/A	N/A
5.20	PCB-1221 (11104-28-2)	☑	☐	☐	Concentration	µg/L	<0.01	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.000066	N/A	N/A	1	N/A	N/A
5.21	PCB-1232 (11141-16-5)	☑	☐	☐	Concentration	µg/L	<0.01	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.000066	N/A	N/A	1	N/A	N/A
5.22	PCB-1248 (12672-29-6)	☑	☐	☐	Concentration	µg/L	<0.01	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.000066	N/A	N/A	1	N/A	N/A
5.23	PCB-1260 (11096-82-5)	☑	☐	☐	Concentration	µg/L	<0.01	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.000066	N/A	N/A	1	N/A	N/A
5.24	PCB-1016 (12674-11-2)	☑	☐	☐	Concentration	µg/L	<0.01	N/A	N/A	1	N/A	N/A
					Mass	lbs/day	<0.000066	N/A	N/A	1	N/A	N/A

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	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
5.25	Toxaphene (8001-35-2)	☑	☐	☐	Concentration	µg/L	<0.12					
					Mass	lbs/day	<0.000761					

[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	Facility Name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	001

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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
☐	Check here if you believe all pollutants on Table C to be ***present*** in your discharge from the noted outfall. You need *not* complete the "Presence or Absence" column of Table C for *each* pollutant.										
☐	Check here if you believe all pollutants on Table C to be ***absent*** in your discharge from the noted outfall. You need *not* complete the "Presence or Absence" column of Table C for *each* pollutant.										
1.	Bromide (24959-67-9)	☐	☑	Concentration							
				Mass							
2.	Chlorine, total residual	☐	☑	Concentration							
				Mass							
3.	Color	☐	☑	Concentration							
				Mass							
4.	Fecal coliform	☐	☑	Concentration							
				Mass							
5.	Fluoride (16984-48-8)	☐	☑	Concentration							
				Mass							
6	Nitrate-nitrite	☑	☐	Concentration	mg/L	0.06	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	0.398	N/A	N/A	1	N/A	N/A
7.	Nitrogen, total organic (as N)	☑	☐	Concentration	mg/L	8.79	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	58.255	N/A	N/A	1	N/A	N/A
8.	Oil and grease	☑	☐	Concentration	mg/L	<5.00	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	<33.14	N/A	N/A	1	N/A	N/A
9.	Phosphorus (as P), total (7723-14-0)	☑	☐	Concentration	mg/L	2.20	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	14.6	N/A	N/A	1	N/A	N/A
10.	Sulfate (as SO_4) (14808-79-8)	☑	☐	Concentration	mg/L	36	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	238.6	N/A	N/A	1	N/A	N/A
11.	Sulfide (as S)	☑	☐	Concentration	mg/L	53	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	351.3	N/A	N/A	1	N/A	N/A

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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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
12.	Sulfite (as SO_3) (14265-45-3)	☑	☐	Concentration	mg/L	1	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	6.63	N/A	N/A	1	N/A	N/A
13.	Surfactants	☐	☑	Concentration							
				Mass							
14.	Aluminum, total (7429-90-5)	☑	☐	Concentration	mg/L	1.3	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	8.62	N/A	N/A	1	N/A	N/A
15.	Barium, total (7440-39-3)	☐	☑	Concentration							
				Mass							
16.	Boron, total (7440-42-8)	☐	☑	Concentration							
				Mass							
17.	Cobalt, total (7440-48-4)	☐	☑	Concentration							
				Mass							
18.	Iron, total (7439-89-6)	☑	☐	Concentration	mg/L	0.28	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	1.86	N/A	N/A	1	N/A	N/A
19.	Magnesium, total (7439-95-4)	☐	☑	Concentration							
				Mass							
20.	Molybdenum, total (7439-98-7)	☐	☑	Concentration							
				Mass							
21.	Manganese, total (7439-96-5)	☐	☑	Concentration							
				Mass							
22.	Tin, total (7440-31-5)	☐	☑	Concentration							
				Mass							
23.	Titanium, total (7440-32-6)	☑	☐	Concentration	mg/L	<0.010	N/A	N/A	1	N/A	N/A
				Mass	lbs/day	<0.0663	N/A	N/A	1	N/A	N/A

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	☐	☑	Concentration							
				Mass							
	Beta, total	☐	☑	Concentration							
				Mass							
	Radium, total	☐	☑	Concentration							
				Mass							
	Radium 226, total	☐	☑	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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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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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	☐	☑		
2.	Acetaldehyde	☐	☑		
3.	Allyl alcohol	☐	☑		
4.	Allyl chloride	☐	☑		
5.	Amyl acetate	☐	☑		
6.	Aniline	☐	☑		
7.	Benzonitrile	☐	☑		
8.	Benzyl chloride	☐	☑		
9.	Butyl acetate	☐	☑		
10.	Butylamine	☐	☑		
11.	Captan	☐	☑		
12.	Carbaryl	☐	☑		
13.	Carbofuran	☐	☑		
14.	Carbon disulfide	☐	☑		
15.	Chlorpyrifos	☐	☑		
16.	Coumaphos	☐	☑		
17.	Cresol	☐	☑		
18.	Crotonaldehyde	☐	☑		
19.	Cyclohexane	☐	☑		

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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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		
20.	2,4-D (2,4-dichlorophenoxyacetic acid)	☐	☑		
21.	Diazinon	☐	☑		
22.	Dicamba	☐	☑		
23.	Dichlobenil	☐	☑		
24.	Dichlone	☐	☑		
25.	2,2-dichloropropionic acid	☐	☑		
26.	Dichlorvos	☐	☑		
27.	Diethyl amine	☐	☑		
28.	Dimethyl amine	☐	☑		
29.	Dintrobenzene	☐	☑		
30.	Diquat	☐	☑		
31.	Disulfoton	☐	☑		
32.	Diuron	☐	☑		
33.	Epichlorohydrin	☐	☑		
34.	Ethion	☐	☑		
35.	Ethylene diamine	☐	☑		
36.	Ethylene dibromide	☐	☑		
37.	Formaldehyde	☐	☑		
38.	Furfural	☐	☑		

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	☐	☑		
40.	Isoprene	☐	☑		
41.	Isopropanolamine	☐	☑		
42.	Kelthane	☐	☑		
43.	Kepone	☐	☑		
44.	Malathion	☐	☑		
45.	Mercaptodimethur	☐	☑		
46.	Methoxychlor	☐	☑		
47.	Methyl mercaptan	☐	☑		
48.	Methyl methacrylate	☐	☑		
49.	Methyl parathion	☐	☑		
50.	Mevinphos	☐	☑		
51.	Mexacarbate	☐	☑		
52.	Monoethyl amine	☐	☑		
53.	Monomethyl amine	☐	☑		
54.	Naled	☐	☑		
55.	Naphthenic acid	☐	☑		
56.	Nitrotoluene	☐	☑		
57.	Parathion	☐	☑		

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	☐	☑		
59.	Phosgene	☐	☑		
60.	Propargite	☐	☑		
61.	Propylene oxide	☐	☑		
62.	Pyrethrins	☐	☑		
63.	Quinoline	☐	☑		
64.	Resorcinol	☐	☑		
65.	Strontium	☐	☑		
66.	Strychnine	☐	☑		
67.	Styrene	☐	☑		
68.	2,4,5-T (2,4,5-trichlorophenoxyacetic acid)	☐	☑		
69.	TDE (tetrachlorodiphenyl ethane)	☐	☑		
70.	2,4,5-TP [2-(2,4,5-trichlorophenoxy) propanoic acid]	☐	☑		
71.	Trichlorofon	☐	☑		
72.	Triethanolamine	☐	☑		
73.	Triethylamine	☐	☑		
74.	Trimethylamine	☐	☑		
75.	Uranium	☐	☑		
76.	Vanadium	☐	☑		

