

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT  
WATER BUREAU**

**GROUNDWATER DISCHARGE GENERAL PERMIT  
2215-10-1**

This general permit is issued under the provisions of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, being Sections 324.3101 through 324.3119 of the Compiled Laws of Michigan, and the Administrative Rules promulgated thereunder. This general permit does not relieve the discharger from obtaining and complying with any other permits required under local, state, or federal law.

<b>Authorization:</b>	<b>Rule 2215</b>
<b>Type of Operation:</b>	<b>Various</b>
<b>Discharge Category:</b>	<b>Above Ground Sewage Disposal Systems (Discharge is less than or equal to 10,000 gallons per day daily maximum, 6,000 gallons per day annual average)</b>
<b>Type of Wastewater:</b>	<b>Sanitary Sewage Only</b>
<b>Method of Disposal:</b>	<b>Groundwater or Ground</b>
<b>Issue Date:</b>	<b>April 1, 2010</b>
<b>Expiration Date:</b>	<b>April 1, 2015</b>
<b>Authorization to Discharge</b> in accordance with the limitations and conditions as set forth in this general permit as authorized pursuant to <b>R 323.2215</b> .	

The Michigan Department of Natural Resources and Environment (Department) has determined that facilities with above ground sewage disposal systems where the daily maximum discharge less than or equal to 10,000 gallons per day and the average annual discharge is less than or equal to 6,000 gallons per day where treatment and disposal facilities are constructed, operated and maintained in accordance with plans and specifications approved by the Department, are appropriately and adequately controlled by a general permit. Pursuant to this general permit, a discharge may begin as soon as the conditions of the general permit have been met.

Facilities that were granted a general permit for sanitary sewage prior to April 1, 2010 will continue to have coverage for discharges up to 10,000 gallons per day as an annual average and 20,000 gallons per day as a daily maximum.

In accordance with Section 324.3122 of the Michigan Act, the permittee shall make payment of an annual permit fee to the Department for each December 15 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by March 1 for notices mailed by January 15. The fee is due no later than 45 days after receiving

the notice for notices mailed after January 15. Fees paid in accordance with the Michigan Act are not refundable.

This general permit supersedes all Permits and Exemptions issued by the Department to facilities with the same or substantially similar types of operation.

All construction, maintenance, operations, and monitoring of this facility must comply with the conditions set forth in this general permit by the Department. Failure to comply with the terms and provisions of this general permit may result in civil and/or criminal penalties as provided in Part 31.

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James R. Janiczek, Chief  
Groundwater Permits Unit  
Water Bureau  
Department of Natural Resources and Environment

**A. Authorization Conditions**

1. No discharge can occur until the discharger requests a certificate of coverage on a form approved by the Department and obtains a certificate of coverage authorizing the discharge.
2. Prior to the initiation of construction of the wastewater treatment and disposal facilities, the discharger shall submit plans and specifications to the Department that demonstrate the discharge will meet the requirements of R 323.2204 and receive notification from the Department that this condition has been met.
3. Subsequent to construction of wastewater treatment and disposal facilities constructed under this general permit, the discharger shall obtain certification by an engineer licensed under Act No.299 of the Public Acts of 1980, as amended, being § 339.101 et seq. of the Michigan Compiled Laws, and known as the Occupational Code, that the wastewater treatment and disposal facilities were constructed in accordance with the approved plans and specifications. The certification shall be available for inspection by the Department unless this requirement is waived at the time that the plans and specifications are approved.
4. The discharge of treated wastewater shall only be on property owned by the discharger unless the discharger has written authorization from the landowner for such a discharge.
5. The discharger shall maintain on site a log detailing the weekly discharge volume of sanitary sewage. The log shall be available for inspection and submitted to the Department upon request. Records shall be retained for a period of three years unless otherwise required by the Department. The Department may approve alternative monitoring frequencies.
6. The discharger shall annually submit to the Department district office in January a summary of the average annual discharge, calculated weekly, on a form provided by the Department.
7. The discharger shall maintain on site an Operation and Maintenance Manual. The O & M Manual shall be available for inspection and submitted to the Department upon request.
8. The lagoon liner shall meet one of the following criteria:
  - a) A natural soil barrier shall meet all of the following requirements:
    - (i) The natural soil shall be free of sand lenses and not less than 10 feet thick.
    - (ii) The soil shall have a saturated vertical hydraulic conductivity of not more than  $1 \times 10^{-7}$  centimeters per second. The hydraulic conductivity of the soil shall be determined using ASTM method D5084-90, which is adopted by reference in R 323.2238, as modified by the department in R 299.4920. If flexible wall permeameters are used, then confining pressures shall be equivalent to the minimum pressure expected after the lagoon is placed in service.
    - (iii) For abovegrade construction or if the lagoon liner base does not extend to the ground surface, perimeter dike walls shall be constructed using a soil that meets the criteria of subdivision (b)(ii) and (iii) of this subrule and keyed into the natural soil base.
    - (iv) Alternative test and investigative methods may be approved by the department.

