TCEQ REGULATORY GUIDANCE
Waste Permits Divison
RG-326 ● August 2009

Handling and Disposal of Carcasses from Poultry Operations

On-farm disposal of dead animals should always be carried out in a manner that protects public health and safety, does not create a nuisance, prevents the spread of disease, and prevents adverse effects on water quality.

If you hatch, raise, or keep poultry, state law (Texas Water Code 26.303, Handling and Disposal of Poultry Carcasses) requires you to properly dispose of any birds that may die while in your care or at your facility. The purpose of this law is to prevent poultry carcasses from creating a nuisance or endangering water quality. The law requires the TCEQ to develop rules that will achieve that purpose—in part, by banning routine on-farm burial of dead poultry. The law does allow on-farm burial, but only in the event of a major die-off.

Texas Water Code 26.303 and TCEQ-related rules (Title 30, Texas Administrative Code, Section 335.25, or 30 TAC 335.25) apply to you if you own or operate a poultry facility, regardless of whether you actually own the poultry. The rules also apply to you even if you are operating a "grandfathered" facility (one exempted because it predates rule enactment) or a facility that is otherwise exempt from TCEQ rules for animal-feeding operations.

Under TCEQ rules, you must use an approved method for handling routine losses and be prepared to handle the results of a *major die-off*, i.e., any incident that causes 0.3 percent or more of your flock to die per day.

Handling Routine Losses

By planning in advance how you will dispose of carcasses due to routine losses, your facility will be better prepared to deal with environmental and health issues both routinely and in an emergency. If you have a certified water quality management plan (WQMP) from the Texas State Soil and Water Conservation Board (TSSWCB), you should follow the guidance in your plan or contact the TSSWCB. If you do not have a certified WQMP, it is recommended that you contact your local TCEQ office.

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The death of less than 0.3 percent of your flock per day is considered a *routine loss*. Routine losses must be managed by one or more of the methods listed below. Whichever method you choose, you must not allow the carcasses to cause a nuisance odor.

- Send the carcasses to a rendering plant,[1] another processing facility, or a permitted landfill.
- Process the carcasses on your farm by a method that is explicitly approved in TCEQ rules.
- Use any other method (except on-site burial), provided that you get TCEQ approval first.

TCEQ rules [30 TAC 335.25(c)] prohibit on-site burial of poultry carcasses due to routine losses.

How many carcasses should I be able to handle due to routine losses?

To ensure that you can comply with this rule, you should base your routine carcass-handling capacity on the largest number of live birds that your facility is capable of managing. Table 1 gives the number of birds equal to 0.3 percent for various flock sizes commonly managed in Texas.

Table 1. 0.3 Percent of Various Sizes of Flocks.

Flock Size	0.3% of Flock Size
16,000	48
64,000	192
128,000	384
192,000	576
256,000	768

Special requirements for animals that die of communicable diseases

Texas Animal Health Commission (TAHC) rules require disposal of animals that die from a disease recognized as communicable by the veterinary

[1] If the carcasses are to be rendered, the rendering plant must have authorization from the Texas Department of State Health Services (DSHS). Additionally, trucks hauling carcasses to a rendering facility must be registered with the DSHS. See <www.dshs.state.tx.us/msa/render.shtm>.

profession within time frames and by methods approved by the TAHC. A list of diseases that are reportable and approved methods of disposal may be obtained from the TAHC. Contact information for the TAHC appears on page 10.

But what if the TCEQ has given me permission to bury all carcasses or my permit requires burial?

Some older permits require that carcasses be buried. However, the statute establishing acceptable methods for carcass handling took effect after those permits were written, and the statute supersedes any related statements in those permits. The TCEQ will change this wording in your permit when you amend or renew it. However, if you have a permit that says you *may* or you *must* bury carcasses, the law requires you to begin to use another method starting *now.*

May I leave them for wild animals?

No. State law specifically prohibits this practice. When carcasses are left in the open, wild animals, rainfall runoff, or both can spread disease from the carcasses to humans and domestic animals, contaminate surface water and groundwater supplies, and cause nuisance odors.

