

Summary Page

Name of Facility Moody Air Force Base

NPDES Permit No. GA0020001

This permit is a modification of an NPDES permit for United States Department of Air Force – Moody Air Force Base. The facility discharges an average 0.72 MGD of sanitary wastewater, groundwater infiltration, storm water runoff, potable water treatment, wastewater from vehicle maintenance, wastewater from vehicle and aircraft wash racks, and groundwater treatment system wastewater. This facility discharges to Beatty Branch in the Suwannee River Basin. The permit expires on August 31, 2022.

The permit was placed on public notice from March 29, 2019 to May 1, 2019.

Please Note The Following Changes to the Proposed NPDES Permit From The Existing Permit

Part I.A.1. – Effluent Limitations and Monitoring Requirements

- Modified the ammonia daily average and daily maximum limits from 0.24/0.36 mg/L for May – October and 0.41/0.62 mg/L for November-April to 1.79/2.69 mg/L for the months of October – December, 2.85/4.28 mg/L for the months of January – March, 1.4/2.1 mg/L for the months of April – June, and 1.22/1.83 mg/L for the months of July – September per EPD’s *Strategy for Addressing Ammonia Toxicity* (July 2017).
- Removed ammonia recalculation compliance schedule.
- Modified pH limit to 6.0 – 7.0 s.u. daily minimum and daily maximum, respectively based on the ammonia toxicity alternative analysis (fact sheet appendix A).

Standard Conditions & Boilerplate Modifications

The permit boilerplate includes modified language or added language consistent with other NPDES permits.

Determinations and Public Comments

- Final issued permit did not change from the draft permit placed on public notice.
- Final permit includes changes from the draft permit placed on public notice. See attached permit addendum and/or permit fact sheet addendum.
- Public comments were received during public notice period.
- Public hearing was held.



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

EPD Director's Office
2 Martin Luther King, Jr. Drive
Suite 1456, East Tower
Atlanta, Georgia 30334
404-656-4713

MAY 13 2019

Mr. John Eunice III
Deputy Base Civil Engineer
U.S. Department of the Air Force
Moody Air Force Base
3485 Georgia Street
Moody Air Force Base, Georgia 31669

RE: Permit Issuance
U.S. Department of Air Force
Moody Air Force Base
NPDES Permit GA0020001
Lowndes County, Suwannee River Basin

Dear Mr. Eunice:

Pursuant to the Georgia Water Quality Control Act, as amended, the Federal Clean Water Act, as amended, and the Rules and Regulations promulgated thereunder, we have issued the attached permit for the above-referenced facility.

Your facility has been assigned to the following EPD office for reporting and compliance. Signed copies of all required reports shall be submitted to the following address:

Environmental Protection Division
Southwest District Office
2024 Newton Road
Albany, Georgia 31701

Please be advised that on and after the effective date indicated in the permit, the permittee must comply with all terms, conditions, and limitations of the permit. If you have questions concerning this correspondence, please contact Katie Pupkiewicz at 404.656.6159 or katherine.pupkiewicz@dnr.ga.gov.

Sincerely,

Richard E. Dunn
Director

RED:kp

Enclosure(s): Final Permit, Fact Sheet and Apendices

cc: EPD Southwest District (Albany) Office – Mel Taylor (E-mail)
EPA Region IV - R4NPDESPermits@epa.gov

Permit No. GA0020001
Issuance Date: MAY 13 2019



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

National Pollutant Discharge Elimination System Permit

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

U.S. Department of Air Force
3485 Georgia Street
Moody AFB, Georgia 31699

is issued a permit to discharge from a facility located at

Moody Air Force Base
Georgia Highway 125
Moody AFB, Georgia 31699
Lowndes County

to receiving waters

Beatty Branch (Outfall No. 001) in the Suwannee River Basin.

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on July 11, 2016, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This is a modification of the permit originally issued on August 3, 2017 and effective on September 1, 2018. This permit modification shall become effective on June 1, 2019.

This permit and the authorization to discharge shall expire at midnight August 31, 2022.



Richard E. Dunn, Director
Environmental Protection Division

PART I

A.1.a Effluent Limitations and Monitoring Requirements

Upon the effective date of the permit modification and continuing until October 31, 2022, the permittee is authorized to discharge from outfall number 001¹ (30.983667, -83.210417) – sanitary sewage, groundwater infiltration, stormwater runoff, residential water, potable water treatment plant, and vehicle maintenance operations.

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

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ²		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	0.75	1.125	--	--	Daily	Continuous	Effluent
BOD ₅	--	--	15	22.5	2/Week	24-hr composite	Effluent
TSS	--	--	14	21	2/Week	24-hr composite	Effluent
Total Phosphorus ³	--	--	Report	Report	1/Week	24-hr composite	Effluent
Orthophosphate ³	--	--	Report	Report	1/Week	24-hr composite	Effluent
Fecal Coliform ⁴ (#/100 mL)	--	--	200	400	1/Week	Grab	Effluent
Ammonia, as N ^{5,6} (May – October)	--	--	2.0	3.0	1/Week	24-hr composite	Effluent
Ammonia, as N ^{5,6} (November – April)	--	--	4.0	6.0	1/Week	24-hr composite	Effluent
Total Nitrogen ⁵	--	--	Report	Report	1/Week	24-hr composite	Effluent
Total Kjeldahl Nitrogen ⁵	--	--	Report	Report	1/Week	24-hr composite	Effluent
Nitrate/Nitrite ⁵	--	--	Report	Report	1/Week	24-hr composite	Effluent
Dissolved Oxygen	--	--	5.0 Daily Minimum	--	1/Month	Grab	Effluent
Carbon Tetrachloride	--	--	Report	Report	1/Month	Grab	Effluent

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per week by grab sample.

