



June 2005

**Draft Air Quality
Standard Permit
for Animal Carcass
Incinerators
(Pet Crematories)**



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ANIMAL CARCASS INCINERATOR (PET CREMATORY) AIR QUALITY STANDARD PERMIT SUMMARY DOCUMENT

I. EXECUTIVE SUMMARY

The Texas Commission on Environmental Quality (TCEQ or commission) is requesting comments on a proposed new air quality standard permit for animal carcass incinerators (ACIs). The new standard permit would be applicable to ACIs with a maximum burn rate of 200 pounds per hour (lb/hr).

II. EXPLANATION AND BACKGROUND OF AIR QUALITY STANDARD PERMIT

The commission is proposing an air quality standard permit authorizing ACI units under authority of the Texas Health and Safety Code 382.05195, Standard Permit, and Title 30 Texas Administrative Code (30 TAC) Chapter 116, Subchapter F, Standard Permits. The commission previously authorized the majority of ACIs under the conditions of a permit by rule 30 TAC §106.494, Pathological Waste Incinerators, or under Chapter 116, Subchapter B, New Source Review Permits. This standard permit provides a streamlined preconstruction authorization mechanism that may be used by any ACI complying with its requirements and not prohibited by other local, state or federal permitting statutes or regulations.

This standard permit is designed to allow for authorization of an ACI. However, it is not intended to provide an authorization mechanism for all possible unit configurations or for unusual operating scenarios. Those facilities that cannot meet the standard permit conditions may apply for a case-by-case review of an air quality permit under 30 TAC §116.111, General Application.

III. OVERVIEW OF AIR QUALITY STANDARD PERMIT

The permit by rule for pathological waste incinerators, 30 TAC §106.494, offers a streamlined authorization mechanism for ACIs with incineration rates equal to or less than 200 lb/hr. Permit by rule registrations are typically processed in 30 days or less, do not require individual public notice, and have minimal design and operational requirements. However, the permit by rule for pathological waste incinerators is only available to a non commercial ACI: defined under 30 TAC §106.494 as an incinerator which does not accept pathological waste or carcasses generated off-site for monetary compensation. Commercial ACIs are subject to a case-by-case review and must obtain preconstruction authorization by submitting a full new source

review application under 30 TAC §116.111.

Identical incinerators of the same make and model can be subject to different preconstruction authorization requirements, solely on the basis of whether the facility will accept monetary compensation for animal cremation. Commercial ACI operators frequently raise objections that the additional application hurdles they must go through do not have a technical basis. In addition, many non-commercial ACIs would like the option for commercial activity to supplement the cost of operation but do not do so simply because they would prefer to avoid the lengthier permitting process under 30 TAC §116.111.

An applicant for a case-by-case permit to operate a commercial ACI is required to provide notice to the public, which includes an opportunity for requesting a contested case hearing on the proposed facility. In the past five years, approximately one out of every five ACI applications received one or more hearing requests. Hearing requests were based on issues including nuisance odors, ambient air quality concerns, negative health impacts, and property concerns such as appearance, location and property values. TCEQ does not have any jurisdiction to consider property value concerns. However, TCEQ does address any possible health and environmental considerations associated with a permitted facility. In response to these concerns, TCEQ staff have proposed a standard permit for commercial ACIs that takes into consideration the health and environmental issues consistently raised by the public.

ACIs are predictable and minor sources of air contaminants. The resources required for a case-by-case review of each new commercial ACI are greater than warranted for such small and consistent sources. By developing a standard permit for commercial ACIs, the TCEQ would streamline resources used for ACIs while ensuring that the design and operation of these units are strict enough to address and relieve public concern.

IV. PERMIT CONDITION ANALYSIS AND JUSTIFICATION

This standard permit would require ACIs to comply with certain administrative requirements, including registration, a fee, general requirements, operational and design requirements, record keeping requirements, public notice requirements, and executive director approval. This standard permit would require renewal of registration every 10 years.