- (v) An engineer licensed under Act No. 299 of the Public Acts of 1980, as amended, being §339.101 et seq. of the Michigan Compiled Laws, and known as the occupational code, shall certify to the department, through spatially random testing and measurements, that the requirements of this rule were met during installation of the natural soil base of the composite liner. At least 1 soil test shall be conducted and an additional test shall be conducted for every 5,000 cubic yards placed and when the texture of the soil changes.
- b) A compacted soil liner shall meet all of the following requirements:
- (i) The compacted soil liner shall have a minimum thickness of 2 feet.
  - (ii) The relationship between hydraulic conductivity, moisture, and density shall be established with laboratory testing for the source of clay that will serve as the compacted clay portion of the composite liner. The relationship shall be determined using either the modified proctor test, ASTM D1557-91, which is adopted by reference in R 323.2238, or the standard proctor test, ASTM D698-91, which is adopted by reference in R 323.2238.
  - (iii) Each lift shall be thoroughly and uniformly compacted to achieve a hydraulic conductivity of not more than  $1 \times 10^{-7}$  centimeters per second based upon the density and moisture content determined under subdivision(b)(ii) of this subrule. The hydraulic conductivity of the soil shall be determined using ASTM method D5084-90, which is adopted by reference in R 323.2238, as modified by the department in R 299.4920. If flexible wall permeameters are used, then confining pressures shall be equivalent to the minimum pressure expected after the lagoon is placed in service. Soil shall not be compacted at a moisture content that is less than optimum and shall not be compacted to less than either of the following densities:
    - (A) Ninety percent of the maximum dry density, as determined by the modified proctor test, ASTM D1557-91, which is adopted by reference in R 323.2238.
    - (B) Ninety-five percent of the maximum dry density, as determined by the standard proctor test, ASTM D698-91, which is adopted by reference in R 323.2238.
  - (iv) The soil shall be placed so that each lift shall not be more than 6 inches after compaction.
  - (v) For abovegrade construction or if the lagoon liner base does not extend to the ground surface, perimeter dike walls shall be constructed using a soil that meets the criteria of paragraphs (ii) and (iii) of this subdivision and keyed into the compacted soil base.
  - (vi) Alternative test and investigative methods may be approved by the department.
  - (vii) An engineer licensed under Act No. 299 of the Public Acts of 1980, as amended, being §339.101 et seq. of the Michigan Compiled Laws, and known as the occupational code, shall certify to the department, through spatially random testing and measurements, that the requirements of this rule were met during installation of the compacted soil base of the composite liner. At least 1 soil test of the compacted soil shall be conducted and an additional test shall be conducted for every 5,000 cubic yards placed and when the texture of the soil changes.
- c) A Flexible Membrane Liner (FML) shall meet all of the following requirements:
- (i) The liner shall be a minimum of 40 mils thick polyvinyl chloride (PVC) or 60 mils thick high-density polyethylene (HDPE). The discharger may utilize other materials and thickness if the department determines before installation, that the proposed material and thickness are sufficient to ensure that the integrity of the

