

The Texas Commission on Environmental Quality (commission) adopts the repeal of §§106.5, 106.201 - 106.203, 106.491, 106.493, 106.496, and 106.533. The commission also adopts an amendment to §106.50 and adopts new §§106.491, 106.496, and 106.533. New §§106.491, 106.496, and 106.533 are adopted *with changes* to the proposed text as published in the January 30, 2004 issue of the *Texas Register* (29 TexReg 902). The amendment to §106.50 and the repeal of §§106.5, 106.201 - 106.203, 106.491, 106.493, 106.496, and 106.533 are adopted *without changes* and will not be republished.

Repealed §106.5 will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the state implementation plan.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

The adopted rules are intended to more effectively focus commission resources, streamline the air quality permit by rule (PBR) process, update administrative and technical requirements for certain PBRs, and address unnecessary registration and fee requirements. Where applicable, the adopted rules also incorporate, or are consistent with, state and federal air, waste, and remediation laws. The adopted rules: 1) eliminate the concrete batch plant PBR rule and corresponding public notice requirements; these requirements and authorizations are no longer necessary, since the standard permit for concrete batch plants was issued September 1, 2000, and all outstanding concrete batch plant registrations under Chapter 106 have been resolved; 2) reduce the PBR registration fee for nonprofit organizations and provide for the nonapplicability of fees for reviews associated with the remediation of sites; 3) eliminate the single-chambered incinerator PBR to prevent inappropriate control devices from being installed at grandfathered facilities; 4) improve flexibility for law enforcement agencies that are currently precluded from using PBRs to incinerate confiscated illegal drug evidence and clarify

technical requirements; 5) minimize registration requirements, establish a notification procedure, and update technical requirements in the current PBR for trench burners and aboveground air curtain incinerators; and 6) provide for a rapid authorization mechanism for remediation projects at gasoline stations and dry cleaning facilities and establish technical requirements for all facilities performing remediation activities.

SECTION BY SECTION DISCUSSION

Subchapter A - General Requirements

The commission repeals §106.5, Public Notice, as this section concerns public notice for concrete batch plants permitted under Chapter 106, and with the creation of the concrete batch plant standard permit and the repeal of the concrete batch plant permits by rule (§§106.201 - 106.203), this section is no longer needed. The public notice requirements in §106.5 had been maintained to assure that proper procedures were followed for concrete batch plant PBR registrations received prior to the effective date of the standard permit. At this time, the commission has resolved all of those outstanding authorization requests; therefore, maintenance of this section is no longer needed. This change is not connected to Senate Bill 1272, 78th Legislature, 2003.

Subchapter B - Registration Fees for New Permits by Rule

Adopted amendments to §106.50, Registration Fees for Permits by Rule, will make the fee exceptions consistent with other current laws and rules and add certain entities to the lower fee category. Adopted new subsection (a)(1)(B) adds nonprofit organizations to those that must only submit \$100 for a PBR registration review. The commission adopts this change because nonprofit organizations have limited resources and a higher fee could be detrimental to their continued operation.

Adopted subsection (b) will facilitate appropriate exceptions from PBR fees. Adopted subsection (b)(1) specifies that the fee does not apply to a certification submitted solely for the purpose of establishing a federally enforceable limit by certifications. The current wording and requirements of paragraph (1) have raised many questions and caused misfiles by the regulated community. This clarification is intended to resolve this confusion.

Certifications to establish enforceable emission type and quantity are accepted without a fee only for facilities that have previously claimed a standard exemption or PBR. These facilities must be currently operating without modification under an applicable standard exemption or PBR and must meet all of the requirements of Chapter 106. This certification should not be confused with a registration for construction or modification through Form PI-7, Registration for Permit by Rule, or other notifications and forms developed by the commission.

Adopted amendments to subsection (b)(2) broaden coverage to all remediation projects under PBRs. As a part of the commission's encouragement to clean up and remediate contaminated soil and water throughout the state, these activities are exempted from fee requirements. The commission intends that money be spent on cleanup activities, rather than paperwork processing. This exception is also consistent with several state and federal programs and laws, including: 1) the commission's petroleum storage tank (PST) program, which remediates and reimburses certain cleanup projects; 2) superfund and voluntary cleanup programs under Texas Health and Safety Code, §361.196 and §361.611, that exempt facilities from obtaining a permit, but require them to achieve compliance with all emissions and control requirements; and 3) the dry cleaning facility remediation program under Texas Health and Safety Code, Chapter 374, as created by House Bill 1366, 78th Legislature, 2003. The portion of

remediation projects that are not part of any of the previously mentioned programs is estimated to be a small portion (less than 30%) of all remediation PBR registrations (typically registered under §106.533). It is the commission's intent to further encourage the cleanup of soil and water throughout Texas and exempt all facilities claiming registration under §106.533 from paying a registration fee.

Finally, new subsection (b)(3) specifies that additional fees are not required for resubmittals of PBRs due to insufficient information or updates to recently submitted PBR registrations. This exception to additional fee submittal, which allows submittals within six months of a written commission response to the initial registration without additional fees, is consistent with other air permit fees and 30 TAC §116.114, Application Review Schedule.

Subchapter H - Concrete Batch Plants

The commission repeals Subchapter H, §106.201, Permanent and Temporary Concrete Batch Plants; §106.202, Temporary Concrete Batch Plants; and §106.203, Specialty Batch Plants, as these sections are obsolete and no longer necessary due to the issuance of the Concrete Batch Plant Standard Permit (September 1, 2000), in accordance with §116.602, Issuance of Standard Permits. At this time, the commission has resolved all outstanding authorization requests received prior to the effective dates of the standard permit; therefore, maintenance of these sections is no longer needed. This change is not related to Senate Bill 1272, 78th Legislature, 2003.

Subchapter V - Thermal Control Devices

Existing §106.491, Dual Chamber Incinerators, is repealed and replaced with a new section due to reorganization and reformatting of the administrative and technical requirements of this PBR. A new §106.491 is adopted for better readability.

Adopted new §106.491, Dual-Chamber Incinerators, addresses several streamlining issues and ensures that the dual-chamber incinerator PBR is protective of public health and welfare and is a usable tool for the regulated community. As with all PBRs, the rule is not intended to cover all possible scenarios and facility operations, but it only addresses the most common and typical equipment expected to be available in the field. Any particular facility that does not meet the PBR general or specific conditions may apply for a case-by-case air permit under Chapter 116.

Adopted new §106.491 includes updates to the technical requirements regarding emission releases and parameters, as well as the identification of additional uses for this authorization mechanism. These changes provide additional flexibility to the regulated community by expanding the scope of this PBR to allow, as needed, the destruction of commonly confiscated illegal drug evidence. This PBR was also evaluated for consistency with other waste regulations of the EPA and commission, and it also references appropriate federal air standards. The PBR also eliminates the need for certain operators to obtain an additional waste authorization under 30 TAC §330.51, Permit Application for Municipal Solid Waste Facilities. Finally, the new section specifies the minimum necessary compliance demonstration actions and records that are needed for practical enforceability.

Adopted new §106.491(a) expands the scope of this PBR and allows the burning of illegal drugs confiscated by federal, state, or local law enforcement agencies. This allows law enforcement agencies

to directly own and operate an incinerator, or subcontract with third parties, to allow for the secure disposal of evidence. The reason this expansion is important is to allow law enforcement agencies the opportunity to minimize current disposal costs while still complying with applicable air regulatory standards. Up to this time, all of these customers have been required to obtain a case-by-case new source review air quality permit or use third-party off-site vendors with hazardous waste incinerator permits. When off-site vendors were used in the previous system, the evidence was accompanied by numerous officers, resulting in a significant cost ultimately to the taxpayers.

Adopted new §106.491(b) identifies all of the general and specific design requirements for incinerators under this PBR, including temperature, residence time, burn rate, and materials allowed. All of these technical limits are consistent with the previous version of this PBR. Unlike the previous version of this PBR, this adoption includes: 1) a requirement that the incinerator be equipped with a continuous exhaust temperature monitor to establish a practicably enforceable compliance demonstration mechanism since a constant and minimum temperature is essential to the proper performance of this type of incinerator; 2) corresponding recordkeeping requirements for this monitor; and 3) a requirement that registration claims specifically address the appropriate charge capacity of a given model of incinerator and the material types and amounts that are intended to be burned. This information is essential to determine if the model and design are appropriate and will likely meet emission standards for the intended use as each registration claim is reviewed by the commission.

Subsection (b) also specifies the minimum height of the incinerator stack to ensure effective emission dispersion and specifies a minimum distance to a property line for acceptable air contaminant impacts. The stack height was based upon a review of past registrations, typical incinerator designs, and

modeling results. Air dispersion models are tools used to estimate the downwind concentration of pollutants emitted by various pollution sources. The commission currently uses the Industrial Source Complex model, which is the EPA's preferred model for the new source review program. The model's predictions are conservative, based on the general assumptions used to develop the model as well as the engineering assumptions used to determine emission rates. In addition, it is generally assumed that all sources emit pollutants simultaneously at maximum rates, and during worst-case meteorological conditions. These assumptions are not expected to occur in actual operation of the sources modeled. The modeling results for this PBR evaluation indicated that impacts were very sensitive to downwash. Building downwash is an important function of estimating dispersion of emissions and predicting impacts. Buildings induce aerodynamic turbulence that can cause a pollutant emitted from a stack that is on or adjacent to the building to be mixed rapidly toward the ground (downwash), resulting in higher ground-level concentrations near the building than would otherwise occur. The downwash effect can be minimized by increasing stack height or parameters that affect plume rise, or by locating stacks away from the building.

Based on a health effects evaluation of speciated inhalable particulate matter using effects screening levels (ESLs) for the materials that are allowed to be burned (as identified in §106.491(c)(1)), and as predicted by the dispersion model, the appropriate distance limitation should be 200 feet from the point of air emissions (stack) to the property line. To ensure that all typical plant layouts are covered by this evaluation, the commission reviewed multiple plant layouts including stand-alone units, stacks located in the center point of a structure, and stacks located on and near various structures to determine an appropriate distance with or without downwash effects. This evaluation resulted in a worst-case

representative maximum ground-level concentration that met all protectiveness guidelines at 200 feet from the source. No other changes are adopted for the design requirements of these facilities.

Adopted subsection (c) outlines the operational limitations of all incinerators under this PBR. This PBR will continue to authorize the disposal of waste materials generated on site, including paper, wood, cardboard cartons, rags, garbage (animal and vegetable wastes as defined in 30 TAC §101.1(36), Definitions), and combustible floor sweepings. The commission updates the limitations on materials processed by the incinerator by prohibiting polyvinyl chloride plastics to ensure compliance with state regulatory limits for hydrogen chloride as specified in 30 TAC §111.121(a)(2), Single-, Dual-, and Multiple-Chamber Incinerators. The commission is also prohibiting materials that contain fluorides in order to meet ESL guidelines. Based on limited information from law enforcement agencies, the commission made the assumption that drug evidence is usually separated from any packaging, including materials containing polyvinyl chloride and fluoride plastics, prior to destruction. This subsection also specifically identifies and limits the types of drugs that law enforcement agencies can incinerate to marijuana, cocaine, opiates, and methamphetamines.

Adopted subsection (c)(2) establishes burn rates and emission limits for the various drugs that are allowed for destruction, including: 1) cocaine, opiates, and methamphetamines with a burn rate of no more than four pounds per hour (lb/hr) and ten pounds in any eight-hour period with emissions limited to less than 0.04 lb/hr for each of these compounds; and 2) marijuana with a 500 lb/hr burn rate and emissions limited to no more than one lb/hr of total inhalable particulate matter (PM_{10}). This emission limit classifies particulate matter from marijuana as the active ingredient tetrahydrocannabinol (THC), which is characterized as a dust or fume, and not a gas. All of the adopted emission limits are based

upon a comprehensive review, engineering judgment, standard emission estimation techniques, modeling, and ESL comparisons. Based upon existing PBR registrations, most incinerators using this PBR operate at 200 lb/hr of waste; however, law enforcement agencies typically burn at maximum capacity. Therefore, the use of 500 lb/hr as the feed rate represents the worst-case scenario. The emission rates for all contaminants were calculated using, when available, standard emission factors from *Compilation of Air Pollutant Emission Factors*, AP-42, Fifth Edition (when available), typical burn rates, the standard heat contents of the waste, and typical operating hours. The stack parameters are based upon typical incinerator designs used in previous PBR registrations. The adopted rule includes conservative emission limits and requires sampling in subsection (d)(3)(A) since the commission does not have manufacturers' guarantees or field confirmation/emissions sampling results for drug destruction.

Adopted subsection (c)(3) limits the supplemental fuel and covers all other products of combustion emissions. All expected air emissions were evaluated for compliance with applicable state and federal air quality standards and guidelines. Products of combustion (sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOCs)) were conservatively estimated using a maximum amount of fuel, and their quantities and concentrations met all applicable standards.

The pollutants of concern for this PBR are those derived from the destruction of the particular waste material being burned, consisting of speciated PM₁₀ or VOCs. Due to the focus of this rulemaking, each confiscated drug was reviewed for potential air emissions and associated impact. Marijuana emission rates were based upon the assumptions of a 20% THC and 10% cannabinol content and a 99%

destruction rate efficiency (DRE). Drug emission rates were based on the assumptions of 100% individual constituent content and a 99% DRE.

Subsection (c)(4) requires that the manufacturer's recommended operating instructions be posted at the incinerator and requires that the unit be operated in accordance with these instructions. These requirements have not changed from the previous version of this PBR. Finally, subsection (c)(5) limits opacity from the incinerator stack to 5% averaged over any six-minute period as determined by EPA Test Method (TM) 9 to establish a practicably enforceable compliance demonstration mechanism. This easy-to-determine compliance demonstration is used since minimal visible emissions should occur if the incinerator is properly operated. This opacity limit constitutes a reasonable measure of best available control technology standards of the air permits program, even though this standard is not statutorily required for adoption of PBRs.

Adopted §106.491(d) identifies all compliance and administrative requirements for these facilities. Specifically, §106.491(d)(1) requires that each incinerator be registered prior to construction by submitting a PI-7 Form, Registration for Permits by Rule, and supporting documentation. This registration will be processed and reviewed by the Air Permits Division and an acceptance or insufficient information response will be sent to each applicant. Subsection (d)(2) also includes a streamlining measure for the commission to minimize duplication of separate media authorizations. If registered under this PBR, facilities will not be required to obtain a separate and distinct authorization under §330.51. The commission will update and modify §330.4, Permit Required, in a future rulemaking to be consistent with this streamlining measure.

Adopted §106.491(d)(3)(A) requires a compliance demonstration only when destroying confiscated drugs. To provide flexibility and the opportunity for law enforcement to combine resources and save money, this requirement is limited to at least one sample for each model of incinerator under worst-case operational and sampling conditions. If the owner or operator of an incinerator can demonstrate that previous stack sampling (properly conducted and commission-approved) on the same model showed compliance with the speciated emission limits and worst-case operating conditions of this PBR, that approved report will be sufficient to demonstrate compliance and a stack test will not be required on an individual basis.

Adopted §106.491(d)(3)(B) identifies potential emission compliance demonstration, sampling, monitoring, or other requirements if the facility is subject to 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS), Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units (as published in the December 1, 2000 issue of the *Federal Register*), for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001, or 40 CFR Part 60, Subpart DDDD, Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999. Additionally, §106.491(d)(3)(C) references the state requirements for compliance demonstrations with particulate matter standards of §111.121 and §111.125, Single-, Dual-, and Multiple-Chamber Incinerators; and Testing Requirements. As with all compliance demonstrations, sampling and monitoring of facility performance and emission rates are the responsibility of the owner or operator of the facility. The commission evaluated emissions of criteria pollutants from typical combustion control devices and determined that the national ambient air quality standards (NAAQS) are

met. Therefore, the commission did not include rule language to require additional protectiveness demonstrations from products of combustion from the fuel (NO₂, SO₂, CO, and VOC).

Adopted §106.491(d)(4) requires proper installation, calibration, and monitoring of the incinerator temperature on a continuous basis. This monitoring is needed to demonstrate a constant minimum temperature of 1,400 degrees Fahrenheit to ensure a sufficient DRE. If the facility is subject to an NSPS subpart, additional monitoring, sampling, and recordkeeping is required in accordance with federal regulations which vary by type of waste materials burned, along with the construction date of the incinerator.

