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NEW ANIMAL-WASTE STRUCTURE PERMIT PROCEDURES

by

Joseph L. Taraba
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Extension Specialist for Agricultural Engineering

Over the past two years, there have been several changes in the requirements of, and in the procedures for, obtaining permits for animal-waste holding structures. The Division of Water (DOW) in the Department for Natural Resources and Environmental Protection (DNREP), which administers the Kentucky Water Pollution Law (KRS 224), has determined that the statutes require them to review and to approve all agricultural animal-waste-holding facilities constructed in Kentucky (KRS 224.033(19)). Because of their review, they have simplified the procedures and brought the requirements for waste disposal systems into agreement with the state law. At the present time, no further changes are anticipated unless mandated by the legislation or by court rulings. The following
is a summary of the requirements for agricultural animal-waste holding structures as of November 1, 1981.

There are three distinct documents issued by the DOW for each animal waste system project: 1) the Preliminary Site Approval Letter, 2) the Construction Permit, and 3) the Operational Permit. The Preliminary Site Approval of the proposed agricultural waste-holding facility primarily asserts that the site slope; soil; geology; distance from streams, lakes, and residences; animal type and population; and suitable land disposal area for animal wastes meets minimum requirements. The acceptable and marginal criteria for approval of a waste system are listed in Attachment 5. This information should be taken by DOW field personnel during the inspection and filed in the state office. A Construction Permit is issued for a proposed agricultural waste-holding facility after the structure's construction plans on the approved site and the site location are submitted, reviewed and found to meet state requirements. Construction of the facility can begin after the Construction Permit is issued. After the waste-holding facility has been certified to be completed according to approved plans, an Operational Permit is issued for a five-year period which specifies that the facility is to be operated so as not to contaminate the streams of Kentucky or the groundwater. A brief summary of the procedures for obtaining site approval and permits are found in Attachment 1.

One of the reasons for the procedural changes was to expedite the permit process for agricultural projects which resulted in a Memorandum of Agreement (May 18, 1980) between DOW and the Soil Conservation Service (SCS). Since the SCS provides technical assistance to the farming community for the design and construction of animal-waste facilities, through their conservation districts, the Memorandum of Agreement establishes a smoother working relationship for expediting construction of
those facilities that were designed or approved by the SCS and whose
design criteria are in accordance with Kentucky state law. The following
is the procedure established for the review and approval of SCS-designed,
agricultural-waste structure facilities prior to initiating construction.
Although these steps specifically apply to SCS-assisted individuals,
anyone can apply for a permit with the same procedure being used. The
planned facility again must meet DOW criteria, but certification is made
by DOW field personnel rather than SCS personnel.

1) A request form (Attachment 2) shall be used when applying for
the preliminary site approval letter for all proposed agricultural
projects. The form shall be submitted to the Division of Water, Fort
Boone Plaza, 14 Reilly Road, Frankfort, KY 40601, 502/564-3410.

2) A site inspection shall be conducted by district field personnel
of the Division of Water and, whenever possible, the Soil Conservation
Service. A field report is filed within fifteen (15) days recommending
issuance or denial of the preliminary site approval letter. If both
parties agree, verbal approval by a DW representative shall suffice
until written approval is received. The preliminary site approval or
denial letter shall be issued within fifteen (15) days of receipt of the
field report by the DOW.

3) In lieu of submitting formal engineering plans and specifications,
the Soil Conservation Service shall submit an executed application for a
construction permit (Attachment 3), a copy of the design calculations,
and a letter of certification stating that the facility will be designed
in accordance with the SCS criteria which have been approved and are on
file with the DOW. The construction permit will be issued within fifteen
(15) days of receipt of the above.

4) The Soil Conservation Service shall submit final "as-built"
plans for DOW records. A letter of certification of construction noting
any changes in the project from that described in the construction
permit shall be attached.

5) If at anytime the Soil Conservation Service becomes aware of
construction practices not in conformance with the plans and specifications,
the DOW will be immediately notified in accordance with standard SCS
procedures.

After the Certification of Construction has been received, the DOW
will issue an Operational Permit for the holding facility stipulating
that it must be operated in a manner that keeps manure and other wastes
out of streams and groundwater. This basically means that the animal-waste system does not discharge wastes or polluted water into a stream, that waste-retention facilities have a minimum leakage of pollutants into the groundwater, and that animal wastes are disposed onto the land in an agronomically-acceptable manner which minimizes pollutant surface runoff to streams and infiltration to groundwater. The Operational Permit is issued for a five-year period and will be automatically renewed if the facility has met the stipulated requirements during the period of operation. In other words, the facility has not been cited for water pollution in the previous five-year period. If violations have occurred, a reinspection of the facility by the Division of Water may be required to determine if management procedures and/or the waste-holding structures need modifications in order to bring the system back into compliance.

