Anaerobic Digesters – Part 31 Permitting and CAFOs

Frequently Asked Questions (FAQ)

INTRODUCTION

Some farms in Michigan are investigating options to build and/or utilize anaerobic digesters as partial treatment of farm production area waste, which includes manure. The Department of Environment, Great Lakes, and Energy (EGLE) Water Resources Division (WRD) supports the use of anaerobic digesters for the partial treatment of farm production area waste. The WRD, in compliance with the provisions of the federal Clean Water Act, implements the National Pollutant Discharge Elimination System (NPDES) permits for Concentrated Animal Feeding Operations (CAFOs) under Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The management of CAFO waste is regulated and tracked under these permits.

The Part 31 2020 CAFO General Permit is currently being contested. As a result, the 2020 CAFO General Permit is stayed, and the 2015 General Permit, though applicable, cannot be modified to include greater allowances for the operation of digesters to meet this growing need. Many of the digesters currently being proposed to the WRD do not fit the current treatment system language included in the Part 31 2015 CAFO General Permit. Therefore, EGLE's WRD is working to issue CAFO Individual Permits under Part 31.

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1. **How does a farm inform the WRD we are going to host an anaerobic digester?**
   If a Part 31 CAFO permit or Certificate of Coverage (COC) is in effect or extended, an *NPDES Concentrated Animal Feeding Operation (CAFO) Permit or Authorization Major Modification Request* must be submitted in MiEnviro. If it is a new farm the farm can notify EGLE by submittal of a *National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feeding Operation Application Form (CAFO)* in MiEnviro. MiEnviro can be accessed at https://mienviro.michigan.gov/ncore/external/home. The permittee's Comprehensive Nutrient Management Plan (CNMP) must be updated. An operation and maintenance plan for the digester will be required.

2. **Do I need a different Part 31 permit to have a digester at my farm?**
   The 2015 CAFO General Permit, Part I.C.11. Treatment System, and all CAFO individual permits allow for digesters. If the proposed digester is for single farm use only, the farm will not need different permit coverage. However, notification and details on the digester still need to be submitted.
   Notification to the WRD will need to be submitted via MiEnviro. If a farm has a permit or COC, an *NPDES Concentrated Animal Feeding Operation (CAFO) Permit or Authorization Major Modification Request* must be submitted in MiEnviro. If it is a new farm, the farm can notify EGLE by submittal of a *National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feeding Operation Application Form (CAFO)* in MiEnviro. MiEnviro can be accessed at https://mienviro.michigan.gov/ncore/external/home.

3. **If I am planning or have a digester at my farm, can I accept waste from other Animal Feeding Operations (AFO) or CAFOs?**
   Yes. However, operation of a waste treatment system that accepts waste from other Animal Feeding Operations (AFOs) or CAFOs will require a Part 31 CAFO Individual Permit. At a minimum, the CAFO Individual Permit will include requirements for 1) storage structures associated with the digester to be built to the appropriate size and standards; 2) waste treatment agreements between the farm and digester; 3) additional reporting; and 4) contingency and redundancy plans for the digester. The permittee's CNMP must be updated. An operation and maintenance plan for the digester will be required.
   To request CAFO Individual Permit coverage the farm must submit an *NPDES Concentrated Animal Feeding Operation (CAFO) Permit or Authorization Major Modification Request* in MiEnviro if their current permit is in effect or extended. If it is a new CAFO, the farm can notify EGLE by submittal of a National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feed Operation Application Form (CAFO) in MiEnviro. MiEnviro can be accessed at https://mienviro.michigan.gov/ncore/external/home.

4. **How much storage will be required at a digester?**
   If there are adequate waste treatment agreements between the contributing farm(s) and digester, the WRD will not require the digester to have dedicated six months of storage. The WRD will require seven days of daily input storage on the front end of the digester and the full volume of the digester on the back end. Alternative storage volumes can be proposed to the WRD and should be based on contingency and redundancy plans. Note that the storage used as part of the anaerobic digester treatment system is not considered part of a farm's overall operational storage capacity.

5. **Why is a waste treatment agreement necessary?**
   A waste treatment agreement is necessary because CAFO waste is regulated under Part 31. Digestion is not considered manifesting if the digestate is going back to the contributing farm(s) for land application. A waste treatment agreement will be a requirement of a CAFO Individual Permit for farms with digesters. The waste treatment agreement will ensure the host farm has access to adequate storage for the waste they are accepting. A waste treatment agreement, at a minimum, must provide details outlining how the CAFO waste is to be treated and stored/handled. The agreement will include how much CAFO waste will be treated, who is responsible during the transport and treatment of the CAFO waste, provisions if treatment ceases, details and amounts of CAFO waste not returning to the originating farm, and waste utilization plans for the returned material. For waste not returning to the originating farm, manifesting recordkeeping must be completed in accordance with permit requirements.

6. **What do contingency and redundancy plans entail?**
   The contingency plan must address the actions to be taken by the permittee if the digester is bypassed for any reason. The redundancy plan must address maintenance of equipment in case the digester needs repair or if there is a loss of electrical power. Plans must include communication to those utilizing the system, transportation, etc. and notification to the WRD.

7. **If the digester is owned by a third party, is a separate Part 31 permit from the WRD needed for the farm utilizing, but not hosting, the digester?**
   No. Utilizing a digester for waste treatment does not require the farm to obtain a different permit if the digestate is utilized or disposed of under the farm's existing permit, authorization, or exemption for CAFO waste.