- ¹ There shall be no discharge of floating solids or visible foam other than in trace amounts.
- ² All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.
- ³ Total phosphorus and orthophosphate should be analyzed using same effluent sample.
- ⁴ Fecal coliform bacteria will be reported as the geometric mean.
- ⁵ Ammonia, Total Kjeldahl Nitrogen, Nitrate/Nitrite, and Organic Nitrogen should be analyzed or calculated using the same effluent sample.
- ⁶ See Schedule of Compliance, Part III.B, of this permit

A.1.b Effluent Limitations and Monitoring Requirements

Effective on November 1, 2022, the permittee is authorized to discharge from outfall number 001¹ (30.983667, -83.210417) – sanitary sewage, groundwater infiltration, stormwater runoff, residential water, potable water treatment plant, and vehicle maintenance operations.

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

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ²		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	0.75	1.125	--	--	Daily	Continuous	Effluent
BOD ₅	--	--	15	22.5	2/Week	24-hr composite	Effluent
TSS	--	--	14	21	2/Week	24-hr composite	Effluent
Total Phosphorus ³	--	--	Report	Report	1/Week	24-hr composite	Effluent
Orthophosphate ³	--	--	Report	Report	1/Week	24-hr composite	Effluent
Fecal Coliform ⁴ (#/100 mL)	--	--	200	400	1/Week	Grab	Effluent
Ammonia, as N ⁵ (July – September)	--	--	1.22	1.83	1/Week	24-hr composite	Effluent
Ammonia, as N ⁵ (October – December)	--	--	1.79	2.69	1/Week	24-hr composite	Effluent
Ammonia, as N ⁵ (January – March)	--	--	2.85	4.28	1/Week	24-hr composite	Effluent
Ammonia, as N ⁵ (April – June)	--	--	1.4	2.1	1/Week	24-hr composite	Effluent
Total Nitrogen ⁵	--	--	Report	Report	1/Week	24-hr composite	Effluent
Total Kjeldahl Nitrogen ⁵	--	--	Report	Report	1/Week	24-hr composite	Effluent
Nitrate/Nitrite ⁵	--	--	Report	Report	1/Week	24-hr composite	Effluent
Dissolved Oxygen	--	--	5.0 Daily Minimum	--	1/Month	Grab	Effluent
Carbon Tetrachloride	--	--	Report	Report	1/Month	Grab	Effluent

The pH shall not be less than 6.0 standard units nor greater than 7.0 standard units and shall be monitored once per week by grab sample.

- ¹ There shall be no discharge of floating solids or visible foam other than in trace amounts.
- ² All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.
- ³ Total phosphorus and orthophosphate should be analyzed or calculated using same effluent sample.
- ⁴ Fecal coliform bacteria will be reported as the geometric mean.
- ⁵ Ammonia, Total Kjeldahl Nitrogen, Nitrate/Nitrite, and Organic Nitrogen should be analyzed using the same effluent sample.

A.2 Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from internal outfall number 005 – Groundwater remediation wastewater.

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

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ¹		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Carbon Tetrachloride (µg/L)	--	--	Report	Report	1/Month	Grab	Effluent ²

- ¹ All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.
- ² The effluent is the point at which the groundwater treatment system discharges into the Water Pollution Control Plant.

B. Monitoring

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. The permittee shall maintain a written sampling plan and schedule onsite.

2. Sampling Period

- a. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.
- b. Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.
- c. Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.

3. Monitoring Procedures

Analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

4. Detection Limits

All parameters will be analyzed using the appropriate detection limits. If the results for a given sample are such that a parameter is not detected at or above the specified detection limit, a value of "NOT DETECTED" will be reported for that sample and the detection limit will also be reported.

5. 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 exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;
- b. The dates and times the analyses were performed, and the person(s) performing the analyses;
- c. The analytical techniques or methods used;
- d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased monitoring frequency shall also be indicated. EPD may require, by written notification, more frequent monitoring or the monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a minimum of three (3) years from the date of the sample, measurement, report or application, or longer if requested by EPD.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, 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 punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of EPD

C. Definitions

1. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.
2. The "daily maximum" mass means the total discharge by mass during any calendar day.
3. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.
4. The "daily maximum" concentration means the daily determination of concentration for any calendar day.
5. A "calendar day" is defined as any consecutive 24-hour period.
6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
7. "Severe property damage" means substantial physical damage to property, damage to treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that 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.
8. "EPD" as used herein means the Environmental Protection Division of the Department of Natural Resources.
9. "State Act" as used herein means the Georgia Water Quality Control Act (Official Code of Georgia Annotated; Title 12, Chapter 5, Article 2).
10. "Rules" as used herein means the Georgia Rules and Regulations for Water Quality Control.

D. Reporting Requirements

1. The permittee must electronically report the DMR, OMR and additional monitoring data using the web based electronic NetDMR reporting system, unless a waiver is granted by EPD.
 - b. The permittee must comply with the Federal National Pollutant Discharge Elimination System Electronic Reporting regulations in 40 CFR §127. The permittee must electronically report the DMR, OMR, and additional monitoring data using the web based electronic NetDMR reporting system online at: <https://netdmr.epa.gov/netdmr/public/home.htm>
 - c. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the DMR. The results of each sampling event shall be reported on the OMR and submitted as an attachment to the DMR.
 - d. The permittee shall submit the DMR, OMR and additional monitoring data no later than 11:59 p.m. on the 15th day of the month following the sampling period.
 - e. All other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.
2. No later than December 21, 2020, the permittee must electronically report the following compliance monitoring data and reports using the online web based electronic system approved by EPD, unless a waiver is granted by EPD:
 - a. Sewer Overflow/Bypass Event Reports;
 - b. Noncompliance Notification;
 - c. Other noncompliance; and
 - d. Bypass

3. Other Reports

All other reports required in this permit not listed above in Part I.D.2 or unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

4. Other Noncompliance

All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported to EPD at the time the monitoring report is submitted.