Applicability

Section (1) of the standard permit outlines the applicability criteria of the standard permit. This standard permit applies to new units installed, or existing units modified, after the effective date of this standard permit.

Administrative Requirements

Section (2) of the standard permit outlines the administrative requirements for all facilities. Subsection (A) requires registration of the proposed facilities in accordance with the regulatory requirements of 30 TAC §116.611, Registration to Use a Standard Permit, including a current form PI-1S, Registrations for Air Standard Permit. 30 TAC §116.610(a)(1), Applicability, emissions and distance limitations do not apply to ACIs under this standard permit as the protectiveness review conducted for the standard permit addressed emission rates and distance limitations for these facilities.

Subsection (B) of this standard permit requires a \$900 fee in accordance with 30 TAC §116.614, Standard Permit Fees, for any single unit or multiple unit application. A fee of \$900 is appropriate in the case of this standard permit to recover staff expenses expended to review a registration application.

Subsection (C) states that facilities can not be constructed and/or operated until the applicant obtains from the executive director written approval of the registration. Although 30 TAC § 116.611(b) states that all standard permit reviews must be completed within 45 days unless otherwise specified, this review period is not appropriate for facilities that register under this standard permit due to the extended amount of time necessary to complete the required public notice.

Public Notice

Section (3) of this standard permit requires that owners and operators of ACIs authorized by this standard permit provide public notice. The standard permit public notice will allow for local communities to be informed of proposed ACI projects. The public will have the opportunity to submit comments to the agency and to be informed on the outcome of the standard permit review. The public notice will not, however, allow for the public to request a contested case hearing, as incinerators meeting the requirements of this standard permit have been demonstrated to meet all air permitting requirements, including passing a health effects review.

Subsection (3)(A) requires the applicant to publish notice of intent to construct an ACI no later than 30th day after the executive director receives the registration. The applicant must publish notice at least once in a newspaper of general circulation in the municipality in which the ACI is proposed to be located or in the

municipality nearest to the proposed location of the ACI, as required by subsection (3)(C). If the elementary or middle school nearest to the proposed ACI provides a bilingual education program as required by Subchapter B, Chapter 29, Texas Education Code, the applicant must also publish the notice at least once in an additional publication of general circulation in the municipality or county in which the ACI is proposed to be located that is published in the language taught in the bilingual education program. This requirement is waived if such a publication does not exist or if the publisher refuses to publish the notice. Subsection (3)(D) requires that the notice include: 1) a brief description of the proposed location and nature of the proposed ACI; 2) a description, including a telephone number, of the manner in which the executive director may be contacted for further information; 3) a description, including a telephone number, of the manner in which the applicant may be contacted for further information; 4) the location and hours of operation of the commission's regional office at which a copy of the application is available for review and copying; and 5) a brief description of the public comment process and the mailing address and deadline for filing written comments.

Subsection (3)(B) states that the public notice requirements in 30 TAC Chapter 39 Subchapter H, Applicability and General Provisions, and Subchapter K, Public Notice of Air Quality Applications do not apply. Facilities authorized by this standard permit are subject to the public notice requirements as summarized in section (3) of this standard permit.

As stated in subsection (3)(E), the public comment period begins on the first date notice is published under subsection (3)(A) and extends to 30 days after the publication date. As required by subsection (3)(F), the executive director will approve or deny the standard permit registration not later than the 30th day after the end of the public comment period. The executive director will base the decision on whether the representations made in the application meet the requirements of this standard permit. The executive director will consider all comments received during the public comment period in determining whether to approve the registration. If the executive director denies the registration, the executive director will state the reasons for the denial and any modifications necessary for the proposed ACI to qualify for the authorization. Subsection (3)(G) specifies that the executive director will issue a written response to any public comments received related to the standard permit at the same time as or as soon as practicable after the executive director grants or denies the application. Issuance of the response after the granting or denial of the registration does not affect the validity of the executive director's decision to grant or deny the registration. The executive director will mail the response to each person who filed a comment and make the response available to the public.