- liner is not compromised due to contact with the soil base, wastewater, climatic conditions, or the stress of installation or daily operation.
- (ii) The FML shall be covered immediately after placement by an adequate thickness of soil or other material approved by the department to prevent puncture by equipment and to protect the exposed portion of the FML from degradation by ultraviolet light.
  - (iii) The FML shall be placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent slope failure and failure of the liner due to settlement, compression, or uplift.
  - (iv) The FML shall be installed to cover the entire area of earth material that would be in contact with the treated or stored effluent.
  - (v) An FML shall be placed on slopes that are not more than 25%, unless the owner and operator can demonstrate slope stability for greater slopes.
  - (vi) The FML shall be seamed according to the manufacturer's specifications to prevent leakage at the seams. The field seams of an FML shall meet all of the following requirements:
    - (A) Seaming shall be done in accordance with the minimum industry standards. The shear strength and peel strength of the seams must be adequate to maintain the integrity of the seam under all operating conditions.
    - (B) Horizontal seams shall not occur on side slopes.
    - (C) Horizontal seams shall be located not less than 5 feet from the toe of the slope.
    - (D) Field seams shall be installed parallel to the line of maximum slope.
    - (E) The seam area shall be free of moisture, dust, dirt, debris, and foreign material of any kind before seaming.
    - (F) Field seaming shall not be done in weather conditions that would adversely affect the integrity of the seam.
  - (vii) The FML shall not be laid during a precipitation event and shall be covered immediately by a flexible membrane liner or by another protective cover until the flexible membrane liner can be laid directly over the FML.
  - (viii) An engineer licensed under Act No. 299 of the Public Acts of 1980, as amended, being §339.101 et seq. of the Michigan Compiled Laws, and known as the occupational code, shall certify to the department that all necessary quality assurance testing was conducted to ensure that the FML was installed to meet the conditions of these rules.
- d) The department may approve a storage or treatment lagoon liner that does not meet 1 or more of the requirements of this rule if the applicant demonstrates that the requirements of either of the following provisions are met:
- (i) The lagoon holds only wastewater that meets the standards of R 323.2222.
  - (ii) The existing system or the proposed design provides equal or greater environmental protection to protection provided by a lagoon liner constructed according to this rule. For an existing system, the demonstration can be made by either of the following:
    - (A) Through monitoring of the groundwater and a demonstration approved by the department that the lagoon has not impacted, and is not likely to impact, groundwater above the standards described in R 323.2222.
- e) The lagoon system shall be fenced and warning signs placed around its perimeter.

- f) Problems that threaten lagoon dike integrity (for example, significant erosion or animal burrowing) shall be reported immediately to the Department. Vegetation shall be kept groomed to discourage animal burrowing.
  - g) Adequate freeboard shall be maintained to prevent holding pond overtopping.
  - h) Effluent shall not be irrigated within 100 feet of property lines unless the Department specifically approves a lesser distance. Irrigation shall be stopped immediately if aerosol drift is detected beyond the isolation distance specified.
  - i) Irrigation shall be to vegetated areas and between May 1 and October 15.
  - j) Irrigated crops for human consumption grown shall be limited to those requiring processing prior to consumption.
  - k) Dairy animals shall not be allowed to graze on fields until 30 days after the application of effluent.
9. All treatment or control facilities or systems installed or used to achieve compliance with this general permit shall be maintained in good working order and operated as efficiently as possible.

**B. Transfer of Ownership** – In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall submit to the Department 30 days prior to the actual transfer of ownership or control a written agreement between the current permittee and the new permittee containing: 1) the legal name and address of the new owner; 2) a specific date for the effective transfer of permit responsibility, coverage and liability; and 3) a certification of the continuity of or any changes in operations, wastewater discharge, or wastewater treatment.

