GRAIN ELEVATORS/GRAIN HANDLING OPERATIONS AND PORTABLE GRAIN AUGERS AIR QUALITY STANDARD PERMIT SUMMARY DOCUMENT

I. EXECUTIVE SUMMARY

The Texas Commission on Environmental Quality (TCEQ or commission) issues a new air quality standard permit for grain elevators/grain handling operations and portable grain augers. The new standard permit can be used to authorize grain elevators/grain handling operations and portable grain augers on or after the effective date of the standard permit.

II. EXPLANATION AND BACKGROUND OF AIR QUALITY STANDARD PERMIT

The New Source Review (NSR) Program under Title 30 Texas Administrative Code (30 TAC) Chapter 116, Control of Air Pollution by Permits for New Construction or Modification, requires any person who plans to construct any new facility or to engage in the modification of any existing facility which may emit air contaminants into the air of the state to obtain a permit pursuant to 30 TAC §116.111, General Application, or satisfy the conditions of a standard permit, a flexible permit, a permit by rule, or the criteria for a de minimis facility or source before any actual work begins on the facility. A standard permit authorizes the construction or modification of new or existing facilities which are similar in terms of operations, processes, and emissions. A standard permit provides an efficient mechanism for qualifying facilities to obtain authorization as an alternative to a case-specific air quality permit.

The standard permit provides a streamlined preconstruction authorization process that can be used for any grain elevator, grain handling operation, or portable grain auger complying with the standard permit requirements and that is not prohibited by some other state or federal permitting statute or regulation. Additionally, the executive director authorizes these facilities through permit by rule (PBR) under 30 TAC §106.283, Grain Handling, Storage, and Drying or under 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification. The noncommercial and grain storage portions of PBR §106.283 will remain authorization mechanisms for grain elevators/grain handling operations and portable grain augers.

The commission has included requirements to minimize emissions and establish property line distance limitations. These requirements are based on air dispersion modeling and an impacts analysis performed to verify the protectiveness of the standard permit. Additionally, the standard permit contains requirements that implement best available control technology (BACT), which is required under Texas Health and Safety Code (THSC), §382.0518(b), Preconstruction Permit and §382.05195(a), Standard Permit. The standard permit also contains provisions to ensure that any facility authorized by the standard permit does not cause an exceedance of the National Ambient Air Quality Standards (NAAQS). The site-wide emission rate of particulate matter less than or equal to ten microns in diameter (PM_{10}) will determine the setback distance that is necessary to ensure compliance with the NAAQS. The standard permit also includes control provisions and, where applicable, a minimum setback distance for specified facilities to prevent nuisance conditions. The commission has concluded an evaluation that shows that the standard permit for grain elevators/grain handling operations and portable grain augers is protective of the public health and welfare.

The modeling results demonstrated that a grain elevator/grain handling operation with site-wide emissions of PM_{10} less than or equal to 16.30 pounds per hour (lb/hr) does not require a setback distance from the property line to meet the NAAQS. For site-wide emissions greater than 16.30 lb/hr, a graph has been developed depicting the required minimum facility setback distance from the nearest property line required to ensure that the total site-wide allowable PM_{10} emissions do not exceed the NAAQS. For sites in which portable grain augers are the only facilities present (with the exception of planned maintenance, start-up, and shutdown (MSS) facilities and activities) and with a site-wide PM_{10} emission rate less than or equal to 0.95 lb/hr, no minimum facility setback distance from the nearest property line is required to meet the NAAQS. For portable grain auger operations with site-wide emissions greater than 0.95 lb/hr, a graph has been developed depicting the required minimum facility setback distance from the nearest property line required to ensure that the total site-wide allowable PM_{10} emissions do not exceed the NAAQS.

III. OVERVIEW OF AIR QUALITY STANDARD PERMIT

The commission issues this air quality standard permit authorizing grain elevators/grain handling operations and portable grain augers under the authority of the Texas Clean Air Act (TCAA) in THSC, §382.05195, Standard Permit and 30 TAC Chapter 116, Subchapter F, Standard Permits.

The standard permit authorizes typical grain elevator and grain handling facilities, (including, but not limited to, associated grain storage facilities, grain dryers, and grain and seed cleaners) and portable grain augers. However, the standard permit is not intended to cover all possible facility configurations or operating scenarios. Owners or operators of facilities that cannot meet the standard permit conditions may apply for a case-by-case air quality permit under 30 TAC §116.111, General Application, or other applicable authorization mechanism.

IV. PERMIT CONDITION ANALYSIS AND JUSTIFICATION

This standard permit requires owners or operators of grain elevators/grain handling operations and portable grain augers to comply with certain administrative requirements, including recordkeeping, as well as general requirements, including housekeeping procedures, best management practices, planned MSS limitations, and specific operating procedures to minimize off-property impacts from grain handling. Facilities are also required to meet distance requirements to be within acceptable off-property concentrations of PM_{10}. Registration or renewal of registration every ten years is not required.

This standard permit authorizes the air emissions (including fugitive emissions) associated with grain elevators/grain handling operations (including, but not limited to, grain storage facilities, grain dryers, and grain and seed cleaners) and portable grain augers that meet the applicable conditions of the standard permit.

Applicability

Section (1) outlines the applicability of the standard permit (what can and cannot be authorized under the standard permit). Subsection (A) specifies that this standard permit authorizes air emissions from grain elevators/grain handling operations (including, but not limited to, grain storage facilities, grain dryers, and grain and seed cleaners) and portable grain augers in addition to any fugitive emissions associated with these facilities. This condition is intended to specify the scope of the standard permit authorization.

Subsections (B) and (C) prohibit the use of this standard permit to authorize any grain elevator or grain handling operation that has a permanent grain storage capacity of more than 2.5 million bushels and on-site fuel-fired equipment with an individual heating rate of ten million British thermal units per hour (Btu/hr) or greater (or a combined heating rate of greater than ten million Btu/hr). The restrictions in these subsections are based on concerns associated with large facility capacities, which trigger New Source Performance Standard (NSPS), Title 40 Code of Federal Regulations (40 CFR) Part 60, Subpart DD, Standards of Performance for Grain Elevators; large facility throughputs and emission rates; and the potential for these factors to result in a facility's non-compliance with the NAAQS. To address compliance with BACT and nitrogen oxide (NO_X) limitations in 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds, the cutoff for eligibility under this standard permit was determined to be a heating rate of less than ten million Btu/hr. This limit is used because BACT is no controls for most units with a heating rate less than ten million Btu/hr, and most state and federal NO_X requirements do not apply at this heating rate. The NO_X requirements in 30 TAC Chapter 117, Subchapter D, Combustion Control at Minor Sources in Ozone Nonattainment Areas, for small combustion sources will still apply to those facilities in the specified counties, and this standard permit does not exempt those facilities from having to meet any applicable requirements of 30 TAC Chapter 117, as specified in subsection (4)(A) of this standard permit. The combined heating rate limitation of ten million Btu/hr is specified since it was the maximum parameter provided for modeling off-property impacts from products of combustion. The limitation is a reasonable worst-case scenario based on information in existing permit files for grain elevators and grain handling operations.

Subsection (D) prohibits the use of this standard permit for any facility that constitutes a new major stationary source or major modification as defined by 30 TAC Chapter 116. This standard permit also cannot be used for authorization of facilities located at a major stationary source. These restrictions regarding use of the standard permit are based on concerns associated with large facility capacities, throughputs, and emission rates, and the potential to result in a facility's non-compliance with the NAAQS. Additionally, 30 TAC Chapter 116 does not allow facilities defined as major with regard to federal NSR to be authorized by a standard permit.

Subsection (E) prohibits the use of this standard permit to authorize any increase of an air contaminant specifically prohibited by a 30 TAC Chapter 116 air quality permit that exists at the site.

Subsection (F) specifies that this standard permit cannot be used in conjunction with any other Chapter 116 air quality permit, standard permit, or PBR, with the exception of standard permits and PBRs used to authorize planned maintenance activities and facilities. The entire grain elevator/grain handling operation and/or portable grain auger(s) must be authorized under this standard permit. If other authorizations for the operation exist, these authorizations must be voided if authorization under this standard permit is to occur. This requirement does not preclude the use of permits, standard permits, and PBRs to authorize other facilities, located at the site, that are not associated with the grain elevator/grain handling or portable grain auger operations. However, all site-wide emission limitations in this standard permit must be met. The restrictions in subsections (E) and (F) are included to limit the cumulative effects of specific contaminants and to ensure the protection of health and human welfare. Subsection (F) does allow standard permits and PBRs to be used in conjunction with this standard permit if the standard permits and PBRs are used to authorize emissions from planned maintenance activities and facilities as specified in section (7) of this standard permit. Additional information regarding

the authorization of planned maintenance, start-up, and shutdown emissions can be found in the Planned Maintenance, Start-up, and Shutdown (MSS) Activities portion of this technical summary.

Subsection (G) specifies that this standard permit cannot be used if the total site-wide emissions do not meet the emission rate requirements specified in sections (5), (6), and (7) of this standard permit. This includes PM_{10} emissions from all facilities at the site, even facilities that are not associated with the grain elevator/grain handling or portable grain auger operations. This condition limits cumulative emissions and reinforces the site-wide emission rate requirements in sections (5), (6), and (7) to maintain the protectiveness of this standard permit.

