



MARYLAND DEPARTMENT OF THE ENVIRONMENT
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Larry Hogan
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Lieutenant Governor

GROUND WATER DISCHARGE PERMIT

Permit Number: 14-DP-3811
Effective Date: September 1, 2015
Expiration Date: August 31, 2020

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, the Department of the Environment, hereinafter referred to as "the Department," hereby authorizes:

ACG Maryland, LLC
301 Felspar Way
Gary, North Carolina 27518

hereinafter referred to as "Permittee", to discharge treated wastewater to a sand lined trench/ drip dispersal application onsite system as described herein, from:

Beaver Run Mobile Home Park
3658 Karen Circle
Linkwood, Maryland 21835

to ground waters of the State in accordance with the following special and general conditions, including the attached maps made a part hereof.



I. Special Conditions

A. Waste and Wastewater Limitations

1. The Permittee is authorized to discharge treated wastewater via a sand lined trench/ drip dispersal application system as outlined in the attached Map A and Map B. All permit conditions included in this permit become effective when the wastewater disposal system is in operation. Prior to the system operation, the Permittee shall inform the Department about the starting date of the sand lined trench/ drip dispersal application system operation. The maximum daily flow from 45 mobile homes in areas associated with prior constructions of Phases 3, 4 and 5 to the sand lined trench/ drip dispersal application system shall be limited to 13,500 gallons.
2. Prior to discharge to the sand lined trench/ drip dispersal application system, all wastewaters shall be treated to produce an effluent which does not exceed the following maximum limitations.

Parameter Code (STORET)	Parameter Description	Effluent Limitations		Concentration	Monitoring Frequency	Sample Type
		Loading				
		Yearly Average	Monthly Average			
00310	BOD ₅	N/A	N/A	30 mg/l	Weekly	Grab (1)
00530	Suspended Solids	N/A	N/A	30 mg/l	Weekly	Grab (1)
50050	Flow	N/A	6,750	N/A	Continuous	Recorded
00600	Total Nitrogen ⁽¹⁾	N/A	N/A	8 mg/l	Weekly	

- (1) Permit modification is required for any future expansion in Phases 3, 4 and 5 mobile homes of this facility. Such a modification shall include a yearly nitrogen load limitation to groundwater of no more than 164 lbs/year at the soil absorption trench system. The 164 lbs/year nitrogen loading requirement was determined based on 6,750 gpd average daily flow and 8 mg/l effluent nitrogen concentration. Total nitrogen is defined as the sum of Nitrate plus Nitrite (N+N) and Total Kjeldahl Nitrogen (TKN). The concentration of each constituent shall also be reported. This nitrogen loading cap is not an assigned allocation for discharge to the Bay via groundwater because other natural processes reduce the amount of nitrogen reaching the Bay from this system. The factsheet of this permit includes calculations for estimating the amount of nitrogen delivered to the nearby surface water from this system.
- (2) Grab samples shall be obtained from the effluent line just prior to the sand lined trench/ drip dispersal application system.

3. Groundwater samples taken from four (4) groundwater monitoring wells per requirements of Section I.D.2.b. shall be monitored by the permittee according to the following limitations:

- a. The discharge of the wastewater authorized in this permit shall not cause groundwater quality to exceed the limitations listed below, as measured in the designated down gradient monitoring wells (MW 2 and MW 4 shown on Map B). The Table below includes limitations based on the drinking water standards for Nitrite, Total Dissolved Solids, Chloride, and Fecal Coliform.

Parameter Code (STORET)	Parameter Description	Concentration	Monitoring Frequency	Sample Type
		Yearly Average		
00400	pH	(1)	Once every 3 months	Grab
00600	Total Nitrogen (TKN+NO ₂ +NO ₃)	(1)	Once every 3 months	Grab
00615	NO ₂ , Nitrite Nitrogen	1 mg/l	Once every 3 months	Grab
00620	NO ₃ , Nitrate Nitrogen	(1)	Once every 3 months	Grab
00625	TKN	(1)	Once every 3 months	Grab
00650	PO ₄ , Total Phosphate	(1)	Once every 3 months	Grab
00940	Chloride	250 mg/l	Once every 3 months	Grab
70295	Total Dissolved Solids	500 mg/l	Once every 3 months	Grab
74055	Fecal Coliform	Non-Detect	Once every 3 months	Grab

(1) Monitoring required without limitation.

(2) For any reported exceedance at the downgradient well, if the average groundwater quality in either background upgradient well (MW 1 and MW 3) or background downgradient wells (MW 2 and MW 4) exceeds the groundwater discharge standards, the Department may evaluate whether a violation exists on a case by a case basis.

(3) The groundwater quality limitations are not applicable to the upgradient wells MW 1 and MW 3 as shown on Map B.

