

The Texas Natural Resource Conservation Commission (commission) adopts an amendment to §106.494, Pathological Waste Incinerators. The amendment is adopted with changes to the proposed text as published in the May 14, 1999 issue of the *Texas Register* (24 TexReg 3683).

EXPLANATION OF THE ADOPTED RULE

Pathological waste incinerators are authorized at animal feeding operations under Chapter 106, Exemptions from Permitting. Section 106.494(b)(1)(E) authorizes the construction and use of a dual-chambered incinerator with a minimum secondary chamber temperature of 1,400 degrees Fahrenheit and a minimum 1/4-second retention time, provided the unit is located 700 feet from the nearest property line. A significant number of poultry farm owners or operators cannot place incinerators with these specifications on their property and meet the required setback in the exemption. They would either be forced to obtain a permit for the unit, use a different method of disposal, or obtain an incinerator capable of higher secondary chamber temperatures and longer residence time.

The amendments to §106.494 are adopted concurrently with the adoption of amendments proposed by the commission on April 28, 1999 to 30 TAC Chapter 335, Industrial Solid and Municipal Hazardous Waste. The amendments to Chapter 335 implement the requirements of Senate Bill (SB) 1910 from the 75th Texas Legislature and specify acceptable disposal methods of poultry carcasses, including incineration, and prohibit on-site burial except in the event of a major die-off that exceeds the capacity of a facility to dispose of carcasses by the normal means used by the facility. The commission anticipates that with the prohibition against routine burial, incineration of carcasses will be the most widely used method of disposal. The commission reexamined the conditions of §106.494(b)(1)(E) to

determine if the property-line setback could be reduced to allow smaller farms to use incinerators while still meeting the property-line particulate matter concentration standards in 30 TAC Chapter 111, Control of Air Pollution from Visible Emissions and Particulate Matter, and the National Ambient Air Quality Standards (NAAQS) for particulate.

The commission analyzed various setback scenarios using updated air dispersion modeling techniques to assess effects based on operating hours and stack height, given the prescribed hourly rated capacity, temperature, and retention time. The commission found that most incineration units currently available have a stack exit height that will allow proper dispersion of exhaust gases at a setback reduced from the current 700-foot requirement. Consequently, the commission retains the option of the current setback and is adding a range of reduced setback distance requirements depending on stack height and operating hours. The adopted amendments include a new table of allowable setback distances from property lines based on stack height.

The adoption also rearranges the language of the section to clearly differentiate definitions from the operational conditions of exempted incinerators and to locate definitions at the beginning of the section in accordance with the regulation format of the commission. A definition of "stack height" is also added to the section along with a statement concerning the general purpose of definitions according to *Texas Register* formatting rules.

FINAL REGULATORY IMPACT ANALYSIS

The intent of these amendments is to provide a greater range of flexibility for incineration authorized under §106.494 while still protecting human health. Operators may incur discretionary costs that are directly associated with exercising the flexibility that would be provided by these amendments. This discretion includes extending stack height so that operators may use a reduced setback based on the adopted table. The commission believes that the stack height of stock incinerators and the available land at most poultry farms will make stack extensions unlikely and isolated. This conclusion is based on information from the poultry industry concerning the size of poultry farms and the ability of operators to locate incinerators within the property and meet required setbacks. In the event individual operators choose to extend an incinerator stack, the commission estimates the cost to be approximately \$300 per foot. The commission believes that the overall economic effect of these amendments on poultry farm operators will be positive. Therefore, this rule will not adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. It does not meet the definition of a major environmental rule under Texas Government Code, §2001.0225(f)(3).

TAKINGS IMPACT ASSESSMENT

The adopted amendments are intended to provide greater flexibility for the use of incinerators at animal feeding operations as authorized under §106.494. The effect of the amendments will be to ease existing restrictions in the regulation regarding setback of incinerators from property lines while maintaining the ability to meet the particulate concentrations in Chapter 111 and the NAAQS for particulate. This action does not restrict or limit an owner's right to property that would otherwise exist in the absence of

this action. This adoption, therefore, does not meet the definition of a takings under Texas Government Code, §2007.002(5).

COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW

The commission has determined that this rulemaking relates to an action or actions subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et seq.), and the commission's rules in 30 TAC Chapter 281, Subchapter B, Consistency with the Texas Coastal Management Program. As required by 31 TAC §505.11(b)(2) and 30 TAC §281.45(a)(3) relating to actions and rules subject to the CMP, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission has reviewed this action for consistency with the CMP goals and policies in accordance with the regulations of the Coastal Coordination Council. For the adopted action in §106.494, the commission has determined that the rule is consistent with the applicable CMP goal expressed in 31 TAC §501.12(1) by protecting and preserving the quality and values of coastal natural resource areas and the policy in 31 TAC §501.14(q), which requires that the commission protect air quality in coastal areas. The adopted amendments allow the option of relocating sources of emissions. They do not allow any new emissions over those currently allowed by the exemption from permitting. The sources that are the subject of this proposal are not addressed by 40 Code of Federal Regulations (CFR); therefore, this proposal is consistent with 40 CFR.