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	☐	☑		
78.	Xylene	☐	☑		
79.	Xylenol	☐	☑		
80.	Zirconium	☐	☑		

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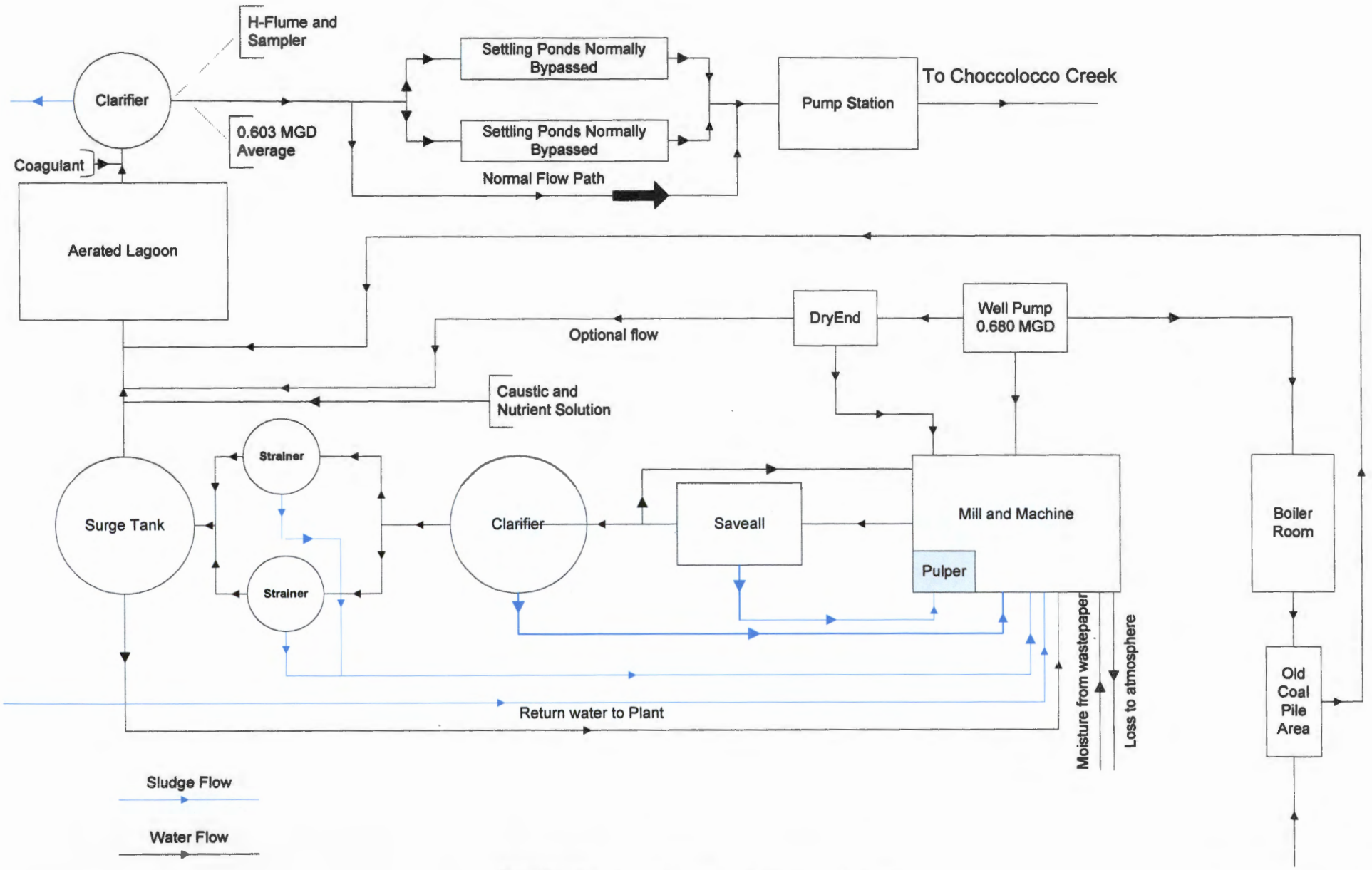
TABLE E. 2,3,7,8 TETRACHLORODIBENZO P DIOXIN (2,3,7,8 TCDD) (40 CFR 122.21(g)(7)(viii))

Pollutant	TCDD Congeners Used or Manufactured	Presence or Absence (check one)		Results of Screening Procedure
		Believed Present	Believed Absent	
2,3,7,8-TCDD	☐	☐	☑	



NGC Industries, Inc.

Oxford, AL

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
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Form 2F NPDES | EPA

U.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	Trib. of Coldwater Creek-	33.00° 35.00′ 45.00″ N	85.00° 55.00′ 37.50″ W
003	Unnamed Tributary of Coldwater Creek	33.00° 35.00′ 45.00″	85.00° 55.00′ 39.00″ W
004	Unnamed Tributary of Coldwater Creek	33.00° 35.00′ 45.00″ N	85.00° 55.00′ 33.00″ W
		° ′ ″	° ′ ″
		° ′ ″	° ′ ″
		° ′ ″	° ′ ″

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

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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	4.31	*specify units* Acre	19.732	*specify units* Acre
003	0.41	*specify units* Acre	4.912	*specify units* Acre
004	0.59	*specify units* Acre	4.08	*specify units* Acre
		specify units		*specify units*
		specify units		*specify units*
		specify units		*specify units*

4.2 Provide a narrative description of the facility's significant material in the space below. (See instructions for content requirements.)

The property consists of roof drains, paved and gravel roads, and grassy areas. The north end of areas two and three are where we receive bales of recycled paper as a raw material. In area three we store the waste sludge on a paved surface that drains back into the process, avoiding leaving with storm water. The south end of area four is where we receive bulk trucks of chemicals that are transferred to storage tanks. It is possible that these trucks could have a spill that would come in contact with storm water. The north end of area four is where we are shipping out finished goods, paperboard. Area four contains open tanks of process water, which have the possibility of overflowing and entering storm water.

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	Solid rejects and sludge from recycling process get sent to landfill.	5-Q
003	Solid rejects and sludge from recycling process get sent to landfill.	5-Q

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
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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)	Official title
Neal Stephenson	Plant Manager
Signature Neal Stephenson	**Date signed** 6/15/2020

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	Visual Inspections are performed monthly.		
003	Visual Inspections are performed monthly.		
004	Visual Inspections are performed monthly.		

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? ☑ Yes ☐ 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? ☑ Yes ☐ No
7.5	Do you know or have reason to believe any pollutants in Exhibit 2F–2 are present in the discharge? ☑ Yes ☐ 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? ☑ Yes ☐ No
7.7	Do you qualify for a small business exemption under the criteria specified in the Instructions? ☐ Yes ➔ SKIP to Item 7.18. ☑ No
7.8	Do you know or have reason to believe any pollutants in Exhibit 2F–3 are present in the discharge? ☐ Yes ☑ 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? ☐ Yes ☐ No
7.10	Do you expect any of the pollutants in Exhibit 2F–3 to be discharged in concentrations of 10 ppb or greater? ☐ Yes ☑ 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? ☐ Yes ☐ 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? ☐ Yes ☑ 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? ☐ Yes ☐ 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)? ☑ Yes ☐ No
7.15	Do you know or have reason to believe any pollutants in Exhibit 2F–4 are present in the discharge? ☐ Yes ☑ 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? ☐ Yes ☐ No
7.17	Have you provided information for the storm event(s) sampled in Table D? ☑ Yes ☐ No

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?

☐ Yes ☑ 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?

☐ Yes ☑ 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
		☐ Yes ☐ No	
		☐ Yes ☐ No	
		☐ Yes ☐ 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?

