



PERMIT TO INSTALL

The following sections are required for the Permit to Install:

- PART 1: MANURE STORAGE OR TREATMENT FACILITIES RECORD - [Rule 901:10-2-04]
- PART 2: WATER QUANTITY INFORMATION – [Rule 901:10-2-01(C)(2)]
- PART 3: GROUND WATER QUALITY RECORD - [Rules 901:10-2-01(C)(5), 901:10-2-03(A)(2)(h) and 901:10-2-03(B)(7)]
- PART 4: SITING CRITERIA FOR MANURE STORAGE OR TREATMENT FACILITIES - [Rule 901:10-2-02]
- PART 5: SITE MAP REQUIREMENTS - [Rule 901:10-2-01(C)(4)]
- PART 6: GEOLOGICAL EXPLORATION REPORT – [Rule 901:10-2-03(C)]
- PART 7: DETAILED ENGINEERING DRAWINGS, DESIGNS, AND PLANS FOR CONSTRUCTION

The General Information Form (DLEP-3900-001) must also be included with any Permit to Install application.

MANURE STORAGE OR TREATMENT FACILITIES RECORD

Complete the chart below for all the manure storage or treatment facilities, both existing and proposed, that are, or are planned, to be located at the facility.

INSTRUCTIONS

Please see Rule 901:10-1-01 for the definitions of "manure storage or treatment facility," "fabricated structure," "manure storage pond," and "manure treatment lagoon." Fabricated structures, manure storage ponds, and manure treatment lagoons are specific types of manure storage or treatment facilities.

- A. **Structure ID:** Provide the manure storage structure identification that is, or will be utilized by the facility for each manure storage or treatment facility. (i.e.: Deep Pit #1, North Pond, etc.)
- B. **Existing or Proposed:** State whether the manure storage or treatment facility is existing or is proposed as part of the application.
- C. **Type of Structure:** Provide a brief description of the structure and identify whether it is a fabricated or earthen structure.
- D. **Total Manure Storage Volume:** Provide the Total Manure Storage Volume in gallons for liquid systems or cubic feet for solid systems. This volume shall be to the maximum operating level, which is the total depth minus the freeboard (which should include the rainfall and runoff from design storm event – See H. Below).
- E. **Minimum Treatment Volume:** Only for manure treatment lagoons – Provide in gallons.
- F. **Dimensions of Storage Structure:** Provide overall dimensions of the structure. For ponds/lagoons, provide dimensions at the maximum operating level.
- G. **Days of Storage:** Days of storage provided to the facility by the structure.
- H. **Freeboard**

Liquid Manure

Manure storage ponds and manure treatment lagoons: 12" plus direct precipitation and runoff from a 100-year, 24-hour storm from any contributing drainage areas.

Fabricated structures: 6" plus direct precipitation and runoff from a 100-year, 24-hour storm from any contributing drainage areas.

Solid Manure

Fabricated structures receiving rainfall: 6" plus direct precipitation and runoff from a 100-year, 24-hour storm from any contributing drainage areas.

Fabricated structures not receiving rainfall: N/A

Provide a detailed calculation sheet that shows annual manure produced, total manure storage volume, days of storage provided and calculation for freeboard required (if necessary) for each manure storage or treatment facility listed in the following chart.

MANURE STORAGE OR TREATMENT FACILITIES RECORD

A.	B.	C.	D.	E.	F.	G.	H.
Structure ID	Existing or Proposed	Type of Structure (Fabricated or Earthen)	Total Manure Storage Volume	Minimum Treatment Volume	Dimensions of Storage Structure	Storage Provided (Days)	Freeboard

WATER QUANTITY INFORMATION

1. How much water will the facility utilize on an average daily basis: _____

2. Please include with this application a detailed description and calculations on determining the water usage above. Include any references used in determining the estimate.

3. What is the source(s) of the water: _____

GROUND WATER QUALITY RECORD

Ground water sampling for Total Coliform Bacteria and Nitrate (within 1 year). Provide a copy of the lab results):

1. Date Conducted: _____

2. Results
Total Coliform (positive/negative): _____
Nitrate (mg/l): _____

SITING CRITERIA FOR MANURE STORAGE OR TREATMENT FACILITIES

1. Is the production area located wholly or partially in a 100-year flood plain? [Rule 901:10-2-02(G)] Yes No

Note: Answering "Yes" to this question will require additional design criteria to be satisfied in Rule 901:10-2-02 to obtain a Permit to Install.

2. Is a fabricated structure, manure storage pond or manure treatment lagoon located wholly or partially in any of the following areas?

Note: Answering "Yes" to 2.a. and 2.b. below will require additional design criteria to be satisfied in Rule 901:10-2-02 to obtain a Permit to Install.