5. Signatory Requirements

All reports, certifications, data or information submitted in compliance with this permit or requested by EPD must be signed and certified as follows:

- a. Any State or NPDES Permit Application form submitted to the EPD shall be signed as follows in accordance with the Federal Regulations, 40 C.F.R. 122.22:
 1. For a corporation, by a responsible corporate officer. A responsible corporate officer means:
 - i a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or
 - ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
 3. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.
- b. All other reports or requests for information required by the permit issuing authority shall be signed by a person designated in (a) above or a duly authorized representative of such person, if:
 1. The representative so authorized is responsible for the overall operation of the facility from which the discharge originates, e.g., a plant manager, superintendent or person of equivalent responsibility;
 2. The authorization is made in writing by the person designated under (a) above; and
 3. The written authorization is submitted to the Director.
- c. Any changes in written authorization submitted to the permitting authority under (b) above which occur after the issuance of a permit shall be reported to the permitting authority by submitting a copy of a new written authorization which meets the requirements of (b) and (b.1) and (b.2) above.

- d. Any person signing any document under (a) or (b) above shall make 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 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.”

PART II

A. Management Requirements

1. Notification of Changes

- a. The permittee shall provide EPD at least 90 days advance notice of any planned physical alterations or additions to the permitted facility that meet the following criteria:
 1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b);
 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1); or
 3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. The permittee shall give at least 90 days advance notice to EPD of any planned changes to the permitted facility or activity which may result in noncompliance with permit requirements.
- c. Following the notice in paragraph a. or b. of this condition the permit may be modified. The permittee shall not make any changes, or conduct any activities, requiring notification in paragraph a. or b. of this condition without approval from EPD.
- d. The permittee shall provide at least 30 days advance notice to EPD of:
 1. any planned expansion or increase in production capacity; or
 2. any planned installation of new equipment or modification of existing processes that could increase the quantity of pollutants discharged or result in the discharge of pollutants that were not being discharged prior to the planned change

if such change was not identified in the permit application(s) upon which this permit is based and for which notice was not submitted under paragraphs a. or b. of this condition.

- e. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 100 µg/L, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 µg/L for acrolein and acrylonitrile, 500 µg/L for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/L antimony.
- f. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 500 µg/L, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/L antimony.
- g. Upon the effective date of this permit, the permittee shall submit to EPD an annual certification in June of each year certifying whether or not there has been any change in processes or wastewater characteristics as described in the submitted NPDES permit application that required notification in paragraph a., b., or d. of this condition. The permittee shall also certify annually in June whether the facility has received offsite wastes or wastewater and detail any such occurrences.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

3. Facility Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this 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 back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to EPD at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

1. A description of the discharge and cause of noncompliance; and
2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were 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 the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by EPD, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Sludge shall be disposed of in accordance with the regulations and guidelines established by EPD, the Federal Clean Water Act, and the Resource Conservation and Recovery Act (RCRA). Prior to disposal of sludge by any method other than co-disposal in a permitted sanitary landfill, the permittee shall submit a sludge management plan to the Watershed Protection Branch of EPD for written approval. For land application of nonhazardous sludge, the permittee shall comply with the applicable criteria outlined in the most current version of EPD's "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. EPD may require more stringent control of this activity. Prior to land applying nonhazardous sludge, the permittee shall submit a sludge management plan to EPD for review and approval. Upon approval, the plan for land application will become a part of the NPDES permit upon modification of the permit.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported (in the unit of lbs) as specified in Part I.D of this permit.

8. Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

9. Operator Certification Requirements

The permittee shall ensure that, when required, a certified operator is in charge of the facility in accordance with Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant operators And Laboratory Analysts Rule 43-51-6.(b)

10. Laboratory Analyst Certification Requirements

The permittee shall ensure that, when required, the person in responsible charge of the laboratory performing the analyses for determining permit compliance is certified in accordance with the Georgia Certification of Water and Wastewater Treatment Plant operators and Laboratory Analysts Act, as amended, and the Rules promulgated thereunder.

B. Responsibilities

1. Right of Entry

The permittee shall allow the Director of EPD, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

- a. To enter upon the permittee's premises where a discharge source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

- a. The permittee notifies the Director of EPD in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;
- b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and
- c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of EPD's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. § 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of EPD. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or
- d. To comply with any applicable effluent limitation issued pursuant to the order of the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:
 1. is different in conditions or more stringent than any effluent limitation in the permit; or
 2. controls any pollutant not limited in the permit.

5. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

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 established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of 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 private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

The permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by EPD at least 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of EPD shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. 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.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage, in-plant transfer, process and material handling, loading and unloading operations, plant site runoff, and sludge and waste disposal.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

15. Duty to Provide Information

- a. The permittee shall furnish to the EPD Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.
- b. When 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 any report to the Director, it shall promptly submit such facts and information.

16. Duty to Comply

- a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) and is grounds for enforcement action; for permit termination; revocation and reissuance, or modification; or for denial of a permit renewal application. Any instances of noncompliance must be reported to EPD as specified in Part I. D and Part II.A. of this permit.
- b. Penalties for violations of permit conditions. The Federal Clean Water Act and the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this permit, 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 punished by a fine or by imprisonment, or by both. The Georgia Water Quality Control Act (Act) also provides procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director.

17. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

PART III

A. Previous Permits

1. All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

B. Schedule of Compliance

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:
 - a. The effluent limitations and monitoring specified in Part I A.1. are effective on the effective date of this permit, except as specified below.
 - b. The permittee shall achieve compliance with the ammonia limitation specified in Part I A.1.b. of this permit in accordance with the following schedule:
 - (i) Beginning on the effective date of this permit modification and continuing until October 31, 2022, the permittee shall comply with the ammonia and pH limitations in accordance with Part I A.1.a of this permit.
 - (ii) Effective on November 1, 2022, the permittee shall achieve compliance with the ammonia and pH limitations specified in Part I A.1.b. of this permit.
 - c. The permittee shall submit a written progress report to EPD on June 30th and December 31st every year describing the status of achieving compliance with Part I.A.1.b of this permit. The permittee shall submit the report to the EPD assigned Compliance Office.
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, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. Biomonitoring and Toxicity Reduction Requirements

1. The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with chapter 391-3-6-.03(5)(e) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, EPD may require the permittee to perform any of the following actions:

- a. Acute biomonitoring tests;
 - b. Chronic biomonitoring tests;
 - c. Stream studies;
 - d. Priority pollutant analyses;
 - e. Toxicity reduction evaluations (TRE); or
 - f. Any other appropriate study.
2. EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the representative plant flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

The permittee must eliminate effluent toxicity and supply EPD with data and evidence to confirm toxicity elimination.



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

The Georgia Environmental Protection Division proposes to issue an NPDES permit to the applicant identified below. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the State.

Technical Contact: Katie Pupkiewicz (katherine.pupkiewicz@dnr.ga.gov)
404-656-6159

- Draft permit:**
- first issuance
 - reissuance with no or minor modifications from previous permit
 - reissuance with substantial modifications from previous permit
 - modification of existing permit
 - requires EPA review
 - designated as a major facility

This is a modification of a permit issued on August 17, 2017 to revise the Ammonia and pH limitations based on a request submitted by the facility and new water quality modeling data.

1.0 FACILITY INFORMATION

1.1 NPDES Permit No.: GA0020001

1.2 Name and Address of Owner/Applicant

U.S. Department of Air Force
3485 Georgia Street
Moody AFB, Georgia 31699

1.3 Name and Address of Facility

U.S. Department of Air Force – Moody Air Force Base
Georgia Highway 125
Moody AFB, Georgia 31699
(Lowndes County)

1.4 Location and Description of the discharge (as reported by applicant) ¹

Outfall ID	Latitude	Longitude	Receiving Waterbody
001	30° 59' 1.46" N (30.983739)	83° 12' 37.53" W (-83.210425)	Beatty Branch

¹ Outfall 005 is not being modified

1.5 Production Capacity

Not applicable

1.5 SIC Code & Description

9711 – National Security

1.6 Description of Industrial Processes

The primary SIC code for Moody Air Force Base is National Security. The Base serves as the Air Force's only active-duty combat search and rescue wing. The Base's primary mission is to organize, train, and employ a combat-ready rescue wing. The types of activities and operations conducted at the Base range from residential housing to industrial operations. As a result of these activities and operations, the Base generates sanitary wastewater, groundwater from restoration activities, wastewater from vehicle maintenance facilities, and vehicle and aircraft washrack activities. See the narrative for this application for a more detailed description of Base operations.

1.8 Description of the Wastewater Treatment Facility

Outfall	Operation Description	Treatment Description
001	Sanitary sewage collection system, groundwater infiltration, storm water runoff, military family housing, potable water treatment plant, vehicle maintenance operations, and vehicle and aircraft wash racks.	Trickling filtration, sedimentation, screening, anaerobic digestion, and disinfection
005 (Internal)	Ground water treatment system	Groundwater extraction and treatment system

1.9 Type of Wastewater Discharge

- | | | | |
|-------------------------------------|---------------------|-------------------------------------|----------------------------|
| <input checked="" type="checkbox"/> | process wastewater | <input checked="" type="checkbox"/> | stormwater |
| <input type="checkbox"/> | domestic wastewater | <input checked="" type="checkbox"/> | combined (described below) |
| <input type="checkbox"/> | other | | |

Outfall 001 discharges a combination of sanitary sewage, storm water runoff, and process water from vehicle maintenance and wash facilities.

2.0 APPLICABLE REGULATIONS

2.1 State Regulations

Chapter 391-3-6 of the Georgia Rules and Regulations for Water Quality Control

2.2 Federal Regulations

Source	Activity	Applicable Regulation
Domestic	Municipal Effluent Discharge	40 CFR 122
		40 CFR 125
		40 CFR 133
Industrial	Non-Process Water Discharges	40 CFR 122
		40 CFR 125
	Process Water Discharges	40 CFR 122
		40 CFR 125

2.3 Industrial Effluent Limit Guideline(s)

Not Applicable

3.0 WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal Regulations 40 CFR 122.4(d) require that conditions in NPDES permits ensure compliance with the water quality standards which are composed of use classifications, numeric and or narrative water quality criteria and an anti-degradation policy. The use classification system designates the beneficial uses that each waterbody is expected to achieve, such as drinking water, fishing, or recreation. The numeric and narrative water quality criteria are deemed necessary to support the beneficial use classification for each water body. The antidegradation policy represents an approach to maintain and to protect various levels of water quality and uses.

3.1 Receiving Waterbody Classification and Information

[391-3-6-.03(6)]

For outfall 001 the receiving water body is classified as fishing.