HEARING AND COMMENTERS

A public hearing on the proposal was held June 8, 1999. Three written comments were received during the public comment period which closed on June 14, 1999. An individual commenter questioned specific parts of the proposal as did Harris County Public Health and Environmental Services (Harris County). The commenter from the Texas Poultry Federation (TPF) supported the proposal as published.

ANALYSIS OF TESTIMONY

The individual commented that the amended section should contain a recordkeeping requirement to verify that incinerator operators are in compliance with the 200 pound/hour incinerator feed rate. The same individual is also concerned that improperly operated incinerators could smoke excessively and cause nuisance conditions, depending on land use in the area, if the incinerator were located at reduced setbacks down to a minimum of 90 feet. The individual also stated that improperly operated incinerators could release harmful substances, such as carcinogens from treated feed, as a result of incomplete combustion. The commenter suggested 300 feet as a minimum setback.

Incinerators authorized under this amended section must comply with the monitoring and recordkeeping requirements of 30 TAC §§111.121, 111.125, 111.127, and 111.129, concerning Single-, Dual-, and Multiple-Chamber Incinerators; Testing Requirements; Monitoring and Recordkeeping Requirements; and Operating Requirements. Incinerators burning more than 100 pounds per hour are required to be equipped with a monitoring device that continuously measures and records oxygen content and temperature of the exhaust gas. Additionally, operators of these

incinerators must maintain records of monitoring and test results, hours of operation, and quantity of waste burned. These records are to be maintained for two years.

These requirements are not only a check on the quantity of waste burned, but also provide records on the efficiency of the incineration and promote efficient operation. The required oxygen and temperature monitoring equipment is a verification that the incinerator is operating with an excess of oxygen and is completely burning the poultry carcasses and destroying all harmful substances. The commission believes that, due to their small size and low emissions, incinerators burning 100 pounds per hour or less do not justify recordkeeping in this detail.

The commission conducted computer dispersion modeling using the conditions established by this adoption, and the results indicate that a properly operated incinerator will not cause a violation of property line standards for particulate matter as found in 30 TAC §111.155 at any of the setback distances and operating conditions established in this adoption. Therefore, the commission chooses to retain the property line setbacks as proposed. Historically, these incinerators have not been a source of nuisance or enforcement actions. The commission will address improperly operated incinerators with enforcement action where warranted.

Harris County supported the concept of adjusting setbacks based on stack height. It does not support differing setbacks based on time of day of incinerator operation and suggested that the minimum setbacks be available 24 hours per day. This will allow poultry farm operators increased flexibility to operate when necessary. It believes, that a minimum setback of 140 feet will accommodate all

legitimate operations. Harris County also suggested this alternative to eliminate the difficulty of enforcing the requirements of the amended section during hours when state and local pollution control offices are not normally staffed. Harris County concluded its comments by stating that the commission estimates of \$300 per foot for extending stacks is low.

The dispersion modeling used by the commission to support decreased setbacks demonstrates that greater dispersion of pollutants occurs during daylight hours when solar heating causes more vigorous vertical currents of air. This vertical mixing justifies the reduced setback for daylight hours, and the commission chooses to retain setbacks differentiated on operating hours as proposed. Through consultation with the affected industry, the commission is confident that this will provide sufficient flexibility to operators. Units operated at night are also currently required to have continuous monitors for carbon monoxide and opacity. This requirement will not change. The staff has modified the designation of day and night operation to be consistent with §111.29, Operating Requirements. Day operations would be designated as one hour after sunrise to one hour before sunrise. Additionally, the staff has corrected an existing error in §106.494 (2)(C). The rule currently refers to an opacity observation averaged over a five-minute period. The correct interval as specified in EPA Method 9 is six minutes.

The consultations with the industry also indicate that a minimum setback of 200 feet from property lines would accommodate the majority of poultry farms with restricted space. The commission is retaining the minimum setback of 90 feet because modeling demonstrates that this

distance may be used during daylight hours with the stack height specified in the adopted table and provides sufficient pollutant dispersal to meet particulate standards in Chapter 111.

The estimate of costs to extend stacks is based on similar stack extensions that have been accomplished as the result of amendments to other exemptions from permitting. The commission believes that the estimate of \$300 per foot is reasonable.

The commission has deleted unnecessary references to §111.123 and §111.124 in subsection (b)(2)(F) because the sections do not apply to this exemption.

