Reset Form

PROFESSIONAL ENGINEER CERTIFICATION CONSTRUCTION OF CONCRETE LIQUID MANURE STORAGE STRUCTURES

State Form 55053 (R3 / 4-21)
Confined Feeding Operation

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Confined Feeding Section
Office of Land Quality
100 North Senate Avenue, Rm 1101
Indianapolis, Indiana 46204
(800) 451-6027

INSTRUCTIONS:

1. *Use this form to certify construction of a liquid manure storage structure as required in 327 IAC 19-12-4(d).*
2. *Fill in all information requested COMPLETELY.*
3. *This certification form must be completed, signed, dated, and submitted to IDEM within thirty (30) days of completing construction and prior to introduction of any animals or manure.*
4. *An Indiana registered professional engineer must certify this form.*
5. *Please submit the Completed Construction Affidavit form (State Form 52155) with this certification as required by 327 IAC 19-12-4(d).*
6. *Please send this form to the address listed above.*
7. *Please maintain a copy of these forms in your facility operating record.*
8. *For more information, contact IDEM's Office of Land Quality, Confined Feeding Permits Section, at (800) 451-6027 and ask for CFO Permits.*

GENERAL FACILITY INFORMATION

Facility Name	Farm Identification Number
Date of Approval *(month, day, year)*	Approval Number, AW Number
Permittee Name	
Location Address *(number and street)*	Telephone
City	ZIP Code
County of Operation	Facility Contact E-mail
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
Name(s) of Structure(s) *(P1, P2, etc.)*	

CONSTRUCTION DETAILS: The following aspects of the concrete structure must be reviewed on-site by the certifying engineer or an employed subordinate supervised by the certifying engineer for compliance with the approved plans and specifications, and the facility permit. The certification must include all relevant and pertinent information used to make the certification decision, including photographs. Photographs must include captions indicating activity, date the photograph was taken, and cardinal direction.

1.	SUBGRADE PREPARATION	Yes	No
a.	Was the subgrade smoothly graded and prepared as required by the plans and specifications?	☐	☐
b.	Was the subgrade free of chips, sawdust, debris, standing water, ice, snow, extraneous oil, mortar, or other harmful substances or coatings?	☐	☐
c.	Was the subgrade surface free from plastic, mud, dried ground, uncompacted fill, and frozen ground?	☐	☐
d.	Was the subgrade dampened prior to concrete placement?	☐	☐
e.	Was the subgrade inspected and approved for concrete placement?	☐	☐

		Yes	No
f.	If any field tile or drainage outlets were encountered during excavation, were they cut back at least fifty (50) feet from the edge of the concrete pit and blocked or rerouted in accordance with any applicable local approval requirements? ☐ **N/A**	☐	☐
g.	Please provide any *additional* relevant and pertinent information upon which you relied to answer the above questions. That information might include photographs and documentation of the following: reports, current weather conditions, etc.		
2.	**PERIMETER DRAIN**	**Yes**	**No**
a.	Was the perimeter drain system installed as specified on the approved drawings?	☐	☐
b.	Was the observation/standpipe installed?	☐	☐
c.	Was a shutoff valve installed? ☐ **N/A**	☐	☐
d.	Was the drain pipe installed within a granular fill?	☐	☐
e.	Was a pump(s) installed if applicable? Verify the pump installed is the permanent pump as specified in the approved design. ☐ **N/A**	☐	☐
f.	Is a backup pump(s) available on-site? ☐ **N/A**	☐	☐
g.	Were pump(s) connected to an electric supply? ☐ **N/A**	☐	☐
h.	Please provide any *additional* relevant and pertinent information upon which you relied to answer the above questions. That information might include photographs and documentation of the following: trench depth, presence of granular fill, outfall location, sump, etc.		
3.	**WALL FOOTINGS**	**Yes**	**No**
a.	Were the footings constructed to the approved dimensions?	☐	☐
b.	Was the specified reinforcing steel installed? ☐ **N/A**	☐	☐
c.	Were the specified dowel bars installed?	☐	☐
d.	Was the specified waterstop installed?	☐	☐
e.	Please provide any *additional* relevant and pertinent information upon which you relied to answer the above questions. That information might include photographs and documentation of the following: wall footing excavations with depth measurements, dowel bars, water stop placement, etc.		

4.	WALLS	Yes	No
a.	Were the walls constructed to the approved dimensions?	☐	☐
b.	Was the specified reinforcing steel installed?	☐	☐
c.	Was it located correctly within the width of the wall?	☐	☐
d.	Were the specified dowel bars installed?	☐	☐
e.	Was the specified top of wall beam reinforcement installed?	☐	☐
f.	Was the specified waterstop installed?	☐	☐
g.	Were wall joints located at the specified locations?	☐	☐
h.	Please provide any *additional* relevant and pertinent information upon which you relied to answer the above questions. That information might include photographs and documentation of the following: rebar spacing with distance measurements, dowels, top of beam reinforcement, waterstop placement, etc.		