☑ Yes ☐ 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	Enviro Management Corp	Enersolv Solutions Company	
Laboratory address	2607 Commerce Boulevard, Birmingham, AL 35210	2220 Beltline Road SW, Decatur, AL 35601	
Phone number	(205) 951-3400	(256) 350-0846	
Pollutant(s) analyzed	All listed	All listed	

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

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)	Official title
Neal Stephenson	Plant Manager
Signature: Neal Stephenson	Date signed: 6/15/2020

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	002

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 (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		
1.	Oil and grease	8.24 (mg/L)		5.53 (mg/L)		10	Third Party Lab
2.	Biochemical oxygen demand (BOD_5)	13 (mg/L)	2.25 (mg/L)	6.05 (mg/L)	2.25 (mg/L)	10	Third Party Lab
3.	Chemical oxygen demand (COD)	20 (mg/L)	20 (mg/L)	20 (mg/L)	20 (mg/L)	1	Third Party Lab
4.	Total suspended solids (TSS)	41.3 (mg/L)	59 (mg/L)	19.193 (mg/L)	59 (mg/L)	10	Third Party Lab
5.	Total phosphorus	.05 (mg/L)	.09 (mg/L)	.05 (mg/L)	.09 (mg/L)	1	Third Party Lab
6.	Total Kjeldahl nitrogen (TKN)	.14 (mg/L)	.57 (mg/L)	.14 (mg/L)	.57 (mg/L)	1	Third Party Lab
7.	Total nitrogen (as N)	.53 (mg/L)	1.1 (mg/L)	.53 (mg/L)	1.1 (mg/L)	1	Third Party Lab
8.	pH (minimum)	6.77		7.333		10	Third Party Lab
	pH (maximum)	8.26		7.333		10	Third Party Lab

[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	Facility Name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	002

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		
NH3	.316 (mg/L)	.14 (mg/L)	.171 (mg/L)	.14 (mg/L)	5	Third Party Lab

[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	Facility Name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	002

Form Approved 03/05/19
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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 (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		
Aluminum	.3 (mg/L)	1.12 (mg/L)	.3 (mg/L)	1.12 (mg/L)	1	Third Party Lab
Nitrite/Nitrate	.53 (mg/L)	.53 (mg/L)	.53 (mg/L)	.53 (mg/L)	1	Third Party Lab
Oil and Grease	8.24 (mg/L)	NA	5.53 (mg/L)	NA	10	Third Party Lab
Total Nitrogen (as N)	.53 (mg/L)	1.10 (mg/L)	.53 (mg/L)	1.10 (mg/L)	1	Third Party Lab

[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	Facility name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	002

Form Approved 03/05/19
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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)
5/4/2019	3.5 (hours)	.74 in	96 (hours)	864 (gpm)	43,401 (gal)

Provide a description of the method of flow measurement or estimate.
Used the dimensions of a V-notch weir calculation and added the excess flow over the notch using a rectangular weird calculation.

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
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Form 2F NPDES

U.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
005	Unnamed Tributary of Coldwater Creek	33° 35′ 33.2″	85° 55′ 33.4″ W
006	Unnamed Tributary of	33° 35′ 34.9″	85° 55′ 33.4″
007	Unnamed Tributary of	33° 35′ 35.4″	85° 55′ 33.3″
		° ′ ″	° ′ ″
		° ′ ″	° ′ ″
		° ′ ″	° ′ ″

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

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EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
ALR000014167	AL0003930	NGC Industries, LLC	OMB No. 2040-0004

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)	
005	.15	*specify units* acres	3.11	*specify units* acres
006	.15	*specify units* acres	3.11	*specify units* acres
007	.15	*specify units* acres	3.11	*specify units* acres
		specify units		*specify units*
		specify units		*specify units*
		specify units		*specify units*

4.2 Provide a narrative description of the facility's significant material in the space below. (See instructions for content requirements.)

This area is mainly a gravel parking lot. There are two buildings in the lot for storage. There is one petroleum storage shed on the west end of area five. Most of the west end of area five drains towards outfall 002. The majority of the gravel lot all drains towards outfall 005. There are two chemical tanks in the area holding phosphoric acid and caustic soda, but they are in containment that is regularly inspected.

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)
005	Settling Pond before water leaves as runoff	1-U

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
ALR000014167	AL0003930	NGC Industries, LLC	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)	Official title
Neal Stephenson	Plant Manager
Signature Neal Stephenson	**Date signed** 6/15/2020

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
005	Visual inspections are performed monthly.		
006	Visual inspections are performed monthly.		
007	visual inspections are performed monthly.		

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? ☑ Yes ☐ 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? ☑ Yes ☐ No
7.5	Do you know or have reason to believe any pollutants in Exhibit 2F–2 are present in the discharge? ☑ Yes ☐ 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? ☑ Yes ☐ No
7.7	Do you qualify for a small business exemption under the criteria specified in the Instructions? ☐ Yes ➔SKIP to Item 7.18. ☑ No
7.8	Do you know or have reason to believe any pollutants in Exhibit 2F–3 are present in the discharge? ☐ Yes ☑ 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? ☐ Yes ☐ No
7.10	Do you expect any of the pollutants in Exhibit 2F–3 to be discharged in concentrations of 10 ppb or greater? ☐ Yes ☑ 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? ☐ Yes ☐ 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? ☐ Yes ☑ 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? ☐ Yes ☐ 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)? ☑ Yes ☐ No
7.15	Do you know or have reason to believe any pollutants in Exhibit 2F–4 are present in the discharge? ☐ Yes ☑ 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? ☐ Yes ☐ No
7.17	Have you provided information for the storm event(s) sampled in Table D? ☑ Yes ☐ No

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?

☐ Yes ☑ 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?

☐ Yes ☑ 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
		☐ Yes ☐ No	
		☐ Yes ☐ No	
		☐ Yes ☐ 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?

☑ Yes ☐ 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	Enviro Management Corp	Enersolv Solutions Company	
Laboratory address	2607 Commerce Boulevard Birmingham, AL 35210	2220 Beltline Road SW, Decatur, AL 35601	
Phone number	(205) 951-3400	(256) 350-0846	
Pollutant(s) analyzed	All listed	All listed	

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

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)	Official title
Neal Stephenson	Plant Manager
Signature	**Date signed**
Neal Stephenson	6/15/2020

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number	Form Approved 03/05/19 OMB No. 2040-0004
ALR000014167	AL0003930	NGC Industries, LLC	005	

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 (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		
1.	Oil and grease	7.81 (mg/L)	[redacted]	5.48 (mg/L)	[redacted]	10	Third Party Lab
2.	Biochemical oxygen demand (BOD_5)	12.00 (mg/L)	3.52 (mg/L)	5.62 (mg/L)	3.52 (mg/L)	11	Third Party Lab
3.	Chemical oxygen demand (COD)	20.0 (mg/L)	20.0 (mg/L)	20.0 (mg/L)	20.0 (mg/L)	2	Third Party Lab
4.	Total suspended solids (TSS)	1220 (mg/L)	186 (mg/L)	427.10 (mg/L)	186 (mg/L)	11	Third Party Lab
5.	Total phosphorus	2.42 (mg/L)	0.2 (mg/L)	1.37 (mg/L)	0.2 (mg/L)	3	Third Party Lab
6.	Total Kjeldahl nitrogen (TKN)	1.71 (mg/L)	1.16 (mg/L)	1.71 (mg/L)	1.16 (mg/L)	2	Third Party Lab
7.	Total nitrogen (as N)	2.83 (mg/L)	3.53 (mg/L)	2.83 (mg/L)	3.53 (mg/L)	2	Third Party Lab
8.	pH (minimum)	7.75	[redacted]	8.52	[redacted]	11	Third Party Lab
	pH (maximum)	9.04		8.52		11	Third Party Lab

[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	Facility Name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	005