Adopted §106.491(d)(5) identifies the minimum record retention requirements of the commission to ensure practical enforceability of this PBR. Records must include the type and amount of waste burned; fuel usage amount and type (including sulfur content for fuel oil); monitoring and testing results; hours of operation; and routine maintenance of abatement systems sufficient to demonstrate that each of the requirements previously listed are met. Such records must be retained for a minimum rolling two-year period and comply with §106.8, Recordkeeping. Also, the commission made minor administrative changes to this section.

The commission repeals §106.493, Direct Flame Incinerators, as this authorization mechanism is now inappropriate due to other changes in state statutes and regulations. Specifically, this PBR was originally adopted as Standard Exemption (SE) Number 88 (effective July 15, 1988) to allow grandfathered facilities to add thermal control devices and achieve some measure of air pollution abatement. At the time of its adoption, the SE met all air quality emission control efficiency and impact

guidelines. However, on June 17, 1998, the commission issued §116.617, Standard Permits for Pollution Control Projects (effective July 8, 1998) to authorize air emission abatement equipment additions at grandfathered or permitted facilities. This standard permit was intended to provide a consistent and timely mechanism for any abatement device installation not otherwise required by a permit or PBR review. At the time, §106.493 was not repealed and so remained an available authorization mechanism for certain control projects at grandfathered facilities. More recently, the 76th through the 78th Legislatures passed several statutes regarding permitting (and associated air pollution control targets) for existing grandfathered facilities. Section 106.493 conflicts with these subsequent authorizations or requirements for grandfathered facility emission controls, including consideration of potential emission impacts and additional retrofit costs that may need to be incurred by the regulated community if this authorization mechanism remains available.

Existing §106.496, Trench Burners, is repealed and replaced with a new section due to reorganization and reformatting of the administrative and technical requirements of this PBR. These formatting changes are adopted for better customer understanding and readability.

The commission adopts new §106.496, Air Curtain Incinerators. This new section addresses several streamlining issues and ensures that the PBR for trench burners and air curtain incinerators minimizes nuisance potential and is a usable tool for the regulated community. As with all PBRs, this section is not intended to cover all possible scenarios and facility operations, but only addresses the most common and typical equipment expected to be available in the field. Any particular facility that does not meet the PBR general or specific conditions may apply for a case-by-case air permit. The adopted rule updates the technical requirements regarding materials, emission releases, and equipment parameters;

expands the scope of the PBR to include aboveground units; and eliminates unnecessary registration for relocation of portable facilities. Finally, §106.496 specifies the minimum necessary compliance demonstrations and records needed for practical enforceability. The adopted title of this section, Air Curtain Incinerators, is the term that is commonly used to describe facilities of this type and matches 40 CFR Part 60 Subpart CCCC nomenclature for these facility types.

Adopted §106.496(a) encourages recycling of materials, including those covered under this PBR and refers to 30 TAC §332.8, Air Quality Requirements, for composting, mulching, or other processing to produce useable materials. However, when recycling is not a practical alternative, air curtain incinerators (ACIs) are authorized for very specific circumstances. This new subsection outlines the purpose of this PBR to cover ACIs, including aboveground units or traditional trench burners, which are devices used primarily to burn trees and brush from land-clearing operations, right-of-way maintenance, or clean wood from flood debris cleanup. These units are used to minimize material sent to landfills by burning prior to disposal. This PBR is limited to certain specified materials, including trees, clean lumber, and brush. The sites and operations that may use this PBR include only the infrequent burning of materials from land-clearing, right-of-way maintenance, emergency cleanup operations, noncommercial industrial sites, and, in limited instances, municipal solid waste sites. New §106.496(a) also expands the scope of this PBR to allow both traditional trenches equipped with fan manifolds to circulate combustion air and new aboveground units that have equivalent parameters. Additionally, in response to comments, the commission added a reference to 40 CFR §60.2245.

Adopted new §106.496(b) defines the common terms and scope used for this PBR. These terms include: “Air curtain incinerator (ACI),” “Clean lumber,” “Emergency cleanup,” “Land-clearing,”

“Municipal solid waste sites,” “Noncommercial industrial sites,” and “Site.” These definitions are consistent with materials specifications and uses as listed in 40 CFR Part 60 Subpart CCCC, as well as 30 TAC Chapters 116 and 305, and are included in this subsection for completeness and understanding. As discussed in the RESPONSE TO COMMENTS section of this preamble, the commission adopted changes to the definition of “Noncommercial industrial sites”.

The primary use of this PBR is to authorize devices used to burn trees and brush from land-clearing operations before construction can start. In limited cases, similar materials are collected and destroyed by local governments and private contractors. The air pollutant of greatest concern is total suspended particulate matter and the related potential nuisance that these facilities may cause, if not operated properly. In order to accurately estimate the particulate matter emissions, the commission staff reviewed four major federal publications: *Compilation of Air Pollutant Emission Factors*, Fifth Edition, AP-42 February 17, 2003; *Evaluation of Emissions from the Open Burning Of Land-Clearing Debris*, Lutes, Christopher C. and Kariher, Peter H., EPA, EPA/600/SR-96/128, January 1997; *Development of Emissions Inventory Methods for Wildland Fires*, Battyre, William and Battyre, Rebecca, EPA Research Triangle Park, N.C. 27711, Final Report, February 2002, EPA Contract No. 68-D-98-046, Work Assign 5-03; and *Commercial and Industrial Solid Waste Incineration Units* from the December 1, 2000 issue of the *Federal Register* (65 FR 232). The commission also considered additional data provided by commenters, but could not rely on this information for reasons described in the RESPONSE TO COMMENTS section of this preamble.

The commission estimated particulate matter emissions from combustion using emission factors that considered both flaming and smoldering occurring during the operation of these facilities. The federal

empirical studies, as well as two site visits with portable particulate monitors, were relied upon to develop representative emission rates and a corresponding modeled impact analysis. The equivalent emission factor used for this analysis was 14.0 pounds PM₁₀ per ton of material burned. After review of all available information, the commission determined that nuisance should be minimized to the greatest extent possible, and the particulate matter emissions will meet all regulatory standards if the facilities are operated within certain limitations. Analysis of typical operations contained a notation that these units do not operate at maximum capacity during all hours of any given day. In practice, lower throughput rates occur during approximately one hour of daily start-up, one to two hours of reduced operation occur during the day, and one to two hours of reduced throughput occur at the end of the day. Using the established emission factor, and considering an estimated 600 hours of annual operation, facility emissions are expected to be less than the 25 tons per year limitation of 30 TAC §106.4(a)(1), Requirements for Permitting by Rule. The commission also considered the design representations of an aboveground facilities containment system, including refractory walls, and above- and below-air supplies. For these units, it is expected that these facilities operate at slightly greater efficiencies; thus, annual operating hours are increased to 750 hours per year.

Adopted new §106.496(c) includes limitations and requirements for locating and operating an ACI. The ACI must be operated at least 300 feet from the closest property line and any other facility with an air permit authorization under §116.110, Applicability, as well as any other ACI operating simultaneously and located on a site under common ownership and control. This buffer zone is needed under most representative situations to ensure that the concentration of particulate matter will meet state regulations under §111.155, Ground Level Concentrations, as well as minimize the potential for nuisance smoke or ash dust during intermittent periods of start-up and shutdown.

The adopted PBR also includes a limitation on the size of the trench or the box, correlating to a maximum material throughput used in emission estimates and impact analysis, as well as matching typical units observed in the field. The dimensions adopted for trenches (35-foot fan manifold) and boxes (35-foot box) correlate to the maximum material throughput reviewed for this PBR (approximately seven tons per hour). Larger facilities may not meet the general emission limits of PBRs or particulate matter regulatory concentration limits. After review of all currently available information, the commission determined that the nuisance potential will be minimized and the particulate matter emissions will meet all regulatory standards if the ACIs are operated within the recommended operating requirements and limitations.

The adopted PBR includes operational limits for both portable and permanent ACIs in §106.496(c)(2). Both types may operate only infrequently for consistency with state and federal waste regulations. Temporary facilities, usually private entities performing land-clearing and development preparation, may not be located at a site for more than 180 consecutive calendar days, and must be removed from the site after ceasing operation.

Permanent facilities may be authorized under this PBR if categorized as a municipal solid waste or noncommercial industrial site. A municipal solid waste site is a site that accepts on- or off-site generated solid waste for disposal or processing. This PBR covers municipalities or local governmental entities using these facilities for right-of-way brush maintenance or emergency clean-up operations as needed on a periodic basis at a centralized site or at collection locations.

This PBR also covers other industrial manufacturing sites, i.e., cardboard, sawmills, and pallet manufacturers, that need to occasionally burn on-site generated brush, wood, or lumber. These industrial sites must be noncommercial, as limited by 30 TAC §335.2(d)(1), Permit Required, and burn only on-site generated waste that results from the processing or manufacturing of products. This definition does not include industrial sites that accept off-site generated waste for disposal or destruction. This PBR is not intended to cover commercial industrial waste sites or other uses of ACIs. Due to state and federal regulatory limitations and pending EPA guidance, these types of facilities should apply for an air permit as well as applicable waste permit(s) that may be authorized or required in the future.

Adopted subsection (c)(3) limits the daily operation of ACIs. Operation of ACIs under this PBR is limited to daylight hours when atmospheric dispersion conditions are the best. All ACIs must not begin operation earlier than one hour after sunrise, and burning must be completed on the same day not later than one hour before sunset. Official times of daily sunrise and sunset are published and broadcast by the National Weather Service. Material must not be added to the ACI in such a manner as to be stacked above the air curtain, and the ACI blower must remain on until enough material is consumed so that any remaining material in the trench will not flame or cause smoke that exceeds the requirements of this section when the blower is turned off. In response to comments, the commission emphasized that no smoke or flame should occur after completion of the burn. Additionally, an operator must remain with the ACI at all times when it is operating, including when the blower is off and until all smoldering and smoke ceases. If the blower is turned off during burning, the activity would then be considered in violation of the open burning rules of Chapter 111, Control of Air Pollution from Visible Emissions and Particulate Matter. Material not being worked and material being stockpiled to be burned at a later date

must be kept at least 75 feet from the trench or firebox to prevent unintentional fires. The commission determined that the nuisance potential will be minimized by adherence to these operating requirements and limitations.

Adopted new §106.496(c)(4) prohibits visible emissions from ACIs, stockpiles, work areas, and in-plant roads associated with the facility from leaving the property for a period exceeding 30 seconds in any six-minute period as determined by EPA TM 22. This visible emissions method was chosen because it does not require annual opacity observer certification, is an easy method for operators to use to ensure compliance with air quality, and prevents nuisance conditions. By specifying EPA TM 22, which is a visible emissions test rather than an opacity test, this subsection provides a clearly identifiable standard by which the operators and commission field investigators can determine the compliance status of the facilities. Best management practices must also be used to ensure that the ACI blower is operated in a manner that minimizes smoke and prevents ash from becoming airborne.

The commission evaluated emissions of criteria pollutants from these combustion devices and determined that the NAAQS will be met. After review, particulate matter emissions were determined to be the pollutant of greatest concern. All other emissions of the products of combustion were determined to meet all applicable standards. Therefore, the commission did not include rule language to require additional limits and demonstrations from NO₂, SO₂, CO, and VOCs. Adopted new §106.496(c)(5) contains a notation that authorization under this PBR covers all emissions from products of combustion.

Adopted new §106.496(c)(6) requires that, upon notification by a representative of the commission or any local air pollution control program having jurisdiction that the ACI is not complying with the conditions of this section, additional material must not be added to the ACI until the facility returns to compliance. This immediate response is necessary to resolve a potential nuisance condition as soon as possible upon notification by a delegated representative of the commission that a problem may exist.

Adopted new §106.496(d) contains the requirements specific to ACI operations using a trench and air manifold system. The adopted PBR limits trench dimensions at all times to not more than 12 feet in width, 35 feet in length, and no less than ten feet in depth. These dimensions are included instead of the material throughput (tons per hour) in the current PBR. Due to the nature of these facilities, it is impractical for operators to demonstrate compliance with this throughput limit through detailed records. Instead, the commission evaluated the maximum trench size equivalent to a throughput of approximately seven tons per hour of material, upon which emission estimates and impacts analyses were based. These dimensions should also ensure that the combustion of the materials within the trench is maintained. The length of the trench must not exceed the length of the air blower manifold and the walls of the trench must be maintained such that they remain sufficiently vertical to maintain the air curtain, facilitating proper combustion. Also, this subsection allows ash to be left in the trench after removal of the ACI from the burn site, but the trench must be completely filled with noncombustible material and covered with soil. These requirements, which represent best management practices, are specified to ensure proper combustion, minimize smoke and dust, and prevent fire hazards.

Adopted new §106.496(e) includes the requirements for ACIs using a manufactured aboveground firebox and blower system. To ensure proper design and operation, the adopted PBR requires that the

interior dimensions of the firebox not exceed eight feet in width and 35 feet in length and be no less than six feet in depth, matching the equivalent throughput of materials. The length of the air blower manifold must be equal to the length of the burning area, thus ensuring proper combustion. Also, the walls of the ACI must be maintained such that they remain sufficiently vertical to maintain the air curtain and the combustion of the materials within the ACI. These requirements, which represent best management practices, are specified to ensure proper combustion, minimize smoke and dust, and prevent fire hazards. Subsection (e)(4) was added in response to comments and contains a notation that these facilities may operate up to 750 hours per year.

Adopted new §106.496(f) includes the requirements for handling and disposal of the ash generated as a result of the operation of an ACI. The ash must be removed from the ACI during burning as necessary to maintain efficient combustion, and must be done in such a manner as to minimize the ash becoming airborne. All material removed from the ACI must be completely extinguished before being disposed of or placed in contact with combustible material, and must be stored in a manner that does not constitute a fire hazard or allow the material to smolder or burn outside of the ACI. The ash generated from an ACI operated under this section must be disposed of by a specified method. If the ash is buried on site, the ash must be deed recorded and a copy of the document must be provided to the executive director as required by §330.7, Deed Recordation. The ash may also be sent to a Type I landfill, if no hot coals are present and the ash is transported in a manner to prevent it from becoming airborne. Additionally, the ash may be beneficially used if the use is determined to be acceptable by the executive director in accordance with §330.8, Notification Requirements. These requirements, which represent best management practices, are specified to minimize dust and meet state waste regulatory requirements.

Adopted new §106.496(g) identifies additional ACI requirements. Paragraphs (1) - (3) cover associated air-related requirements. This PBR does not exempt ACIs from any local government regulations or requirements, permits, registrations, or other authorizations. ACIs are also not exempt from compliance with any additional state air regulations, such as Chapter 111; or 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds. Since some permanent ACIs are allowed under this PBR, 40 CFR Part 60 Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 (as published in the December 1, 2000 issue of the *Federal Register*), might apply, along with associated opacity readings, reporting, and recordkeeping.

Adopted new §106.496(g)(4) lists the most likely applicable waste permitting requirements. ACIs located at a landfill require separate authorization by the executive director in accordance with §330.4, Permit Required, due to unique state and federal waste laws for landfills, including a review for methane generation and migration for fire safety concerns. Subsection (g)(4) also requires that below-ground ACIs or trench burners at a municipal solid waste landfill be located in undisturbed soil not previously excavated, built up, or compacted to ensure that cross-contamination does not occur. To minimize duplicative paperwork within the commission, compliance with this PBR will serve as a commission authorization to store, process, remove, or dispose of the ash resulting from the operation of ACIs as required by §330.4(a) since the materials authorized to be burned under this section, and the resulting ash from ACIs, are categorized as municipal solid waste as defined in §330.2, Definitions.

Adopted new §106.496(g)(5) notes that nothing in this PBR removes the responsibility of the owner or operator from obtaining any necessary authorization in accordance with 30 TAC Chapter 308, Criteria and Standards for the National Pollutant Discharge Elimination System.

Adopted new §106.496(h) includes administrative provisions for the operation of an ACI under this section. This subsection also addresses registration and notification requirements. To minimize the number of registrations and associated fees, multiple ACI locations at a given site may be combined into a single registration if all operating restrictions and distance limits are met. In response to comments received, the commission adopted this section to specify that if multiple ACIs are located on a single site, the annual hourly limitation is cumulative for all ACIs located on that site. ACIs must be initially registered with the executive director using the Core Data Form and Form PI-7. Registration reviews will include a site approval by the regional office and a compliance history evaluation in accordance with 30 TAC Chapter 60, Compliance History. The owner or operator of a portable ACI that has previously been registered with the executive director and is being relocated to a new site other than a landfill, must notify the appropriate regional office and any local air pollution control agency having jurisdiction over the site. Notifications must be in writing using the Regional Standard Permit/Permit by Rule Relocation Form, include a return receipt, and be received by the regional office and local air pollution control programs at least 14 calendar days prior to relocating to a site.

