Texas Agricultural Extension Service
The Texas A&M University System

L-5217
9/98

Dead Poultry Disposal

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Dead poultry on farms can cause nuisance, odor and aesthetic problems; surface and groundwater pollution; disease; and insect, rodent and predator problems if the birds are not disposed of daily. Proper management of dead birds is vital from the standpoint of avoiding nuisance complaints. The frequency of pick-up, methods of holding and ultimate disposal of carcasses are easy operations for neighbors and regulatory personnel to visually monitor. It only takes a relatively small, individual problem to create additional burdens for all poultry producers.

The disposal of dead poultry is an increasingly complex problem for Texas poultrymen. Recent Texas legislation has made it the responsibility of each producer to adopt and maintain an environmentally sound method of dead bird disposal. Senate Bill 1910 regulates the utilization and disposal of on-farm mortalities. The Texas Natural Resource Conservation Commission (TNRCC) is developing rules of implementation.

The disposal methods allowed under S.B.1910 include: composting, incineration, rendering, extrusion, freezing, cooking for swine food, placement in a permitted landfill, and any other TNRCC approved method. Disposal pits or ground disposal methods will no longer be allowed, except in the case of a massive die-off, after the new regulations are fully implemented.

The various disposal alternatives each require appropriate management on a daily basis. Producers should evaluate alternatives and implement the most feasible method. Advice and assistance obtained from cooperating agencies can be of significant value in minimizing mistakes and future problems.

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Composting, incineration and rendering are currently recognized as the most feasible authorized options for producers.

Composting

There has been an increased interest in composting as a means of dead bird disposal in recent years. The availability of federal funds to partially offset construction costs of composting units has contributed to this increase. Plans for construction of composting units and financial information are available from county Farm Services Agency offices.

Composting requires the use of primary and secondary compost bins and the use of hay, litter and water to decompose carcasses. Strict discipline on the part of employees and managers is required to assure that the composting process is properly maintained. Special heavy equipment to turn and move the composting materials is essential to ensure satisfactory decomposition of carcasses.

The bulky composted material then must be disposed of in an acceptable manner. Composted carcasses cannot be spread on pastureland because of the potential for botulism poisoning in grazing animals. Instead, the material may be spread on hay fields or cropland where animals have no opportunity for direct contact with the compost.

Considerations of composting include:

- Construction of proper facilities;
- Availability of cost-share funds;
- Heavy-equipment needs, including use of a front-end loader;
- Daily management, monitoring and turning requirements of compost;
- Ensuring no contact with livestock if compost is applied to land;
- Availability of necessary inputs of litter, straw and water.

Incineration

Incineration can be a convenient and environmentally safe method to dispose of dead birds. However, expensive, smokeless incinerators are required. They must be properly operated, maintained and replaced as needed. Nuisance complaints about smoke and odor caused by poor maintenance and improper operation of incinerators are common.

Incinerators must be operated properly to maximize equipment life and to minimize problems with emissions. Loading and operation should follow manufacturer recommendations. Ashes should be removed frequently to maximize combustion and prevent damage to equipment.

Considerations include:

- Equipment emissions that meet air quality standards;
- Availability of cost-share funds;
- Registration of incinerator with TNRCC;
- Expense of fuel in relation to increased operating costs;
- Maximum burn rate of 200 pounds per hour. It is advisable and less expensive to limit the burn rate to 100 pounds per hour.

Dead animal incineration is governed by TNRCC regulations that control particulate emissions and air quality. Incinerators for use on poultry farms must meet commission specifications. Though exempt from TNRCC permits, incinerators must be registered by completing Form PI-7.

Before installation and operation, a poultry producer must be certain that the incinerator unit under consideration has been approved by TNRCC. If the unit has been TNRCC approved, the operational details of the incinerator will be on file with the commission. All that a producer needs to supply on the PI-7 is the location of the unit and other site specific data. The producer must provide the information for Sections I and II. If longitude and latitude are not known, a specific set of directions to the incinerator site will be sufficient.