General Requirements

In addition to the requirements found in §116.615, General Conditions, Section (4) of the standard permit outlines the general requirements for all facilities. Subsection (A) specifies that permit holders must comply with 30 TAC Chapter 330, Municipal Solid Waste. For example, owners may elect to qualify their ACIs for the Municipal Solid Waste (MSW) permit by rule for ACIs under 30 TAC §330.75, Animal Crematory Facility Design and Operation Requirements for Permitting by Rule, or undergo a full case by case MSW review under 30 TAC §330.4. However, the TCEQ expects most ACI operators will elect to use the MSW permit by rule. Owners of ACIs must comply with both the air permit and MSW requirements and will always be limited by the more stringent requirement.

Subsection (B) states that each ACI must bear a nameplate with the model and serial number on it in a visible location in order to facilitate compliance determinations.

Historical permitting has shown that some ACI operators expand their operations to include multiple ACIs and that it would be necessary to address these types of scenarios in this standard permit. Subsection (C) has the twofold effect of imposing a cap on the number of incinerators able to be authorized under this standard permit and based upon the number of incinerators, establishes a minimum property line distance to the incinerator(s). The structure of Subsection (C) offers flexibility to ACI operators by giving them a matrix of options, based on the total incineration capacity, the number of incinerators, and incinerator distance to the property line. For example, an operator could obtain authorization for two 200 lb/hr incinerators and would be required to construct them at least 100 ft from the property line. The same operator may instead elect to install one 200 lb/hr incinerator and two 100 lb/hr incinerators, but they would have to place all of them at a minimum of 200 ft from the property line. In both cases, the operator would have reached the total incineration capacity cap of 400 lb/hr such that any future expansions would require a case-by-case new source review under 30 TAC §116.111. The basis for establishing this matrix of options was to give operators flexibility without compromising air quality and to establish continuity with the MSW permit by rule that has a minimum setback requirement of 50 ft from the property line.

Subsection (D) requires that incinerators with a maximum incineration rate greater than 100 lb/hr must comply with the requirements specified under Section 7 of this standard permit.

Design Requirements

Subsections (5)(A) through (E) outline the ACI design requirements. Current best available control technology (BACT) reviews for ACIs require dual-chambered incinerator design.

The primary chamber of an ACI consists of a refractory lined chamber with one natural gas/propane fired burner. Animal carcasses are batch loaded into the chamber, with capacities typically ranging from 200 lb to 800 lb per batch load depending on the incinerator model and burn rate. Operating temperatures in the primary chamber range from 1,200 to 1,600 degrees Fahrenheit. The standard permit will allow for maximum incinerator capacities of up to 200 lb/hr and maximum batch loads must not exceed the manufacturer's specifications. Subsection (A) requires that each load must be weighed by a scale. The scale must be certified biennially to the most current National Institute of Standards and Technology Handbook 44 standards by a third party (who is licensed by the Texas Department of Agriculture).

Hot flue gases from the primary chamber then pass into the secondary chamber. The secondary chamber is also refractory lined and is generally about two-thirds the volume of the primary chamber. The secondary chamber is heated by a second natural gas/propane fired burner and typically fires at twice the heat rate of the primary chamber burner. The sole function of the secondary chamber is to ensure complete combustion of the pathological waste and is one of the most critical components in a properly functioning incinerator. For small ACIs a minimum secondary chamber temperature of 1,600 degrees Fahrenheit with a flue gas residence time of one half second or more will create the proper environment for complete combustion. In order to demonstrate compliance with this standard permit, the operator must continuously monitor and record the secondary chamber temperature as required by subsection (C). Flue gas residence time is not a parameter that can be continuously monitored; however, it may be demonstrated with data obtained from stack testing. ACI vendors typically conduct stack testing on all of their incinerator lines and are able to provide the TCEQ with the stack test data to allow for the calculation of flue gas residence time. The TCEQ maintains a list of ACIs that have been demonstrated to the TCEQ to meet the flue gas residence time requirement. The list is available on the TCEQ website at http://home.tnrc.state.tx.us/permitting/airperm/nsr_permits/files/poultryincin_lst7_04.pdf or may be obtained by contacting the TCEQ. To have a particular ACI added to the TCEQ list of incinerators meeting the residence time requirements, ACI manufacturers or ACI standard permit registrants may also submit the necessary stack test data to the Compliance Support Section of the TCEQ.

