The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes new §§112.100 - 112.108, 112.110 - 112.118, 112.200 - 112.203, 112.206 -112.208, 112.210 - 112.213, 112.216 - 112.218, 112.220 - 112.228, 112.230 - 112.238, 112.240 - 112.248, and 112.300 - 112.308.

If adopted, the new sections of Chapter 112 will be submitted to the United States Environmental Protection Agency (EPA) as revisions to the State Implementation Plan (SIP).

#### Background and Summary of the Factual Basis for the Proposed Rules

The federal Clean Air Act (FCAA) (42 United States Code (USC), §§7401 et seq.) requires the EPA to establish primary National Ambient Air Quality Standards (NAAQS) that protect public health and to designate areas as either in attainment or nonattainment with the NAAQS, or as unclassifiable. After a NAAQS is revised, each state is required to submit a SIP revision to the EPA that provides for attainment and maintenance of the NAAQS for areas that are not meeting the revised standard. On June 22, 2010, the EPA published a revised sulfur dioxide (SO<sub>2</sub>) NAAQS, adopting a 75 parts per billion (ppb) one-hour primary standard, effective August 23, 2010 (75 *Federal Register* (FR) 35520). SO<sub>2</sub> pollution results from the direct emissions from sources (not as a result of chemical interactions of various compounds in the air) and concentrations of SO<sub>2</sub> are generally expected to be highest closer to emission sources and lowest further away, due to dispersion of emissions in the air. Therefore, this proposed rule establishes site and source specific SO<sub>2</sub> emission limits and associated requirements to ensure attainment of the 2010 SO<sub>2</sub> NAAQS as discussed further in this rule preamble.

On March 26, 2021, the EPA published designations for portions of Howard, Hutchinson, and Navarro Counties as nonattainment for the 2010 SO<sub>2</sub> NAAQS, effective April 30, 2021 (86 FR 16055). The attainment date for all three nonattainment areas is April 30, 2026. An air quality modeling analysis showing that enforceable emission limits will provide for attainment of the NAAQS is part of the required attainment demonstration SIP revisions being proposed concurrently with this proposal for the nonattainment areas. The air quality modeling analyses indicate that reductions from current actual and allowable emission rates are needed in each of the three nonattainment areas. To provide time for implementation and compliance as well as to provide at least one full calendar year of data, the reductions are required to occur by January 1, 2025. The agency proposes these rules to make the emissions reductions necessary to demonstrate attainment. If adopted, the proposed rules will be submitted to the EPA as part of the SIP and, upon EPA approval, would be both state and federally enforceable and continue to be effective until EPA approval of their repeal or modification.

The concurrently proposed attainment demonstration SIP revisions include a technical analysis to determine the level of emission reductions necessary to attain the 2010  $SO_2$  NAAQS in each of these nonattainment areas. In addition to other requirements, the attainment demonstration includes an assessment of all sources that emit  $SO_2$  in the nonattainment area and modeling that demonstrates attainment of the NAAQS and the

corresponding emission limits and other requirements for SO<sub>2</sub> sources in the nonattainment area. The attainment demonstration modeling is the basis for the commission's determination regarding the necessity for the emission reductions required by these proposed rules. Information concerning the concurrent attainment demonstration SIP revision proposals for each nonattainment area are available on the commission's website or by contacting commission staff associated with this rulemaking.

As part of the concurrently proposed SIP revisions, the TCEQ modeled the information provided by each site in each nonattainment area. Current allowable emission rates or lower emission rates required to demonstrate attainment were included in the modeling. The EPA has historically used pollutant-specific concentration levels, known as significant impact levels (SIL), to identify the degree of air quality impact that causes or contributes to a violation of a NAAQS or Prevention of Significant Deterioration increment. As a result, the TCEQ used the SIL for SO<sub>2</sub> of 3 ppb or 7.85 micrograms per cubic meter (µg/m<sup>3</sup>) to determine which sources were the most significant contributors to nonattainment. The TCEQ identified the emission rates that modeled attainment by using an iterative process that included both modeling of all SO<sub>2</sub> emissions in a nonattainment area and consultation with companies to ensure that source characteristics and operational practices were correctly represented. The proposed rules for each nonattainment area covered in this proposed rulemaking specify the emission rates needed to model attainment, as indicated in the concurrently proposed SIP revisions for Howard, Hutchinson, and Navarro Counties. Any future increase of

the emissions limits or change in location of the sources specified in the proposed rules would require rulemaking and a SIP revision to ensure federal enforceability of the emission reductions required for attainment. Even if a permit change is required, rulemaking and a SIP revision would still be required.

The FCAA, §172(c)(1), requires that nonattainment area SIP revisions also incorporate all reasonably available control measures (RACM), including reasonably available control technology (RACT), for sources of relevant pollutants. The EPA explains in its April 23, 2014 memorandum Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions (2014 SO<sub>2</sub> SIP guidance) that states should consider all RACM, including RACT, that can be implemented in light of the attainment needs for the affected  $SO_2$ nonattainment area; and those control measures must be permanent and enforceable. EPA considers that which is necessary for attainment of the 2010 SO<sub>2</sub> NAAQS to be RACM including RACT. Air quality dispersion modeling demonstrates that emission limits established in the proposed rule will result in attainment of the 2010 SO<sub>2</sub> NAAQS. The emission rates provided in these proposed rules for the specific sources were identified by the modeling in the concurrently proposed SIP revisions as necessary to attain the 2010 SO<sub>2</sub> NAAQS in the associated nonattainment areas. Because the proposed emission rates from the specified sources were identified as sufficient to demonstrate attainment, the commission determined that those requirements provide for the necessary emissions reductions of SO<sub>2</sub> to satisfy RACM, including RACT, for the sources of SO<sub>2</sub> identified in the affected areas as contributing to nonattainment.

The proposed rules for each nonattainment area are specific to the sites and sources that emit SO<sub>2</sub> within those areas, and the proposed rules (if adopted) will continue to apply to the sites and sources regardless of ownership, operational control, or other documentation-related changes. To ensure that applicability is clear for both the public and current regulated entities, the proposed rules specify the regulated entity numbers and emission point numbers (EPN) for each site and source (production unit or control device). The proposed rules are based on specific information provided by the affected companies or where information on anticipated changes was not provided, alternative sources of information for control options to achieve the emission reductions required for attainment. In some cases, requirements are also based on provisions for the control of SO<sub>2</sub> in consent decrees between the companies and the EPA for specific sites, and in no case do the proposed rules conflict with consent decree requirements.

The rules are proposed in Chapter 112, Control of Air Pollution from Sulfur Compounds as new Subchapter E, Requirements in the Howard County Nonattainment Area; Subchapter F, Requirements in the Hutchinson County Nonattainment Area; and Subchapter G, Requirements in the Navarro County Nonattainment Area with a separate division for each site. The provisions in each division are covered in the same order for consistency. The emission limits in the proposed rules do not provide authorization for emissions by the sources. As required by commission rules, emission authorization is required as specified in 30 Texas Administrative Code (TAC) Chapters 106, 116, and 122. If adopted by the commission and approved by the EPA, the

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emission limits and associated requirements specified for the sources in new Subchapters E, F, and G will satisfy FCAA RACT and RACM necessary to attain and maintain the 2010 SO<sub>2</sub> NAAQS and may not be changed without EPA approval. The emission limits and associated requirements apply only to specific sources as identified in the proposed rules. To ensure the continued applicability of the specified emission limits and associated requirements, the proposed rules contain prohibitions on changing an EPN designation for the sources subject to these rules.

The Howard County SO<sub>2</sub> nonattainment area designated by the EPA consists of a portion of Howard County. The Delek US Holdings' Big Spring Refinery site (Delek Big Spring Refinery), the Tokai Carbon CB LTD's Big Spring Carbon Black Plant site (Tokai Big Spring Carbon Black Plant), and BHER Power Resources Inc's C R Wing Cogeneration Plant site (BHER C R Wing Cogeneration Plant) are the sites with SO<sub>2</sub> emissions within the Howard County nonattainment area. The Delek Big Spring Refinery manufactures transportation fuels, solvents, finished asphalt, and liquified petroleum gas. The Tokai Big Spring Carbon Black Plant manufactures carbon black for use in various industrial applications, such as tires. The BHER C R Wing Cogeneration Plant generates electricity. Both the Delek Big Spring Refinery and Tokai Big Spring Carbon Black Plant are the sites covered in Subchapter E. The BHER C R Wing Cogeneration Plant is not included in the rules because attainment demonstration modeling showed its contribution to the modeled design value in the nonattainment area does not exceed the SIL.

The Hutchinson County SO<sub>2</sub> nonattainment area designated by the EPA consists of a

portion of Hutchinson County. There are eight sites with SO<sub>2</sub> emissions in the nonattainment area, owned and/or operated by the following regulated entities: 1) Chevron Phillips Chemical LP's Borger Plant site (CP Chem Borger Plant); 2) IACX Rock Creek LLC's Rock Creek Gas Plant site (IACX Rock Creek Gas Plant); 3) Orion Engineered Carbons LLC's Borger Carbon Black Plant site (Orion Borger Carbon Black Plant); 4) Phillips 66 Company's Borger Refinery site (P66 Borger Refinery); 5) Tokai Carbon CB LTD's Borger Carbon Black Plant site (Tokai Borger Carbon Black Plant); 6) Agrium US LLC's Borger Nitrogen Operations site (Agrium Borger Nitrogen Plant); 7) Borger Energy Associates LP's Blackhawk Power Plant site (Blackhawk Power Plant); and 8) Solvay Specialty Polymers USA LLC's Solvay Specialty Polymers USA site (Solvay Specialty Polymers Plant). The CP Chem Borger Plant manufactures specialty chemicals and plastics with other various industrial applications. The IACX Rock Creek Gas Plant is a natural gas gathering plant. The Orion Borger Carbon Black Plant manufacturers carbon black for use in various industrial applications, such as tires. The P66 Borger Refinery processes primarily medium sour crude oil and natural gas oil. The Tokai Borger Carbon Black Plant manufacturers carbon black for use in various industrial applications, such as tires. The Agrium Borger Nitrogen Plant is a fertilizer plant. The Blackhawk Power Plant generates electricity using natural gas and steam using refinery gas from the P66 Borger Refinery. The Solvay Specialty Polymers Plant is a plastics and resins plant on the Chevron Phillips Chemical property that operates independently from Chevron Phillips Chemical. The first five sites with SO<sub>2</sub> emissions are covered in Subchapter F. The other three sites are not included in the rules because attainment

demonstration modeling showed their emissions do not exceed the SIL.

The Navarro County SO<sub>2</sub> nonattainment area designated by the EPA consists of a portion of Navarro County. The Streetman Plant owned and operated by Arcosa LWS, LLC (Arcosa Streetman Plant), is the only site with SO<sub>2</sub> emissions in the nonattainment area. The Streetman Plant manufactures lightweight aggregate for use in various industrial applications, such as concrete and asphalt, and is the site covered in Subchapter G.

## Section by Section Discussion

# SUBCHAPTER E: REQUIREMENTS IN THE HOWARD COUNTY NONATTAINMENT AREA DIVISION 1: REQUIREMENTS FOR THE DELEK BIG SPRING REFINERY

## §112.100, Applicability

The commission proposes new §112.100 to specify that the new rules apply to sources of SO<sub>2</sub> at the Delek Big Spring Refinery site (RN100250869) whose emissions the agency has determined contribute to potential exceedances of the 2010 SO<sub>2</sub> NAAQS based on modeling conducted for the concurrently proposed SIP revisions discussed elsewhere in this preamble. The specific sources at the site that modeling shows contribute above the SIL are specified as being subject to the proposed rules. The rule provisions in the new proposed Division 1 are site-specific and unit-specific and are specified by the Regulated Entity Number (RN) of the site, and EPN as documented in a specified version of the New Source Review (NSR) permit. The source name and EPN used in attainment demonstration modeling is used in the rules for sources to be authorized and constructed after this proposed rulemaking. The requirements will continue to apply regardless of any changes of ownership, control, or documentation of the affected sources.

The TCEQ conducted attainment demonstration modeling for sources in the Howard County nonattainment area using either the allowable emission limits (including during both normal operations and, when applicable, authorized MSS activities) from the NSR permit(s) for each site, or lower emission rates if needed to demonstrate attainment. The lower emission rates were used in the attainment demonstration modeling, which also used stack parameters supplied by the companies for each emissions point where SO<sub>2</sub> is emitted. Modeling was conducted to determine which specific sources would have emissions that contribute greater than the SIL of 3 ppb (i.e., 7.85 micrograms per cubic meter) to the modeled design value concentrations in the Howard County SO<sub>2</sub> nonattainment area. If the source had a contribution to the modeled design value that was less than the SIL, it is not included in the rules. If the source had a contribution to the modeled design value that was greater than the SIL, its emission rates are specified in the rules. When modeled collectively with all emissions sources in the nonattainment area, and evaluated using a Monte Carlo simulation statistical approach, the emission rates specified in the rule resulted in modeled design values that demonstrated attainment of the NAAQS. Monte Carlo methods are statistical simulation techniques used to estimate possible outcomes from uncertain events by repeatedly calculating an outcome, in this case the modeled design value, by randomly selecting from a set of possible scenarios, in this case emission rates for sources in the nonattainment area, for each calculation.

## §112.101, Definitions

The commission proposes new §112.101 to define three terms used in Division 1. The commission proposes new §112.101(1) to define block one-hour average which is used in the requirements. Proposed new §112.101(2) defines the Howard County  $SO_2$  nonattainment area. Proposed new §112.101(3) defines pipeline quality natural gas.

## §112.102, Control Requirements

The commission proposes new §112.102 to specify the control requirements for the sources (designated through the relevant EPN) that were identified in §112.100. The emission rates established in the section are the rates that modeling demonstrates attainment in the concurrently proposed SIP revision for Howard County.

Proposed new §112.102(a) prohibits the owner or operator from contravening the control requirements specified in these rules by changing the site's RN or the EPN designation of any source without prior approval by the agency and the EPA. This prohibition is needed because the proposed rules specify the requirements for existing individual sources or groups of sources based on their EPN designation in a specific version of the applicable NSR permit issued on a specified date, so the designations must remain the same unless changes are approved by the commission and the EPA.

Proposed new §112.102(b) provides the emission limits for the fluidized catalytic cracking unit (FCCU), currently designated as FCCU ESP Stack EPN 06ESPPCV in NSR

Permit 49154. Permit 49154 currently has an emission limit of 669.90 pounds per hour (lb/hr) SO<sub>2</sub> for the FCCU (EPN 06ESPPCV). Delek US Holdings has committed to reducing the FCCU maximum limit to 250.00 lb/hr on a seven-day rolling average. This number was determined by applying a discount factor to 280.90 lb/hr, which was the number used in the attainment demonstration modeling. Delek submitted 2017 through 2020 FCCU continuous emissions monitoring system (CEMS) emissions data to support their conclusion that it is equivalent to 280.90 lb/hr SO<sub>2</sub> on a one-hour average basis. The 2014 SO<sub>2</sub> SIP guidance recognized that establishing one-hour limits based on the modeled critical emission value (CEV) may be overly conservative because short term periods of emissions above the CEV have an extremely low likelihood of causing a NAAQS exceedance. The CEV is defined as the one-hour SO<sub>2</sub> emissions limit that shows attainment of the 2010 SO<sub>2</sub> NAAQS through modeling. The 2014 SO<sub>2</sub> SIP guidance included a recommended approach to determine an appropriate longer-term averaging limit than a block one-hour emission rate. This approach involves calculating an appropriate longer-term averaging limit as a percentage of the one-hour CEV limit. The TCEQ used the 280.90 lb/hr SO<sub>2</sub> one-hour average emission limit value in the concurrently proposed attainment demonstration modeling to prove that the emission limit value is not expected to result in exceedances of the 2010 SO<sub>2</sub> NAAQS. For the FCCU, the proposed rule has a 250.00 lb/hr SO<sub>2</sub> emission limit on a seven-day rolling average. Delek provided technical data concerning hourly mass SO<sub>2</sub> emissions from the FCCU at the Big Spring Refinery. The historical emissions data submitted for each operating hour of the FCCU were used for the emissions variability analysis to arrive at a final SO<sub>2</sub> emissions limit on a seven-day rolling average. Specifically, the 99th

percentile of the one-hour pounds per hour data was obtained as well as the 99th percentile of the seven-day rolling average pounds per hour data. The ratio of the 99th percentile of the seven-day rolling average data to the 99th percentile of the one-hour data was then calculated to develop a discount factor to be applied to the one-hour critical emission value (CEV) limit to arrive at the final limit that provides for a longer averaging time basis. The final discount factor for the pounds per hour emissions limit representing the modeled one-hour CEV was determined to be 0.89. The discount factor is expected to provide a degree of comparable stringency to the corresponding limit on a one-hour basis. The emission rate calculated using the discount factor is expected to constrain emissions from the FCCU so that any occasions of emissions above the CEV will be limited in frequency and magnitude. The use of variability analysis and application of a corresponding discount factor to provide for an emission limit with a longer averaging time is recognized by EPA guidance as appropriate where sources have variable hourly emissions due to factors such as fuel sulfur content, variable operating loads, etc.

Proposed new §112.102(c) limits the fuel and waste gas sulfur content limits for the flares flares. Proposed new §§112.102(d) – (g) include emission limits for the four flares during both normal operations and authorized MSS activities. The SO<sub>2</sub> emission limits for normal operations are as follows: 25.00 lb/hr for Northeast Flare (EPN 14NEASTFLR), 51.80 lb/hr for the Crude Flare (EPN 02CRUDEFLR), 103.70 lb/hr for the Reformer Flare (EPN 05REFMFLR), and 118.70 lb/hr for the South Flare (EPN 16SOUTHFLR). The MSS emission limits are based on the maximum number of days per

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activities. Limits on the number of days per year flaring events could generate specified amounts of emissions were needed to demonstrate attainment and were tested in the Monte Carlo demonstration in the associated concurrently proposed attainment demonstration. The rule specifies emissions limits for each flare during authorized MSS activities, for the specified number of days and corresponding emission range. The emission limit ranges with the associated number of days allowed for each flare are 1) the Northeast Flare (EPN 14NEASTFLR) can emit SO<sub>2</sub> in the following ranges: 25.01 lb/hr or more but less than 250.01 lb/hr for no more than four calendar days each year; 250.01 lb/hr or more but less than 500.01 lb/hr for no more than six calendar days each year; and 500.01 lb/hr or more but less than 1,500.01 lb/hr for no more than two calendar days each year; 2) the Crude Flare (EPN 02CRUDEFLR) can emit SO<sub>2</sub> in the following ranges: 51.81 lb/hr or more but less than 250.01 lb/hr for no more than 14 calendar days each year, and can operate in the range of 250.01 lb/hr or more but less than 750.01 lb/hr for no more than three calendar days each year; 3) the Reformer Flare (EPN 05REFMFLR) can emit SO<sub>2</sub> in the following ranges: 103.71 lb/hr or more but less than 250.01 lb/hr for no more than four calendar days each year, and can operate in the range of 250.01 lb/hr or more but less than 750.01 lb/hr for no more than five calendar days each year; and 4) the South Flare (EPN 16SOUTHFLR) can emit SO<sub>2</sub> in the following ranges: 118.71 lb/hr or more but less than 250.01 lb/hr for no more than four calendar days each year, can operate in the range of 250.01 lb/hr or more but less than 500.01 lb/hr for no more than 12 calendar days each year, and can operate in the range of 500.01 lb/hr or more but less

than 1,696.01 lb/hr for no more than two calendar days each year. For each source, there is also a prohibition on emissions above the highest emission rate in the final range because attainment demonstration modeling shows that emissions above these levels may contribute to an exceedance of the 2010 SO<sub>2</sub> NAAQS. In the case that emissions fall within more than one range in different hours of a day, the allowable number of days per year would be based on the highest emission rate of the day.

These MSS emission rate range limits and allowable number of days were tested in the Monte Carlo demonstration by identifying the possible combinations of emission occurrences and conducting 2.5 million modeling runs to demonstrate that these potential MSS scenarios would not create an exceedance of the 2010 one-hour SO<sub>2</sub> NAAQS. The above alternative emissions and associated duration limits for MSS scenarios begin just above the routine emission limit and increase sequentially through the maximum limit. Each alternative emission limit allows for emissions within the specified range for the specified number of calendar days, with a provision for each flare that if emissions within different ranges occur during a calendar day, only the highest emission rate is used to determine the emission rate range that applies for that day. The range applicable to a specific day is based on the maximum hourly rate during that day, with the highest emission rate applying.

The commission proposes in new §112.102(h) and (i) to limit SRU Incinerator 1 (EPN 69TGINC) to 17.03 lb/hr SO<sub>2</sub> and limit SRU Incinerator 2 (EPN 71TGINC) to 12.78 lb/hr SO<sub>2</sub>.

Proposed new \$112.102(j) allows the owner or operator to request an alternative SO<sub>2</sub> emission limit. The owner or operator must conduct and submit dispersion modeling and analysis that includes the requested new limit and all the inputs in the most recent attainment demonstration SIP. Any deviations from the modeling methodology used in the most recent attainment demonstration must be explained and approved by the executive director of the TCEQ and the EPA. The modeling and additional analyses must confirm the modeled regulatory design value in the nonattainment area will not increase due to the new limit. The request must also include any additional monitoring, testing, and recordkeeping requirements necessary to demonstrate compliance with the requested new limit. The owner or operator would only be allowed to comply with the alternative limit if the request is approved by both the TCEQ and the EPA. The commission solicits comments on whether an additional mechanism to request alternative SO<sub>2</sub> emission limits, similar to the alternate means of control (AMOC) provisions 30 TAC Chapter 115, Subchapter J, Division 1, would be appropriate to include in Subchapter F. AMOC provisions in Chapter 112 could be used to establish an intraplant trading program that would allow for an increase in the emission limit at one emission point in exchange for an equal or greater decrease in emission limits at one or more EPNs at the same site. Comments regarding such a program should address the enforceability of any changes made under the program, monitoring, recordkeeping, reporting, and testing requirements, modeling to ensure NAAQS protectiveness, TCEQ and EPA review procedures, and public participation.

## §112.103, Monitoring Requirements

The commission proposes new §112.103 to specify the monitoring required for each affected source identified as subject to these rules in §112.100. The proposed monitoring requirements are necessary to demonstrate that the control requirements in §112.102 for that source are met. Proposed new §112.103 provides the monitoring requirements for sources at the Big Spring Refinery. Proposed new §112.103(1) requires a CEMS unit must be used, calibrated, and maintained for the FCCU in compliance with federal regulations to record emissions at least every 15 minutes so that a block one-hour average can be calculated from the data. Proposed new §112.103(2) requires determining each flare's inlet stream flow rate and total sulfur concentration according to 40 Code of Federal Regulations (CFR) §60.107a(e) monitoring procedures and specifications. Proposed new §112.103(3) requires the use, calibration, and maintenance of CEMS units for the SRU incinerators to record emissions at least every 15 minutes so that a block one-hour average can be calculated from the data. Proposed new §112.103(4) requires the use of an appropriate quality assurance and quality control (QA/QC) process to validate continuous monitoring data for at least 95% of the time the monitored emissions point has emissions; use of an appropriate data substitution process, which is the most accurate method available, must be used to obtain all missing or invalidated monitoring data for the emission point.

#### *§112.104, Testing Requirements*

The commission proposes new §112.104 to specify the testing required for fuels, raw

materials, and each source identified as subject to these rules in §112.100 to comply with the monitoring requirements in proposed new §112.103. Proposed new §112.104 provides the testing requirements for sources at the Big Spring Refinery, including performance tests on sources subject to Division 1. Proposed new §112.104(1) requires performing relative accuracy tests per federal requirements for CEMS at the refinery. Proposed new §112.104(2) requires flow rate and sulfur monitoring instrumentation for flares to undergo the initial operational and calibration tests in accordance with the manufacturer's specifications, so measurement data could be relied upon to produce an accurate compliance demonstration by the deadline required in §112.108. Proposed new §112.104(3) requires that additional performance testing be conducted according to federal requirements if requested by the executive director.

## §112.105, Approved Test Methods

The commission proposes new §112.105 to specify the test methods required to comply with the testing requirements in proposed new §112.104. The test methods relate to the testing requirements in proposed new §112.104. Proposed new §112.105(a) requires that the EPA Test Methods in 40 CFR Part 60, Appendices A-1 through A-8 and Appendix B be used except as provided in 40 CFR §60.8(b).

Proposed new §112.105(b) specifies the test methods to be used for testing the sulfur content of fuels. Proposed new §112.105(c) provides the test method for testing the sulfur content in exhaust gases at the Big Spring Refinery. Proposed new §112.105(d) allows the use of alternate methods after approval by the executive director and the

EPA. This provision is intended to also allow the approval of minor changes to the cited methods.

## §112.106, Recordkeeping Requirements

The commission proposes new §112.106 to specify the records required to be maintained. Records are required to be kept for a minimum of five years. The records include all monitoring (including CEMS) data and sampling data (including sulfur content), the methods and calculations used to demonstrate compliance, documentation of any SO<sub>2</sub> exceedances, including root cause analyses, and the report submitted for these, and copies of required emission test data and records.