5.	COLUMN FOOTINGS	Yes	No
a.	Were the footings constructed to the approved dimensions?	☐	☐
b.	Was the specified reinforcing steel installed? ☐ **N/A**	☐	☐
c.	Were the specified dowel bars installed?	☐	☐
d.	Please provide any *additional* relevant and pertinent information upon which you relied to answer the above questions. That information might include photographs and documentation of the following: rebar spacing, column footing excavations, dowel placement, etc.		

6.	COLUMNS	Yes	No
a.	Were the columns constructed to the approved dimensions?	☐	☐
b.	Was the specified reinforcing steel installed?	☐	☐
c.	Was it located correctly within the column?	☐	☐
d.	Were the specified dowel bars installed?	☐	☐
e.	Please provide any *additional* relevant and pertinent information upon which you relied to answer the above questions. That information might include photographs and documentation of the following: rebar spacing, dowel placement, etc.		

7.	FLOOR SLABS	Yes	No
a.	Was the floor/slab constructed to the approved dimensions?	☐	☐
b.	Was the specified reinforcing steel installed?	☐	☐
c.	Was it correctly located within the floor/slab on concrete bricks, corrosion resistant metal chairs or plastic chairs?	☐	☐
d.	Was the specified waterstop installed?	☐	☐
e.	Were the floor joints installed at the specified locations?	☐	☐
f.	Please provide any *additional* relevant and pertinent information upon which you relied to answer the above questions. That information might include photographs and documentation of the following: reinforcing steel placement (showing how the rebar is elevated by chairs or concrete bricks), rebar spacing, water stop placement, dowel placement, etc.		

8.	CONCRETE	Yes	No
a.	Were batch plant tickets collected and reviewed with the specified mix design?	☐	☐
b.	If required, was percent air (% air) content measured? ☐ **N/A**	☐	☐
c.	Was a super plasticizer used? If so, what were the concrete slumps before and after the addition of the super plasticizer?	☐	☐
d.	If required, was slump measured? ☐ **N/A**	☐	☐
e.	Was the concrete cured as required in the concrete construction specifications?	☐	☐
f.	Were the form removal procedures followed as specified in the concrete construction specifications?	☐	☐
g.	Was the concreting in cold weather procedures followed as specified in the concrete construction specifications? ☐ **N/A**	☐	☐
h.	If accelerating admixtures or water-reducing and accelerating admixtures were used, do they comply with the approved concrete construction specifications? ☐ **N/A**	☐	☐
i.	Was backfilling against new concrete walls preformed as specified in the concrete construction specifications?	☐	☐
n.	Please provide any *additional* relevant and pertinent information upon which you relied to answer the above questions. Examples of supporting information to demonstrate the concrete meets required specifications may include photographs, documentation of cement/water ratio, details regarding any retarding or accelerating admixture used (when, and how much); whether or not a plasticizer was added (what, when and how much); observation of any cracks or deformation, and explanation of any repairs performed; concrete batch plant tickets; and/or any additional testing performed to ensure the concrete strength is acceptable. Please attach additional sheets/information if necessary.		

9.	SUMMARY

Please provide a summary of the project. Provide an explanation for any items answered "No" in the above sections. Specify which alternative compliance approach options were used in this project if any were approved. Please submit copies of any other supporting information.

10.	CONSTRUCTION CHANGES (*Requires Facility Change (State Form 50209)*)

Any deviation from the approved plans and specifications must be submitted with a Facility Change Notification (State Form 50209). Any major changes to the design, such as additional tanks or change in size of tanks, must have received 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. Please attach additional sheets/information if necessary.

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11.	PROFESSIONAL ENGINEER'S CERTIFICATION STATEMENT

I, _____ *(your name)*, being a Registered Professional Engineer (PE) in the State of Indiana, do swear or affirm, under penalty of perjury as specified by IC 35-44.1-2-1 and other penalties specified by IC 13-30-10 and IC 13-18-10-1.4, that the statements and representations provided in this checklist for _ _____ *(type of structure)*, constructed at _____ *(facility name)*, are true, accurate, complete, and contain all information required by the permit and appropriate regulations. I affirm by affixing my seal that I or my regularly employed and directly supervised subordinates have overseen the construction inspection activities according to 864 IAC 1.1-7-3(a). These activities have been documented to be in compliance with the permit/approval for the facility.

Name: _____ Signature: _____	Date:_____ *(month, day, year)*
License Number	
Expiration Date *(month, day, year)*	

"SEAL"