



Minnesota
Pollution
Control
Agency

wq-f8-93

CONSTRUCTION INSPECTION FORM

FOR

LIQUID MANURE STORAGE AREAS

Part 1. Purpose and Scope (when must this form be completed and submitted)

Minn. R. 7020.2100, subpart 6, Item B, requires an inspector to complete this form during construction of each new or modified manure storage area. Minn. R. 7020.2100, subpart 6, Item C, requires the contractor responsible for installation of the liner to certify on this form (see Part 7) that each new or modified manure storage area was constructed in conformance with the design plans and specifications. Minn. R. 7020.2100, subpart 6, Item D, requires the owner to submit the information required in this form to the design engineer for incorporation into the final construction report.

Note: These requirements **do not** apply to concrete-lined manure storage areas with a capacity of 20,000 gallons or less.

Part 2. Facility Information

Name of owner(s): _____

Legal name of facility: _____

Permit number: _____ Location: _____
County Township Sect. $\frac{1}{4}$ Sec. $\frac{1}{4}$ of $\frac{1}{4}$

Part 3. Inspector's Information (inspector must complete Parts 3 to 6 of this form)

Name of Inspector: _____ Phone: () _____

Company/Agency: _____

Inspector qualifications (check all that apply):

☐ Professional engineer licensed in the state of Minnesota. License No.: _____

☐ Person working under the direct supervision of a professional engineer.

List the engineer's name and MN License No.: _____

☐ Natural Resources Conservation Services staff.

☐ For concrete-lined structures only: American Concrete Institute (ACI) or Minnesota Department of Transportation (MNDOT) concrete field testing technician Grade/Level I certified and concrete field inspector Level II certified.

List certificate No.: _____

Part 4. Notifications

A. Did the owner notify the design engineer a minimum of three business days prior to commencement of construction? Yes ☐ No ☐

B. Did the owner notify the MPCA or county feedlot officer a minimum of three business days prior to commencement of construction? Yes ☐ No ☐

Date Notification Given _____

- C. Did the owner notify the MPCA or county feedlot officer within three business days *following completion of the manure storage area liner*? Yes ☐ No ☐

Date Notification Given _____

- D. If a concrete-lined structure, did the owner complete the notice before the vertical walls of the concrete structure were backfilled? Yes ☐ No ☐

Part 5. Inspection Checklist and Observations

This Section (Part 5) must be completed by the inspector listed in Part 3. The liner contractor does not need to complete this Section. However, the liner contractor must certify that all stages of construction listed below were completed in accordance with the design plans and specifications and standard construction practices. Attach additional sheets for comments as needed.

- A. Were subgrade conditions adequate for liner placement, including soil texture, strength, and moisture content, and no frozen soils were present? Yes ☐ No ☐

Comments:

- B. Was a perimeter drain tile system specified in the design plans? If yes, answer Questions 1 to 4. If no, go to Question C below. Yes ☐ No ☐

1. Did you verify the location and proper functioning of the perimeter drainage tile system and inspection/monitoring access? Yes ☐ No ☐

2. If concrete-lined, is drainage tile located a horizontal distance of at least one foot outside the footing of a concrete-lined structure? Yes ☐ No ☐

3. Is a dedicated drain tile system in place for each manure storage area? Yes ☐ No ☐

4. Is a dedicated tile riser, manhole, or other access that allows collection of tile-water samples in place for each dedicated tile system. Yes ☐ No ☐

Comments:

- C. Concrete-lined manure storage areas. Indicate by checking yes or no, if you verified that the following items were in conformance with the design engineer's plans and specifications.

1. Reinforcing steel size, grade, spacing, cover, and that steel was free of loose rust, oil, or other debris? Yes ☐ No ☐

2. Concrete quality for air entrainment, temperature, and strength? (include test results with photocopy of laboratory results for strength) Yes ☐ No ☐

3. Handling, placement, consolidation, and finishing of concrete? Yes ☐ No ☐

4. Curing and protection of concrete after placement, including hot and cold weather protective measures? Yes ☐ No ☐

5. Location, forming, and surface preparation of construction, contraction, and expansion joints? Yes ☐ No ☐

6. Specified product, placement, and installation of flexible waterstop materials in joints? Yes ☐ No ☐

7. Specified product and installation of surface applied or injected crack and joint sealant materials; Yes ☐ No ☐

Comments:

D. Were there any construction defects that needed repair? Yes ☐ No ☐

If yes, describe:

E. Were any water supply systems, fuel lines, electrical conduit, or other equipment not solely functioning as part of the manure handling or transfer system installed to penetrate the liner of the liquid storage structure? Yes ☐ No ☐

F. Were all ASTM testing methods completed at the frequencies specified in the design engineer's quality assurance and quality control plan? Yes ☐ No ☐

G. Were ASTM test results forwarded to the engineer? Yes ☐ No ☐

H. Were any engineering changes or modifications made related to the liner specifications, structure location, depth, or separation distance to bedrock? Yes ☐ No ☐

If yes, briefly describe:

I. If yes to Question H, were these changes submitted to the MPCA or county feedlot officer prior to commencement of construction of the change? Yes ☐ No ☐

J. Additional comments (attach additional pages as needed):

Part 6. Inspector's Certification

I hereby certify that I am the inspector listed in Part 3 of this form. I hereby certify that the construction of the facilities referenced in this form were completed in accordance with all plans, specifications, reports, permit application submittals, and related communications approved by the MPCA or delegated county feedlot officer. By my signature below, I represent that the information submitted in this form is, to the best of my knowledge and belief, true, accurate, and complete.

Signature of Inspector: _____ Date: _____

Part 7. Contractor's Information and Certification

Contact Person: _____ Phone: () _____

Liner Contractor Company: _____

I hereby certify that I represent the liner contractor listed above. I certify that the construction of the facilities referenced in this form and all stages of construction listed in Part 5, were completed in accordance with construction standards and all plans, specifications, reports, permit application submittals, and related communications approved by the MPCA or delegated county feedlot officer. By my signature below, I represent that the information submitted in this form is, to the best of my knowledge and belief, true, accurate, and complete.

Signature of Contractor: _____ Date: _____

Return this completed form to the design engineer: The owner must submit a construction report to the MPCA or county feedlot pollution control officer within 60 days of the completion of any new or modified manure storage area. The report must be prepared and signed by the design engineer and must contain an assessment of whether the completed manure storage area conforms to the design plans and specifications submitted to the commissioner or county feedlot pollution control officer.