

The Texas Commission on Environmental Quality (TCEQ or commission) adopts the repeal of §111.155 *without change* as published in the November 25, 2005, issue of the *Texas Register* (30 TexReg 7821).

Since the original submission of §111.155 as a revision to the state implementation plan (SIP) is still pending before United States Environmental Protection Agency (EPA), the commission requests that EPA remove from consideration the pending request for inclusion of §111.155 as a revision to the SIP.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED REPEAL

The Texas Air Control Board (TACB) first developed and adopted ambient air standards for particulate matter (PM) in 1967. These standards were described in Regulation I, Board Order 67-1. The impetus for the standards was the results from field sampling surveys conducted in several regions of the state that suggested that PM control was necessary. At the time, the sampling method typically used for ambient PM was high-volume sampling. High-volume samplers collected the PM size fraction generally referred to as total suspended particulate matter (TSP). TSP does not have a clearly defined upper PM size cutoff, but is commonly recognized as PM that is 25 - 40 micrometers in diameter and smaller. It is important to note that in 1967 there were no national ambient air quality standards (NAAQS) for PM.

In 1971, primary (human health-based) and secondary (welfare-based) NAAQS were promulgated for PM, with TSP serving as the PM indicator. Following the establishment of the PM NAAQS, the TACB significantly revised the state ambient air standards for PM in 1972. The revised standards

established net ground-level concentrations in ambient air for PM of 100, 200, and 400 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) (averaged over any five-, three-, and one-hour periods). Though not explicitly stated, the PM indicator for the standards was TSP, given the existing sampling technology at that time.

The 1972 Texas PM standards were reviewed and slightly modified in 1989, with the five-hour standard removed and the one- and three-hour standards readopted, resulting in the current PM standards listed in §111.155. Section 111.155 establishes net ground-level concentrations in ambient air for PM of 200 and 400 $\mu\text{g}/\text{m}^3$, averaged over any three- and one-hour periods, respectively. The PM indicator for §111.155 effectively remained TSP. On the national level, the 1971 PM NAAQS were modified in 1987, with particulate matter ten micrometers or smaller in diameter (PM_{10}) replacing TSP as the PM indicator and new primary and secondary NAAQS established. The rationale for replacing TSP with PM_{10} relates to the significant amount of scientific progress made since the promulgation on the 1971 PM NAAQS. This progress occurred in numerous facets of PM research, ranging from monitoring technology (sampling and analysis), atmospheric chemistry, emissions sources, and health effects.

The PM NAAQS were revised again in 1997, with the retention of PM_{10} serving as an indicator for coarse PM, and the establishment of a new, additional PM indicator, particulate matter 2.5 micrometers or smaller in diameter ($\text{PM}_{2.5}$). This new indicator was selected to address fine PM based on the emerging science that PM smaller than PM_{10} was more strongly associated with premature

mortality and severe morbidity. Current PM NAAQS (PM_{10} and $PM_{2.5}$ NAAQS established in 1997) are under review and may be revised again by EPA.

The ground-level concentrations found in §111.155 were originally included in the Texas SIP adopted in 1972 and in subsequent revisions adopted in 1973, 1974, 1975, and 1976 under predecessor rules, Regulation I and Rule 105.2. All areas of the state were required to comply with all sections of the prior rules by December 31, 1973. Subsequent SIP revisions in 1979 and 1980 required implementation of revised sections of Chapter 111 in individual areas not meeting the PM NAAQS. Following the PM NAAQS change from TSP to PM_{10} , in 1987, new PM SIP revisions were adopted. PM_{10} SIP revisions were adopted in 1988, 1989, and 1991 that cited Chapter 111 as a control strategy for El Paso County, the one area in Texas not meeting the PM_{10} NAAQS.

On May 14, 2004, Baker Botts L.L.P. (Baker Botts) submitted a petition for rulemaking to repeal §111.155. Baker Botts requested that the rule be repealed because the rule is inconsistent with the direction of modern air quality regulation, results in unnecessarily long delays in air permit issuance, imposes PM controls without evidence of nuisance conditions, and reflects a burdensome and unnecessary regulatory tool to address PM. On July 28, 2004, the commission initiated rulemaking for §111.155 in response to the petition filed by Baker Botts. The commission stated that rulemaking would include an evaluation of §111.155, with stakeholder involvement, to determine if the current rule is adequate, needs to be amended, or repealed. As part of this evaluation, a stakeholder meeting was held on April 5, 2005, at commission headquarters in Austin, Texas, to receive formal stakeholder comments.

