

## Small Scale Meat Processing – Environmental Permits



Small meat processing facilities are generally regulated at the Federal level by the U.S. Department of Agriculture (USDA) and at the State level by the TN Department of Agriculture (TDA). Facilities may also need environmental permits which are regulated by the TN Department of Environment and Conservation (TDEC).

Limited local meat processing infrastructure in Tennessee has resulted in the need for an increase in meat harvest capacity, which can be achieved by expanding existing facilities or building new facilities. Various environmental permits may be required prior to building a new facility or expanding an existing facility. Environmental permits contain required actions and measures designed to minimize the risk of pollution of Tennessee's air, land, and water. This page should be utilized as a resource to inform new and existing processors of what environmental permits may be needed to build a new or expand an existing small-scale meat processing facility, as well as provide common resources supplied by TDA to meat processing facilities looking to get started in TN. The TDEC Small Business Environmental Assistance Program can provide further assistance to small scale meat processors by providing additional information and/or assisting with the completion of permit applications. Because local government regulations may differ from state government regulations, you should contact your local municipality to learn about any requirements they may have.

In general, environmental permits and/or notifications may be required for the following activities:

- Construction of a new facility or expansion of an existing facility
  - Initial construction or renovation of a site
  - Construction of sources at the facility (boilers, incinerators)
- Operational activities:
  - Drinking water
  - Wastewater disposal
  - Solid waste and/or offal disposal
  - Boilers, incinerators, other air sources

### **Construction of a new facility or expansion of an existing facility**

Authorization under the [Tennessee Construction General Permit](#) from the Division of Water Resources is required for soil disturbance greater than 1 acre or less than 1 acre if part of a common plan of development (ex: commercial or residential subdivision). Total soil disturbance includes, but is not limited to, the building footprint, landscaping, parking, driveways, and haul roads. General permit issuance by the Division of Water Resources may take up to 30 days after receipt of a complete application.

Authorization under an [Aquatic Resources Alterations Permit](#) from the Division of Water Resources is required for applicable alterations to streams and wetlands. Examples of application alterations include stream crossings for roads, an outfall to a stream, or filling in a wetland. General permit issuance by the Division of Water Resources may take up to 30 days after receipt of a complete application. Individual permit issuance by the Division of Water Resources may take up to 90 days after receipt of a complete application. The scale of alteration to streams and wetlands determines whether a general or individual permit is required.

An [Asbestos Notification](#) should be submitted to Division of Air Pollution Control (or delegated county's air pollution program [<https://www.tn.gov/environment/environmental-related-contacts.html>]) if an existing structure will be demolished or renovated. This notice should be submitted at least 10 days prior to beginning work that would disturb asbestos containing materials. The Division will contact the applicant within 10 days of receipt ONLY IF the application is deemed incomplete. This notification should be submitted, even if there are no asbestos containing materials present to notify Air Pollution Control that the materials have been evaluated and found to be free of asbestos.

If the facility will have an air emission source, then an [Air Quality Construction Permit](#) application would be needed. Some common air sources that might occur at a meat processing facility are:

- wood or oil-fired boilers,
- natural gas boilers greater than 10 MMBTU/hr.,
- incinerator for leftover carcasses (as mentioned above in Solid waste/offal disposal),
- or potentially a smoking/curing operation.

The air emission source may be determined to be an insignificant source of air pollution, but this could only be determined if the information is sent to the Air Pollution Control Division (or delegated county's air pollution program [<https://www.tn.gov/environment/environmental-related-contacts.html>]), usually in the form of a permit application with a request for determination letter. Air Pollution Control Construction permits should be applied for 90 days prior to beginning construction of the source.

### **Operations - Drinking Water**

Drinking water may be sourced from the local municipal water supply or obtained from a well on the property.

If new drinking water lines are being constructed from the municipal water supply line to the facility, the Division of Water Resources [must be notified of](#) and approve this construction.

If drinking water from the local municipality is not available, a drinking water well may be installed on the property by a [licensed well driller](#). The Division of Water Resources must be [notified of the installation of the well](#). The licensed well driller typically completes and submits these forms to the Division.

### **Operations - Wastewater Disposal for Sanitary and Process Water**

If available, wastewater should be sent to the local municipal wastewater treatment plant. Contact your local municipality to learn if any pretreatment is required.

If connection to the local municipal wastewater treatment plant is not available, the facility can discharge sanitary and/or process water through a subsurface sewage disposal system (i.e., septic system) – provided adequate, suitable soil is available and an appropriate system is installed. Two applications should be submitted to the Division of Water Resources to use a subsurface sewage disposal system in this manner: an application for a Septic System Construction Permit is required to install a new system or modify an existing system, and an application for an Underground Injection Control Permit – Class V is also required.

A [Septic System Construction Permit](#) from the Division of Water Resources is required to construct a new or modify an existing subsurface sewage disposal system (i.e., septic system) to dispose of wastewater, either sanitary or process. Due to the biological composition of blood and offal, TDEC discourages sending these waste streams to the septic system. A Septic System Construction Permit application would be needed 45 days before beginning construction.