The hot flue gases then pass through the stack and out into the atmosphere. In order to ensure maximum dispersion and minimize down wash effects, subsection (5)(D) prohibits the use of any obstruction to flow, such as a rain cap, and subsection (5)(E) requires that the incinerator exhaust stack height be a minimum of

20 feet from ground level and be at least three feet above the structure housing the ACI.

Operational Requirements

Subsections (6)(A) through (H) outline the operational requirements. Subsection (A) explicitly states that only animal carcasses and any associated animal packaging material may be incinerated. It further emphasizes that incineration of research or laboratory test animals is prohibited. Transportation packaging plastics comprised of chlorinated compounds produce acid gas emissions and can promote the formation of dioxins and furans during incineration unless controlled by a scrubber. Since ACIs are not equipped with scrubbers, it is the duty of the ACI owners to ensure that packaging does not contain chlorinated compounds.

Once the animals are at the ACI site, the carcasses must be incinerated within two hours or stored in a freezer in order to minimize odors. Subsection (B) is consistent with the storage requirements of the MSW permit by rule.

The operational requirements during incineration include operating the ACI per the manufacturer's instructions, posting the operating instructions at each unit, and limiting burner fuel to natural gas or propane. Subsection (E) specifies requirements for the secondary chamber temperature during incineration, including the minimum temperature, and the averaging period for compliance demonstration with the temperature limitation.

Visible emissions from ACIs must not exceed 5.0% opacity averaged over a six minute period. Operators are not required to be trained opacity readers. This requirement is in place to allow TCEQ inspectors to have enforceable limitation for visible emissions if an ACI is improperly operated and smokes. Title 30 TAC §111.129, Opacity Requirements, requires ACIs without continuous opacity or carbon monoxide monitors to be limited to operating from one hour after sunrise to one hour before sunset. After the completion of an incineration cycle, the ashes must be stored in a closed container until they are returned to the customer or disposed of at a MSW landfill. In accordance with 30 TAC Chapter 330, on-site burial or spreading of ashes on the property is strictly forbidden. Subsection (I) reminds owners that incinerators must also meet any applicable requirements of 30 TAC §§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).

Recordkeeping Requirements

Subsection (A) specifies three types of records that must be permanently kept at the site: the notice of the

standard permit registration and subsequent renewals from the TCEQ, the standard permit application and any subsequent representations submitted to the TCEQ, and any stack sampling results or other air emissions testing that may be conducted on the unit(s) at the site. It should be noted that this standard permit will not require stack sampling on any ACIs, however, the executive director of the TCEQ retains the right to require stack sampling if deemed necessary.

In order to demonstrate compliance with the ACI design and operational requirements of this standard permit, subsection (B) specifies several types of records that must be kept at the site for five years after collection. The records include the weight of carcasses loaded and cycle times, scale calibration, secondary chamber temperature, types of carcasses and method of handling (i.e., frozen or immediate burn), operator's name, date and time of operation of the incinerator, dates and times of emergency incinerator shutdowns and malfunctions, including both the reason for the shutdown or malfunction (i.e., malfunction, power outage, operator error, etc.) and a description of both corrective and preventative actions taken, and continuous emission monitoring systems (CEMS) data.

Incinerators with a maximum incineration rate greater than 100 lb/hr

Section (8) describes the steps that operators of ACIs with incineration rates greater than 100 lb/hr must follow to be in compliance with the O₂ monitoring and recordkeeping required under 30 TAC Chapter 111, Control of Air Pollution from Visible Emissions and Particulate Matter. Title 30 TAC §111.127 requires ACIs with incineration rates greater than 100 lb/hr to continuously monitor and record the oxygen (O₂) content of the exhaust of the incinerator. Title 30 TAC §111.121 further stipulates that the O₂ content must be maintained at greater than 4% by volume.