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		
NH3	0.58 (mg/L)	0.1 (mg/L)	0.22 (mg/L)	0.1 (mg/L)	5	Third Party Lab

[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	Facility Name	Outfall Number	Form Approved 03/05/19 OMB No. 2040-0004
ALR000014167	AL0003930	NGC Industries, LLC	005	

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 (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		
Aluminum	21.3 (mg/L)	0.9 (mg/L)	8.39 (mg/L)	0.9 (mg/L)	11	Third Party Lab
Nitrate/Nitrate	1.12 (mg/L)	2.37 (mg/L)	1.12 (mg/L)	2.37 (mg/L)	2	Third Party Lab
Oil and Grease	7.81 (mg/L)	NA	5.48 (mg/L)	na	10	Third Party Lab
Total Nitrogen (as N)	2.83 (mg/L)	3.53 (mg/L)	2.83 (mg/L)	3.53 (mg/L)	2	Third Party Lab
Lead	0.0801 (mg/L)	NA	0.05 (mg/L)	NA	2	Third Party Lab

[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	Facility name	Outfall Number
ALR000014167	AL0003930	NGC Industries, LLC	005

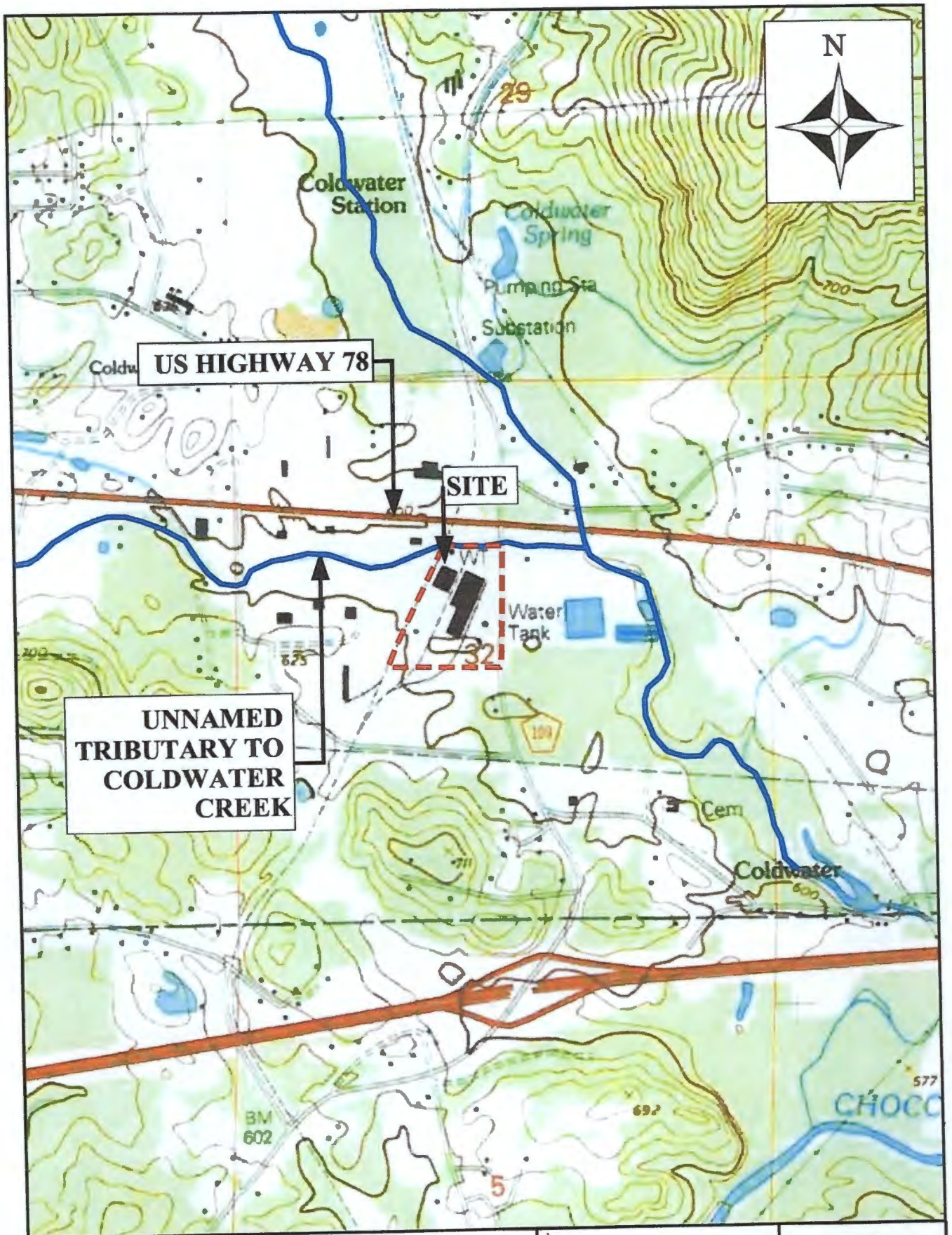
Form Approved 03/05/19
OMB No. 2040-0004

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

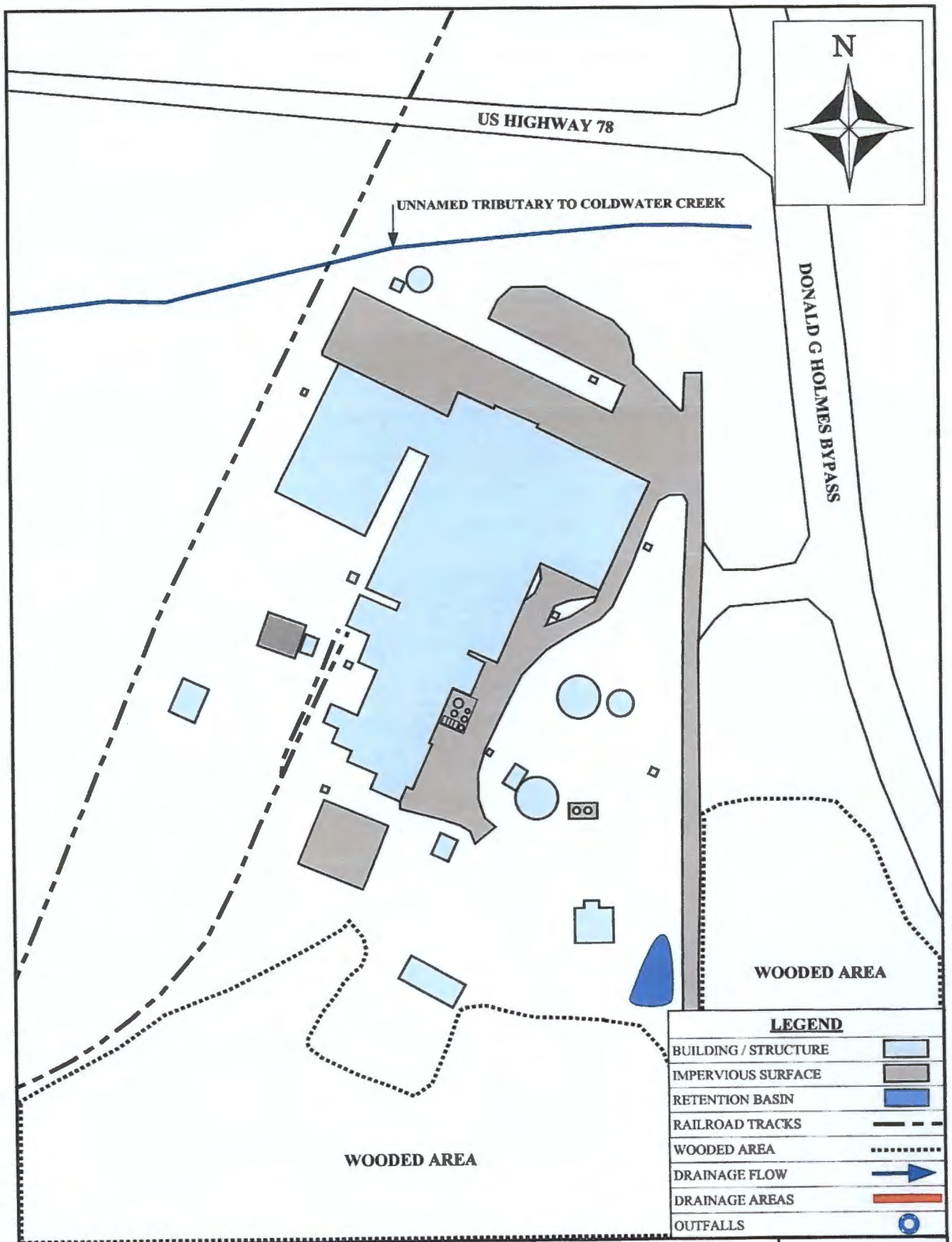
Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

