



## Obtaining a Permit for the Construction/Modification/Expansion of Manure Storage Facilities

1. Contact the office of the Rural Municipality in which the proposed operation is to be located. Inquire about all pertinent municipal by-laws, conditions, restrictions and permit requirements to ensure your proposal will comply. If the proposed operation is 300 Animal Units or larger, a Technical Review will be required and the municipality will have to submit a request to Manitoba Agriculture, Food and Rural Initiatives for the Technical Review. If the proposed operation is less than 300 Animal Units, a Technical Review may or may not be required, dependent upon the by-laws of the municipality.
2. Contact an engineering firm of your choice and explain your proposal, future expansion plans, etc. All facilities must be designed and the designs sealed by a Professional Engineer.
3. The engineering firm chosen will conduct an initial site assessment and proceed to have test holes drilled at the proposed site. For earthen storages, a minimum of three test holes drilled to a recommended depth of not less than 9.15 metres (30 feet) and collection of soil samples for further analysis will be required. Information gathered from these test holes, including type of soil, depth to water table, estimate of soil permeability, etc., will determine the location and level of protection that will be required for construction/modification/expansion of the manure storage facility.
4. The design of the manure storage facility including site plan, capacity for present and future needs, level of protection required, laboratory results of the soil sampling from the initial test holes, and all other pertinent information must be submitted to Manitoba Conservation as part of an Application for Permit. As well, a map of all lands available for manure spreading that outlines agricultural capability classifications, buffer areas and available spread acreage is required. In addition, a manure management plan is required. Signed agreements with the owners authorizing manure spreading on lands leased for this purpose must be attached.
5. Depending on the soil conditions and / or the depth to the water table found at the site, the type of manure storage facility may consist of one of the following:
  - A) An earthen storage consisting of a straight cut-and-fill construction (where there is adequate clay of suitable quality on site);
  - B) An earthen storage with imported clay liner (where adequate clay of suitable quality is hauled in from another location, usually in fairly close proximity.) A minimum of one metre of compacted clay is required on the floor and inside berms of this storage facility;
  - C) An earthen base storage with a plastic liner (which may consist of either a PVC (polyvinyl chloride) liner of minimum 30 mil thickness or a HDPE (high density poly-ethylene) liner of minimum 60 mil thickness);
  - D) A concrete storage which may be either a pre-cast or poured-in-place facility;
  - E) An approved steel storage tank.
6. The completed Application for Permit and supporting information is reviewed by engineering staff of Manitoba Conservation to ensure compliance with all regulatory requirements and accepted construction standards.
7. A Permit for the construction, modification or expansion of the manure storage facility will only be issued if the information is complete and the design is acceptable for the site conditions. Prior to any construction work, a permit must be obtained from Manitoba Conservation pursuant to Section 6 of the *Livestock Manure and Mortalities Management Regulation*.

8. If construction of the manure storage facility requires the installation of either a clay or plastic liner, then the installation and sampling of monitoring wells will also be required and will be indicated in the Permit. The depth, screened interval and location of these monitoring wells must be approved by Manitoba Conservation prior to installation. The owner must sample the wells on a regular basis as specified in the Permit and must have the water samples tested for the required indicator parameters. Water analysis reports must be submitted annually to Manitoba Conservation pursuant to Section 6.1(2) of the Regulation.
9. The owner, operator or contractor must notify in writing the local Environmental Livestock Program officer of Manitoba Conservation:
  - at least five and not more than ten days prior to commencement of construction/modification/expansion of the manure storage facility (Section 6(9)),
  - of change in start date (Section 6(11)),
  - of commencement of construction/modification/expansion of the manure storage facility if it was suspended more than 10 calendar days (Section 6(10)).
10. Regular inspections will be carried out by Environment Officers and by the design engineer during the course of construction to ensure compliance with the approved design and with regulatory requirements. Construction must take place between May 1 and October 31.
11. After construction is completed, including the installation of all required appurtenances and monitoring wells, a final inspection will be conducted by the Environment Officer and by the design engineer.
12. After final inspection, the engineering firm must submit a written certification and engineering report to the owner and to Manitoba Conservation indicating that the construction is in compliance with the requirements of the *Livestock Manure and Mortalities Management Regulation* and that the approved design plan was properly followed. The manure storage facility must not be put into operation until the operator has received a letter from Manitoba Conservation indicating acceptance of the engineer's letter of certification (Section 6.7).
13. Continued maintenance and proper operation of the manure storage facility is expected and is the responsibility of the owner / operator (Section 4).
14. Periodic inspections of all permitted manure storage facilities are conducted by Environment Officers of Manitoba Conservation.
15. All agricultural operations that have 300 or greater animal units must submit annually for registration a manure management plan.
16. All existing agricultural operations that store manure in a facility for more than 30 days must register that facility (tank, earthen manure storage, molehill and under-barn storage) with Manitoba Conservation.