Subsection (A) states the minimum O₂ concentration that must be maintained as required by 30 TAC §111.121.

Subsection (B) outlines how the O₂ concentration must be measured and recorded. Paragraph (B)(i) specifies that the continuous O₂ monitor must satisfy the requirements found in Title 40 Code of Federal Regulations (40 CFR) Part 60, Appendix B, Performance Specification 3. The continuous O₂ monitor must also be routinely checked and calibrated to ensure accurate readings. Paragraph (B)(ii) specifies the applicable quality assurance requirements, which are found in 40 CFR 60, Appendix F, Procedure 1, Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination. This subsection also defines quality assurance accuracy standards and where and how often to report any exceedance of the accuracy standards. Paragraph (B)(iii) states that the monitoring data shall be reduced to hourly average concentrations at least once each day, using a minimum of four equally spaced data points

from each one-hour period.

Subsection (C) requires the owner or operator to conduct the initial certification of their O₂ monitor within 60 days of the start of operation of the ACI. The owner or operator must contact the appropriate TCEQ regional office to schedule a pre-certification meeting no less than 45 days prior to certification testing. The purpose of the meeting is to review procedures, to provide the proper data forms for recording pertinent data, and to review the format for submitting the certification report. Within 30 days after the completion of the initial certification, copies of the certification report must be sent to the appropriate TCEQ regional office, any appropriate local pollution control program, and to the TCEQ Compliance Support Division.

V. PROTECTIVENESS REVIEW

A comprehensive health effects review was conducted to evaluate the potential environmental impacts of authorizing this standard permit. ACI emission profiles were obtained from pre-construction applications from case-by-case reviews. In total, seven different incinerator models from three different manufacturers, with incineration rates ranging from 75 lb/hr to 200 lb/hr were used in this evaluation. All seven ACI models were then put into a matrix of operating scenarios due to the general permitting requirements under subsection (4)(C) which establishes a sitewide maximum incineration rate, minimum property line distance, and the maximum number of incinerators that can be authorized. In total, 28 different ACI configurations were evaluated.

The predicted air dispersion modeling concentrations resulting from emissions from various ACI configurations were compared to the appropriate state and federal health-based or nuisance-based standards. The comparison was used to evaluate the potential to cause adverse health effects in members of the general public, including sensitive subgroups (i.e. children, the elderly, or those with existing respiratory conditions). The specific health-based standards or guidance levels employed in evaluating the potential emissions include national ambient air quality standards (NAAQS), TCEQ standards contained in 30 TAC Chapter 111, and TCEQ Effect Screening Levels (“ESLs”). NAAQS, which are created by the EPA, are set to protect sensitive members of the population such as children, the elderly, and individuals with existing respiratory conditions. The air dispersion modeling was conducted for the emission of oxides of nitrogen, carbon monoxide, sulfur dioxide, particulate matter less than 10 microns in diameter, and volatile organic compounds. The air dispersion modeling was performed by the TCEQ using EPA’s SCREEN3 modeling program and evaluated for potential impacts. The results of the modeling show the modeled pollutant concentrations are within state and federal guidelines designed to protect human health and the environment so negative health effects are not expected.

VI. PUBLIC NOTICE AND COMMENT PERIOD

In accordance with 30 TAC §116.603, Public Participation in Issuance of Standard Permits, the TCEQ published notice of this standard permit in the *Texas Register* and newspapers of the largest general circulation in the following metropolitan areas: Amarillo; Austin; Corpus Christi; Dallas; El Paso; Houston; Lower Rio Grande Valley; Lubbock; Permian Basin; San Antonio; and Tyler. The date for these publications was June 24, 2005. The public comment period will be from the date of publication until 5:00 PM on July 28, 2005.

VII. PUBLIC MEETINGS

A public meeting on the proposal will be offered on the following date at the stated time and location, July 28, 2005, at 9:00 a.m., at the Texas Commission on Environmental Quality in Building B, Room 201A, 12100 Park 35 Circle, Austin, Texas.