Definitions

Section (2) contains definitions of grain, grain elevator/grain handling operation, off-site receptor, permanent storage capacity, and site in subsections (A) through (E). These definitions are intended to specify and, where necessary, limit the scope of the standard permit's authorization since some aspects of these definitions are associated with the applicability of 40 CFR Part 60, Subpart DD for grain elevators and grain handling facilities. Permitting is based on the concepts of facility, facilities, related facilities, and related increases, which may involve equipment throughout a given site. Many aspects of permitting are evaluated on a site basis to account for all sources of pollutants that may impact surrounding areas.

General Administrative Requirements

Section (3) addresses the administrative requirements associated with this standard permit. All standard permits must meet the requirements in 30 TAC Chapter 116, Subchapter F (including §§116.604 through 116.615). However, the TCEQ can waive or modify some of these requirements, and has elected to do so for this standard permit. Section 116.610(a)(1), Applicability, requires that a standard permit project resulting in a net emission increase must meet the emission limitations of 30 TAC §106.261, Facilities (Emission Limitations), unless otherwise specified in the standard permit. The contaminant of concern from grain elevator/grain handling operations (including portable grain augers) is primarily PM_{10}, and these operations do not emit significant amounts of the air contaminants that 30 TAC §106.261 addresses. In addition, the commission has determined that the industry specific emission rate limitations and distance requirements in this standard permit justify this exemption from 30 TAC §106.261. Therefore, in section (3), the TCEQ exempts grain elevators/grain handling operations and portable grain augers authorized under this standard permit from the requirements of 30 TAC §116.610(a)(1).

Section (3) also exempts facilities meeting the applicable requirements of this standard permit from registration, fee, and start-up notification requirements in 30 TAC §§116.611(a) and (b), Registration to Use a Standard Permit; 116.614, Standard Permit Fees; and 116.615(5), Start-up Notification (General Conditions). The exemption from the registration requirements in 30 TAC §116.611 only addresses §116.611(a) and (b) and does not exempt a source owner or operator from the requirement to submit a certified registration under §116.611(c), which is required to avoid the applicability of 30 TAC Chapter 122, Federal Operating Permits Program. Through the protectiveness review, the commission has determined that facilities meeting all of the applicable requirements of this standard permit will be protective of health and human welfare, and individual notifications or review of registrations by TCEQ staff is not necessary.

General Operating Requirements

Section (4) contains the general operating requirements that must be met by all grain elevators/grain handling operations and portable grain augers seeking authorization under this standard permit. Subsection (A) specifies that facilities authorized by this standard permit and located in counties subject to emissions banking and trading requirements and to nitrogen compound limitations and requirements must comply with all applicable requirements of 30 TAC Chapter 101, Subchapter H, Division 3, Mass Emissions Cap and Trade Program, and 30 TAC Chapter 117. Authorization under this standard permit does not exempt facilities from any of the regulations in subsection (A) or any other applicable regulations.

Subsection (B) requires that all conveyors and elevator legs authorized by this standard permit be enclosed. This subsection also specifies that exhaust air to the atmosphere from any pneumatic conveying system or from the pulling of suction on mechanical systems be vented through a cyclone collection system or through a fabric filter system. The cyclone and/or fabric filter systems must be operated as specified in subsection (4)(C) of this standard permit.

Subsection (C) specifies the operating requirements and design parameters for all fabric filter and cyclone collection systems used. Fabric filter collection systems must be operated properly with no tears or leaks; be designed to meet an outlet grain loading not to exceed 0.01 grains per dry standard cubic foot (combined front half and back half); and not exceed an opacity of five percent averaged over a six-minute period. Cyclone collection systems must be operated properly with no leaks; be properly sized high efficiency cyclones with a cone length at least twice the diameter of the cyclone; and not exceed an opacity of ten percent averaged over a six-minute period.

Subsection (D) requires that the operation of conveyors associated with receiving authorized by this standard permit shall not commence until the receiving pits are full. This requirement is included to minimize the free-fall of grain, which subsequently minimizes fugitive emissions from the emission points and the potential for nuisance conditions.

Subsection (E) prohibits visible emissions from the operation of any grain dryer authorized by this standard permit from leaving the property.

Subsection (F) specifies that fuel used for any dryer or burner authorized by this standard permit shall be pipeline quality sweet natural gas or propane. Emissions from the use of both fuel types were evaluated through modeling and were determined to be protective of public health and welfare.

Requirements for pneumatic exhausts are addressed in subsection (G), which specifies that all fan discharges from cleaners, aspirators, and any other grain cleaning equipment authorized by this standard permit and with pneumatic handling of material shall be equipped with either a cyclone or fabric filter as specified in subsection (4)(C) of this standard permit.

Subsection (H) specifies the location of an oil suppression system. While an oil suppression system is not a requirement for authorization under this standard permit, if one is used to minimize emissions from grain handling, the oil shall be applied during or after the grain is received and prior to loadout.

Subsection (I) requires that all loadout devices authorized by this standard permit be equipped with drop socks at the drop points to minimize fugitive emissions from loadout areas.

Housekeeping requirements are specified in subsections (J) and (K). Subsection (J) requires that the spillage of any raw products, finished products, or waste products be cleaned up on a daily basis. Waste products must be removed from the site on a daily basis or may be stored on site in a manner that prevents exposure to the elements. Raw products and finished products must also be stored in a contained manner that prevents exposure to the elements. The prevention of exposure to the elements should help minimize the potential for nuisance conditions since exposure to the wind causes the potential for grain products to be blown off site onto neighboring properties and cause nuisance dust conditions. Exposure to rain can cause grain to sour and produce nuisance odors, which can travel off property. Subsection (K) requires the maintenance of on-site roads and other traffic areas to be conducted as necessary through the sprinkling of water, treatment with effective dust suppressants, and/or paving with a cohesive hard surface that is cleaned. The best management practices in this subsection help minimize the potential for off-property nuisance dust conditions resulting from roads and other traffic areas. The requirements in subsections (J) and (K) do not exempt grain elevators/grain handling operations and portable grain augers from the requirements in 30 TAC §101.4, Nuisance.

Subsection (L) requires that all air pollution abatement equipment be checked every 30 days (unless more frequent checks/inspections are otherwise specified in this standard permit) and be properly maintained and operated, which includes scheduled cleaning and maintenance as recommended by the manufacturer and as necessary to adequately maintain equipment efficiency. This subsection was revised in response to a comment received from the U.S. Environmental Protection Agency (EPA) stating that the standard permit must specify a representative monitoring frequency to ensure compliance with the opacity limits. The opacity limits apply to the fabric filter and cyclone collection systems.

The requirements in subsections (B) through (L) represent BACT and will reduce particulate emissions to minimize nuisance potential and protect human health and welfare. The TCAA and 30 TAC Chapter 116 require that standard permits apply BACT. Subsections (B) through (L) were obtained from existing case-by-case NSR permits for grain elevators and grain handling facilities and represent BACT for this industry.

Subsection (M) requires that all facilities and associated equipment authorized by this standard permit, including any transfer equipment, be maintained in good working order and operated properly. This requirement is included to ensure that all processing equipment is properly operated and maintained to minimize nuisance potential.

Subsection (N) specifies that the maximum hourly facility production capacities shall not exceed the values used to determine compliance with the 24-hour NAAQS for PM_{10} as shown by the plotted line in Figures 1 or 2 (whichever is applicable to the facility seeking authorization) of this standard permit. The figures show maximum short-term emission rates allowed for a specific setback distance of facility emission points to the nearest point on the nearest property line. A specific setback and emission rate correlate to a point on the graph that will either fall in the "acceptable" area of the graph or on the dividing line. To ensure compliance with this standard permit, owners and operators must demonstrate that emission rates and setbacks are inside the "acceptable" area of the graph or on the dividing line. Should the point for an emission rate and setback fall in the "unacceptable" area of the graph, the setback must be increased or the emission rate reduced. The production capacities, in conjunction with previously determined emission factors, are used to calculate the maximum allowable short-term emission rates.

Additional information regarding the modeling used to develop Figures 1 and 2 can be found in the Protectiveness Review portion of this technical summary.

Subsection (O) addresses all recordkeeping requirements for facilities authorized by this standard permit. All records must be kept for a rolling 24-month period and be made available at the request of personnel from the TCEQ or any other air pollution control agency or program having jurisdiction. Paragraph (O)(i) requires the owner or operator to maintain all records sufficient to demonstrate that the grain elevator/grain handling operation and portable grain auger(s) are meeting all applicable emission rate and property line minimum setback distance limitations determined by using Figures 1 or 2 (whichever is applicable) of this standard permit. This paragraph is used in conjunction with subsection (4)(N) and further clarifies that all records must be maintained to demonstrate the operation's continued compliance with the emission rates and corresponding setback distances in Figure 1 of this standard permit. Paragraph (O)(ii) specifies that records for portable grain augers shall remain with the primary auger equipment. Paragraph (O)(iii) requires that records of periodic monitoring and scheduled cleaning and maintenance of abatement equipment be kept. These records must be maintained to demonstrate compliance with subsection (L) of this standard permit. The periodic monitoring reference was included to link recordkeeping requirements and the 30-day monitoring frequency added to subsection (L) of this standard permit. Paragraph (O)(iv) requires recordkeeping regarding planned MSS facilities and activities to demonstrate compliance with the operational requirements (material usage rates and emission rate limitations) in paragraphs (7)(C)(i) through (7)(C)(iv) of this standard permit.

Requirements Specific to Grain Elevators/Grain Handling Operations (New, Modified, or Existing)

Section (5) of this standard permit addresses new, modified, or existing grain elevators/grain handling operations. The addition of portable grain augers at the grain elevator/grain handling site would be a modification requiring emissions from any portable grain auger to be included in the overall site emissions. All facilities associated with the grain elevator/grain handling operation must be authorized under this standard permit. Paragraph (A)(i) requires the use of calculation methods accepted by the TCEQ at the time of the standard permit claim to determine emission rates.