## §112.107, Reporting Requirements

The commission proposes new §112.107(a) to specify the reporting required for each source covered by the rules. The required reports cover any exceedances of SO<sub>2</sub> emission limits and deviations from required stack parameters and must be submitted to the agency no later than March 31 of the year following the exceedance. The reports must include each occurrence date, an explanation of the exceedance and noncompliance with any required stack parameter, a statement of whether the exceedance or stack parameter noncompliance occurred during an authorized MSS activity for or malfunction of the emitting facility or its control system, the actions taken in response to the exceedance or stack parameter noncompliance and the cause(s), and a certification of the accuracy and completeness of the report. A report is required regardless of whether the exceedance occurred from planned or unplanned

events or during startup or shutdown and is also subject to the requirements of 30 TAC §101.211. If a reportable quantity (i.e., 500 pounds or more) of SO<sub>2</sub> is released, the provisions of §101.211 also apply, as do the reporting requirements for emission events in §101.201 if the criteria therein are met. The reporting deadline of March 31 is intended to provide enough time for sites to determine the root cause of each exceedance to include in the report required by this section.

Proposed new §112.107(b) requires the owner or operator to submit results of emissions testing for determining compliance with the emission standards of SO<sub>2</sub> specified in proposed new §112.102(c)(1) to the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction within 60 days after testing is complete and not later than the compliance schedule specified in §112.108.

The commission proposes new §112.107(c) as contingency measures if the EPA determines that the Howard County SO<sub>2</sub> nonattainment area does not achieve attainment on or after the attainment date. If the EPA makes such a determination, the TCEQ will notify the owner or operator of each company (including successors if appropriate) of the determination and that these contingency measures are triggered. The owner or operator of each company must conduct a full system audit of all their sources covered in Division 1 and send a report of the results to the TCEQ executive director within 90 days of the notification from the TCEQ. The audit must include at a minimum a root cause analysis of the cause(s) of the failure to attain, including for the days that monitored exceedances occurred, a review of the hourly mass emissions

from each  $SO_2$  source, the wind speed and direction at the monitor with the NAAQS exceedance, and any exceptional events that may have occurred. The provisions are included in the Reporting Requirements section of the rules because a report on the full system audit must be submitted to the executive director.

## §112.108, Compliance Schedules

The commission proposes new §112.108 to specify the date by which each source in §112.100 is required to comply with the requirements of Division 1.

## DIVISION 2: REQUIREMENTS FOR THE TOKAI BIG SPRING CARBON BLACK PLANT §112.110, Applicability

For sources in the Tokai Big Spring Carbon Black Plant that had contributions greater than the SIL, the emission rates are specified as an overall emissions cap, a cap for the two dryer stacks and individual limits for the incinerator, flare, and one of the dryer stacks. To ensure that the overall emissions cap at the Tokai Big Spring Carbon Black Plant will continue to model attainment, the TCEQ modeled a total of 192 operating scenarios accounting for different loads and operating conditions. In addition, for the situation where one or more of the Big Spring Refinery's flares are intermittently in authorized MSS activities, multiple iterations of each of the 192 operating scenarios for the Tokai Big Spring Carbon Black Plant were conducted using a Monte Carlo simulation statistical approach. A Monte Carlo simulation is a statistical technique used to estimate possible outcomes from uncertain events by repeatedly calculating an outcome, in this case the modeled design value, by randomly selecting from a set of

possible scenarios, in this case emission rates for sources in the nonattainment area, for each calculation. The emission rates included in the proposed rule modeled attainment under all 192 scenarios across a number of Monte Carlo simulations. Additional information regarding the modeling analysis and determination of the proposed emission rates that demonstrate attainment is available in the concurrently proposed SIP revision for Howard County.

## *§112.111, Definitions*

The commission proposes new §112.111 to define seven terms used in Division 2. The commission proposes new §112.111(1) to define block one-hour average which is used in the Tokai Big Spring Carbon Black Plant requirements. Proposed new §112.111(2) defines the Howard County SO<sub>2</sub> nonattainment area. Proposed new §112.111(3) defines off-line for carbon black oil furnaces. Proposed new §112.111(4) defines on-line for carbon black oil furnaces as not off-line. The commission proposes new §112.111(5) to define pipeline quality natural gas. The commission proposes new §112.111(6) to define production unit as a combination of equipment used in the manufacture of carbon black at the Tokai Big Spring Carbon Black Plant because the term is used in the proposed rules only for that site, with distinction made between the production units associated with each EPN defined in this rule. Proposed new §112.111(7) defines tail gas for carbon black plants.

#### *§112.112, Control Requirements*

The commission proposes new §112.112 to specify the control requirements for

sources (designated through the relevant EPN) that were specified in §112.110. The emission rates established in the section are the rates that modeling shows demonstrate attainment in the concurrently proposed SIP revision for Howard County.

Proposed new §112.112(a) prohibits an owner or operator or any person acting for them from contravening the control requirements specified in these rules by changing the RN or EPN designation of any source without prior approval by the agency and the EPA. This prohibition is needed because the proposed rules specify the requirements for a site based on the RN and for existing individual sources or groups of sources based on their EPN designation in a specific version of the NSR permit, so the designations must remain the same unless changes are approved by the commission and the EPA.

Proposed new §112.112(b) provides the emission limits for sources at the Tokai Big Spring Carbon Black Plant, which has three carbon black production units: Production Unit 1 consists of five furnaces and three dryers; Production Unit 2 consists of four furnaces and two dryers; and Production Unit 3 consists of four furnaces and two dryers. Emissions of SO<sub>2</sub> associated with Production Units 1 and 2 vent through EPN 7A, EPN 13A, or EPN FLARE 4. Emissions of SO<sub>2</sub> associated with Production Unit 3 vent through EPNs12A, EPN 13A, or EPN FLARE 4. Emissions of SO<sub>2</sub> from all dryers associated with Production Units 1 and 2 vent through EPN 7A. Emissions of SO<sub>2</sub> from all dryers associated with Production Unit 3 vent through EPN 12A. The table in proposed new §112.112(b) provides emission limits for sources at maximum load and at reduced loads and includes overall emissions caps for all sources that can combust tail gas at the Tokai Big Spring Carbon Black Plant (carbon black dryers, Incinerator + HRSG, and flares) as well as emission limits for the two dryer stacks combined (EPN 7A and EPN 12A), emission limits for one individual dryer stack (EPN 12A), and emission limits for the incinerator or flare (EPN 13A). At the carbon black plant, operation at reduced loads is achieved by taking one or more furnaces off-line, which results in reduced dispersion of emissions and requires lower emission rates and associated stack parameters which could also result in less dispersion. Reduced dispersion results in the SO<sub>2</sub> emissions remaining lower in the atmosphere. To ensure attainment can be demonstrated under all operating

conditions, the reduced load operating scenarios were also modeled.

Proposed new §112.112(c) ensures that if the number of furnaces online during any one-hour period changes, the most conservative emission limit will apply during the entire one-hour block period of time, because it requires the fewest number of operating furnaces be used to calculate the applicable reduction coefficient for use in determining the applicable emission limit.

The commission proposes new §112.112(d) to specify that the determination of the maximum emission rate for each EPN for each operational scenario is based on a block one-hour average. The commission proposes new §112.112(e) to prohibit the combustion of tail gas in any source or control device at the carbon black plant for

which an allowable SO<sub>2</sub> emission rate is not specified because tail gas is high in sulfur compounds and was not represented in the modeling for other sources. Proposed new §112.112(f) prohibits the use of both the Incinerator + HRSG and Flare 4 during any block one-hour period and proposed new §112.112(g) prohibits the use of Flare 1, Flare 2, or Flare 3 after the compliance date.

The commission proposes new §112.112(h) to specify that the new flare, if authorized, must be designated as EPN FLARE 4, must be constructed at a specific location, and must have a stack height of at least 60.35 meters, consistent with modeled parameters. Proposed new §112.112(i) specifies that the Incinerator + HRSG must have a stack height of at least 65.00 meters, which is higher than the stack currently in place. The attainment demonstration modeling showed that dispersion based on these stack heights was needed to avoid exceeding the NAAQS.

Proposed new §112.112(j) allows the owner or operator to request an alternative SO<sub>2</sub> emission limit. The owner or operator must conduct and submit dispersion modeling and analysis that includes the requested new limit and all the inputs in the most recent attainment demonstration SIP. Any deviations from the modeling methodology used in the most recent attainment demonstration must be explained and approved by the executive director of the TCEQ and the EPA Regional. The modeling and additional analyses must confirm the modeled regulatory design value in the nonattainment area will not increase due to the new limit. The request must also include any additional monitoring, testing, and recordkeeping requirements necessary to demonstrate

compliance with the requested new limit. The owner or operator would only be allowed to comply with the alternative limit if the request is approved by both the TCEQ and the EPA. The commission solicits comments on whether an additional mechanism to request alternative SO<sub>2</sub> emission limits, similar to the alternate means of control (AMOC) provisions 30 TAC Chapter 115, Subchapter J, Division 1, would be appropriate to include in Subchapter F. AMOC provisions in Chapter 112 could be used to establish an intraplant trading program that would allow for an increase in the emission limit at one emission point in exchange for an equal or greater decrease in emission limits at one or more EPNs at the same site. Comments regarding such a program should address the enforceability of any changes made under the program, monitoring, recordkeeping, reporting, and testing requirements, modeling to ensure NAAQS protectiveness, TCEQ and EPA review procedures, and public participation.

## §112.113, Monitoring Requirements

Proposed new equation in §112.113(a) allows calculation of emissions from an individual production unit; and the proposed new equation in §112.113(b) is used to estimate actual emissions rates from each EPN subject to an emission limit under §112.112.

Proposed new §112.113(c) requires the installation, use, calibration, and maintenance of totalizing fuel flow meters for carbon black oil entering each production unit. Proposed new §112.113(d) requires the installation, use, calibration, and maintenance of totalizing fuel flow meters for tail gas for all combustion facilities or control devices using this fuel. Proposed new §112.113(e) requires the use of a continuous monitoring and data acquisition system to continuously measure, calculate, and record the volumetric flow rate of tail gas to Incinerator + HRSG and Flare 4 (EPNs 13A and Flare 4) and to each carbon black dryer associated with EPN 7A and EPN 12A; the total volumetric tail gas flow to all carbon black dryers and to all combustion devices; and the ratios of flows to the dryers versus the total tail gas flow rate. The ratios are used to establish the split coefficients applied to emissions from the production units to estimate the emissions from each stack. The commission proposes §112.113(f) to require that the continuous data acquisition system be installed, calibrated, maintained, and operated in accordance with manufacturer's recommended procedures.

The commission proposes new §112.113(g) to require daily measurement of the sulfur content of carbon black oil feedstock fed to each of the carbon black production units. Proposed new §112.113(h) requires daily measurement of the sulfur content by weight of each grade of carbon black produced from each carbon black production unit. Proposed new §112.113(i) requires the determination of the amount of each grade of carbon black produced in each production unit for each hour. The term "determine" was used instead of "measure" because this number may be calculated from other parameters as opposed to being directly measured as it may be difficult to measure hourly production rates. Proposed new §112.113(j) requires the use of an appropriate QA/QC process to validate continuous monitoring data for at least 95% of the time the monitored emissions point has emissions; use of an appropriate data substitution

process, which is the most accurate method available, must be used to obtain all missing or invalidated monitoring data for the emissions point.

## *§112.114, Testing Requirements*

The commission proposes new §112.114(a) to require initial demonstration of compliance testing for sources combusting tail gas, except for flares, and proposed new §112.114(b) requires that this testing be done using the test methods in proposed new §112.115. The only flare that will be operational after the compliance date is not required to undergo performance testing because the waste stream to the flare is the same as the stream to the Incinerator + HRSG, which will be tested. Combusting the stream in the flare as opposed to the incinerator + HRSG is not expected to significantly impact the SO<sub>2</sub> emission rate. Proposed new §112.114(c) specifies that for stack tests the source must be operated as close to its maximum rated capacity as practicable. Proposed new §112.114(d) requires that additional performance testing be done if requested by the executive director using specified federal methods and criteria and the test methods in proposed new §112.115.

## §112.115, Approved Test Methods

The commission proposes new §112.115 to specify the test methods required to comply with the testing requirements in proposed new §112.114. The test methods relate to the testing requirements in proposed new §112.114. Proposed new §112.115(a) requires that the EPA Test Methods in 40 CFR Part 60, Appendices A-1 through A-8 and Appendix B be used except as provided in 40 CFR §60.8(b).

Proposed new §112.115(b) specifies the test methods to be used for testing the sulfur content of fuels and carbon black oil. Because no specific test methods for carbon black oil were identified, the American Society for Testing and Materials (ASTM) test methods for fuels are specified for this material. The commission requests comment on the appropriateness of these methods for these materials or of alternate methods specific to carbon black oil. Proposed new §112.115(c) provides the test method for testing the sulfur content of carbon black product. Proposed new §112.115(d) provides the test method for determining the sulfur content in exhaust gases at the Tokai Big Spring Carbon Black Plant. Proposed new §112.115(e) allows the use of alternate methods after approval by the executive director and the EPA. This provision is intended to also allow the approval of minor changes to the cited methods.

## §112.116, Recordkeeping Requirements

The commission proposes new §112.116 to specify the records required to be maintained for at least five years at the Tokai Big Spring Carbon Black Plant. Proposed new §112.116(1) requires records by production unit of the production rates (as lb/hr) of the different grades of carbon black by each production unit. Proposed new §112.116(2) requires daily records of the sulfur content by weight of the carbon black oil feedstock. Proposed new §112.116(3) requires daily records of the sulfur content by weight of each grade of carbon black produced by each production unit. Proposed new §112.116(4) requires continuous records of flow rates of the carbon black oil feedstock to each production unit. Proposed new §112.116(5) requires continuous records of

volumetric flow rates to each tail gas combustion device. Proposed new §112.116(6) requires for each one-hour block of operation of each production unit records of each furnace that operated, the applicable emission limits, and the mass balance calculations for each EPN, including the relevant factors used in the calculations. Proposed new §112.116(7) requires maintaining records of all exceedances of emission limits and standards in the rules and copies of the exceedance reports filed under §112.117. Proposed new §112.116(8) requires maintaining records of all required emissions test data and records.

## §112.117, Reporting Requirements

The commission proposes new §112.117(a) to specify the reporting required for each source covered by the rules. The required reports cover any exceedances of SO<sub>2</sub> emission limits and deviations from required stack parameters; must be submitted to the agency no later than March 31 of the year following the exceedance; and must include each occurrence date, an explanation of the exceedance and noncompliance with any required stack parameter, a statement of whether the exceedance or stack parameter noncompliance occurred during an authorized MSS activity for or malfunction of the emitting facility or its control system, the actions taken in response to the exceedance or stack parameter noncompliance and the cause(s), and a certification of the accuracy and completeness of the report. A report is required regardless of whether the exceedance occurred from planned or unplanned events or during startup or shutdown and is also subject to the requirements of 30 TAC §101.211. If a reportable quantity (i.e., 500 pounds or more) of SO<sub>2</sub> is released, the

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provisions of §101.211 also apply, as do the reporting requirements for emission events in §101.201 if the criteria therein are met. The reporting deadline of March 31 is intended to provide enough time for sites to determine the root cause of each exceedance to include in the report required by this section.

Proposed new §112.117(b) requires the owner or operator to submit results of emissions testing for determining compliance with the emission standards of SO<sub>2</sub> specified in proposed new §112.112(b) to the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction within 60 days after testing is complete and not later than the compliance schedule specified in §112.118.

The commission proposes new §112.117(c) as contingency measures if the EPA determines that the Howard County SO<sub>2</sub> nonattainment area does not achieve attainment on or after the attainment date. If the EPA makes such a determination, the TCEQ will notify the owner or operator of each company (including successors if appropriate) of the determination and that these contingency measures are triggered. The owner or operator of each company must conduct a full system audit of all their sources covered in this division and send a report of the results to the TCEQ executive director within 90 days of the notification from the TCEQ. The audit must include at a minimum a root cause analysis of the cause(s) of the failure to attain, including for the days that monitored exceedances occurred, a review of the hourly mass emissions from each SO<sub>2</sub> source, the wind speed and direction at the monitor with the NAAQS exceedance, and any exceptional events that may have occurred. The provisions are

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included in the Reporting Requirements section of the rules because a report on the full system audit must be submitted to the executive director.

## §112.118, Compliance Schedules

The commission proposes new §112.118 to specify the date by which each source in §112.110 are required to comply with the requirements of Division 2.

## SUBCHAPTER F, REQUIREMENTS IN THE HUTCHINSON COUNTY NONATTAINMENT AREA

Division 1, Requirements for the Chevron Phillips Chemical Borger Plant

## §112.200, Applicability

The commission proposes new §112.200 to specify that the new rules apply to sources at the CP Chem Borger Plant (RN102320850) whose emissions the agency has determined contribute to potential exceedances of the 2010 SO<sub>2</sub> NAAQS based on modeling conducted for the concurrently proposed SIP revisions discussed elsewhere in this preamble. The proposed rule provisions in new Division 1 are site-specific and specified by the current name and RN of the site. The proposed rules are also EPN specific and specified by the current names of affected existing sources and their EPNs as documented in a specified version of the NSR permit or the name and EPN used in attainment demonstration modeling for sources to be authorized and constructed. The proposed requirements will continue to apply regardless of any changes of ownership, control, or documentation of the affected sources.

The TCEQ conducted attainment demonstration modeling for sources in the Hutchinson County nonattainment area using the emission rates (during normal operations and, when applicable, during authorized MSS activity) from the NSR permit for each site or lower emission rates if needed to demonstrate attainment and emission rates provided by the company for sources to be constructed. As discussed elsewhere in this preamble, the owners and operators of the five sites in the Hutchinson County SO<sub>2</sub> nonattainment area committed to lowering emission rates. The lower emission rates were the rates used in the attainment demonstration modeling, which also used stack parameters supplied for each emissions point. Modeling was conducted to determine which specific emissions points would have emissions that contribute greater than the SIL of 3 ppb (i.e., 7.85 micrograms per cubic meter) to the modeled design value concentrations in the Hutchinson County SO<sub>2</sub> nonattainment area. If the emissions point had a contribution to the modeled design value that was less than the SIL, it is not included in the rules. If the emission point had a contribution to the modeled design value that was greater than the SIL, its emission rates are specified in the rules. When modeled collectively with all emissions sources in the nonattainment area, the emission rates specified in the rule resulted in modeled design values below the NAAQS.

#### §112.201, Definitions

The commission proposes new \$112.201 to define three terms used in Division 1. The commission proposes new \$112.201(1) to define block one-hour average. Proposed new \$112.201(2) defines the Hutchinson County SO<sub>2</sub> nonattainment area. Proposed

new §112.201(3) defines pipeline quality natural gas.

#### §112.202, Control Requirements

Proposed new §112.202(a) prohibits the owner or operator of the CP Chem Borger Plant from contravening the control requirements by changing the EPN designation of any emissions point without prior approval by the agency and the EPA. This prohibition is needed because the proposed rules specify the requirements for existing individual facilities or control devices or groups of facilities and control devices based on their EPN designation in a specific version of the Maximum Allowable Emission Rate Table (MAERT), so the designations must remain the same unless changes are approved by the commission and the EPA.

Proposed new §112.202(b) provides the emission limits for the two sulfolene handling areas. Although the fugitive emissions for sulfolene areas are authorized under the single EPN (F-M2A) in NSR permit 21918, the two areas where the emissions originate were modeled separately and have separate emission rates when modeling attainment. Proposed new §112.202(b)(1) limits the sulfolene building and the trailer in its vicinity (EPN F-M2A\_1 in the modeling) to 1.00 lb/hr SO<sub>2</sub>. Proposed new §112.202(b)(2) limits the trailers in parking area (EPN F-M2A\_2 in the modeling) to 0.98 lb/hr SO<sub>2</sub>. Proposed new §112.202(c) limits the North Flare (EPN FL-1) and South Flare (EPN FL-2) to a combined total of 430.00 lb/hr.

Proposed new §112.202(d) allows the owner or operator to request an alternative SO<sub>2</sub>

emission limit. The owner or operator must conduct and submit dispersion modeling and analysis that includes the requested new limit and all the inputs in the most recent attainment demonstration SIP. Any deviations from the modeling methodology used in the most recent attainment demonstration must be explained and approved by the executive director of the TCEQ and the EPA. The modeling and additional analyses must confirm the modeled regulatory design value in the nonattainment area will not increase due to the new limit. The request must also include any additional monitoring, testing, and recordkeeping requirements necessary to demonstrate compliance with the requested new limit. The owner or operator would only be allowed to comply with the alternative limit if the request is approved by both the TCEQ and the EPA. The commission solicits comments on whether an additional mechanism to request alternative SO<sub>2</sub> emission limits, similar to the alternate means of control (AMOC) provisions 30 TAC Chapter 115, Subchapter J, Division 1, would be appropriate to include in Subchapter F. AMOC provisions in Chapter 112 could be used to establish an intraplant trading program that would allow for an increase in the emission limit at one emission point in exchange for an equal or greater decrease in emission limits at one or more EPNs at the same site. Comments regarding such a program should address the enforceability of any changes made under the program, monitoring, recordkeeping, reporting, and testing requirements, modeling to ensure NAAQS protectiveness, TCEQ and EPA review procedures, and public participation.

## §112.203, Monitoring Requirements

Proposed new §112.203(a) requires the owner or operator of the CP Chem Borger Plant to monitor each hour the temperature inside of trailers on site that contain sulfolene,

which decomposes when exposed to heat and is stored in trailers on site prior to transport. The proposed limits are based on new testing conducted at specific temperatures, the limit on temperature improves the ability of the new test to predict actual emissions. The temperature inside the trailers may affect compliance, but there is not a concern for the sulfolene building because it is climate controlled. Significant deviations above the test temperature may require further investigation and action to avoid impact to the attainment demonstration modeling from emissions from the sulfolene handing areas above the emission rate that was modeled.

New proposed §112.203(b) requires the company to monitor separately the sulfur content of gases routed to the North and South Flares (EPN FL-1 and EPN FL-2). The monitors are specified to be analyzers sufficient to quantify hydrogen sulfide at a level of 1 part per million by volume (ppmv). The commission requests public comment on whether the level of accuracy and downtime is appropriate for a monitor for this function. New proposed §112.203(c) requires the company to monitor separately the volumetric flow rate of gases routed to the North and South Flares. The gas flow monitors are required to be totalizing gas flow meters with an accuracy of  $\pm 5\%$  that are installed, maintained, calibrated, and operated per the manufacturer's specifications. The commission requests public comment on whether the level of accuracy and downtime is appropriate for a monitor for this function. This data from the monitoring in subsections (b) and (c) allow determination of the SO<sub>2</sub> emissions from the flares. Proposed new §112.203(d) requires the use of an appropriate QA/QC process to validate continuous monitoring data for at least 95% of the time the monitored

emissions point has emissions; use of an appropriate data substitution process, which is the most accurate method available, must be used to obtain all missing or invalidated monitoring data for the emissions point.

There are not specific testing requirements for the CP Chem Borger Plant, and therefore no specific test methods. To maintain consistency in the numbering in the divisions within the proposed new rules, the corresponding sections are skipped in Division 1.

## §112.206, Recordkeeping Requirements

The commission proposes new §112.206 to specify the records required to be maintained. All records are required to be maintained for at least five years. Proposed new §112.206(1) requires that the CP Chem Borger Plant maintain hourly records of the temperature inside each trailer that contains sulfolene, whether the trailer is located near the sulfolene building (modeled as F-M2A\_1) or in the trailer parking area (modeled as F-M2A\_2), and the amount of sulfolene stored in each trailer. For attainment demonstration modeling, the company represented that one trailer is at the sulfolene building and four trailers are in the trailer parking area. The monitoring of temperatures is sufficient to indicate if the maximum temperature of 125 degrees Fahrenheit used in the company's testing is consistent with the maximum temperature that occurs in the trailers containing sulfolene. The company did the testing to establish the emission rates for the sulfolene handling areas that were used in the attainment demonstration modeling to determine the emission rates included in the

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Proposed new §112.206(2) requires that the company maintain records of the sulfur content and flow rates of gases sent to the flares as well as the periods of time that each flare was in use. The records of the sulfur content and flow rates of gases sent to the flares and the periods of time that each flare was in use are sufficient to document compliance with the emission limits for each control device.

# §112.207, Reporting Requirements

The commission proposes new §112.207(a) to specify the reporting to TCEQ Region 1 required for the CP Chem Borger Plant if an affected emissions point exceeds an applicable emission limit or fails to meet a required stack parameter. The reports are due by March 31 of the year following the year in which the exceedance occurs. The reports are required to include at a minimum the date of and an explanation of each exceedance and noncompliance with any required stack parameter, whether the exceedance or stack parameter noncompliance was concurrent with an authorized MSS activity for or a malfunction of the source or control device, the actions taken by the owner or operator to address the exceedance or stack parameter noncompliance and the cause(s), and a certification that the information provided is accurate. A report is required regardless of whether the exceedance occurred from planned or unplanned events or during startup or shutdown. If a reportable quantity (500 pounds or more) of SO<sub>2</sub> is released, the provisions of §101.211 also apply, as do the reporting requirements for emission events in §101.201 if the criteria therein are met. The

reporting deadline of March 31 is intended to provide enough time for sites to determine the root cause of each exceedance to include in the report required by this section.

Proposed new §112.207(b) requires the owner or operator of the CP Chem Borger Plant in Hutchinson County to file the exceedance report in paragraph (a) annually and to include the hourly monitoring of temperatures inside the trailers containing sulfolene, highlighting any periods when the temperature exceeded 125 degrees Fahrenheit. This information will alert TCEQ staff of a possible problem with the testing used to establish the emission rates used in the attainment demonstration modeling.

