



# DISASTER-RELATED CARCASS DISPOSAL

## TEXAS ANIMAL HEALTH COMMISSION

Effective disposal of disaster-related animal carcasses and products is key to a successful response and recovery from a disaster or incident. The overall goal of carcass disposal is to conduct these operations in a timely, safe, biosecure, aesthetically acceptable, and environmentally responsible manner.

Animal owners and operators are ultimately responsible for the proper disposal of the animals in their care.

The most common methods of non-diseased animal carcass disposal include:

- ★ On-Site Burial
- ★ Permitted Landfill Burial
- ★ Incineration
- ★ Composting
- ★ Rendering
- ★ Novel Methods

★ **On-site burial** is the most efficient and cost effective method of carcass disposal. However, natural disasters may present challenges and prevent on-site burial. Accessibility, proximity to water sources, ground saturation by flood waters, soil properties, and regulatory requirements must be considered before burying animals.

★ **Permitted landfill burial** is often the most appropriate for disaster carcass disposal. As some landfills may be restricted or forbidden from accepting animal carcasses, local emergency management officials should have agreements in place with TCEQ-permitted landfill owners/operators which address access, capacity, etc.

★ **Incineration** at a commercial waste facility or on-site are options for carcass disposal under certain conditions. Many commercial facilities do not accept animal carcasses. On-site incineration is a time-consuming method and may result in a negative public response.

★ **Composting** carcasses requires large quantities of carbon sources to use as a base layer and as cover materials - 1,000 lbs of carcass will require 10 -12 yds<sup>3</sup> of materials and may take as long as a year to thoroughly decompose.

★ **Rendering** uses heat to convert carcasses into protein-based solids, water, and melted fat/tallow. There are seven certified rendering plants in Texas, but they may have little, if any, surge capacity. Biosecure transport is required to move carcasses to a rendering facility.

★ **Novel methods**, such as lactic acid fermentation, gasification, *in situ* plasma vitrification, and alkaline hydrolysis are expensive and typically used by veterinary schools or large research facilities. They typically do not have any emergency capacity.

### Call Before You Dig!

Texas law requires you to call 811 any time the earth will be disturbed 16 inches or more. Fencing, trenching, terracing, ditching, and some landscaping or tilling chores may require an 811 call. Calling 811 at least 48 hours before you begin a project will identify where buried utility lines and pipelines are on your property.

## Important Links:

### Texas Animal Health Commission (TAHC):

Rules

[http://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac\\_view=3&ti=4&pt=2](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=3&ti=4&pt=2)

### Texas Commission on Environmental Quality (TCEQ):

*Active municipal solid waste landfills in Texas* (June, 2015)

<http://www.tceq.texas.gov/assets/public/permitting/waste/msw/msw-landfills-active.pdf>

*Disposal of Domestic or Exotic Livestock Carcasses* (March, 2005)

<https://www.tceq.texas.gov/publications/rg/rg-419.html>

*Handling and Disposal of Carcasses from Poultry Operations* (August, 2009)

<http://www.tceq.texas.gov/publications/rg/rg-326.html>

*Managing Debris from Declared Disasters* (September, 2015)

<http://www.tceq.texas.gov/publications/rg/rg-518.html>

*Outdoor Burning in Texas* (February, 2015)

<http://www.tceq.texas.gov/publications/rg/rg-049.html>

*Special Waste Regulations in Texas* (September, 2006)

[http://www.tceq.texas.gov/publications/rg/rg-029.html/at\\_download/file](http://www.tceq.texas.gov/publications/rg/rg-029.html/at_download/file)

### Texas Occupations Code:

Chapter 801.361: *Disposal of Animal Remains*

<http://www.statutes.legis.state.tx.us/Docs/OC/htm/OC.801.htm>

### National Renderers Association:

Certified Plants:

<http://www.nationalrenderers.org/biosecurity-appi/code/certified-plants/>

### USDA-APHIS: Foreign Animal Disease Preparedness & Response Plan (FAD PRoP)

NAHEMS (*National Animal Health Emergency Management System*): NAHEMS

*Guidelines: Disposal* (December 2102)

[http://www.aphis.usda.gov/animal\\_health/emergency\\_management/downloads/nahems\\_guidelines/disposal\\_nahems.pdf](http://www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/disposal_nahems.pdf)