The Division of Water has established new district offices for Kentucky. Applications for preliminary site approval and the construction permit can be obtained from these offices. The addresses and counties included in each district are found in Attachment 4.

The Extension Plan Service in the Department of Agricultural Engineering is presently having all plans for waste-holding structures or buildings incorporating a waste-holding structure reviewed by the SCS; those plans acceptable will be noted. Any future plans will be reviewed by the SCS. The animal producer is still ultimately responsible for seeing that the SCS will approve the plan before construction.
ATTACHMENT 1.

ANIMAL WASTE STRUCTURE

CONSTRUCTION PERMIT

WHO MUST APPLY: Anyone who plans to CONSTRUCT or INSTALL a MANURE HANDLING SYSTEM for a CONFINED FEEDING operation. (With or without the assistance of the Soil Conservation Service.)

MINIMUM REQUIREMENTS: Every system shall be designed to keep all manure and other wastes out of STREAMS and GROUNDWATER. Excess accumulated wastes shall be applied to suitable farmland.

HOW TO APPLY: Complete the "Preliminary Site Approval" request form (on back) and send it to the Division of Water (DOW) office in your district. (Contact your local SCS representative to determine which DOW district includes your county or call the Wastewater Section at (502) 564-7885.

PROCEDURES: -Within 2-3 weeks a DOW representative will conduct a site survey. If acceptable, a preliminary approval letter is issued, and the project is designed.

-Within 1-2 weeks after design work is completed, a permit to construct is issued.

MORE INFORMATION: *Division of Water - Doug Allgeier (502) 564-7885.

*Soil Conservation Service - local representative or Jim Hamilton (606) 233-2754.

*County Extension Service (UK) - local representative or Joe Taraba (606) 258-5696.
APPLICATION FOR PRELIMINARY SITE APPROVAL

Agriculture

To be completed by confined animal production facilities

Please print or type.

1. GENERAL

1. Name and address of applicant

A. Legal name of applicant __________________________________________________________

B. Mailing address of applicant.
   1. Street, route, or P.O. Box No. __________________________________________________
   2. City or town ___________________________________________ Zip Code ____________
   3. County, parish or borough ____________________________________________________
   4. State ___________ Zip Code __________________________

C. Telephone number ___________ Number

2. Applicant's authorized agent

A. Name ___________________________________________ B. Title __________________________

C. Mailing address of agent
   1. Street, route, or P.O. Box No. __________________________________________________
   2. City or town ___________________________________________ Zip Code ____________
   3. County, parish, or borough __________________________________________________
   4. State ___________ Zip Code __________________________

D. Telephone Number ___________ Number

3. Attach a copy of the U. S. Geological Survey Map which accurately locates the proposed facility and the land to be used for manure disposal.

4. To expedite the issuance of the preliminary approval letter, a copy of this application and map shall be concurrently sent to the appropriate Division of Water District Office
GENERAL INSTRUCTIONS
for the Application for Construction Permit

The Division of Water, Department for Natural Resources and Environmental Protection has promulgated regulations pursuant to, and in accordance with, KRS (Kentucky Revised Statutes) Chapters 13 and 224. Regulations covering permits to discharge, water quality standards and water pollution control are contained in 401 KAR (Kentucky Administrative Regulations) 5:005 to 5:045.

Regulation 401 KAR 5:005 (Section 2) specifies that no person shall construct, modify or operate a wastewater facility without having first received a Construction Permit from the Division of Water, Department for Natural Resources & Environmental Protection.

If you have a discharge, or discharges, or intend to construct a wastewater treatment facility fitting any category described below, you must complete the applicable forms and apply for a permit. The forms differ by type:

- Short Form A - Municipal Wastewater Dischargers
- Short Form B - Animal Waste Management
- Short Form C - Manufacturing Establishments and Mining
- Short Form D - Services, Wholesale and Retail Trade, and All Other Commercial Establishments.

If your business or activity involves production of both raw products and ready-for-market products you may be required to complete two of the above forms. For example: If you produce a raw product such as milk into cheese, you must complete Form B - Animal Wastes Management, and Form C - Manufacturing and Mining.