(CHECK ANSWER)

- a. An area of potential subsidence due to an underground mine(s): Yes No
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- b. A karst area with characteristic features, (i.e. sinkholes, sinking streams or caves): Yes No
3. A fabricated structure, manure storage pond or manure treatment lagoon is prohibited in the following areas: [Rule 901:10-2-02]
- a. The one-year time-of-travel contour from a well for which the Ohio EPA has delineated or endorsed a ground water source protection area and that serves a community water system not owned or operated by the owner or operator of the facility, or 1000 feet from a public water well, whichever is greater.
- b. The one-year time-of-travel contour from a well for which the Ohio EPA has delineated or endorsed a ground water source protection area and that serves a non-community water system not owned or operated by the owner or operator of the facility. If no delineation or endorsement, then no closer than 300 feet from the well.
- c. A regulatory floodway as designated by FEMA.

For each of these 3 criteria above (3a.-3c.), provide documentation that no manure storage or treatment facility will be located in such an area. (i.e.: if a public water supply is near, within 5 miles of the site, provide the delineated or endorsed ground water protection area for that water supply or if within 1 mile of a major water course, provide the FEMA map showing designated floodway)

4. Will a fabricated structure be located within any of the following?
Note: Answering "Yes" to any of the following may violate the siting criteria listed in Rule 901: 10-2-02 or may require additional monitoring or design criteria.

(CHECK ONE)

a. 300 ft. of a well serving a public water system that is owned or operated by the Owner or Operator of the facility:	<input type="checkbox"/> Yes <input type="checkbox"/> No
b. 3 ft. (including liner) of bedrock without an aquifer:	<input type="checkbox"/> Yes <input type="checkbox"/> No
c. 100 ft. of a property line or public road:	<input type="checkbox"/> Yes <input type="checkbox"/> No
d. 50 ft. of a water well or Class V well:	<input type="checkbox"/> Yes <input type="checkbox"/> No
f. 120 ft. from a stream – if a CAFF:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
g. 300 ft. from a stream – if a MCAFF:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
h. Between the one-year and five-year time-of-travel contours for a well for which the Ohio EPA has delineated or endorsed a ground water source protection area and is identified as highly susceptible (answering Yes will require additional design criteria):	<input type="checkbox"/> Yes <input type="checkbox"/> No
i. 300 feet from Cold Water Habitat or Seasonal Salmonid Stream:	<input type="checkbox"/> Yes <input type="checkbox"/> No
j. A 100-year flood plain:	<input type="checkbox"/> Yes <input type="checkbox"/> No
k. 1500 ft. of a surface water intake:	<input type="checkbox"/> Yes <input type="checkbox"/> No

5. A fabricated structure shall have fifteen vertical feet of low permeability material between the waste placement location and the uppermost aquifer, unless additional design criteria are added, installed, and implemented as approved by the Director.

- a. Depth to uppermost aquifer from the waste placement surface: _____
- b. Feet of low permeability material between the waste placement location and uppermost aquifer: _____
- c. Source of information for determining the depth to aquifer including documents referred to, computations, and a description of field work:

- d. Are provisions for ground water monitoring or additional design criteria included as part of the Permit to Install? Yes No

6. Is manure storage pond or manure treatment lagoon located within:

Note: Answering "Yes" to Items a - f may violate the siting criteria listed in Rule 901: 10-2-02 or may require additional monitoring or design criteria.

(CHECK ONE)

a. 300 ft. of a well serving a public water system that is owned or operated by the owner or operator of the facility:	<input type="checkbox"/> Yes <input type="checkbox"/> No
b. 3 ft. (including liner) of bedrock without an aquifer:	<input type="checkbox"/> Yes <input type="checkbox"/> No
c. 100 ft. of a property line or public road:	<input type="checkbox"/> Yes <input type="checkbox"/> No
d. 300 ft. of a water well, Class V well, or a sinkhole:	<input type="checkbox"/> Yes <input type="checkbox"/> No
e. 1,500 ft. of a surface water intake:	<input type="checkbox"/> Yes <input type="checkbox"/> No
f. 300 ft. from a stream – if a CAFF:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

- g. 600 ft. from a stream – if a MCAFF: Yes No N/A
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- h. Between the one-year and five-year time-of-travel contours for a well for which the Ohio EPA has delineated or endorsed a ground water source protection area and is identified as highly susceptible (answering Yes will require additional design criteria): Yes No
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- i. 600 feet from Cold Water Habitat or Seasonal Salmonid Stream: Yes No
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- j. Within the boundaries of a sole source aquifer as designated by US EPA: Yes No
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- k. A 100-year flood plain: Yes No
-
- l. 1,500 feet of a surface water intake: Yes No
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7. A manure storage pond or manure treatment lagoon shall have fifteen vertical feet of low permeable material between the waste placement location and the uppermost aquifer, unless additional design criteria or ground water monitoring are added, installed and implemented as approved by the Director, but in no case shall there be less than five feet of low permeability material between the waste placement surface and the uppermost aquifer.