Section 111.155 is primarily used in the air permitting, field operations, and enforcement divisions to address nuisance PM. The technical details for establishing the specific net PM concentrations listed in §111.155 are not known. Little documentation exists that describes the rationale or the science used in selecting these concentrations. The background information that does exist comes from Dr. Herbert McKee, former TACB chairman, during the establishment of the 1967 and 1972 PM standards. Based on published literature he authored as well as his written comments to the commission, the 1972 PM standards were based primarily on the professional judgment of air quality regulators at the time. Dr. McKee emphasized that the 1972 PM standards were established to address nuisance PM, not health concerns. According to Dr. McKee, the TACB deferred to the PM NAAQS to address health issues.

In terms of health effects of PM, research overwhelmingly supports respirable PM (PM that can enter the lungs, generally regarded as ten micrometers or smaller in diameter) as the primary causative agent of PM-related health effects, particularly premature mortality and severe morbidity. PM fractions larger than ten micrometers, which are often the dominant PM size fractions, on a per mass basis, collected in TSP samples, are poor indicators of potential health effects. Therefore, the current PM NAAQS using PM_{10} and $PM_{2.5}$ as indicators are better suited to address health concerns than standards based on TSP, such as §111.155 or its predecessor, Rule 105.2. Additionally, the commission has developed effects screening levels (ESLs) to address health and welfare concerns for specific air pollutants occurring as PM (e.g., arsenic, chromium, silica, carbon black). ESLs are used to evaluate air concentrations for air permits and ambient air monitoring data, as well as set remediation clean-up levels. ESLs, in addition to the PM NAAQS, provide a means to assess health concerns from ambient PM and ultimately a basis for taking regulatory action when deemed necessary.

The use of §111.155 as a tool to address nuisance PM has historically occurred in the areas of enforcement, through the use of ambient air monitoring to determine net PM source contributions, and air permitting, generally with the use of air dispersion modeling. The PM standard is used infrequently as an enforcement tool for nuisance PM, due to the monitoring requirements to determine compliance. On the few occasions when monitoring is conducted, complexities such as accessibility of monitoring locations, weather, wind patterns, confounding PM sources (e.g., traffic on unpaved roads), facility operations, etc. can make meaningful sampling results difficult to obtain and interpret. Other enforcement tools available to address nuisance PM include, but are not limited to, tape lifts, still photographs, videotape, field observations by commission staff, the opacity limits described in §111.111 and §111.113, and the general nuisance rule in 30 TAC §101.4. In terms of air permitting, modeled ambient levels of TSP can be compared to the concentrations listed in §111.155 to evaluate the potential for nuisance PM. In addition to comparing modeled TSP levels to the standards, the commission can incorporate preventative measures against nuisance PM such as best available control technology (BACT) and special permit conditions. The inherent complexities and uncertainties of modeling emissions from PM sources that generate TSP have raised concern about the accuracy of these modeled estimates. Inaccurate modeled estimates may result in imposing PM controls without evidence of nuisance conditions (aside from modeling results) and can delay issuance of air permits. BACT and special permit conditions may serve as more reliable preventative tools for air permitting to address nuisance PM without being unduly burdensome to the regulated community.

To obtain a perspective of other state approaches to PM, specifically nuisance PM, the commission surveyed all 50 states. Based on this survey, the commission determined that §111.155 is generally

inconsistent with approaches used by the vast majority of states, with 40 out of 50 states not having ambient standards for nuisance PM. In lieu of ambient air standards, the states generally use other rules and procedures such as opacity standards, best management practices to address nuisance PM (i.e., BACT), and comparison of modeled PM concentrations to the PM NAAQS. Many of these rules and procedures are currently available and used by the commission. As discussed previously, examples of tools and procedures used by the commission include BACT, special permit conditions, the opacity limits in §111.113 and §111.111, and the general nuisance rule in §101.4.