Paragraph (A)(ii) specifies the minimum setback distance necessary for all receiving and loadout points for authorization under this standard permit. The minimum setback distance for receiving and loadout points (including portable grain augers) is 100 feet to the nearest off-site receptor. This setback distance is included to further minimize the potential for nuisance conditions from particulate emissions. Based on facility observations and engineering judgment, the receiving and loadout points at grain elevators and grain handling operations are the sources with the greatest potential for nuisance from particulate emissions; therefore, these emission points were selected for a minimum setback distance of 100 feet to the nearest off-site receptor. The 100-foot minimum setback distance was determined based on the following:

a) The standard permit requires BACT, best management practices, and specific operating requirements that will minimize the potential for nuisance conditions from particulate emissions. When the facilities are operated in accordance with the requirements of the standard permit and coupled with the 100-foot minimum setback distance to receptor, nuisance dust conditions are not expected.

b) A protectiveness review was conducted and showed that site emissions, including emissions from facilities and activities as specified in section (7) of this standard permit, up to and including 16.30 lb/hr of PM_{10} are protective at the property line (i.e., no setback distance from any facility emission point to the property line is required to ensure protectiveness). Based on this information, nuisance conditions are not expected at the property line. For sites with emissions greater than 16.30 lb/hr of PM_{10}, all facility emission points, including facilities and activities as specified in section (7) of this standard permit, at the site must meet a minimum setback distance from the property line. The property line setback distance is directly correlated to the site emissions and was determined through the modeling. If the receiving and loadout points are located in accordance with the 100-foot minimum setback distance to receptor and meet any applicable corresponding property line setback distances determined through the use of Figure 1 of this standard permit, nuisance dust conditions are not expected.

c) The standard permit does not allow visible emissions from any portable grain auger to leave the property.

Grain elevators/grain handling operations meet the conditions of paragraph (A)(iii) if the total PM_{10} emissions from the site, including emissions from facilities and activities as specified in section (7) of this standard permit, do not exceed 16.30 lb/hr. The total PM_{10} emissions may exceed 16.30 lb/hr if all facility emission points, including facilities and activities as specified in section (7) of this standard permit, emitting PM_{10} at the site meet the specified minimum setback distance to the property line required to demonstrate compliance with the 24-hour PM_{10} NAAQS determined by using Figure 1 of this standard permit. The emission rates and distance requirements in Figure 1 were determined through current modeling techniques and will be discussed further in the Protectiveness Review portion of this technical summary. All PM_{10} emission rates referenced in subsection (A) are site-wide; therefore, PM_{10} emissions from any other facilities or sources at the site must be included when determining the required minimum setback distance and qualification for this standard permit. Subparagraph (A)(iii)(b) also includes a clarification that the minimum setback distance to the property line shall be measured from each facility emission point or maintenance activity emission point to the nearest property line using the shortest distance to that property line (i.e., the nearest corresponding property line). All facility emission points and maintenance activity emission points must meet the minimum setback distance requirements determined by using Figure 1 of this standard permit.

Subsection (B) specifies that all portable grain augers authorized by this standard permit and on the grain elevator/grain handling operation site must meet the requirements in section (6) of this standard permit. Subsection (B) is included to ensure protectiveness and minimize nuisance potential associated with these portable facilities.

Subsection (C) specifies that neither notification nor registration is required. To streamline the permitting process and allocate resources to more complex and controversial permitting projects, these facilities were evaluated to determine whether grain elevators/grain handling operations meeting all of the applicable requirements of this standard permit could be exempt from the notification and registration processes. Based on the review of existing permits, discussions within affected areas of the TCEQ, and the emission rate limitations and distance requirements determined to be protective through the modeling, the commission determined that notification and registration are not required.

Requirements Specific to Portable Grain Augers

Section (6) of this standard permit addresses the use of portable grain augers. Paragraph (A)(i) requires the use of calculation methods accepted by the TCEQ at the time of the standard permit claim to determine emission rates. When portable grain augers are the only facilities (with the exception of facilities and activities as specified in section (7) of this standard permit) at the site, the augers will also be required to meet the conditions of paragraph (A)(ii). The standard permit requires that the total PM_{10} emissions from the site, including emissions from any facility and activity as specified in section (7) of this standard permit, do not exceed 0.95 lb/hr, **or** the total PM_{10} emissions from the site exceed 0.95 lb/hr and all portable grain augers and all facilities and activities (as specified in section (7) of this standard permit) emitting PM_{10} at the site meet the specified minimum setback distance to the property line required to demonstrate compliance with the 24-hour NAAQS determined by using Figure 2 of this standard permit. The emission rates and distance requirements in Figure 2 were determined through current modeling techniques and will be discussed further in the Protectiveness Review portion of this technical summary. All PM_{10} emission rates referenced in subsection (A) are site-wide. Subparagraph (A)(ii)(b) also includes a clarification that the minimum setback distance to the property line shall be measured from each facility emission point or maintenance activity emission point to the nearest property line using the shortest distance to that property line (i.e., the nearest corresponding property line). All facility emission points and maintenance activity emission points must meet the minimum setback distance requirements determined by using Figure 2 of this standard permit.

For portable grain augers that are the only facilities (with the exception of facilities and activities as specified in section (7) of this standard permit) at the site, no minimum setback distance is required to further minimize the potential for nuisance conditions from particulate. This determination was based on the following:

a) The standard permit does not allow visible emissions from these facilities to leave the property.

b) A protectiveness review was conducted for sites in which portable grain augers are the only facilities (with the exception of facilities and activities as specified in section (7) of this standard permit) at the site, and showed that site emissions, including emissions from facilities and activities as specified in section (7) of this standard permit, up to and including 0.95 lb/hr of PM_{10} are protective at the property line (i.e., no setback distance to the property line is required to ensure protectiveness). Based on this information, nuisance conditions are not expected at the property line. For sites with emissions greater than 0.95 lb/hr of PM_{10}, portable grain augers and all facilities and activities (as specified in section (7) of this standard permit) at the site must meet a minimum setback distance from the property line. The setback distance is directly correlated to the site emissions and was determined through the modeling. If the facilities are located in accordance with any applicable corresponding property line setback distances determined through the use of Figure 2 of this standard permit, nuisance dust conditions are not expected.

Paragraph (A)(iii) prohibits any visible emissions from any portable grain auger authorized by this standard permit from leaving the property. The requirements in subsection (6)(A) of this standard permit ensure protectiveness of human health and welfare and minimize nuisance potential associated with these portable facilities.

Subsection (B) specifies that neither notification nor registration is required. To streamline the permitting process and allocate resources to more complex and controversial permitting projects,

these facilities were evaluated to determine whether portable grain augers meeting all of the applicable requirements of this standard permit could be exempt from the notification and registration processes. Based on the review of existing permits, discussions within affected areas of the TCEQ, and the emission rate limitations and distance requirements determined to be protective through the modeling, the commission determined that notification and registration are not required.

Planned Maintenance, Start-up, and Shutdown (MSS) Activities

Section (7) of this standard permit addresses emissions from planned MSS activities from those facilities authorized by this standard permit. Subsection (A) specifies that emissions from planned start-up and shutdown activities are authorized by this standard permit. Start-up and shutdown emissions are virtually indistinguishable from production emissions. Although there may be minor emissions associated with start-up and shutdown, particulate emission factors used to quantify production emissions are considered to have enough conservatism to include any incidental increases that may be attributed to start-up and shutdown. In addition, emissions from planned start-up and shutdown of combustion units should not result in any quantifiable hourly emissions change of products of combustion. Although there may be transitional and incidental spikes before units stabilize during start-ups (5 to 15 minutes), overall products of combustion are expected to be within hourly range limits for normal loads during production operations. Start-up and shutdown emissions for grain elevators/grain handling operations, including portable grain augers, were evaluated through air dispersion modeling, and when combined with emissions from production, all emissions were determined to be protective provided that the operation is in compliance with all requirements of the standard permit.

Emissions from specific planned maintenance activities are authorized by this standard permit, and these activities are listed in subsection (B). The planned maintenance activities and facilities listed in this subsection apply to those grain elevator/grain handling operations (including portable grain augers) authorized by this standard permit. After discussions with industry representatives, a list of common maintenance activities and facilities was developed, and the frequency and timing of the maintenance activities was also determined. Common maintenance activities and facilities authorized by this standard permit include abrasive blasting, surface preparation, surface coating, compressors/pumps/engines, hand-held or manually operated equipment, vacuum cleaning systems, hydraulic oil filtering, lubrication, and brazing/soldering/welding/metal cutting equipment. Emissions from the activities listed in subsection (B) are expected to be protective due to the operational requirements and site-wide emission rate limitations specified in subsection (7)(C) of this standard permit.

The operational requirements in subsection (C) consist of site-wide material usage rate limitations for abrasives, solvents, lubricants, coatings, dyes, bleaches, fragrances, and water-based surfactants and detergents; restrictions on planned maintenance activities occurring simultaneously with each other and with production operations; and site-wide emission rate limitations for lead and all other contaminants associated with planned maintenance activities. The material usage limitations have been previously evaluated and are considered de minimis, and the emission limitations for lead (0.6 tons per year) and all other contaminants (25 tons per year or less for any one contaminant) are considered insignificant and consistent with emission rate limitations in current PBRs. The material usage and emission rate limitations are also site-wide limitations to minimize cumulative emissions from planned maintenance activities that may be associated with other facilities (not authorized by this standard permit) located at the site. Planned maintenance activities, associated with the facilities or groups of facilities authorized by

this standard permit, are not expected to result in adverse cumulative effects due to the restriction of simultaneous maintenance activities and the restriction of those maintenance activities occurring with production operations.