IX. STATUTORY AUTHORITY

This standard permit is issued under Texas Health and Safety Code (THSC), § 382.011, General Powers and Duties, which authorizes the commission to control the quality of the state's air, THSC §382.023, Orders, which authorizes the commission to issue orders necessary to carry out the policy and purposes of the TCAA, THSC §382.051, Permitting Authority of the Commission: Rules, which authorizes the commission to issue permits, including standard permits for similar facilities for numerous similar sources, and THSC §382.05195 which authorizes the commission to issue standard permits according to the procedures set out in that section.

Proposed Air Quality Standard Permit for Animal Carcass Incinerators

This standard permit authorizes animal carcass incinerators (pet crematories) that meet all of the conditions listed in the paragraphs below. This standard permit does not relieve the owner or operator from complying with any other applicable provision of the Texas Health and Safety Code, Texas Water Code, or rules of the Texas Commission on Environmental Quality (TCEQ).

(1) Applicability

This standard permit may be used to authorize animal carcass incinerators that meet the requirements of this standard permit.

(2) Administrative Requirements

(A) Animal carcass incinerators must be registered in accordance with Title 30 Texas Administrative Code (30 TAC) §116.611, Registration to Use a Standard Permit. Incinerators that meet the conditions of this standard permit do not have to meet 30 TAC §116.610(a)(1), Applicability.

(B) Registrations must comply with 30 TAC §116.614, Standard Permit Fees.

(C) No owner or operator of an animal carcass incinerator is permitted to begin construction and/or operation without obtaining written approval from the executive director. The time period in 30 TAC §116.611(b) (45 days) does not apply to facilities registering under this permit. Start of construction of any facility registered under this standard permit must comply with 30 TAC §116.120, Voiding of Permits.

(3) Public Notice

(A) For authorization to use this standard permit, an applicant must publish notice under this section not later than the 30th day after the date the executive director receives the registration.

(B) The public notice requirements in 30 TAC Chapter 39 Subchapters H & K do not apply.

- (C) The applicant must publish notice at least once in a newspaper of general circulation in the municipality in which the incinerator is proposed to be located or in the municipality nearest to the proposed location of the incinerator. If the elementary or middle school nearest to the proposed incinerator is required to provide a bilingual education program as required by Texas Education Code, Subchapter B, Chapter 29, Educational Programs and 19 TAC §89.1205, Required Bilingual Education and English as a Second Language Programs, the applicant must also publish the notice at least once in an additional publication of general circulation in the municipality or county in which the incinerator is proposed to be located that is published primarily in the alternative languages in which the bilingual education program is or would have been taught and the notice must be in those languages. This requirement is waived if such a publication does not exist or if the publisher refuses to publish the notice.
- (D) The notice must include:
- (i) a brief description of the proposed location and nature of the proposed incinerator;
 - (ii) a description, including a telephone number, of the manner in which the executive director may be contacted for further information;
 - (iii) a description, including a telephone number, of the manner in which the applicant may be contacted for further information;
 - (iv) the location and hours of operation of the commission's regional office at which a copy of the application is available for review and copying; and
 - (v) a brief description of the public comment process and the mailing address and deadline for filing written comments.
- (E) The public comment period begins on the first date notice is published under subsection (3)(A) and extends to 30 days from the publication date.
- (F) Not later than the 30th day after the end of the public comment period, the executive director will approve or deny the standard permit registration. The executive director must base the decision on whether the representations made in the registration meet the requirements of

this standard permit. The executive director must consider all comments received during the public comment period in determining whether to approve the registration. If the executive director denies the registration, the executive director must state the reasons for the denial and any modifications to the registration necessary for the proposed incinerator to qualify for the standard permit.

(G) The executive director will issue a written response to any public comments received related to the standard permit registration at the same time as or as soon as practicable after the executive director grants or denies the registration. Issuance of the response after the granting or denial of the registration does not affect the validity of the executive director's decision to grant or deny the registration. The executive director will:

- (i) mail the response to each person who filed a comment; and
- (ii) make the response available to the public.