Notifications are not subject to the requirements of §106.50 or Chapter 60, but will allow regional offices or local programs to independently investigate sites on an as-needed basis prior to construction or operation. Re-registration is also required for all ACIs when any notice of enforcement is issued by the commission to the owner or operator of an ACI facility or every five years, whichever occurs first. Additionally, to provide fast response to local circumstances, only a notification, not PI-7 registration,

is required for any ACI used for emergency clean-up operations. These facilities also do not have to meet the 14-day prior notification deadline.

Adopted new §106.496(h)(4) includes recordkeeping requirements to demonstrate compliance with this section and §106.8. These requirements ensure practical enforceable mechanisms for demonstrating compliance. The ACI must be equipped with a run time meter, and a written record or log of the hours of operation of the ACI must be maintained at the site and made available at the request of personnel from the commission or any air pollution control program having jurisdiction. For portable facilities, these records should be maintained for a two-year period by the operator at a central location to comply with §106.8, Recordkeeping. This run time record or log must be organized such that compliance with the requirements of this section can be readily determined. Records must be kept to demonstrate compliance with all operational or location requirements of this section. These records must include a copy of the return receipt demonstrating notification to the appropriate regional office and local air pollution control programs having jurisdiction and plot plans showing that distance limits are met. A copy of the PBR and any operating instructions must be kept at the burn site, followed by owners and operators, and made available at the request of personnel from the commission or any local air pollution control program having jurisdiction. Finally, to ensure that the correct facility is registered and tracked throughout its lifetime in the State of Texas, the ACI must be clearly identified by having the regulated entity number or account number clearly visible in permanent ink or paint, or etched on the fan manifold or aboveground unit. In addition, minor corrections have been made to this section.

Existing §106.533, Water and Soil Remediation, is repealed and replaced with a new section which reorganizes and reformats the administrative and technical requirements of this PBR. These formatting changes are adopted for better customer understanding and readability.

Adopted new §106.533, Remediation, authorizes equipment that is used to reclaim or destroy chemicals that are removed from contaminated groundwater, water condensate in tank and pipeline systems, or soil. This section addresses several streamlining issues and ensures that the stationary air contaminant sources associated with remediation projects have a usable PBR while ensuring protection of public health and welfare. The commission adopts updates to the technical requirements regarding emission releases and parameters as well as consistency with other commission regulations for remediation. This adoption specifies the minimum compliance demonstration actions and records needed for practical enforceability. As with all PBRs, this adoption is not intended to cover all possible scenarios and facility operations, but only addresses the most common and typical equipment expected to be available in the field. Any particular facility that does not meet the PBR general or specific conditions may apply for a case-by-case air permit.

Adopted new §106.533 is consistent with other related commission permitting programs and ensures that all stationary sources of air contaminants directly related to a remediation project and used over the lifetime of cleanup of an affected property on a site are covered in a single authorization.

Adopted new §106.533(b) outlines, in a concise format, the common terms and scope used for air authorizations associated with remediation projects consistent with air and remediation laws and rules. The scope of remediation facilities and activities covered under this PBR is outlined, as well as the

boundaries of an affected property; off-site receptor; and scope of petroleum and dry cleaning compound contamination, and all common terms over which questions and issues often arise during the review of these projects. The commission adopts the definition to off-site receptor to specify that the definition applies to normally occupied structures. Additionally, in response to comments received, the definition of "Site" was removed from the rule.

This adopted subsection also defines ESLs that are used to determine acceptable emission releases for some remediation sites. The ESLs are used by the commission to evaluate the potential for effects to occur as a result of exposure to concentrations of constituents in the air. ESL updates, which are published periodically, were last revised October 1, 2003. The ESLs are based on data concerning health effects, odor nuisance potential, effects with respect to vegetation, and corrosion effects. The ESLs are not ambient air standards. If predicted or measured airborne levels of a constituent do not exceed the screening level, adverse health or welfare effects are not expected to result. If ambient levels of constituents in air exceed the screening levels, it does not necessarily indicate a problem, but rather, triggers a more in-depth review, as would be performed under a regular air quality permit. In defining remediation for purposes of this PBR, the commission adopts language specifying what types of equipment are considered facilities and that this authorization covers facilities associated with pilot tests as well as treatment. These terms make it clear that the scope of this PBR is limited, and does not cover containment of emergency spills that are under the jurisdiction of the Railroad Commission of Texas (RRC), Texas General Land Office, EPA, or the commission. These upset conditions, with regard to the air emissions resulting from containment and immediate emergency response/treatment, are covered under the commission's air quality general rules and requirements in Chapter 101, General Air Quality Rules. Immediate emergency containment and removal usually occur as soon as the spill is

identified to prevent further contamination of soil or water and is typically completed within 72 hours.

However, if emergency treatment is not specified by the initial governing agency, such as the RRC, the EPA, or commission, or non-emergency treatment is needed, if a facility is constructed or installed at a site, a commission air authorization is required in accordance with Texas Health and Safety Code, §382.0518, Preconstruction Permit; and §116.110, Applicability. For those remediation facilities and activities that have insignificant air contaminant emissions, the use of this PBR is an authorization option. The commission notes that stockpiles of contaminated, remediated materials/soils, surface impoundments, or the use of handheld tools or mobile equipment used on these stockpiles or impoundments does not trigger this authorization until one or more stationary facilities are constructed at the site for the remediation of these affected sources. The commission adopts §106.533(b) with changes to improve readability and to specify changes to the definition of “Off-site receptor” in response to comments received.

Adopted new §106.533(c) outlines general requirements and limitations for the use of this PBR. This PBR is limited to the location of the original soil or water contamination, and is not intended to cover the operation of a commercial or municipal collection site which may have very complex types and quantities of emissions. These larger commercial or municipal facilities are encouraged to obtain an air quality permit under Chapter 116. In response to comments received, the commission adopts §106.533(c)(1) with changes to explain that the section does not apply to facilities unrelated to the remediation project.

This subsection also lists the general equipment technical requirements for facilities with air contaminants, including elevated vents, visible emissions restrictions, nuisance prevention, best

management practices, appropriate air pollution abatement equipment, and coordination with the commission's PST remediation and PST reimbursement programs. All of these limitations ensure minimization of pollutants that may be released into the atmosphere, proper dispersion, and appropriate and effective controls as well as consistency with requirements of applicable state and federal remediation programs. In particular, the visible emissions limitations are included to prevent contribution of dust emissions to the ambient air in unnecessary quantities, prevent potential nuisance conditions, and meet the particulate matter emission standards of §111.155 and the NAAQS. It is recognized that facility operators can only be responsible for best management practices for materials disturbed during remediation and not other facilities at the site, or off-site generated PM emissions. By specifying EPA Test Method 22, this subsection provides a clearly identifiable standard by which the operators and commission field investigators can determine the compliance status of the facilities. In response to comments received, the commission adopts §106.533(c)(9) with changes.

A set of seven most probable scenarios for the cleanup of petroleum fuels, typical oil and gas materials, and dry cleaning compounds based on the various control options was developed and modeled to calculate predicted ground level concentrations at the minimum receptor distances. The modeling results were compared with the screening levels for benzene, gasoline, diesel fuel, crude oils, natural gas condensates, and several common dry cleaning compounds. All of these compounds meet state guidelines and standards as listed in the adopted rules. To ensure that all emissions from the remediation are authorized, the adopted rules include emission limits for facilities associated with pilot testing as well as treatment. Owners and operators are expected to reasonably anticipate needed control devices during pilot tests and use this equipment during these activities to minimize emissions and meet PBR limits. Where applicable, most commission remediation programs require these controls to be

used during the pilot tests. The overall emission limits were evaluated for all listed control devices, as well as fugitive releases where no control device is used. Remediation activities such as land-farming and bio-remediation are considered to be uncontrolled. The commission evaluated emissions of criteria pollutants from typical combustion control devices and determined that the NAAQS are met.

Therefore, the commission did not include rule language to require additional protectiveness demonstrations from products of combustion from the fuel (NO₂, SO₂, CO). The impacts evaluation completed by the commission established that both certain emission limitations must be met, as well as specified distance limitations to ensure protection of the public. The commission revised the PBR to note that facilities, or groups of facilities must be separated from each other by at least 100 feet to ensure acceptable impacts. This rule also allows multiple facilities, or groups of facilities on a single site to have separate and distinct emission limits. A specific term of "facility" is included in subsection (c)(5) and this term is used throughout the PBR. To allow for flexibility during a remediation project, the commission also included in subsection (c)(3) specific criteria by which an operator can determine when controls can be removed from remediation facilities. The format of this rule was changed to improve readability in response to comments received. In addition, the commission renumbered the section accordingly.

Adopted new §106.533(d) outlines the requirements specific to sites contaminated with petroleum compounds. These sites include fuel dispensing locations, usually gas stations, and are almost always associated with remediation projects processed by the PST program and often reimbursed by the commission. It also includes fuel transfer stations for diesel locomotives and aircraft fueling.

Subsection (d) also covers other petroleum-contaminated sites, such as tank farms, transfer stations, oil and gas production facilities, and affected property along pipelines. To ensure protection of public

health and welfare, air emissions are limited to very small amounts. The adopted PBR was evaluated for impacts of gasoline, diesel, and kerosene-based aviation fuels, as well as common pipeline compounds, with specific emphasis on the potential benzene portion of these materials. Emissions are limited to values at or below their respective ESL guidelines. This subsection will limit emissions in two circumstances: 1) for locations with an off-site receptor within 100 feet (a common occurrence); and 2) for locations with a receptor at 100 feet or beyond. Section 106.533(d)(1)(A) has been changed to specify that the requirements apply to facilities. In the case of less than 100 feet, an impacts evaluation determined that controls are preferred. When control devices are used, total petroleum hydrocarbon and benzene emissions should be one lb/hr and 0.1 lb/hr or less, respectively. In the case of non-fuel dispensing sites, petroleum liquids could contain a substantial amount of sulfur so, in these cases, hydrogen sulfide emissions are also limited to 0.1 lb/hr. When control devices are not used, the impacts evaluation showed that dispersion was less and emissions should be further limited to approximately 10% of the values in the controlled scenario. The use of a total petroleum hydrocarbon (TPH) limit allows the rule to be simple instead of speciated multiple air contaminants of concern which may occur in substantially different proportions based on the type of petroleum which has contaminated the soil or water. If this combined term is not used, each potential constituent would need to be separately listed in the PBR and compliance with the technical limitations of §106.262, Facilities (Emission and Distance Limitations), would need to be demonstrated, which is often used as a reference for speciated air contaminant emission limits instead of repeating these stipulations in each PBR. Finally, this subsection also reminds owners and operators of the unique sampling and testing requirements under the PST remediation and PST reimbursement program and changes, made as a result of comments, specify that these requirements only apply to PST sites. Also, in response to

comments received, the commission adopts this subsection specifying requirements when a control device is not used.

Adopted new §106.533(e) lists the requirements specific to sites contaminated with dry cleaning compounds. These sites are usually a result of small commercial enterprises with nearby businesses and off-site receptors. The 78th Legislature, 2003, passed House Bill 1366 to facilitate the cleanup of dry cleaning sites. Although these adopted rules are not a direct result of this legislation, the commission attempted to be consistent with its intent in this PBR. The statute is being codified in rules and implemented by the commission in a separate rulemaking. To allow for administrative flexibility and minimize paperwork, these adopted rules contain a notation that additional technical and administrative requirements for the remediation of dry cleaning sites may be found in Texas Health and Safety Code, §§374.001 - 374.253.

To ensure protection of public health and welfare, air emissions associated with dry cleaning sites are limited to very small amounts. Since these locations are frequently located within 100 feet of an off-site receptor, the impacts evaluation reviewed the most common compounds found at dry cleaning sites. The adopted PBR limits emissions for these compounds to rates consistent with the general PBRs for speciated compounds for all distances, and matches the evaluation methods described for petroleum sites. For locations with an off-site receptor within 100 feet (a common occurrence), an impacts evaluation determined that controls are preferred. When a control device is used, the adopted PBR includes limits consistent with §106.261 and §106.262, and a maximum emission limit of 0.04 lb/hr or the limit in §106.261 or §106.262, whichever is larger. When control devices are not used, the impacts evaluation showed that dispersion was less and emissions should be further limited to approximately

10% of the values in the controlled scenario, with a maximum limit of 0.04 lb/hr of any air contaminant or the limit in §106.261 or §106.262, whichever is larger. In any case, the emission limit will not be required to be less than 0.04 lb/hr. Since many of the compounds used by dry cleaners in the past contained chlorinated compounds, thermal control devices (that would result in hydrochloric acid emissions) are not allowed, and only carbon absorption systems were evaluated and included. Also, minor administrative changes were made to this section.

Adopted new §106.533(f) lists the requirements for all other remediation projects. The contamination at these sites can vary widely and result in both organic and inorganic air emissions. Each site under this PBR will have unique types and concentrations of air contaminants, and the emissions control devices may also vary widely. To ensure protection of public health, the technical requirements of paragraph (1) are limited by the conditions of the most stringent of §106.261, §106.262, or lower values for some compounds not currently addressed by these PBRs. Based on the impacts evaluation performed for this PBR and consistent with impacts evaluation guidelines for air permitting, the commission determined that compounds with an ESL of two micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) or less should have emissions less than or equal to 0.01 lb/hr and if the ESL is between and including 2 and 100 $\mu\text{g}/\text{m}^3$, emissions may be allowed up to 0.04 lb/hr. In any case, the emission limit will not be required to be less than 0.01 or 0.04 lb/hr, respectively. Based on the overall emission limits for individual air contaminants in §106.262, the adopted PBR has a maximum potential release of five tons per year of emissions. Paragraph (3) also requires a minimum distance of 100 feet to the nearest off-property structure to ensure acceptable impacts, as noted in the requirements of §106.261 and §106.262. As noted in paragraph (2), if a control device is used to achieve these emission limits, it

should be properly operated and compliance demonstrated in accordance with §106.533(g) of this PBR.

This subsection was changed, in response to comments, to include affected properties.

Adopted new §106.533(g) covers all of the abatement devices and systems typically used at remediation projects. This list has been expanded from the available options listed previously in §106.533. The specified control devices include: 1) direct-flame combustion device (incinerator, furnace, boiler, heater, or other enclosed direct-flame device); 2) flare; 3) catalytic oxidizer; 4) internal combustion engine; and 5) carbon adsorption system (CAS). Each device listed has three different categories of requirements: design; operation; and compliance demonstrations. For consistency and in response to comments, the commission added opacity restrictions and compliance with the particulate matter standards as listed in Chapter 111 for all control devices in this subsection.

In response to comments received, the breakthrough definition in §106.533(g)(5)(C)(i) was changed and the rule refers to control device effectiveness rather than performance.

Most compliance testing requirements are required by other commission programs (PST, etc.), and have been coordinated with those programs to minimize duplicative and redundant requirements. When using catalytic oxidizers, internal combustion engines, and CAS devices, initial sampling is required within two hours of facility startup. This compliance demonstration is required to ensure that the abatement systems are operating within expected parameters, confirm the pilot test readings, and establish worst-case hourly emission rates for the remediation project.

Adopted new §106.533(h) identifies the compliance demonstration methods applicable to sites with fugitive emissions (typically those where a control device is not used) as a photo-ionization detector

(PID) or a flame ionization detector (FID) used on a weekly basis. These monitors measure concentration of air contaminants (parts per million volume (ppmv)), which will be compared to an equivalent ESL limit for each air contaminant. The conversion from PID and FID devices to ESLs is by the following formulas:

Figure: 30 TAC Chapter 106 - preamble

$$\mu\text{g}/\text{m}^3 = \{(\text{ppmv}) (\text{gram molecular weight of substance})\} / .02445 \text{ or}$$

$$\text{ppmv} = \{.02445 (\text{gram molecular weight of substance})\} / \mu\text{g}/\text{m}^3$$

Measurements with a PID or FID should occur as close as possible to the remediation activity, but no further away than the closest property line. It is the commission's intent that where no controls are being used remediation stop immediately if readings exceed ESL levels. The PID and FID measurements are required to provide a practically enforceable mechanism to demonstrate compliance. If ESL levels are exceeded, it is expected that additional corrective action and control devices be used prior to resuming the remediation project to ensure that the PBR is protective.