What steps must be taken immediately?

Carcasses must be disposed of by an approved method, or stored in a refrigerated unit within 72 hours, for the owner or operator to remain in compliance with state law and to prevent nuisance odors. When disease is a concern, the TAHC may require immediate action and specify the method for handling and disposal of the carcasses. You must contact the TAHC (see page 10 for contact information) if disease is suspected.

Storing for 72 hours or less

Use a closed trash bin or similar varmint-proof, leakproof, spill-proof, and odor-preventing container. If you use this method, you are not required to register with, or obtain a permit from, the TCEQ.

Long-term storage

If you plan to hold the carcasses for more than 72 hours before you process them or have them removed, you must store them in a freezer or refrigerator at 40 degrees Fahrenheit or less. If you use this method, you generally will not be required to register with, or obtain a permit from, the TCEQ. However, if you intend to install an ammonia-based refrigeration unit like those used at large commercial refrigeration facilities, you must first verify that the unit will qualify for a permit by rule under TCEQ air-quality rules. If not, you must contact the TCEQ Air Permits Division to get a new permit or amend your current permit before you start building the refrigeration unit.

What kinds of processing are acceptable?

The following methods are approved for the routine disposal of carcasses:

- placement in a landfill permitted by the TCEQ to receive municipal solid waste
- cremation or incineration
- composting
- extrusion
- removal to an offsite rendering plant[2]

The method or methods you choose and the scale of your operation will determine whether you must register, apply for a permit, or notify the TCEQ. The TAHC may require a different method for disposal of diseased animals.

What are the regulatory requirements for carcass incineration?

Most incinerators used at poultry operations with an incineration capacity equal to or less than 200 lb/hr qualify for a permit by rule under the TCEQ air quality rules (Permit by Rule 106.494). If your incinerator doesn't meet the permit by rules requirements, you will need to obtain an individual air permit from the TCEQ (see page 10 for how to contact the TCEQ Air Permits Division).

Incinerators are typically authorized for use during daylight hours—that is, from one hour after sunrise until one hour before sunset. However, an incinerator with a CO or opacity monitor installed may burn after dark.

[2] If the carcasses are to be rendered, the rendering plant must have authorization from DSHS. Additionally, trucks hauling carcasses to a rendering facility must be registered with the DSHS. See <www.dshs.state.tx.us/msa/render.shtm>.

A list of poultry incinerators that have been registered with the TCEQ is posted on the TCEQ Web site at <www.tceq.state.tx.us/assets/public/permitting/air/Guidance/NewSourceReview/poultryincin_lst2_08.pdf>

You may also request a copy of the list of registered incinerators by writing or calling the Air Permits Division. Contact information appears on page 10.

How can I compost poultry carcasses?

TCEQ rules allow you to compost the carcasses of your own poultry on your own farm without registering with the TCEQ or applying for a permit, as long as your operation:

- Composts carcasses from your farm only with suitable bulking agents that have been purchased or have been obtained from your own farm only—for example, poultry litter, pine straw, wood shavings, landscape trimmings, and hay. (This requirement is important to ensure that you don't engage in activities that require additional authorizations.)
- Is kept at least 50 feet from the nearest property line if the total of composting materials and finished compost could exceed 2,000 cu yd.
- Creates no nuisance odors.
- Reduces exposure to "disease vectors"—that is, birds, flies, rodents, and other animals that could spread disease from the carcasses to humans, farm animals, pets, or wildlife.
- Does not discharge contaminants to surface water.
- Does not result in contamination of groundwater.
- Controls dust.

Composting in a covered area or in an enclosed bin can help in achieving these requirements. The USDA Natural Resource Conservation Service (NRCS) can recommend designs for bins that meet these criteria.

It is recommended (but not required) that composting operations be located at least:

- 150 ft from wells
- 150 ft from the nearest creek, stream, pond, lake, or river
- 50 ft from the nearest property line
- outside the 100-year floodplain

It is also recommended that composting operations take place in a location that is not visible to neighbors or traffic.

What are the requirements for carcass management using other methods?