8. **If I have a COC under the Part 31 CAFO General Permit, can I send my CAFO waste to a digester owned and/or operated by someone else and then receive the digestate back?** Yes. A farm can accept partially treated waste as long as they do not receive a higher portion of digestate than the amount of waste sent to the digester. If a farm under a COC under the Part 31 CAFO General Permit wishes to receive a higher proportion of digestate than the waste sent to the digester they will need to submit an *NPDES Concentrated Animal Feeding Operation (CAFO) Permit or Authorization Major Modification Request* in MiEnviro. If it is a new CAFO, the farm can

notify EGLE by submittal of a National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feeding Operation Application Form (CAFO) in MiEnviro. MiEnviro can be accessed at https://mienviro.michigan.gov/ncore/external/home.

9. **If multiple farms send waste to a single digester, are the locations considered one location?**
   No. A digester is considered treatment, not storage, and does not combine facilities for the purposes of CAFO permitting.

10. **Can waste be commingled in a digester then sent back to contributing CAFOs for land application?**
    Yes. A CAFO can take digestate back for land application following the requirements of their permit, approved CNMP, and waste treatment agreement. If the digestate is land applied, the waste must be tested, and land applied per the permit requirements for CAFO waste.

11. **If a CAFO increases animal numbers over the Part 22, Groundwater Quality (Part 22 Rules) threshold and installs a digester, will a Part 31 CAFO Individual Permit with groundwater discharge authorization be needed?**
    Yes. Any farm that houses animals over the threshold of the Part 22 Rules, promulgated pursuant to Part 31, Water Resources Protection, of the NREPA, will need a groundwater permit, regardless of the presence of treatment. Please refer to the Part 22 Rules which can be accessed on EGLE's Specific Groundwater Discharge Statutes and Rules Web page.

12. **If a third party owns and operates the digester on my farm, who is responsible for WRD permit coverage?**
    The WRD will include both entities as co-permittees under a single CAFO Individual Permit. The CAFO and the third party could have their own agreements to determine which entity is responsible for compliance with portions of the CAFO Individual Permit. Those agreements will be between the parties and not need approval from the WRD.
    To request CAFO Individual Permit coverage the farm in conjunction with the third party must submit an *NPDES Concentrated Animal Feeding Operation (CAFO) Permit or Authorization Major Modification Request* in MiEnviro if the current permit is in effect or extended. If it is a new CAFO, the farm or third party can notify EGLE by submittal of a National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feed Operation Application Form (CAFO) in MiEnviro. MiEnviro can be accessed at https://mienviro.michigan.gov/ncore/external/home.

13. **Is Part 31 permit coverage needed if I am a digester not working with a host farm?**
    Yes, the WRD will assess the application for permitting requirements. The digester should submit a *Groundwater Discharge Permit Application Site Specific Authorization: Rule 323.2210(y)* in MiEnviro. MiEnviro can be accessed at https://mienviro.michigan.gov/ncore/external/home.

14. Do I need any other permits from EGLE for my digester?

To determine if other permits from EGLE are required, please contact the Air Quality Division at 517-230-4404 and Materials Management Division at 517-284-6588.

15. What kind of materials can I accept in the digester?

CAFO waste can be used in the digester. CAFO waste means CAFO process wastewater, manure, production area waste, effluents from the properly and successfully operated treatment system, or any combination. This does not include sanitary or septic waste.

In general, less than 20 percent of outside materials (non-CAFO waste) may be accepted into the digester. Outside materials can include organic fats, oils, and greases, certain food processing residuals, and manure from AFOs. If you have questions on outside materials, please contact your District Office using the contact information found at **Michigan.gov/-/media/Project/Websites/egle/Documents/Programs/WRD/About-Us/Staff-CAFO.pdf**.

Other materials could be allowed under a Part 31 CAFO Individual Permit. If other materials are proposed, and the farm has a COC under the CAFO General Permit, they will need to submit an *NPDES Concentrated Animal Feeding Operation (CAFO) Permit or Authorization Major Modification Request* in MiEnviro. If it is a new CAFO, the farm can notify EGLE by submittal of a National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feeding Operation Application Form (CAFO) in MiEnviro. MiEnviro can be accessed at **https://mienviro.michigan.gov/ncore/external/home**.

16. Will storage structures for waste related to a digester need to meet specific construction standards?

Yes. Applicable storage requirements for incoming materials and processed digestate is dependent on the type of permit coverage a farm is operating under. Digestate must be stored in a storage structure that meets the following: NRCS Conservation Practice Standard, Waste Storage Facility, Code 313 (NRCS 313), as applicable to the date the structure was built, Part 22 Rules, or environmental performance equivalent to NRCS 313 or Part 22. Note that the storage used as part of the anaerobic digester treatment system is not considered part of the farm's overall operational storage capacity.

17. What can I do with digestate exiting the system?

The waste must be handled in accordance with permit requirements. Options for digestate can include land application, landfill, or discharge to a permitted wastewater treatment facility.

If other disposal options are proposed, such as sold as commercial fertilizer or compost, the farm's CNMP must be updated to include these details. Those planning to utilize digestate as commercial fertilizer or compost should contact the Michigan Department of Agriculture and Rural Development, Fertilizer Program at 800-292-3939.

18. Will there be any requirements for AFOs (non-permitted animal feeding operation) sending waste to a digester?

Yes. The Part 31 permit for the digester will require farms receiving digestate, which contains CAFO waste, to be land applied in a manner that ensures protection of surface water and groundwater. This may require an AFO to develop and implement a Nutrient Management Plan. Additionally, if the AFO is found to be in violation of state law, the digester must cease taking waste from and returning waste to the AFO until all violations are resolved to the satisfaction of EGLE. Specific language will be included in the digester farm's permit.

MORE INFORMATION

CAFO Information: **Michigan.gov/CAFO**

MiEnviro Information: **Michigan.gov/MiEnviro**

EGLE NPDES Permit Information: **Michigan.gov/EGLENPDES**

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