Fishing: Propagation of Fish, Shellfish, Game and Other Aquatic Life; secondary contact recreation in and on the water; or for any other use requiring water of a lower quality:

- (i) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for water designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.
- (ii) pH: Within the range of 6.0 - 8.5.
- (iii) Bacteria:
 - 1. For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200/100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 per 100 mL in lakes and reservoirs and 500 per 100 mL in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 per 100 mL for any sample. The State does not encourage swimming in these surface waters since a number of factors which are beyond the control of any State regulatory agency contribute to elevated levels of bacteria.
 - 2. For waters designated as shellfish growing areas by the Georgia DNR Coastal Resources Division, the requirements will be consistent with those established by the State and Federal agencies responsible for the National Shellfish Sanitation Program. The requirements are found in National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish, 2007 Revision (or most recent version), Interstate Shellfish Sanitation Conference, U.S. Food and Drug Administration.
- (iv) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

4.0 EFFLUENT LIMITS AND PERMIT CONDITIONS

4.1 Reasonable Potential Analysis (RP)

Title 40 of the Federal Code of Regulations, 40 CFR 122.44(d) requires delegated States to develop procedures for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criteria within a State water. If such reasonable potential is determined to exist, the NPDES permit must contain pollutant effluent limits and/or effluent limits for whole effluent toxicity. Georgia's Reasonable Potential Procedures are based on Georgia's Rules and Regulations for Water Quality Control (Rules), Chapter 391-3-6-.06(4)(d)5. The chemical specific and biomonitoring data and other pertinent information in EPD's files will be considered in accordance with the review procedures specified in the Rules in the evaluation of a permit application and in the evaluation of the reasonable potential for an effluent to cause an exceedance in the numeric or narrative criteria.

A Reasonable Potential Analysis was performed on the data submitted with the application and the results of those analyses are stated below in the following sections.

EPD evaluated the data provided in the application and supporting documents. If a pollutant is listed below, EPD determined it was a pollutant of concern and there may be a reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standards. If a pollutant is not listed below, EPD determined that the pollutant is not a pollutant of concern or has determined, based on the data provided in the application, there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standards. An example would be if the applicant reported "not detect," "below detection limit," or a value that was below the detection limit for a pollutant.

4.2 Applicable Water Quality and Technology Based Effluent Limitations

Water Quality Based Effluent Limits (WQBELs)

When drafting a National Pollutant Discharge Elimination System (NPDES) permit, a permit writer must consider the impact of the proposed discharge on the quality of the receiving water. Water quality goals for a waterbody are defined by state water quality standards. By analyzing the effect of a discharge on the receiving water, a permit writer could find that technology-based effluent limitations (TBELs) alone will not achieve the applicable water quality standards. In such cases, the Clean Water Act (CWA) and its implementing regulations require development of water quality-based effluent limitations (WQBELs). WQBELs help meet the CWA objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and the goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water (*fishable/swimmable*).

WQBELs are designed to protect water quality by ensuring that water quality standards are met in the receiving water and downstream uses are protected. On the basis of the requirements of Title 40 of the *Code of Federal Regulations* (CFR) 125.3(a), additional or more stringent effluent limitations and conditions, such as WQBELs, are imposed when TBELs are not sufficient to protect water quality.

The term *pollutant* is defined in CWA section 502(6) and § 122.2. Pollutants are grouped into three categories under the NPDES program: conventional, toxic, and nonconventional. Conventional pollutants are those defined in CWA section 304(a)(4) and § 401.16 (BOD₅, TSS, fecal coliform, pH, and oil and grease). Toxic (priority) pollutants are those defined in CWA section 307(a)(1) and include 126 metals and manmade organic compounds. Nonconventional pollutants are those that do not fall under either of the above categories (conventional or toxic pollutants) and include parameters such as chlorine, ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity (WET).

Applicable Technology Based Effluent Limits (TBELs)

Technology-based effluent limitations aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and water quality-based effluent limitations. The NPDES regulations at Title 40 of the Code of Federal Regulations 125.3(a) require NPDES permit writers to develop technology-based treatment requirements, consistent with CWA section 301(b), that represent the minimum level of control that must be imposed in a permit. The regulation also indicates that permit writers must include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality.

For pollutants not specifically regulated by Federal Effluent Limit Guidelines, the permit writer must identify any needed technology-based effluent limitations and utilize best professional judgment to establish technology-based limits or determine other appropriate means to control its discharge if there is a reasonable potential to cause or contribute to a violation of the water quality standards.

4.3 Conventional Pollutants

Only the effluent limits that have been modified are addressed in sections 4.3 and 4.4

Pollutants of Concern	Outfall ID	Basis
pH	001	<p><u>WQBEL</u> The instream waste concentration is 100%. When the instream waste concentration is above 50%, it results in a reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard. The permittee has requested a lower maximum limit for pH, therefore a limit of 6.0 s.u. to 7.0 s.u has been added. A compliance schedule to meet the new pH and ammonia limits has been included in the permit.</p>
		<p><u>TBEL</u> There is no applicable federal technology based effluent limit.</p>