If the discharge is from a sewage treatment process which is not from a municipal, agricultural, or industrial facility (e.g., housing subdivision, school, etc.) complete and submit Form D.

A construction permit will be issued where a new facility is to be constructed. Upon notification by the applicant that the facility has been certified by a registered engineer as to the construction, according to approved plans and specifications, completed, and ready for operation, a department representative will inspect the completed facility and its operation. An operational permit will then be issued.

For all proposed facilities which will involve construction within a floodplain, a permit from the Division of Water - Floodplain Management Section may be required.

EXCLUSIONS

You are not required to obtain a permit for the following types of waste discharges:
1. Treated sewage discharged from marine vessels (e.g., ships), or
2. Those discharges conveyed directly to a publicly or privately owned waste treatment facility (however, these discharges must receive pre-treatment where applicable).

PROCEDURES FOR FILING

Copies of all forms are available at the Division of Water, Fort Boone Plaza, 14 Reilly Road, Frankfort, Kentucky 40601. (502) 564-3410

Data submitted on these forms are to be used as a basis for issuing permits. Depending on the adequacy and nature of the data submitted, you may be called upon for additional information before a permit is granted.

Complete the appropriate form(s) for your operation, being sure that each item is considered and the required data submitted. Check the items which most nearly apply to you and your operation. If an item does not apply, please enter in the appropriate place "NOT APPLICABLE" or "NA" to show that the item was given consideration. Most of the items on the form require the checking of one or more of several possible answers.
Application for "new" discharges must apply at least 30 days before construction of the facility generating the discharge is due to begin, unless a delay is granted by the Division of Water.

SIGNATURE ON APPLICATION

The person who signs the application form will often be the applicant himself; when another person signs on behalf of the applicant, this representative shall be responsible for the overall operation of the facility described and his title or relationship should be noted in the space provided. In all cases, the person signing the form should be authorized to do so by the applicant.

USE OF INFORMATION

All information contained in this application will, upon request, be made available to the public for inspection.

A separate sheet entitled "Confidential Answers" must be used to set the information which is considered by the applicant to constitute trade secrets. The information must clearly indicate the item number to which it applies. Confidential treatment can be considered only for that information for which a specific written request of confidentiality has been made on the attached sheet. However, in no event will identification of the contents, volume, and frequency of a discharge be recognized as confidential or privileged information, except in certain cases involving the national security.

DEFINITIONS

(1) "Department," means the Department for Natural Resources and Environmental Protection.
(2) "Division," means the Division of Water.
(3) "Establishment," means any industrial plant, mill, factory, tannery, paper or pulp mill, mine or mineral processing or producing facility, quarry, oil refinery, or other type of commercial, manufacturing or industrial works or facility in the operation of which sewage, industrial wastes or other wastes are produced, or stored.
(4) "Facility," means a sewage system as defined in KRS 224.005(15) (See Sewage).
(5) "Sewage," means the water-carried human or animal wastes from residences, building, industrial establishments or other places together with such industrial wastes, underground, surfaces, storm or other water, as may be present.
(6) "Industrial wastes," means any liquid, or other waste resulting from any process of industry, manufacture, trade or business, or from the depletion of any natural resources.
(7) "Other wastes," means sawdust, bark or other wood debris, garbage, refuse, ashes, offal, tar, oil, chemicals, acid drainage, wastes from agricultural enterprises, and all other foreign substances not included within the above definitions or industrial wastes and sewage where defined which may cause or contribute to the pollution of any waters of the Commonwealth.
(8) "Permit," means permission in whatever form by the department to construct and operate a facility.
(9) "Professional engineer," or "engineer," means a person registered to practice engineering pursuant to KRS Chapter 322.
SHORT FORM B - ANIMAL WASTES MANAGEMENT

SPECIFIC INSTRUCTIONS

WHO MUST APPLY:

The owner or operator of any facility as described below or any facility which the Director of the Division of Water considers to be a significant pollution problem. Final determination on the need for a permit will be based upon a review of the application and, in many instances, site visits.

ANIMAL PRODUCTION FACILITIES:

1. A facility that has or may have a discharge, providing a confined area for feeding or holding animals, but not including areas used for growing crops or vegetation for animal feed, which holds or during the previous 12 months held for a total of 30 days or more, any of the following animals:
   Slaughter & Feeder cattle
   Mature dairy cattle - milker and dry
   All swine over 55 pounds
   Sheep
   Turkeys - in open lots
   Ducks
   Laying hens and broilers
   Facilities with continuous overflow
   Facilities with liquid manure handling systems*

   *Any system where the manure is collected, stored, or transported utilizing liquid manure conveyance by gravity flow or pumping system.