The commission proposes new §112.207(c) as contingency measures if the EPA determines that the Hutchinson County SO<sub>2</sub> nonattainment area does not achieve attainment on or after the attainment date. If the EPA makes such a determination, the TCEQ will notify the owner or operator of each company (including successors if appropriate) of the determination and that these contingency measures are triggered. The owner or operator of each company must conduct a full system audit of all their sources covered in Division 1 and send a report of the results to the TCEQ executive director within 90 days of the notification from the TCEQ. The audit must include at a minimum a root cause analysis of the cause(s) of the failure to attain, including for the days that monitored exceedances occurred, a review of the hourly mass emissions from each SO<sub>2</sub> source, the wind speed and direction at the monitor with the NAAQS exceedance, and any exceptional events that may have occurred. The provisions are

included in the Reporting Requirements section of the rules because a report on the full system audit must be submitted to the executive director.

# §112.208, Compliance Schedule

The commission proposes new §112.208 to specify the date by which each source identified in §112.200 is required to comply with the requirements of Division 1.

# DIVISION 2, REQUIREMENTS FOR THE IACX ROCK CREEK GAS PLANT

# §112.210, Applicability

The commission proposes new §112.210 to specify that the new rules apply to sources at the IACX Rock Creek Gas Plant whose emissions the agency has determined contribute to the potential exceedances of the 2010 SO<sub>2</sub> NAAQS based on modeling conducted for the concurrently proposed SIP revisions discussed elsewhere in this preamble. The proposed rule provisions in new Division 2 are site-specific and specified by the current name and RN of the site. The proposed rules are also EPN specific and specified by the current names of affected existing sources and their EPNs as documented in a specified version of the NSR permit or the name and EPN used in attainment demonstration modeling for sources to be authorized and\_constructed. The proposed requirements will continue to apply regardless of any changes of ownership, control, or documentation of the affected sources.

The TCEQ conducted attainment demonstration modeling for sources in the Hutchinson County nonattainment area using the emission rates (during normal

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operations and, when applicable, during authorized MSS activities) from the NSR permit for each site or lower emission rates if needed to demonstrate attainment and emission rates provided by the company for sources to be constructed. As discussed elsewhere in this preamble, the owners and operators of the five sites in the Hutchinson County SO<sub>2</sub> nonattainment area committed to lowering emission rates. The lower emission rates were the rates used in the attainment demonstration modeling, which also used stack parameters supplied for each emissions point. Modeling was conducted to determine which specific emissions points would have emissions that contribute greater than the SIL of 3 ppb (i.e., 7.85 micrograms per cubic meter) to the modeled design value concentrations in the Hutchinson County SO<sub>2</sub> nonattainment area. If the emissions point had a contribution to the modeled design value that was less than the SIL, it is not included in the rules. If the emissions point had a contribution to the modeled design value that was greater than the SIL, its emission rates are specified in the rules. When modeled collectively with all emissions sources in the nonattainment area, the emission rates specified in the rule resulted in modeled design values below the NAAQS.

## *§112.211*, *Definitions*

The commission proposes new §112.211 to define three terms used in Division 2. The commission proposes new §112.211(1) to define block one-hour average. Proposed new §112.211(2) defines the Hutchinson County  $SO_2$  nonattainment area. Proposed new §112.211(3) defines pipeline quality natural gas.

## §112.212, Control Requirements

Proposed new §112.212(a) prohibits the owner or operator of the IACX Rock Creek Gas Plant from contravening the control requirements by changing the EPN designation of any emissions point without prior approval by the agency and the EPA. This prohibition is needed because the proposed rules specify the requirements for existing individual facilities or control devices or groups of facilities and control devices based on their EPN designation in a specific version of the MAERT, so the designations must remain the same unless changes are approved by the commission and the EPA.

Proposed new §112.212(b) prohibits operating the acid gas flare and incinerator at the same time. Emission limits are proposed for the acid gas flare (EPN FLR1) in §112.212(c) as 140.00 lb/hr and the acid gas incinerator (EPN INCIN1) in §112.212(d) as 140.00 lb/hr.

Proposed new §112.212(e) allows the owner or operator to request an alternative SO<sub>2</sub> emission limit. The owner or operator must conduct and submit dispersion modeling and analysis that includes the requested new limit and all the inputs in the most recent attainment demonstration SIP. Any deviations from the modeling methodology used in the most recent attainment demonstration must be explained and approved by the executive director of the TCEQ and the EPA. The modeling and any additional analyses must confirm the modeled regulatory design value in the nonattainment area will not increase due to the new limit. The request must also include any additional monitoring, testing, and recordkeeping requirements necessary to demonstrate

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compliance with the requested new limit. The owner or operator would only be allowed to comply with the alternative limit if the request is approved by both the TCEQ and the EPA. The commission solicits comments on whether an additional mechanism to request alternative SO<sub>2</sub> emission limits, similar to the alternate means of control (AMOC) provisions 30 TAC Chapter 115, Subchapter J, Division 1, would be appropriate to include in Subchapter F. AMOC provisions in Chapter 112 could be used to establish an intraplant trading program that would allow for an increase in the emission limit at one emission point in exchange for an equal or greater decrease in emission limits at one or more EPNs at the same site. Comments regarding such a program should address the enforceability of any changes made under the program, monitoring, recordkeeping, reporting, and testing requirements, modeling to ensure NAAQS protectiveness, TCEQ and EPA review procedures, and public participation.

# §112.213, Monitoring Requirements

Proposed new §112.213(1) and (2) require the owner or operator of the IACX Rock Creek Gas Plant (RN100216613) to continuously monitor and record the hydrogen sulfide content and flow rate of gases routed to the acid gas incinerator or acid gas flare, which cannot be used at the same time. Based on the company's request to avoid the need for duplicate monitors, the monitoring is required to occur prior to the point where the piping splits to lead to each control device. The monitor is specified to be an analyzer sufficient to quantify hydrogen sulfide at a level of 1 ppmv. The gas flow monitor is required to be a totalizing gas flow meter with an accuracy of  $\pm 5\%$  that is installed, maintained, and calibrated per the manufacturer's specifications. Proposed new §112.213(3) requires the use of an appropriate QA/QC process to validate

continuous monitoring data for at least 95% of the time the monitored emissions point has emissions; use of an appropriate data substitution process, which is the most accurate method available, must be used to obtain all missing or invalidated monitoring data for the emissions point.

There are no specific testing requirements for the IACX Rock Creek Gas Plant, and therefore no specific test methods. To maintain consistency in the numbering in the divisions within the proposed new rules, the corresponding sections are skipped in Division 2.

# §112.216, Recordkeeping Requirements

The commission proposes new §112.216 to specify the records required to be maintained. All records are required to be maintained for at least five years. Proposed new §112.216 requires that the IACX Rock Creek Gas Plant maintain records of the continuous monitoring of sulfur content and flow rates of gases sent to the acid gas incinerator and flare and of which control device was in use. These records are sufficient to document compliance with the emission limits for each control device.

## §112.217, Reporting Requirements

The commission proposes new §112.217(a) to specify the reporting to TCEQ Region 1 required from the owner or operator of the IACX Rock Creek Gas Plant if an affected emissions point exceeds an applicable emission limit or fails to meet a required stack parameter. The reports are due by March 31 of the year following the year in which the

exceedance occurs. The reports are required to include at a minimum the date of and an explanation of each exceedance and noncompliance with any required stack parameter, whether the exceedance or stack parameter noncompliance was concurrent with an authorized MSS activity for or a malfunction of the source or control device, the actions taken by the owner or operator to address the exceedance or stack parameter noncompliance and the cause(s), and a certification that the information provided is accurate. A report is required regardless of whether the exceedance occurred from planned or unplanned events or during startup or shutdown. If a reportable quantity (500 pounds or more) of SO<sub>2</sub> is released, the provisions of §101.211 also apply, as do the reporting requirements for emission events in §101.201 if the criteria therein are met. The reporting deadline of March 31 is intended to provide enough time for sites to determine the root cause of each exceedance to include in the report required by this section.

The commission proposes new §112.217(b) as contingency measures if the EPA determines that the Hutchinson County SO<sub>2</sub> nonattainment area does not achieve attainment on or after the attainment date. If the EPA makes such a determination, the TCEQ will notify the owner or operator of each company (including successors if appropriate) of the determination and that these contingency measures are triggered. The owner or operator of each company must conduct a full system audit of all their sources covered in this division and send a report of the results to the TCEQ executive director within 90 days of the notification from the TCEQ. The audit must include at a minimum a root cause analysis of the cause(s) of the failure to attain, including for the

days that monitored exceedances occurred, a review of the hourly mass emissions from each SO<sub>2</sub> source, the wind speed and direction at the monitor with the NAAQS exceedance, and any exceptional events that may have occurred. The provisions are included in the Reporting Requirements section of the rules because a report on the full system audit must be submitted to the executive director.

## §112.218, Compliance Schedule

The commission proposes new §112.218 to specify the date by which each source identified in §112.210 is required to comply with the requirements of Division 2.

# DIVISION 3, REQUIREMENTS FOR THE ORION BORGER CARBON BLACK PLANT §112.220, Applicability

The commission proposes new §112.220 to specify that the new rules apply to sources at the Orion Borger Carbon Black Plant (RN100209659) whose emissions the agency has determined contribute to the potential exceedances of the 2010 SO<sub>2</sub> NAAQS based on modeling conducted for the concurrently proposed SIP revisions discussed elsewhere in this preamble. The proposed rule provisions in new Division 3 are sitespecific and specified by the current name and RN of the site. The proposed rules are also EPN specific and specified by the current names of affected existing sources and their EPNs as documented in a specified version of the NSR permit or the name and EPN used in attainment demonstration modeling for sources to be authorized and constructed. The proposed requirements will continue to apply regardless of any changes of ownership, control, or documentation of the affected sources.

The TCEQ conducted attainment demonstration modeling for sources in the Hutchinson County nonattainment area using the emission rates (during normal operations and, when applicable, during authorized MSS activities) from the NSR

operations and, when applicable, during authorized MSS activities) from the NSR permit for each site or lower emission rates if needed to demonstrate attainment and emission rates provided by the company for sources to be constructed. As discussed elsewhere in this preamble, the owners and operators of the five sites in the Hutchinson County SO<sub>2</sub> nonattainment area committed to lowering emission rates. The lower emission rates were the rates used in the attainment demonstration modeling, which also used stack parameters supplied for each emissions point. Modeling was conducted to determine which specific emissions points would have emissions that contribute greater than the SIL of 3 ppb (i.e., 7.85 micrograms per cubic meter) to the modeled design value concentrations in the Hutchinson County SO<sub>2</sub> nonattainment area. If the emissions point had a contribution to the modeled design value that was less than the SIL, it is not included in the rules. If the emissions point had a contribution to the modeled design value that was greater than the SIL, its emission rates are specified in the rules. When modeled collectively with all emissions sources in the nonattainment area, the emission rates specified in the rule resulted in modeled design values below the NAAQS.

#### *§112.221, Definitions*

The commission proposes new §112.221 to define five terms used in Division 3. The commission proposes new §112.221(1) to define block one-hour average. Proposed

new §112.221(2) defines the Hutchinson County SO<sub>2</sub> nonattainment area. Proposed new §112.221(3) defines pipeline quality natural gas, which is used throughout proposed new rules. Proposed new §112.221(4) defines production unit, which is used throughout the provisions for the two carbon black plants. Proposed new §112.111(5) defines tail gas, which is used throughout the provisions for the carbon black plant.

#### §112.222, Control Requirements

Proposed new §112.222(a) prohibits the owner or operator of the Orion Borger Carbon Black Plant from contravening the control requirements by changing the EPN designation of any emissions point without prior approval by the agency and the EPA. This prohibition is needed because the proposed rules specify the requirements for existing individual facilities or control devices or groups of facilities and control devices based on their EPN designation in a specific version of the MAERT, so the designations must remain the same unless changes are approved by the commission and the EPA.

Proposed new §112.222(b) provides SO<sub>2</sub> emission limits on a block one-hour average for the Waste Heat Boiler – CDS Stack (EPN E-6BN) at 144.11 lb/hr and the new Combined Flare (EPN CFL) at 750.05 lb/hr. Proposed new §112.222(c) prohibits combusting tail gas in any source without an emission rate in subsection (b). The Orion Borger Carbon Black Plant's consent decree with the EPA limits flares to periods when the Waste Heat Boiler - CDS Stack is not in operation. Upon the compliance date of the proposed rules, the use of the Unit 1 Reactor/Flare (EPN E-10FL), Unit 2 Reactor/Flare (EPN-20FL), and Unit 4 Reactor/Flare (EPN E-40FL) are prohibited by proposed new §112.222(d). In addition, proposed new §112.222(e) prohibits flaring after the compliance date in proposed new §112.228 if the new Combined Flare is not authorized and constructed. If authorized and constructed, the Combined Flare would be required to be used in place of the other three flares under proposed new §112.222(f)(1). Proposed new §112.222(f)(2) specifies that the Combined Flare is prohibited from operating when the Waste Heat Boiler – CDS Stack is operating. Proposed new §112.222(f)(3) specifies a minimum stack height of 65.00 meters for the Combined Flare and the specific location where it must be located.

Proposed new §112.222(g) allows the owner or operator to request an alternative SO<sub>2</sub> emission limit. The owner or operator must conduct and submit dispersion modeling and analysis that includes the requested new limit and all the inputs in the most recent attainment demonstration SIP. Any deviations from the modeling methodology used in the most recent attainment demonstration must be explained and approved by the executive director of the TCEQ and the EPA. The modeling must confirm the modeled regulatory design value in the nonattainment area will not increase due to the new limit. The request also needs to include any additional monitoring, testing, and recordkeeping requirements necessary to demonstrate compliance with the requested new limit. The owner or operator would only be allowed to comply with the alternative limit if the request is approved by both the TCEQ and the EPA. The commission solicits comments on whether an additional mechanism to request alternative SO<sub>2</sub> emission limits, similar to the alternate means of control (AMOC) provisions 30 TAC

Chapter 115, Subchapter J, Division 1, would be appropriate to include in Subchapter F. AMOC provisions in Chapter 112 could be used to establish an intraplant trading program that would allow for an increase in the emission limit at one emission point in exchange for an equal or greater decrease in emission limits at one or more EPNs at the same site. Comments regarding such a program should address the enforceability of any changes made under the program, monitoring, recordkeeping, reporting, and testing requirements, modeling to ensure NAAQS protectiveness, TCEQ and EPA review procedures, and public participation.

# §112.223, Monitoring Requirements

Proposed new §112.223(a) provides the monitoring requirements for sources at the Orion Borger Carbon Black Plant. The commission proposes new §112.223(1) to require the use of a CEMS for the Waste Heat Boiler – CDS Stack, as required under the Orion Borger Carbon Black Plant's consent decree with the EPA, which must be operated in accordance with specified federal requirements in 40 CFR Part 60. Proposed §112.223(b) requires the collection of data to be used to perform calculations to determine the amount of carbon black emitted from the flare when the flare is in operation. The mass balance need only be performed on days the flare is in use because the only other stack the sulfur could be emitted from is the Waste Heat Boiler – CDS Stack which has a CEMS to monitor emissions. Proposed new §112.223(b)(1) requires daily monitoring of the sulfur content by weight of carbon black oil feedstock. Proposed new §112.223(b)(2) requires daily measurements of the sulfur content of each grade of carbon black produced by each carbon black production unit. Proposed new §112.223(b)(3) requires hourly measurements of the amount of each grade of

carbon black produced by each carbon black production unit. Proposed new §112.223(c) requires the installation, calibration, and maintenance of a totalizing fuel flow meter for each carbon black furnace to continuously measure the feed rate of carbon black oil within an accuracy of 5%. Proposed new §112.223(d) requires the installation, calibration, and maintenance of a totalizing tail gas flow meter for each carbon black combustion device to continuously measure the flow of tail gas within an accuracy of 5%. Proposed new \$112.223(e) requires the use of an appropriate QA/QC process to validate continuous monitoring data for at least 95% of the time the monitored emissions point has emissions; use of an appropriate data substitution process, which is the most accurate method available, must be used to obtain all missing or invalidated monitoring data for the emissions point. Proposed new §112.223(f) requires demonstrating compliance for the new Combined Flare (EPN CFL) by calculating actual hourly emissions via the mass balance equation in §112.223(h). Proposed new §112.223(g) requires calculating emissions from the affected EPNs for each operational scenario as a block one-hour average. Proposed new §112.223(h) provides the equation for calculating SO<sub>2</sub> emissions from each production unit.

## *§112.224, Testing Requirements*

The commission proposes new §112.224 to specify the testing required for fuels, raw materials, produced carbon black and monitoring equipment used measure sulfur content of exhaust gas or the sulfur content at the inlet of the flares for sources at the Orion Borger Carbon Black Plant. Proposed new §112.224(a) requires that any performance testing be conducted with the facility operating as near as practicable to

its maximum rated capacity. Proposed new §112.224(b) requires that any stack tested requested by the executive director be conducted using test methods in §112.225. Proposed new §112.224(c) specifies that when analysis of carbon black, carbon black oil, and fuels is required by this division, the test methods in proposed new §112.225 must be used.

#### §112.225, Approved Test Methods

The commission proposes new §112.225 to specify the test methods required to comply with the testing requirements in proposed new §112.224. Proposed new §112.225(a) requires that the EPA Test Methods in 40 CFR Part 60, Appendices A-1 through A-8 and Appendix B be used for stack testing required for the Orion Borger Carbon Black Plant unless an alternate test method is approved by the EPA. Proposed new §112.225(b) specifies that testing of exhaust gases subject to Division 3 must be done using EPA Test Method 6 or 6C. Proposed new §112.225(c) specifies the test methods to be used for analyzing fuels and carbon black oil for sulfur content. Proposed new §112.225(e) specifies the test method for carbon black at both carbon black plants. Proposed new §112.225(f) allows the use of alternate methods after approval by the executive director and the EPA.

#### §112.226, Recordkeeping Requirements

The commission proposes new §112.226 to specify the records required to be maintained by the Orion Borger Carbon Black Plant. All records are required to be

maintained for at least five years. Proposed new §112.226(1) requires records of the amounts (in units of lb/hr) of each grade of carbon black produced by each production unit. Proposed new §112.226(2) requires daily records of the sulfur content by weight of the carbon black oil feedstock. Proposed new §112.226(3) requires daily records of the sulfur content by weight of each grade of carbon black produced by each production unit. Proposed new §112.226(4) requires continuous records of carbon black oil flow rates to each production unit. Proposed new §112.226(5) requires

continuous records of tail gas volumetric flow rates to each combustion device covered by proposed new §112.222. Proposed new §112.226(6) requires hourly records of each carbon black furnace on-line during a block one-hour period and of the mass balance calculations for each source operating without a CEMS. Proposed new §112.226(7) requires records of the continuous emissions monitoring data from each CEMS. Proposed new §112.226(8) requires copies of required emissions test data and records be maintained.

# §112.227, Reporting Requirements

The commission proposes new §112.227(a) to specify the reporting to TCEQ Region 1 required from the Orion Borger Carbon Black Plant if an affected emissions point exceeds an applicable emission limit or fails to meet a required stack parameter. The reports are due by March 31 of the year following the year in which the exceedance occurs. The reports are required to include at a minimum the date of and an explanation of each exceedance and noncompliance with any required stack parameter, whether the exceedance or stack parameter noncompliance was concurrent with an

authorized MSS activity for or a malfunction of the source or control device, the actions taken by the owner or operator to address the exceedance or stack parameter noncompliance and the cause(s), and a certification that the information provided is accurate. A report is required regardless of whether the exceedance occurred from planned or unplanned events or during startup or shutdown. If a reportable quantity (500 pounds or more) of SO<sub>2</sub> is released, the provisions of §101.211 also apply, as do the reporting requirements for emission events in §101.201 if the criteria therein are met. The reporting deadline of March 31 is intended to provide enough time for sites to determine the root cause of each exceedance to include in the report required by this section.

Proposed new §112.227(b) requires the owner or operator of the Orion Borger Carbon Black Plant to submit within 60 days of testing the results of emissions testing for determining compliance with the emission standards of SO<sub>2</sub> to the TCEQ Office of Compliance and Enforcement, the appropriate TCEQ regional office, and any local air pollution control agency having jurisdiction.

The commission proposes new §112.227(c) as contingency measures if the EPA determines that the Hutchinson County SO<sub>2</sub> nonattainment area does not achieve attainment on or after the attainment date. If the EPA makes such a determination, the TCEQ will notify the owner or operator of each company (including successors if appropriate) of the determination and that these contingency measures are triggered. The owner or operator of each company must conduct a full system audit of all their

sources covered in this division and send a report of the results to the TCEQ executive director within 90 days of the notification from the TCEQ. The audit must include at a minimum a root cause analysis of the cause(s) of the failure to attain, including for the days that monitored exceedances occurred, a review of the hourly mass emissions from each SO<sub>2</sub> source, the wind speed and direction at the monitor with the NAAQS exceedance, and any exceptional events that may have occurred. The provisions are included in the Reporting Requirements section of the rules because a report on the full system audit must be submitted to the executive director.

## §112.228, Compliance Schedule

The commission proposes new §112.228 to specify the date by which each source identified in §112.220 is required to comply with the requirements of Division 3.

#### DIVISION 4, REQUIREMENTS FOR THE PHILLIPS 66 REFINERY

### §112.230, Applicability

The commission proposes new §112.230 to specify that the new rules apply to sources at the Phillips 66 Refinery whose emissions the agency has determined contribute to potential exceedances of the 2010 SO<sub>2</sub> NAAQS based on modeling conducted for the concurrently proposed SIP revisions discussed elsewhere in this preamble. The proposed rule provisions in new Division 4 are site-specific and specified by the current name and RN of the site. The proposed rules are also EPN specific and specified by the current names of affected existing sources and their EPNs as documented in a specified version of the NSR permit or the name and EPN used in

attainment demonstration modeling for sources to be authorized and constructed. The proposed requirements will continue to apply regardless of any changes of ownership, control, or documentation of the affected sources.

The TCEO conducted attainment demonstration modeling for sources in the Hutchinson County nonattainment area using the emission rates (during normal operations and, when applicable, during authorized MSS activities) from the NSR permit for each site or lower emission rates if needed to demonstrate attainment and emission rates provided by the company for sources to be constructed. As discussed elsewhere in this preamble, the owners and operators of the five sites in the Hutchinson County SO<sub>2</sub> nonattainment area committed to lowering emission rates. The lower emission rates were the rates used in the attainment demonstration modeling, which also used stack parameters supplied for each emissions point. Modeling was conducted to determine which specific emissions points would have emissions that contribute greater than the SIL of 3 ppb (i.e., 7.85 micrograms per cubic meter) to the modeled design value concentrations in the Hutchinson County SO<sub>2</sub> nonattainment area. If the emissions point had a contribution to the modeled design value that was less than the SIL, it is not included in the rules. If the emissions point had a contribution to the modeled design value that was greater than the SIL, its emission rates are specified in the rules. When modeled collectively with all emissions sources in the nonattainment area, the emission rates specified in the rule resulted in modeled design values below the NAAQS.

## *§112.231, Definitions*

The commission proposes new §112.231 to define three terms used in Division 4. The commission proposes new §112.231(1) to define block one-hour average. Proposed new §112.231(2) defines the Hutchinson County SO<sub>2</sub> nonattainment area. Proposed new §112.231(3) defines pipeline quality natural gas, which is used throughout proposed new rules.

## §112.232, Control Requirements

Proposed new §112.232(a) prohibits the owner or operator of the Phillips 66 Refinery from contravening the control requirements by changing the EPN designation of any emissions point without prior approval by the agency and the EPA. This prohibition is needed because the proposed rules specify the requirements for existing individual facilities or control devices or groups of facilities and control devices based on their EPN designation in a specific version of the NSR Permit, so the designations must remain the same unless changes are approved by the commission and the EPA.

Proposed new §112.232(b) limits EPN 34I1 (SRU Incinerator) emissions to 44.82 pounds lb/hr SO<sub>2</sub> during normal operations. Proposed new §112.232(c) limits EPN 43I1 (SCOT Unit Incinerator) emissions to 37.00 lb/hr SO<sub>2</sub> during normal operations. Proposed new §112.232(d) prohibits simultaneous operation of EPN 34I1 and EPN 43I1 during authorized MSS activities and limits the combined emissions from these units to 94.00 lb/hr during authorized MSS activities. Proposed new §112.232(e) specifies a sulfur content limit of 162 ppmv as hydrogen sulfide for fuel and waste gases sent to any

flare. Proposed new §112.232(f) provides emissions caps for four flares of 100.14 lb/hr during routine operations and 850.00 lb/hr during authorized MSS activities; these caps were represented in the attainment demonstration modeling as EPN FLARE\_R\_CAP and EPN FLARE\_MS\_CAP, respectively. Proposed new §112.232(g) provides an emissions cap for one flare (EPN 66FL13), the two SRU incinerators (EPN 34I1 and 43I1), and 44 EPNs for small sources (engines, heaters, and boilers) of 185.69 lb/hr during routine operations; this emissions cap was represented in the attainment demonstration modeling as EPN Flex\_R\_CAP. Proposed new §112.232(h) provides an emissions cap for the same flare and 44 EPNs for small facilities (but not the SRU incinerators) of 106.05 lb/hr during authorized MSS activities; this emissions cap was represented in the attainment demonstration modeling as EPN Flex\_MS\_CAP.

In proposed new §112.232(i)(1) and (2), respectively, the emission limit for the FCCU (EPN 29P1) is set at 155.49 lb/hr for routine operations and during authorized MSS activities when the exhaust flow rate is at least 210.922.60 actual cubic meters per hour (am<sup>3</sup>/hr). In §112.232(1)(3), an emission limit of 140.00 lb/hr is provided for authorized MSS activities when the flow rate is greater than or equal to 158,191.95 am<sup>3</sup>/hr and less than 210,922.60 am<sup>3</sup>/hr. In §112.232(i)(4), an emission limit of 130.00 lb/hr is provided for authorized MSS activities when the flow rate is greater than or equal to 105,461.30 am<sup>3</sup>/hr and less than 158,191.95 am<sup>3</sup>/hr. In proposed new §112.232(i)(5), exhaust flow rates below 105,461.30 am<sup>3</sup>/hr are prohibited.