Subsection (D) allows some flexibility to the facility operator regarding planned maintenance activities. Subsection (D) guides the applicant toward alternate methods of authorization for planned maintenance that cannot meet the requirements of subsections (7)(B) and (7)(C) of this standard permit. Forms of authorization are listed as any applicable PBR, any other applicable standard permit, or a combination of these mechanisms. Even with these options, protectiveness is maintained since planned maintenance activities still cannot occur simultaneously with each other, and cannot occur simultaneously with production operations. Any maintenance, start-up, and shutdown emissions that are not authorized are subject to the applicable requirements of 30 TAC Chapter 101, Subchapter F, Emissions Events and Scheduled Maintenance, Startup, and Shutdown Activities.

V. PROTECTIVENESS REVIEW

Particulate matter is the principal criteria pollutant emitted at a grain elevator/grain handling site. For facilities authorized under this standard permit, predicted 24-hour and annual average concentrations of PM_{10} were evaluated for comparison to the PM_{10} NAAQS as part of the protectiveness review. Predicted concentrations for carbon monoxide (CO), sulfur dioxide (SO_2), and nitrogen dioxide (NO_2) (associated with products of combustion) were also evaluated for comparison to the NAAQS as part of the protectiveness review. In accordance with the U.S. EPA's $PM_{2.5}$ surrogate policy, the TCEQ uses the PM_{10} program as a surrogate for the $PM_{2.5}$ program until the U.S. EPA fully implements and integrates $PM_{2.5}$ into the new source review program. PM_{10} controls and emissions were modeled, and predicted PM_{10} concentrations were compared to the PM_{10} NAAQS. Under the surrogate policy, compliance with the PM_{10} NAAQS was used as the surrogate for compliance with the $PM_{2.5}$ NAAQS. This is a reasonable approach given that a relatively small fraction of the PM_{10} emissions from this industry consist of $PM_{2.5}$. For this industry, 17 percent of PM_{10} emissions are assumed to be $PM_{2.5}$. The ratio of the 24-hour standards for $PM_{2.5}$ and PM_{10} (35 micrograms per cubic meter ($\mu g/m^3$) to 150 $\mu g/m^3$) is 23 percent. The ratio of the annual standards for $PM_{2.5}$ and PM_{10} (15 $\mu g/m^3$ to 50 $\mu g/m^3$) is 30 percent. Both of these ratios are greater than the fraction of $PM_{2.5}$ emissions. Therefore, demonstrating compliance with the PM_{10} NAAQS is sufficient to demonstrate compliance with the $PM_{2.5}$ NAAQS.

The primary NAAQS define a level of air quality that the U.S. EPA administrator determined is necessary, with an adequate margin of safety, to protect the public health. The secondary NAAQS define a level of air quality that the administrator determined necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Such standards are subject to revision, and additional primary and secondary standards may be promulgated as the administrator deems necessary to protect the public health and welfare. The primary and secondary NAAQS for a 24-hour average for PM_{10} is 150 $\mu g/m^3$ while the primary and secondary NAAQS for the long-term average PM_{10} standard is 50 $\mu g/m^3$.

The protectiveness review examined worst-case predicted concentrations from grain elevator/grain handling operations. The commission used the following modeling assumptions, selections, and techniques:

(1) air dispersion modeling was performed using ISCST3 (version 02035);

(2) scenarios for grain elevator/grain handling operations, products of combustion, and a portable grain auger were evaluated. The grain elevator/grain handling operations scenario included PM_{10} emissions from grain cleaning, drying, receiving, handling, loadout, and portable grain auger operations. The products of combustion scenario included the higher emissions of SO_2, NO_2, and CO from the grain dryers associated with two different fuels (natural gas and propane). The portable grain auger scenario only included PM_{10} emissions from the portable grain auger since these facilities may operate alone at a site;

(3) the emission rates modeled were based on maximum hourly emissions. The emission rates of PM_{10} were adjusted in the model to represent 24-hour average emissions. Since grain elevator/grain handling operations are seasonal sources that do not operate at maximum capacity throughout the year, the emission rates used for the PM_{10} annual averaging period were adjusted to represent annual average emissions based on six months of operation;

(4) daytime and nighttime hours were modeled;

(5) all facilities and equipment at the site were assumed to be within a 150-foot circular area for a conservative estimate of predicted concentrations. The grain elevator/grain handling facilities have emissions from stacks and emissions that are fugitive in nature. The stacks were modeled as point sources and the fugitive emissions were modeled as area sources. The area sources were modeled as circular area sources in order to eliminate any bias associated with source configuration and/or wind direction;

(6) all sources were co-located at the center of the property. By doing so, there is no bias based on source configuration and/or wind direction. This technique will also provide conservative results, since the cumulative impact of all sources is maximized;

(7) a fugitive adjustment factor of 0.6 was applied to the source emission rates of applicable sources in the modeling analysis to account for plume meander at low wind speeds and high atmospheric stability;

(8) a 0.75 factor was multiplied with the emission rate of NO_2. This is the U.S. EPA national default value, as referenced in Appendix W to 40 CFR Part 51, Requirements for Preparation, Adoption, and Submittal of Implementation Plans to account for limited conversion of NO_X to NO_2;

(9) rural dispersion coefficients and flat terrain were used in the modeling analysis. The selection of rural dispersion coefficients is conservative because the final results are given in distance required to fall below the PM_{10} 24-hour average NAAQS, and the distance to the maximum concentration for rural dispersion is farther than the distance with urban dispersion. Flat terrain is appropriate for modeling low-level fugitive emissions, which are the dominant contributor to the overall maximum predicted concentrations;

(10) there were no downwash structures present for the modeling analysis. This is conservative because the final results are given in distance required to fall below the 24-hour average PM_{10} NAAQS, and the distance to the maximum predicted concentration without downwash is farther than the distance with downwash. Also, the low-level fugitive emissions that were modeled as

area sources are the dominant contributor to the overall maximum predicted concentrations. Downwash does not apply to area source modeling;

(11) the modeling analysis used surface data from Austin and upper air data from Victoria for the years 1983, 1984, 1986, 1987, and 1988. Since the analysis is primarily for short-term concentrations, this five-year data set includes worst-case short-term meteorological conditions that could occur anywhere in the state. The wind directions were used at ten-degree intervals to be coincident with the receptor radials. This would provide predictions along the plume centerline, which is a conservative result; and

(12) a polar receptor grid extending from the edge of the property to 1,750 feet with 50-foot spacing along each ten-degree radial was used in the modeling analysis. This was done to determine the plume centerline concentration.

To ensure that there are no adverse health effects, the commission performed air quality modeling to determine an appropriate setback distance from the site property line for grain elevator/grain handling equipment and operations, including portable grain augers. The air quality modeling used in these analyses is typically conservative. Combined with conservative emission rate estimates, the modeling tends to over-predict maximum ground-level concentrations compared to actual monitored concentrations. The commission found that the 24-hour PM_{10} NAAQS is the limiting threshold for grain elevator/grain handling operations and portable grain augers. Based on modeling PM_{10}, the emissions from a grain elevator/grain handling operation (including portable grain augers) were used to establish certain limitations with respect to distances between facilities and the property line as a function of the site-wide emission rate. The modeling results demonstrated that the facilities at an average-size grain elevator/grain handling operation with site-wide emissions of PM_{10} less than or equal to 16.30 lb/hr do not require a setback distance to meet standards. For facilities with site-wide emissions greater than 16.30 lb/hr, a graph has been developed depicting the required minimum facility setback distance from the nearest property line versus the total site-wide allowable PM_{10} emissions to meet the NAAQS. For portable grain augers operating alone with site-wide emissions of PM_{10} less than or equal to 0.95 lb/hr, no minimum facility setback distance from the nearest property line is required to meet standards. For portable grain augers operating alone at a site with site-wide emissions of PM_{10} greater than 0.95 lb/hr, a graph has been developed depicting the required minimum facility setback distance from the nearest property line versus the total site-wide allowable PM_{10} emissions to meet the NAAQS. The modeling report is available upon request.

VI. PUBLIC NOTICE AND COMMENT PERIOD

In accordance with 30 TAC §116.603, Public Participation in Issuance of Standard Permits, the TCEQ published notice of the proposed standard permit in the *Texas Register* and newspapers of the largest general circulation in the following metropolitan areas: Austin, Corpus Christi, Dallas, Houston, Lubbock, and Midland. The date for these publications was November 6, 2009. The public comment period ran from the date of publication until December 15, 2009. Comments on the proposed standard permit were received from the Texas Cotton Ginners' Association (TCGA), Texas Seed Trade Association (TSTA), Justin Seed Company, and the U.S. Environmental Protection Agency (EPA).

VII. PUBLIC MEETINGS

The TCEQ held a public meeting on the proposed Air Quality Standard Permit for Grain Elevators/Grain Handling Operations and Portable Grain Augers in Austin on December 10, 2009, at 9:30 a.m., at the TCEQ, Building B, Room 201A, 12100 Park 35 Circle, Austin, Texas. There were no formal comments submitted at the public meeting.

VIII. ANALYSIS OF COMMENTS

TCGA indicated support for the proposed standard permit.

The commission appreciates the support.

TCGA commented that the facilities covered by the proposed standard permit have a minor impact, and supported the concept of using a sliding scale for distance limitations based on emission rate.