4.4 Nonconventional Pollutants

Pollutants of Concern	Outfall ID	Basis
Ammonia	001	<p data-bbox="558 296 678 329"><u>WOBEL</u></p> <p data-bbox="558 331 1435 1094">Per EPD's <i>Strategy for Addressing Ammonia Toxicity</i> (July 2017), all NPDES permits that contain ammonia limits and do not comply with the 2013 criteria shall be reissued with an ammonia limit that complies with the 2013 criteria. The strategy also allows for a recalculation study which was performed after the permit was issued in 2017. The results did not support recalculation based on the species found in the receiving stream. Subsequently, the facility requested a permit modification which will restrict the effluent limitations for pH, allowing for an increase in the ammonia effluent limits while still being protective of the instream ammonia toxicity criteria. The relationship between pH, ammonia, and temperature allows for an increase in ammonia limitations as the pH and temperature decrease. The maximum pH limitation has been modified from 8.5 s.u. to 7.0 s.u., while the minimum pH limitation has remained at 6.0 s.u. The revised pH effluent limitations still meet the water quality standards, and the more stringent pH range also allows for higher ammonia effluent limits. Because of temperature correlation, seasonal variation has been accounted for when calculating effluent limits. New effluent limits were calculated on a quarterly basis per the permittee's request in conjunction with a more restrictive pH effluent limit.</p> <p data-bbox="558 1136 1435 1493">For the months of July – September, effluent limits of 1.22 mg/L and 1.83 mg/L have been established for the daily average and daily maximum, respectively. For the months of October – December, effluent limits of 1.79 mg/L and 2.69 mg/L have been established for daily average and daily maximum, respectively. For the months of January – March, effluent limits of 2.85 mg/L and 4.28 mg/L have been established for daily average and daily maximum, respectively. For the months of April – June, effluent limits of 1.4 mg/L and 2.1 mg/L have been established for daily average and daily maximum, respectively.</p> <p data-bbox="558 1535 1435 1604">A compliance schedule to meet the new pH and ammonia limits has been included in the permit.</p>
		<p data-bbox="558 1612 639 1646"><u>TBEL</u></p> <p data-bbox="558 1648 1349 1682">There is no applicable federal technology based effluent limit.</p>

4.6 Calculations for Water Quality Based Effluent Limits

4.6.a Instream Waste Concentration (IWC)

Outfall 001

$$\text{IWC} = \frac{\text{Effluent Flow (gal/day)}}{\text{Effluent Flow (gal/day)} + 7Q_{10} \text{ (gal/day)}}$$
$$\text{IWC} = \frac{1,100,000 \text{ (gal/day)}}{(1,100,000 \text{ (gal/day)} + 0.0 \text{ (gal/day)})}$$

$$\text{IWC} = 100 \%$$

4.6.c Ammonia Toxicity Analysis

CCC= Chronic Criterion based on Villosa iris (rainbow mussel)

$$\text{CCC} = 0.8876 \times (0.0278 / (1 + 10^{(7.688 - \text{pH})}) + 1.1994 / (1 + 10^{(\text{pH} - 7.688)})) \times (2.126 \times 10^{0.028 \times (20 - \text{MAX}(T,7))})$$

$$\text{NH}_3 = \frac{(\text{CCC} \times (\text{Ostream (cfs)} + \text{Effluent Flowrate(cfs)}) - (\text{Ostream(cfs)} \times \text{Stream Background NH}_3(\text{mg/L})))}{\text{Effluent Flowrate (cfs)}}$$

Outfall 001

NH₃ July – September Monthly Average = 1.22mg/L
NH₃ October – December Monthly Average = 1.79mg/L
NH₃ January – March Monthly Average = 2.85mg/L
NH₃ April – June Monthly Average = 1.4mg/L

July – September Daily Maximum

Daily Maximum = 1.5 x Daily Average (mg/L)
Daily Maximum = 1.5 x 1.22 (mg/L)
Daily Maximum = 1.83 (mg/L)

October – December Daily Maximum

Daily Maximum = 1.5 x Daily Average (mg/L)
Daily Maximum = 1.5 x 1.79 (mg/L)
Daily Maximum = 2.69 mg/L

January – March Daily Maximum

Daily Maximum = 1.5 x Daily Average (mg/L)
Daily Maximum = 1.5 x 2.85 (mg/L)
Daily Maximum = 4.28 mg/L

April – June Daily Maximum

Daily Maximum = 1.5 x Daily Average (mg/L)
Daily Maximum = 1.5 x 1.4 (mg/L)
Daily Maximum = 2.1 mg/L

See Appendix A for additional calculations.

4.7 Technology Based Effluent Limitation Calculations

There are several ways to calculate TBELs when developing a case-by-case limitations. EPD can use an approach consistent with the statistical approach EPA has used to develop effluent guidelines or they can utilize several other mathematically and statistically accepted approaches depending on characteristics of the data. In general, EPD utilizes EPA's "NPDES Permit Writer Manual," September 2010, Section 5.2.3, "Case-by-Case TBELs for Industrial Dischargers" and EPA's "Technical Support Document for Water Quality Based Toxic Control," March 1991, Section 5.2, "Basis Principles of Effluent Variability," as guidance to develop limits.

If applicable, when there is no federal technology based effluent limit EPD evaluates the effluent data, operating records and discharge monitoring reports to calculate the long term average for the parameter. The long term average is then used to derive the effluent limits.

EPD recognizes there are several ways to calculate technology based limits and, when applicable, may deviate from the general practice.

4.8 Comparison & Summary of Water Quality vs. Technology Based Effluent Limits

After preparing and evaluating applicable technology-based effluent limitations and water quality-based effluent limitations, the most stringent limits are applied in the permit. Pollutants of concern with an effluent limit of monitor and report are not included in the below table.

Outfall 001

Parameter	WQBELs	TBELs	Explanation
pH (s.u.)	6.0 – 7.0	None	WQBEL
Ammonia, as N (mg/L) July – September	1.22/1.83	None	WQBEL
Ammonia, as N (mg/L) October – December	1.79/2.69	None	WQBEL
Ammonia, as N (mg/L) January – March	2.85/4.28	None	WQBEL
Ammonia, as N (mg/L) April – June	1.4/2.1	None	WQBEL

5.0 OTHER PERMIT REQUIREMENTS AND CONSIDERATIONS

5.1 Anti-Backsliding

In accordance with Section 404(o) of the Clean Water Act and 40 CFR 122.44(l)(2)(i)(B)(1), a permit may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant if information is available which was not available at the time of permit issuance and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. The

relationship between pH, ammonia, and temperature allows for an increase in an effluent limitation for ammonia as the pH and temperature decrease. The maximum pH limitation has been modified from 8.5 s.u. to 7.0 s.u., while the minimum pH limitation has remained at 6.0 s.u. The revised pH effluent limitations still meet the water quality standards, and the more stringent pH range allows for higher ammonia effluent limits. Because of the temperature correlation, seasonal variation has been accounted for when calculating effluent limits. A new water quality model was generated which restricted pH limits, resulting in higher ammonia limits. EPD has determined that the new available information meets the requirements in 40 CFR 122.44(l)(2)(i)(B(1) allowing the permitted effluent limit for ammonia to be less stringent. See Section 4.4 regarding revised ammonia limits.