As previously stated, the science underlying the basis of §111.155 and its predecessor, Rule 105.2, is largely unknown due to the lack of documentation. However, the evidence that is available points to professional judgment and policy playing a significant role in the derivation of the standards listed in the rule. In addition, the rule was intended to address nuisance PM rather than health concerns. The PM NAAQS addresses health issues related to PM. In addition, the commission has ESLs that address the health concerns of specific PM constituents (e.g., metals, carbon compounds, silica). The size fraction that §111.155 has historically addressed is TSP. Regulation of TSP was prominent at both the state and federal levels during, and immediately following, the promulgation of §111.155. However, the federal and majority of state regulatory authorities have since replaced TSP ambient standards with PM standards of a smaller PM size (i.e., PM₁₀, PM_{2.5}). These changes were dictated by advances in the science of PM that highlighted the importance of PM size fractions smaller than TSP. TSP has since been relegated to nuisance PM concerns. It is generally understood that determining nuisance is highly subjective and is dependent on the PM size, composition, and concentration, as well as the tolerance of individuals for PM depending on the use of their property. This subjectivity prevents the

establishment of technically-defensible ambient standards to address nuisance PM. Tools and procedures already available to the commission, and consistent with other state environmental regulatory agencies, are used to address nuisance PM.

Repealing §111.155 will not weaken the Texas SIP because EPA has not taken final action to approve it into the SIP. EPA is currently reviewing a pending action related to the reorganization of Regulation I, Board Order 67-1, which includes a proposal to include §111.155 in the Texas SIP. The commission requests that EPA remove from consideration in the pending request §111.155 for inclusion into the SIP. As discussed previously, there are other rules in place that the commission will still implement to assure compliance with the PM NAAQS.

Based on the commission's evaluation, as well as stakeholder input, the commission adopts the repeal of §111.155 given that it is not current or necessary based on good science. The commission determined that it has sufficient tools and procedures currently available to address nuisance PM.

DEMONSTRATING NONINTERFERENCE UNDER FEDERAL CLEAN AIR ACT, SECTION

110(l)

Issue

The commission provides the following information to clarify why the repeal of §111.155, Control of Air Pollution from Visible Emissions and Particulate Matter, (previously Rule 105.2) from TAC and the Texas SIP will not negatively impact the attainment status of the state's PM attainment areas.

The requirement for reasonable notice and public hearing is satisfied through the hearing held on December 15, 2005, and the public comment period, which was held from November 25, 2005, to January 13, 2006. EPA also issued draft guidance on June 8, 2005, “Demonstrating noninterference Under Section 110(l) of the Clean Air Act When Revising a State Implementation Plan.” The guidance states (page 6) that “. . . areas have two options available to demonstrate noninterference for the affected pollutant(s).” This document provides detail of the identified existing measures in the rule preamble to show compliance with option (1) of EPA’s guidance: Substitution of one measure by another with equivalent or greater emissions reduction/air quality benefits.

Background

TCEQ’s predecessor agency, the Texas Air Control Board (TACB), adopted Rule 105.2 on January 26, 1972, by Board Order 72-2. On May 31, 1972, EPA approved Rule 105.2 with the original Texas SIP. In 1975, the agency switched to a ten-digit numbering system, and Rule 105.2 was renumbered as Rule 131.03.05.002. In October 1980, Rule 131.03.05.002 was renumbered as §111.52 to become part of Chapter 111 of 31 TAC. Section 111.52 was repealed on July 4, 1989, along with the rest of Chapter 111. An entirely new Chapter 111 along with §111.155, was adopted on July 4, 1989, in a concurrent action as the repeal of §111.52. On August 21, 1989, TACB submitted a SIP revision to EPA to remove Rule 105.2 from the SIP and replace it with §111.155, which is in place today. EPA is currently reviewing a pending action related to the reorganization of Regulation I, Board Order 72-2, which includes a proposal to include §111.155 in the Texas SIP. Since the commission is considering the repeal of §111.155, the agency is asking EPA not to continue with the inclusion of §111.155 into the Texas SIP, and to continue with the removal of Rule 105.2 from the SIP.