In proposed new §112.232(j)(1) and (2), respectively, the emission limit for the FCCU

(EPN 40P1) is set at 155.49 lb/hr for routine operations and during authorized MSS activities when the exhaust flow rate is at least 298,242.71 am<sup>3</sup>/hr. In proposed new §112.232(j)(3), an emission limit of 140.00 lb/hr is provided for authorized MSS activities when the flow rate is greater than or equal to 223,682.03 am<sup>3</sup>/hr and less than 298,242.71 am<sup>3</sup>/hr. In proposed new §112.232(j)(4), an emission limit of 130.00 lb/hr is provided for authorized MSS activities when the flow rate is greater than or equal to 149,121.36 am<sup>3</sup>/hr and less than 223,682.03 am<sup>3</sup>/hr. In proposed new §112.232(b)(6)(E), exhaust flow rates below 149,121.36 am<sup>3</sup>/hr are prohibited.

Proposed new §112.232(k) requires the emission limits in this section be calculated on a block one-hour average basis. Proposed new §112.232(l) allows the owner or operator to request an alternative SO<sub>2</sub> emission limit. The owner or operator must conduct and submit dispersion modeling and analysis that includes the requested new limit and all the inputs in the most recent attainment demonstration SIP. Any deviations used in the modeling methodology from the most recent attainment demonstration must be explained and approved by the executive director of the TCEQ and the EPA. The modeling and additional analyses must confirm the modeled regulatory design value in the nonattainment area will not increase due to the new limit. The request also needs to include any additional monitoring, testing, and recordkeeping requirements necessary to demonstrate compliance with the requested new limit. The owner or operator would only be allowed to comply with the alternative limit if the request is approved by both the TCEQ and the EPA. The commission solicits comments on whether an additional mechanism to request alternative SO<sub>2</sub> emission limits, similar to the alternate means of control (AMOC) provisions 30 TAC Chapter 115, Subchapter J, Division 1, would be appropriate to include in Subchapter F. AMOC provisions in Chapter 112 could be used to establish an intraplant trading program that would allow for an increase in the emission limit at one emission point in exchange for an equal or greater decrease in emission limits at one or more EPNs at the same site. Comments regarding such a program should address the enforceability of any changes made under the program, monitoring, recordkeeping, reporting, and testing requirements, modeling to ensure NAAQS protectiveness, TCEQ and EPA review procedures, and public participation.

## §112.233, Monitoring Requirements

Proposed new §112.233 provides the monitoring requirements for sources at the P66 Borger Refinery, including but not limited to two FCCUs, two SRU Incinerators, and flares. Proposed new §112.233(a) and (b) require CEMS units for the FCCUs and SRU incinerators, respectively, along with the federal requirements for 40 CFR Part 60 Subpart Ja that apply to the CEMS units. In addition to all four CEMS recording hourly SO<sub>2</sub> emissions, the FCCU CEMS units are required to record the exhaust gas flow rates to monitor the different emission rate levels in §112.232(i) and (j); consistent with the emission rates, the flow rates are to be recorded as block one-hour averages. Proposed new §112.233(c) requires determining each of the five flares' inlet stream flow rate and total sulfur concentration according to 40 CFR §60.107a(e) monitoring procedures and specifications. Proposed new §112.233(d) requires continuous monitoring of the flow rate and sulfur content of fuels, waste gases, and other materials routed to each of the combustion units included in either or both of the emission rate caps in proposed new

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§112.230(6) and (7) and designated as Flex\_R\_CAP and Flex\_MS\_CAP in the attainment demonstration modeling. Proposed new §112.233(e) requires the use of an appropriate QA/QC process to validate continuous monitoring data for at least 95% of the time the monitored emissions point has emissions; use of an appropriate data substitution process, which is the most accurate method available, must be used to obtain all missing or invalidated monitoring data for the emissions point.

# §112.234, Testing Requirements

Proposed new §112.234 provides the testing and related notification requirements for sources at the P66 Borger Refinery. Proposed new §112.234(a) specifies the relative accuracy tests for the CEMS units required for monitoring in proposed new §112.233 must be conducted using the federal provisions and schedules in 40 CFR §105a(g)(2) for CEMS on the FCCU and in §60.106a(1)(iii) for CEMS on the SRUs. Proposed new §112.234(b) requires performing initial testing of monitoring devices for combustion units and flares in accordance with the manufacturer's specifications so that the monitors are calibrated and function properly by the compliance date. Proposed new §112.234(c) requires that any additional performance testing requested by the executive director be conducted according to specified federal requirements in 40 CFR §104a and using the test methods in §112.235; the paragraph also specifies that the notification requirements in 40 CFR §60.8(d) apply to all performance tests except those conducted for continuous monitoring system maintenance or calibrations. Proposed new §112.234(d) specifies that when analysis of fuels is required by this division, the test methods in proposed new §112.235 must be used.

## §112.235, Approved Test Methods

The commission proposes new §112.235 to specify the test methods required to comply with the testing requirements in proposed new §112.234. Proposed new §112.235(a) requires that the EPA Test Methods in 40 CFR Part 60, Appendices A-1 through A-8 and Appendix B be used for stack testing required for the P66 Borger Refinery unless an alternate test method is approved by the EPA. Proposed new §112.235(b) specifies that testing of exhaust gases at any site subject to Division 4 must be done using EPA Test Method 6 or 6C. Proposed new §112.235(c) specifies the test methods to be used for testing flare compliance at the P66 Borger Refinery. Proposed new §112.235(d) specifies the test methods to be used for analyzing fuels for sulfur content. Proposed new §112.235(e) allows the use of alternate methods after approval by the executive director and the EPA.

### §112.236, Recordkeeping Requirements

The commission proposes new §112.236 to specify the records required to be maintained by the P66 Borger Refinery. All records are required to be maintained for at least five years. Proposed new §112.236(1) requires all monitoring data and sampling analyses, including CEMS data for exhaust flow rates and sulfur composition data, used to quantify emissions be maintained. For the two FCCUs during authorized MSS activities, the specific emissions limit based on the flow rate (from §112.232(b)(5) and (6)) for each block one-hour period is also required to be recorded. Proposed new §112.236(2) requires maintaining the methods and calculations used for determining

compliance. Proposed new §112.236(3) requires maintaining documentation of any exceedance and the related reports submitted to the TCEQ. Proposed new §112.236(4) requires maintaining copies of all emission test data and records.

#### *§112.237, Reporting Requirements*

The commission proposes new §112.237(a) to specify the reporting to TCEQ Region 1 required from each site if an affected emissions point exceeds an applicable emission limit or fails to meet a required stack parameter. The reports are due by March 31 of the year following the year in which the exceedance occurs. The reports are required to include at a minimum the date of and an explanation of each exceedance and noncompliance with any required stack parameter, whether the exceedance or stack parameter noncompliance was concurrent with an authorized MSS activity for or a malfunction of the source or control device, the actions taken by the owner or operator to address the exceedance or stack parameter noncompliance and the cause(s), and a certification that the information provided is accurate. A report is required regardless of whether the exceedance occurred from planned or unplanned events or during startup or shutdown. If a reportable quantity (500 pounds or more) of SO<sub>2</sub> is released, the provisions of §101.211 also apply, as do the reporting requirements for emission events in §101.201 if the criteria therein are met. The reporting deadline of March 31 is intended to provide enough time for sites to determine the root cause of each exceedance to include in the report required by this section. Proposed new §112.237(b) requires the owners or operators of the P66 Borger Refinery to submit within 60 days of testing the results of emissions testing for determining compliance with the

emission standards of  $SO_2$  to the TCEQ Office of Compliance and Enforcement, the appropriate TCEQ regional office, and any local air pollution control agency having jurisdiction.

The commission proposes new §112.237(c) as contingency measures if the EPA determines that the Hutchinson County SO<sub>2</sub> nonattainment area does not achieve attainment on or after the attainment date. If the EPA makes such a determination, the TCEQ will notify the owner or operator of each company (including successors if appropriate) of the determination and that these contingency measures are triggered. The owner or operator of each company must conduct a full system audit of all their sources covered in this division and send a report of the results to the TCEQ executive director within 90 days of the notification from the TCEQ. The audit must include at a minimum a root cause analysis of the cause(s) of the failure to attain, including for the days that monitored exceedances occurred, a review of the hourly mass emissions from each SO<sub>2</sub> source, the wind speed and direction at the monitor with the NAAQS exceedance, and any exceptional events that may have occurred. The provisions are included in the Reporting Requirements section of the rules because a report on the full system audit must be submitted to the executive director.

#### §112.238, Compliance Schedule

The commission proposes new §112.238 to specify the date by which each source identified in §112.230 is required to comply with the requirements of Division 4.

#### DIVISION 5, REQUIREMENTS FOR THE TOKAI BORGER CARBON BLACK PLANT

#### §112.240, Applicability

The commission proposes new §112.240 to specify that the new rules apply to sources at the Tokai Borger Carbon Black Plant whose emissions the agency has determined contribute to potential exceedances of the 2010 SO<sub>2</sub> NAAQS based on modeling conducted for the concurrently proposed SIP revisions discussed elsewhere in this preamble. The proposed rule provisions in new Division 5 are site-specific and specified by the current name and RN of the site. The proposed rules are also EPN specific and specified by the current names of affected existing sources and their EPNs as documented in a specified version of the NSR permit or the name and EPN used in attainment demonstration modeling for sources to be authorized and\_constructed. The proposed requirements will continue to apply regardless of any changes of ownership, control, or documentation of the affected sources.

The TCEQ conducted attainment demonstration modeling for sources in the Hutchinson County nonattainment area using the emission rates (during normal operations and, when applicable, during authorized MSS activities) from the NSR permit for each site or lower emission rates if needed to demonstrate attainment and emission rates provided by the company for sources to be constructed. As discussed elsewhere in this preamble, the owners and operators of the five sites in the Hutchinson County SO<sub>2</sub> nonattainment area committed to lowering emission rates. The lower emission rates were the rates used in the attainment demonstration modeling, which also used stack parameters supplied for each emissions point. Modeling was

conducted to determine which specific emissions points would have emissions that contribute greater than the SIL of 3 ppb (i.e., 7.85 micrograms per cubic meter) to the modeled design value concentrations in the Hutchinson County SO<sub>2</sub> nonattainment area. If the emissions point had a contribution to the modeled design value that was less than the SIL, it is not included in the rules. If the emissions point had a contribution to the modeled design value that was greater than the SIL, its emission rates are specified in the rules. When modeled collectively with all emissions sources in the nonattainment area, the emission rates specified in the rule resulted in modeled design values below the NAAQS.

# §112.241, Definitions

The commission proposes new §112.241 to define five terms used in Division 5. The commission proposes new §112.241(1) to define block one-hour average. Proposed new §112.241(2) defines the Hutchinson County SO<sub>2</sub> nonattainment area. Proposed new §112.241(3) defines pipeline quality natural gas, which is used throughout proposed new rules. Proposed new §112.241(4) defines production unit, which is used throughout the provisions for the two carbon black plants. Proposed new §112.241(5) defines tail gas, which is used throughout the provisions for the two carbon black plants.

# §112.242, Control Requirements

Proposed new §112.242(a) prohibits an owner or operator of the Tokai Borger Carbon Black Plant from contravening the control requirements by changing the RN or EPN

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designation of any emissions point without prior approval by the agency and the EPA. This prohibition is needed because the proposed rules specify the requirements for existing individual facilities or control devices or groups of facilities and control devices based on their EPN designation in a specific version of the MAERT, so the designations must remain the same unless changes are approved by the commission and the EPA.

Proposed new §112.242(b) provides SO<sub>2</sub> emission limits during normal operations on a block one-hour average for the Boiler Stacks, Boiler 1 and 2 Common Stack (EPN 119) of 109.10 lb/hr; the Plant 1 Dryer Stack (EPN 121) of 441.40 lb/hr; and the Plant 2 Dryer Stack (EPN 122) of 595.60 lb/hr. If the new flare is not authorized and constructed, proposed new §112.242(c) provides SO<sub>2</sub> emission limits on a block one-hour average when both Boilers 1 and 2 are not operating for the Plant 1, Unit 1 Primary Bag Filter Flare (EPN Flare-1) of 420.00 lb/hr; the Plant 1 Dryer Stack (EPN 121) of 250.00 lb/hr; the Plant 2 Dryer Stack (EPN 122) of 400.00 lb/hr; and specifies that there can be no SO<sub>2</sub> emissions from the Boiler Stacks, Boiler, and 2 Common Stack (EPN 119) during this period. If the new flare (EPN New-Flare) is authorized, constructed, and operated, proposed new §112.242(d) provides SO<sub>2</sub> emission limits on a block one-hour average when both Boilers 1 and 2 are not operating for the new flare (EPN New-Flare) of 806.60 lb/hr; the Plant 1 Dryer Stack (EPN 121) of 272.50 lb/hr; the Plant 2 Dryer Stack (EPN 122) of 436.00 lb/hr; and specifies that there can be no SO<sub>2</sub> emissions from the Specifies that there can be no SO<sub>2</sub> emissions from the Plant 1 Dryer Stack (EPN 122) of 272.50 lb/hr; the Plant 2 Dryer Stack (EPN 122) of 436.00 lb/hr; and specifies that there can be no SO<sub>2</sub> emissions from the Specifies that there can be no SO<sub>2</sub> emissions from the Plant 1 Dryer Stack (EPN 122) of 272.50 lb/hr; the Plant 2 Dryer Stack (EPN 122) of 436.00 lb/hr; and specifies that there can be no SO<sub>2</sub> emissions from the Boiler Stacks, Boiler 1 and 2 Common Stack (EPN 119) during this period.

Proposed new §112.242(e) prohibits sources not included in proposed new §112.242(b) - (d) from combusting tail gas. If the new flare (EPN New-Flare) is not authorized and constructed, proposed new §112.242(f) prohibits the use of three current flares for the carbon black reactors (EPNs Flare-2, Flare-3, and Flare-4) after the compliance date in proposed new §112.248, which would only allow the use of current Flare 1 (EPN Flare-1). Proposed new §112.242(g) prohibits the use of all four flares for the carbon black reactors (EPNs Flare-1, Flare-2, Flare-3, and Flare-4) after the compliance date in proposed new §112.248 if the new flare (EPN New-Flare) is authorized, constructed, and operated. Proposed new §112.242(h) prohibits the use of the Plant 1 Number 1 and Number 2 Dryer Purge Stack (EPN 1) and Plant 1 Number 3 and Number 4 Dryer Purge stack (EPN 3) after the compliance date in proposed new §112.248. The company agreed to no longer have  $SO_2$  emissions from the two purge stacks (EPN 1 and EPN 3). Proposed new §112.242(i) specifies that if the new flare (EPN New-Flare) is authorized and constructed, it must be used in place of the four existing flares (EPNs Flare-1, Flare-2, Flare-3, and Flare-4), may only receive tail gas when both Boilers 1 and 2 are not operating, and is required to have a stack height of at least 60.35 meters and be at a specific location. Proposed new §112.242(j) specifies that if the new flare (EPN New-Flare) is not authorized, constructed, and operated, the Plant 1, Unit 1 Primary Bag Filter Flare (EPN Flare-1) may only receive tail gas when both Boilers 1 and 2 are not operating.

Proposed new §112.242(k) allows the owner or operator to request an alternative SO<sub>2</sub> emission limit. The owner or operator must conduct and submit dispersion modeling

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and analysis that includes the requested new limit and all the inputs in the most recent attainment demonstration SIP. Any deviations from the modeling methodology used in the most recent attainment demonstration must be explained and approved by the executive director of the TCEQ and the EPA. The modeling and additional analyses must confirm the modeled regulatory design value in the nonattainment area will not increase due to the new limit. The request also needs to include any additional monitoring, testing, and recordkeeping requirements necessary to demonstrate compliance with the requested new limit. The owner or operator would only be allowed to comply with the alternative limit if the request is approved by both the TCEQ and the EPA. The commission solicits comments on whether an additional mechanism to request alternative SO<sub>2</sub> emission limits, similar to the alternate means of control (AMOC) provisions 30 TAC Chapter 115, Subchapter J, Division 1, would be appropriate to include in Subchapter F. AMOC provisions in Chapter 112 could be used to establish an intraplant trading program that would allow for an increase in the emission limit at one emission point in exchange for an equal or greater decrease in emission limits at one or more EPNs at the same site. Comments regarding such a program should address the enforceability of any changes made under the program, monitoring, recordkeeping, reporting, and testing requirements, modeling to ensure NAAQS protectiveness, TCEQ and EPA review procedures, and public participation. *§112.243, Monitoring Requirements* 

Proposed new §112.243(a) requires the installation, maintenance, and calibration of a CEMS on Boiler Stacks, Boiler 1 and 2 Common Stack (EPN 119) and specifies the applicable federal requirements for the combined stack of the two boilers. To

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determine emissions based on a mass balance for each production unit, proposed new §112.243(b)(1) and (2), respectively, require daily monitoring using the test methods in proposed new §112.245 of the sulfur content by weight of each grade of produced carbon black and daily monitoring using the test methods in proposed new §112.245 of the carbon black oil fed to each production unit. Proposed new §112.243(b)(3) requires hourly measurements of the amount of each grade of carbon black produced by each carbon black production unit.

Proposed new §112.243(c) requires installing, calibrating, maintaining, and operating totalizing fuel flow meters with an accuracy variation of no more than 5% to continuously monitor carbon black oil feed rate to each carbon black production unit. Proposed new §112.243(d) requires installing, calibrating, maintaining, and operating totalizing tail gas flow meters with an accuracy variation of no more than 5% to continuously monitor tail gas feed rate to each facility combusting this fuel. Proposed new §112.243(e) requires the use of an appropriate QA/QC process to validate continuous monitoring data for at least 95% of the time the monitored emissions point has emissions; use of an appropriate data substitution process, which is the most accurate method available, must be used to obtain all missing or invalidated monitoring data for the emissions point.

Proposed new §112.243(f) requires calculation, using the mass balance equation provided in §112.243(j), of total SO<sub>2</sub> emissions from each production unit. If the new flare (EPN New-Flare) is not authorized, constructed, and operated, proposed new

§112.243(g) requires demonstrating compliance for the Plant 1 Dryer Stack (EPN 121), Plant 2 Dryer Stack (EPN 122), and Plant 1, Unit 1 Primary Bag Filter Flare (EPN Flare-1) by calculating the actual hourly emissions of  $SO_2$  by using the mass balance approach in subsection (j) and the ratio of the volumetric flow of tail gas to the boilers (or flare) versus the total volumetric flow of tail gas and the ratio of the total volumetric flow to the dryers versus the total volumetric flow of tail gas. If the new flare (EPN New-Flare) is authorized, constructed, and operated, proposed new §112.243(h) requires demonstration of compliance on an hourly basis for the Plant 1 Dryer Stack (EPN 121), the Plant 2 Dryer Stack (EPN 122), and the Plant 1, Unit 1 Primary Bag Filter Flare (EPN Flare-1) using the mass balance equation provided in proposed new §112.243(j) and the ratios of volumetric flow of tail gas to the boilers (or flare) versus the total volumetric flow of tail gas and the ratio of the total volumetric flow to the dryers versus the total volumetric flow of tail gas. Proposed new §112.243(i) requires demonstration of compliance on an hourly basis (calculated as a block one-hour average) for the emissions points specified in §112.242(b)-(d). Proposed new §112.243(j) provides the mass balance calculation method to be used in the prior paragraphs.

## *§112.244, Testing Requirements*

The commission proposes new §112.244 to specify the testing required for fuels, raw materials, produced carbon black and monitoring equipment used measure sulfur content of exhaust gas or the sulfur content at the inlet of the flares. Proposed new §112.244(a) requires initial compliance demonstration testing by the compliance date

for Boiler Stack, Boiler Stack 1 and 2 Combined Stack (EPN 119), Plant 1 Dryer Stack (EPN 121), and Plant 2 Dryer Stack (EPN 122). Proposed new §112.244(b) requires that the test methods in proposed new §112.245 be used for the initial demonstration of performance testing. Proposed new §112.244(c) requires that stack tests be conducted when operating the facility as close to the maximum rated capacity as practicable.

Proposed new §112.244(d) requires that additional performance be conducted if requested by the executive director using the test methods in §112.245. Proposed new §112.244(d) specifies that when analysis of carbon black, carbon black oil, and fuels is required by this division, the test methods in proposed new §112.245(e) must be used.

# §112.245, Approved Test Methods

The commission proposes new §112.245 to specify the test methods required to comply with the testing requirements in proposed new §112.244. Proposed new §112.245(a) requires that the EPA Test Methods in 40 CFR Part 60, Appendices A-1 through A-8 and Appendix B be used for stack testing required for the Tokai Borger Carbon Black Plant unless an alternate test method is approved by the EPA. Proposed new §112.245(b) specifies that testing of exhaust gases must be done using EPA Test Method 6 or 6C. Proposed new §112.245(c) specifies the test methods to be used for testing flare compliance; although these federal requirements are specific to refineries, the rule makes them applicable to the Tokai Borger Carbon Black Plant as well. Proposed new §112.245(d) specifies the test methods to be used for analyzing fuels and carbon black oil for sulfur content in Division 5. Proposed new §112.245(e) specifies the test method for carbon black at both carbon black plants. Proposed new

§112.245(f) allows the use of alternate methods after approval by the executive director and the EPA.

## §112.246, Recordkeeping Requirements

The commission proposes new §112.246 to specify the records required to be maintained by the Tokai Borger Carbon Black Plant. All records are required to be maintained for at least five years. Proposed new §112.246(1) requires records (in units of lb/hr) of the amount of each grade of produced carbon black from each production unit. Proposed new §112.246(2) requires records of daily sampling of the sulfur content of carbon black oil feed to each production unit. Proposed new §112.246(3) requires records of daily sampling of the sulfur content of carbon black oil feed to each production unit. Proposed new §112.246(3) requires records of daily sampling of the sulfur content of each grade of produced carbon black from each production unit. Proposed new §112.246(4) requires continuous records of the flow rate of carbon black oil to each production unit. Proposed new §112.246(5) requires continuous records of the flow rate of tail gas to each combustion device using this fuel. Proposed new §112.246(6) requires hourly records of which furnace was on-line in a block one-hour period and the mass balance calculations of emissions of SO<sub>2</sub>. Proposed new §112.246(7) requires records of continuous emissions data from SO<sub>2</sub> CEMS units. Proposed new §112.246(8) requires maintaining copies of required emissions test data and records

#### *§112.247, Reporting Requirements*

The commission proposes new §112.247(a) to specify the reporting to TCEQ Region 1 required by the owner or operator of the Tokai Borger Carbon Black Plant if an affected
emissions point exceeds an applicable emission limit or fails to meet a required stack parameter. The reports are due by March 31 of the year following the year in which the exceedance occurs. The reports are required to include at a minimum the date of and an explanation of each exceedance and noncompliance with any required stack parameter, whether the exceedance or stack parameter noncompliance was concurrent with an authorized MSS activity or a malfunction of the source or control device, the actions taken by the owner or operator to address the exceedance or stack parameter noncompliance and the cause(s), and a certification that the information provided is accurate. A report is required regardless of whether the exceedance occurred from planned or unplanned events or during startup or shutdown. If a reportable quantity (500 pounds or more) of SO<sub>2</sub> is released, the provisions of §101.211 also apply, as do the reporting requirements for emission events in §101.201 if the criteria therein are met. The reporting deadline of March 31 is intended to provide enough time for sites to determine the root cause of each exceedance to include in the report required by this section.

Proposed new §112.247(b) requires the owner or operator of the Tokai Borger Carbon Black Plant to submit within 60 days of testing the results of emissions testing for determining compliance with the emission standards of SO<sub>2</sub> to the TCEQ Office of Compliance and Enforcement, the appropriate TCEQ regional office, and any local air pollution control agency having jurisdiction. The commission proposes new §112.247(c) as contingency measures if the EPA determines that the Hutchinson County SO<sub>2</sub> nonattainment area does not achieve attainment on or after the attainment date. If the EPA makes such a determination, the TCEQ will notify the owner or operator of each company (including successors if appropriate) of the determination and that these contingency measures are triggered. The owner or operator of each company must conduct a full system audit of all their sources covered in this division and send a report of the results to the TCEQ executive director within 90 days of the notification from the TCEQ. The audit must include at a minimum a root cause analysis of the cause(s) of the failure to attain, including for the days that monitored exceedances occurred, a review of the hourly mass emissions from each SO<sub>2</sub> source, the wind speed and direction at the monitor with the NAAQS exceedance, and any exceptional events that may have occurred. The provisions are included in the Reporting Requirements section of the rules because a report on the full system audit must be submitted to the executive director.

#### *§112.248, Compliance Schedule*

The commission proposes new §112.248 to specify the date by which each source identified in §112.240 is required to comply with the requirements of this division.

## SUBCHAPTER G, REQUIREMENTS IN THE NAVARRO COUNTY NONATTAINMENT AREA §112.300, Applicability

The commission proposes new §112.300 to establish applicability for the only source in Navarro County to which the new requirements apply, which is the lightweight

aggregate kiln and its control system at the Arcosa Streetman Plant. The NSR Permit 5337 MAERT dated May 29, 2020, designated the emissions point as EPN E3-1; this designation must be maintained in the future regardless of any change to the lightweight aggregate kiln of its control system. Although the rule provisions are site-specific and specified by the current name (including RN) of the site and the affected source (including the EPN in a specified version of the NSR permit), the proposed rule specifies that the requirements will continue to apply regardless of any changes of ownership, control, or documentation of the affected source, unless removal of any requirement is approved by the EPA.