2. Owners or operators, whether individuals, partnerships, or corporations, with more than one confined animal production facility located on adjacent or nearby properties, where:
   (A) Such facilities utilize a common waste control system or disposal area, and
   (B) The total number of animals or combination of animals in the individual operations exceeds the above animal limits.

3. Voluntary filing. None of the above requirements preclude the voluntary filing of an NPDES application by the owner or operator of an agricultural or silvicultural activity.

INSTRUCTIONS FOR INDIVIDUAL ITEMS:

Section I - General

Item 1. Internal Use Only.
Item 2. Give the name, as it is legally referred to, of the person, firm, public organization, or any other entity which owns or is directly responsible for the facility or activity described in this application. This may or may not be the same name as
the facility or activity producing the discharge. Do no use colloquial names as a substitute for the official name.

Item 3. Give the complete mailing address of the applicant's main office. This often will not be the same address used to designate the location of the facility or activity.

Item 4. Give the name, title, address, and telephone number of a person who is thoroughly familiar with the facts reported on the forms and can be contacted by reviewing offices if necessary.

Item 5. Indicate whether the facility is existing (currently operating) or proposed (to be operating in the future).

Item 6. For an existing facility, give the date construction was completed for its current capacity. The expected completion date should be given if the facility is currently under construction or planned.

Item 7. Directions should use known landmarks and route numbers if possible.

Item 8. Self-explanatory.


SECTION II - Animal Confinement and Feeding Facilities

Item 1. Give the largest number of each type of animal held by the facility for 30 days or more during the previous 12 months. If possible, use the same designations for the types of animals as was listed at the beginning of these instructions under "Who Must Apply".

Item 2. Give only the area used for the animal confinement or feeding facility. Do not include area used for growing or preparing feed.

Item 3. Give acres of land that are owned or leased by the facility for manure disposal.

Item 4. Indicate in 4.A whether the animals are entirely in the open, totally under roof, or partially under roof. Indicate in 4.B the percentages of the lot that is roofed versus that which is open.

Item 5. If the facility is planned to be expanded in the future, give the expected date for this expansion and the new total capacity by type and number of animals.
APPLICATION FOR PERMIT TO
CONSTRUCT/OPERATE A
WASTEWATER FACILITY

SHORT FORM A, B, C, or D

To be completed by any facility that generates and/or treats a wastewater.

Please print or type

I. GENERAL

1. Permit No. (leave blank) 1-8

2. Applicant Name:

3. Applicant Mailing Address:
(St. No./R.R. No./P.O. Box No., etc.)

City/Town:

State: Zip: Telephone Number: (w/area code)

Facility Name:

Facility Location:

City/Town:

County: State: Zip: Telephone Number:

Telephone Number:
4. Applicant's Authorized Agent:

Name: __________________________ Title: __________________________

Agent Mailing Address: _____________________________________________
(St. No./R.R. No./P.O. Box No.)

City/Town: __________________________ State: ___________ Zip Code: ______

Telephone Number: __________________________ (w/area code)

5. Is this facility (check one) ■ Existing ■ Proposed?

6. Date facility was (or will be) constructed: ______/______ (month) / (year)

7. Give directions to this facility from the nearest town:

____________________________________________________________________
____________________________________________________________________

8. Attach a sketch, aerial photograph, or map of the existing or proposed facility and/or activity, with the following information marked (a Soil Conservation Service aerial photograph, or a U.S. Geological Survey Map, of the area involved is preferred.)

A. Approximate overall dimensions of the facility.

B. Direction and location of surface drainage and other discharges from the facility.

C. General location of waterways (e.g., streams, rivers, lakes) in the area.

D. ____________________________________________________________________

9. I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief such information is true, complete and accurate.

Printed name of person signing __________________________ Title __________________________

Signature of applicant __________________________ Date application signed __________________________
II. ANIMAL CONFINEMENT AND FEEDING FACILITIES

1. Largest number of animals held by confinement or feeding facilities at any one time in the previous 12 months. Give type and number of animals.

<table>
<thead>
<tr>
<th>Type of animal (include approx. live wt. per animal)</th>
<th>Number of Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Approximate area used for animal confinement or feeding _______ acres.