If you choose another method of disposal, notify the Industrial and Hazardous Waste Permits Section in writing of your choice. Mail your notice to the address on page 10. If you are planning on using one of these methods on a large scale, contact the Air Permits Division (512-239-1240) to find out whether you need to obtain an air quality permit or, if you already have such a permit, amend it.

Handling Major Die-Offs

In the event of a major die-off (one in which 0.3 percent or more of your flock dies), you may bury the carcasses. However, if the die-off occurs among younger birds, you may find that your normal means of carcass handling will accommodate more carcasses than the number that corresponds to 0.3 percent of your overall inventory.

Carcass burial

If you choose to bury carcasses resulting from a major die-off on your farm and you have an approved water quality management plan for your site, you do not need to notify the TCEQ. The plan contains a burial map and information on how to bury the carcasses. The TSSWCB, NRCS, or local soil and water conservation district may be able to assist and confirm the appropriate location for burial in the event of a major die-off. (Information about the WQMP Program may be found at the Texas Soil and Water Conservation Web site, <www.tsswcb.state.tx.us>, or by calling 254-773-2250 or [toll-free] 800-792-3485.)

However, if you do not have a certified water quality management plan, you must notify the TCEQ Industrial and Hazardous Wastes Permits Section in a letter which contains your full name and address, the type of animals, and a short description of the locations on your farm where the carcasses will be buried. This letter will be considered as your compliance with 30 TAC 335.6 and will be acknowledged by the TCEQ. Mail your notification to the address listed on page 10.

It is also recommended that you notify the TCEQ regional office so that its staff can respond to public inquiries and to assist you with issues that may be encountered during an emergency situation.

If you do decide to bury the carcasses, then you remain responsible for controlling these and other potential impacts:

- contamination of groundwater
- contamination of surface water
- nuisance odors
- contact with disease vectors

To control these impacts, you need the right soil, the right site, and the right cover for burial of the carcasses.

Find the right soil

If you choose to bury the carcasses, you need to do so in soil that will retain the carcasses and their decomposition by-products within the excavation in order to prevent contamination of surface water or groundwater. If you have a certified WQMP, the NRCS can help you determine the suitability of your soils for burial of carcasses.

High-permeability soils such as sand may not be suitable for carcass burial without first lining the burial pit. Holders of certified water quality management plans should contact the TSSWCB or NRCS for assistance in determining the type of liner that may be appropriate for permeable soils. If you do not have a certified WQMP, you may contact the TCEQ Industrial and Hazardous Waste Permits Section (512-239-6595) for guidelines on liner construction.

Find the right site

The following are guidelines for locating an acceptable site for carcass burial based on the TCEQ rules for the disposal of household garbage, sludge, and wastewater:

- *Protect drinking-water wells.* Under TCEQ rules for wastewater holding tanks and sludge-application sites, the site must be at least 500 ft from the nearest public well, 150 ft from the nearest private well, and located outside of the 100-year floodplain.
- *Protect surface water.* TCEQ rules for septic tanks and drain fields require those facilities to be at least 50 ft from the nearest creek, stream, pond, lake, or river.
- *Protect your neighbors.* The burial site should be at least 50 ft from adjacent property lines; 200 ft or more is recommended.

Use the right cover

In order to control disease vectors and odors, the TCEQ municipal solid waste rules require that carcasses be covered with at least 2 ft of soil as soon as they

are placed in a landfill. This practice is also recommended for burial of poultry carcasses on individual farms.

You are responsible for protecting our state water resources

The guidelines for carcass burial are based on other rules developed to protect state water resources. By following them, you should be able to reduce the risk of contaminating water supplies or creating a nuisance. However, you are responsible for any problem that arises from your burial of the carcasses, even if you followed these guidelines when you buried them.

Call before you dig

We also recommend that you call 800-344-8377 to make sure you will not accidentally hit a gas or utility line on your property during excavation.

Do I have options besides burial?

There is no requirement to bury carcasses resulting from a major die-off.[3] Some alternatives to burial:

- Transport carcasses to a permitted landfill or processing facility.
- Arrange to use an extra waste container temporarily (up to 72 hours) until you can get rid of the carcasses through your normal means.
- Arrange to use a refrigerated unit temporarily until you can get rid of the excess carcasses through your normal means.