The TCEQ conducted attainment demonstration modeling for the source in the Navarro County SO<sub>2</sub> nonattainment area using emission rates lower than authorized in the NSR permit that were provided by the company and are needed to demonstrate attainment. There is only one emissions point in the Navarro County SO<sub>2</sub> nonattainment area that contributed to nonattainment of the 2010 SO<sub>2</sub> NAAQS, so this was the only emissions point modeled. The company committed to reducing the emission rate sufficiently for air dispersion modeling to demonstrate attainment. The lower emission rates were the rates used in the attainment demonstration modeling, which also used the potential stack parameters provided for the emissions point. Modeling was conducted and determined the emissions from the lightweight aggregate kiln and control system (EPN E3-1) contribute greater than the SIL of 3 ppb to the modeled design value concentrations for the Navarro County SO<sub>2</sub> nonattainment area. To provide flexibility for the company, two different emission rates with

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corresponding stack parameters supplied by the company were utilized in the modeling and both demonstrated attainment. Both of the emission rates are incorporated in the proposed rules as alternative emission limits, along with the restrictions on the associated stack parameters used in the modeling.

#### §112.301, Definitions

The commission proposes new §112.301 to define four terms used in Subchapter G. The commission proposes new §112.301(1) to define lightweight aggregate kiln, which is the only type of facility contributing to nonattainment in the Navarro County nonattainment area. For clarity, the commission proposes new §112.301(2) to define lightweight aggregate material based on a definition from the EPA. Proposed new §112.301(3) defines the Navarro County SO<sub>2</sub> nonattainment area. The commission proposes new §112.301(4) to define pipeline quality natural gas.

#### §112.302, Control Requirements

The commission proposes new §112.302 to specify the control requirements that are required for the lightweight aggregate kiln and any associated control device (EPN E3-1). The proposed rules include only the single emissions point from the kiln, which is currently from the water scrubber for controlling particulate emissions but may change if the company installs an additional control device for SO<sub>2</sub> or makes other changes. Regardless of any changes, the designation of the emissions point must remain EPN E3-1; if additional emissions points are added to the lightweight aggregate kiln or its control system for any reason (such as a bypass), the same requirements

apply to them. The proposed control requirements were determined for potential emissions points based on modeling conducted by the agency. The amount of SO<sub>2</sub> in the exhaust gases from the lightweight aggregate kiln must be controlled with a control device, by limiting the sulfur content of both the fuel combusted and raw materials processed, or by a combination of these methods. The limits apply at all times the lightweight aggregate kiln is operated or otherwise produces exhaust gases containing SO<sub>2</sub>, such that the emission limits in this section are not exceeded during normal operations or during authorized MSS activities.

Proposed new §112.302(a) prohibits the owner or operator from contravening the control requirements by changing the EPN designation of the lightweight aggregate kiln's emission point (EPN E3-1) without prior approval by the agency and the EPA. This prohibition is needed because the proposed rules specify the requirements for the kiln based on its EPN designation in a specific version of the NSR Permit issued on the specified date, so the designation must remain the same unless change is approved by the commission and the EPA.

Proposed new §112.302(b) provides the minimum stack height for the kiln, bypass (if present), or the current water scrubber or any new control device, as well as the required stack location. The company has not determined if control of the sulfur content of input materials (i.e., raw materials and fuels) or a control device will be used, nor has it determined the type of control device to be used if the sulfur content of the input materials is not controlled sufficiently to meet the emission rate

limitations in this section.

Proposed new \$112.302(c) provides the lower emission limit based on the attainment demonstration modeling that is sufficient to model attainment, which is 248.00 lb/hr SO<sub>2</sub> except as otherwise provided in subsection (d). The stack parameters associated with this limit are the minimum exhaust gas temperature of 125 degrees Fahrenheit and the minimum stack velocity of 65 feet per second (ft/s). Proposed new \$112.302(d)provides the emission rate of 283.00 lb/hr SO<sub>2</sub> that models attainment at the higher stack velocity of 66 ft/s and temperature of 150 degrees Fahrenheit included in this subsection. The attainment demonstration modeling showed that the two emission rates in subsections (c) and (d) and their associated stack parameters, which are based on information provided by the company on what might be feasible, are sufficient to model attainment. Proposed new §112.302(e) limits the fuels used in the lightweight aggregate kiln to coal or petroleum coke (with sulfur content monitored as specified in proposed new §112.303), pipeline quality natural gas, or a combination of these fuels. Proposed new §112.302(f) specifies that the sulfur content of all fuel combusted in the kiln cannot exceed 200 lb/hr. Both of these provisions are in the NSR permit for the kiln and are included in the rule and cannot be changed without approval of a revised SIP by the EPA.

Proposed new §112.302(g) allows the owner or operator to request an alternative SO<sub>2</sub> emission limit. The owner or operator must conduct and submit dispersion modeling and analysis that includes the requested new limit and all the inputs in the most recent

attainment demonstration SIP. Any deviations from the modeling methodology used in the most recent attainment demonstration must be explained and approved by the executive director of the TCEQ and the EPA. The modeling and additional analyses must confirm the modeled regulatory design value in the nonattainment area will not increase due to the new limit. The request must also include any additional monitoring, testing, and recordkeeping requirements necessary to demonstrate compliance with the requested new limit. The owner or operator would only be allowed to comply with the alternative limit if the request is approved by both the TCEQ and the EPA. The commission solicits comments on whether an additional mechanism to request alternative SO<sub>2</sub> emission limits, similar to the alternate means of control (AMOC) provisions 30 TAC Chapter 115, Subchapter J, Division 1, would be appropriate to include in Subchapter F. AMOC provisions in Chapter 112 could be used to establish an intraplant trading program that would allow for an increase in the emission limit at one emission point in exchange for an equal or greater decrease in emission limits at one or more EPNs at the same site. Comments regarding such a program should address the enforceability of any changes made under the program, monitoring, recordkeeping, reporting, and testing requirements, modeling to ensure NAAQS protectiveness, TCEQ and EPA review procedures, and public participation.

#### *§112.303, Monitoring Requirements*

Proposed new §112.303 provides the monitoring requirements for the lightweight aggregate kiln and possible control, fuels, and raw materials at the Arcosa Streetman Plant. Proposed new §112.303(1) requires monitoring of the amount of raw materials processed each hour. Proposed new §112.303(2) requires monitoring of the amount of each fuel combusted each hour. Consistent with NSR Permit 5337, proposed new §112.303(3) requires monthly monitoring of the sulfur content of the natural gas used in the kiln. Proposed new §112.303(4) requires weekly monitoring of the average sulfur content of the coal and petroleum coke combusted. Proposed new §112.303(5) requires weekly monitoring of the average sulfur content of the raw materials processed in the kiln. Analyses by fuel providers or unaffiliated providers of raw materials or fuels are allowed in lieu of sulfur content monitoring by the company. Proposed new §112.303(6) requires continuous monitoring of the temperature and velocity of the exhaust gasses at the outlet of the stack because these parameters determine which emission limit applies. Proposed new §112.303(7) requires the use of an appropriate QA/QC process to validate continuous monitoring data for at least 95% of the time the monitored emissions point has emissions; use of an appropriate data substitution process, which is the most accurate method available, must be used to obtain all missing or invalidated monitoring data for the emissions point.

#### *§112.304, Testing Requirements*

The commission proposes new §112.304 to specify the testing required for fuels, raw materials, and the exhaust vent to comply with the monitoring requirements in proposed new §112.303. Because the changes to the control or operation of the lightweight aggregate kiln affects the emissions of SO<sub>2</sub>, proposed new §112.304(a) requires the owner or operator to stack test by the compliance date in proposed new §112.308, unless testing under §112.304(b) has been conducted. Proposed new

§112.304(b) requires stack testing within 60 days of installing a control device or any operational change to the kiln; this testing is required after the effective date of the rule so that it is required for changes that occur before the compliance date. Retesting after the compliance date is required by proposed new §112.304(c) within 60 days after any changes to the kiln, input materials, or the control device. Because the company represented that the kiln is normally operated at full load, proposed new \$112.304(d) requires that the stack tests in subsections (a) – (c) to be conducted with the kiln operating at full load and while burning fuels and processing raw materials with the maximum anticipated sulfur contents. The tests will show the removal efficiency if a control device has been installed or the maximum amount of SO<sub>2</sub> emissions during normal operations if no control device is installed. In the latter case, verification would be provided of the accuracy of using the material balance calculations of the amount of sulfur that was in input materials to predict the amount of sulfur dioxide emitted from the stack. The information from the tests, along with the monitored sulfur content and usage rates of fuels and raw materials, allows the calculation of the actual SO<sub>2</sub> emission rates at any given time.

Proposed new §112.304(e) requires the use of a method specified in §112.305(c) for analyzing fuels' sulfur content. Proposed new §112.304(f) requires the use suitable methods for analyzing shale and other raw materials, as well as submitting the method to the executive director and receiving approval prior to use. Proposed new §112.304(g) requires conducting additional performance testing if requested by the executive director using test methods specified in §112.305.

#### §112.305, Approved Test Methods

The commission proposes new §112.305 to specify the test methods that are required to comply with the testing requirements in proposed new §112.304. The test methods relate to the testing requirements in proposed new §112.304 and are specified by type of testing. Proposed new §112.305(a) requires EPA Test Method 6 or 6C for testing SO<sub>2</sub> in exhaust gases during monitoring or stack testing. Proposed new §112.305(b) specifies the other test methods to be used in stack testing. Proposed new §112.305(c) specifies test methods to be used for determining the sulfur content of fuels. Proposed new §112.305(d) specifies that the test method for determining the sulfur content of raw materials processed in the lightweight aggregate kiln must be approved by the executive director. Proposed new §112.305(e) allows the use of alternate testing methods after prior approval by the executive director and the EPA.

#### §112.306, Recordkeeping Requirements

The commission proposes new §112.306 to specify the records required to be maintained for at least five years for the fuels, the raw materials, and the lightweight aggregate kiln and its control(s). The owner or operator of the Arcosa Streetman Plant is required in proposed new §112.306(1) to maintain records of hourly usage of each fuel. Proposed new §112.306(2) requires records of each monthly analysis of natural gas used in the lightweight aggregate kiln. Proposed new §112.306(3) requires records of each weekly analysis of coal and of petroleum coke. Proposed new §112.306(4) requires hourly records of the amounts of shale and other raw materials processed in

the kiln. Proposed new §112.306(5) requires records of the continuous monitoring of exhaust gas temperature and velocity. Proposed new §112.306(6) requires records of the hourly calculations of the sulfur content of each fuel combusted and each raw material processed in the kiln and the summation of each of the individual sulfur contents. Proposed new §112.306(7) requires records of the mass balance calculations of hourly sulfur dioxide emissions, specified to be calculated by multiplying the summed sulfur contents by two to convert the weight of sulfur to that of sulfur dioxide.

Proposed new §112.306(8) requires records of any exceedance of an emission limit or any failure to meet the corresponding stack parameters. The owner or operator is required in proposed new §112.306(9) to maintain a copy of each stack test report and associated documentation for five years.

### §112.307, Reporting Requirements

The commission proposes new §112.307(a) to specify the reporting required from the site if an affected emissions point exceeds the applicable SO<sub>2</sub> emission limit for the stack parameters at any given time or if required stack parameters are not met. The reports are due by March 31 of the year following the year in which the exceedance occurs. The reports are required to include at a minimum the date of and an explanation of each exceedance and deviation from any required stack parameter, whether the exceedance or stack parameter noncompliance was related to an authorized MSS activity or a malfunction of the facility or its control device, the

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actions taken by the owner or operator to address the exceedance or stack parameter noncompliance and the cause(s), and a certification that the information provided is accurate. A report is required regardless of whether the exceedance occurred from planned or unplanned events or during startup or shutdown. If a reportable quantity (500 pounds or more) of SO<sub>2</sub> is released, the provisions of §101.211 also apply, as do the reporting requirements for emission events in §101.201 if the criteria therein are met. The reporting deadline of March 31 is intended to provide enough time for sites to determine the root cause of each exceedance to include in the report required by this section.

The commission proposes new §112.307(b) to require the owner or operator to submit within 60 days of testing the results of emissions testing for determining compliance with the emission standards of SO<sub>2</sub> to the appropriate TCEQ regional office. The commission proposes new §112.307(c) as contingency measures if the EPA determines that the Navarro County SO<sub>2</sub> nonattainment area does not achieve attainment on or after the attainment date. If the EPA makes such a determination, the TCEQ will notify the owner or operator of the Streetman Plant (including successors if appropriate) of the determination and that these contingency measures are triggered. The owner or operator must conduct a full system audit of the lightweight aggregate kiln and its emissions controls and send a report of the results to the TCEQ executive director within 90 days of the notification from the TCEQ. The audit must include at a minimum a root cause analysis of the cause(s) of the failure to attain, including for the days that monitored exceedances occurred, a review of the hourly mass emissions

from the lightweight aggregate kiln and its emissions controls, the wind speed and direction at the monitor with the NAAQS exceedance, and any exceptional events that may have occurred. The provisions are included in the Reporting Requirements section of the rules because a report on the full system audit must be submitted to the executive director.

### §1112.308, Compliance Schedule

The commission proposes new §112.308 to specify the date by which the source identified in §112.300 is required to comply with the requirements of Subchapter G.

#### Fiscal Note: Costs to State and Local Government

Jené Bearse, Analyst in the Budget and Planning Division, has determined that for the first five-year period the proposed rules are in effect, no significant fiscal implications are anticipated for the agency as a result of administration or enforcement of the proposed rule. No fiscal implications are anticipated for units of local government as a result of administration or enforcement of the proposed rule.

#### **Public Benefits and Costs**

Ms. Bearse determined that for each year of the first five years the proposed rules are in effect, the public benefit anticipated will be compliance with federal law and continued protection of the environment and public health and safety combined with efficient and fair administration of SO<sub>2</sub> emission standards for Howard, Hutchinson, and Navarro Counties.

The proposed rules are likely to have a fiscal impact for owners or operators of affected industrial sites. The proposed rules would establish new regulatory requirements for combustion equipment, including boilers, dryers, incinerators, Fluidized Catalytic Cracking Unit (FCCU) regenerators, and flares at eight industrial sites in Howard, Hutchison, and Navarro Counties.

The agency estimates the owners or operators of seven of the sites would have expenses of approximately \$5,000 per year. In calculating these estimates, the agency made an assumption that each facility would be in compliance with the federal New Source Performance Standards (NSPS) Subpart Ja relating to the control, monitoring, testing, recordkeeping, and reporting requirements. This includes costs to install of new SO<sub>2</sub> air pollution control and dispersion enhancement equipment, retrofit monitoring instruments, monitor emissions, and surrogate parameters, conduct stack testing and sampling, and comply with additional new rule requirements.

The agency estimates that the owners or operators of one site in Navarro County may experience a fiscal impact if they choose to install new add-on controls to satisfy the proposed rule requirements. These potential costs assume that the owners or operators would purchase a new SO<sub>2</sub> scrubber, initiate emissions testing, and increase compliance monitoring in order to comply with the proposed rules. Capital costs for a wet scrubber used for SO<sub>2</sub> control are estimated to be approximately \$55,000,000 with annual operating costs of \$2,000,000. The proposed compliance testing and

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monitoring are estimated at \$12,400 per year. The first year of implementation could total \$57 million with an annual cost in the next four years of approximately \$2 million. The proposed rules require compliance by January 1, 2025, so there is the potential for minimal costs in the next two years.

### Local Employment Impact Statement

The commission reviewed this proposed rulemaking and determined that a Local Employment Impact Statement is not required because the proposed rulemaking does not adversely affect a local economy in a material way for the first five years that the proposed rule is in effect.

#### **Rural Community Impact Statement**

The commission reviewed this proposed rulemaking and determined that the proposed rulemaking does not adversely affect rural communities in a material way for the first five years that the proposed rules are in effect. The amendments would apply statewide and have the same effect in rural communities as in urban communities.

#### Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses due to the implementation or administration of the proposed rule for the first five-year period the proposed rules are in effect.

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#### **Small Business Regulatory Flexibility Analysis**

The commission reviewed this proposed rulemaking and determined that a Small Business Regulatory Flexibility Analysis is not required because the proposed rule does not adversely affect a small or micro-business in a material way for the first five years the proposed rules are in effect.

#### **Government Growth Impact Statement**

The commission prepared a Government Growth Impact Statement assessment for this proposed rulemaking. The proposed rulemaking does not create or eliminate a government program and will not require an increase or decrease in future legislative appropriations to the agency. The proposed rulemaking does not require the creation of new employee positions nor eliminate current employee position. The proposed rulemaking will not significantly affect the amount of fees paid to the agency; however, there is a possibility that fees paid to the agency may be slightly reduced. The proposed rulemaking expands existing regulations for the control of SO<sub>2</sub> emissions and affects owners or operators of eight industrial sites in three designated SO<sub>2</sub> nonattainment areas. During the first five years, the proposed rule should not impact positively or negatively the state's economy.

### Draft Regulatory Impact Analysis Determination

The commission reviewed the proposed rulemaking in light of the regulatory impact analysis requirements of Texas Government Code, §2001.0225, and determined that the proposed rulemaking does not meet the definition of a "Major environmental rule"

as defined in that statute. A "Major environmental rule" means a rule, the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure, and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. Additionally, the proposed rulemaking does not meet any of the four applicability criteria for requiring a regulatory impact analysis for a major environmental rule, which are listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225, applies only to a major environmental rule, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

The proposed rulemaking's purpose is to create state and federally enforceable emission limits and accompanying compliance obligations (monitoring, recordkeeping, reporting, and testing).

The proposed rulemaking would create new rule sections. The revisions to Chapter 112 would be used as control strategies for demonstrating attainment of the 2010  $SO_2$  NAAQS in the areas designated nonattainment, as discussed elsewhere in this

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preamble.

The proposed rulemaking implements requirements of the FCAA, 42 United States Code (USC), §7410, which requires states to adopt a SIP that provides for the implementation, maintenance, and enforcement of the NAAQS in each air quality control region of the state. While 42 USC, §7410, generally does not require specific programs, methods, or reductions in order to meet the standard, the SIP must include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this chapter (42 USC, Chapter 85). The provisions of the FCAA recognize that states are in the best position to determine what programs and controls are necessary or appropriate in order to meet the NAAQS. This flexibility allows states, affected industry, and the public, to collaborate on the best methods for attaining the NAAQS for the specific regions in the state. Even though the FCAA allows states to develop their own programs, this flexibility does not relieve a state from developing a program that meets the requirements of 42 USC, §7410. States are not free to ignore the requirements of 42 USC, §7410, and must develop programs to assure that their contributions to nonattainment areas are reduced so that these areas can be brought into attainment on the schedule prescribed by the FCAA.

The requirement to provide a fiscal analysis of proposed regulations in the Texas

Government Code was amended by Senate Bill (SB) 633 during the 75th Legislature, 1997. The intent of SB 633 was to require agencies to conduct a regulatory impact analysis of extraordinary rules. These rules are identified in the statutory language as major environmental rules that will have a material adverse impact and will exceed a requirement of state law, federal law, or a delegated federal program, or are adopted solely under the general powers of the agency. With the understanding that this requirement would seldom apply, the commission provided a cost estimate for SB 633 concluding that "based on an assessment of rules adopted by the agency in the past, it is not anticipated that the bill will have significant fiscal implications for the agency due to its limited application." The commission also noted that the number of rules that would require assessment under the provisions of the bill was not large. This conclusion was based, in part, on the criteria set forth in the bill that exempted proposed rules from the full analysis unless the rule was a major environmental rule that exceeds a federal law.

As discussed earlier in this preamble, the FCAA does not always require specific programs, methods, or reductions in order to meet the NAAQS; thus, states must develop programs for each area contributing to nonattainment to help ensure that those areas will meet the required attainment deadlines. Because of the ongoing need to address nonattainment issues and to meet the requirements of 42 USC, §7410, the commission routinely proposes and adopts SIP rules. The legislature is presumed to understand this federal scheme. If each rule proposed for inclusion in the SIP was considered to be a major environmental rule that exceeds federal law, then every SIP

rule would require the full regulatory impact analysis contemplated by SB 633. This conclusion is inconsistent with the conclusions reached by the commission in its cost estimate and by the Legislative Budget Board (LBB) in its fiscal notes. Since the legislature is presumed to understand the fiscal impacts of the bills it passes and that presumption is based on information provided by state agencies and the LBB, the commission believes that the intent of SB 633 was only to require the full regulatory impact analysis for rules that are extraordinary in nature. While the SIP rules will have a broad impact, the impact is no greater than is necessary or appropriate to meet the requirements of the FCAA. For these reasons, rules adopted for inclusion in the SIP fall under the exception in Texas Government Code, §2001.0225(a) because they are required by federal law.

The commission has consistently applied this construction to its rules since this statute was enacted in 1997. Since that time, the legislature has revised the Texas Government Code but left this provision substantially un-amended. It is presumed that "when an agency interpretation is in effect at the time the legislature amends the laws without making substantial change in the statute, the legislature is deemed to have accepted the agency's interpretation." *Central Power & Light Co. v. Sharp*, 919 S.W.2d 485, 489 (Tex. App. Austin 1995), *writ denied with per curiam opinion respecting another issue*, 960 S.W.2d 617 (Tex. 1997); *Berry v. State Farm Mut. Auto Ins. Co.*, 9 S.W.3d 884, 893 (Tex. App. Austin 2000); *Southwestern Life Ins. Co. v. Montemayor*, 24 S.W.3d 581 (Tex. App. Austin 2000, *pet. denied*); *Texas Citrus Exchange v. Sharp*, 955 S.W.2d 164 (Tex. App. Austin 1997); *Texas Dept. of Protective and Regulatory Services v.* 

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*Mega Child Care, Inc.*, 145 S.W.3d 170 (Tex. 2004); and *Coastal Indust. Water Auth. v. Trinity Portland Cement Div.*, 563 S.W.2d 916 (Tex. 1978).

The commission's interpretation of the regulatory impact analysis requirements is also supported by a change made to the Texas Administrative Procedure Act (APA) by the legislature in 1999. In an attempt to limit the number of rule challenges based upon APA requirements, the legislature clarified that state agencies are required to meet these sections of the APA against the standard of "substantial compliance." The legislature specifically identified Texas Government Code, §2001.0225, as falling under this standard. The commission has substantially complied with the requirements of Texas Government Code, §2001.0225.

As explained previously in this preamble, the specific intent of the proposed rulemaking is to create state and federally enforceable emission limits and accompanying compliance obligations (monitoring, recordkeeping, reporting, and testing) that would be used as control strategies for demonstrating attainment of the 2010 SO<sub>2</sub> NAAQS in the areas designated nonattainment. Thus, the proposed rulemaking does not exceed a standard set by federal law or exceed an express requirement of state law. No contract or delegation agreement covers the topic that is the subject of this proposed rulemaking. Therefore, this proposed rulemaking is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b) because it does not meet the definition of a "major environmental rule," and also does not meet any of the four applicability criteria for a major environmental

rule.

The commission invites public comment regarding the draft regulatory impact analysis determination during the public comment period. Written comments on the draft regulatory impact analysis determination may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

## **Takings Impact Assessment**

The commission evaluated the proposed rulemaking and performed an assessment of whether Texas Government Code, Chapter 2007 is applicable. The specific purpose of the proposed rulemaking is to create state and federally enforceable emission limits and accompanying compliance obligations (monitoring, recordkeeping, reporting, and testing) that would be used as control strategies for demonstrating attainment of the 2010 SO<sub>2</sub> NAAQS in the areas designated nonattainment.

Texas Government Code, §2007.003(b)(4), provides that Texas Government Code, Chapter 2007 does not apply to this proposed rulemaking because it is an action reasonably taken to fulfill an obligation mandated by federal law.

The proposed rulemaking implements requirements of the FCAA, 42 United States Code (USC), §7410, which requires states to adopt a SIP that provides for the implementation, maintenance, and enforcement of the NAAQS in each air quality control region of the state. While 42 USC, §7410 generally does not require specific

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programs, methods, or reductions in order to meet the standard, the SIP must include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this chapter (42 USC, Chapter 85). The provisions of the FCAA recognize that states are in the best position to determine what programs and controls are necessary or appropriate in order to meet the NAAQS. This flexibility allows states, affected industry, and the public, to collaborate on the best methods for attaining the NAAQS for the specific regions in the state. Even though the FCAA allows states to develop their own programs, this flexibility does not relieve a state from developing a program that meets the requirements of 42 USC, §7410. States are not free to ignore the requirements of 42 USC, §7410, and must develop programs to assure that their contributions to nonattainment areas are reduced so that these areas can be brought into attainment on the schedule prescribed by the FCAA. While the SIP rules will have an impact on the emissions points subject to the emission limits and compliance obligations required by the proposed rules, the impact is no greater than is necessary or appropriate to meet the requirements of the FCAA.