3. Approximate land available for manure disposal__________ acres.

4. A. Animals in this facility are (check one)
   1. [ ] in open confinement
   2. [ ] housed under roof
   3. [ ] both

   B. Percentage of lot under roof is ______%.

C. If there is open confinement, has a run-off and control system been constructed?
   1. [ ] Yes       2. [ ] No

D. If there are any housed animals at this facility, is there a liquid manure handling system used for manure management?
   1. [ ] Yes       2. [ ] No

   If yes, is there a discharge to a waterway (e.g., stream, river, lake)?
   1. [ ] Yes       2. [ ] No

5. Do you anticipate expansion of this facility in the future?
   A. [ ] Yes       2. [ ] No       If yes, complete the following statements.

   C. Date of future expansion ______/______ month/year

   D. Type of Animals
     Number of Animals
     ____________________________________________
     ____________________________________________

COMMENTS:
____________________________________________________
SURVEY FOR PRELIMINARY SITE APPROVAL
(Agricultural Project Review)

1. Regarding nearby streams or impoundments; stream use (classification), e.g., as a dam, for agriculture, for public drinking; existing land use in drainage area; existing wastewater discharges in the drainage area....

<table>
<thead>
<tr>
<th>Acceptable Conditions</th>
<th>Marginal Conditions (site denial or may require additional controls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No potable water sources in immediate vicinity.</td>
<td>Nearby water supplies (wells, reservoirs and/or intakes).</td>
</tr>
<tr>
<td>Adjacent streams are warmwater aquatic habitats.</td>
<td>Any adjacent stream that is a cold water, aquatic habitat or outstanding resource/wild and scenic river (as classified by DOW).</td>
</tr>
<tr>
<td></td>
<td>Local surface and/or groundwater of low quality due to existing septic tanks, package sewage plants and/or nonpoint discharges, e.g., other animal waste facilities.</td>
</tr>
</tbody>
</table>

2. Regarding soil suitability, e.g., slope, soil association, local depth to rock, local depth to groundwater surface....

<table>
<thead>
<tr>
<th>Acceptable Conditions</th>
<th>Marginal Conditions (site denial or may require additional controls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well-drained, relatively flat top soil.</td>
<td>Severe slopes, i.e., greater than or equal to 15%, and/or erosion channels in soil.</td>
</tr>
<tr>
<td></td>
<td>Shallow top soil, e.g., less than 4 ft.</td>
</tr>
<tr>
<td></td>
<td>High seasonal groundwater table (ponding in low areas).</td>
</tr>
</tbody>
</table>

3. Regarding the type of waste-holding structure, e.g., a pond, etc.....

<table>
<thead>
<tr>
<th>Acceptable Conditions</th>
<th>Marginal Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If the top soil is not suitable for the construction of a pond or lagoon, e.g., shallow or poorly drained, a concrete tank or equivalent may be required.</td>
</tr>
</tbody>
</table>
4. Regarding whether animal production facility is confined or not....

**Calculation of Acceptable Conditions**

Waste-holding structures not required for unconfined feeding.

5. Regarding an adequate area available for land application (acres). Information needed: number of animals, type of animals, runoff area draining to holding pond, surface area of proposed holding pond (if uncovered) and storage time....

\[
\text{AVG DAILY WASTE PROD RATE} = \frac{\text{AVG VOL WASTE/ANIMAL}}{\text{NO. OF ANIMALS}} \text{ (ft}^3/\text{day)}
\]

\[
\text{AVG DAILY RUNOFF RATE} = \frac{\text{AVG DAILY PRECIP} \times (\text{POND AREA} + \text{RUNOFF AREA})}{\text{(ft}^3/\text{day}) \times (\text{ft})}
\]

\[
\text{EMERGENCY STORAGE VOL} = 25 \text{ yr, 24-hr PRECIP} \times \text{POND AREA} \text{ (ft}^3\text{)} \times (\text{ft}) \times (\text{ft}^2)
\]

**Acceptable Conditions**

The available land is divided into the average daily storage volume to yield a land application rate which should be under 134:

\[
\text{LAND APP RATE} = \left(\frac{\text{AVG DAILY WASTE PROD RATE} + \text{AVG DAILY RUNOFF RATE}}{(\text{ft}^3/\text{day/acre}) + (\text{ft}^3/\text{day})} \right) \times \frac{\text{EMERGENCY STORAGE VOL/STORAGE TIME}}{\text{LAND \ (ft}^3\text{)} \times (\text{days}) \times (\text{acres})}
\]

6. Regarding land application schedule....

**Acceptable Conditions**

That sufficient storage volume is available to meet the proposed schedule.