5.2 Compliance Schedules

The permittee has requested a compliance schedule to implement any capital improvements required to accommodate the final pH and ammonia limits. EPD has reviewed the request and has approved a compliance schedule until October 31, 2022 to meet the limitations for pH and Ammonia. Based on best professional judgment, the proposed compliance schedule represents the shortest reasonable period of time to allow the permittee to obtain funding, upgrade the treatment process, and test new equipment before the limits become effective. All other effluent limitations are applicable immediately upon the effective date of the permit.

6.0 REPORTING

The facility has been assigned to the following EPD office for reporting, compliance and enforcement.

Georgia Environmental Protection Division
Southwest District Office
2024 Newton Road
Albany, Georgia 31701

6.1 E-Reporting

The permittee is required to electronically submit documents in accordance with 40 CFR Part 127.

7.0 REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

Not applicable

8.0 PERMIT EXPIRATION

The permit will expire on August 31, 2022.

9.0 PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

9.1 Comment Period

The Georgia Environmental Protection Division (EPD) proposes to issue a permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

Georgia Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

The permit application, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1152 East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. For additional information, you can contact 404-463-1511.

9.2 Public Comments

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address above, or via e-mail at EPDcomments@dnr.ga.gov within 30 days of the initiation of the public comment period. All comments received prior to that date will be considered in the formulation of final determinations regarding the application. The permit number should be placed on the top of the first page of comments to ensure that your comments will be forwarded to the appropriate staff.

9.3 Public Hearing

Any applicant, affected state or interstate agency, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) or any other interested agency, person or group of persons may request a public hearing with respect to an NPDES permit application if such request is filed within thirty (30) days following the date of the public notice for such application. Such request must indicate the interest of the party filing the request, the reasons why a hearing is requested, and those specific portions of the application or other NPDES form or information to be considered at the public hearing.

The Director shall hold a hearing if he determines that there is sufficient public interest in holding such a hearing. If a public hearing is held, notice of same shall be provided at least thirty (30) days in advance of the hearing date.

In the event that a public hearing is held, both oral and written comments will be accepted; however, for the accuracy of the record, written comments are encouraged. The Director or a designee reserves the right to fix reasonable limits on the time allowed for oral statements and such other procedural requirements, as deemed appropriate.

Following a public hearing, the Director, unless it is decided to deny the permit, may make such modifications in the terms and conditions of the proposed permit as may be appropriate and shall issue the permit.

If no public hearing is held, and, after review of the written comments received, the Director determines that a permit should be issued and that the determinations as set forth in the proposed permit are substantially unchanged, the permit will be issued and will become final in the absence of a request for a contested hearing. Notice of issuance or denial will be made available to all interested persons and those persons that submitted written comments to the Director on the proposed permit.

If no public hearing is held, but the Director determines, after a review of the written comments received, that a permit should be issued but that substantial changes in the proposed permit are warranted, public notice of the revised determinations will be given and written comments accepted in the same manner as the initial notice of application was given and written comments accepted pursuant to EPD Rules, Water Quality Control, subparagraph 391-3-6-.06(7)(b). The Director shall provide an opportunity for public hearing on the revised determinations. Such opportunity for public hearing and the issuance or denial of a permit thereafter shall be in accordance with the procedures as are set forth above.

9.4 Final Determination

At the time that any final permit decision is made, the Director shall issue a response to comments. The issued permit and responses to comments can be found at the following address:

<http://epd.georgia.gov/watershed-protection-branch-permit-and-public-comments-clearinghouse-0>

9.5 Contested Hearings

Any person who is aggrieved or adversely affected by the issuance or denial of a permit by the Director of EPD may petition the Director for a hearing if such petition is filed in the office of the Director within thirty (30) days from the date of notice of such permit issuance or denial. Such hearing shall be held in accordance with the EPD Rules, Water Quality Control, subparagraph 391-3-6-.01.

Petitions for a contested hearing must include the following:

1. The name and address of the petitioner;
2. The grounds under which petitioner alleges to be aggrieved or adversely affected by the issuance or denial of a permit;
3. The reason or reasons why petitioner takes issue with the action of the Director;
4. All other matters asserted by petitioner which are relevant to the action in question.

Appendix A

**US Department of the Air Force (Moody Air Force Base)
Permit No. GA0020001**

Moody AFB ammonia toxicity alternative (pH reduction) analysis						(9/28/18)		
Quarterly		DMR (Qtr)	DMR (Qtr)	NH3 limit	NH3 limit			
		2017	2016	pH=8	pH=7			
Jul-Sep	Summer	(1.4-1.8)	(0.9-1.2)	0.62	1.22			
Jan-Mar	Winter	(1.6-2.5)	(1.2-2.2)	2.19	2.85			
Oct-Dec	Fall	(2-3.1)	(1.1-1.9)	0.86	1.79			
Apr-Jun	Spring	(1.3-2.7)	(1.4-1.8)	0.76	1.4			
Semi-Annual		DMR	DMR	2017-NH3	2017-NH3 lir	2018-NH3	2018-NH3 limit	Current
		2017	2016	pH=8	pH=7	pH=8	pH=7	PH=8.5
May-Oct	Summer	(1.3-2)	(0.9-1.6)	0.49	1.14	0.54	1.14	0.24
Nov-Apr	Winter	(1.6-3.1)	(1.2-2.2)	0.78	1.8	0.95	1.8	0.41