STATUTORY AUTHORITY

The amendment is adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which provides the commission authority to develop a comprehensive plan for the state's air, and §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA. The amendment is also adopted under TCAA, §382.057, which authorizes the commission to exempt certain sources from the requirement to obtain a preconstruction permit under TCAA, §382.0518, if it is found on investigation that such facilities will not make a significant contribution of air contaminants to the atmosphere.

SUBCHAPTER V : THERMAL CONTROL DEVICES

§106.494

§106.494. Pathological Waste Incinerators (Previously SE 90).

(a) Definitions. The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Pathological waste (as defined in 25 TAC §1.132 (relating to Definitions)) -

Includes, but is not limited to:

(A) human materials removed during surgery, labor and delivery, autopsy, or biopsy, including:

(i) body parts;

(ii) tissues or fetuses;

(iii) organs; and

(iv) bulk blood and body fluids;

(B) products of spontaneous or induced human abortions, including body parts, tissues, fetuses, organs, and bulk blood and body fluids, regardless of the period of gestation;

(C) laboratory specimens of blood and tissue after completion of laboratory examination; and

(D) anatomical remains.

(2) **Human remains (as defined in Health and Safety Code (H&SC), §711.001) -**

The body of decedent.

(3) **Carcasses -** Dead animals, in whole or part.

(4) **Crematory (as defined in the H&SC, §711.001) -** A structure containing a furnace used or intended to be used for the cremation of human remains.

(5) **Animal feeding operations -** A lot or facility (other than an aquatic animal feeding facility or veterinary facility) where animals are stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and the animal confinement areas do not sustain crops, vegetation, forage growth, or post-harvest residues in the normal growing season.

(6) **Non-commercial incinerator** - An incinerator which does not accept pathological waste or carcasses generated off-site for monetary compensation.

(7) **Stack height** - Elevation of the stack exit above the ground.

(b) Conditions of exemption. Crematories and non-commercial incinerators used to dispose of pathological waste and carcasses which meet the following conditions of this section are exempt.

Incinerators used in the recovery of materials are not covered by this section.

(1) Design requirements.

(A) The manufacturer's rated capacity (burn rate) shall be 200 pounds per hour (lbs/hr) or less.

(B) The incinerator shall be a dual-chamber design.

(C) Burners shall be located in each chamber, sized to manufacturer's specifications, and operated as necessary to maintain the minimum temperature requirements of subparagraphs (D) or (E) of this paragraph at all times when the unit is burning waste.

(D) Excluding crematories, the secondary chamber must be designed to maintain a temperature of 1,600 degrees Fahrenheit or more with a gas residence time of 1/2 second or more.

(E) In lieu of subparagraph (D) of this paragraph, incinerators at animal feeding operations that:

(i) are used to dispose of carcasses generated on-site; and

(ii) are located a minimum of 700 feet from the nearest property line, shall be designed to maintain a secondary chamber temperature of 1,400 degrees Fahrenheit or more with a gas residence time of 1/4 second or more. Alternatively, incinerators may be located in accordance with Table 494, provided the total manufacturer's rated capacity (burn rate) of all units located less than 700 feet from a property line shall not exceed 200 lb/hr. Setback distances shall be measured from the stack exit. Figure: 30 TAC §106.494(b)(1)(E)(ii)

Table 494

Stack Height (feet)	Property Line Distance (feet)	
	For 24-hour Operation	For *Daytime-only Operation
8 or less	210	150
> 8 and \leq 12	200	140
> 12 and \leq 16	180	130
> 16 and \leq 20	160	110
> than 20	140	90

*One hour after sunrise to one hour before sunset

(F) There shall be no obstructions to stack flow, such as by rain caps, unless such devices are designed to automatically open when the incinerator is operated. Properly installed and maintained spark arresters are not considered obstruction.

(2) Operational conditions.

(A) Before construction begins, the facility shall be registered with the commission using Form PI-7.

(B) The manufacturer's recommended operating instructions shall be posted at the unit and the unit shall be operated in accordance with these instructions.

(C) The opacity of emissions from the incinerator shall not exceed 5.0% averaged over a six-minute period.

(D) Heat shall be provided by the combustion of sweet natural gas, liquid petroleum gas, or Number 2 fuel oil with less than 0.3% sulfur by weight, or by electric power.

(E) Incinerators installed and operated in accordance with the conditions of this section shall not be used to dispose of any medical waste, other than pathological waste and/or carcasses.

(F) Incinerators installed and operated in accordance with the conditions of this section shall also meet the requirements of §§111.121, 111.125, 111.127, and 111.129 of this title (relating to Single-, Dual-, and Multiple-Chamber Incinerators; Testing Requirements; Monitoring and Recordkeeping Requirements; and Operating Requirements).

(G) Crematories shall be used for the sole purpose of cremation of human remains and appropriate containers.