Reset Form

PROFESSIONAL ENGINEER CERTIFICATION FORM CONSTRUCTION OF EARTHEN LIQUID MANURE STORAGE STRUCTURES

State Form 55052 (6-12)
Confined Feeding Operation

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Confined Feeding Section
Office of Land Quality
100 North Senate Avenue
MC 65-45, IGCN 1101
Indianapolis, Indiana 46204
(800) 451-6027 extension 2-4473

INSTRUCTIONS:

1. *Use this form to certify construction of a liquid manure structures as required in 327 IAC 19-12-4(d).*
2. *Fill in all information requested COMPLETELY.*
3. *Attach narratives, supporting documentation and testing results identified below in the Construction Details Section.*
4. *This certification form must be completed, signed, dated, and returned to IDEM within thirty (30) days of completing construction and prior to introduction of any animals or manure.*
5. *An Indiana registered professional engineer must certify this form.*
6. *Please submit the Completed Construction Affidavit (State Form 51255) with this certification.*
7. *Please send this form to the address listed above.*
8. *Please maintain a copy of these forms in your facility operating record.*
9. *For more information, contact IDEM's Office of Land Quality, Confined Feeding Permits Section, at (317) 232-4473.*

GENERAL FACILITY INFORMATION

Facility Name:	Farm ID Number:
Permittee Name:	
Location Address:	Telephone:
Date of Approval *(month, day, year)*:	Approval Number, AW Number:
City:	ZIP Code:
County of Operation:	Facility Contact Email:
Location of Operation *(nearest crossroads or mailing address)*: _____ _____	

GENERAL CONSTRUCTION INFORMATION

Construction Start Date *(month, day, year)*:	Construction Complete Date *(month, day, year)*:
Name of Contractor: *(If Applicable)*	Telephone Number of Contractor:

CONSTRUCTION DETAILS: The following are the aspects of the earthen structure that must be reviewed by the certifying engineer or his representative for compliance with the approved plans and specifications, and the facility permit. Please attach narratives, supporting documentation and the testing results with this form.	Is a Narrative Attached?	
1. LAGOON CONSTRUCTION: Please attach a narrative discussing the following construction activities.	**Yes**	**No**
a. Earthwork		
i Describe the excavation, subgrade preparation, keyway and fill placement. Address the following: Was the subgrade prepared as required by the plans and specifications? Was the subgrade free of standing water, ice, or snow? Was the subgrade surface free from mud, dried ground, uncompacted fill and frozen ground? Was the subgrade inspected and approved by the certifying engineer?	☐	☐
ii Identify Contractor(s) that performed the work.	☐	☐
iii Identify construction specifications, construction quality assurance (CQA) requirements and the CQA consultant(s).	☐	☐
iv Include daily inspection notes, results of CQA tests, map(s) showing testing locations, construction pictures, etc.	☐	☐

v	Include PE's opinion that earthwork construction was performed in accordance with the approved plans, specifications and CQA. Include any additional information regarding the earthwork and site preparation.	☐	☐
b.	Perimeter Drain System *(if applicable)*		
i	Describe the excavation and the installation of the perimeter drain system.	☐	☐
ii	Identify contractor(s) that performed the construction work.	☐	☐
iii	Include inspection notes, construction pictures, etc.	☐	☐
iv	Include PE's opinion that perimeter drain installation was performed in accordance with the approved plans and specifications. Address the following: Was the perimeter drain system installed as specified on the approved drawings? Was the observation/standpipe installed? Was a shutoff valve installed? Was the drain pipe installed within a granular fill? Were pump(s) installed *(if applicable)*? Were pump(s) connected to an electric supply? Provide any additional information on the perimeter drain system installation.	☐	☐
c.	Soil Liner System		
i	Describe the pre-qualification, selection, placement and compaction of the liner soils.	☐	☐
ii	Identify contractor(s) that performed the work.	☐	☐
iii	Identify the construction specifications, construction quality assurance (CQA) requirements and the CQA consultant(s).	☐	☐
iv	Include daily inspection notes, results of CQA tests, map(s) showing locations of compaction tests, map(s) showing locations of hydraulic conductivity test, construction pictures, etc.	☐	☐
v	Include PE's opinion that liner installation was performed in accordance with the approved plans, specifications and CQA.	☐	☐
2.	**LINER SPECIFIC DISCHARGE**	**Yes**	**No**
a.	Provide hydraulic conductivity test results as required by the CQA and specific discharge calculations of the liner showing compliance with the maximum allowable specific discharge of 1/16 (0.0625) cubic inch per square inch per day. (327 IAC 19-12-5)	☐	☐
b.	Provide documentation supporting that the liner was constructed according to the approved specifications. (Indiana NRCS Conservation Practice Standard Code 521A, 521B or 521C)	☐	☐
c.	Discuss the in-situ soil and constructed liner thickness. (327 IAC 19-12-5)	☐	☐
3.	**SUMMARY CONCLUSION**	**Yes**	**No**
a.	Provide a brief narrative summarizing the results of the construction of the lagoon.	☐	☐
4.	**RECORD/AS-BUILT DRAWINGS**	**Yes**	**No**
a.	Provide a set of record/as-built drawings of the lagoon that include a plan(s), cross section(s), detail(s), etc. The drawings need to show:	☐	☐
i	The lagoon system dimensions.	☐	☐
ii	The depth of the lagoon.	☐	☐
iii	The thickness of clay liner.	☐	☐
iv	The top width of the earthen berm(s).	☐	☐
v	The elevations at; the top of berm(s), the bottom of lagoon (top of clay liner) and the operating level (elevation of the bottom of the two feet of freeboard).	☐	☐
vi	The operating volume of the lagoon(s), (volume excluding the freeboard volume).	☐	☐
vii	The slope of the lagoon's interior and exterior side (H/V).	☐	☐
viii	Dimensions of berm's cutoff trench.	☐	☐
ix	Inlets, access ramps, agitation pads, spillways, splash pads, staff gauges, etc.	☐	☐
x	The location of perimeter drain around the lagoon.	☐	☐
xi	The location of the perimeter drain's discharge point.	☐	☐

5. AMENDMENT APPROVAL

Provide an explanation for any items answered "NO". Any deviation from the approved plans and specifications must have received amendment (327 IAC 19-8-3) approval from IDEM prior to construction. Construction of manure structures not meeting the approved plans, specifications, and the facility permit may result in an enforcement action against the facility.

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6. PROFESSIONAL ENGINEER'S CERTIFICATION STATEMENT

I, _____ *(your name)*, being a Registered Professional Engineer in the State of Indiana, do hereby state that, to the best of my knowledge, the information on and attached with this construction certification report form for _____ *(type of structure)*, constructed at _____ *(facility name)*, is true and accurate, and contains all information required by the permit and appropriate regulations. The construction inspection activities, either directly overseen by_____ or as documented by independent parties, other than the construction contractors, have been reported to me to have been performed in compliance the permit for the facility.

The information contained within this report is provided from various sources. This information includes direct observation by _____ personnel, personnel directly supervised by _____, independent off-site testing laboratories, construction contractors and survey firms.

Name: _____ Signature: _____ By signing this form, I attest that the information provided above is true and accurate.	Date: _____ *(month, day, year)*
License Number:	
Expiration Date *(month, day, year)*:	
"SEAL"	