The [Underground Injection Control Permit – Class V](#) is required for anyone discharging industrial and/or commercial waste into a subsurface sewage disposal system. This application should be submitted prior to or in conjunction with the Septic System Construction Permit.

Subsurface sewage disposal systems are site-specific, and functionality and effectiveness are dependent upon a variety of factors, including soil type and amount of land. To determine what type of subsurface sewage disposal system would be most effective for your operations, contact your local TDEC Field Staff. A soil map may be required to assess the feasibility of a septic system on your site. Be prepared to inform TDEC Staff of all types of animals that will be processed, the proposed number of animals to be processed per day, and an estimate of how many gallons of water will be used per day for both sanitary and process water. Systems designed to support more than 750 gallons of wastewater/day require an engineered design. To assist with installation and soil mapping, here are links to the list of [Permitted Installers](#) and licensed [Soil Scientists](#).

### **Operations - Waste/Offal Disposal**

Similar to the process water, offal and carcass disposal will remain an issue following construction of the facility. Some options are:

- **Composting:** The Division of Solid Waste Management can provide information on [composting](#) correctly.
- Service provider: These would be services that haul off collected offal for proper disposal. TDEC does not provide recommendations for specific potential service providers. Often these could also do a pump and haul system for blood and process water.
- Incineration: Installing an incineration unit may allow for disposal of offal and carcasses. An [Air Quality Construction Permit](#) application would be needed 90 days prior to installing the incineration unit.

### **Operations - Boilers, Incinerators, and other air sources**

Air emissions sources should have a construction permit prior to beginning construction on the source. Sources include boilers, incinerators, meat curing, and potentially others. If an air emission source requiring permitting receives a Construction permit, read the permit carefully. Some items to remember concerning construction permits:

- Construction permits are only valid for about a year or until start-up of the air emission source, whichever is earlier
- A start-up certification may be required. It will be specifically listed in the construction permit if needed and what needs to be done to comply

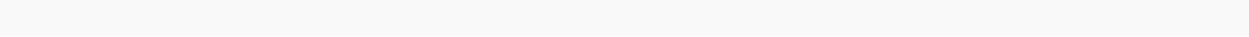
Following construction of the source, an [Operating Permit](#) is required for air emission sources.

- Operating permits should be applied for within 30 days of start-up of the source to replace the Construction permit with an Operating permit
- Operating permits should be applied for 60 days prior to the expiration of the current operating permit
- Any required recordkeeping and reporting will be outlined in the permit

If your facility is a source that has not been permitted previously, even though it is an existing source, it would still need to go through the Construction Permit application step. Also, if a facility is expanding a source (such as replacing a boiler with a larger boiler or one that uses a different fuel), that would constitute reconstruction and require a new construction permit application. Some of the key differences between Construction and Operating permits are listed below:

	<b>Construction Permit</b>	<b>Operating Permit</b>
<b>Public Notice</b>	Required	Not required
<b>Time before expiring</b>	1 year (usually)	10 years

<b>Fees</b>	Permit fee based on amount of emissions	No permit fee (but see annual fees)
<b>Annual Fees</b>	No annual fee (usually expires before 1 year)	Annual fees for facilities emitting 10 tons or more
<b>Recordkeeping</b>	Outlined on the permit	Outlined on the permit
<b>Reporting</b>	Outlined on the permit	Outlined on the permit



**Additional Resources**

These are common resources provided by the TDA for potential meat processing facilities:

- [Wendy Sneed](#) (phone: 615-837-5309 cell: 615-864-6367) is the primary contact with the TN Dept. of Agriculture Business Development Division relating to small scale meat processing facilities. Below are resources commonly provided by the TDA for prospective meat processing facilities:
- [Feasibility of a Federally Inspected Custom Harvest Facility](#) in Tennessee – Publication from UT Ag Economics that includes information from labor to offal disposal.
- [Guide to Designing a Small Red Meat Plant](#) – Iowa State – Free download or you can purchase booklet
- USDA Food Safety Inspection Service (FSIS)
  - [Hazard Analysis Critical Control Point \(HACCP\) plan](#)
  - [Small and Very Small Plant Outreach](#)
- Custom Exempt Harvest – permitted by the Tennessee Department of Agriculture Consumer Industry Services Division. [Click here for more information](#)
- [Agriculture Enterprise Fund](#) – This is a cost share through the TN Department of Agriculture. It maxes at 25% cost share and can be used for infrastructure or equipment. If you have any application specific questions, feel free to contact Will Freeman who oversees the fund at [William.H.Freeman@tn.gov](mailto:William.H.Freeman@tn.gov)
- [USDA Rural Development](#) –Business programs available
- [ECD](#) –Regional Business Consultants for Economic and Community Development in a facility’s area (need to scroll down the page some). Also, the [Business Enterprise Resource Office](#) with [TN Smart Start](#).
- [TVA](#) – Look under Regional Development Specialists for a contact in your region (map that pops up indicates which counties are served by that Regional Development Specialist).