(4) General Requirements

(A) The permit holder shall comply with 30 TAC § 330, Municipal Solid Waste.

(B) A nameplate with the model and serial numbers must be on each incinerator in a visible location.

(C) Incinerators must be located at least 50 feet from the nearest point on the property line. The maximum number of incinerators that may be authorized under standard permit depends on the distance from the property line to the nearest incinerator, but may not exceed four incinerators. The property line limitations are outlined in the table below. In addition, the sum of the maximum burn rate capacity for all incinerators at a given location covered under this standard permit must not exceed 400 pounds per hour (lb/hr).

Table 1. Incinerator distance limitations

	Distance from the property line to the stack of the nearest incinerator				
	0 - 49 ft	50 - 99 ft	100 - 199 ft	200 - 299 ft	> 299 ft
Maximum number of incinerators	0	1	2	3	4

(D) Only incinerators that have a maximum burn rate greater than 100 lb/hr must comply with the requirements specified under section 8 of this standard permit.

(5) Design Requirements

(A) Incinerators must be dual-chamber incinerators with a maximum burn rate capacity of 200 lb/hr. The batch load to the primary chamber must not exceed the manufacturer's specifications. Each load must be weighed by a scale. The scale must be certified biennially to the most current National Institute of Standards and Technology Handbook 44 standards by an independent contractor (who is licensed by the Texas Department of Agriculture).

(B) The incinerators must be designed to maintain a minimum secondary chamber temperature of 1,600 degrees Fahrenheit with a minimum gas residence time of one-half second.

(C) The owner or operator shall install and maintain equipment to continuously monitor and record secondary chamber temperature at the exit of the secondary chamber (measured at the base of the stack) whenever the incinerators are operating.

(D) There must be no obstructions to stack flow, such as rain caps, unless such devices are designed to automatically open when the incinerators are operated. Properly installed and maintained spark arresters are not considered obstructions.

(E) Incinerators must have a minimum stack height of 20 feet from ground level and the stack must be at least 3 feet above the highest point of the structure housing the incinerator.

(6) Operational Requirements

- (A) Incinerators must be used for the sole purpose of incineration of animal carcasses, in whole or part. The associated packaging material for the carcasses may also be incinerated, but must not be made of plastics that contain chlorine. Incinerators must not be used to incinerate any type of research or laboratory test animals. This standard permit does not authorize the incineration of any other types of waste.
- (B) Incineration of a carcass must be initiated within two hours of receipt, unless stored at or below a temperature of 29 degrees Fahrenheit. Storage of carcasses shall be in a manner that minimizes the release of odors.
- (C) The manufacturer's recommended operating instructions must be posted at each incinerator and each incinerator must be operated in accordance with these instructions.
- (D) Fuel for the primary and secondary chamber burners is limited to natural gas or propane.
- (E) The exit temperature of the secondary chamber must not fall below 1,600 degrees Fahrenheit, averaged over a five minute period, while incinerating carcasses. For each operating period, the exit temperature of the secondary chamber must be at least 1,600 degrees Fahrenheit before the first charge of carcasses is loaded. The combustion of the last charge of carcasses for any operating period must be complete before the secondary chamber burners are shutdown.
- (F) Visible emissions must not exceed an opacity of 5.0% averaged over any six-minute period as determined by the United States Environmental Protection Agency Test Method 9.
- (G) Operation of the incinerator is limited to one hour after sunrise to one hour before sunset.
- (H) On-site handling of ash must be accomplished in a manner that will prevent the ash from becoming airborne. Ash from the incinerator must be stored in a closed container until transported and disposed of in accordance with 30 TAC Chapter 330.
- (I) Incinerators installed and operated in accordance with the requirements of this permit must meet the applicable requirements of 30 TAC §111.121, Single-, Dual-, and Multiple-Chamber Incinerators; 111.125, Testing Requirements; 111.127, Monitoring and Recordkeeping Requirements; and 111.129, Operating Requirements.