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)
12/10/2019	9 (hours)	0.56 (inches)	192 (hours)	0.46 (gpm)	84 (gallons)

Provide a description of the method of flow measurement or estimate.
California Pipe Method.

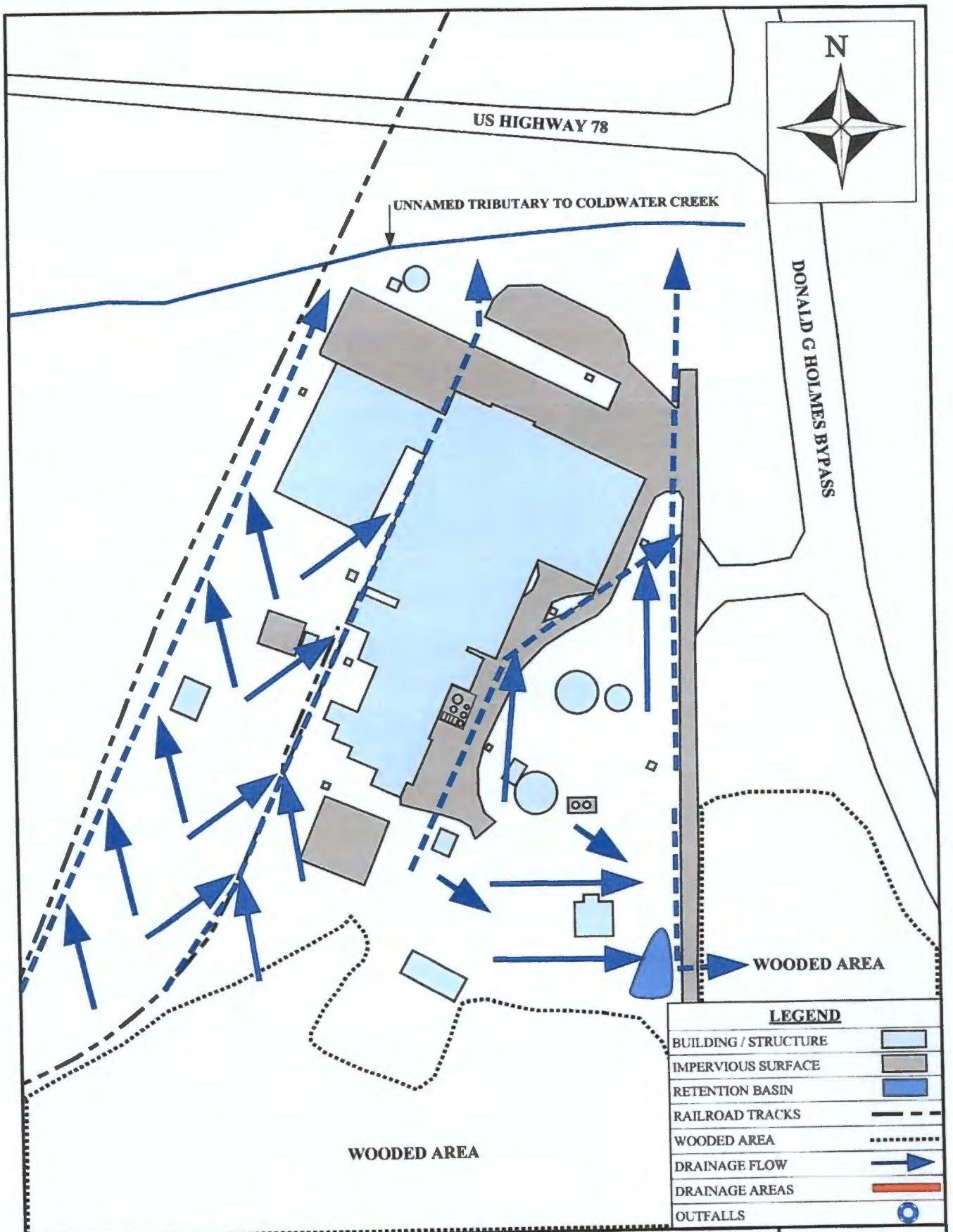


M. A. ANDERSON ASSOCIATES engineering & environmental consulting PHYSICAL/MAILING ADDRESS - 3634 COUNTY ROAD 41, RANBURNE, AL 36273 PHONE: (256) 748-2400 | WWW.MAANDERSONASSOCIATES.COM	FIGURE 5-1: TOPOGRAPHICAL MAP	1170 FEET
	NGC INDUSTRIES, LLC 4811 US HWY 78 WEST OXFORD, AL 36203	SEPTEMBER 2019
		1114



M. A. ANDERSON ASSOCIATES
engineering & environmental consulting
PHYSICAL/MAILING ADDRESS - 3634 COUNTY ROAD 41, RANBURNE, AL 36273
PHONE: (256) 748-2400 | WWW.MAANDERSONASSOCIATES.COM

FIGURE 5-2: SITE PLAN	200 FEET
NGC INDUSTRIES, LLC 4811 US HWY 78 WEST OXFORD, AL 36203	SEPTEMBER 2019
	1114



M. A. ANDERSON ASSOCIATES
engineering & environmental consulting

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FIGURE 5-3: DRAINAGE DESCRIPTION