The standard permit was designed with conditions and requirements that are intended to ensure that the facilities and operations covered by the standard permit will not have a detrimental effect on human health or the environment. The variable distance requirements in the standard permit will allow operational flexibility for owners and operators of authorized facilities while still establishing enforceable emission rates and ensuring that the standard permit is protective.

TCGA commented that the operations covered by the standard permit have many common features, and use standard control methods. TCGA commented that the proposed standard permit has requirements that are similar to case-by-case permits issued for these facilities, and therefore would be protective.

TCGA is correct that many of the facilities and operations covered by the standard permit have similar features and use common control methods. The terms and conditions of the standard permit are intentionally similar to the terms and conditions in case-by-case permits, as standard permits are required by statute to implement BACT and must be protective of human health and the environment.

TCGA commented that the proposed standard permit would substantially reduce the amount of time that TCEQ staff expends reviewing individual permit applications, and streamline the process for the applicants.

The commission agrees that the standard permit will reduce the time and resources that are currently expended to perform case-by-case permit reviews for these types of facilities. The standard permit will provide a streamlined authorization method for the regulated community and will allow the commission to focus resources on reviews of projects that are more environmentally significant.

TSTA stated that the seed industry contains both "seed conditioners," meaning facilities that grow, clean, package, and distribute seed, and "seed treaters," meaning facilities that apply a topical coating of chemicals and colorants to seed in order to provide protection from fungi and insects. TSTA explained that seed treatment is done in a closed system such that the escape of particulate emissions is not possible. TSTA also stated that seed conditioners generally produce less dust than grain handling facilities, because seed must be handled as gently as possible to

preserve its quality and value, and this produces significantly less dust than other types of grain manipulation where the end use is processing or feeding. TSTA also stated that due to the relatively high value of "seed" versus "grain," periodic maintenance and cleaning of seed moving equipment is performed on a relatively more frequent basis than in conventional grain handling facilities. TSTA also stated that seed conditioning is usually seasonal and not a frequent, daily, ongoing event with most conditioning and "handling" of seed done shortly after harvest primarily in the fall of the year. The majority of seed movement is subsequent to the seed being bagged or otherwise contained in a fashion appropriate for distribution and sale negating any possibility of fugitive dust.

TSTA requested that TCEQ consider an exemption to the proposed standard permit for seed conditioning facilities that manipulate or "handle" unpackaged grain intended for use as crop seed 75 days per year, or less, and in total annual quantities less than 250,000 bushels.

The commission has not changed the standard permit in response to this comment. These operations can use the grain elevator/grain handling standard permit to handle the seed provided all requirements of the standard permit are met. The grain elevator/grain handling standard permit cannot be used to treat the seed. Any seed treatment must be authorized through an applicable permit by rule, a case-by-case air quality permit, or another applicable authorization mechanism.

All standard permits must contain requirements that implement BACT, which is required under Texas Health and Safety Code (THSC), §382.0518(b), Preconstruction Permit and §382.05195(a), Standard Permit. Any facilities seeking authorization under this standard permit, regardless of any capacity or operating schedule limitations that are included, are still subject to BACT. The TSTA's request for an exemption more closely parallels requirements in 30 TAC Chapter 106, Permits By Rule, and the association should petition separately under Chapter 106 if they seek the creation of a PBR for seed conditioning or treating.

Justin Seed expressed concern that the proposed standard permits covering dry bulk fertilizer handling operations; grain elevators/grain handling operations and portable grain augers; and feedmills, portable augers, and hay grinders are being forwarded with little input from the industries that they affect, and with little knowledge of the impact. Justin Seed suggested that the impact on agriculture could be much larger than stated in the technical summary documents.

The commission has not changed the standard permit in response to this comment. Before these agricultural standard permits were proposed, the commission formed an advisory group comprised of stakeholders from the agricultural industry, and held two stakeholder meetings on draft versions of the standard permits to solicit input from interested parties. A variety of trade associations, organizations, and companies had representatives attending these stakeholder meetings, including but not limited to the Texas Cotton Ginners' Association, United States Department of Agriculture, Texas Ag Industries Association, Texas Cattle Feeders' Association, and companies involved in the production or sale of grain, peanuts, and fertilizer. Following these stakeholder meetings, TCEQ revised the draft permits partially based on input from these groups, and formally proposed the agricultural standard permits on November 6, 2009. Notices of the proposals were published in the Texas Register and in six major newspapers in Texas. An announcement of the proposals was also posted on the commission's web site, and a press release on the

proposed standard permits was issued for distribution to the media. Notice of the proposed standard permits was also sent to a representative of the Texas Department of Agriculture. In addition, notice of the proposed standard permits was provided electronically to persons subscribed to a mailing list for air permitting issues. The commission believes that in combination, these stakeholder meetings and notices provided sufficient opportunity for the relevant industries to offer input on the proposed standard permits.

As to the impact of the standard permits on these industries, in many cases the impact will be minimal, with some exceptions noted further below. Generally, any facility that produces air contaminants is required to obtain some type of authorization for those emissions. That authorization is typically a permit by rule under 30 TAC Chapter 106, a standard permit, or a case-by-case permit under 30 TAC Chapter 116. The proposed standard permits would offer a new, streamlined method of authorization for those facilities that do not wish to use a permit by rule or case-by-case permit. Existing facilities that are already authorized could continue to operate under those authorizations and would not be affected by the proposed standard permits. Facilities that are most likely to be directly affected by the proposed standard permits are portable pipe reactors (polyphosphate blenders), and commercial grain handling facilities. The commission is considering the repeal of permit by rule 30 TAC §106.302 for portable pipe reactors, and considering revisions to permit by rule 30 TAC §106.283 for grain handling, storage, and drying facilities. If the portable pipe reactor permit by rule is repealed, portable pipe reactors will be required to comply with the standard permit for polyphosphate blending operations, or meet another authorization mechanism such as another applicable PBR or a case-by-case permit. Similarly, if the planned changes to the permit by rule for grain handling, storage and drying are adopted, new or modified commercial grain handling operations will be required to comply with the standard permit for grain handling operations, or meet another authorization mechanism such as another applicable PBR or a case-by-case permit.

Justin Seed stated that they contacted two state trade associations and one federal trade association, and none of those associations understood the purpose or impact of the proposed standard permit.

The commission has not changed the proposed standard permit in response to this comment. The commission cannot speak for other associations or entities, and has no information as to why those associations may not have understood the purpose or impact of the proposed standard permit. The purpose of the proposed standard permit is to provide a new method of authorization for common agricultural operations, that is relatively simple to obtain, and that is protective of human health and the environment if the conditions of the standard permit are met. The standard permit tends to allow more operational flexibility and larger facility sizes than the corresponding permit by rule, while minimizing registration and notification requirements. The standard permit is also a more streamlined and less resource-intensive method of authorization than a case-by-case permit. In combination, these features of the standard permit will allow the commission to more efficiently allocate resources towards the protection of air quality.

Justin Seed expressed concern that they (a) don't fully understand the purpose for the new standards, (b) are not able to identify what is being changed relative to current requirements, and

(c) are unable to support or disagree to references made on the impact to industry stakeholders.

The commission has not changed the standard permit in response to this comment. The purpose of the agricultural standard permits is to provide a new, streamlined method of authorization for these types of facilities and operations, as an alternative to the use of a permit by rule or case-by-case permit. Except as noted below, owners or operators of agricultural facilities would still be able to use an applicable permit by rule, case-by-case permit, or other applicable authorization mechanism if they elect to do so, but the commission expects that in many cases the new standard permits will be a more attractive option for a variety of reasons. The issuance of the new standard permits does not directly affect or change existing requirements. Facilities that are already authorized would continue to hold that authorization and are not required to comply with a standard permit. However, as noted above, the commission is considering the repeal of the permit by rule for portable pipe reactors (polyphosphate blenders) and considering revisions to the permit by rule for grain handling, storage, and drying facilities. If those changes are adopted, then new or relocated portable pipe reactor (polyphosphate blending) facilities will need to comply with the applicable standard permit, a case-by-case permit, or other applicable authorization mechanism. Similarly, new or modified commercial grain handling facilities would be required to comply with the applicable standard permit, a case-by-case permit, or other applicable authorization mechanism. The repeal of 30 TAC §106.302 and the revisions to 30 TAC §106.283 are being proposed in a separate action.

Justin Seed said they were uncertain of the impact of the standard permits on existing permitted facilities, when modifications or upgrades are performed. Justin Seed asked if older facilities would become subject to higher standards that would become burdensome.

The commission has not changed the standard permit in response to this comment. Modifications or changes at existing facilities that are already authorized by a case-by-case permit would typically be handled by an amendment or alteration to that permit, or, the use of an applicable permit-by-rule to authorize the change. Similarly, existing agricultural facilities that are already authorized by a permit by rule that requires registration would need to update their PBR registration to reflect the modification. In most situations, the availability of the new standard permits would not affect that process.

However, as noted above, the commission is considering an amendment to permit by rule 30 TAC §106.283 that would prohibit its use to authorize commercial grain handling facilities. If that amendment is adopted, then an existing commercial grain handling facility that is currently authorized by permit by rule 30 TAC §106.283 would not be able to use 30 TAC §106.283 to authorize any future modifications. The modified grain handling facility would have to comply with the applicable standard permit, meet another applicable PBR, obtain a case-by-case permit, or use another applicable authorization mechanism.

Justin Seed expressed concern that less visible seed industry producers (such as wildflowers, native grasses, and minor crops such as oats) have limited production with variable revenue streams, and if they were to go out of business, it would severely impact the supply of native echo types used to control erosion and environmental projects that are of high concern to TCEQ.