If the new permittee is proposing changes in operations, wastewater discharge, or wastewater treatment, the Department may propose modification of this permit in accordance with applicable laws and rules.

**C. Change or Modification of Treatment or Discharge** – If at any time the discharge fails to meet a qualifying condition of this general permit, the general permit and any specific certificate of coverage no longer applies, and the discharger must obtain an appropriate authorization.

**D. By-Passing** - Any diversion from or bypass of treatment facilities is prohibited, except where unavoidable to prevent loss of life, personal injury, or severe property damage. The discharger shall immediately notify the Department of any such occurrence by telephone at 1-800-292-4706. Such notice shall be supplemented by a written report within ten days detailing the cause of such diversion or bypass and the corrective actions taken to minimize adverse impact and eliminate the need for future diversion or bypass.

**E. Cessation of Discharge-Related Activities** - If all or any portion of the authorized treatment facilities and discharge areas are intended to be eliminated, the discharger shall comply with the requirements of R 323.2226.

**F. Reporting Requirements** – Except as provided in Section D, all notices, reports, and other submissions required by and pursuant to this general permit shall be submitted to:

Groundwater Permits Unit  
Water Bureau  
Department of Natural Resources and Environment  
P.O. Box 30273  
Lansing, Michigan 48909-8130 Telephone: 517-373-8148

**G. Request for Discharge of Water Treatment Additives to Groundwater**

In the event a permittee proposes to discharge water treatment additives (WTAs) to groundwater, the permittee shall submit a request to discharge the WTAs to the Department for approval. Water treatment additives include such chemicals as herbicides used kill weeds and grasses as part of lagoon maintenance. Such requests shall be sent to the Department of Natural Resources and Environment, Water Bureau, Surface Water Assessment Section, P.O. Box 30273, Lansing, Michigan 48909, with a copy to the Groundwater Permits Unit. Written approval from the Department to discharge such WTAs at specified levels shall be obtained prior to discharge by the permittee. Failure to obtain approval prior to discharging any WTA is a violation of this permit. Additional monitoring and reporting may be required as a condition for the approval to discharge the WTA.

A request to discharge WTAs to groundwater shall include all of the following:

1. Product information.
  - Name of the product(s) used.
  - Material Safety Data Sheet for each product.
  - Product function (e.g., microbiocide, flocculant, etc.).
  - Specific gravity if the product is a liquid.
  - Annual product use rate, either gallons per year for a liquid or pounds per year for a solid.
2. Ingredient information per each product.
  - Name of each ingredient
  - CAS # for each ingredient
  - Fractional content by weight for each ingredient
3. The monitoring point from which the product is to be discharged.
4. The type of removal treatment, if any, that the WTA receives prior to discharge.
5. Relevant mammalian toxicity studies for the product or all of its constituents (if product toxicity data are submitted, the applicant must also provide information showing that the product tested has the same composition as the product listed under Item a). Preferred studies are subchronic or chronic in duration, use the oral route of exposure, examine a wide array of endpoints and identify a no-observable- adverse-effect-level. Applicants are strongly encouraged to provide the preferred data. If preferred data are not available, then the minimum information needed is an oral rat LD<sub>50</sub> study. In addition, an environmental fate analysis that predicts the mobility of the product/ingredients and their potential to migrate to groundwater may be provided.
6. If the discharge of the WTA to groundwater is within 1,000 feet of a surface water body, then the following information must also be provided:
  - a) The results of a 48-hour LC<sub>50</sub> or EC<sub>50</sub> toxicity test of the product for a North American freshwater planktonic crustacean (either *Ceriodaphnia sp.*, *Daphnia sp.*, or *Simocephalus sp.*).

- b) The results of a toxicity test of the product for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2) of the Water Quality Standards.

Prior to submitting the request, the permittee may contact the Surface Water Assessment Section at 517-335-6969 or check the MDEQ Internet Web page to determine if the Department has the product toxicity data required by Item f and Item g above. If the Department has the data, the permittee will not need to submit aquatic toxicity information.