200 FEET

NGC INDUSTRIES, LLC
4811 US HWY 78 WEST
OXFORD, AL 36203

SEPTEMBER 2019

1114

DRAINAGE AREA	AREA (SQ FT)	RUNOFF COEFFICIENT
2	112,129	0.8
3	198,705	0.6
4	447,080	0.6
5	159,633	0.4

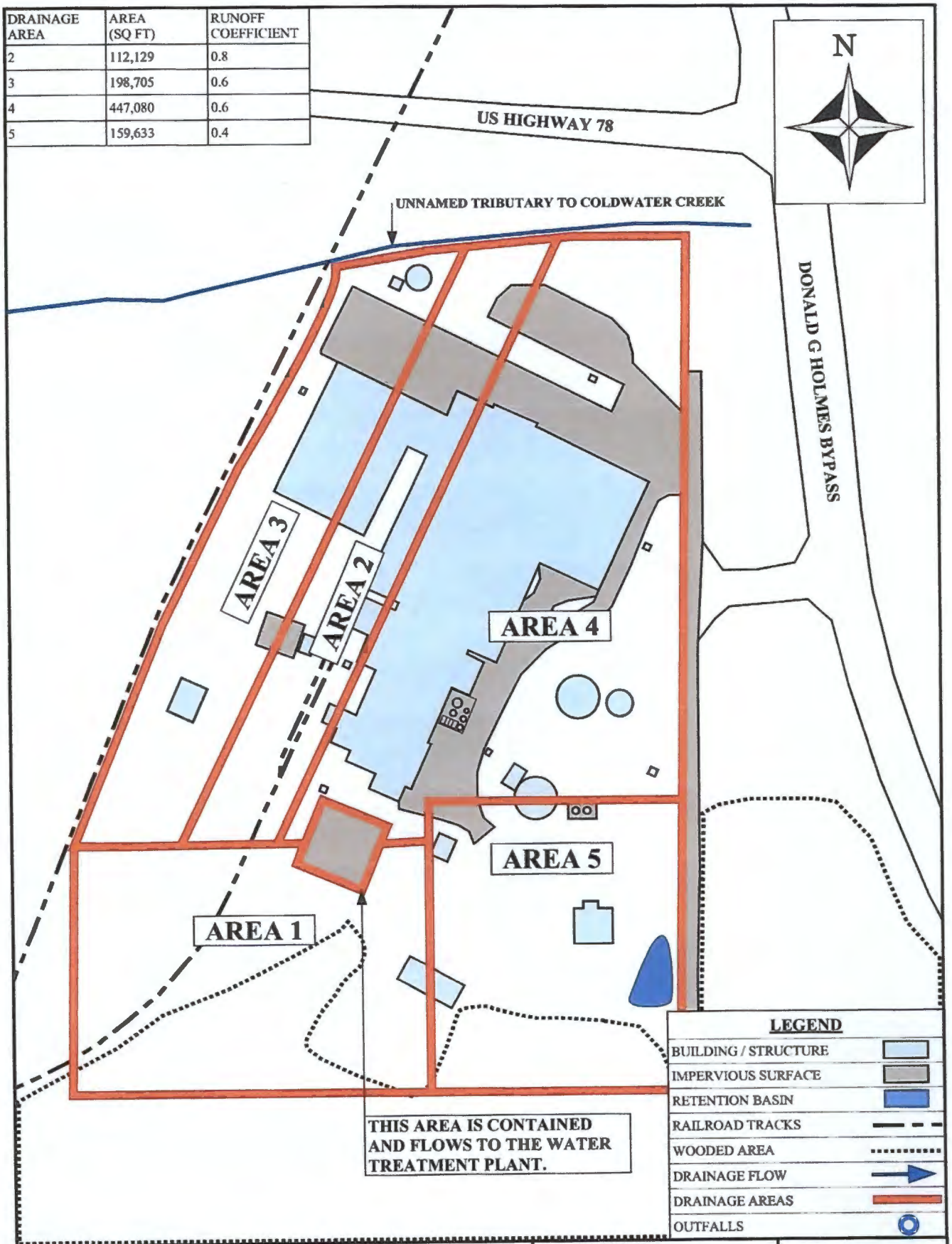

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FIGURE 5-4: DRAINAGE AREAS

200 FEET

NGC INDUSTRIES, LLC
4811 US HWY 78 WEST
OXFORD, AL 36203

SEPTEMBER 2019

1114

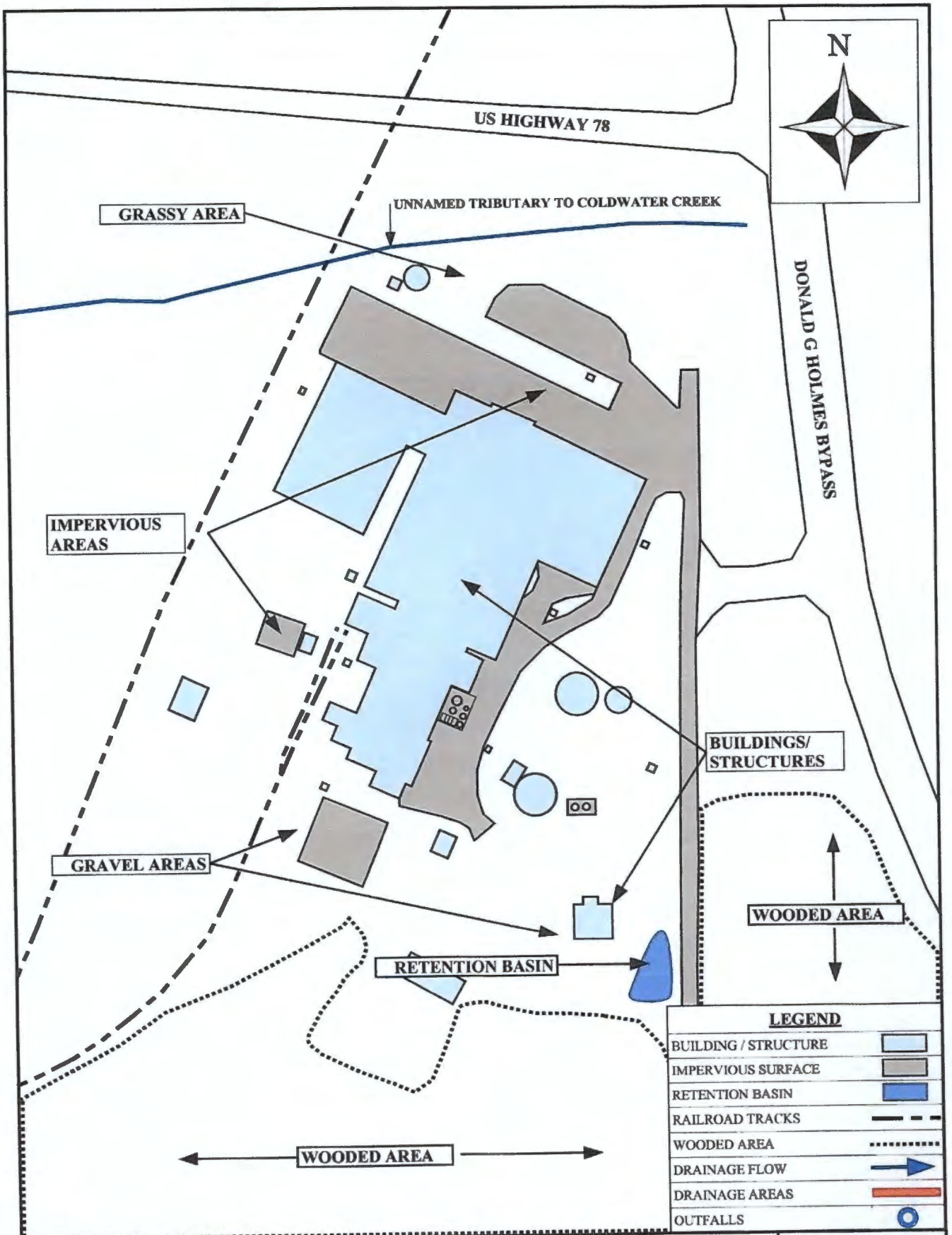

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FIGURE 5-5: STRUCTURAL CONTROLS

200 FEET

NGC INDUSTRIES, LLC
4811 US HWY 78 WEST
OXFORD, AL 36203

SEPTEMBER 2019

1114


NGC Industries, LLC
4811 Highway 78 West
Oxford, AL
Ditches
Direction of Drainage
Storm Drains
Area Draining to Plant
U.S. Hwy 78
N.
003
002
004
Roof Drains to 002
Coldwater Rd
Low Area
Flow Breaks North & South
007
006
005
From Adjacent Property

REPRESENTATIVE STORM WATER OUTFALL CERTIFICATION
ADEM Form 450

This is to certify that the **storm water** outfalls located at:

DSN 002 Latitude (33.0) ° (35.0) ' (45.0) " N and Longitude (85) ° (55) ' (37.5) " W

DSN 003 Latitude (33) ° (35) ' (45) " N and Longitude (85) ° (55) ' (39) " W

DSN 004 Latitude (33) ° (35) ' (43) " N and Longitude (85) ° (55) ' (33) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

are associated with similar industrial activities such that the characteristics of storm water runoff are essentially the same. Therefore, NGC Industries, LLC (Facility Name) requests that it be allowed to sample the outfall(s) located at:

DSN 002 Latitude (33) ° (35) ' (45) " N and Longitude (85) ° (55) ' (37.5) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

as the representative outfall(s).