- a. Depth to uppermost aquifer from the waste placement location (in feet): _____
- b. Feet of low permeability material between the waste placement location and uppermost aquifer: _____
- c. Source of information for determining the depth to aquifer including documents referred to, computations, and a description of field work: _____
- d. Are provisions for ground water monitoring or additional design criteria included as part of the Permit to Install? Yes No
- e. Is there a minimum of 5 feet of low permeability material between the waste placement surface and the uppermost aquifer? Yes No

8. Will a fabricated structure, manure storage pond or manure treatment lagoon that will contain **solid** manure be located closer than:
Note: Answering "Yes" to any of the following may violate the siting criteria listed in Rule 901:10-2-02 or may require additional monitoring or design criteria.

(CHECK ONE)

- a. 500 ft. of a neighboring residence – if a CAFF: Yes No N/A
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- b. 1000 ft. of a neighboring residence – if a MCAFF: Yes No N/A

9. Will a fabricated structure, manure storage pond or manure treatment lagoon that will contain **liquid** manure be located closer than (Rule 901:10-2-02):

(CHECK ONE)

- a. 1,000 ft. of a neighboring residence – if a CAFF: Yes No N/A
-
- b. 2,000 ft. of a neighboring residence – if a MCAFF: Yes No N/A

SITE MAP REQUIREMENTS

1. For a concentrated animal feeding facility (CAFF), provide a site map of the location of all manure storage and treatment facilities that demonstrates a 1,000 foot radius surrounding the boundaries of the structure(s).
2. For a major concentrated animal feeding facility (MCAFF), provide a site map of the location of all manure storage and treatment facilities that demonstrates a 2,000 foot radius of surrounding the borders of the structure(s).
3. For both 1 and 2 above, include boundaries of the CAFF or MCAFF, any landmarks such as residences, barns or machine storage that serve as points of reference for boundaries and for locations of manure storage and treatment facilities.
4. For 1 and 2 above, provide overall dimensions of the manure storage or treatment facilities.
5. For 1 and 2 above, show approximate location of known subsurface drainage tiles within 100 feet of the proposed manure storage or treatment facilities.
6. For 1 and 2 above, show the location of well(s) to be used for groundwater sampling.
7. Show any other features identified as siting criteria requirements above on the site map.
8. Show all recorded well logs on file with the Ohio Department of Natural Resources, Division of Soil and Water Resources, that are within a 1,000 foot radius of any manure storage or treatment facility.

GEOLOGICAL EXPLORATION REPORT

Please enclose a Subsurface Geological Exploration Report of the soils, subsurface geology and topography of the land area used for the manure storage or treatment facility and describe how the site meets Rule 901:10-2-03. See Rule 901:10-2-03 for additional detail required.

Provide the following information, identifying the Professional Engineer or Engineering Geologist who prepared the Geological Exploration Report (required by Rule 901:10-2-03).

Name: _____
Company: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____ Cell: _____
Email: _____

As part of the Geological Report, include copies of all recorded well logs on file with the Ohio Department of Natural Resources, Division of Soil and Water Resources that are within a 1,000 foot radius of any proposed manure storage or treatment facility.

DETAILED ENGINEERING DRAWINGS, DESIGNS, AND PLANS FOR CONSTRUCTION

Please include design plans and detailed engineering drawings for the construction of the manure storage or treatment facilities. Rules 901:10-2-01(C)(6), 901:10-2-03, and 901:10-2-04 to 901:10-2-06.

PLANS PREPARED BY

Name: _____
Company: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____ Cell: _____
Email: _____

Final As-built documentation required per Rule 901:10-2-01(B)(4) shall be followed as described below:

Upon completion of construction of the manure storage or treatment facility, the owner or operator shall submit a notarized statement certifying that the facility was constructed in accordance with the as-built plans to the department. As-built plans shall be provided and signed by a professional engineer if the design plans require a professional engineer as described in paragraph (A)(1) of rule 901:10-2-05 or paragraph (A) of rule 901:10-2-06 of the Administrative Code.

(a) A copy of the completed and approved as-built plans shall be submitted to demonstrate compliance with paragraph (A) of rule 901:10-2-05 or paragraph (A) of rule 901:10-2-06 of the Administrative Code and shall be submitted for the permanent record. Approved as-built plans shall be provided and signed by a professional engineer if the design plans required a professional engineer as described in paragraph (A)(1) of rule 901:10-2-05 or paragraph (A) of rule 901:10-2-06.

(b) In addition to as-built plans, the following shall be submitted where applicable as part of the construction or the permit to install:

(i) Any soils investigations, compaction testing, soil bearing confirmation or lab analyses as required by plans.

(ii) Pictures demonstrating construction specifications were followed.

(iii) Daily log of construction activity, including dates, weather conditions and work completed.

(iv) Documentation demonstrating concrete mix and concrete construction was in accordance to approved plans.

(v) Any other construction documentation that is required by the approved set of engineering plans or in the permit to install.