#### **H. Residuals Management Program (RMP) for Land Application of Biosolids**

The permittee is authorized to land apply bulk biosolids or prepare bulk biosolids for land application in accordance with the requirements established in R323.2401 through R323.2418 of the Michigan Administrative Code (Part 24 Rules). The permittee shall develop and implement an RMP to assure land applied bulk biosolids comply with the requirements of the Part 24 Rules. Incineration, landfilling and other residual disposal activities shall be conducted in accordance with the appropriate statutory requirements.

##### **1. Program Development**

On or before 180 days prior to the land application of biosolids the permittee shall develop an RMP and submit the information required for implementation to the Department for approval. At a minimum, the program submittal shall include:

- a) a description of the type and size of facility generating the biosolids;
- b) a description of the biosolids treatment processes including the volume of biosolids generated from each process;
- c) storage volume provided, if applicable;
- d) transportation methods and spill prevention plan;
- e) a description of the land application method;
- f) a listing of the required information on all land application sites, information on initial application notifications required by R323.2408 and class B biosolids site restriction notifications, if applicable, as specified in R323.2414(3)(f);
- g) a land application plan which shows compliance with the applicable management requirements identified in R323.2410 and the loading rates and limitations as specified in R323.2408, R323.2409 and R323.2417;
- h) a description of the pathogen reduction method used to comply with R323.2411, R323.2414 and R323.2418;
- i) a description of the vector attraction reduction method used to comply with R323.2415; and
- j) information on monitoring program, monitoring frequencies pursuant to R323.2412, and one year of records representing the volume and concentrations of pollutants in the biosolids.

##### **2. RMP Implementation**

The permittee shall implement the approved RMP immediately upon written approval from the Department. Upon RMP approval, the permittee may land apply bulk biosolids, and the approved RMP becomes an enforceable requirement of this permit.

3. Modifications to the Approved RMP

The permittee shall submit proposed modifications to its RMP to the Department for approval. The approved modification shall become effective upon the date of approval. Upon written notification, the Department may impose additional requirements and/or limitations to the approved RMP as necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.

4. Recordkeeping

Records required by R323.2413 shall be kept for a minimum of five years. However, the records documenting cumulative loading for sites subject to cumulative pollutant loading rates shall be kept as long as the site receives biosolids.

5. Annual Report

The permittee shall report the number of dry tons of biosolids generated that were applied to the land in the State of Michigan in the state fiscal year (October 1 through September 30). The annual report shall include information required in R323.2413(2)(h) and R323.2413 (3) to (8), except R323.2413 (6)(b), (7)(b), and (8)(b). The report shall be submitted to the Department on or before October 30 of each year.

- I. Spill Notification** – The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwater of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Department at the number indicated in the certificate of coverage, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

- J. Duty to Comply** – All discharges authorized herein shall be consistent with the terms and conditions of this permit and the facility's certificate of coverage (COC). The discharge of any pollutant identified in this permit and/or the facility's COC more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit and the facility's COC. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit or the facility's COC constitutes a violation of the Michigan Act and constitutes grounds for enforcement action; for COC termination, revocation and reissuance, or modification; or denial of an application for permit or COC renewal.

- K. Operator Certification** – The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Sections 3110 and 4104 of the Michigan Act.

**L. Power Failures**

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

1. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
2. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

**M. Waste Treatment Residues** – Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit or other pollutants) removed from or resulting from treatment or control of wastewaters, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the Michigan Act, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

**N. Right of Entry**

The permittee shall allow the Department, any agent appointed by the Department, upon the presentation of credentials:

1. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
2. 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 process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

**O. Availability of Reports** – Except for data determined to be confidential under Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), 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. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

**P. Civil and Criminal Liability** – Except as provided in permit conditions on "Bypass", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

**Q. 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.

**R. 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 violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits or approvals as may be required by law.