- b. For other parameters not included in (a) above, the discharge of the treated wastewater, which is authorized in this permit, shall not cause an exceedance of the groundwater quality standards adopted by the Department of the Environment in COMAR 26.04.01, and 26.08.02.09.C. For any exceedance, if the average groundwater quality in the background upgradient wells exceeds the groundwater discharge standards, the Department may evaluate whether a violation exists on a case by a case basis.

B. Effluent and Groundwater Monitoring

I. Measurements and Reporting Requirements

a. Discharge Monitoring Reports*

Discharge monitoring results obtained each month shall be summarized on a Discharge Monitoring Report form (EPA No. 3320-1). Reports shall be submitted to the Department postmarked no later than the 28th day of the month following the reporting month. One signed copy of these reports shall be submitted to:

Attention: Discharge Monitoring Reports
WMA – Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard, STE-425
Baltimore, MD.21230-1708

b. Monthly Operating Reports*

The permittee shall submit monthly operating reports on a form supplied or approved by the Inspection and Compliance Program. Reports shall be submitted to the Inspection and Compliance Program postmarked no later than 28th day of the month following the reporting month.

c. Groundwater Monitoring Report (GMR)*

Groundwater monitoring data required by this permit under I.A.3 shall be summarized on a Discharge Monitoring report form supplied by the Compliance Program. The yearly report shall be submitted on or before the 28th day of the month following the end of each calendar year to the address shown on I.B.1a.above. The permittee shall report any violations of the groundwater quality standards in accordance with General Condition II.A.3.

* The Permittee has an option to submit the reports electronically via NetDMR.

2. Definitions

- a. The monthly average shall be determined by the summation of all the required measurements divided by the number of days during the month when the measurements were made. The only exception is flow rate which shall be divided by the total number of days of each month. The yearly average flow shall be the summation of monthly average flow divided by 12.
- b. A grab sample is an individual sample collected in less than 15 minutes.

3. Analysis Methods

The analytical methods used shall conform to test procedures for the analysis of pollutants as identified in "Guideline Establishing Test Procedures for the Analysis of Pollutants" (40 CFR 136), and published in the Federal Register, Volume 41, No. 232-Wednesday, December 1, 1976 or as amended.

4. Monitoring Equipment Maintenance

The Permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation to insure accuracy of measurements.

5. Data Recording Requirements

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;
- b. The dates the analyses were performed;
- c. The person (s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.

6. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation and original recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years. This period may be extended during the course of litigation, or when so requested by the Department.

C. Land Application Requirements and Limitations

1. The Permittee shall install the sand lined trench/ drip dispersal application system in the Trench Areas #4 and #5 shown on Map B.

2. Operation of the sand lined trench/ drip dispersal application system shall not cause surface runoff and/or persistent ponding.

3. Weekly logs of the response of each disposal area to the application of treated effluent shall be kept by the plant operator. Subjects to be included in the log are:

- a. Area(s) or section(s) under irrigation.
- b. Application rates (hourly and weekly).
- c. Effect of irrigation on vegetation.
- d. Instances of ponding
- e. Weather conditions.

The log shall be kept at the waste treatment facility and be available for inspection by the Department personnel upon request.

5. The Permittee shall develop a "Manual of Operation and Maintenance". The manual shall clearly state how the treatment and disposal facilities be managed to insure satisfactory operation. The manual shall include:
 - a. Operating and maintenance procedures involving the sewage treatment facility and the sand lined trench/ drip dispersal application system;
 - b. Monitoring and sampling procedures as required in this permit.
 - c. Personnel requirement.

The manual shall be submitted to the Department for approval three (3) months after the issuance date of the Department's Sewerage Construction Permit.

6. At no time shall drip irrigation be conducted on areas with bare unvegetated soils except during seeding periods.

D. Monitoring Requirements of the Land Application System

1. The wastewater treatment plant and the sand lined trench/ drip dispersal application system shall be operated by a Maryland State Certified Operator in accordance with the provisions of COMAR 26.06.01 and consistent with the approved operation and maintenance manual. In order to ensure that the Operator is proficient in the operation of the sand lined trench/ drip dispersal application system, the operator shall take required training courses at a frequency approved by the MD Board of Waterworks and Waste Systems Operator. This training shall be specific to the operation of the wastewater system in addition to any other training requirements of the operator's class.
2. The Permittee is responsible for the installation, operation and maintenance of 4 ground water monitoring wells at the sand lined trench/ drip dispersal application site shown on Map B. These wells are to be used for obtaining grab or pumped samples of the ground water. Locations of the monitoring wells are shown on map B.
 - a. The monitoring wells shall be installed according to the following specifications:
 - (1) Installation of the wells shall be by a licensed Maryland Well Driller in accordance with the following:
 - i. Schedule 40 P.V.C. or better quality well casing, 4-inch diameter shall be used.
 - ii. Commercial well screen or neatly slotted well casing, approved by the Department shall be used in conjunction with a gravel pack.