Adopted new §106.533(i) describes all other state and federal regulatory requirements and obligations typically applicable to remediation projects and facilities. Common programs such as Voluntary Cleanup and Superfund are referenced along with reminders that all other local, state, and federal laws and requirements must be met. Due to the passage of House Bill 1366, additional rules and requirements will be codified by the commission in a future rulemaking. These requirements may

address additional technical or administrative conditions and limitations, or may eliminate certain administrative requirements to streamline the cleanup of dry cleaning sites. Those requirements, if adopted, may supersede some or all conditions of this section and chapter and will be addressed in a separate rulemaking. This subsection also lists federal air quality requirements that may be applicable to remediation sites. Title 40 CFR Part 63, National Emissions Standards for Hazardous Air Pollutants (HAP) for Source Categories, Subpart GGGGG, National Emissions Standards for Hazardous Air Pollutants: Site Remediation (effective date October 8, 2003) has been promulgated by the EPA and will affect a small portion of remediation projects by limiting emissions of hazardous air contaminants. In response to comments received, the commission adopts this section with a reference to Subpart GGGGG and removed the paraphrased applicability.

Adopted new §106.533(j) includes administrative provisions for the operation of remediation facilities. To minimize the number of registration reviews, the commission is requiring that facilities need only notify the appropriate regional office, any local air pollution control agency having jurisdiction over the site, and the appropriate remediation program coordinator. Notifications must be in writing using the Regional Standard Permit/Permit by Rule Relocation Form, include a return receipt, and should be received by the regional office, local air pollution control programs, and remediation programs prior to facilities being constructed at the site. Advance notification is needed to ensure that if additional information is needed, or to address other concerns which may occur as a result of the project, that the regional office, local programs, or remediation coordinator have sufficient advance notice to ask questions or obtain additional information prior to commencement of activities. In response to comments received, the commission adopts this section with changes regarding specification of which parties receive the different notices/information and the timing of updates when a control device is

eliminated. Also, this section was changed with regard to the language pertaining to local programs to make it consistent with §106.491.

Notifications are not subject to the requirements of §106.50 or Chapter 60. The notification of any particular remediation project is streamlined through this adoption, as owners and operators initially notify the commission regional office, local programs, and remediation coordinator when initiating pilot tests with associated facilities; follow up with detailed emissions expectations and controls for treatment; and update when the concentration of emissions decreases to allow changes or elimination of control devices. This provision is intended to simplify the associated paperwork for remediation projects under the PBR, since the previous PBR required registration whenever a new facility was constructed at a remediation project and resulted in significant unnecessary paperwork requirements. The commission also added subsection (j)(1) as an option that notifications for multiple sites which are related to a single affected property with soil or water contamination may be submitted at the same time to reduce confusion and redundancy.

To ensure a practical enforcement mechanism that is consistent with remediation programs, adopted new §106.533(j)(2) also includes recordkeeping requirements to demonstrate compliance with the conditions of this PBR and §106.8. In many cases, this information is required by the commission to verify control effectiveness and progress of the remediation project. These records must be organized and compiled in such a way that the requirements of this PBR can be readily determined. Records must be kept to demonstrate compliance with all operational or location requirements of this section. These records must include a copy of the return receipt demonstrating notification to the appropriate regional office, any local air pollution control agency having jurisdiction over the site, the appropriate

remediation program coordinator. Additionally, the commission adopts this section with minor administrative changes.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the adopted rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rules do not meet the definition of a “major environmental rule.” Major environmental rule means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure, and that may 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. These adopted rules eliminate obsolete rules; address the need for a reduced PBR registration fee for nonprofit organizations and the nonapplicability of fees for reviews associated with the Voluntary Cleanup Program and Superfund projects; eliminate a PBR to prevent inappropriate control devices from being installed at grandfathered facilities; address the problem of law enforcement agencies that are currently precluded from using a PBR to incinerate confiscated illegal drug evidence; minimize registration requirements by replacing the current PBR for trench burners; and address the need for a rapid authorization mechanism for remediation projects at gasoline stations and dry cleaning facilities that have a distance of less than 100 feet to the nearest off-property structure by replacing the current PBR. Certain aspects of this rulemaking are intended to protect the environment or reduce risks to human health from environmental exposure. However, the adopted rules generally tend to improve regulatory flexibility and reduce costs to regulated facilities and are therefore unlikely to adversely affect in a material way the economy, a sector of the economy, productivity, competition, or jobs. Because this rulemaking 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, the rulemaking does not fit the definition of a major environmental rule.

In addition, Texas Government Code, §2001.0225, only applies to a major environmental rule, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law. The adopted rulemaking is not subject to the regulatory analysis provisions of §2001.0225(b), because the adopted rules do not meet any of the four applicability requirements. The commission invited ,but received no public comment regarding the draft regulatory impact analysis determination.

TAKINGS IMPACT ASSESSMENT

The commission completed a takings impact assessment for the adopted rules. Promulgation and enforcement of the rules will not burden private real property. The adopted rules will not affect private property in a manner that restricts or limits an owner's right to the property that would otherwise exist in the absence of a governmental action. Therefore, the adopted rules do not constitute a takings under Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed the adopted rules and found the rules are identified in the Coastal Coordination Act Implementation Rules, 31 TAC §505.11(b)(2), relating to rules subject to the Coastal

Management Program, and, therefore, required that goals and policies of the Texas Coastal Management Program (CMP) were considered during the rulemaking process. The commission reviewed this action for consistency and determined that the adopted rules do not impact any CMP goals or policies. The adopted rules are intended to more effectively focus commission resources, streamline the air quality PBR process, update administrative and technical requirements for certain PBRs, and address unnecessary registration and fee applicability of PBRs. No comments on the consistency of this rulemaking were submitted during the comment period.

PUBLIC COMMENT

A public hearing on this proposal was held on February 26, 2004, and the public comment period closed on March 1, 2004. No comments were received at the public hearing. The commission received written comments on the rule proposal from the United States Environmental Protection Agency, Region 6 (EPA); Harris County Public Health & Environmental Services Pollution Control Division (HCPCD); the Houston Regional Group of the Sierra Club (Sierra Club); Birch & Becker, L.L.P. on behalf of Crochet Equipment Company (Crochet); H & V Equipment Services (H&V); Air Burners LLC (Air Burners); Cecil M. Hopper Contractor (Hopper); the Texas Chemical Council (TCC); Union Carbide Corporation, a subsidiary of The Dow Chemical Company (Dow); Texas Oil & Gas Association (TxOGA); and the United States Department of Energy, National Nuclear Security Administration, Pantex Site Office (Pantex).

RESPONSE TO COMMENTS

Subchapter A - General Requirements: §106.5, Public Notice

EPA supported the repeal of §106.5, but requested clarification on §106.5(a) which appears to apply to all registrations under Chapter 106, not only concrete batch plants, and requested the basis for why the public notice requirements are limited only to concrete batch plants. Additionally, if §106.5 is applicable to other PBRs, EPA requested information on how this section is used, the type of applicable registrations, if it is applicable to §106.6 and notes if §106.5 is applicable to other PBRs it should not be repealed.

The commission appreciates the support to repeal §106.5 and clarifies that the public notice requirements of §106.5 apply only to concrete batch plants and does not apply to §106.6. Under Texas Health and Safety Code, §382.058, concrete batch plant PBRs are subject to notice and opportunity for hearing provisions. The concrete batch plant PBR was the only PBR in Chapter 106 that required public notice. Section 106.5(a) specified which version of the public notice requirements for concrete batch plants was applicable. With the creation of the concrete batch plant standard permit, concrete batch plants are no longer being authorized by a PBR under Chapter 106. The public notice requirements for concrete batch plants are now contained in the standard permit; therefore, §106.5 is no longer needed.

Subchapter B - Registration Fees for New Permits by Rule: §106.50, Registration Fees for Permits by Rule

EPA commented that §106.50, when originally adopted by the commission on September 25, 2002, was submitted by the commission as a SIP revision on October 4, 2002 and amendments to this section should also be submitted as a revision to the SIP, or, as an alternative, the commission should withdraw this section as a part of the SIP submittal of October 4, 2002.

The commission appreciates EPA's comment and will reevaluate whether §106.50 should remain in the SIP. A separate rulemaking action may be used to submit the revised §106.50 as a SIP revision, or §106.50 may be withdrawn from the October 2002 SIP submittal.

Sierra Club commented that PBR fee payments should be based on the amount of materials and personnel time that it takes the commission to process a PBR and that organizations that cannot afford permit fees may not be able to operate sophisticated pollution control equipment. Sierra Club opposes fee reduction for nonprofit organizations.

The commission appreciates Sierra Club's comment regarding fee reduction. PBR registrations requested by nonprofit organizations do not account for a significant volume compared to the total of all PBR registrations. Also, nonprofit organizations typically do not register for PBRs that require a lengthy review. Additionally, the rule currently allows for reduced fees for other entities that may be adversely affected by permitting fees, such as municipalities. Consequently, the commission believes that reduction of fees for nonprofit organizations will not adversely affect agency resources and is an appropriate consideration of applicants that have limited resources. Finally, the commission maintains that fees associated with PBR registration are not inherently tied to the ability to operate the piece of equipment being registered. Therefore, no changes were made to §106.50 in response to this comment.

Sierra Club opposed the elimination of fees for remediation projects because large companies could use this fee elimination to avoid the costs of PBR fees that they should rightfully bear.

The commission considered this comment, but notes in §106.533, registration and review is not required for remediation projects. Instead, these facilities are only required to notify the regional office, local programs, and remediation coordinator; thus agency costs have been substantially reduced, eliminating the need for a fee to be submitted. No changes were made in response to this comment.

Subchapter V - Thermal Control Devices: §106.491, Dual Chamber Incinerators

Sierra Club cautioned the commission to work with law enforcement agencies to make sure that they comply with the law, stating that law enforcement agencies have limited knowledge about operating a sophisticated piece of air pollution control equipment like an incinerator.

The commission appreciates Sierra Club's concerns regarding the operation of incinerators. The commission believes that such units are not particularly difficult to operate and the controls are not overly sophisticated. The commission included provisions stating that instructions for operation must be posted near the equipment and determined that this is sufficient. No changes were made to this section in response to this comment.

Sierra Club supported the requirements for a continuous exhaust temperature monitor; that each registration address the appropriate charge capacity of a given model of incinerator; the material and types and amounts that will be burned; minimum incinerator stack height; minimum distance to a property line; the proper installation, calibration, and monitoring of the incinerator temperature on a continuous basis; the minimum 1,400 degree Fahrenheit temperature in the secondary chamber; and the proposed recordkeeping requirements. In addition, Sierra Club supported the prohibition of the burning

of polyvinyl chloride plastics and fluoride containing materials, the limits on the number of pounds of certain drugs that can be burned at one time, and the setting of emission limits for incinerators that burn drugs.

The commission appreciates the support of the Sierra Club on these matters and requirements.

Sierra Club supported limiting opacity to 5% and recommended that an even lower opacity limit of zero be used.

The commission responds that the 5% opacity requirement is consistent with existing regulations regarding incinerators in §111.121(5) and additional restrictions beyond these requirements are not justified; therefore, no changes were made to this section in response to this comment.

Sierra Club strongly recommended that language be inserted into the rules that address the differences in charge rate and percent of material type that will go through an incinerator when determining whether the use of a stack test conducted on a different incinerator is appropriate.

The commission responds that the adopted section includes requirements that the sampled facility demonstrate equivalency with regard to all relevant operating conditions, including design, model number, burn rate, and materials in the incinerator. As these reports are submitted, they will be evaluated for compliance with these requirements. No changes to this section were made in response to this comment.

Subchapter V - Thermal Control Devices: §106.493, Direct Flame Incinerators

Sierra Club supported the elimination of PBR authorization for single-chambered incinerators.

The commission appreciates the support of this rule change.

Subchapter V - Thermal Control Devices: §106.496, Air Curtain Incinerators

Sierra Club opposed a PBR for trench burners, recommended that the PBR be eliminated, and stated that an air curtain destructor is not best available control technology (BACT). Sierra Club stated that air curtain destructors are equivalent to a single-chambered incinerator, and because the commission proposed to eliminate air authorization for single-chamber incinerators, this PBR should be eliminated as well. Sierra Club also pointed out that these devices contribute to ozone problems in areas such as Houston/Galveston, and frequently are not operated properly, causing additional nuisance concerns.

The commission encourages recycling and other methods of disposal, but realizes those methods are not always practical. Disposal on site eliminates the need to truck debris to landfills, preserving capacity and reducing emissions from trucks. Burning in a controlled situation remains the most viable option in many cases and is an important option for local governments when cleanup is required following a natural disaster. Also, to help ensure no adverse off-property effects and to reduce the potential for nuisance, this PBR includes conditions such as work practices, distance requirements, and operating time limitations. Due to the operational limitations included in this PBR, the commission does not expect the emissions from ACIs to make a significant contribution to the ozone problem in the Houston/Galveston area. Additionally, PBRs are not required to apply BACT by Texas Health and Safety Code, Chapter 382. No changes to

the rules were made in response to this comment and §106.496 will not be eliminated in this action.

Crochet supported the commission's streamlining of PBR requirements and the inclusion of new aboveground burner facilities as well as efforts to minimize registration requirements and make the process more consistent and predictable for both the regulated community and the permitting and compliance programs of the commission.

The commission appreciates the support of this rule change.

HCPCD noted that the proposed changes to §106.496 address some shortcomings in the current PBR, but expressed concerns over other portions of the proposed section, including issues that need clarification from a local agency enforcement perspective. One of the general concerns is the perceived weakening of this PBR by the use of the term "must." HCPCD suggested that the term should be replaced by "shall" throughout the PBR.

Senate Bill 884, 75th Legislature, amended Government Code, §311.016 to define certain constructions, including terms such as "must" and "shall." "Shall" imposes a duty and "must" is used to create or recognize a condition precedent. The structure of the rules in this rulemaking indicates a condition precedent; that is, in order to be authorized to operate under the PBR, certain conditions must occur. No changes to the rules were made in response to this comment.

Crochet and Hopper commented that the scope and uses of this PBR are unclear when referring to landfill sites. Crochet suggested alternative language for subsections (a) and (c)(2)(C) and suggested

alternative language to clarify the intent and scope for the materials and uses of this section, including referencing 40 CFR §60.2245. Crochet also requested clarification of what, if any, corresponding Municipal Solid Waste (MSW) permit authorization would be required if this PBR authorizes an ACI to be located at the same site, but in an inactive portion of an MSW site. Specifically, this section would be a change to the current MSW rules and guidance and the impacts of this PBR are uncertain when considering this conflict.

The commission determined that that the routine burning of wood waste, clean lumber, and yard waste in accordance with specified time limits is acceptable under the conditions of 40 CFR §60.2245 and added this reference to the section. However, the commission determined that, due to consideration of potential landfill fires that could be caused by on-site flames or sparks, the siting of ACIs on or near a closed or operating landfill cannot be authorized except on a case-by-case MSW permitting basis when it can be demonstrated that a potential for a methane explosion and resulting landfill fire does not exist.

Crochet recommended that this PBR be revised to defer to the federal rules of 40 CFR 60, Subpart CCCC requirements, an approach taken by other states and indicated in a letter to EPA, Region 6, from the commission executive director on October 15, 2002 that indicated that the MSW rules will be updated to be consistent with the NSPS requirements.

The commission responds that the purpose of the PBR is to provide a streamlined mechanism for obtaining air permitting authorization to construct ACIs, which is a separate air permitting requirement from 40 CFR Part 60, Subpart CCCC. The PBR must include a health impacts

review, which is not included under 40 CFR Part 60, Subpart CCCC. While no changes to the rules are being made in response to these comments, after this rulemaking the commission plans to consider amendments to the MSW regulations concerning the use of ACIs and trench burners to conform with the regulations adopted in this rulemaking.