Whether these or other alternatives are practical depends on the size of your operation, the size of the die-off, and other factors. Use good judgment when evaluating your choices.

What are the Penalties for Violating the Poultry Carcass Handling and Disposal Act?

You could be fined up to $10,000 per violation of the act. Each day of noncompliance may be considered a separate violation.

The act appears in the Texas Water Code, Chapter 26, Subchapter H, Poultry Operations.

[3] If the die-off is as a result of a disease outbreak, the TAHC may specify the disposal method.

Where Can I Find the Rules on Handling Poultry Carcasses?

All TCEQ rules appear in Title 30, Texas Administrative Code (30 TAC). Rules that directly apply to poultry carcass handling:

Industrial Solid Waste (30 TAC 335)

- Section 335.6, Notification Requirements
- Section 335.25, Handling, Storing, Processing, Transporting, and Disposing of Poultry Carcasses

Other TCEQ rules that are applicable to the handling of poultry carcasses include:

Control of Air Pollution by Permitting (30 TAC 116)

Permits by Rule (30 TAC 106)

- Section 106.494, Incinerators
- Section 106.373, Refrigeration Systems
- Section 106.161, Animal Feeding Operations

Concentrated Animal Feeding Operations (30 TAC 321, Subchapter B)

Composting Operations (30 TAC 332)

Municipal Solid Waste (30 TAC 330)

- Cover Requirements when Burying Dead Animals, Subsection 330.136(b)(2)

All of the rules pertaining to proper handling of poultry carcasses are found on the TCEQ Web site:

<www.tceq.state.tx.us/goto/rules>

or order copies from TCEQ Publications:

e-mail: <puborder@tceq.state.tx.us>

fax: 512-239-4488

phone: 512-239-0028

mail: Publications Ordering, MC-195
TCEQ
PO Box 13087
Austin, TX 78711-3087

Who Do I Notify?

If you don't have a certified Water Quality Management Plan, mail your notification or any other correspondence on this topic to:

Industrial and Hazardous Waste Permits Section, MC 130
PO Box 13087
TCEQ
Austin, TX 78711-3087
phone: 512-239-6595
fax: 512-239-6383

For questions about air quality rules only, contact:

Air Permits Division, MC 162
TCEQ
PO Box 13087
Austin, TX 78711-3087
phone: 512-239-1240
fax: 512-239-1300

For questions regarding burial, soils, or other information about a water quality management plan, contact the TSSWCB Poultry Program at:

Poultry Program Office
TSSWCB
PO Box 633901
Nacogdoches, TX 75963
phone: 936-462-7020

In the event of a die-off suspected to have been caused by disease, contact the Texas Animal Health Commission at:

TAHC
PO Box 12966
Austin, TX 78711-2966
phone: 800-550-8242

Facilities with a certified water quality management plan may contact the USDA NRCS for assistance in composter design and environmental issues regarding carcass burial at:

USDA NRCS
101 South Main
Temple, TX 76501
phone: 254-742-9800
fax: 254-742-9819

Other Helpful Information and Recommended References

Texas Agriculture Code <www.statutes.legis.state.tx.us/?link=AG>, Chapters 161 to 168.

Texas Occupations Code <www.statutes.legis.state.tx.us/?link=OC> 801.361, Disposal of Animal Remains.

Texas Animal Health Commission. Call 800-550-8242 before disposing of diseased animals. The TAHC also can supply a list of reportable animal diseases.

Disposal of Domestic or Exotic Livestock Carcasses (TCEQ publication no. RG-419) explains suggested guidelines from the TCEQ and the TAHC for disposal of farm or ranch animals.

Catastrophic Animal Mortality Management (Burial Method), Technical Guidance, USDA Natural Resources Conservation Service, Texas State Soil and Water Conservation Board, February 11, 2002.

NRCS TX Conservation Practice Standards, Code 316, Animal Mortality Management.

OSHA Construction rules: www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926

OSHA Excavation Rules: www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10930