TSP in the 1970s was replaced by PM standards in the 1980s. In terms of health and welfare effects of PM, research overwhelmingly supports respirable PM (PM that can enter the lungs, generally regarded as ten micrometers or smaller in diameter) as the primary causative agent of PM-related health effects. The primary (health) and secondary (welfare) standards for PM are identical. Therefore, the current PM NAAQS using PM₁₀ and PM_{2.5} as indicators are better suited to address health concerns than standards based on general PM, such as §111.155 or its predecessor, Rule 105.2. The state does not rely on §111.155 in attainment demonstration SIPs as a control strategy. For the one PM nonattainment area, there are specific rules in place, such as §§111.111(c)(1), 111.141, 111.143, 111.145, 111.147, and 111.149.

In 2004, TCEQ received a petition to repeal §111.155 from the TAC. The regulatory history does not provide any explanation for how the limits in §111.155 were established. It is clear, however, that the limits were intended to address nuisance conditions, not health effects. The TACB's TSP standard was established to eliminate nuisance conditions while the PM₁₀ standard was designed to protect health.

Since the promulgation of the original rule, the federal national ambient air quality standards for total suspended particulates has been repealed, in favor of the more meaningful particulate matter (PM₁₀) standard. Section 111.155 is an artifact that is no longer consistent with the direction in which modern air quality regulation is headed, which is based on science. There are sufficient tools and procedures described in the following section that are currently available to address nuisance PM, in addition to health and welfare.

Description of current regulations and requirements

Other rules such as §§101.4, 101.20, 101.21, 111.111, 111.113, 111.141, 111.143, 111.145, 111.147, and 111.149 make the general PM rule superfluous and redundant. The current rule has been one of the tools used in the permitting process to help determine an appropriate ambient concentration, but not to establish control strategies that protect the NAAQS. The other rules help establish the limits that ensure the NAAQS will not be violated. The same rules and permit conditions contained in the permit are relied upon by the field operations staff in determining compliance with the standards.

a) 30 TAC §101.21, The National Primary and Secondary Air Quality Standards

1) The TSP standard established in the 1970s was based on research done in the 1960s. At that point in time it wasn't known what type of particulate matter actually caused health effects. PM was based on what could be measured at the time, which was TSP, specifically, particles 50 microns and less. Since that time, it was discovered that the smaller particles actually cause negative health effects. Since then, the focus has been primarily on PM₁₀, particles 10 microns and smaller because those are the particles that can actually pass the upper respiratory system into the lungs. The PM₁₀ NAAQS regulations were passed to regulate this particle size fraction. Additional scientific research prompted EPA to further revise the particulate matter standard to focus on particles less than 2.5 μm in diameter, (PM_{2.5}) in addition to the PM₁₀ standard to provide the most effective protection from potential adverse health effects.

2) There are mechanisms in the agency's permitting program to address particulate matter emissions. Where the potential exists for emissions of particulate matter for a point source, the permit conditions will require BACT for the control of the emissions. Furthermore, there is a health effects review conducted, which will review the expected emissions against the NAAQS for PM₁₀ and the specific compounds, which make up the particulate matter, will be reviewed to ensure that off-site receptors are not adversely affected. To limit the potential for a nuisance condition from particulate matter, permit language does require continuous compliance with all rules and regulations passed by the TCEQ. This includes the agency's rules prohibiting nuisance conditions and excess visible emissions. Best Management Practices are also placed into the permits, required as part of a Permit by Rule, and also required in the agency's Standard Permits. These practices could include watering of roads within the plant site, covering or watering of stock piles, limiting the size and location of the piles, and covering and/or watering of transfer point on conveyor belts, all which will help in the control of fugitive particulate matter emissions. Finally, due to the differing types of particulate matter and the properties that each one has, it is not technically feasible to determine a nuisance condition based on a single TSP standard. For example, when determining if a nuisance condition has occurred, a pound of carbon black, which has a greater rate of coverage, is not the same as a pound of limestone dust.

b) Enforcement of the current rule for compliance purposes consisted of 17 notices of violation and five notices of enforcement issued from 1998 – 2005.