(7) Recordkeeping Requirements

- (A) All records required in this permit must be made available at the request of personnel from the TCEQ or any air pollution control agency with jurisdiction over the site. The following records must be kept at the plant for the life of the permit.
- (i) A copy of the written approval of standard permit registration and subsequent renewal from the TCEQ.
 - (ii) All standard permit registrations and alterations submitted to the TCEQ.
 - (iii) Stack sampling results or other air emissions testing that may be conducted on incinerators authorized under this standard permit.
- (B) The following records must be maintained at the facility by the permit holder, in a form suitable for inspection, for a period of five years after collection and shall be made available at the request of personnel from the TCEQ or any air pollution control agency with jurisdiction over this site.
- (i) Records of the weight of carcasses loaded and cycle times to comply with section 5(A).
 - (ii) Records of the scale calibration to comply with section 5(A).
 - (iii) Records of the secondary chamber temperature as required to comply with section 6(E).
 - (iv) Types of carcasses, date and time of receipt, date and time of incineration initiation and method of handling (i.e., frozen or immediate burn) to comply with section 6(A) and section 6(B).
 - (v) Operator's name, date and time of operation of the incinerator to comply with 6(G).
 - (vi) Dates and times of emergency incinerator shutdown and/or malfunction, including

both the reason for the shutdown/malfunction (i.e., malfunction, power outage, operator error, etc.) and a description of both corrective and preventative actions taken. This requirement is separate from any requirements that may be required by 30 TAC § 101, Subchapter F, Emissions Events and Scheduled Maintenance, Startup, and Shutdown Activities.

- (vii) All continuous emissions monitoring system (CEMS) data and quality-assurance data as required under section 8, including calibration checks and adjustments and maintenance performed on these systems.

(8) Incinerators with a Maximum Burn Rate Greater than 100 lb/hr

(A) The concentration of oxygen (O₂) at the exit of the incinerator must be maintained above 40,000 parts per million (ppm) by volume on a wet basis (4 percent), averaged over a one hour period.

(B) The holder of this permit shall install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of O₂ from the exhaust stack.

(i) The CEMS must meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in found in Title 40 Code of Federal Regulations (40 CFR) Part 60, Appendix B, Performance Specification 3, Specifications and Test Procedures for O₂ and CO₂ Continuous Emission Monitoring Systems in Stationary Sources, or an acceptable alternative approved by the TCEQ Compliance Support Division.

(ii) The CEMS must be routinely checked and calibrated to ensure accurate readings. The holder of this permit shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1, Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination, or an acceptable alternative approved by the TCEQ Compliance Support Division. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, §5.2.3, Criteria for Excessive Audit Inaccuracy any CEMS downtime and all cylinder gas audit exceedances of ±15 percent accuracy,

must be reported quarterly to the appropriate TCEQ regional office, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ regional office.

(iii) The monitoring data shall be reduced to hourly average concentrations at least once every day, using a minimum of four equally-spaced data points from each one-hour period.

(C) Within 60 days of start-up, the CEMS specified in section 8(B), of this standard permit, must be certified for use in accordance with procedures outlined in 40 CFR Part 60, Appendix B, Performance Specification 3.

(i) The owner or operator shall contact the appropriate TCEQ regional office to schedule a pretest meeting as soon as certification testing is scheduled, but not less than 45 days prior to certification testing. The purpose of the pre-certification meeting is to review procedures, to provide the proper data forms for recording pertinent data, and to review the format for submitting the certification report.

(ii) The notification must include:

(1) the date for pre-certification meeting;

(2) the date certification testing will occur;

(3) the name of the firm conducting the CEMS certification testing;

(4) the type of equipment to be used; and

(5) the method or procedure to be used for certifying the O₂ and temperature CEMS.

(iii) Copies of the CEMS certification report must be submitted to the appropriate TCEQ regional office, any local pollution control program with jurisdiction over the site and the TCEQ Compliance Support Division within 30 days after the testing is completed.