The commission has not changed the standard permit in response to this comment. The commission understands that the seed and grain industry has a variety of small and large producers and operators with a wide range of economic characteristics. The proposed standard permit is intended to provide additional options and greater flexibility for the industry, to the extent possible while protecting human health and the environment. The proposed standard permit is not intended to be the exclusive method of authorization for the subject industries. Owners or operators of facilities that cannot meet the conditions of a standard permit, or that do not wish to use a standard permit for other reasons, still have the option to use an applicable permit by rule, obtain a case-by-case permit, or use another applicable authorization mechanism.

EPA stated that the standard permit must contain additional language compelling the facility to ensure that the entire site's emissions do not exceed major source threshold levels.

The commission has not changed the standard permit in response to this comment. The standard permit contains a provision that specifies that the standard permit cannot be used to authorize any facility or project that would constitute a new major stationary source or a major modification. The provision further states that the standard permit cannot be used at a major source. This provision is similar to the language in 30 TAC §116.610(b), which EPA approved as a State Implementation Plan (SIP) revision on November 14, 2003 (68 FR 64543). The second part of this provision, which prohibits the standard permit from being used at a major source, is more conservative than is typical of TCEQ practice for standard permits. This provision was added to ensure protectiveness and further minimize concerns about federal applicability, but it is not an express requirement of the SIP or federal regulations concerning federal new source review. Finally, under 30 TAC §116.615(8), owners or operators are required to maintain records sufficient to demonstrate compliance with the applicable standard permit, which includes records to demonstrate that the site is not a major source. The commission believes the restrictions as written in the standard permit combined with the general conditions of 30 TAC §116.615 will be sufficient to allow TCEQ to enforce the condition relating to major source threshold levels.

EPA stated that the draft permit must provide a rationale to support the use of PM_{10} as a surrogate for $PM_{2.5}$. EPA cited the recent Louisville Gas and Electric Petition Response, No. IV-2002-3, from the EPA Administrator Jackson, dated August 12, 2009.

The modeling and protectiveness review for this standard permit determined that the combined $PM_{2.5}$ impacts from all sources would not exceed the short term $PM_{2.5}$ NAAQS standards of 35 micrograms per cubic meter averaged over a 24-hour period, or the annual $PM_{2.5}$ standards of 15 micrograms per cubic meter. A relatively small fraction of the PM_{10} emissions from this industry consist of $PM_{2.5}$.

EPA stated that the proposed standard permit must contain either an enforceable annual particulate matter (PM) emission limitation or a maximum hourly limitation to keep the emissions below major source NSR or Title V applicability thresholds. Although the permit does state that facilities are not eligible if they constitute a new major stationary source or major modification, EPA stated that this condition is not enforceable. EPA recommended the permit include annual limits to ensure that the facility cannot become a major source and require that the facility document annual PM emissions, along with production and/or operational limits. EPA

stated that the permit must specify a representative monitoring frequency which will ensure that compliance is demonstrated with a PM limit.

The commission has not changed the standard permit in response to this comment. Although the standard permit PM emission limits are presented in a manner that is different from most other TCEQ permits, the standard permit does contain enforceable hourly emission limits for PM. The standard permit contains a graph that represents the relationship between the allowable short-term PM emission rate and the available setback distance to the nearest property line. For example, Figure 1 of the standard permit indicates that a site that has no effective setback distance to the property line is limited to a site-wide maximum emission rate of 16.3 lb/hr of PM_{10}. Also from Figure 1, a site with a setback distance of 500 feet is limited to a site-wide maximum short-term emission rate of 22.0 lb/hr. Regardless of the allowable short-term emission rate indicated by the applicable figure, other conditions of the standard permit concerning the non-applicability of the standard permit to major sources also remain in effect independently. The owner or operator of the standard permit facility is required by the standard permit to maintain records to show compliance with the applicable emission rate determined by the applicable graph. Under 30 TAC §116.615(8), the owner or operator is also required to maintain records sufficient to demonstrate compliance with the standard permit, which includes records to demonstrate that the site is not a major source. TCEQ will enforce these conditions by inspection of these records.

As a point of clarification, although EPA's comment references Title V applicability thresholds in addition to Federal New Source Review (FNSR) thresholds, TCEQ is not aware of any restriction or prohibition on the use of standard permits issued under Subchapter F of 30 TAC Chapter 116 at a facility or site that is subject to Title V permitting. Although TCEQ does not allow a standard permit to be used to authorize a project that would constitute a major source or major modification under FNSR, TCEQ does not globally prohibit the use of a standard permit to authorize a project at a site that is potentially subject to Title V.

The commission has not included a monitoring frequency to demonstrate compliance with a PM limit. Because of the low level of emissions expected at these sites, the commission determined that monitoring frequencies associated with PM emission rate limitations are not necessary. The recordkeeping requirements in the standard permit are sufficient to demonstrate compliance with the specified emission rate limitations.

EPA stated that the permit must specify a representative monitoring frequency to ensure compliance with the opacity limit, and a recordkeeping requirement to ensure enforceability of the opacity limit.

The commission agrees with the EPA's comment and a monitoring frequency has been added to the standard permit to aid in the demonstration of compliance with specified opacity limitations. However, as it is not feasible for these operations to keep a certified opacity reader on site, the TCEQ has addressed this through a regular control device inspection program instead of direct measurements of opacity. The standard permit now includes a requirement that all air pollution abatement equipment must be checked for proper operation every 30 days (unless more frequent checks/inspections are otherwise specified in the standard permit). The recordkeeping requirements of the standard permit

have also been changed to clarify that records are required to demonstrate compliance with this monitoring frequency. In addition to the monitoring now included in the standard permit, the commission will also continue to rely on periodic inspections to enforce opacity limits and control nuisances. The TCEQ investigators will use EPA Test Method 9 to determine compliance with the opacity limitation(s).

EPA stated that the permit must specify that all equipment within the stationary source should be considered in the emissions determination.

The commission has not changed the standard permit in response to this comment. The Applicability section of the standard permit includes a condition that states that the standard permit cannot be used if the total site-wide emissions do not meet the applicable emission rate requirements. Although this condition does not explicitly refer to "all equipment," it would not be possible to determine total site-wide emissions unless all sources of air pollution were included. Section IV of the permit technical summary, Permit Condition Analysis and Justification, notes that the determination of site-wide emissions includes emissions from all facilities at the site, including facilities that are not associated with the operation being authorized under the standard permit. The terminology used may be slightly different than suggested in EPA's comment, but the language used in the standard permit and technical summary will accomplish the same goal. Note that the term "site" is potentially even broader than the term "stationary source" as a site can include multiple stationary sources.

EPA stated that to ensure enforceability, the permit must contain recordkeeping requirements for the PM and opacity emission limitations.

The standard permit as proposed requires that the owner or operator maintain records to demonstrate that the operation meets the applicable emission rate and setback distance requirements. With respect to opacity, it is not feasible for these small operations to keep a certified opacity reader on site, therefore the commission will enforce the opacity requirements through periodic monitoring of equipment performance and periodic TCEQ inspections. The owner or operator is required to maintain records of the periodic equipment/control device monitoring.

EPA requested that TCEQ consider a five-year records retention period (instead of the proposed two year period) to facilitate enforcement of other SIP requirements.

The commission has not changed the standard permit in response to this comment. TCEQ typically uses a two-year (24-month rolling) recordkeeping timeframe in association for non-major forms of authorization such as PBRs and standard permits, unless some other factor justifies a longer retention period. A five-year recordkeeping requirement would be more typical for records associated with federal regulations or a Title V permit. TCEQ is uncertain what other SIP requirements EPA is referring to in this comment. In the absence of more specific rationale to justify a five-year record retention period, TCEQ is electing to maintain the proposed 24-month retention period. However, standard permit holders should be aware that a five-year record retention period would apply if the standard permit operation is located at a site that is subject to Title V.

EPA requested that TCEQ include a provision stating any noncompliance with the permit constitutes a violation of the SIP and state law and is grounds for an enforcement action, for permit suspension, revocation, or revision, or for denial of a permit renewal application. In addition, EPA stated that the permit must contain reporting requirements for noncompliance with permit terms.

Although the commission's authority to enforce, revoke, revise, or deny a permit is already expressed in other commission rules and Texas statutes, the commission concurs that the permit should contain a provision to clearly state that emissions that exceed the limitations of the permit are a violation of the permit, and has added such a statement to the standard permit. With respect to reporting requirements for noncompliance with permit terms, TCEQ does not typically include such a condition in standard permits except in particular cases (for example, boilers equipped with a continuous emission monitoring system). Operations authorized under this standard permit are subject to all the rules of the commission including the recordkeeping and reporting requirements of 30 TAC Chapter 101, Subchapter F, Emissions Events and Scheduled Maintenance, Startup, and Shutdown Activities. Additional reporting requirements may apply if the standard permit facility is covered by a Title V permit.

EPA stated that they did not have access to the modeling used to make the determination for the lack of emission limits or operational limitations in the permit. EPA asked if TCEQ made the modeling data readily available, and if so, how was it made available.

The modeling data was made readily available; as stated in each standard permit proposal technical summary document, the modeling data for each standard permit was and is available upon request.

IX. STATUTORY AUTHORITY

This standard permit is issued under THSC, §382.011, General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.023, Orders, which authorizes the commission to issue orders necessary to carry out the policy and purposes of the TCAA; THSC, §382.051, Permitting Authority of Commission; Rules, which authorizes the commission to issue permits, including standard permits for similar facilities; THSC, §382.0513, Permit Conditions, which authorizes the commission to establish and enforce permit conditions consistent with Subchapter C of the TCAA; and THSC, §382.05195, Standard Permit, which authorizes the commission to issue standard permits according to the procedures set out in that section.