In addition, the commission's assessment indicates that Texas Government Code, Chapter 2007 does not apply to these proposed rules because this action is taken in response to a real and substantial threat to public health and safety; that is designed to significantly advance the health and safety purpose; and that it does not impose a

greater burden than is necessary to achieve the health and safety purpose. Thus, this action is exempt under Texas Government Code, §2007.003(b)(13). The proposed rules fulfill the FCAA requirement for states to create plans including control strategies to attain and maintain the NAAQS, as discussed elsewhere in this preamble. The proposed rules would assist in achieving the timely attainment of the 2010 SO<sub>2</sub> NAAQS and reduced public exposure to SO<sub>2</sub> emissions. The NAAQS are promulgated by the EPA in accord with the FCAA, which requires the EPA to identify and list air pollutants that "cause[s] or contribute[s] to air pollution which may reasonably be anticipated to endanger public health and welfare" and "the presence of which in the ambient air results from numerous or diversion mobile or stationary sources", as required by 42 USC §7408. For those air pollutants listed, the EPA then is required to issue air quality criteria identifying the latest scientific knowledge regarding on adverse health and welfare effects associated with the listed air pollutant, in accord with 42 USC §7408. For each air pollutant for which air quality criteria have been issued, the EPA must publish proposed primary and secondary air quality standards based on the criteria that specify a level of air quality requisite to protect the public health and welfare from any known or anticipated adverse effects associated with the presence of the air pollutant in the ambient air, as required by 42 USC §7409. As discussed elsewhere in this preamble, states have the primary responsibility to adopt plans designed to attain and maintain the NAAQS.

Consequently, the proposed rulemaking meets the exemption criteria in Texas Government Code, §2007.003(b)(4) and (13). For these reasons, Texas Government Code, Chapter 2007 does not apply to this proposed rulemaking.

## Consistency with the Coastal Management Program

The commission reviewed this rulemaking for consistency with the Coastal Management Program (CMP) goals and policies in accordance with the regulations of the Coastal Coordination Advisory Committee and determined that the rulemaking will not affect any coastal natural resource areas because the rules only affect counties outside the CMP area and is, therefore, consistent with CMP goals and policies.

Written comments on the consistency of this rulemaking may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

## Effect on Sites Subject to the Federal Operating Permits Program

Chapter 112 is an applicable requirement under 30 TAC Chapter 122, Federal Operating Permits Program. If the proposed rules are adopted, owners or operators of affected sites subject to the federal operating permit program must, consistent with the revision process in Chapter 122, upon the compliance date of the rules, revise their operating permit to include the new Chapter 112 requirements.

## **Announcement of Hearing**

The commission will offer a public hearing in each of the areas impacted by this proposed rulemaking. The first public hearing will be offered on May 18, 2022, at 6:00

p.m. at the Dora Roberts Community Center Ballroom, located at 100 Whipkey Drive in Big Spring. A second public hearing will be offered on May 19, 2022, at 6:00 p.m. in the City Council Room of the Borger City Hall, located at 600 N. Main Street in Borger, and a third public hearing will be offered on May 23, 2022, at 6:00 p.m. at the Cook Education Center at Navarro College, located at 3100 W. Collin Street in Corsicana. The hearings are structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion will not be permitted during the hearings; however, commission staff members will be available to discuss the proposal 30 minutes prior to the hearings.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-RELAY-TX (TDD). Requests should be made as far in advance as possible.

### Submittal of Comments

Written comments may be submitted to Cecilia Mena, MC 205, Office of Legal Services, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to *fax4808@tceq.texas.gov*. Electronic comments may be submitted at: *https://www6.tceq.texas.gov/rules/ecomments/*. File size restrictions may apply to comments being submitted via the eComments system. All comments should reference Rule Project Number 2021-035-112-AI. The comment period closes on June 2, 2022.

Please choose one of the methods provided to submit your written comments.

Copies of the proposed rulemaking can be obtained from the commission's website at

https://www.tceq.texas.gov/rules/propose\_adopt.html. For further information, please

contact Joseph Thomas, Air Quality Division, at (512) 239-3934.

# SUBCHAPTER E: REQUIREMENTS IN THE HOWARD COUNTY NONATTAINMENT AREA DIVISION 1: REQUIREMENTS FOR DELEK THE BIG SPRING REFINERY §§112.100 - 112.108

#### **Statutory Authority**

The new sections are proposed under Texas Water Code (TWC), §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.014, concerning Emission Inventory, which authorizes the commission to require companies whose activities cause emissions of air contaminants to submit information to enable the commission to develop an inventory of emissions; THSC, §382.015,

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concerning Power to Enter Property, which authorizes a member, employee, or agent of the commission to enter public or private property to inspect and investigate conditions relating to emissions of air contaminants; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants, as well as require recordkeeping; and THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling methods and procedures to be used in determining violations of and procedures to be used in determining compliance.

The proposed new sections implement TWC, §5.103 and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

#### §112.100. Applicability.

(a) The requirements in this division apply to affected sources at the Big Spring Refinery (Regulated Entity Number (RN) 100250869) in the Howard County sulfur dioxide (SO<sub>2</sub>) nonattainment area. Affected sources will remain subject to this division regardless of ownership, operational control, or other documentation changes. Once approved by the United States Environmental Protection Agency (EPA), the requirements in this division continue to apply until the EPA approves their removal.

(b) Affected sources are designated by the emission point number (EPN) and

source name used in the site's New Source Review (NSR) permit as issued on the specified date. The specific affected sources are as follows:

(1) EPN 06ESPPCV, FCCU ESP Stack, in NSR Permit 49154 dated March 12,

<u>2012;</u>

(2) EPN 69TGINC, No. 1 SRU Incinerator Vent, in NSR Permit 80833 dated October 28, 2020;

(3) EPN 71TGINC, No. 2 SRU Incinerator Vent, in NSR Permit 80833 dated

October 28, 2020;

(4) EPN 14NEASTFLR, North East Flare, in NSR Permit 80833 dated October 28, 2020;

(5) EPN 02CRUDEFLR, Crude Flare, in NSR Permit 80833 dated October 28, 2020;

(6) EPN 05REFMFLR, Reformer Flare, in NSR Permit 80833 dated October 28, 2020, and;

(7) EPN 16SOUTHFLR, South Flare, in NSR Permit 80833 dated October 28, 2020.

## §112.101. Definitions.

Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382), or in §101.1 or §112.1 of this title (relating to Definitions, respectively), the terms in this division have the meanings commonly used in the field of air pollution control. The following meanings apply in this division unless the context clearly indicates otherwise.

(1) Block one-hour average--An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour of the day (e.g., from 12:00:00 to 12:59:59).

(2) Howard County sulfur dioxide (SO<sub>2</sub>) nonattainment area--The portion of Howard County designated by the United States Environmental Protection Agency (EPA) as nonattainment for the 2010 SO<sub>2</sub> National Ambient Air Quality Standard, 40 Code of Federal Regulations §81.344, as published on March 26, 2021 (86 *Federal Register* 16055), effective April 30, 2021.

(3) Pipeline quality natural gas--Natural gas containing no more than 0.25 grain of hydrogen sulfide and 5 grains of total sulfur per 100 dry standard cubic feet.

## §112.102. Control Requirements.

(a) The owner or operator may not change the Regulated Entity Number (RN) or the emission point number (EPN) designation of any source subject to §112.100 of this title (relating to Applicability) or otherwise contravene any of the control requirements in this section without the prior approval of the executive director and the United States Environmental Protection Agency (EPA).

(b) EPN 06ESPPCV (FCCU ESP Stack) emissions may not exceed 250.00 pounds per hour (lb/hr) sulfur dioxide (SO<sub>2</sub>) on a seven-day rolling average.

(c) EPN 14NEASTFLR, EPN 02CRUDEFLR, EPN 05REFMFLR, and EPN 16SOUTHFLR may only combust pipeline quality natural gas or combust a refinery gas stream with a maximum sulfur content of 162 parts per million by volume (ppmv) as hydrogen sulfide determined hourly on a three-hour rolling average.

(d) EPN 14NEASTFLR (North East Flare) emissions may not exceed 25.00 lb/hr SO<sub>2</sub> during normal operations, and the following limits apply during authorized maintenance, startup, and shutdown (MSS) activities:

(1) emissions may be equal to or greater than 25.01 lb/hr SO<sub>2</sub> but less than 250.01 lb/hr SO<sub>2</sub> in any hour within a calendar day for no more than four calendar days each year:

(2) emissions may be equal to or greater than 250.01 lb/hr SO<sub>2</sub> but less than 500.01 lb/hr SO<sub>2</sub> in any hour within a calendar day for no more than six calendar days each year;

(3) emissions may be greater than or equal to  $500.01 \text{ lb/hr SO}_2$  but less than 1,500.01 lb /hr SO<sub>2</sub> in any hour within a calendar day for no more than two calendar days each year;

## (4) emissions above 1,500.00 lb/hr SO<sub>2</sub> are prohibited; and

(5) if SO<sub>2</sub> emissions that correspond to more than one range specified in paragraphs (1) – (3) of this subsection occur during a calendar day, only the emissions in the highest range will be used in determining which emissions rate range specified in paragraphs (1) – (3) of this subsection applies to that calendar day.

(e) EPN 02CRUDEFLR (Crude Flare) emissions may not exceed 51.80 lb/hr SO<sub>2</sub> during normal operations, and the following limits apply during authorized MSS activities:

(1) emissions may be equal to or greater than 51.81 lb/hr SO<sub>2</sub> but less than 250.01 lb/hr SO<sub>2</sub> in any hour within a calendar day for no more than 14 calendar days each year;

(2) emissions may be equal to or greater than  $250.01 \text{ lb/hr SO}_2$  but less than  $750.01 \text{ lb/hr SO}_2$  in any hour within a calendar day for no more than three calendar days each year;

## (3) emissions above 750.00 lb/hr SO<sub>2</sub> are prohibited; and

(4) if SO<sub>2</sub> emissions that correspond to the ranges in both paragraphs (1) and (2) of this subsection occur during a calendar day, only the range in paragraph (2) of this subsection applies to that calendar day;

(f) EPN 05REFMFLR (Reformer Flare) emissions may not exceed 103.70 lb/hr SO<sub>2</sub> during normal operations, and the following limits apply during authorized MSS activities:

(1) emissions may be equal to or greater than 103.71 lb/hr SO<sub>2</sub> but less than 250.01 lb/hr SO<sub>2</sub> in any hour within a calendar day for no more than four calendar days each year;

(2) emissions may be equal to or greater than 250.01 lb/hr but less than 750.01 lb/hr SO<sub>2</sub> in any hour within a calendar day for no more than five calendar days each year;

(3) emissions above 750.00 lb/hr SO<sub>2</sub> are prohibited; and

(4) if SO<sub>2</sub> emissions that correspond to the ranges in both paragraphs (1) and (2) of this subsection occur during a calendar day, only the range in paragraph (2) of this subsection applies to that calendar day.

(g) EPN 16SOUTHFLR (South Flare) emissions may not exceed 118.70 lb/hr SO<sub>2</sub> during normal operations, and the following limits apply during authorized MSS activities;

(1) emissions may be equal to or greater than 118.71 lb/hr SO<sub>2</sub> but less than 250.01 lb/hr SO<sub>2</sub> in any hour within a calendar day for no more than four calendar days each year:

(2) emissions may be equal to or greater than 250.01 lb/hr SO<sub>2</sub> but less than 500.01 lb/hr SO<sub>2</sub> in any hour within a calendar day for no more than 12 calendar days each year;

(3) emissions may be equal to or greater than 500.01 lb/hr SO<sub>2</sub> but less than 1,696.01 lb/hr SO<sub>2</sub> in any hour within a calendar day for no more than two calendar days each year;

(4) emissions above 1,696.00 lb/hr SO<sub>2</sub> are prohibited; and

(5) if  $SO_2$  emissions that correspond to more than one range specified in paragraphs (1) – (3) of this subsection occur during a calendar day, only the emissions in the highest range will be used in determining which emissions rate range specified in paragraphs (1) – (3) of this subsection applies to that calendar day;

(h) EPN 69TGINC (No. 1 SRU Incinerator Vent) emissions may not exceed 17.03 lb/hr SO<sub>2</sub>.

(i) EPN 71TGINC (No. 2 SRU Incinerator Vent) emissions may not exceed 12.78 lb/hr SO<sub>2</sub>.

(j) The owner or operator may request an alternative SO<sub>2</sub> emission limit if dispersion modeling and analysis consistent with the most recent attainment demonstration confirms the alternative limit will not increase the modeled regulatory design value in the nonattainment area. The alternative limit and any deviations from the modeling methodology from the most recent attainment demonstration must be approved by the executive director and the EPA.

## §112.103. Monitoring Requirements.

<u>The owner or operator shall continuously monitor equipment subject to sulfur</u> <u>dioxide (SO<sub>2</sub>) emission limits or standards in §112.102 of this title (relating to Control</u>
Requirements) as follows:

(1) operate, calibrate, and maintain a continuous emissions monitoring system (CEMS) to record EPN 06ESPPCV (FCCU ESP Stack) emissions at least every 15 minutes and calculate block one-hour average emission rates in accordance with 40 Code of Federal Regulations (CFR) §60.105a(g);

(2) for EPN 14NEASTFLR, EPN 02CRUDEFLR, EPN 05REFMFLR, and EPN 16SOUTHFLR, continuously monitor the flow rate and the total sulfur concentration for each inlet gas stream in compliance with the 40 CFR §60.107a(e);

(3) install, operate, calibrate, and maintain a CEMS to measure and record <u>EPN 69TGINC and EPN 71TGINC SO<sub>2</sub> emissions at least every 15 minutes and calculate</u> <u>a block one-hour average in accordance with 40 CFR §60.106a(a); and</u>

(4) continuous monitoring data collected in accordance with requirements in this subsection must undergo an appropriate quality assurance and quality control process and be validated for at least 95% of the time that the monitored emission point has emissions; an owner or operator must utilize the most accurate data substitution methodology available that is at least equivalent to engineering judgement and replace all missing or invalidated monitoring data for the entire period the monitored emission point has emissions.

#### §112.104. Testing Requirements.

By the compliance date in §112.108 of this title (relating to Compliance Schedule), the owner or operator shall comply with the following:

(<u>1</u>) perform continuous emissions monitoring system relative accuracy tests for equipment installed to meet the requirements of §112.103 of this title (relating to Monitoring Requirements) in accordance with 40 Code of Federal Regulations (CFR) §60.105a(g)(2) for EPN 06RSPPCV and 40 CFR §60.106a(1)(iii) for EPN 69TGINC, and EPN 71TGINC;

(2) perform initial testing for the flare monitoring devices required by §112.103 of this title in accordance with the manufacturer's specifications to ensure that the required monitors are calibrated and function properly;

(3) conduct additional performance testing, if requested by the executive director, in compliance with 40 CFR §60.104a to demonstrate compliance with applicable emission limits or standards. The notification requirements of 40 CFR §60.8(d) apply to each initial performance test and to each subsequent performance test required by the executive director, except for performance tests conducted for the purpose of obtaining supplemental data because of continuous monitoring system breakdowns, repairs, calibration checks, or zero and span adjustments. All

performance tests must be conducted using test methods allowed in §112.105 of this title (relating to Approved Test Methods).

#### §112.105. Approved Test Methods.

(a) Tests required under §112.104 of this title (relating to Testing Requirements) must be conducted using the test methods in 40 Code of Federal Regulations (CFR) Part 60, Appendices A-1 through A-8 and Appendix B or other methods as specified in this section, except as provided in 40 CFR §60.8(b).

(b) Sulfur content of fuels must be determined (American Society for Testing and Materials (ASTM) Method D1945-91 ASTM Method D3588-93 for fuel composition.

(c) Sulfur dioxide (SO<sub>2</sub>) in exhaust gases must be determined using United States Environmental Protection Agency (EPA) Test Method 6 or 6C (40 CFR, Part 60, Appendix A).

(d) Alternate methods as approved by the executive director and the EPA may be used.

#### §112.106. Recordkeeping Requirements.

The owner or operator shall maintain records sufficient to demonstrate

<u>compliance with this division for a minimum of five years, including but not limited to</u> the following:

(1) all monitoring data and sampling analyses, including but not limited to continuous emission monitoring system data and sulfur composition data, used to quantify emissions;

(2) the methodology and any associated calculations used to determine compliance;

(3) documentation of any period that emission limits or standards were exceeded and copies of required exceedance reports submitted to the appropriate

Texas Commission on Environmental Quality Regional Office; and

(4) copies of required emission test data and records.

## §112.107. Reporting Requirements.

(a) If a source subject to an emissions limit in §112.102 of this title (relating to Control Requirements) exceeds an applicable emission limit or fails to meet a required stack parameter the owner or operator shall submit to the Texas Commission on Environmental Quality (TCEQ) Regional Office for the area where the plant is located a report by March 31 of the year after an exceedance occurs documenting the excess

emissions during the preceding calendar year, including but not limited to the following:

(1) the date that each exceedance or failure to meet a required stack parameter occurred;

(2) an explanation of the exceedance or failure to meet a required stack parameter, including the specific rule citation from §112.102 of this title;

(3) a statement of whether the exceedance or failure to meet a required stack parameter was concurrent with either an authorized MSS activity for or a malfunction of an affected facility or control system;

(4) a description of the corrective action taken, if any; and

(5) a written statement, signed by the owner or operator, certifying the accuracy and completeness of the information contained in the report.

(b) The owner or operator shall submit a copy of each test report for any testing conducted under §112.104 of this title (relating to Testing Requirements) to the TCEQ Regional Office and any local air pollution control agency having jurisdiction for the area where the plant is located within 60 days after completion of the test.

(c) After the effective date of a determination by the Environmental Protection Agency (EPA) that the Howard County sulfur dioxide (SO<sub>2</sub>) nonattainment area has failed to attain the 2010 one-hour SO<sub>2</sub> National Ambient Air Quality Standard pursuant to Federal Clean Air Act §179(c), 42 United States Code §7509(c), the TCEO will notify the owner or operator of the failure to attain and that the contingency measures in this subsection are triggered. Once notification is received from the TCEQ, the owner or operator shall perform a full system audit (FSA) of all SO<sub>2</sub> sources subject to §112.100 of this title (related to Applicability).

(1) Within 90 calendar days after the date of the notification, the owner or operator shall submit the FSA, including recommended provisional SO<sub>2</sub> emission control strategies as necessary, to the executive director of the TCEQ.

(2) As part of the FSA, the owner or operator shall conduct a root cause analysis of the circumstances surrounding the cause of the determination of failure to attain, including a review and consideration of, at a minimum, hourly mass emissions of SO<sub>2</sub> from each SO<sub>2</sub> source subject to this division; the meteorological conditions recorded at the monitor or other relevant meteorological data, including the frequency distribution of wind direction temporally correlated with SO<sub>2</sub> readings greater than 75 parts per billion at the monitor for which the EPA's determination of failure to attain was made; and any exceptional event that may have occurred. The root cause analysis and associated records used to conduct the audit must consider information on the

days that monitored exceedances occurred during the time period that the EPA evaluated in making the failure to attain determination.

## §112.108. Compliance Schedules.

<u>The owner or operator of an affected source subject to §112.100 of this title</u> (relating to Applicability) shall comply with the requirements of this division as soon as practicable, but no later than January 1, 2025.

## DIVISION 2: REQUIREMENTS FOR THE TOKAI BIG SPRING CARBON BLACK PLANT §§112.110 - 112.118

#### **Statutory Authority**

The new sections are proposed under Texas Water Code (TWC), §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.014, concerning Emission Inventory, which authorizes the commission to require companies whose activities cause emissions of air contaminants to submit information to enable the commission to develop an inventory of emissions; THSC, §382.015, concerning Power to Enter Property, which authorizes a member, employee, or agent of the commission to enter public or private property to inspect and investigate

conditions relating to emissions of air contaminants; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants, as well as require recordkeeping; and THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling methods and procedures to be used in determining violations of and procedures to be used in determining compliance.

The proposed new sections implement TWC, §5.103 and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

#### §112.110. Applicability.

(a) The requirements in this division apply to affected sources at the Tokai Big Spring Carbon Black Plant (Regulated Entity Number (RN) 100226026) in the Howard County sulfur dioxide (SO<sub>2</sub>) nonattainment area. Affected sources will remain subject to this division regardless of ownership, operational control, or other documentation changes. Once approved by the United States Environmental Protection Agency (EPA), the requirements in these rules continue to apply until the EPA approves their removal.

(b) Affected existing sources are designated by the emission point number (EPN) and source name used in the site's New Source Review (NSR) permit as issued on the specified date. Applicable control devices to be authorized and constructed are

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<u>similarly designated by the EPN that the company used to designate the future unit in</u> <u>the attainment demonstration modeling, with an appropriate name also used in the</u> <u>rules. The specific affected sources are as follows:</u>

(1) EPN 13A, Incinerator + HRSG, in NSR Permit 6580 dated November 23,

2021;

and

#### (2) EPN 7A, Dryer Stack Units Nos. 1 & 2, in NSR Permit 6580 dated

November 23, 2021;

(3) EPN 12A, Dryer Stack Units No. 3, in NSR Permit 6580 dated November 23, 2021;

## (4) EPN Flare-1, Flare 1, in NSR Permit 6580 dated November 23, 2021;

## (5) EPN Flare-2, Flare 2, in NSR Permit 6580 dated November 23, 2021;

(6) EPN Flare-3, Flare 3, in NSR Permit 6580 dated November 23, 2021;

(7) EPN FLARE 4, Flare 4, if authorized and constructed to replace the existing three flares for the carbon black reactors (EPN Flare-1, EPN Flare-2, and EPN Flare-3).

#### §112.111. Definitions.

Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382), or in §101.1 or §112.1 of this title (relating to Definitions, respectively), the terms in this division have the meanings commonly used in the field of air pollution control. The following meanings apply in this division unless the context clearly indicates otherwise.

(1) Block one-hour average--An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour of the day (e.g., from 12:00:00 to 12:59:59).

(2) Howard County sulfur dioxide (SO<sub>2</sub>) nonattainment area--The portion of Howard County designated by the United States Environmental Protection Agency as nonattainment for the 2010 SO<sub>2</sub> National Ambient Air Quality Standard, 40 Code of Federal Regulations §81.344, as published on March 26, 2021 (86 *Federal Register* 16055), effective April 30, 2021.

(3) Off-line--With respect to a carbon black oil furnace, a period when either:

(A) only natural gas and combustion air are supplied to the furnace burners (no oil is supplied to the furnace burners), and the furnace is not manufacturing carbon black or generating tail gas; or

(B) the oil furnace is not operating.

(4) On-line--Not "off-line," as defined in paragraph (3) of this subsection.

(5) Pipeline quality natural gas--Natural gas containing no more than 0.25 grain of hydrogen sulfide and 5 grains of total sulfur per 100 dry standard cubic feet.

(6) Production unit--The combined equipment used in the manufacture of carbon black, including but not limited to, carbon black oil furnaces or reactors, bag unit filters, cyclones, fans, and carbon black dryers as specified in this rule. Production Units 1 and 2 consist of nine carbon black oil furnaces that produce tail gas and five carbon black dryers that combust tail gas and exhaust emissions through Emission Point Number (EPN) 7A. Production Unit 3 consists of four carbon black oil furnaces that produce tail gas and two carbon black dryers that combust tail gas and exhaust emissions through EPN 12A.

(7) Tail gas--The exit gaseous stream of a carbon black oil furnace consisting of water vapor, carbon monoxide, hydrogen, pyrolysis by-products, and reduced and organic sulfur compounds as a result of the manufacture of carbon black.

#### §112.112. Control Requirements

(a) The owner or operator may not change the Regulated Entity Number (RN) or

the emission point number (EPN) designation of any source subject to §112.110 of this

title (relating to Applicability) or otherwise contravene any of the control requirements

in this section without the prior approval of the executive director and the United

States Environmental Protection Agency (EPA).