HCPCD and Hopper suggested alternative distance limitations. Hopper noted that 500 feet to the nearest receptor would be appropriate. HCPCD commented that the change to subsection (c)(1) will require 300 feet to the nearest property line, instead of the nearest structure and noted that while the intent appears to increase the distance to off-site receptors, there may be occasions where this change may restrict facility placement at small sites and decrease the distance to off-site receptors in order to meet these requirements. HCPCD suggested that the commission needs to provide for operators to select a location that maximizes distance to off-site receptors. HCPCD also stated its belief that the proposed distance limitation is designed to be protective of human health and welfare, but that the emissions evaluation performed was at steady-state conditions and did not fully account for the dust and smoke generated from startup and ash removal, which in HCPCD's experience, have the highest probability of a nuisance and that impacts occur well beyond 300 feet; therefore, this section as proposed is not protective. HCPCD recommended that the commission review impacts from startup and ash removal and correspondingly establish distance limitations based on this analysis, and, at a minimum, recommended the distance limitation of 1/4 mile to off-site receptors (as was required in SE Number 114 dated September 23, 1982), which in its opinion would virtually eliminate off-site impacts and nuisance violations.

The commission reviewed the emissions and predicted impacts from ACIs during active burning, as well as considered smoldering, using the most current available information to demonstrate compliance with the particulate matter property line standards of §111.155. These property line standards are intended to ensure that no nuisances occur. Based on the commission's observations of ACIs that are properly operated and in accordance with the conditions of this section, the commission is confident that these facilities will comply with all rules, regulations, and the intent of the Texas Clean Air Act (TCAA). No changes were made to the rule in response to these comments.

HCPCD requested clarification on the distance limitations in subsection (c)(1) as to whether they would apply to another ACI at the same site.

The commission amended the conditions of this section to clarify that the distance limitations apply to any ACIs, as well as any other permitted facility, located on a single site.

Crochet and Air Burners provided additional information in response to the request from the commission regarding the emission factors for particulate matter emissions generated from the operation of ACIs and expressed concerns that the information considered by the commission as described in the proposal preamble is not representative of the aboveground equipment. Crochet noted the conservative factors used to estimate worst-case emissions for traditional trench burner operations do not reflect those from aboveground units with refractory walls and floors, over-fire air curtains, and, in some cases, under-fire supplemental air to enhance complete combustion. Crochet supplied data and sampling summaries that show an emission rate of 0.71 pounds particulate matter per ton of wood (as

compared to 14 pounds per ton (lb/ton) used by the commission). Air Burners supplied additional information and testing supporting an emission factor of 2.0 lbs of particulate matter per ton of material, which has been used by the State of Florida since 1986. Crochet requested that the commission consider this information and revise the PBR to have two distinct sets of requirements for the two types of ACIs.

Crochet, H&V, and Air Burners also requested that the manufactured aboveground units be evaluated using the technical information provided and allow for at least 1,000 hours of annual operation, consistent with the current §106.496 requirements. Crochet commented that the 500 hours per year restriction in subsection (c)(2)(A) is an attempt to limit ACI operations to infrequent periods so as to be consistent with state and federal waste regulations. Crochet further discussed in detail the applicability and technical requirements of underlying federal air and waste regulations, including 40 CFR §257.3-7 waste rules originally adopted in 1979 and amended in 1981; 40 CFR 60 Subpart CCCC §60.2245-2260 air rules effective June 1, 2001; and a decision by EPA regarding ACIs in West Virginia. At a minimum, Crochet stated that it is within the commission's discretion to determine the total number of operating hours allowed and still be considered infrequent. H&V also noted that the 500-hour restriction would negatively impact its customers. Finally, Crochet commented that the 500 hours per year restriction in subsection (c)(2)(A) may result in increased emissions as facilities might have to operate at higher volume rates to meet contractual deadlines and the PBR, thus being forced to burn beyond optimum parameters and not resulting in complete combustion. The commenter suggested that instead of 500 hours per year, the commission should establish performance standards, including parameters such as wood moisture.

HCPCD commented that the 500-hour operational limitation in subsection (c)(2)(A) is not reasonable considering that burning at very large development sites could not be completed in this time and it is unclear whether the same or another ACI could simply file another PBR registration to continue for another 500 hours, or, more appropriately, have to cease burning until a Chapter 116 air permit was obtained.

The commission reviewed the technical information provided by Crochet and Air Burners. This evaluation found numerous concerns and could not substantiate using the proposed emission factors. These reports had several weaknesses. Crochet's 2000 sampling report included: 1) a sampling hood which was placed on the unit and likely modified its operation and did not represent normal operation of these units; 2) the facility being sampled was burning unspecified MSW which could not be matched to the materials being proposed in this section; 3) only one test run, versus the statistical three runs required by standard EPA test methods; 4) and lack of quality assurance by any state or federal agency. Air Burner's sampling report and summary included: 1) a letter from the State of Florida in 1986 supporting an emission factor of 2.0 lb/ton but did not correlate to any specific sampling report, and was based only on an engineering judgment from an unspecified person at EPA that an unknown type of device was 80% - 90% better than the emission factor for trench burners at the time (13.0 lb/ton); and 2) the lack of sufficient supporting data or quality assurance review on the report to allow use as a stand-alone document. However, the commission also reviewed the typical operations of traditional trench burners and aboveground units. Analysis of typical operations contained a notation that these units do not operate at maximum capacity during all hours of any given day. In practice, lower throughput rates occur during approximately an hour of daily startup, there are one to two hours

of reduced operation during the day, and one to two hours of reduced throughput at the end of the day. For this reason, total operating hours as listed in subsection (c)(2) are increased in all cases to 600 hours per year. In addition, the commission further reviewed design specifications of aboveground units also provided by the commenters, and based on the vertical wall containment system, refractory linings, above-fire air supply and, in some cases, under-fire air, emissions from these units should be less than the traditional trench burner designs. Based on engineering judgment, this section has been revised by adding subsection (e)(4) to allow up to 750 hours of operation per year. The commission also encourages manufacturers of this equipment to submit additional sampling data which meets the quality assurance guidelines and EPA test method specifications to support future rule changes or any case-by-case air permit for a given location and proposed operation.

Hopper commented that the operational requirements in subsection (c)(3) are reasonable for trench burning operators.

The commission appreciates the support of this rule change.

Hopper commented that the reference to an air curtain in subsection (c)(3) is misleading and impossible to actually maintain. In Hopper's experience of operating trench burners in the Houston area for over 50 years, commenting on previous versions of trench burner rules, and having five years of operation under the previous rules without violations, the current wording of the PBR will cause unnecessary violations, fines, and downtime. Hopper also provided drawings illustrating the design of various trench burner configurations.

The commission does not have any analytical data to support the comment. In addition, EPA documents and materials (including AP-42 and 40 CFR Part 60, Subpart CCCC) clearly describe an air curtain design and operation. The commission observed numerous facilities during plant trips and regional investigations, and, if run correctly, most trench burners do not have a problem maintaining compliance with the limitations as included in this section. Therefore, no changes were made in response to this comment.

HCPCD recommended that subsection (c)(3)(B) should be clarified and strengthened with regard to “burning must be completed” at the end of the day and that this condition should not simply mean that the material in the trench will not cause smoke and visible emissions as determined by modified EPA test methods, as this allows for a loophole and material may, and does, flare up and smolder throughout the night, causing nuisance conditions.

The commission considered this comment and, considering the reasonableness of completely extinguishing all materials and embers in an ACI, finds that if operators ensure that there is no flame or smoke and ensure there is no additional uncombusted fuel in or near the ACI no sustained burning is likely, and therefore no nuisance should occur. It is, however, unreasonable to expect all embers in the ACI to be completely extinguished at the end of each day. To ensure that no flame or smoke is occurring at the end of the day, the commission emphasized these requirements in subsection (c)(3)(B) and (E).

HCPCD commented that the requirements in subsection (c)(3)(E) which allow for the ACI blower to be turned off after enough material is consumed so that the remaining material will not cause smoke exceeding the limits of the modified EPA test method, creates several loopholes, including that as long as there are no visible emissions leaving the property, the ACI blower may be turned off during the day, which also stops the runtime meter and tracking of operating hours, as well as constituting outdoor burning under Chapter 111. HCPCD also commented that subsection (c)(3)(D) allows the operator to leave the site when the ACI blower is off, which would be a significant safety hazard and should be changed to require that the operator remain at the site until all fire is completely extinguished.

The commission notes that, if the facility complies with visible emission limits and no excessive smoke is occurring, then the ACI is operating correctly. If the fan is turned off, the trench burner or aboveground unit becomes open burning and does not comply with these rules. However, to specify the commission's intent, this section was modified to note that these conditions are considered effective only at the end of daily burning.

Hopper commented that the restrictions of subsection (d)(3) are not appropriate to allow for complete combustion; instead, the walls of a trench should be sloped at a ratio of 2:1 so air can enter from the ends of the pit and enhance air circulation and complete combustion.

The commission finds no technical basis for this change and is concerned that winds which occur parallel to a traditional trench burner are likely to cause excessive smoke and ash emissions if this change is made to the rule. Therefore, no changes were made to this section in response to this comment.

HCPCD recommended that subsection (f)(1)(C) be revised to address the ash handling requirements.

While no visible emissions may occur, smoldering can continue in an ash pile. HCPCD suggested that this subsection be clarified to state that combustion may not continue in the ash pile. In addition, piles of ash should be allowed to be temporarily removed from the ACI to allow for active sorting and any material still smoldering can be returned to the ACI or trench so that the trench can be maintained with sufficient depth.

The commission reviewed this comment and notes that the PBR does not allow burning outside the ACI. Smoldering does continue in ash piles, and sorting is not prohibited by the PBR and is a common practice. Since excessive smoldering may be considered a nuisance, no changes were made in response to this comment.

HCPCD commented that the requirements in subsection (h)(1) which allow for multiple ACI locations at a given site under a single registration, be clarified that the cumulative total of all operations of ACIs at the site are limited to 500 hours per year. The commenter requests clarification on the commission's intent to potentially allow multiple registrations for the same site and circumvent the 500-hour limitation.

The commission appreciates this comment and notes that the intent of this PBR relies on compliance with the emission limitations of §106.4 and operating hours are cumulative for all ACIs under common control at a site during a rolling 12-month period. The PBR has been revised to emphasize that this limitation is consistent with the revised operating hours allowed (600 hours per year for trench burners and 750 hours per year for aboveground units).

HCPCD recommended that subsection (h)(2) provide for site reviews to be conducted at the discretion of both the commission's regional office and any local air pollution control program having jurisdiction over the proposed location prior to construction and operation. Under the current PBR, HCPCD conducts site reviews on all applications for trench burners in the unincorporated areas of Harris County and responds to requests for comments to the commission. HCPCD further notes that trench burners represent one of the largest nuisance generators and in 2003, HCPCD issued 75 violation notices. HCPCD stated that it is beneficial to conduct site reviews, evaluate location conditions, proactively communicate with operators, and address the nuisance potential prior to construction in an effort to protect the health and welfare of the public.

The commission responds that the rules will not be revised to require preconstruction site approval. In order to make more efficient use of resources, the commission is not requiring mandatory site reviews for all trench burner relocations. However, the purpose of requiring a 14-day advance notification prior to locating at the site is to provide regional offices and any local air pollution control agencies having jurisdiction an opportunity to conduct a site review when necessary. Subsection (h)(3)(B) is revised to emphasize this requirement. In addition, it is noted that facilities must always comply with any additional local restrictions.

HCPCD recommended the development of a specific relocation form (subsection (h)(3)) for trench burners which would replace the Core Data Form, requesting similar information as well as providing specific information regarding expected hours of operation, arrival and departure dates, site maps, and plot plans (needed to clearly identify the exact location of the proposed facility) and be submitted to the commission's regional office and any local air pollution control program with jurisdiction over the site.

This information is required to perform an adequate evaluation of these portable facilities as they relocate.

The commission responds that adopted §106.496(h) requires that ACIs must be initially registered with the executive director using the Core Data Form and Form PI-7. Registration reviews will include a site approval by the regional office and a compliance history evaluation in accordance with Chapter 60. The owner or operator of a portable ACI that has previously been registered with the executive director and is being relocated to a new site other than a landfill, must notify the appropriate regional office and any local air pollution control agency having jurisdiction over the site. Notifications must be in writing using the Regional Standard Permit/Permit by Rule Relocation Form. On this form, the commission requests information such as arrival and departure dates, distance to property lines, site maps and plot plans, and other important design and operating information in order for regional and local programs to perform any reviews as needed. No change has been made to the rules in response to this comment.

HCPCD requested that the notification requirements in subsection (h)(3) clearly require the 14-day advanced notification to be sent to any local air pollution control program with jurisdiction over that site.

The commission revised subsection (h)(3)(B) to clearly state the requirement that the notification must be received by both the regional office and air pollution control agency having jurisdiction 14 days prior to locating on the site.

HCPCD noted significant concerns over runtime meter record requirements of subsection (h)(4)(A).

HCPCD expressed concerns that frequent relocation of these units will not result in clear records for any specific site and that these meters may be zeroed during any specific project and the logs altered.

The commission partially revised the rule in response to this comment. The requirement to have a runtime meter is meant to provide an indicator by which field investigators may determine compliance with requirements of this PBR and §106.8 clearly requires maintenance of all records sufficient to demonstrate compliance with the PBR for at least two years. The development of PBR conditions of any authorization cannot be based on an assumption of noncompliance. Therefore, the commission has not changed the rule regarding runtime meter compliance demonstrations. However, it is noted that once a portable facility moves to another site, the proposal did not address where records would be available for compliance demonstrations. The commission has added a requirement that records be kept at a central location for up to two years for portable facilities.

HCPCD expressed concerns over requirements listed in subsection (h)(4)(C) in that, although operating instructions must be kept at the burn site, there is no requirement that operators have knowledge of these instructions.

The commission revised the rule in response to this comment. It is reasonable to require that operating personnel be familiar with the basic operation of the machine and that the operating instructions be available to the operator for reference.

Subchapter X - Waste Processes and Remediation: §106.533, Remediation

Sierra Club supported the strengthening of the PBR for remediation activities.

The commission appreciates this support.

TxOGA requested confirmation that subsection (b)(5) be clarified to note that stockpiles of contaminated, remediated materials/soils, surface impoundments, or the use of handheld tools or mobile equipment used on these stockpiles or impoundments does not require an authorization under Chapters 106 or 116 unless one or more stationary facilities are constructed at the site for the remediation of these affected sources. TxOGA stated that this interpretation is considered vital to the continuing efforts to protect groundwater, further contamination, and provide a reasonable alternative to otherwise very large costs to both industry and the state, which would have no appreciable benefits, especially at the thousands of petroleum production and transportation sites with minor spills and which follow the clean-up procedures of the RRC. Further, TxOGA commented that if it is determined necessary to require PBR authorization of small spills at oil and gas sites where no other stationary facilities are constructed to address remediation, the commission should establish a new subsection (e) specifically addressing the unique issues related to these activities.

The commission responds that although the rule is not changed in response to this comment, the commission agrees that the items listed by TxOGA are not considered facilities and do not require separate authorization.

Pantex recommended that the definitions in subsection (b)(4) identify what an ESL is and how it will be used for purposes of this PBR.

ESLs are used by the commission to evaluate the potential for effects to occur as a result of exposure to concentrations of constituents in the air. ESL updates, which are published periodically, were last revised October 1, 2003. The ESLs are based on data concerning health effects, odor nuisance potential, effects with respect to vegetation, and corrosion effects. To emphasize this use, the commission revised subsection (b)(4).

Dow commented that the term “remediation facility” in subsection (b)(5) is adequate to include all remediation equipment and sources related to a remediation facility at a site.

The commission appreciates this comment.

Pantex requested clarification with regard to whether facilities as defined in subsection (b)(5) include wellheads and/or subsurface portions of an extraction well.

The commission notes that the Texas Health and Safety Code, §382.003, definition of “facility” specifically excludes well tests, which would include pilot tests on wells, but not any additional control devices added for the pilot testing. However, the emissions from an extraction well used during the clean-up remediation project is considered a facility, not a well test, as defined in §106.533(b)(5). The commission revised the PBR in response to this comment to provide better understanding of the scope of this PBR.

TxOGA recommended that a qualifier of “normally occupied” be added to the definition of “Off-site receptor” in subsection (b)(6) to clarify the intent and increase understanding of the requirements of this section.

The commission agrees that structures must be regularly occupied to be considered for impacts review. This PBR is revised to reference normally occupied structures.