One explanation for the seemingly low use in enforcement today is that other controls, such as special permit conditions and Best Management Practices, now serve the same purpose.

c) In addition to specific permitting and compliance policies, the following rules are in place:

1) 30 TAC §101.4, General Nuisance Rule, 40 Code of Federal Regulations (CFR) §52.2299(c)(7)

Provides for case by case determination of whether an air contaminant release is a nuisance;

2) 30 TAC §111.111, Requirements for Specified Sources, 40 CFR §52.2299(c)(94)

Restricts visible emissions and opacity levels for stationary sources and, in some instances, requires the use of continuous emissions monitoring;

3) 30 TAC §111.113, Alternative Opacity Limitations, 40 CFR §52.2299(c)(94)

Requires alternative opacity limitation requests to go through the public hearing process and the applicant must submit a “preponderance of evidence” to show no exceedance will occur;

4) 30 TAC §101.20, Compliance with Environmental Protection Agency Standards, 23 CFR §52.2299(c)(10)

Requires applicants to comply with all applicable federal permitting requirements;

5) 30 TAC §111.141, Geographic Areas of Application and Date of Compliance, 40 CFR §52.2299(c)(79); 30 TAC §111.143, Materials Handling, 40 CFR §52.2299(c)(79); 30 TAC §111.145, Construction and Demolition, 40 CFR §2299(c)(79); 30 TAC §111.147, Roads, Streets, and Alleys, 40 CFR §52.2299(c)(79); 30 TAC §111.149, Parking Lots, 40 CFR §52.2299(c)(79).

These rules are specific to activities such as materials handling; construction and demolition; roads, streets, and alleys; and parking lots.

d) Regulations specific to El Paso, the state's only nonattainment area for PM.

1) §111.111(c)(1) – includes operating restrictions for solid fuel heating devices during stagnation periods.

2) §§111.141, 111.143, 111.145, 111.147, and 111.149 – prescribe certain types of controls to be applied to the identified categories.

All of the rules identified previously are approved as part of the Texas SIP.

Conclusion

The commission determined that there are sufficient rules and procedures in place to assure compliance with the PM NAAQS and to address nuisance PM.

SECTION DISCUSSION

Section 111.155 establishes one-hour and three-hour ground level concentration levels for particulate matter. The commission adopts the repeal of §111.155.

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 adopted repeal does not meet the definition of a “major environmental rule” as defined in the statute. Therefore, Texas Government Code, §2001.0225 does not apply to this rulemaking. “Major environmental rule” is defined in Texas Government Code, §2001.0225(g)(3), as 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, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The specific purpose of the adopted repeal is to delete a rule that is no longer necessary, effective, current, or based on good science, as described in the BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED REPEAL section of this preamble. This adopted repeal will not have an adverse material impact because the commission determined that the currently existing NAAQS for PM adequately protects human health and welfare, and the remaining prohibition against nuisance conditions remains in effect.

TAKINGS IMPACT ASSESSMENT

The commission evaluated this adopted rulemaking and performed a preliminary assessment of whether this action would constitute a taking under Texas Government Code, Chapter 2007. Promulgation and enforcement of this proposed repeal would be neither a statutory nor a constitutional taking of private real property. The adopted repeal of §111.155 does 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 government action. Consequently, this adoption does not meet the definition of a taking under Texas Government Code, §2007.002(5). This rulemaking is adopted to repeal §111.155, since the

commission determined that the currently existing NAAQS for PM adequately protects human health and welfare, and the remaining prohibition against nuisance conditions remains in effect. Therefore, this adopted repeal will not constitute a taking under Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission determined that this rulemaking action relates to an action or actions subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 *et seq.*), and the commission rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with Texas Coastal Management Program. As required by §281.45(a)(3), Actions Subject to Consistency with the Goals and Policies of the Texas Coastal Management Program (CMP), and 31 TAC §505.11(b)(2), relating to Actions and Rules Subject to the Coastal Management Program, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission reviewed this action for consistency with the CMP goals and policies in accordance with the rules of the Coastal Coordination Council, and determined that the action is consistent with the applicable CMP goals and policies. The CMP goal applicable to this rulemaking action is the goal to protect, preserve, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas (31 TAC §501.12(l)). No new sources of air contaminants will be authorized and the proposed revisions will maintain the same level of emissions control as the existing rules. The CMP policy applicable to this rulemaking action is the policy that commission rules comply with federal regulations in 40 Code of Federal Regulations to protect and enhance air quality in the coastal areas (31 TAC §501.14(q)). This rulemaking action complies with 40 Code of Federal Regulations Part 51, Requirements for

Preparation, Adoption, and Submittal of Implementation Plans. Therefore, in accordance with 31 TAC §505.22(e), the commission affirms that this rulemaking action is consistent with CMP goals and policies.