Under Section III (Type of Facility) of the PI-7, the following information is needed:

A. Applicable Exemption Number(s) from TNRCC List 106.494

B. Name of Facility and Company's Facility Number *Manufacturer name and specific model number of the incinerator equipment*

C. TNRCC Account Identification Number *Will not have one unless there are other exemptions registered for this site*

D. Previous Special Exemption or Permit Number *None needed if no other incinerators are registered for this site*

E. Operating Schedule: Hours/day *Daylight hours* Days/week *Producer Preference* Weeks/year *Producer Preference*

F. Proposed Start of Construction *ASAP* (Date) Operation *ASAP* (Date)

G. Permanent [*X*] Portable [ ]

H. Length of time at this site, if portable *Not applicable*

Under Section V (Emissions Data), write: *On File With TNRCC*

Completed PI-7 forms must be signed, dated and mailed to TNRCC, Office of Air Quality, New Source Review Permits Division at the address printed on the PI-7 form.

If a facility has an existing TNRCC air or water permit and then changes the method of carcass disposal, it is necessary to review the existing permit with TNRCC personnel. Changes in the mortality management provisions of the permit are subject to TNRCC approval.

Rendering

Rendering to produce animal meal is one of the best methods of carcass disposal. However, rendering services may not be readily available. In some areas of the state, carcasses are picked up from farms and carried to the renderer each day or every other day. Proper bio-security measures must be used by collection vehicles to prevent disease transmission between farms.

The expense and logistics of collecting small volumes of carcasses on a frequent basis prevent this disposal method from being widely accepted. Research on economically feasible carcass preservation methods that permit on-farm storage and less frequent pickup is underway. Methods under study include cold storage, freezing and enzymatic and chemical processes. To date, the most widely used method to store carcasses are on-farm freezers, however this adds significantly to operating costs.

On-farm rendering is seldom feasible. Some producers feed dead birds to swine. Carcasses must, by law, be cooked in order to meet S.B. 1910 and Texas Department of Health regulations, and the collection, cooking and feeding processes must be operated in a sanitary manner.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

REGISTRATION FORM FOR EXEMPTIONS
FORM PI-7

Please mail to: TNRCC, Office of Air Quality, New Source Review Permits Division (MC-162),
PO Box 13087, Austin, TX 78711-3087

I. Company Name _____
(Corporation, Company, Government Agency, Firm, etc.)

Mailing Address _____

Individual Authorized to Act for Registrant: Name _____ Title _____

Address _____ Telephone ( ) _____ Fax ( ) _____

II. LOCATION OF EXEMPT FACILITY (Latitude and Longitude must be to the nearest second):

Name of Plant or Site _____

Street Address _____

Nearest City _____ County _____ Latitude _____ Longitude _____

SITE REQUIREMENTS:
A. Submit a plot plan to scale of the property showing the location of plant boundaries, plant equipment, and surrounding area.
B. Furnish an area map with a scale showing the facility location relative to highways and towns.

III. TYPE OF FACILITY:
A. Applicable Exemption Number(s) from TNRCC List _____
B. Name of Facility and Company's Facility Number _____
C. TNRCC Account Identification Number _____
D. Previous Special Exemption or Permit Number _____
E. Operating Schedule: Hours/day _____ Days/week _____ Weeks/year _____
F. Proposed Start of Construction _____ (Date) Operation _____ (Date)
G. Permanent [ ] Portable [ ]
H. Length of time at this site, if portable _____

IV. PROCESS INFORMATION
Description of Process: Prepare and attach a written description of the exempt process and applicable checklists (when available). The description must be in sufficient detail to indicate that the facility will conform to the specified exemption.

V. EMISSIONS DATA — Furnish a description of the basis for emission rates including fugitives. (Calculations, emission factors, measurement, NSPS, etc.)

Emission Point Number	Name of Source	Name of Air Contaminant	Emission Rate of Each Air Contaminant			
			lb/hr		tons/yr	
			Gaseous	Particulate	Gaseous	Particulate

VI. The required copy of the registration request has been sent to the Regional Office of the TNRCC: [ ]Yes [ ]No
The required copy of the registration request has been sent to the Local Programs (if applicable): [ ]Yes [ ]No

VII. I, _____
(Name) (Title)
state that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project will satisfy the conditions and limitations of the indicated exemption. The facility will operate in compliance with all Regulations of the Texas Natural Resource Conservation Commission and with Federal Environmental Protection Agency Regulations governing air pollution.

DATE _____ SIGNATURE _____

Produced by Agricultural Communications, The Texas A&M University System

Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Chester P. Fehlis, Deputy Director, Texas Agricultural Extension Service, The Texas A&M University System.
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