This form must be signed by the official representative of the facility who is: the owner, the sole proprietor of a sole proprietorship, a general partner for a partnership, or by a ranking elected official or other duly authorized representative for a unit of government or an executive officer of **at least the level of vice president** for a corporation, having overall responsibility for the operation of the facility.

CERTIFICATION: I certify that I have chosen the point(s) that is/are most likely or as likely to contain potential pollutants from the area. 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 or imprisonment for knowing violations.

Permit Number (*if already a permitted facility): AL0003930

Name and Official title (type or print): Neal Stephenson, Plant Manager

Address: 4811 U.S Highway 78 West, Oxford, AL 36203

Phone Number: (256) 831-6900

Signature: Neal Stephenson

Please print name: Neal Stephenson

Date signed: 6/15/2020

Email address: enstephenson@nationalgypsum.com

***If this is a modification to an existing permit, then a modification fee must also be included.**

INSTRUCTIONS

One certification should be submitted for each set of points from the same drainage area for which you want to designate a representative sampling point or points.

If you have more than one drainage area, you must submit a site drawing designating the drainage areas and all points of discharge with the chosen representative sampling points designated in each area.

If you have more than one drainage area, you may request that only one area be sampled if the areas are very similar to one another in terms of potential pollutants. You must choose as the representative sampling point the point that has the highest potential to contain pollutants in the storm water.

REPRESENTATIVE STORM WATER OUTFALL CERTIFICATION
ADEM Form 450

This is to certify that the **storm water** outfalls located at:

DSN 005 Latitude (33) ° (35) ' (33.2) " N and Longitude (85) ° (55) ' (33.4) " W

DSN 006 Latitude (33) ° (35) ' (34.9) " N and Longitude (85) ° (55) ' (33.4) " W

DSN 007 Latitude (33) ° (35) ' (35.4) " N and Longitude (85) ° (55) ' (33.3) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

are associated with similar industrial activities such that the characteristics of storm water runoff are essentially the same. Therefore, NGC Industries, LLC (Facility Name) requests that it be allowed to sample the outfall(s) located at:

DSN 005 Latitude (33) ° (35) ' (33.2) " N and Longitude (85) ° (55) ' (33.4) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

as the representative outfall(s).

This form must be signed by the official representative of the facility who is: the owner, the sole proprietor of a sole proprietorship, a general partner for a partnership, or by a ranking elected official or other duly authorized representative for a unit of government or an executive officer of **at least the level of vice president** for a corporation, having overall responsibility for the operation of the facility.

CERTIFICATION: I certify that I have chosen the point(s) that is/are most likely or as likely to contain potential pollutants from the area. 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 or imprisonment for knowing violations.

Permit Number (*if already a permitted facility): AL0003930

Name and Official title (type or print): Neal Stephenson, Plant Manager

Address: 4811 US Highway 78 West, Oxford, AL 36203

Phone Number: (256) 831-6900

Signature: Neal Stephenson

Please print name: Neal Stephenson

Date signed: 6/15/2020

Email address: enstephenson@nationalgypsum.com

***If this is a modification to an existing permit, then a modification fee must also be included.**

INSTRUCTIONS

One certification should be submitted for each set of points from the same drainage area for which you want to designate a representative sampling point or points.

If you have more than one drainage area, you must submit a site drawing designating the drainage areas and all points of discharge with the chosen representative sampling points designated in each area.

If you have more than one drainage area, you may request that only one area be sampled if the areas are very similar to one another in terms of potential pollutants. You must choose as the representative sampling point the point that has the highest potential to contain pollutants in the storm water.

National Gypsum

Interoffice Correspondence

To: Plant Managers

Date: February 21, 2014

From: John Corsi

Subject: Authorization to Sign NPDES Permit Applications and Association Reports

U.S. Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) Permit Regulations annotated at 40 CFR 122.22 require that all NPDES permit application and reports submitted by a corporation be signed by a "Responsible Corporate Officer". However, these regulations also allow for delegation of signatory authority to the "Manager" of one or more manufacturing facilities if this arrangement is made in accordance with accepted corporate procedures.

By way of this memorandum, I am delegating authority to sign all NPDES Permit applications, reports and other permit-related documents to the position of Plant Manager within the New NGC, Inc. d/b/a National Gypsum Company, Gypsum Wallboard Business Unit. This delegation of Authority applies to Plant Managers located in all states, and is effective immediately.

John M. Corsi
Vice President of Manufacturing Operations and Engineering

SAFETY DATA SHEET

BUSAN 85

BUSAN is a registered trademark.

Section 1. Identification

Product identifier : BUSAN 85

Product code : Not available.

Other means of identification : Pest control product registration number: 18619

Physical state : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Industrial applications: Read the label for "Directions for Use".
LIQUID MICROBICIDE CONCENTRATE SOLUTION
Busan 85 is a broad spectrum microbicide used to control the growth of microorganisms in: Pulp and paper mill systems, Papermaking additives, Cooling water systems and industrial airwashers, Petroleum secondary recovery waterflooding, Water-based drilling muds, packer fluids, completion fluids and other water-based drilling fluids, Metal working fluids, Crude oil, diesel and distillate heating oils, Brine solutions/Brine curing (leather industry).

Supplier's details : Buckman Laboratories of Canada, Ltd.
351 Joseph-Carrier Street
Vaudreuil-Dorion, Quebec
Canada
J7V 5V5
Phone 877-282-5626

Emergency telephone number (with hours of operation) : 24 Hour Emergency Phone: Call Chemtrec 703-741-5970

Section 2. Hazard identification

Classification of the substance or mixture : SKIN CORROSION - Category 1
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Wear protective clothing. Wear eye or face protection. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes.

Section 2. Hazard identification

Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 50%
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 50%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 50%

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Pest control product registration number: 18619

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Section 4. First-aid measures

Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : 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 dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Clear, green
Odor	: Pungent, ammoniacal
Odor threshold	: Not available.
pH	: >13.5
Melting point	: -35°C (-31°F)
Boiling point	: Not available.
Flash point	: Closed cup: >100°C (>212°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.23
Solubility	: Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
VOC	: 0 % (w/w) [Method 24]

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: acids
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
BUSAN 85 (CAN - PCP 18619)	LD50 Dermal	Rabbit - Male	2990 mg/kg	-
	LD50 Dermal	Rabbit - Female	>3162 mg/kg	-
	LD50 Oral	Rat	2030 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
BUSAN 85 (CAN - PCP 18619)	skin	Rabbit	Sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Dermal, Inhalation.
Routes of entry not anticipated: Oral.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Section 11. Toxicological information

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : This product has been shown to be a weak sensitizer according to animal data. No instances of human sensitization are known. 90 day exposure studies did not reveal any adverse effects.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Ecotoxicity

Product/ingredient name	Result	Species	Exposure
BUSAN 85 (CAN - PCP 18619)	Acute EC50 0.34 mg/l	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 0.06 mg/l	Fish	96 hours
	Acute LC50 0.36 mg/l	Fish	96 hours

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification
UN number	UN3267
UN proper shipping name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Potassium dimethyldithiocarbamate)
Transport hazard class(es)	8 
Packing group	III
Environmental hazards	Yes.
Additional information	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

Canada inventory : Not applicable. This product is a pest control product registered by Health Canada Pest Management Regulatory Agency.

Pest Control Products Act

Notice to user : This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

Environmental hazards : This product is toxic to fish and other aquatic organisms. It is not to be used in circumstances that would cause or allow it to enter lakes, streams, ponds, estuaries, oceans or other waters in contravention of federal or provincial regulatory requirements. The requirements of applicable laws should be determined before using the product. Do not contaminate water, food, or feed by storage or disposal.