Ammonia limit Table

Basic

Summer temp	bckg pH	Eff. pH	Bckg Nh3	30Q3	Q eff	Limit
28	7	8.5	0.13	0.0037	0.75	0.24
		8				0.49
		7.5				0.84
		7				1.13
		6.8				1.21

Winter temp	bckg pH	Eff. pH	Bckg Nh3	30Q3	Q eff	Limit
21	7	8.5	0.13	0.013	0.75	0.41
		8				0.78
		7.5				1.33
		7				1.79
		6.8				1.9

Rev1 backgrnd Nh3

Summer temp	bckg pH	Eff. pH	Bckg Nh3	30Q3	Q eff	Limit
28	7	8.5	0.07	0.0017	0.75	0.24
		8				0.49
		7.5				0.84
		7				1.13
		6.8				1.21

Winter temp	bckg pH	Eff. pH	Bckg Nh3	30Q3	Q eff	Limit
21	7	8.5	0.08	0.013	0.75	0.41
		8				0.78
		7.5				1.33
		7				1.79
		6.8				1.9

Rev2 backgrnd Nh3 & pH

Summer temp	bckg pH	Eff. pH	Bckg Nh3	30Q3	Q eff	Limit
28	6.4	8.5	0.07	0.0037	0.75	0.34
		8				0.54
		7.5				0.86
		7				1.14
		6.8				1.21

Winter temp	bckg pH	Eff. pH	Bckg Nh3	30Q3	Q eff	Limit
21	6.8	8.5	0.08	0.013	0.75	0.67
		8				0.93
		7.5				1.4
		7				1.8
		6.8				1.91

Ammonia limit Table

Basic-Revised 2018

Summer temp	bcfg pH	Eff. pH	Bcfg N _{h3}	30Q3	Q eff	Limit
28	7	8.5	0.13	0.0089	0.75	0.24
		8				0.49
		7.5				0.84
		7				1.13
		6.8				1.21

Winter temp	bcfg pH	Eff. pH	Bcfg N _{h3}	30Q3	Q eff	Limit
21	7	8.5	0.13	0.0125	0.75	0.4
		8				0.78
		7.5				1.33
		7				1.79
		6.8				1.9

Rev1 backgrnd N_{h3}

Summer temp	bcfg pH	Eff. pH	Bcfg N _{h3}	30Q3	Q eff	Limit
28	7	8.5	0.07	0.0089	0.75	0.24
		8				0.49
		7.5				0.84
		7				1.13
		6.8				1.21

Winter temp	bcfg pH	Eff. pH	Bcfg N _{h3}	30Q3	Q eff	Limit
21	7	8.5	0.08	0.0125	0.75	0.41
		8				0.78
		7.5				1.33
		7				1.79
		6.8				1.9

Rev2 backgrnd N_{h3} & pH

Summer temp	bcfg pH	Eff. pH	Bcfg N _{h3}	30Q3	Q eff	Limit
28	6.4	8.5	0.07	2.8988	0.75	0.34
		8				0.55
		7.5				0.86
		7				1.14
		6.8				1.21

Winter temp	bcfg pH	Eff. pH	Bcfg N _{h3}	30Q3	Q eff	Limit
21	6.3	8.5	0.05	0.0125	0.75	0.66
		8				0.94
		7.5				1.39
		7				1.8
		6.8				1.91

Annex 1a - Basin Table

Basin Quarterly

Season	temp	bdg pH	Eff. pH	Bdg NH3	3003	Q.eff	Link
Summer	27	7	8.5	0.13	0.0112	0.75	0.4
			8				0.78
			7.5				1.39
			7				1.79
Winter			6.8				1.9
	temp	bdg pH	Eff. pH	Bdg NH3	3003	Q.eff	
	15	7	8.5	0.13	0.0113	0.75	0.33
			8				0.61
		7.5				1.03	
		7				1.38	
		6.8				1.67	

Basin 1 background data

Season	temp	bdg pH	Eff. pH	Bdg NH3	3003	Q.eff	Link
Summer	27	7	8.5	0.07	0.0132	0.75	0.4
			8				0.78
			7.5				1.33
			7				1.79
Winter			6.8				1.9
	temp	bdg pH	Eff. pH	Bdg NH3	3003	Q.eff	
	15	7	8.5	0.03	0.0131	0.75	0.38
			8				0.61
		7.5				1.03	
		7				1.38	
		6.8				1.67	

Basin 2 background data

Season	temp	bdg pH	Eff. pH	Bdg NH3	3003	Q.eff	Link
Summer	27	7	8.5	0.07	0.0133	0.75	0.54
			8				0.85
			7.5				1.35
			7				1.79
Winter			6.8				1.91
	temp	bdg pH	Eff. pH	Bdg NH3	3003	Q.eff	
	15	7	8.5	0.03	0.0111	0.75	0.56
			8				0.76
		7.5				1.09	
		7				1.4	
		6.8				1.68	

Basin 3 background data

Season	temp	bdg pH	Eff. pH	Bdg NH3	3003	Q.eff	Link
Summer	27	7	8.5	0.03	0.0111	0.75	0.56
			8				0.76
			7.5				1.09
			7				1.4
Winter			6.8				1.68
	temp	bdg pH	Eff. pH	Bdg NH3	3003	Q.eff	
	15	7	8.5	0.03	0.0111	0.75	0.56
			8				0.76
		7.5				1.09	
		7				1.4	
		6.8				1.68	