(b) Affected sources in §112.110 of this title may not exceed the following

pounds per hour (lb/hr) sulfur dioxide (SO<sub>2</sub>) limits:

| Production | Production | SO <sub>2</sub> Emission | SO <sub>2</sub> Emission | SO <sub>2</sub> Emission | SO <sub>2</sub> Emission |
|------------|------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Units 1    | Unit 3     | Limit (lb/hr)            | Limit (lb/hr)            | Limit (lb/hr)            | Limit (lb/hr)            |
| and 2      | Furnaces   | for EPN 13A,             | for EPN 13A or           | for EPN 7A               | for EPN 12A              |
| Furnaces   | On-line    | Flare 4, EPN             | Flare 4                  | and EPN 12A              |                          |
| On-line    |            | 7A, and EPN              |                          |                          |                          |
|            |            | 12 A                     |                          |                          |                          |
| 9          | 4          | 1,355.00                 | 1,138.00                 | 407.00                   | 146.00                   |
| 9          | 3          | 1,253.38                 | 1,052.65                 | 376.48                   | 109.50                   |
| 9          | 2          | 1,151.75                 | 967.30                   | 345.95                   | 73.00                    |
| 9          | 1          | 1,050.13                 | 881.95                   | 315.43                   | 36.50                    |
| 9          | 0          | 948.50                   | 796.60                   | 284.90                   | 0.00                     |
| 8          | 4          | 1,249.61                 | 1,049.49                 | 375.34                   | 146.00                   |
| 8          | 3          | 1,147.99                 | 964.14                   | 344.82                   | 109.50                   |
| 8          | 2          | 1,046.36                 | 878.79                   | 314.29                   | 73.00                    |
| 8          | 1          | 944.74                   | 793.44                   | 283.77                   | 36.50                    |
| 8          | 0          | 843.11                   | 708.09                   | 253.24                   | 0.00                     |
| 7          | 4          | 1,144.22                 | 960.98                   | 343.69                   | 146.00                   |
| 7          | 3          | 1,042.60                 | 875.63                   | 313.16                   | 109.50                   |
| 7          | 2          | 940.97                   | 790.28                   | 282.64                   | 73.00                    |
| 7          | 1          | 839.35                   | 704.93                   | 252.11                   | 36.50                    |

#### Figure: 30 TAC §112.112(b)

| 7 | 0 | 737.72   | 619.58        | 221.59 | 0.00   |
|---|---|----------|---------------|--------|--------|
| 6 | 4 | 1,038.83 | 872.47        | 312.03 | 146.00 |
| 6 | 3 | 937.21   | 787.12        | 281.51 | 109.50 |
| 6 | 2 | 835.58   | 701.77        | 250.98 | 73.00  |
| 6 | 1 | 733.96   | 616.42        | 220.46 | 36.50  |
| 6 | 0 | 632.33   | 531.07        | 189.93 | 0.00   |
| 5 | 4 | 933.44   | 783.96        | 280.38 | 146.00 |
| 5 | 3 | 831.82   | 698.61        | 249.85 | 109.50 |
| 5 | 2 | 730.19   | 613.26        | 219.33 | 73.00  |
| 5 | 1 | 628.57   | 527.91        | 188.80 | 36.50  |
| 5 | 0 | 526.94   | 442.56        | 158.28 | 0.00   |
| 4 | 4 | 828.06   | 695.44        | 248.72 | 146.00 |
| 4 | 3 | 726.43   | 610.09        | 218.20 | 109.50 |
| 4 | 2 | 624.81   | 524.74        | 187.67 | 73.00  |
| 4 | 1 | 523.18   | 439.39        | 157.15 | 36.50  |
| 4 | 0 | 421.56   | 354.04        | 126.62 | 0.00   |
| 3 | 4 | 722.67   | 606.93        | 217.07 | 146.00 |
| 3 | 3 | 621.04   | 521.58        | 186.54 | 109.50 |
| 3 | 2 | 519.42   | 436.23        | 156.02 | 73.00  |
| 3 | 1 | 417.79   | 350.88        | 125.49 | 36.50  |
| 3 | 0 | 316.17   | 265.53        | 94.97  | 0.00   |
| 2 | 4 | 617.28   | 518.42        | 185.41 | 146.00 |
| 2 | 3 | 515.65   | 433.07        | 154.89 | 109.50 |
| 2 | 2 | 414.03   | 347.72        | 124.36 | 73.00  |
| 2 | 1 | 312.40   | 262.37        | 93.84  | 36.50  |
| 2 | 0 | 210.78   | 177.02        | 63.31  | 0.00   |
| 1 | 4 | 511.89   | 429.91        | 153.76 | 146.00 |
| 1 | 3 | 410.26   | 344.56        | 123.23 | 109.50 |
| 1 | 2 | 308.64   | 259.21        | 92.71  | 73.00  |
| 1 | 1 | 207.01   | 173.86        | 62.18  | 36.50  |
| 1 | 0 | 105.39   | 88.51         | 31.66  | 0.00   |
| 0 | 4 | 406.50   | 341.40        | 122.10 | 146.00 |
| 0 | 3 | 304.88   | 256.05        | 91.58  | 109.50 |
| 0 | 2 | 203.25   | 170.70        | 61.05  | 73.00  |
| 0 | 1 | 101.63   | <u>85</u> .35 | 30.53  | 36.50  |

(c) if during any block one-hour period the number of furnaces on-line changes, the fewest number of furnaces on-line at any time during that block one-hour period must be used to calculate the emission limit.

(d) The maximum emission rate of SO<sub>2</sub> allowed under subsections (b) – (f) of this

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<u>section for each EPN specified under subsections (b) – (e) of this section for each</u> <u>operational scenario occurring during any block one-hour period must be determined</u> <u>on a block one-hour average.</u>

(e) Tail gas may only be combusted in EPN 13A, EPN FLARE 4, EPN 7A, or EPN 12A.

(f) Simultaneous operation of EPN 13A and EPN FLARE 4 during any block onehour period is prohibited.

(g) EPN Flare-1, EPN Flare-2, and EPN Flare-3 may not be operated on or after the compliance date in §112.118 of this title (relating to Compliance Schedule).

(h) After construction and commencement of operation, if authorized, EPN FLARE 4 must have a stack height of no less than 60.35 meters and must be located at Universal Transverse Mercator (UTM) coordinates UTM East Meters 273185 and UTM North Meters 3573987 in UTM Zone 14;

(i) EPN 13A (Incinerator + HRSG) must have a stack height of no less than 65.00 meters upon the compliance date in §112.118 of this title.

(j) The owner or operator may request an alternative SO<sub>2</sub> emission limit if dispersion modeling and analysis consistent with the most recent attainment

demonstration confirms the alternative limit will not increase the modeled regulatory design value in the nonattainment area. The alternative limit and any deviations from the modeling methodology from the most recent attainment demonstration must be approved by the executive director and the EPA.

## §112.113. Monitoring Requirements.

(a) For each block one-hour period of operation calculate total SO<sub>2</sub> emissions from each production unit using the following equation.

#### Figure: 30 TAC §112.113(a)

 $\sigma_i = (SI_i - SRB_i) \times 2; \quad i = 1, 2, 3$ 

Where:

- $\sigma_i$  = emissions of SO<sub>2</sub> expressed in units of lb/hr;
- *i* = the carbon black production unit;
- SI<sub>*i*</sub> = the mass rate of sulfur input to production unit *i*, expressed in units of lb/hr;
- *SRB*<sup>*i*</sup> = the mass rate of sulfur retained in the carbon black produced by production unit *i*, expressed in units of lb/hr; and
- 2 = the molecular weight ratio of SO<sub>2</sub> to sulfur

(b) Calculate SO<sub>2</sub> emissions from EPN 13A (Incinerator + HRSG), EPN 7A (Dryer

Stack Units Numbers 1 and 2), EPN 13A (Dryer Stack Units Number 3), and EPN FLARE

4 (Flare 4) for each block one-hour period of operation during which emissions of SO<sub>2</sub>

are emitted from the emission points listed in this subsection, using the following

<u>equation.</u>

#### Figure: 30 TAC §112.113(b)

$$SO_{2,EPN} = \pi \times \sum_{i \in \tau} \sigma_i$$

| Parameter | Emission Point Number |                        |               |                      |  |  |
|-----------|-----------------------|------------------------|---------------|----------------------|--|--|
|           | 13A                   | 7A                     | 12A           | FLARE 4              |  |  |
| π         | $\pi_{\text{incin}}$  | $\pi_{\mathrm{dryer}}$ | $\pi_{drver}$ | $\pi_{\text{incin}}$ |  |  |
| τ         | 1,2,3                 | 1,2                    | 3             | 1,2,3                |  |  |

Where:

 $SO_{2,EPN}$  = emissions of  $SO_2$  expressed in units of lb/hr for each EPN;

- $\pi_{\text{incin}}$  and  $\pi_{\text{dryer}}$  are the split coefficients from §112.113(4)(E) and (F), respectively, indicating the fraction of tail gas combusted in the Incinerator + HRSG or flare and in dryers, determined through continuous monitoring as required in this subsection.
- *i* = the carbon black production unit;
- $\tau$  = the set of carbon black production units contributing carbon black oil furnace tail gas to the applicable EPN; and
- $\sigma_i$  = emissions of SO<sub>2</sub> expressed in units of lb/hr;

(c) Install, calibrate, maintain, and operate one or more totalizing fuel flow

meters, with an accuracy of  $\pm$  5%, to continuously measure the feed rate of carbon

black oil feedstock supplied to each carbon black production unit.

(d) Install, calibrate, maintain, and operate totalizing tail gas flow meters, with

an accuracy of ± 5%, to continuously measure the volumetric flow rate of tail gas to

each tail gas combustion device covered under §112.112 of this title (relating to Control Requirements).

(e) Use a continuous data acquisition system that continuously measures, calculates, and records the following quantities:

(1) the volumetric flow rate of tail gas to EPN 13A (Incinerator + HRSG) and EPN Flare 4 (Flare 4);

(2) the volumetric flow rate of tail gas to each carbon black dryer comprising Production Units 1 and 2, which exhaust through EPN 7A, and Production Unit 3, which exhausts through EPN 12A;

(3) the total volumetric flow rate of tail gas to all of the carbon black dryers;

(4) the volumetric flow rate of tail gas to all tail gas combustion devices;

(5) the ratio of quantities in paragraphs (1) and (4) of this subsection, identified as " $\pi_{incin}$ ", which is the split coefficient for the Incinerator + HRSG and for Flare 4 used in the calculations in subsection (b) of this section; and

(6) the ratio of quantities in in paragraphs (3) and (4) of this subsection, identified as " $\pi_{dryer}$ ", which is the split coefficient for the dryers used in the calculations in subsection (b) of this section.

(f) Install, calibrate, maintain, and operate the continuous data acquisition system specified in subsection (d) of this section in accordance with the manufacturer's recommended procedures.

(g) Measure daily the sulfur content by weight of the carbon black oil in the feed to each production units according to the requirements of §112.115(b) of this title (relating to Approved Test Methods).

(h) For each grade of carbon black produced, measure daily the sulfur content by weight of the carbon black produced by each carbon black production unit according to the requirements of §112.115(c) of this title.

(i) Determine the amount of each grade of carbon black produced by each carbon black production unit for each hour.

(j) Continuous monitoring data collected in accordance with requirements in this section must undergo an appropriate quality assurance and quality control process and be validated for at least 95% of the time that the monitored emission point has emissions; an owner or operator must utilize an appropriate data substitution

process based on the most accurate methodology available, which is at least equivalent to engineering judgement, to obtain all missing or invalidated monitoring data for the remaining period the monitored emission point has emissions.

#### §112.114. Testing Requirements.

(a) Perform an initial demonstration of compliance test on the emission points specified in §112.112 of this title (relating to Control Requirements) for sulfur dioxide (SO<sub>2</sub>), except for flares, while the associated facilities are firing tail gas, by the compliance date in §112.118 of this of this title (relating to Compliance Schedules).

(b) Use the methods provided in §112.115 of this title (relating to Approved Test Methods) for the initial demonstration of compliance test required under subsection (a) of this section.

(c) During stack testing the owner or operation shall operate the facility at the maximum rated capacity, or as near thereto as practicable.

(d) Conduct additional performance testing, if requested by the executive director. All performance tests must be conducted using test methods allowed in §112.115 of this title.

#### §112.115. Approved Test Methods.

(a) Tests required under §112.114 of this title (relating to Testing Requirements) must be conducted using the test methods in 40 Code of Federal Regulations (CFR) Part 60, Appendices A-1 through A-8 and Appendix B or other methods as specified in this section, except as provided in 40 CFR §60.8(b).

(b) Sulfur content of fuels and carbon black oil must be determined using American Society for Testing and Materials (ASTM) Method D1945-91 or ASTM Method D3588-93 for fuel composition.

(c) Sulfur content of carbon black must be determined using ASTM Method <u>D1619.</u>

(d) Sulfur dioxide (SO<sub>2</sub>) in exhaust gases must be determined using United States Environmental Protection Agency (EPA) Test Method 6 or 6C (40 CFR, Part 60, Appendix A).

(e) Alternate methods as approved by the executive director and the EPA may be used.

## §112.116. Recordkeeping Requirements.

The owner or operator shall maintain records sufficient to demonstrate

<u>compliance with each applicable requirement for a minimum of five years, including</u> <u>but not limited to the following:</u>

(1) records, in units of pounds per hour, of production of carbon black for each grade of carbon black from each carbon black production unit;

(2) daily records of sulfur content by weight of the carbon black oil

feedstock;

(3) daily records of sulfur content by weight of the carbon black

produced for each grade of carbon black produced by each carbon black production unit;

(4) records of continuous carbon black oil feedstock flow rates for each carbon black production unit;

(5) records of continuous tail gas volumetric flow rates to each tail gas combustion device covered by §112.112 of this title (relating to Control Requirements); and

(6) for each block one-hour period of operation of a carbon black production unit:

(A) records of the identification of each furnace on-line during the block one-hour period;

(B) records of the applicable emission limit of sulfur dioxide (SO<sub>2</sub>) as determined by §112.112 of this title during the block one-hour period;

## (C) records of all factors used in the calculations in §112.113 of

this title (relating to Monitoring Requirements) of the actual emissions and the required mass balance calculations of emissions of SO<sub>2</sub> for each emission point number with SO<sub>2</sub> emissions during the block one-hour period;

(7) documentation of any period that emission limits or standards were exceeded, and copies of exceedance reports submitted to the Texas Commission on Environmental Quality; and

(8) copies of required emission test data and records.

#### §112.117. Reporting Requirements.

(a) If source that is subject to an emissions limit in §112.112 of this title (relating to Control Requirements) exceeds the applicable emission limit or fails to meet a required stack parameter, the owner or operator shall submit to the Texas

<u>Commission on Environmental Quality (TCEQ) Regional Office for the area where the</u> <u>plant is located a report by March 31 of the year after an exceedance occurs</u> <u>documenting the excess emissions during the preceding calendar year, including but</u> not limited to the following:

(1) the date that each exceedance or failure to meet a required stack parameter occurred;

(2) an explanation of the exceedance or failure to meet a required stack parameter, including the specific rule citation from §112.112 of this title;

(3) a statement of whether the exceedance or failure to meet a required stack parameter was concurrent with either an authorized maintenance, startup, or shutdown activity or a malfunction of an affected facility or control system;

## (4) a description of the corrective action taken, if any; and

(5) a written statement, signed by the owner or operator, certifying the accuracy and completeness of the information contained in the report.

(b) The owner or operator shall submit a copy of each test report for any testing conducted under §112.114 of this title (relating to Testing Requirements) to the TCEQ Regional Office and any local air pollution control agency having jurisdiction for the

area where the plant is located within 60 days after completion of the test.

(c) After the effective date of a determination by the United States Environmental Protection Agency (EPA) that the Howard County sulfur dioxide (SO<sub>2</sub>) nonattainment area has failed to attain the 2010 one-hour SO<sub>2</sub> National Ambient Air Quality Standard pursuant to Federal Clean Air Act § 179(c), 42 United States Code §7509(c), the TCEQ will notify the owner or operator of the failure to attain and that the contingency measures in this subsection are triggered. Once notification is received from the TCEQ, the owner or operator shall perform a full system audit (FSA) of all SO<sub>2</sub> sources subject to §112.110 of this title (relating to Applicability).

(1) Within 90 calendar days after the date of the notification, the owner or operator shall submit the FSA, including recommended provisional SO<sub>2</sub> emission control strategies as necessary, to the executive director of the TCEO.

(2) As part of the FSA, the owner or operator shall conduct a root cause analysis of the circumstances surrounding the cause of the determination of failure to attain, including a review and consideration of, at a minimum, hourly mass emissions of SO<sub>2</sub> from each SO<sub>2</sub> source subject to this division; the meteorological conditions recorded at the monitor or other relevant meteorological data, including the frequency distribution of wind direction temporally correlated with SO<sub>2</sub> readings greater than 75 parts per billion at the monitor for which the EPA's determination of failure to attain was made; and any exceptional event that may have occurred. The root cause analysis

and associated records used to conduct the audit must consider information on the days that monitored exceedances occurred during the time period that the EPA evaluated in making the failure to attain determination.

#### §112.118. Compliance Schedules.

The owner or operator of an affected source subject to §112.110 of this title (relating to Applicability) shall comply with the requirements of this division as soon as practicable, but no later than January 1, 2025.

# SUBCHAPTER F – REQUIREMENTS IN THE HUTCHINSON COUNTY NONATTAINMENT AREA DIVISION 1 – REQUIREMENTS FOR THE CHEVRON PHILLIPS CHEMICAL BORGER PLANT

#### <u>§§112.200 - 112.203, 112.206 112.208</u>

#### **Statutory Authority**

The new sections are proposed under Texas Water Code (TWC), §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.014, concerning Emission Inventory, which authorizes the commission to require companies whose activities cause emissions of air contaminants to submit information to enable the commission to develop an inventory of emissions; THSC, §382.015,

concerning Power to Enter Property, which authorizes a member, employee, or agent of the commission to enter public or private property to inspect and investigate conditions relating to emissions of air contaminants; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants, as well as require recordkeeping; and THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling methods and procedures to be used in determining violations of and procedures to be used in determining compliance.

The proposed new sections implement TWC, §5.103 and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017 and 382.021.

#### §112.200. Applicability.

(a) The requirements in this division apply to affected sources at the Chevron Phillips Chemical Borger Plant (Regulated Entity Number (RN) 102320850) in the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area. Affected sources will remain subject to this division regardless of ownership, operational control, or other documentation changes. Once approved by the United States Environmental Protection Agency (EPA), the requirements in these rules continue to apply until the EPA approves their removal.

(b) Affected sources are designated by the source name and emission point number (EPN) used in the site's New Source Review (NSR) permit as issued on the specified date. The affected sources are as follows:

(1) EPN F-M2A, Sulfolene Handling Area, in NSR Permit 21918 dated February 5, 2019;

(2) EPN FL-1, North Flare, in NSR Permit 21918 dated February 5, 2019;

<u>and</u>

## (3) EPN FL-2, South Flare, in NSR Permit 21918 dated February 5, 2019.

#### §112.201. Definitions.

Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382) or §101.1 or §112.1 of this title (relating to Definitions, respectively), the terms in this division have the meanings commonly used in the field of air pollution control. The following meanings apply in this division unless the context clearly indicates otherwise.

(1) Block one-hour average--An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour (e.g., from 12:00:00 to 12:59:59).

(2) Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area--The portion of Hutchinson County designated by the United States Environmental Protection Agency as nonattainment for the 2010 SO<sub>2</sub> National Ambient Air Quality Standard, 40 Code of Federal Regulations §81.344, as published on March 26, 2021 (86 *Federal Register* 16055), effective April 30, 2021.

(3) Pipeline quality natural gas--Natural gas containing no more than 0.25 grain of hydrogen sulfide and 5 grains of total sulfur per 100 dry standard cubic feet.

#### §112.202. Control Requirements.

(a) The owner or operator may not change the Regulated Entity Number (RN) or emission point number (EPN) designation of any source subject to §112.200 of this title (relating to Applicability) or otherwise contravene any of the control requirements in this section without the prior approval of the executive director and the United States Environmental Protection Agency (EPA).

(b) EPN F-M2A (Sulfolene Handling Area) emissions may not exceed the following:

(<u>1</u>) the emissions from the sulfolene building and trailer(s) at that location (EPN F-M2A\_1 in the attainment demonstration modeling) may not exceed 1.00 pound per hour (lb/hr) sulfur dioxide (SO<sub>2</sub>); and

(2) the emissions from the parking/storage area for trailer(s) with sulfolene (EPN F-M2A\_2 in the attainment demonstration modeling) may not exceed 0.98 lb/hr SO<sub>2</sub>.

(c) The combined emissions from EPN FL-1 (North Flare) and EPN FL-2 (South Flare) may not exceed 430.00 lb/hr SO<sub>2</sub>.

(d) The owner or operator may request an alternative SO<sub>2</sub> emission limit if dispersion modeling and analysis consistent with the most recent attainment demonstration confirms the alternative limit will not increase the modeled regulatory design value in the nonattainment area. The alternative limit and any deviations from the modeling methodology from the most recent attainment demonstration must be approved by the executive director and the EPA.

#### §112.203. Monitoring Requirements.

(a) For EPN F-M2A (Sulfolene Handling Area), monitor the temperature on an hourly basis inside each trailer containing sulfolene.

(b) Monitor the sulfur content of gases routed to EPN FL-1 (North Flare) and to EPN FL-2 (South Flare) by using separate analyzers, which are capable of accurately measuring and recording hydrogen sulfide, sulfur dioxide (SO<sub>2</sub>), and organic sulfur compounds levels to the range of 1 part per million by volume (ppmv) on a continuous basis.

(c) Monitor the volumetric flow rate of gases routed to the EPN FL-1 (North Flare) and to the EPN FL-2 (South Flare using separate totalizing gas flow meters with an accuracy of  $\pm 5\%$  that are installed, calibrated, maintained, and operated per the manufacturer's directions.

(d) Continuous monitoring data collected in accordance with requirements in this subsection must undergo an appropriate quality assurance and quality control process and be validated for at least 95% of the time that the monitored emission point has emissions; an owner or operator must utilize an appropriate data substitution process based on the most accurate methodology available, which is at least equivalent to engineering judgement, to obtain all missing or invalidated monitoring data for the remaining period the monitored emission point has emissions.

#### §112.206. Recordkeeping Requirements.

<u>The owner or operator shall maintain records of the following continuous</u> <u>monitoring parameters for a minimum of five years:</u>

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(1) for EPN F-M2A (sulfolene handling areas), hourly records of both the temperature inside each storage trailer holding sulfolene and the amount of sulfolene stored in each trailer, whether the trailer is located near the sulfolene handling building (EPN F-M2A\_1 in the attainment demonstration modeling) or in the trailer parking area (EPN F-M2A\_2 in the attainment demonstration modeling); and

(2) the sulfur content and flow rate of gases routed to the EPN FL-1 (North Flare) and to the EPN FL-1 (South Flare), as well as the specific time periods that each flare was in use.

#### §112.207. Reporting Requirements.

(a) For a source that is subject to an emissions limit in §112.202 of this title (relating to Control Requirements) and that exceeds an applicable emission limit or fails to meet a required stack parameter, the owner or operator shall submit to the Texas Commission on Environmental Quality (TCEQ) Regional Office for the area where the plant is located a report by March 31 of the year after an exceedance occurs documenting the excess emissions during the preceding calendar year, including at least the following:

(1) the date that each exceedance or failure to meet a required stack parameter occurred;

(2) an explanation of the exceedance or failure to meet a required stack parameter:

(3) a statement of whether the exceedance or failure to meet a required stack parameter was concurrent with a maintenance, startup, and shutdown period for or malfunction of an affected facility or control system;

## (4) a description of the action taken, if any; and

(5) a written statement, signed by the owner or operator, certifying the accuracy and completeness of the information contained in the report.

(b) The owner or operator shall submit the exceedance report in subsection (a) of this section to the TCEO Regional Office for the area where the plant is located annually with documentation of the results of the hourly monitoring of temperature in the trailers containing sulfolene. Any period when the monitored temperature within any trailer exceeded 125 degrees Fahrenheit must be noted in the report as having been above the maximum temperature used in testing to determine the emission rate for the sulfolene handling area used in attainment demonstration modeling.

(c) After the effective date of a determination by the United States Environmental Protection Agency (EPA) that the Hutchinson County sulfur dioxide

(SO<sub>2</sub>) nonattainment area has failed to attain the 2010 one-hour SO<sub>2</sub> National Ambient Air Ouality Standard pursuant to Federal Clean Air Act § 179(c), 42 United States Code §7509(c), the TCEO will notify the owner or operator of the failure to attain and that the contingency measures in this subsection are triggered. Once notification is received from the TCEO, the owner or operator shall perform a full system audit (FSA) of all SO<sub>2</sub> sources subject to §112.200 of this title (relating to Applicability).

(1) Within 90 calendar days after the date of the notification, the owner or operator shall submit the FSA, including recommended provisional SO<sub>2</sub> emission control strategies as necessary, to the executive director of the TCEQ.

(2) As part of the FSA, the owner or operator shall conduct a root cause analysis of the circumstances surrounding the cause of the determination of failure to attain, including a review and consideration of, at a minimum, hourly mass emissions of SO<sub>2</sub> from each SO<sub>2</sub> source subject to this division; the meteorological conditions recorded at the monitor or other relevant meteorological data, including the frequency distribution of wind direction temporally correlated with SO<sub>2</sub> readings greater than 75 parts per billion at the monitor for which the EPA's determination of failure to attain was made; and any exceptional event that may have occurred. The root cause analysis and associated records used to conduct the audit must consider information on the days that monitored exceedances occurred during the time period that the EPA evaluated in making the failure to attain determination.

#### §112.208. Compliance Schedules.

#### The owner or operator of a source subject to §112.200 of this title (relating to

## <u>Applicability</u>) shall comply with the requirements of this division as soon as

practicable, but no later than January 1, 2025.
# SUBCHAPTER F – REQUIREMENTS IN THE HUTCHINSON COUNTY NONATTAINMENT AREA DIVISION 2: REQUIREMENTS FOR THE IACX ROCK CREEK GAS PLANT <u>\$\$112.210 - 112.213, 112.216 - 112.218</u>

#### **Statutory Authority**

The new sections are proposed under Texas Water Code (TWC), §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.014, concerning Emission Inventory, which authorizes the commission to require companies whose activities cause emissions of air contaminants to submit information to enable the commission to develop an inventory of emissions; THSC, §382.015,

concerning Power to Enter Property, which authorizes a member, employee, or agent of the commission to enter public or private property to inspect and investigate conditions relating to emissions of air contaminants; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants, as well as require recordkeeping; and THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling methods and procedures to be used in determining violations of and procedures to be used in determining compliance.

The proposed new sections implement TWC, §5.103 and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

#### §112.210. Applicability.

(a) The requirements in this division apply to affected sources at the IACX Rock Creek Gas Plant (Regulated Entity Number (RN) 100216613) in the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area. Affected sources will remain subject to this division regardless of ownership, operational control, or other documentation changes. Once approved by the United States Environmental Protection Agency (EPA), the requirements in these rules continue to apply until the EPA approves their removal.

(b) Affected sources are designated by the source name and emission point

number (EPN) used in the site's New Source Review (NSR) permit as issued on the specified date. The specific affected sources are as follows:

(1) EPN FLR1, Acid Gas Flare, in NSR Permit 3131A dated July 12, 2011;

<u>and</u>

(2) EPN INCIN1, Acid Gas Incinerator, in NSR Permit 3131A dated July 12,

<u>2011;</u>

#### §112.211. Definitions.

Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382), or in §101.1 or §112.1 of this title (relating to Definitions, respectively), the terms in this division have the meanings commonly used in the field of air pollution control. The following meanings apply in this division unless the context clearly indicates otherwise.