EFFECT ON SITES SUBJECT TO THE FEDERAL OPERATING PERMITS PROGRAM

Because §111.155 is an applicable requirement under 30 TAC Chapter 122, Federal Operating Permits Program, owners or operators subject to the Federal Operating Permit Program must, consistent with the revision process in Chapter 122, revise their operating permit to delete requirements relating to §111.155.

PUBLIC COMMENT

A public hearing for this rulemaking was held on December 15, 2005, in Austin, and the comment period closed on January 13, 2006. The commission received comments from Baker Botts L.L.P., Southern Crushed Concrete, Inc. (SCC), Temple-Inland Forest Products Corp. (Temple-Inland), Texas Pipeline Association (TPA), The Association of Electric Companies of Texas (AECT), City of Houston Bureau of Air Quality Control (BAQC), Environmental Defense, Harris County Public Health & Environmental Services Pollution Control & Environmental Health Division (HCPHESPCEHD), Houston Regional Group of the Sierra Club (HSC), Lowerre & Frederick, and the U.S. Environmental Protection Agency (EPA).

RESPONSE TO COMMENTS

Baker Botts L.L.P., Southern Crushed Concrete, Inc. (SCC), Temple-Inland Forest Products Corp. (Temple-Inland), Texas Pipeline Association (TPA), and The Association of Electric Companies of Texas (AECT) supported the proposed repeal of 30 TAC §111.155.

The commission appreciates this support.

BAQC and HCPHESPCEHD commented on the key role of §111.155 in predicting nuisance impacts of particulate matter (PM) during the permitting process and believe that other available enforcement tools are inadequate to assess potential PM nuisance. Additionally, these groups do not believe that the current rule is overly burdensome on the regulated community. Environmental Defense supported these comments.

The commission disagrees with the comment because some significant sources of particulate matter, such as roads, are difficult, if not impossible, to accurately model during the permitting process. These emissions are hard to accurately quantify through emission factors and the sources are hard to accurately characterize. Consequently, §111.155 does not accurately predict potential nuisance impacts. While the agency agrees that the modeling process itself is not burdensome to the regulated community, the inability to adequately model some sources does present an unnecessary burden on the regulated community to comply with §111.155. Instead of quantifying these emissions, permit provisions, such as road watering, are added to reduce and control these emissions. In addition, opacity limits set by §111.111 and §111.113 and the general nuisance rule in §101.4 are utilized and result in issuance of Notices of Violations. The agency

therefore asserts that these enforcement tools, in addition to secondary PM_{10} and $PM_{2.5}$ standards required by the National Ambient Air Quality Standards (NAAQS), are adequate to address PM nuisance concerns.

Environmental Defense further provided scientific documentation of adverse health effects from short-term exposure to PM and commented that §111.155 provides protection against short-term exposures to respirable fractions of PM that the 24-hour and annual PM NAAQS do not. HSC is also concerned that TSP contains a range of particles that can cause welfare and health effects. In addition, one of the provided studies suggested that particle composition may differentially affect toxicity.

The agency agrees that TSP contains a fraction of respirable PM less than 10 μm in diameter. However, as Environmental Defense mentioned, the exact proportion of the respirable fraction varies from source to source. More importantly, there is no scientific basis for the established one-hour value of 400 $\mu g/m^3$ and three-hour value of 200 $\mu g/m^3$ and no evidence that these values provide health protection. In addition, the net measurement used to determine these values can result in underestimation of actual particle concentrations. For example, if concentrations both upwind and downwind of a facility are high, the net concentration may be well below the one- or three-hour TSP values but may not be protective of health and/or nuisance conditions.

Therefore, the agency disagrees that §111.155 provides short-term health protection not afforded by the PM NAAQS.

Regarding the toxicity of individual particle components, the agency agrees that the toxicity of PM can be influenced by the particle composition. Therefore, Effects Screening Levels (ESLs) have been established for particles, such as metals. These ESLs are used during the permitting and enforcement processes to assess potential adverse health effects and provide health protection not afforded by §111.155 or its predecessor, Rule 105.2.