AIR QUALITY STANDARD PERMIT FOR
GRAIN ELEVATORS/GRAIN HANDLING OPERATIONS
AND PORTABLE GRAIN AUGERS
Effective Date: April 7, 2010

This air quality standard permit authorizes the air emissions associated with grain elevators/grain handling operations and portable grain augers that meet all of the applicable conditions listed in sections (1), (2), (3), (4), (5), and (7) of this standard permit, and, if applicable, the conditions listed in section (6) for portable grain augers.

This standard permit does not relieve the owner or operator from complying with any other applicable provision of the Texas Health and Safety Code, Texas Water Code, rules of the Texas Commission on Environmental Quality (TCEQ), or any additional state or federal regulations. Emissions that exceed the limits in this standard permit are not authorized and are violations of the standard permit.

(1) Applicability

(A) This standard permit may be used to authorize air emissions from grain elevators/grain handling operations (including, but not limited to, grain storage facilities, grain dryers, and grain and seed cleaners) and portable grain augers on or after the effective date of this standard permit. This standard permit also authorizes any fugitive emissions associated with grain elevators/grain handling operations and portable grain augers authorized by this standard permit.

(B) A grain elevator/grain handling operation does not qualify for authorization under this standard permit if it is a grain terminal elevator that has a permanent grain storage capacity of more than 2.5 million bushels.

(C) A grain elevator/grain handling operation does not qualify for authorization under this standard permit if any on-site associated fuel-fired equipment (including, but not limited to, dryers and burners) has an individual heating rate of ten million British thermal units per hour (Btu/hr) or greater, or a combined heating rate of greater than ten million Btu/hr.

(D) A facility does not qualify for authorization under this standard permit if it constitutes a new major stationary source or major modification as defined by Title 30 Texas Administrative Code (30 TAC) §116.12, Nonattainment and Prevention of Significant Deterioration Review Definitions, or is located at a major stationary source.

(E) This standard permit cannot authorize any emission increase of an air contaminant that is specifically prohibited by a condition in any permit issued under 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification, at the site.

(F) This standard permit cannot be used in conjunction with any permit or standard permit issued under 30 TAC Chapter 116 or in conjunction with any permit by rule (PBR) under 30 TAC Chapter 106, Permits by Rule, except that PBRs and standard

permits may be used, as specified in section (7) of this standard permit, to authorize planned maintenance activities and facilities. This requirement does not preclude the use of permits, standard permits, and PBRs to authorize other facilities (that are not associated with the grain elevator/grain handling operation or portable grain auger(s)) at the site provided the grain elevator/grain handling operation and portable grain auger(s) remain in compliance with all requirements of this standard permit.

(G) This standard permit cannot be used if the total site-wide emissions do not meet the emission rate requirements specified in sections (5), (6), and (7) of this standard permit.

(2) Definitions

(A) Grain - corn, wheat, sorghum, rice, rye, oats, barley, and soybeans.

(B) Grain elevator/grain handling operation - a facility, or group of facilities, that receives, handles, cleans, dries, stores, or loads out grain.

(C) Off-site receptor - any recreational area or residence or other structure that is in use at the time of the standard permit claim and that is not occupied or used solely by the owner or operator of the facilities or the owner of the property upon which the facilities are located.

(D) Permanent storage capacity - grain storage capacity that is inside a building, bin, or silo.

(E) Site - a site as defined in 30 TAC §122.10, General Definitions.

(3) General Administrative Requirements

Any claim under this standard permit must comply with applicable conditions of 30 TAC Chapter 116, Subchapter F, Standard Permits, except 30 TAC §116.610(a)(1), Applicability; §116.611(a) and (b), Registration to Use a Standard Permit; §116.614, Standard Permit Fees; and §116.615(5), Start-up Notification (General Conditions).

(4) General Operating Requirements

(A) Facilities authorized by this standard permit and located in counties subject to 30 TAC Chapter 101, Subchapter H, Division 3, Mass Emissions Cap and Trade Program, and 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds, shall comply with all applicable requirements in 30 TAC Chapter 101, Subchapter H, Division 3, and 30 TAC Chapter 117.

(B) All conveyors and elevator legs authorized by this standard permit shall be enclosed. Exhaust air to the atmosphere from pneumatic conveying systems or from the pulling of suction on mechanical systems shall be vented through a cyclone collection system or through a fabric filter system, each of which must operate as specified in subsection (4)(C) of this standard permit.

(C) All fabric filter and cyclone collection systems used to control particulate emissions from the grain elevator/grain handling operation or portable grain auger authorized by this standard permit shall meet the following requirements, as applicable.

(i) fabric filter systems shall be operated properly with no tears or leaks;

(ii) fabric filter systems shall be designed to meet an outlet grain loading not to exceed 0.01 grains per dry standard cubic foot (combined front half and back half);

(iii) in accordance with U.S. Environmental Protection Agency (EPA) Test Method 9, opacity of emissions from any fabric filter shall not exceed five percent averaged over a six-minute period;

(iv) cyclone collection systems shall be operated properly with no leaks;

(v) cyclone collectors shall be properly sized high efficiency cyclones with a cone length at least twice the diameter of the cyclone; and

(vi) in accordance with U.S. EPA Test Method 9, opacity of emissions from any cyclone shall not exceed ten percent averaged over a six-minute period.

(D) Operation of conveyors associated with receiving authorized by this standard permit shall not commence until the receiving pits are full.

(E) No visible emissions from the operation of any grain dryer authorized by this standard permit shall leave the property.

(F) Fuel for any dryer or burner authorized by this standard permit shall be pipeline quality sweet natural gas or propane.

(G) All fan discharges from cleaners, aspirators, and any other grain cleaning equipment authorized by this standard permit and handling material pneumatically shall be equipped with either a cyclone or fabric filter system as specified in subsection (4)(C) of this standard permit.

(H) For those operators that choose to use an oil suppression system to minimize emissions generated during the handling of grain, the oil shall be applied during or after the grain is received and prior to loadout.

(I) All loadout devices (augers, drop spouts, etc.) authorized by this standard permit shall be equipped with drop socks at the drop points to minimize fugitive emissions from loadout areas.

(J) Spillage of any raw products, finished products, and waste products shall be cleaned up on a daily basis. Waste products shall be removed on a daily basis

from the site or shall be stored in a contained manner that prevents exposure to the elements. Raw products and finished products shall be stored in a contained manner that prevents exposure to the elements.

(K) One or more of the following methods shall be used to control emissions from all in-plant roads, truck loading and unloading areas, parking areas, and other traffic areas to maintain compliance with all TCEQ rules and regulations:

(i) sprinkling with water as necessary;

(ii) treating with effective dust suppressant(s) as necessary; or

(iii) paving (with a cohesive hard surface) and cleaning as necessary.

(L) All air pollution abatement equipment shall be checked every 30 days (unless more frequent checks/inspections are otherwise specified in this standard permit) and shall be properly maintained and operated during the operation of the facilities authorized by this standard permit. Scheduled cleaning and maintenance of the abatement equipment shall be performed as recommended by the manufacturer and as necessary so that the equipment efficiency is adequately maintained.

(M) All facilities and associated equipment authorized by this standard permit, including any transfer equipment, must be maintained in good working order and operated properly.

(N) Maximum hourly facility production capacities shall not exceed the values used to determine compliance with the 24-hour National Ambient Air Quality Standards (NAAQS) for particulate matter less than or equal to ten microns in diameter (PM_{10}) as shown by the plotted line in Figures 1 or 2 (whichever is applicable) of this standard permit.

(O) For all grain elevator/grain handling operations, portable grain augers, and planned maintenance, start-up, and shutdown (MSS) facilities and activities authorized by this standard permit, the following records shall be maintained at the site for a rolling 24-month period and be made available at the request of personnel from the TCEQ or any other air pollution control agency or program having jurisdiction:

(i) all records to demonstrate that the grain elevator/grain handling operation and portable grain auger(s) meet the applicable emission rate and minimum setback distance limitations determined by using Figures 1 or 2 (whichever is applicable) of this standard permit;

(ii) records for portable grain augers shall remain with the primary auger equipment;

(iii) records of periodic monitoring and scheduled cleaning and maintenance of the abatement equipment to demonstrate compliance with subsection (4)(L) of this standard permit; and

(iv) records containing sufficient information to demonstrate compliance with paragraphs (7)(C)(i) through (7)(C)(iv) of this standard permit that include:

(a) the type and reason for the activity or facility;

(b) the processes and equipment involved;

(c) the date, time, and duration of the activity or facility operation; and

(d) the amount of material usage and emission rates.

(5) Requirements Specific to Grain Elevators/Grain Handling Operations (New, Modified, or Existing)

(A) In addition to section (4) of this standard permit, grain elevators/grain handling operations shall also meet the following requirements:

(i) emission rates shall be determined using calculation methods accepted by the TCEQ Air Permits Division at the time of the standard permit claim;

(ii) all receiving and loadout points (including portable grain augers) shall be located at least 100 feet from the nearest off-site receptor and shall meet any property line minimum setback distance as required in paragraph (5)(A)(iii) of this standard permit; and

(iii) a grain elevator/grain handling operation shall meet one of the following scenarios:

(a) total PM_{10} emissions from the site (including emissions from facilities and activities as specified in section (7) of this standard permit) shall be less than or equal to 16.30 pounds per hour (lb/hr); or

(b) total PM_{10} emissions from the site may be greater than 16.30 lb/hr if all facilities (including facilities and activities as specified in section (7) of this standard permit) emitting PM_{10} at the site meet the minimum setback distance to the property line determined by using Figure 1 of this standard permit. The minimum setback distance shall be measured from each facility emission point or maintenance activity emission point to the nearest property line using the shortest distance to that property line. All facility emission points and maintenance activity emission points must meet the minimum setback distance requirements determined by using Figure 1 of this standard permit.