Label hazard elements

Section 15. Regulatory information

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label:

Precautionary symbol :

Signal word : WARNING

Hazard statements : POISON - CORROSIVE - POTENTIAL SKIN SENSITIZER

Identification of differences between biocide label and SDS : Read the label before using.

DISPOSAL

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

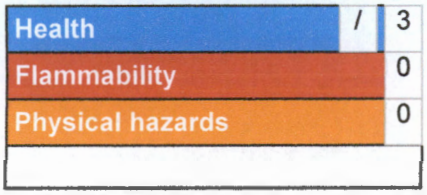
1. Triple- or pressure-rinse the empty container. Add the rinsings to the treatment site.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the Provincial Regulatory Agency. Contact the manufacturer and the Provincial Regulatory Agency in case of a spill, and for clean-up of spills.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

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Section 16. Other information

History

Date of printing : 2/27/2019

Date of issue/Date of revision : 2/27/2019

Date of previous issue : 5/29/2018

Version : 0.02

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations
HPR = Hazardous Products Regulations

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION - Category 1	On basis of test data
SERIOUS EYE DAMAGE - Category 1	On basis of test data
SKIN SENSITIZATION - Category 1	On basis of test data

References :

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

LANXESS
Energizing Chemistry

Section 1. Identification

Product identifier : SPORGARD XP

Material Number : 56877561

EPA Registration Number: : 39967-87

Identified uses : Fungicide.

Supplier/Manufacturer : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, PA 15275-1112
USA

For information: US/Canada (800) LANXESS
International +1 412 809 1000

In case of emergency : Chemtrec (800) 424-9300
International (703) 527-3887
Lanxess Emergency Phone (800) 410-3063.

Section 2. Hazards identification

HAZCOM Standard Status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), the SDS contains valuable information critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other users of this product.

Physical state : Liquid.

Color : Yellow.

Classification of the substance or mixture : Not classified.

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Hazard Not Otherwise Classified (HNOC) : None known.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
AZOXYSTROBIN	10 - ≤25	131860-33-8

Additional information

The ingredients listed below are provided for informational purposes.:

Fludioxonil	1-5	131341- 86-1
Thiabendazole	15-20	148-79-8

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Potential chronic health effects

No known significant effects or critical hazards.

Notes to physician : Treat symptomatically. No specific treatment.

Protection of first-aiders : No special measures required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
halogenated compounds

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up : Stop leak if without risk. Move containers from spill area. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. Prevent entry into sewers, water courses, basements or confined areas.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Conditions for safe storage : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Empty containers or liners may retain some product residues.

Section 8. Exposure controls/personal protection

Occupational exposure limits

Ingredient name	Exposure limits
AZOXYSTROBIN	None

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protection

Section 8. Exposure controls/personal protection

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Skin protection : Chemical-resistant gloves.

Eye/face protection : If contact with product is possible, wear safety glasses with side shields.

Medical Surveillance : Not available.

Section 9. Physical and chemical properties

Physical state : Liquid.

Color : Yellow.

Odor : Slight Aromatic.

Odor threshold : Not available.

pH : 5.5 to 7.5 [Conc. (% w/w): 1%]

Boiling point : Not available.

Melting point : Not available.

Flash point : Closed cup: >100°C (>212°F)

Evaporation rate : Not available.

Explosion limits : Not available.

Vapor pressure : Not available.

Density : 1.187 g/cm^3

Specific gravity (Relative density) : 1.187

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Vapor density : Not available.

Viscosity : Dynamic: 606 mPa·s

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Section 11. Toxicological information

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Potential chronic health effects

Short term exposure

Potential immediate effects : Not available.

Long term exposure

Potential delayed effects : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
SPORGARD XP	LD50 Oral	Rat - Female	>5000 mg/kg	-	-
SPORGARD XP	LD50 Dermal	Rabbit	>5000 mg/kg	-	-
SPORGARD XP	LC50 Inhalation Dusts and mists	Rat	>2.59 mg/l Highest producible concentration. Dosage caused no mortality	4 hours	-

Irritation/Corrosion

Conclusion/Summary

Skin : Slight irritant

Eyes : Slight irritant

Sensitization

Product/ingredient name	Route of exposure	Species	Result
AZOXYSTROBIN	skin	Guinea pig	Not sensitizing

Conclusion/Summary

Skin : Not sensitizing

Carcinogenicity

Conclusion/Summary : thiabendazole:No carcinogenic effect.

Product/ingredient name	CAS #	IARC	NTP	OSHA
AZOXYSTROBIN	131860-33-8	Not classified.	Not classified.	Not classified.

Reproductive toxicity

Conclusion/Summary : thiabendazole:No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Result	Species	Exposure
AZOXYSTROBIN	201 Alga, Growth Inhibition Test (growth rate)	Acute EC50 2 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours
	-	Acute EC50 0.28 mg/l	Daphnia - Daphnia magna	48 hours
	201 Alga, Growth Inhibition Test (biomass)	Acute IC50 0.36 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours
	-	Acute IC50 >3.2 mg/l	Bacteria - Pseudomonas putida	6 hours
	-	Acute LC50 0.47 mg/l	Fish - Oncorhynchus mykiss	96 hours

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
AZOXYSTROBIN	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
AZOXYSTROBIN	2.5	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

RCRA classification : : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Section 14. Transport information

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	-	-	-	-		Not regulated.
IMDG Class	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN, THIABENDAZOLE)	9	III		Emergency schedules (EmS) F-A, S-F
IATA-DGR Class	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN, THIABENDAZOLE)	9	III		Passenger aircraft 964: 450 L Cargo aircraft 964: 450 L

PG* : Packing group

RQ : 0 lbs

Section 15. Regulatory information

SARA 311/312 : None

SARA Title III Section 302 Extremely Hazardous Substances : None

SARA Title III Section 313 Toxic Chemicals :

Ingredient name	CAS number	Concentration (%)
thiabendazole	148-79-8	10 - ≤25

US EPA CERCLA Hazardous Subtances (40 CFR 302.4) : None

State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropraite agency in your state.

Ingredient name	CAS number	State Code	Concentration (%)
α-D-GLUCOPYRANOSIDE, β-D-FRUCTOFURANOSYL	57-50-1	MA - S, PA - RTK HS	≤10
thiabendazole	148-79-8	NJ - HS	10 - ≤25
Water	7732-18-5		25 - 50
AZOXYSTROBIN	131860-33-8		10 - ≤25
Urea	57-13-6		≤5

Massachusetts Substances: MA - S
Massachusetts Extraordinary Hazardous Substances: MA - Extra HS
New Jersey Hazardous Substances: NJ - HS
Pennsylvania RTK Hazardous Substances: PA - RTK HS
Pennsylvania Special Hazardous Substances: PA - Special HS

California Prop. 65

Section 15. Regulatory information

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

U.S. Toxic Substances Control Act : This product is excluded from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

FIFRA

EPA Registration Number : 39967-87

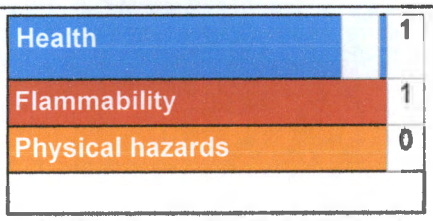
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

Signal word : CAUTION

Hazard statements : Causes moderate eye irritation. Harmful if swallowed.

Section 16. Other information

Hazardous Material Information System :



0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme
***=Chronic**

The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.) :

0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

Our method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided as a customer service.

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Date of issue : 03-14-2017

Date of previous issue : 11-16-2016

Version : 5

Product Safety and Regulatory Affairs

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of LANXESS Corporation. The information in this SDS relates only to the specific material designated herein. LANXESS Corporation assumes no legal responsibility for use of or reliance upon the information in this SDS.