Pantex commented that the term “site” is defined in other commission regulations and asked why an additional definition is included in subsection (b)(9) and, if there are distinctions from other uses of this term, that a different word be used to avoid confusion.

The commission revised the rule in response to the comment and removed the definition of site as it is redundant.

Pantex suggested that subsection (b) include a definition of “breakthrough” for clarity and understanding of the performance requirements of the CAS system referred to in subsection (g)(5)(C)(i).

The commission revised the rule in response to this comment. Subsection (g)(5)(C)(i) states that “Breakthrough is defined as a measured VOC concentration of 100 parts per million by volume (ppmv) in the outlet of the initial canister” and is unique to CAS systems.

Pantex commented that subsection (c)(2) should be changed to refer to “affected property,” rather than “site,” to assure that emissions requirements of this PBR are not extended to non-remediation-related operations which may be occurring on the same site. Pantex also commented that subsection (c)(3) should be changed to refer to “facility,” rather than “site,” to assure that emissions requirements of this PBR are not extended to non-remediation-related operations which may be occurring at a contiguous property.

The commission revised subsection (c)(1) of the rule in response to this comment to specify that this section only applies to the remediation project on an affected property on the originating site and any nearby sites which may have been directly affected by contamination.

Pantex commented that subsection (c)(8) should be changed to not use the undefined term “property” as this is confusing and it is not clear whether this subsection refers to “affected property” or “site.”

The commission changed this subsection, renumbered as subsection (c)(9), in response to this comment to use the word site, consistent with definitions in Chapters 116 and 122. In addition, the commission added to subsection (j)(1) an option that notifications for multiple sites that are related to a single affected property with soil or water contamination may be submitted at the same time to reduce confusion and redundancy.

Pantex commented that the format of subsection (c)(8) should be changed from a long, confusing sentence to a bulleted or list format for better understandability.

The commission agrees with the commenter and changed the rule to reflect this comment.

TxOGA suggested deletion of subsection (c)(8) entirely as the requirement of limiting opacity from the operations listed in this subsection is very restrictive and is not practically attainable in many locations, especially in South Texas and West Texas where high winds are prevalent. To meet this requirement, the addition of moisture or dust suppressants would inhibit bioremediation and natural attenuation. In addition, the proposed specification that continuous compliance by the test method that would require continuous monitoring by a very inflexible methodology is completely impractical. TxOGA also commented that this requirement is redundant with subsection (c)(5) which is intended to prevent nuisance conditions.

No changes were made in response to this comment. The commission disagrees that the visible emission standard is not practically attainable because other similar types of facilities in South and West Texas are subject to the same standard. The commission included this requirement and it is expected that compliance with subsection (c)(9) will reduce the likelihood of a violation of subsection (c)(5) and §101.4 occurring. By specifying EPA TM 22, which is a visible emissions test, not an opacity test, this subsection provides a clearly identifiable standard by which the operators and commission field investigators can determine the compliance status of the facilities.

Pantex commented that subsection (d)(1)(B) uses the term “uncontrolled,” which should be clearly defined and this subsection should address what emission limits would be applicable if the site has a combination of remediation projects with emission control devices and some without.

The commission revised all applicable references in this rule to specify that certain requirements apply when a control device is not used. In addition, the commission added specific criteria by which an operator can determine when controls can be removed from remediation facilities in subsection (c)(3).

TxOGA recommended revising subsection (d)(1) - (3) to eliminate the different requirements for sites contaminated only with petroleum compounds and imposition of different emission limits for locations with receptors within 100 feet and depending on whether a control device is used. TxOGA suggested that a more reasonable approach would be to establish only emission limits as listed for the proposed controlled scenario, with the understanding that controls would not be needed if the limits can otherwise be achieved, which is consistent with the approach taken in subsection (f). Dow, TCC, and Pantex also commented that subsections (d), (e), and (f) should be changed to address each remediation project, and not an entire site. Dow and TCC commented that the proposed requirements of subsection (f) would limit all remediation activities at a contiguous property (site), and the emission limits are not appropriate for a combination of remediation activities occurring at different locations at a large site, thus substantially limiting the available uses of this PBR and will force an owner/operator to obtain a permit or permit amendment that should be able to be authorized under PBR. TCC further commented that the PBR limits should consider appropriate distance and emission limits for each remediation activity to ensure protectiveness, but include consideration for multiple remediation actions at a large site to create the most reasonable and efficient method to authorize these facilities.

The commission revised the PBR to specify that facilities, or groups of facilities, must be separated from each other by at least 100 feet to ensure acceptable impacts. However, the rule

has also been changed to allow multiple facilities, or groups of facilities on a single site, to have separate and distinct emission limits. This definition was included in subsection (c)(5) and all subsequent subsections were renumbered. The new term is also used throughout the PBR.

TxOGA recommended that the TPH limits be deleted in subsection (d)(1) - (3), as the primary contaminant of concern is benzene and the limits are adequate without also requiring operators to determine TPH emissions. The proposed TPH limit of 1.0 lb/hr corresponds to 8,760 pounds per year or 42 barrels of condensate. If a spill of this size occurred, the RRC would require completion of land treatment within one year and the proposed limitation would thus discourage conventional land treatment and require more expensive processing, such as incineration, with potentially higher overall air emissions.

No changes were made in response to this comment. The use of a TPH limit allows the rule to be simpler than using speciated multiple air contaminants of concern which may occur in substantially different proportions based on the type of petroleum which has contaminated the soil or water. If this combined term is not used, each potential constituent would need to be separately listed in the PBR.

TxOGA noted that subsection (d)(3) appears to be intended to remind the regulated community of unique sampling and testing requirements of the PST remediation and reimbursement programs. However, the regulatory language could be clarified to make that intent more apparent from a reading of the regulations.

The commission agrees with TxOGA and changed the language to be specific to only PST sites.

Pantex questioned why subsection (g)(2)(C) includes a visible emissions limit for flares, but there are no similar limits for other combustion devices. In addition, §111.111 should be checked for applicability to other devices covered in this PBR and a reference included in subsection (c)(8).

The commission agrees with this comment and added opacity restrictions and compliance with the particulate matter standards, as listed in Chapter 111 for all control devices in subsection (g) for consistency.

Pantex commented that the requirements for catalytic oxidizers (CatOx) and internal combustion engines (ICE) maintaining records of “performance” should be changed to “effectiveness” as that term is used earlier in these subsections.

The commission agrees with changing the term “performance” to “effectiveness” and revised the rule accordingly.

Pantex commented that subsection (g)(3) - (5) appears to have inconsistent requirements for various control devices. Additionally, the CAS requirements for weekly monitoring to determine breakthroughs are inconsistent with the CatOx and ICE devices and there is no specificity of the records which must be maintained for the CAS, unlike the CatOx and ICE systems. Finally, Pantex commented that for clarity all recordkeeping requirements should be organized together in this subsection, rather than refer to another subsection of this PBR.

The commission reviewed in detail the compliance demonstration frequency for CAS, CatOx, and ICE and notes that the rule requires for all of these facilities to be maintained to demonstrate a minimum of initial effectiveness, and weekly confirmation of continuing proper operation. Also, the commission reviewed the recordkeeping requirements of subsection (j)(2) and decided to keep these specifications together at the end of the PBR instead of repeating them in each paragraph for individual control devices, which would result in substantial redundancy. No changes were made in response to this comment.

TxOGA recommended deleting all of subsection (h) and noted that operators should have the option of using data from flame ionization detectors (FIDs) or photoionization detectors (PIDs) where necessary, but recognize that these instruments do not provide direct measurements of all specific air contaminants of concern. If it is determined that some concentration at the nearest property line is necessary for uncontrolled projects, any such requirement should be cost-effective and performance-based. While the proposed compliance methods are inappropriate uses of FIDs/PIDs and ESLs, as well as prohibitively expensive, it does not take into account background concentrations from nearby permitted facilities, nor does the proposal consider reduced monitoring over time as emissions decrease during remediation.

The commission responds that PID/FID measurements are required to provide a practically enforceable mechanism to demonstrate compliance and the use of PID/FID instruments is likely to be more cost- effective than other types of monitoring.

Pantex suggested that subsection (h) be clarified as to what actions are needed if a PID or FID reading is above an ESL and if the remediation activities at that point are unauthorized and all activity halted.

The commission responds that remediation where no controls are being used should stop immediately if readings exceed ESL levels. If these levels are exceeded, additional corrective action and control devices must be used prior to resuming the remediation project. The commission revised the rule to reflect this comment.

EPA commented that §106.533(i)(5) summarizes the applicability of 40 CFR 63, National Emission Standards for Hazardous Air Pollutants, Subpart GGGGG, Site Remediation, but noted that since the language is not exactly the same as the federal rules, suggested that the commission only reference 40 CFR §63.7881, Am I Subject to this Subpart?, to avoid any confusion.

The commission agrees and revised the rule to reference, rather than paraphrase, 40 CFR Part 63, Subpart GGGGG.

TxOGA and Pantex expressed concerns regarding the notification requirements of subsection (j).

Pantex commented that the use of the term “executive director” is confusing and if the commission intends that these notifications are to be sent only to the regional offices, the rule should be clarified.

TxOGA suggested amending subsection (j) to require notification to be submitted within ten days after remediation begins, instead of prior to beginning facility construction. TxOGA expressed a belief that these requirements, including emissions estimates, control device determinations, and performance expectations, would create unnecessary delays, that remediation should occur as soon as practicable, and this may conflict with RRC requirements. Pantex requested that the commission consider reducing the number and type of notifications that must be made for this PBR. TxOGA also commented that no additional notification or registration should be required between well-testing and full-scale remediation

activities beginning, and that the need for a return receipt of PBR notification should be an option, not a requirement.

The commission revised the rule in response to these comments to specify which divisions of the commission should be notified of a remediation project. In addition, it is critical that the appropriate regional office, local program, and appropriate remediation coordinator are notified not only when assessment of a remediation site begins, but when full-scale cleanup will occur, with expected emissions and control devices, as well as any facility or abatement system changes. These requirements are consistent with the definition of construction of a new facility and modification of an existing facility, including change in method of control. Advance notification is needed to ensure that if additional information is needed, or to address other concerns which may occur as a result of the project, that the regional office, local program, or remediation coordinator have sufficient advance notice to ask questions or obtain additional information prior to commencement of activities. In addition, a notification enables the applicants to begin remediation projects more quickly than if a registration were required.

Pantex noted that the form referenced in subsection (j)(1) cannot be found on the commission's Web pages, was concerned that the form and instructions will not match those of this rule, and requested the opportunity to review this form for additional concerns and comments.

No changes were made in response to this comment. The form is currently under development.

SUBCHAPTER A: GENERAL REQUIREMENTS

§106.5

STATUTORY AUTHORITY

The repeal is adopted under Texas Health and Safety Code, TCAA, §382.011, which authorizes the commission to administer the requirements of the TCAA; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; §382.057, which authorizes the commission to exempt from permitting, changes within any facility which would not make a significant contribution of air contaminants to the atmosphere; §382.051, which authorizes the commission to issue permits for construction of facilities which emit air contaminants; and §382.05196, which authorizes the commission to adopt permits by rule for types of facilities which would not make a significant contribution of air contaminants to the atmosphere.

§106.5. Public Notice.

SUBCHAPTER B: REGISTRATION FEES FOR NEW PERMITS BY RULE

§106.50

STATUTORY AUTHORITY

The amendment is adopted under Texas Health and Safety Code, TCAA, §382.011, which authorizes the commission to administer the requirements of the TCAA; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; §382.057, which authorizes the commission to exempt from permitting, changes within any facility which would not make a significant contribution of air contaminants to the atmosphere; §382.051, which authorizes the commission to issue permits for construction of facilities which emit air contaminants; and §382.05196, which authorizes the commission to adopt permits by rule for types of facilities which would not make a significant contribution of air contaminants to the atmosphere.

§106.50. Registration Fees for Permits by Rule.

(a) A registrant who submits a permit by rule (PBR) registration for review by the commission shall remit one of the following fees with the PI-7 registration form:

(1) \$100 for:

(A) small businesses, as defined in Texas Government Code, §2006.001;

(B) non-profit organizations; and

(C) municipalities, counties, and independent school districts with populations or districts of 10,000 or fewer residents, according to the most recently published census; or

(2) \$450 for all other entities.

(b) This fee does not apply to:

(1) a certification submitted solely for the purpose of establishing a federally enforceable emissions limit under §106.6 of this title (relating to Registration of Emissions);

(2) a remediation project conducted under §106.533 of this title (relating to Remediation); or

(3) resubmittal of previously reviewed registrations, if received within six months of a written response on the original action.

(c) This fee is for PBR registrations that are received on or after November 1, 2002.

(d) All PBR fees will be remitted in the form of a check, certified check, electronic funds transfer, or money order made payable to the Texas Commission on Environmental Quality (TCEQ)

and submitted concurrently with the registration to the TCEQ, P.O. Box 13088, MC 214, Austin,

Texas 78711-3087. No fees will be refunded.

SUBCHAPTER H: CONCRETE BATCH PLANTS

§§106.201 - 106.203

STATUTORY AUTHORITY

The repeals are adopted under Texas Health and Safety Code, TCAA, §382.011, which authorizes the commission to administer the requirements of the TCAA; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; §382.057, which authorizes the commission to exempt from permitting, changes within any facility which would not make a significant contribution of air contaminants to the atmosphere; §382.051, which authorizes the commission to issue permits for construction of facilities which emit air contaminants; and §382.05196, which authorizes the commission to adopt permits by rule for types of facilities which would not make a significant contribution of air contaminants to the atmosphere.

§106.201. Permanent and Temporary Concrete Batch Plants.

§106.202. Temporary Concrete Batch Plants.

§106.203. Specialty Batch Plants.

SUBCHAPTER V: THERMAL CONTROL DEVICES

§§106.491, 106.493, 106.496

STATUTORY AUTHORITY

The repeals are adopted under Texas Health and Safety Code, TCAA, §382.011, which authorizes the commission to administer the requirements of the TCAA; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; §382.057, which authorizes the commission to exempt from permitting, changes within any facility which would not make a significant contribution of air contaminants to the atmosphere; §382.051, which authorizes the commission to issue permits for construction of facilities which emit air contaminants; and §382.05196, which authorizes the commission to adopt permits by rule for types of facilities which would not make a significant contribution of air contaminants to the atmosphere.

§106.491. Dual Chamber Incinerators.

§106.493. Direct Flame Incinerators.

§106.496. Trench Burners.

SUBCHAPTER V: THERMAL CONTROL DEVICES

§106.491, §106.496

STATUTORY AUTHORITY

The new sections are adopted under Texas Health and Safety Code, TCAA, §382.011, which authorizes the commission to administer the requirements of the TCAA; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; §382.057, which authorizes the commission to exempt from permitting, changes within any facility which would not make a significant contribution of air contaminants to the atmosphere; §382.051, which authorizes the commission to issue permits for construction of facilities which emit air contaminants; and §382.05196, which authorizes the commission to adopt permits by rule for types of facilities which would not make a significant contribution of air contaminants to the atmosphere.

§106.491. Dual-Chamber Incinerators.

(a) **Applicability.** This section authorizes dual-chamber incinerators that burn only waste generated on site, or illegal drugs confiscated by federal, state, or local law enforcement agencies. Incinerators used in the processing or recovery of materials or to dispose of pathological waste as defined in §106.494 of this title (relating to Pathological Waste Incinerators), hospital waste, infectious waste, hazardous waste, or radioactive waste are not authorized by this section.

(b) **Design requirements.** The incinerator must meet the following design requirements.

(1) The incinerator must be equipped with an afterburner automatically controlled to operate with a minimum temperature of 1,400 degrees Fahrenheit, equipped with a continuous exhaust temperature monitor, and designed and operated with a minimum gas retention time of 0.5 seconds.

(2) The manufacturer's rated capacity (burn rate) must be 500 pounds per hour or less. Each claim under this section must address the model of incinerator and specify the types and amounts of waste to be destroyed for determination of a specific unit's appropriate capacity.

(3) Stacks must comply with the following:

(A) height at least 15 feet from the ground;

(B) height at least six feet above the peak of the highest structure within 150 feet;

(C) located at least 200 feet from nearest property line; and

(D) have unobstructed vertical discharge when the incinerator is operated.

Properly installed and maintained spark arresters are not considered obstructions.