(B) Any portable grain auger authorized by this standard permit at the grain elevator/grain handling operation site shall meet the requirements of section (6) of this standard permit with the exception of paragraph (6)(A)(ii).

(C) Notification and registration are not required for grain elevators/grain handling operations authorized by this standard permit.

(6) Requirements Specific to Portable Grain Augers

(A) In addition to section (4) of this standard permit, portable grain augers shall also meet the following requirements:

(i) emission rates shall be determined using calculation methods accepted by the TCEQ Air Permits Division at the time of the standard permit claim;

(ii) portable grain augers shall be the only facilities present (with the exception of facilities and activities as specified in section (7) of this standard permit) at the site, and meet one of the following scenarios:

(a) total PM_{10} emissions from the site (including emissions from any facility and activity as specified in section (7) of this standard permit) shall be less than or equal to 0.95 lb/hr; or

(b) total PM_{10} emissions from the site may be greater than 0.95 lb/hr if all portable grain augers and any facility and activity, as specified in section (7) of this standard permit, emitting PM_{10} at the site meet the minimum setback distance to the property line determined by using Figure 2 of this standard permit. The minimum setback distance shall be measured from each facility emission point or maintenance activity emission point to the nearest property line using the shortest distance to that property line. All facility emission points and maintenance activity emission points must meet the minimum setback distance requirements determined by using Figure 2 of this standard permit; and

(iii) no visible emissions from the operation of any portable grain auger authorized by this standard permit shall leave the property.

(B) Notification and registration are not required for portable grain augers authorized by this standard permit.

(7) Planned Maintenance, Start-up, and Shutdown (MSS) Activities

(A) This standard permit authorizes all emissions from planned start-up and shutdown activities associated with facilities or groups of facilities that are authorized by this standard permit.

(B) This standard permit authorizes emissions from the following planned maintenance activities and facilities associated with grain elevators/grain handling operations and portable grain augers that are authorized by this standard permit:

(i) abrasive blasting (wet blast and dry abrasive cleaning);

(ii) surface preparation;

(iii) surface coating;

(iv) compressors, pumps, or engines, and associated pipes, valves, flanges, and connections;

(v) hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic precision parts, leather, metals, plastics, fiber board, masonry, carbon, glass, graphite, or wood;

(vi) vacuum cleaning systems;

(vii) hydraulic oil filtering;

(viii) lubrication; and

(ix) brazing, soldering, welding, or metal cutting equipment.

(C) Planned maintenance activities and facilities shall meet the following requirements.

(i) The following materials are authorized and shall not be used at the site at more than the rates prescribed below:

(a) abrasives - 150 tons per year, 15 tons per month, and one ton per day;

(b) cleaning and stripping solvents and lubricants - 50 gallons per year;

(c) coatings (excluding plating materials) - 100 gallons per year;

(d) dyes - 1,000 pounds per year;

(e) bleaches - 1,000 gallons per year;

(f) fragrances (excluding odorants) - 250 gallons per year; and

(g) water-based surfactants and detergents - 2,500 gallons per year.

(ii) Planned maintenance activities associated with facilities or groups of facilities authorized by this standard permit shall not occur simultaneously (no two or more processes can occur at the same time), and these planned maintenance activities shall not occur simultaneously with production operations;

(iii) Planned maintenance activities and facilities at the site shall not emit more than 25 tons per year of any one air contaminant; and

(iv) Lead emissions from planned maintenance activities or facilities at the site shall be less than 0.6 tons per year.

(D) Planned maintenance that cannot meet the requirements of subsections (7)(B) and (7)(C) of this standard permit may be authorized by one or by a combination of the following mechanisms, provided the planned maintenance activities do not occur simultaneously (no two or more processes can occur at the same time), and the planned maintenance activities do not occur simultaneously with production operations:

(i) any applicable PBR under 30 TAC Chapter 106; or

(ii) any other applicable standard permit.

Grain Elevators/Grain Handling Operations

Required Minimum Setback Distance

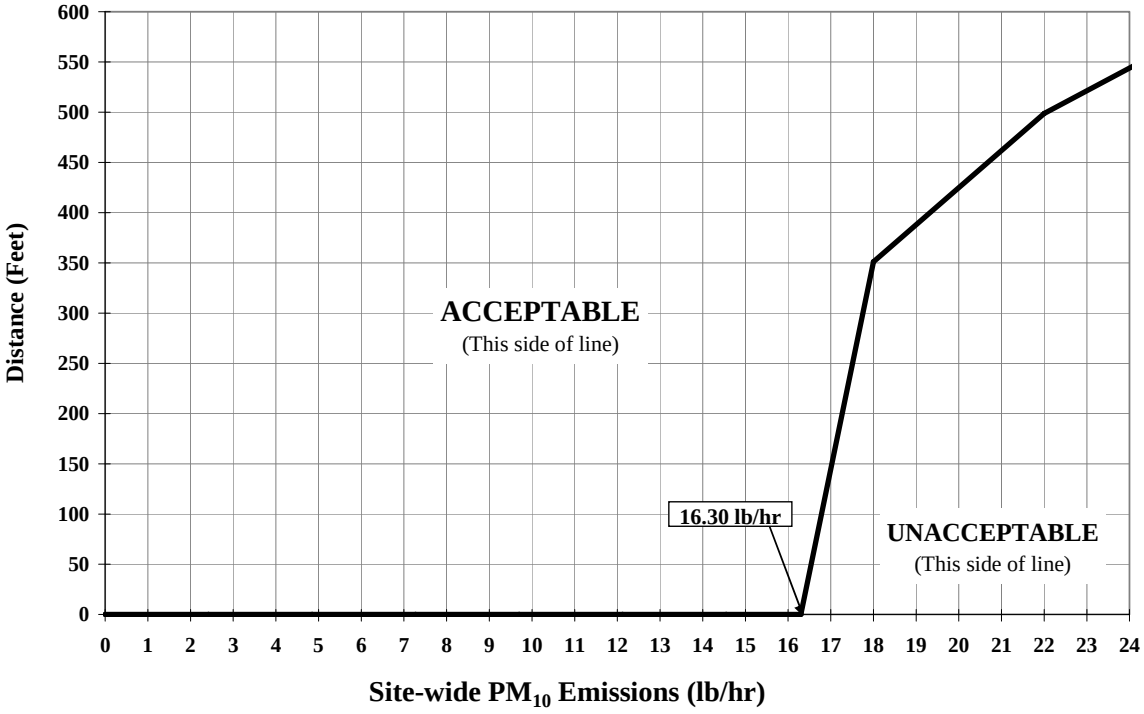

Figure 1

Portable Grain Auger Operating Alone at a Site

Required Minimum Setback Distance

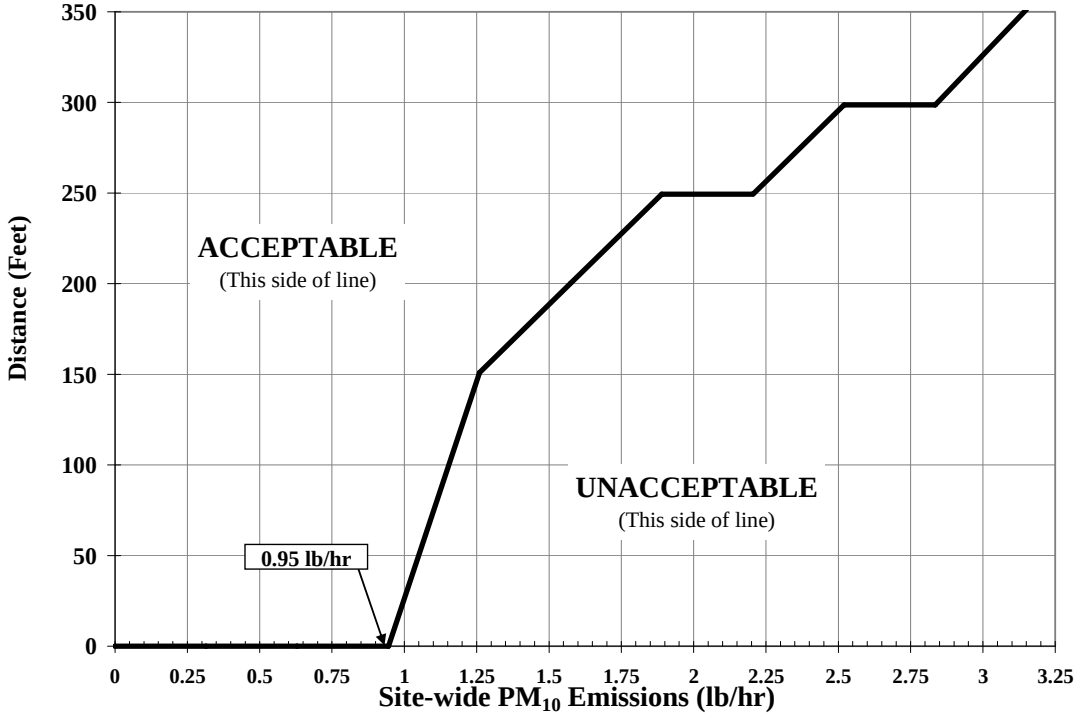

Figure 2