Additional information may be obtained from the local Environmental Livestock Program office of Manitoba Conservation.

**Note: this is not an exhaustive list of the requirements for a permit. Operations are assessed on an individual basis and therefore the required information is site specific.**

**Listing of Engineering Firms\***

<p>Almitra Consulting Inc. 103 Cunnington Ave. Winnipeg, MB R2M 0W6 Telephone (204) 489-0018 Fax (204) 233-4890 Attention: Mr. Roy McPhail, P.Eng.</p>	<p>DGH Engineering Ltd. 12 Aviation Blvd. St. Andrews, MB R1A 3N5 Telephone (204) 334-8846 Fax (204) 334-6965 Attention Mr. Doug Small, P. Eng.</p>
<p>Cochrane Engineering Ltd. #600-5 Donald St. Winnipeg, MB R3L 2T4 Telephone (204) 477-6650 Fax (204) 474-2864 Attention Alf Poetker, P. Eng</p>	<p>Dillon Consulting 200, 895 Waverley St. Winnipeg, MB R3T 5P4 Telephone (204) 453-2301 Fax (204) 452-4412 Attention Mr. Kurt Simonsen, P. Eng.</p>
<p>Samson Engineering Services 162 – 10 th Street Brandon, MB R7A 4E6 Telephone (204) 727-0747 Fax (204) 725-9870 Attention Mr. Phil Dorn, P. Eng.</p>	<p>J.R. Cousin Consultants Ltd. 91A Scurfield Blvd. Winnipeg, MB R3Y 1G4 Telephone (204) 489-0474 Fax (204) 489-0487 Attention Mr. Alfred Beghin, P. Eng.</p>
<p>Envirotech – Ag Systems Ltd. Unit 6, 845 Lagimodiere Blvd. Winnipeg, MB R2J 3M2 Telephone (204) 231-3354 Fax (204) 231-8574 Attention Mr. Peter Grieger, P. Eng.</p>	<p>Stantec Consulting 905 Waverley Street Winnipeg, MB R3T 5P4 Telephone (204) 489-5900 Fax (204) 453-9012 Attention: Mr. Eric Wiens, P. Eng.</p>
<p>Steckley Consulting Engineers Inc. Box 749 915 Navigator Drive Winkler, MB R6W 4A8 Telephone (204) 325-5114 Fax (204) 325-0618 Attention Mr. Kevin Steckley, P. Eng.</p>	<p>SNC – Lavalin Roberts Sloane 200-1600 Ness Avenue, Madisson Square Winnipeg, MB R3J 3W7 Telephone (204) 786-8080 Fax (204) 786-7934 Attention Mr. Roland Vercaigne, P. Eng.</p>
<p>Glen D. Newton, P. Eng. Box 8 Site 200 RR1 Brandon, MB R7A 5Y1 Telephone (204) 725-1688 Fax (204) 725-3922 Attention Mr. Glen D. Newton, P. Eng.</p>	<p>Wolfrom Engineering Ltd. 345 Wardlaw Avenue Winnipeg, MB R3L 0L5 Telephone (204) 452-0041 Fax (204) 284-8680 Attention Mr. Dan Wolfrom, P. Eng.</p>

\*This listing is comprised of engineering consulting firms or professional engineers that have provided service to agricultural producers in Manitoba. The listing does not constitute endorsement of any particular firm nor is the listing necessarily exhaustive.