(c) Operational limits. The incinerator must meet the following operational conditions.

(1) This facility must be used solely for the disposal of waste materials generated on site and only one of the following:

(A) paper, wood, cardboard cartons, rags, garbage (animal and vegetable wastes as defined in Chapter 101 of this title (relating to General Air Quality Rules)), and combustible floor sweepings; containing overall not more than 10% treated papers, plastic, or rubber scraps. Plastics containing polyvinyl chloride or polyvinyl fluoride are prohibited. Neither garbage content nor moisture content may exceed 50% and noncombustible solids may not exceed 10% of total weight; or

(B) drugs confiscated by law enforcement, limited to marijuana, cocaine, opiates, and methamphetamines.

(2) The incinerator must be operated with the following limits:

(A) cocaine, opiates, and methamphetamines are limited to a burn rate of no more than four pounds per hour (lb/hr) and ten pounds in any eight-hour period. Emissions must not exceed 0.04 lb/hr for each of these compounds; and

(B) marijuana is limited to a burn rate of no more than 500 lb/hr. Emissions must not exceed 1.0 lb/hr total inhalable particulate matter (PM_{10}).

(3) Fuel for the incinerator must be limited to sweet natural gas, liquid petroleum gas, Number 2 fuel oil with less than 0.5% sulfur by weight, or electric power. Products of fuel combustion

(sulfur dioxide, nitrogen oxides, and carbon monoxide) and volatile organic compounds are authorized, if the facility is operated in compliance with this section.

(4) The manufacturer's recommended operating instructions must be posted at the incinerator, and the unit must be operated in accordance with these instructions. The incinerator must be operated in accordance with the manufacturer's specifications and maintained in good working order.

(5) 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.

(d) Compliance and administrative requirements.

(1) Registration. Before construction begins, the facility must be registered with the commission's Office of Permitting, Remediation, and Registration using Form PI-7, Registration for Permits by Rule.

(2) Waste regulations. Compliance with this section serves as a commission authorization under §330.51 of this title (relating to Permit Application for Municipal Solid Waste Facilities).

(3) State and federal air compliance demonstrations.

(A) Emission limits. Within 180 days of operation, all facilities processing confiscated drugs must provide sampling to demonstrate compliance with the emission limits of this section. Similar facility sampling may be used if the owner or operator provides documentation, including model number, burn rate, materials burned, and all relevant operating conditions, that demonstrates the previously-sampled incinerator is equivalent to the facility to be authorized under this section.

(B) Federal requirements. Registrations must address the applicability of 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS), Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units, for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 (as published in the December 1, 2000 issue of the *Federal Register*); or 40 CFR Part 60, Subpart DDDD, Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units, that Commenced Construction On or Before November 30, 1999 (as published in the December 1, 2000 issue of the *Federal Register*). If determined to be applicable, commercial and industrial solid waste incinerators must demonstrate compliance with these federal regulations, including initial stack sampling, opacity readings, reporting, and recordkeeping.

(C) State air regulations. Upon the request of the executive director, a designated representative of the commission, or a local air pollution control agency having jurisdiction over the site, compliance with §111.121 and §111.125 of this title (relating to Single-, Dual-, and Multiple-Chamber Incinerators; and Testing Requirements) must be demonstrated.

(4) Monitoring. Incinerator operators/owners shall install, calibrate, maintain, and operate a monitoring device that continuously measures and records the temperature of the exhaust gas of the incinerator, in addition to any monitoring required by an appropriate NSPS subpart.

(5) Recordkeeping. Records must be kept of the type and amount of waste charged/burned; type and amount of fuel usage, including sulfur content for fuel oil; monitoring and testing results; hours of operation; and routine maintenance of abatement systems sufficient to demonstrate each of the requirements listed previously are met. Such records must be retained for a minimum rolling two-year period and comply with §106.8 of this title (relating to Recordkeeping).

§106.496. Air Curtain Incinerators.

(a) Applicability. The commission encourages the recycling of the materials specified in this section. Composting, mulching, or other processing to produce a useable material can be authorized by §332.8 of this title (relating to Air Quality Requirements). This section authorizes any air curtain incinerator used for the burning of trees, clean lumber, and brush from land-clearing as referenced in 40 Code of Federal Regulations §60.2245, right-of-way maintenance, emergency clean-up operations, noncommercial industrial sites, and municipal solid waste sites, if operated in accordance with this section.

(b) Scope and terms. The following terms apply only to this section.

(1) **Air curtain incinerator (ACI)** - An incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor.

(2) **Clean lumber** - Wood or wood products that have been cut or shaped and includes wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate, copper arsenate, pentachlorophenol, or creosote.

(3) **Emergency cleanup** - The removal and disposal of wastes resulting from events such as high winds, floods, and other events of nature that are necessary to protect public health and safety.

(4) **Land-clearing** - The removal of trees, brush, and other vegetative matter from agriculture, forest management, or land development.

(5) **Municipal solid waste sites** - Landfills that may burn on- or off-site generated waste as specifically authorized by the executive director under §330.4 of this title (relating to Permit Required).

(6) **Noncommercial industrial sites** - Locations at which on-site generated waste resulting from the processing or manufacturing of products may be burned. These industrial sites must be noncommercial, as limited by §335.2(d)(1) of this title (relating to Permit Required), and burn only

on-site generated waste that results from the processing or manufacturing of products, and do not include sites that accept off-site generated waste for disposal or destruction.

(7) **Site** - One or more contiguous or adjacent properties that are under common control of the same person, or persons under common control.

(c) Operational limits.

(1) Distance limitations. The ACI must be operated at least 300 feet from the closest property line and any other facility with an air permit authorization under §116.110 of this title (relating to Applicability), or any ACI operating under this section.

(2) Facility locations. ACIs may not be operated at a given site more than the following.

(A) All facilities may operate up to a total of 600 hours in any rolling 12-month period.

(B) Portable facilities temporarily located at a site may operate up to 180 consecutive calendar days or 600 hours, whichever occurs first. The ACI must be removed from the site after ceasing operation.

(C) Permanent facilities may process materials for municipal solid waste or noncommercial industrial sites only.

(3) Daily operation.

(A) Daily burning must not commence earlier than one hour after sunrise.

(B) Burning must be completed on the same day, not later than one hour before sunset. At the end of the burn, embers must not be flaming or smoking, and no additional fuel may be added to the ACI.

(C) Material must not be added to the ACI in such a manner as to be stacked above the air curtain.

(D) An operator shall remain with the ACI at all times when it is operating.

(E) The ACI blower must remain on at the end of daily burning until enough material is consumed so that any remaining material in the trench does not flame or cause smoke that exceeds the requirement of this section when the blower is turned off.

(F) Material not being worked, and material being stockpiled to be burned at a later date, must be kept at least 75 feet from the trench or firebox.

(4) Visible emissions.

(A) Visible emissions from an ACI, stockpiles, work areas, and any in-plant roads associated with the facility must not leave the property for a period exceeding 30 seconds in any six-minute period as determined by United States Environmental Protection Agency Test Method 22.

(B) Best management practices must be used to ensure that the ACI blower is operated in a manner to minimize smoke and ash becoming airborne.

(5) Emissions from products of combustion. Products of combustion (sulfur dioxide, nitrogen oxides, and carbon monoxide) and volatile organic compounds are authorized if the facility is operated in compliance with this section.

(6) Compliance. Upon notification by a representative of the commission or any local air pollution control program having jurisdiction that the ACI is not complying with the conditions of this section, additional material must not be added to the ACI until the facility returns to compliance.

(d) Trench burning. An ACI operation using a trench and air manifold system must meet the following conditions.

(1) At all times, trench dimensions must not exceed 12 feet in width, 35 feet in length, and be no less than ten feet in depth, such that the combustion of the materials within the trench is maintained.

(2) The length of the trench must not exceed the length of the air blower manifold.

(3) The walls of the trench must be maintained such that they remain sufficiently vertical to maintain the air curtain.

(4) Upon removal of the ACI from the burn site, ash may be left in the trench, subject to the conditions of this section, and the trench must be completely filled with incombustible material and covered with soil.

(e) Firebox burning. An ACI operation using a manufactured aboveground container and blower system must meet the following requirements and operational limits.

(1) The interior dimensions of the firebox must not exceed eight feet in width, 35 feet in length, and be no less than six feet in depth.

(2) The walls of the ACI must be maintained such that they remain sufficiently vertical to maintain the air curtain and the combustion of the materials within the ACI.

(3) The air blower manifold length must be equal to the length of the burning area.

(4) Firebox facilities, which are equipped with refractory walls and above-fire air supply, may operate up to a total of 750 hours in any rolling 12-month period.

(f) Ash processing.

(1) Handling. All ash generated as a result of the operation of an ACI must be handled in accordance with the following requirements.

(A) Ash must be removed from the ACI during burning as necessary to maintain efficient combustion.

(B) Ash must be removed from the ACI in such a manner as to minimize the ash becoming airborne.

(C) All material removed from the ACI must be completely extinguished before being disposed of or placed in contact with combustible material, and must be stored in a manner that does not constitute a fire hazard or allow the material to smolder or burn outside of the ACI.

(2) Disposal. The ash generated from an ACI operated under this section must be disposed of by one of the following methods:

(A) buried on-site in an ACI trench, if deed recorded and a copy of the document is provided to the executive director as required by §330.7 of this title (relating to Deed Recordation);

(B) sent to a Type I landfill, if the ash is containerized and no hot coals are present; or

(C) beneficially used, if the use is determined to be acceptable by the executive director in accordance with §330.8 of this title (relating to Notification Requirements).

(g) Other requirements.

(1) Local restrictions. This section does not exempt ACIs from any local government regulations or other local government requirements, permits, registrations, or other authorizations required by local authorities.

(2) State air regulations. This section does not exempt ACIs from compliance with any additional state air regulations.

(3) Federal air requirements. Registrations for permanent ACIs must address the applicability of 40 Code of Federal Regulations (CFR) Part 60, Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 (as published in the December 1, 2000 issue of the *Federal Register*). If determined to be applicable, commercial and industrial solid waste incinerators must demonstrate compliance with this federal regulation, including initial stack sampling, opacity readings, reporting, and recordkeeping.

(4) State waste regulations.

(A) Landfill sites:

(i) ACIs located at a landfill require separate authorization by the executive director in accordance with §330.4 of this title (relating to Permit Required); and

(ii) below-ground ACIs must be located in undisturbed soil not previously excavated, built up, compacted, or used in any type of active landfill operation.

(B) Ash disposal. For materials authorized to be burned under this section and the resulting ash from ACIs, categorized as municipal solid waste as defined in §330.2 of this title (relating to Definitions), compliance with this section serves as a commission authorization to store, process, remove, and/or dispose of the ash resulting from the operation of ACIs as required by §330.4(a) of this title.

(5) State water regulations. Nothing in this section removes the responsibility of the owner/operator from obtaining any necessary authorization under Chapter 308 of this title (relating to Criteria and Standards for the National Pollutant Discharge Elimination System).

(h) Administrative.

(1) Multiple locations at a single site. Multiple ACIs at a given site may be combined into a single registration if individual ACI locations at the site are in compliance with all design requirements and operating restrictions. Operations for all ACIs under common control at a given site must cumulatively meet the annual hourly limitations as listed.

(2) Registration.

(A) ACIs must be initially registered with the executive director using the Core Data Form and Form PI-7.

(B) Re-registration is required when any notice of enforcement is issued by the commission, or delegated representative, to the owner or operator of an ACI facility or every five years, whichever occurs first.

(C) Any ACI used for emergency clean-up operations does not require registration, but the owner or operator shall meet the notification requirements of this section except for the 14-day prior notice requirement.

(D) Registration reviews will include site approval and a compliance history evaluation in accordance with Chapter 60 of this title (relating to Compliance History).

(3) Notification. Notifications are not subject to the requirements of §106.50 of this title (relating to Registration Fees for Permits by Rule) or Chapter 60 of this title.

(A) The owner or operator of an ACI that has previously been registered with the executive director in accordance with this section and is being relocated to a new site, other than a landfill, shall notify the appropriate regional office and any local air pollution control agency having jurisdiction over the site.

(B) Notifications must be in writing using the Regional Standard Permit/Permit by Rule Relocation Form, include a return receipt, and be received by the regional director and any local air pollution control agency having jurisdiction over the site at least 14 calendar days prior to locating at the site.

(4) Records. To demonstrate compliance with this section and §106.8 of this title (relating to Recordkeeping), owners or operators of ACIs shall, at a minimum, meet the following requirements.

(A) The ACI must be equipped with a run time meter. A written record or log of the hours of operation of the ACI must be maintained at the site and made available at the request of personnel from the commission or any air pollution control program having jurisdiction. This run time record or log must be organized such that compliance with the requirements of this section can be readily determined.

(B) Records must be kept to demonstrate compliance with all operational or location requirements of this section. These records must include a copy of the return receipt demonstrating notification to the appropriate regional office and local air pollution control programs

having jurisdiction, and plot plans showing distance limits are met. For portable facilities, once relocated to a new site, records must be maintained at a central location for a two-year rolling period.

(C) A copy of this section and any operating instructions must be kept at the burn site, followed by owners or operators, and made available at the request of personnel from the commission or any local air pollution control program having jurisdiction.

(D) The ACI must be clearly and permanently marked with the regulated entity (preferred) or account identification number on the fan manifold or aboveground unit.

SUBCHAPTER X: WASTE PROCESSES AND REMEDIATION

§106.533

STATUTORY AUTHORITY

The repeal is adopted under Texas Health and Safety Code, TCAA, §382.011, which authorizes the commission to administer the requirements of the TCAA; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state air; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; §382.057, which authorizes the commission to exempt from permitting, changes within any facility which would not make a significant contribution of air contaminants to the atmosphere; §382.051, which authorizes the commission to issue permits for construction of facilities which emit air contaminants; and §382.05196, which authorizes the commission to adopt permits by rule for types of facilities which would not make a significant contribution of air contaminants to the atmosphere.

§106.533. Water and Soil Remediation.

SUBCHAPTER X: WASTE PROCESSES AND REMEDIATION

§106.533

STATUTORY AUTHORITY

The new section is adopted under Texas Health and Safety Code, TCAA, §382.011, which authorizes the commission to administer the requirements of the TCAA; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state air; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; §382.057, which authorizes the commission to exempt from permitting, changes within any facility which would not make a significant contribution of air contaminants to the atmosphere; §382.051, which authorizes the commission to issue permits for construction of facilities which emit air contaminants; and §382.05196, which authorizes the commission to adopt permits by rule for types of facilities which would not make a significant contribution of air contaminants to the atmosphere.

§106.533. Remediation.

(a) Applicability. Equipment used to extract, handle, process, condition, reclaim, or destroy contaminants for the purpose of remediation is permitted by rule, provided that all the following conditions of this section are satisfied.

(b) Scope. The following terms apply to this section.

(1) **Affected property** - The entire area, including on-site and off-site and including all environmental media, that contains releases of chemicals of concern.

(2) **Affected sources** - Include, but are not limited to, stockpiles of contaminated/remediated materials/soils and surface impoundments.

(3) **Dry cleaning compounds** - Include the following chlorinated and non-chlorinated dry cleaning solvents used in the cleaning of garments or other fabrics:

(A) perchloroethylene, also known as tetrachloroethylene, and its degradation products, including trichloroethylene, 1,2-dichloroethylene, and vinyl chloride;

(B) petroleum-based solvents such as Stoddard Solvent, naphtha, and other petroleum distillates;

(C) hydrocarbons and synthetic hydrocarbons such as DF-2000TM fluid, EcoSolvTM, PureDryTM, or the equivalent;

(D) silicone-based solvents containing decamethylcyclopentasiloxane; and

(E) other nonaqueous solvents such as carbon tetrachloride, dipropylene glycol tertiary butyl ether, 1,1,1-trichloroethane, and 1,1,2-trichloro-1,1,2-trifluoroethane.

(4) **Effects screening levels (ESLs)** - Values used by the commission to evaluate the potential for effects that may occur as a result of exposure to concentrations of constituents in the air. The ESLs are based on data concerning health effects, odor nuisance potential, effects with respect to vegetation, and corrosion effects. ESL updates, which are published periodically, were last revised October 1, 2003.

