### FGD Pad For Temporary Livestock Confinement

**Landowner:**

**County:**

<table>
<thead>
<tr>
<th>Designer:</th>
<th>Date:</th>
<th>Checked:</th>
<th>Date:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Approved for FGD Delivery</th>
<th>Date:</th>
<th>AEP Representative:</th>
<th>Date:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Planned FGD Delivery</th>
<th>Date:</th>
<th>As-Built Approval:</th>
<th>Date:</th>
</tr>
</thead>
</table>

### Site Planning

This application is intended where livestock need to be temporarily confined to a feeding area for pasture protection. Under normal circumstances the pad would not be used more than 30 cumulative days during any 12-month period.

Follow siting criteria in Ohio NRCS Practice Standard 757i (Livestock Use Area Protection), OSU Extension Factsheet AEX-332-99, and Ohio EPA Statewide PTI #07-0037 (6/25/97)

1. Attach Soils Map showing pad layout, nearest watercourse and nearby water well locations. Attach or reference appropriate engineering drawings showing needed runoff or manure management practices.

2. Confinement area is outside the 100 year floodplain: Yes _____________ No _____________

3. Is diversion of off-site surface water necessary: No _____________ Yes ________________
   If yes, state surface water management practice(s) and attach appropriate design documentation:
   
   ____________________________________________________________________________________
   ____________________________________________________________________________________

4. Is pad located within 100 ft of a watercourse: No _______________ Yes ________________
   State appropriate runoff management practice(s) and attach appropriate design documentation:
   
   ____________________________________________________________________________________
   ____________________________________________________________________________________

5. Is an access road to confinement area needed: No _______________ Yes ________________
   If yes, attach appropriate design documentation. Note, the OEPA permit for FGD only includes access areas adjacent to the confinement pad.

6. Attach (or reference) the appropriate documentation showing that the area (or pasture) in which the confinement pad is located meets the minimum criteria for a Resource Management System (RMS), including needed manure storage and utilization practices:
   
   ____________________________________________________________________________________
Pad Design

1) Primary type of animals on pad = ________________________________________________

2) Projected number of animals on the pad = ___________ @ final weight = __________ lb. each
   typical maximum    typical average

Pad Area Requirements of Cattle and Sheep.

<table>
<thead>
<tr>
<th>Type of animal on pad</th>
<th>Weight of animals leaving pad (lb. per animal)</th>
<th>Area required * (sq. ft. per animal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef or dairy cattle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calves</td>
<td>400-800</td>
<td>40-50</td>
</tr>
<tr>
<td>Finishing cattle</td>
<td>800-1200</td>
<td>50-60</td>
</tr>
<tr>
<td>Bred heifers</td>
<td>800-1200</td>
<td>50-60</td>
</tr>
<tr>
<td>Mature cows</td>
<td>1000-1500</td>
<td>60-75</td>
</tr>
<tr>
<td>Sheep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rams</td>
<td>180-300</td>
<td>16</td>
</tr>
<tr>
<td>Dry ewes</td>
<td>150-200</td>
<td>16</td>
</tr>
<tr>
<td>Feeder lambs</td>
<td>30-110</td>
<td>10</td>
</tr>
</tbody>
</table>

* When a range of pad areas is given in this column, higher values correspond to higher weights within the range shown and visa versa.

3) Confinement area required:

   Area for animals = \( \frac{\text{number of animals}}{\text{sq. ft. per animal}} \) = \( \frac{\text{}}{\text{}} \) sq. ft.

   Manure may be scraped to the high side of an enlarged pad for temporary containment. The pad area may be enlarged by up to 15% for this purpose.

   Area for manure = \( \frac{\left( \frac{\text{enlargement}}{100} \right) \times \text{sq. ft.}}{\text{area for animals}} \) = \( \frac{\text{}}{\text{}} \) sq. ft.

   Total confinement area = \( \frac{\text{sq. ft.}}{\text{area for animals}} \) + \( \frac{\text{sq. ft.}}{\text{area for manure}} \) = \( \frac{\text{}}{\text{}} \) sq. ft.

4) Confinement area dimensions (assumes area is rectangular):

   Specify the limiting or a preferred dimension for the pad, \( \frac{\text{}}{\text{}} \) feet

   Other dimension = \( \frac{\text{total confinement area \( \times \) specified dimension}}{\text{sq. ft. \( \div \) ft.}} \) = \( \frac{\text{}}{\text{}} \) feet

   To adjust the shape of a pad, specify a different dimension above and repeat the calculation.

5) Access area = \( \frac{\text{Ave. width of access \( \times \) Ave. length of access}}{\text{sq. ft. \( \times \) ft.}} \) = \( \frac{\text{}}{\text{}} \) sq. ft.

   Access areas adjoin and are in reasonable proximity to the pad. Drives, lanes and other trafficways should not be included as they are not covered under current Ohio EPA permits.

6) Total pad area = \( \frac{\text{confinement area \( + \) access area}}{\text{sq. ft. \( = \) sq. ft.}} \) = \( \frac{\text{}}{\text{}} \) sq. ft.

7) FGD requirement = \( \frac{\text{total pad area \( \times \) sq. ft. \( \div \) 16 sq. ft. per ton}}{\text{tons}} \) = \( \frac{\text{}}{\text{}} \) tons

   (FGD quantity based upon 15” thickness and density = 100 lb/ft^3)

\footnote{Design procedure developed by Dr. Richard Stowell, The Ohio State University Extension}