HSC commented that TSP High-Volume Air Sampling is simple and straightforward to perform and more scientifically precise than field operations.

The agency disagrees with this comment, due to the difficulty to access sample collection areas precisely upwind and downwind of a facility and potential underestimation of the net measurement mentioned previously. It is possible that conditions clearly presenting a nuisance to field operations personnel may not violate the net standard. Furthermore, as stated previously, no documentation exists for a scientific basis for the levels set by §111.155 or its predecessor, Rule 105.2. While sample analysis may be performed quickly, sample collection is often restricted by road access and obstructions at the property line. For these reasons, the agency does not agree that High-Volume Air Sampling is straightforward and more scientifically precise than field operations.

HSC also commented that use of the term “ambient air” is inappropriate in describing property-line samples.

The agency disagrees with this comment. Section 101.1(4) defines "ambient air" as "That portion of the atmosphere, external to buildings, to which the general public has access." The property line includes an area outside of the company's property and an area where the general public could potentially have legal access. The term "source" is also defined in §101.1 as: "(97) Source-- A point of origin of air contaminants, whether privately or publicly owned or operated. . . ." Therefore, under commission definitions the property line of a site would not be considered a source since it is not the point of origin of an air contaminant.

HSC recommended the addition of standards for particulate matter 10 μm and 2.5 μm in diameter. HSC also commented that information on pollutants other than nuisance dust can be gained from property-line TSP monitoring.

The agency agrees that particles 10 μm (PM_{10}) and 2.5 μm ($\text{PM}_{2.5}$) in diameter should be monitored. Section 101.21 allows primary and secondary national ambient air quality standards to be enforced throughout all parts of Texas. This provision allows fence-line monitoring of PM_{10} and $\text{PM}_{2.5}$ that is more stringent than net property line measurements. In addition, speciation of fence-line PM_{10} can provide important information on respirable air pollutants.

Lowerre & Frederick commented that during the 1989 amendment process the agency stated that "the standards have proven to be effective enforcement tools during the 15 years they have been used."

Lowerre & Frederick then referenced three specific enforcement cases using §111.155. In addition, the commenters noted the previous agency statement that "Removal of the ground level standards

would leave no particulate controls in place, which would aggravate nuisance conditions.” Finally, Lowerre and Frederick commented that the property line standard provides a quantitative measure for anticipating nuisance conditions.

Although this statement was applicable at the time, the agency disagrees that the rule continues to be an effective enforcement tool today. Between 1998 and 2005, property line monitoring for total suspended particles occurred 45 times. Of these, only 11 Notices of Violation and five Notices of Enforcement were issued to a total of nine separate entities. The reason this rule is rarely used in enforcement today is that controls, such as special permit conditions requiring Best Management Practices, now serve the same purpose. Enforcement of these permit conditions, including requirements to water roads and facilities, eliminates the need for TSP modeling and monitoring while preventing nuisance conditions. Therefore, the agency disagrees that the repeal of §111.155 would leave no particulate controls in place or would aggravate nuisance conditions. Finally, although the property line standard does provide a numerical value, the net measurement may not provide evidence of nuisance conditions, and the standards against which these values are compared are not scientifically based.

EPA commented that §111.155 is currently not in the Texas SIP.

The commission’s predecessor agency, the Texas Air Control Board, submitted a SIP revision to replace Rule 105.2 with §111.155 on August 21, 1989. EPA is currently reviewing a pending action related to the reorganization of Regulation I, Board Order 67-1, which includes a proposal

to include §111.155 in the Texas SIP. The commission requests that EPA remove §111.155 from consideration in the pending request at EPA for inclusion into the SIP.

SUBCHAPTER A: VISIBLE EMISSIONS AND PARTICULATE MATTER

DIVISION 5: EMISSIONS LIMITS ON NONAGRICULTURAL PROCESSES

[§111.155]

STATUTORY AUTHORITY

The repeal is adopted under Texas Water Code (TWC), §5.103, concerning Rules, and TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act. The repeal is also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission purpose to safeguard the state air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; and THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air.

The adopted repeal implements THSC, §§382.002, 382.011, 382.012, 382.016, and 382.017.

§111.155. Ground Level Concentrations.