(5) **Facility** - A discrete or identifiable structure, device, item, equipment, or enclosure that constitutes or contains a stationary source. Once a remediation facility is at a site, all remediation equipment and related sources are covered by this section. Facilities include, but are not limited to, control devices, tanks, containers, liquid separators, material transfer systems, vacuum pumps, and associated components and connecting piping, but do not include below-ground pilot wells or well tests when no additional aboveground equipment is used. An extraction well used during a remediation project is considered a facility, not a well test.

(6) **Off-site receptor** - Any recreational area, residence, commercial/industrial facility, or other normally occupied structures not used solely by the owner or operator of the facilities or the owner of the site upon which the facilities are located. Measurements of distances to determine compliance with this distance restriction must be taken toward structures that are in use as of the date that a notification is filed with the commission.

(7) **Petroleum compounds** - Solids, liquids, or gases produced from natural formations of crude oil, tar sands, shale, coal, and natural gas; or refinery fuel products (which may contain additives).

(8) **Remediation** - An act or process taken to reduce or eliminate contaminants in the environment. This process may include, but is not limited to, assessment or treatment activities such as air, soil, or water sampling, or pilot tests, treatment, or post-clean-up activities that use facilities.

(c) General requirements. The following general requirements apply to this section.

(1) **Applicability.** This section covers only remediation performed at the affected property on a given site where the original contamination occurred, or at a nearby site secondarily affected by the contamination. This section does not cover any treatment facility where materials are brought in from another site or facilities unrelated to remediation. Such treatment facilities are subject to §116.110 of this title (relating to Applicability) and must obtain an air new source review permit.

(2) **Contaminants.** The identification of the contaminants at a site must be accomplished using the methodology specified by the applicable remediation program and the United States Environmental Protection Agency (EPA) or commission-approved method.

(3) **Controls.** The selection of appropriate equipment for remediation, at a minimum, must meet the methodology approved by the applicable remediation program (e.g., Petroleum Storage Tank (PST) Program, Voluntary Cleanup Program, Superfund, etc.). Use of any control device may be discontinued when the influent concentrations show that the facility can meet the appropriate emission limits without controls.

(4) Elevated vents. The height of any vents associated with the remediation must be at least ten feet above ground level.

(5) Multiple facilities at a site. There may be multiple remediation facilities at a site. However, each remediation facility must be separated from all other remediation facilities by a distance of at least 100 feet. Any individual facilities not separated by this distance must be combined and treated as a single facility for purposes of meeting the conditions of this section.

(6) Nuisance. The handling, processing, and stockpiling of any materials associated with facilities under this section must not cause a nuisance as defined in §101.4 of this title (relating to Nuisance).

(7) Operations. Wherever this section specifies that an action be performed periodically (e.g., weekly), the requirement applies only when the equipment is in operation for that period.

(8) Spills. Air emissions resulting from emergency containment and removal of soil or water from spills must comply with Chapter 101 of this title (relating to General Air Quality Rules) and are not authorized by this section.

(9) Visible emissions. Compliance with this requirement will be determined by use of EPA Test Method 22, found in 40 Code of Federal Regulations, Part 60, Appendix A, as published in

the February 12, 1999 issue of the *Federal Register*. There will be no visible emissions leaving the site for a period exceeding 30 seconds in any six-minute period from the following operations:

(A) handling, processing (screening, crushing, etc.), groundwater air stripping, and stockpiling of contaminated soil;

(B) handling, stockpiling, and in-situ chemical oxidation of groundwater and soils; and

(C) conditioning (adding moisture) of remediated soil.

(d) Requirements for sites contaminated only with petroleum compounds. For the remediation of sites contaminated only with petroleum compounds, the following requirements must be met.

(1) For facilities with an off-site receptor within 100 feet:

(A) if a control device meeting the conditions of subsection (g) of this section is used, the total emissions from each facility must meet the following emission limits:

(i) total petroleum hydrocarbons must not exceed 1.0 pound per hour (lb/hr);

(ii) the benzene component must not exceed 0.1 lb/hr; and

(iii) the hydrogen sulfide component (for non fuel-dispensing sites)

must not exceed 0.1 lb/hr; and

(B) when a control device is not used, the total emissions from each facility must meet the following emission limits:

(i) the total petroleum hydrocarbons must not exceed 0.1 lb/hr;

(ii) the benzene component must not exceed 0.01 lb/hr; and

(iii) the hydrogen sulfide component (for non fuel-dispensing sites)

must not exceed 0.01 lb/hr.

(2) For facilities with equal to or greater than 100 feet to the nearest off-site receptor, emissions from all point sources are limited to the following:

(A) total petroleum hydrocarbons are limited to 1.0 lb/hr;

(B) the benzene component must meet the emissions and distance requirements of §106.262 of this title (relating to Facilities (Emission and Distance Limitations));

(C) the hydrogen sulfide component (for non fuel-dispensing sites) must meet the emissions and distance requirements of §106.262 of this title;

(3) For all sites regulated by this section to which the agency's PST remediation and/or reimbursement requirements are applicable, sampling and lab analysis of influent and effluent vapors must be performed at least monthly to demonstrate compliance with the control equipment efficiency and/or emission rate limits of this section, and with any related PST requirements, unless an alternative evaluation method is approved by the applicable agency remediation program.

(e) Requirements for sites contaminated only with dry cleaning compounds. For the remediation of sites contaminated only with dry cleaning compounds, the following requirements must be met.

(1) For facilities with an off-site receptor within 100 feet, emissions of each individual compound from each facility must meet the following emission limits:

(A) if a control device meeting the requirements of subsection (g) of this section is used, §106.261 of this title (relating to Facilities (Emission Limitations)) or §106.262 of this title (assuming 100 feet), whichever is more stringent;

(B) if a control device is not used, 10% of the values determined by subparagraph (A) of this paragraph;

(C) the maximum allowable emission rate limit for any individual compound must be 0.04 lb/hr, regardless of the control method unless §106.261 or §106.262 of this title specify a higher emission rate.

(2) For facilities with equal to or greater than 100 feet to the nearest off-site receptor, emissions of each individual compound from each facility must meet the emissions and distance requirements of §106.261 and §106.262 of this title. The maximum emission rate limit for any individual compound must be 0.04 lb/hr, regardless of the control method unless §106.261 or §106.262 of this title specify a higher emission rate.

(3) If a control device is needed to meet the emission limits of this section, only a carbon adsorption system (CAS) that meets the requirements of subsection (g) of this section may be used.

(4) Additional technical and administrative requirements for the remediation of dry cleaning sites may be found in Texas Health and Safety Code, §§374.001 - 374.253.

(f) Requirements for all other sites and affected properties. For the remediation of sites not covered by subsections (d) or (e) of this section, the following requirements must be met.

(1) The emission rates are limited to the following requirements.

(A) Hourly emissions of each individual organic and inorganic compound from each facility (other than products of combustion) must meet the most stringent of the following:

(i) §106.261 of this title;

(ii) §106.262 of this title; or

(iii) if not specifically listed in §106.262 of this title and is on the ESL list, effective October 1, 2003, with a short-term ESL for the compound of less than or equal to 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) but greater than or equal to $2 \mu\text{g}/\text{m}^3$, emissions may not exceed 0.04 lb/hr. If the short-term ESL for the compound is less than $2 \mu\text{g}/\text{m}^3$, emissions may not exceed 0.01 lb/hr.

(B) Total annual emissions of each organic or inorganic compound are limited to five tons per year for each facility.

(2) If a control device is needed to meet the emissions limits of this section, the device must satisfy the appropriate conditions listed under subsection (g) of this section.

(3) All emission points and area sources associated with each facility must be located at least 100 feet from any off-site receptor.

(g) Control devices. When a control device is used at a facility, the device must satisfy one of the following conditions. If a thermal control device is used, the products of fuel combustion (nitrogen oxides, sulfur dioxide, carbon monoxide, volatile organic compounds (VOC), or total inhalable particulate matter) are authorized if the facility is operated in compliance with this section, and all control devices must comply with applicable opacity restrictions in Chapter 111 of this title (relating to Control of Air Pollution from Visible Emissions and Particulate Matter).

(1) Direct-flame combustion. The vapors may be burned in a direct-flame combustion device (incinerator, furnace, boiler, heater, or other enclosed direct-flame device) that meets the following requirements.

(A) Design requirements. Each direct-flame combustion device must be automatically controlled to maintain a minimum temperature of 1,400 degrees Fahrenheit or higher in the combustion chamber (secondary chamber, if dual-chamber) and have a gas retention time of 0.5 second or greater.

(B) Operational restrictions. The temperature of the device must be maintained at a minimum of 1,400 degrees Fahrenheit.

(C) Compliance demonstrations. Continuous temperature monitors to record the temperature of the combustion chamber (secondary chamber, if dual-chamber) must be installed and maintained. Records of temperature data must be maintained.

(2) Flare. The vapors may be burned in a flare that meets the following requirements.

(A) Design requirements.

(i) The flare must be equipped with a flare tip designed to provide good mixing with air, flame stability, and meet the most stringent of either §106.492 of this title (relating to Flares); or 40 Code of Federal Regulations (CFR) §60.18, General Control Device Requirements (as published in the October 17, 2000 issue of the *Federal Register*).

(ii) The flare must be equipped with a continuously burning pilot or other automatic ignition system that assures gas ignition and provides immediate notification of appropriate personnel when the ignition system ceases to function.

(B) Operational restrictions. Under no circumstances may liquids be burned in the flare.

(C) Compliance demonstrations. Visible emissions must not be permitted for more than five minutes in any two-hour period.

(3) Catalytic oxidizer. The vapors may be burned in a catalytic oxidizer that meets the following requirements.

(A) Design requirements. The design destruction efficiency of the catalytic oxidizer must be at least 90% for the contaminants at the site.

(B) Operational restrictions. The appropriate catalyst must be used depending on the type of contaminants in accordance with the manufacturer's guidelines.

(C) Compliance demonstrations. An evaluation of oxidizer effectiveness must be made initially (within two hours of startup), and at least weekly, using a portable flame ionization detection (FID) or photo-ionization detector (PID) in conjunction with a flow meter to determine the quantity of carbon compounds in the inlet and outlet of the catalytic oxidizer and to demonstrate compliance with the emission rate limits of this section. The FID or PID instrument chosen must be capable of properly detecting the types of contaminants present. Records of oxidizer effectiveness must be maintained.

(4) Internal combustion engine. The vapors may be burned in an internal combustion engine that meets the following requirements.

(A) Design requirements. The design destruction efficiency of the internal combustion engine must be at least 99% for the contaminants at the site.

(B) Operational restrictions. Chlorinated or sulfur compounds must not be burned in these facilities.

(C) Compliance demonstrations. An evaluation of engine effectiveness must be made initially (within two hours of startup) and at least weekly, using a PID or FID in conjunction with a flow meter to determine the quantity of carbon compounds in the inlet gas stream and the engine exhaust, and to demonstrate compliance with the emission rate limits of this section. The FID or PID instrument chosen must be capable of properly detecting the types of contaminants present. Records of engine effectiveness must be maintained.

(5) CAS. The vapors may be routed through a CAS consisting of at least two activated carbon canisters that are connected in a series. The system must meet the following additional requirements.

(A) Design requirements. Prior to the use of a CAS at a site, there must be a demonstration that activated carbon is an appropriate choice for control of the contaminants at the site.

(B) Operational restrictions. The CAS must be operated to minimize breakthrough and maintain compliance with the emission limits of this section. When the VOC breakthrough is detected in the outlet of the initial canister, the waste gas flow must be switched to the second canister immediately. Within four hours of detection of breakthrough, a fresh canister must be placed as the new final polishing canister. Sufficient fresh activated carbon canisters must be maintained at the site to ensure fresh polishing canisters are installed within four hours of detection of breakthrough.

(C) Compliance demonstrations.

(i) The CAS must be sampled initially (within two hours of startup) and periodically to determine breakthrough. Breakthrough is defined as a measured VOC concentration of 100 parts per million by volume (ppmv) in the outlet of the initial canister. The sampling point must be at the outlet of the initial canister, but before the inlet to the second or final polishing canister. Sampling must be performed while venting maximum emissions to the CAS (e.g., during loading of tank trucks, during tank filling, during process venting). The CAS must be monitored on a weekly basis or 20% of the design carbon replacement interval, whichever is less.

(ii) An FID or PID instrument capable of properly detecting the types of contaminants present must be used for VOC sampling.

(iii) At dry cleaning remediation sites, additional sampling to determine total organics and speciated chlorinated compounds is required initially (within two hours of startup) and at least monthly.

(h) Fugitive emissions when no control device is used for remediation. In the cases where emission releases are not directly emitted from a control device or stack which can be sampled, compliance must be demonstrated by the use of a PID or FID initially and at least on a weekly basis. The FID or PID instrument chosen must be capable of properly detecting the types of contaminants present. Measurement should occur as close as possible to the remediation activity, but no further away than the nearest property line. The concentration measured must be equal to or less than the specific air contaminant's ESL. If an ESL is exceeded, remediation must cease until corrective action

restores the concentration to below ESL values. The conversion from PID and FID devices to ESLs must use the following formula.

Figure: 30 TAC §106.533(h)

$$\mu\text{g}/\text{m}^3 = \{(\text{ppmv}) (\text{gram molecular weight of substance})\} / .02445$$

(i) Other regulatory requirements.

(1) Voluntary Cleanup Program. A state or local permit is not required for remediation conducted on a site as part of a voluntary cleanup. A voluntary cleanup must be coordinated with ongoing federal and state hazardous waste programs. The persons conducting a voluntary cleanup shall comply with any federal or state standard, requirement, criterion, or limitation that the remediation would otherwise be subject if a permit were required (see Texas Health and Safety Code, §361.611).

(2) Superfund Cleanup Program. A state or local permit is not required for remediation conducted on a site as part of a Superfund project. A Superfund project must be coordinated with ongoing federal and state hazardous waste programs. The persons conducting a cleanup shall comply with any federal or state standard, requirement, criterion, or limitation that the remediation would otherwise be subject if a permit were required (see Texas Health and Safety Code, §361.196).

(3) Local restrictions. This section does not exempt these facilities from any local government regulations or other local government requirements, permits, registrations, or other authorizations required by local authorities.

(4) State regulations. This section does not exempt remediation equipment from any additional state regulations.

(5) Federal air regulations. Compliance with all applicable federal requirements must be satisfied, including air standards and requirements for hazardous air pollutants under 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart GGGGG, National Emission Standards for Hazardous Air Pollutants: Site Remediation, effective October 8, 2003.

(j) Administrative requirements.

(1) Notification. Before starting remediation (pilot test or treatment), the owner or operator shall notify the commission in writing using the Standard Permit/Permit by Rule Relocation Form. Notifications for multiple sites that are part of the same affected property may be submitted at the same time in accordance with the following requirements.

(A) The notification is not subject to the requirements of §106.50 of this title (relating to Registration Fees for Permits by Rule) or Chapter 60 of this title (relating to Compliance History).

(B) Notifications must be sent to the appropriate commission regional office, any local air pollution control program having jurisdiction over the site, and appropriate remediation program. Notifications must include a return receipt of delivery.

(C) Pilot test notifications must be received by those listed in subparagraph (B) of this paragraph prior to commencement of activities.

(D) Updated or additional notification must be received by those listed in subparagraph (B) of this paragraph prior to commencement of treatment activities and must contain specific information concerning the basis (measured or calculated) for the expected emissions from the facility. The notification must also explain details as to why the control device can be expected to perform as represented.

(E) Any remediation project that changes or eliminates a represented control device during the lifetime of the project must update those listed in subparagraph (B) of this paragraph by filing an amended notification as soon as practicable after the change and after confirmation with the appropriate remediation program.

(2) Records. To demonstrate compliance with this section and with §106.8 of this title (relating to Recordkeeping), owners and operators of remediation equipment must, at a minimum, meet the following requirements.

(A) Records required by this section must be maintained at the site or at the nearest staffed location, and made available upon request to personnel from the commission or any local agency having jurisdiction over the site.

(B) The following minimum records of sampling or monitoring must be maintained:

- (i) sample time and date;
- (ii) monitoring results (ppmv);
- (iii) corrective action taken, including the time and date of the action;
- (iv) process operations occurring at the time of sampling;
- (v) records of compliance with the emission rate limits of this section;
- (vi) a record of the demonstration that the chosen control method is an appropriate choice for the site; and
- (vii) a record of the return receipt demonstrating notification to the appropriate regional office, local air pollution control programs having jurisdiction over the site, and appropriate remediation program.