Maryland Department of the Environment

Air Quality Permitting for Poultry Litter Projects

William Paul, Div. Chief
Air Quality Permits Program
MDE - ARMA
Pre-Construction Permits: Why?

• Legal and regulatory requirement – i.e. a permit is needed before any new emission source can be installed or built. See COMAR 26.11.02.09 and .10.

• Overall purpose is to ensure that emissions of criteria pollutants do not contribute to a violation of federal ambient air quality standards and that emissions of air toxics do not endanger public health.

• Permit conditions often include source specific emission limits as well as testing, monitoring and recordkeeping requirements as deemed appropriate.
Overview of Permit Types

- General permits
- Permits to Construct (PTC)
- State Permit to Operate (PTO)
- Prevention of Significant Deterioration (PSD)
- Non Attainment New Source Review (NA-NSR)
- Federal Title V Operating Permit
Permit Types (cont)

For Smaller Projects

• General Permits – limited to dry cleaning equipment, char broilers, auto refinishing, small boilers, ready mix asphalt, etc. Based on standardized permit conditions.

• Permit to Construct – required for the majority of projects discharge emissions to the outside air unless specifically exempt under COMAR 26.11.02.10

• State Permit to Operate – required only for source listed under COMAR 26.11.02.13
For Larger Projects

- **NA–NSR**, applies to a major source locating in a non–attainment area and which has the potential to discharge significant emissions of NOx or VOC, precursors to ozone formation. Must install the most effective control equipment option.

- **PSD**, applies to a major source locating in an attainment area and which has the potential to discharge significant quantities of a criteria pollutant.

- **Title 5 Operating Permit** is a state issued federal operating permit required for major stationary sources.
Current Scope of Biomass Processes

- Anaerobic digestion
- Pyrolysis
- Gasification
- Combustion
- Incineration
## Permitting Requirements

<table>
<thead>
<tr>
<th>Process</th>
<th>PTC</th>
<th>PTO</th>
<th>NA-NSR</th>
<th>PSD</th>
<th>Title 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaerobic Digestion*</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Pyrolysis</td>
<td>Y</td>
<td>Maybe</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Gasification</td>
<td>Y</td>
<td>Maybe</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Combustion</td>
<td>Y</td>
<td>Maybe</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Incineration</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

* The addition of any biogas fuel burning equipment to the project scope will likely require a PTC.
Permitting Issues to Consider

• Nuisance regs (COMAR 26.11.06.08) - applies even if PTC is not issued.

• Odor regs (COMAR 26.11.06.09) – applies even if PTC is not issued.

• Transportation of poultry litter from other may require Land Mgmt approval.

• Generating and selling electricity to the power grid will likely require PSC approval.
QUESTIONS ??