(1) Block one-hour average--An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour (e.g., from 12:00:00 to 12:59:59).

(2) Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area--The portion of Hutchinson County designated by the United States Environmental

<u>Protection Agency (EPA) as nonattainment for the 2010 SO<sub>2</sub> National Ambient Air</u> <u>Quality Standard, 40 Code of Federal Regulations §81.344, as published on March 26,</u> 2021 (86 *Federal Register* 16055), effective April 30, 2021.

(3) Pipeline quality natural gas--Natural gas containing no more than 0.25 grain of hydrogen sulfide and 5 grains of total sulfur per 100 dry standard cubic feet.

# §112.212. Control Requirements.

(a) An owner or operator may not change the Regulated Entity Number (RN) or emission point number (EPN) designation of any source subject to §112.210 of this title (relating to Applicability) or otherwise contravene any of the control requirements in this section without the prior approval of the executive director and the United States Environmental Protection Agency (EPA).

(b) EPN FLR1 (Acid Gas Flare) and EPN INCIN1 (Acid Gas Incinerator) may not operate simultaneously.

(c) EPN FLR1 (Acid Gas Flare) emissions may not exceed 140.00 lb/hr SO<sub>2</sub>.

(d) EPN INCIN1 (Acid Gas Incinerator) emissions may not exceed 140.00 lb/hr SO<sub>2</sub>.

(e) The owner or operator may request an alternative SO<sub>2</sub> emission limit if dispersion modeling and analysis consistent with the most recent attainment demonstration confirms the alternative limit will not increase the modeled regulatory design value in the nonattainment area. The alternative limit and any deviations from the modeling methodology from the most recent attainment demonstration must be approved by the executive director and the EPA.

#### §112.213. Monitoring Requirements.

<u>The owner or operator shall continuously monitor the gases routed to EPN FLR1</u> (Acid Gas Flare) or EPN INCIN1 (Acid Gas Incinerator) by using the following:

(1) an analyzer that is capable of accurately measuring and recording hydrogen sulfide levels to the range of 1 ppmv and that is installed prior to the manifold that directs gases to EPN FLR1 or EPN INCIN1;

(2) a totalizing gas flow meter with an accuracy of ±5% that is installed, calibrated, maintained, and operated per the manufacturer's directions to continuously measure and record the volume of gas directed to EPN FLR1 or EPN INCIN1; and

(3) continuous monitoring data collected in accordance with requirements in this subsection must undergo an appropriate quality assurance and quality control process and be validated for at least 95% of the time that the monitored

emission point has emissions; an owner or operator must utilize an appropriate data substitution process based on the most accurate methodology available, which is at least equivalent to engineering judgment, to obtain all missing or invalidated monitoring data for the remaining period the monitored emission point has emissions.

#### §112.216. Recordkeeping Requirements.

The owner or operator shall maintain records for a minimum of five years of the continuous monitoring of the sulfur content and flow rate of gases routed to either the flare or the incinerator as well as which control device was in use.

#### §112.217. Reporting Requirements.

(a) For a source that is subject to an emissions limit in §112.212 of this title (relating to Control Requirements) and that exceeds an applicable emission limit or fails to meet a required stack parameter, the owner or shall submit to the Texas Commission on Environmental Quality (TCEQ) Regional Office for the area where the plant is located a report by March 31 of the year after an exceedance occurs documenting the excess emissions during the preceding calendar year, including at least the following:

(1) the date that each exceedance or failure to meet a required stack parameter occurred;

(2) an explanation of the exceedance or failure to meet a required stack parameter:

(3) a statement of whether the exceedance or failure to meet a required stack parameter was concurrent with a maintenance, startup, and shutdown period for or malfunction of an affected facility or control system;

# (4) a description of the action taken, if any; and

(5) a written statement, signed by the owner or operator, certifying the accuracy and completeness of the information contained in the report.

(b) After the effective date of a determination by the Environmental Protection Agency (EPA) that the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area has failed to attain the 2010 one-hour SO<sub>2</sub> National Ambient Air Quality Standard pursuant to Federal Clean Air Act § 179(c), 42 United States Code §7509(c), the TCEQ will notify the owner or operator of the failure to attain and that the contingency measures in this subsection are triggered. Once notification is received from the TCEQ, the owner or operator shall perform a full system audit (FSA) of all SO<sub>2</sub> sources subject to §112.210 of this title (relating to Applicability). (1) Within 90 calendar days after the date of the notification, the owner or operator shall submit the FSA, including recommended provisional  $SO_2$  emission control strategies as necessary, to the executive director of the TCEQ.

(2) As part of the FSA, the owner or operator shall conduct a root cause analysis of the circumstances surrounding the cause of the determination of failure to attain, including a review and consideration of, at a minimum, hourly mass emissions of SO<sub>2</sub> from each SO<sub>2</sub> source subject to this division; the meteorological conditions recorded at the monitor or other relevant meteorological data, including the frequency distribution of wind direction temporally correlated with SO<sub>2</sub> readings greater than 75 parts per billion at the monitor for which the EPA's determination of failure to attain was made; and any exceptional event that may have occurred. The root cause analysis and associated records used to conduct the audit must consider information on the days that monitored exceedances occurred during the time period that the EPA evaluated in making the failure to attain determination.

#### §112.218. Compliance Schedules.

The owner or operator of a source subject to §112.210 of this title (relating to Applicability) shall comply with the requirements of this division as soon as practicable, but no later than January 1, 2025.

#### §§112.220 - 112.228

#### **Statutory Authority**

The new sections are proposed under Texas Water Code (TWC), §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.014, concerning Emission Inventory, which authorizes the commission to require companies whose activities cause emissions of air contaminants to submit information to enable the commission to develop an inventory of emissions; THSC, §382.015, concerning Power to Enter Property, which authorizes a member, employee, or agent of the commission to enter public or private property to inspect and investigate conditions relating to emissions of air contaminants; THSC, §382.016, concerning

Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants, as well as require recordkeeping; and THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling methods and procedures to be used in determining violations of and procedures to be used in determining compliance.

The proposed new sections implement TWC, §5.103 and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017 and 382.021.

#### §112.220. Applicability.

(a) The requirements in this division apply to affected sources at the Orion Borger Carbon Black Plant (Regulated Entity Number (RN) 100209659) in the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area. Affected sources will remain subject to this division regardless of ownership, operational control, or other documentation changes. Once approved by the United States Environmental Protection Agency (EPA), the requirements in these rules continue to apply until the EPA approves their removal.

(b) Affected existing sources are designated by source name and emission point number (EPN) used in the site's New Source Review (NSR) permit as issued on the specified date, except one waste heat boiler is designated by its source name and EPN

in the applicable Pollution Control Project Standard Permit. Applicable control devices to be authorized and constructed are similarly designated by the EPN that the company used to designate the future unit in the attainment demonstration modeling, with an appropriate name also used in the rules. The specific affected sources are as follows:

(1) EPN E-6BN, Waste Heat Boiler – CDS Stack, in the Final Action letter for Pollution Control Project Standard Permit 164021 dated March 3, 2021;

(2) EPN E-10FL, Unit 1 Reactor/Flare, in NSR Permit 8780 dated March 24,

#### 2015;

# (3) EPN E-20FL, Unit 2 Reactor/Flare, in NSR Permit 8780 dated March 24,

<u>2015;</u>

(4) EPN E-40FL, Unit 4 Reactor/Flare, in NSR Permit 8780 dated March 24, 2015; and

(5) EPN CFL, Combined Flare, if authorized and constructed.

#### §112.221. Definitions.

Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety

<u>Code, Chapter 382), or in §101.1 or §112.1 of this title (relating to Definitions,</u> respectively), the terms in this division have the meanings commonly used in the field of air pollution control. The following meanings apply in this division unless the context clearly indicates otherwise.</u>

(1) Block one-hour average--An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour (e.g., from 12:00:00 to 12:59:59).

(2) Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area--The portion of Hutchinson County designated by the United States Environmental Protection Agency (EPA) as nonattainment for the 2010 SO<sub>2</sub> National Ambient Air Quality Standard, 40 Code of Federal Regulations §81.344, as published on March 26, 2021 (86 Federal Register 16055), effective April 30, 2021.

(3) Pipeline quality natural gas--Natural gas containing no more than 0.25 grain of hydrogen sulfide and 5 grains of total sulfur per 100 dry standard cubic feet.

(4) Production unit--the carbon black oil furnace or group of carbon black oil furnaces, dryers or groups of dryers, and any ancillary units used in the manufacture of carbon black and producing tail gas.

(5) Tail gas--The exit gaseous stream of a carbon black oil furnace consisting of water vapor, carbon monoxide, hydrogen, pyrolysis by-products, and reduced and organic sulfur compounds as a result of the manufacture of carbon black.

#### §112.222. Control Requirements.

(a) The owner or operator may not change the Regulated Entity Number (RN) or emission point number (EPN) designation of any source subject to §112.220 of this title (relating to Applicability) or otherwise contravene any of the control requirements in this section without the prior approval of the executive director and the United States Environmental Protection Agency (EPA).

(b) Hourly mass emissions of sulfur dioxide (SO<sub>2</sub>), on a block one-hour average, may not exceed the following:

# (1) 144.11 lb/hr SO<sub>2</sub>, for EPN E-6BN (Waste Heat Boiler – CDS Stack); and

#### (2) 750.05 lb/hr SO<sub>2</sub>, for EPN CFL (Combined Flare).

(c) Tail gas may only be combusted in a source whose emissions are routed to EPN E-6BN (Waste Heat Boiler – CDS Stack) or EPN CFL (Combined Flare).

#### (d) EPN E-10FL (Unit 1 Reactor/Flare Unit 1 Reactor/Flare), EPN E-20FL (Unit 2

<u>Reactor/Flare</u>), and EPN E-40FL (Unit 4 Reactor/Flare) may not operate on or after the compliance date in §112.228 of this title (relating to Compliance Schedules).

(e) If EPN CFL (Combined Flare) is not authorized and constructed by the compliance date in §112.228 of this title, no flaring is allowed until EPN CFL is authorized, constructed, and operating.

(f) After construction and commencement of operation, EPN CFL (Combined Flare) must meet the following parameters:

(1) receive all waste gases instead of the existing EPN E-10FL, EPN E-20FL, and EPN E-40FL;

(2) only receive tail gas when EPN E-6BN (Waste Heat Boiler – CDS Stack) is not operating; and

(3) be constructed with a stack height of no less than 65.00 meters and must be located at Universal Transverse Mercator (UTM) coordinates UTM East Meters 279745.85 and UTM North Meters 3949549.50 in UTM Zone 14.

(g) The owner or operator may request an alternative SO<sub>2</sub> emission limit if dispersion modeling and analysis consistent with the most recent attainment demonstration confirms the alternative limit will not increase the modeled regulatory

<u>design value in the nonattainment area. The alternative limit and any deviations from</u> <u>the modeling methodology from the most recent attainment demonstration must be</u> <u>approved by the executive director and the EPA.</u>

#### §112.223. Monitoring Requirements.

(a) Install, calibrate, and maintain a continuous emissions monitoring system (CEMS) to monitor exhaust SO<sub>2</sub> from EPN E-6BN (Waste Heat Boiler – CDS Stack) in accordance with the requirements of 40 Code of Federal Regulations (CFR) Part 60 as follows:

<u>(1) §60.13;</u>

# (2) Appendix B, Performance Specification 2, for SO<sub>2</sub>; and

(3) Appendix F, quality assurance procedures.

(b) For days when EPN CFL (Combined Flare) is used to combust tail gas, monitor the sulfur content of the carbon black oil feedstock and produced carbon black, as well as the production rate of the carbon black, as follows:

(1) measure daily the sulfur content by weight of the carbon black oil in the feed to each production unit according to the requirements of §112.225 of this title (relating to Approved Test Methods);

(2) for each grade of carbon black produced, measure daily the sulfur content by weight of the carbon black produced by each carbon black production unit according to the requirements of §112.225 of this title; and

(3) determine hourly the amount of each grade of carbon black produced by each carbon black production unit.

(c) install, calibrate, maintain, and operate one or more totalizing fuel flow meters, with an accuracy of  $\pm$  5%, to continuously measure the feed rate of carbon black oil feedstock supplied to each carbon black production unit.

(d) Install, calibrate, maintain, and operate totalizing tail gas flow meters, with an accuracy of  $\pm$  5%, to continuously measure the volumetric flow rate of tail gas to <u>EPN CFL (Combined Flare).</u>

(e) Continuous monitoring data collected in accordance with requirements in this subsection must undergo an appropriate quality assurance and quality control process and be validated for at least 95% of the time that the monitored emission point has emissions; an owner or operator must utilize an appropriate data substitution

process based on the most accurate methodology available, which is at least equivalent to engineering judgement, to obtain all missing or invalidated monitoring data for the remaining period the monitored emission point has emissions.

(f) Calculate total  $SO_2$  emissions from EPN CFL (Combined Flare) using the equation in subsection (h) of this section, which assumes that all the sulfur in the carbon black oil feedstock that is not accounted for by sulfur in the carbon black product, is converted to  $SO_2$  to demonstrate compliance with the emission requirements of §112.222 of this title (relating to Control Requirements).

(g) Actual emissions of  $SO_2$  from each EPN specified under §112.222 of this title for each operational scenario occurring during any block one-hour period must be calculated on a block one-hour average.

(h) Calculate total SO<sub>2</sub> emissions from each production unit using the following equation.

#### Figure: 30 TAC §112.223(h)

$$SO_2 = (SI - SRB) \times 2$$

Where:

- SO<sub>2</sub> = mass emissions of SO<sub>2</sub>, expressed in units of lb/hr;
- SI = the sulfur input from the carbon black oil feedstock determined by sampling as required by §112.223(2)(A);
- SRB = the sulfur retained in the produced carbon black determined by sampling as

required by §112.223(c)(B);

2 = the molecular weight ratio of SO<sub>2</sub> to sulfur.

#### §112.224. Testing Requirements.

(a) During stack testing, the owner or operator shall operate the facility at the maximum rated capacity, or as near thereto as practicable; and

(b) The owner or operator shall conduct additional performance testing requested by the executive director using test methods allowed in §112.225 of this title (relating to Approved Test Methods).

(c) When analysis of produced carbon black, carbon black oil, and fuels, including but not limited to tail gas, is required for monitoring under §112.223 of this title (relating to Monitoring Requirements), the owner or operator shall use a test method in §112.225 of this title for the analysis.

#### §112.225. Approved Test Methods.

(a) Tests required under §112.224 of this title (relating to Testing Requirements) must be conducted using the test methods in 40 Code of Federal Regulations (CFR) Part 60, Appendices A-1 through A-8 and Appendix B or other methods as specified in

this section, except as provided in §60.8(b) (*36 Federal Register* (FR) 24877, published Dec. 23, 1971, as amended through 81 FR 59809, published Aug. 30, 2016).

(b) Sulfur dioxide (SO<sub>2</sub>) in exhaust gases must be determined using United States Environmental Protection Agency (EPA) Test Method 6 or 6C (40 CFR, Part 60, Appendix A).

(c) For flares subject to emissions limitations or standards in §112.222 of this title (relating to Control Requirements), the owner or operator shall use flare test methods and procedures in 40 CFR §60.104a (73 FR 35867, published June 24, 2008 as amended 77 FR 56470, published September 12, 2012 and 80 FR 75231, published December 1, 2015) as if the federal rules apply to carbon black plants.

(d) Sulfur content of fuels and carbon black oil must be determined using American Society for Testing and Materials (ASTM) Method D1945-91 or ASTM Method D3588-93 for fuel composition.

(e) Sulfur content of carbon black must be determined using ASTM Test Method D1619.

(f) Alternate test methods as approved by the executive director and the EPA may be used.

#### §112.226. Recordkeeping Requirements.

<u>The owner or operator shall maintain records sufficient to demonstrate</u> <u>compliance with each applicable requirement for a minimum of five years, including</u> <u>but not limited to the following:</u>

(1) records in units of pounds per hour (lb/hr) of production of carbon

black for each grade of carbon black from each carbon black production unit;

(2) daily records of sulfur content by weight of the carbon black oil

feedstock;

# (3) daily records of sulfur content by weight of the carbon black

produced for each grade of carbon black produced by each carbon black production unit;

(4) records of continuous carbon black oil feedstock flow rates for each carbon black production unit;

(5) records of continuous tail gas volumetric flow rates to each tail gas combustion device covered by §112.222 of this title (relating to Control Requirements);

(6) for each block one-hour period of operation of a carbon black production unit, the required mass balance calculations of emissions of SO<sub>2</sub> from each emission point number (EPN) for those sources in operation without a continuous emissions monitoring system for sulfur dioxide (SO<sub>2</sub>);

(7) the continuous emissions monitoring data of emissions of  $SO_2$  for each EPN for those sources in operation with a CEMS for  $SO_2$ ; and

(8) copies of required emission test data and records.

# §112.227. Reporting Requirements.

(a) For a source that is subject to an emissions limit in §112.222 of this title (relating to Control Requirements) and that exceeds an applicable emission limit or fails to meet a required stack parameter, the owner or operator shall submit to the Texas Commission on Environmental Quality (TCEQ) Regional Office for the area where the plant is located a report by March 31 of the year after an exceedance occurs documenting the excess emissions during the preceding calendar year, including at least the following:

(1) the date that each exceedance or failure to meet a required stack parameter occurred;

(2) an explanation of the exceedance or failure to meet a required stack parameter;

(3) a statement of whether the exceedance or failure to meet a required stack parameter was concurrent with a maintenance, startup, and shutdown period for or malfunction of an affected facility or control system;

## (4) a description of the action taken, if any; and

(5) a written statement, signed by the owner or operator, certifying the accuracy and completeness of the information contained in the report.

(b) The owner or operator shall submit a copy of each stack test report to the TCEQ Regional Office and any local air pollution control agency having jurisdiction for the area where the plant is located within 60 days after completion of the test.

(c) After the effective date of a determination by the Environmental Protection Agency (EPA) that the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area has failed to attain the 2010 one-hour SO<sub>2</sub> National Ambient Air Quality Standard pursuant to Federal Clean Air Act § 179(c), 42 United States Code §7509(c), the TCEQ will notify the owner or operator of the failure to attain and that the contingency measures in this subsection are triggered. Once notification is received from the TCEQ, the owner or operator shall perform a full system audit (FSA) of all SO<sub>2</sub> sources subject to §112.220 of this title (related to Applicability).

(1) Within 90 calendar days after the date of the notification, the owner or operator shall submit the FSA, including recommended provisional SO<sub>2</sub> emission control strategies as necessary, to the executive director of the TCEQ.

(2) As part of the FSA, the owner or operator of each company shall conduct a root cause analysis of the circumstances surrounding the cause of the determination of failure to attain, including a review and consideration of, at a minimum, hourly mass emissions of SO<sub>2</sub> from each SO<sub>2</sub> source subject to this division; the meteorological conditions recorded at the monitor or other relevant meteorological data, including the frequency distribution of wind direction temporally correlated with SO<sub>2</sub> readings greater than 75 parts per billion at the monitor for which the EPA's determination of failure to attain was made; and any exceptional event that may have occurred. The root cause analysis and associated records used to conduct the audit must consider information on the days that monitored exceedances occurred during the time period that the EPA evaluated in making the failure to attain determination.

#### §112.228. Compliance Schedules.

<u>The owner or operator of a source subject to §112.220 of this title (relating to</u> <u>Applicability) shall comply with the requirements of this division as soon as</u>

practicable, but no later than January 1, 2025.

# SUBCHAPTER F – REQUIREMENTS IN THE HUTCHINSON COUNTY NONATTAINMENT AREA DIVISION 4 – REQUIREMENTS FOR THE PHILLIPS 66 REFINERY <u>\$\$112.230 - 112.238</u>

#### **Statutory Authority**

The new sections are proposed under Texas Water Code (TWC), §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.014, concerning Emission Inventory, which authorizes the commission to require companies whose activities cause emissions of air contaminants to submit information to enable the commission to develop an inventory of emissions; THSC, §382.015, concerning Power to Enter Property, which authorizes a member, employee, or agent of

the commission to enter public or private property to inspect and investigate conditions relating to emissions of air contaminants; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants, as well as require recordkeeping; and THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling methods and procedures to be used in determining violations of and procedures to be used in determining compliance.

The proposed new sections implement TWC, §5.103 and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017 and 382.021.

#### §112.230. Applicability.

(a) The requirements in this division apply to affected sources at the Phillips 66 Refinery (Regulated Entity Number (RN) 102495884) in the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area. Affected sources will remain subject to this division regardless of ownership, operational control, or other documentation changes. Once approved by the United States Environmental Protection Agency (EPA), the requirements in these rules continue to apply until the EPA approves their removal.

(b) Affected existing sources are designated by the emission point number (EPN) and source name (when possible) used in the site's New Source Review (NSR) permit as

issued on the specified date. The specific affected sources are as follows:

(1) EPN 29P1, Unit 29 FCCU Stack, in NSR Permit 9868A dated September

<u>17, 2021;</u>

(2) EPN 40P1, Unit 40 FCCU Stack, in NSR Permit 9868A dated September 17, 2021;

(3) EPN 34I1, SRU Incinerator, in NSR Permit 9868A dated September 17, 2021;

#### (4) EPN 43I1, SCOT Unit Incinerator, in NSR Permit 9868A dated

<u>September 17, 2021 (emissions from this source during authorized maintenance,</u> <u>startup, and shutdown activities are included as EPN SRU\_MS\_CAP in the attainment</u> <u>demonstration modeling):</u>

(5) EPN 66FL1, EPN 66FL2, EPN 66FL3, and EPN 66FL12 in NSR Permit 80799 dated October 1, 2020 (emissions from these sources are included as EPN FLARE\_R\_CAP and EPN FLARE\_MS\_CAP in the attainment demonstration modeling);

(6) EPN 12E1, EPN 12E2, EPN 12E3, EPN 12E4, EPN 12E5, EPN 12E6, EPN 12E7, EPN 7E1, EPN 7E2, EPN 7E3, EPN 7E4, EPN 7E5, EPN 7E6, EPN 10H1, EPN 19B1/19H1, EPN 19B1/19H2, EPN 19H3, EPN 19B2/19H4, EPN 19H5, EPN 19H6, EPN

2H1, EPN 2H2, EPN 22H1, EPN 26H1, EPN 28H1, EPN 29H4, EPN 34H, EPN 36H1, EPN 40H1, EPN 4H2, EPN 42H1, EPN 42H2, EPN 43H, EPN 50H1, EPN 5H1, EPN 6H1, EPN 7H1-4, EPN 9H1, EPN 93E1, EPN 93E2, EPN 98H1, EPN 51H1, EPN 4H1, EPN 6H3, EPN 12H1, EPN 66FL13 and EPN 41H1 in NSR Permit 9868A dated September 17, 2021 (these sources included as EPN FLEX\_R\_CAP in the attainment demonstration modeling); and

(7) EPN 12E1, EPN 12E2, EPN 12E3, EPN 12E4, EPN 12E5, EPN 12E6, EPN 12E7, EPN 7E1, EPN 7E2, EPN 7E3, EPN 7E4, EPN 7E5, EPN 7E6, EPN 10H1, EPN 19B1/19H1, EPN 19B1/19H2, EPN 19H3, EPN 19B2/19H4, EPN 19H5, EPN 19H6, EPN 2H1, EPN 2H2, EPN 22H1, EPN 26H1, EPN 28H1, EPN 29H4, EPN 36H1, EPN 40H1, EPN 4H2, EPN 42H1, EPN 42H2, EPN 50H1, EPN 5H1, EPN 6H1, EPN 7H1-4, EPN 9H1, EPN 93E1, EPN 93E2, EPN 98H1, EPN 51H1, EPN 4H1, EPN 6H3, EPN 12H1, EPN 66FL13 and EPN 41H1, in NSR Permit 9868A dated September 17, 2021 (these sources are included as EPN FLEX\_MS\_CAP in the attainment demonstration modeling).

#### §112.231. Definitions.

<u>Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety</u> <u>Code, Chapter 382), or in §101.1 or §112.1 of this title (relating to Definitions,</u> <u>respectively), the terms in this division have the meanings commonly used in the field</u> <u>of air pollution control. The following meanings apply in this division unless the</u> <u>context clearly indicates otherwise.</u>

(1) Block one-hour average--An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour (e.g., from 12:00:00 to 12:59:59).

(2) Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area--The portion of Hutchinson County designated by the United States Environmental Protection Agency (EPA) as nonattainment for the 2010 SO<sub>2</sub> National Ambient Air Quality Standard, 40 Code of Federal Regulations §81.344, as published on March 26, 2021 (86 Federal Register 16055), effective April 30, 2021.

(3) Pipeline quality natural gas--Natural gas containing no more than 0.25 grain of hydrogen sulfide and 5 grains of total sulfur per 100 dry standard cubic feet.

#### §112.232. Control Requirements.

(a) The owner or operator may not change the Regulated Entity Number (RN) or emission point number (EPN) designation of any source subject to §112.230 of title (relating to Applicability) or otherwise contravene any of the control requirements in this section without the prior approval of the executive director and the United States Environmental Protection Agency (EPA).

(b) EPN 34I1 (SRU Incinerator) emissions may not exceed 44.82 pounds per hour

(lb/hr) sulfur dioxide (SO<sub>2</sub>) during normal operations;

(c) EPN 4311 (SCOT Unit Incinerator) emissions may not exceed 37.00 lb/hr SO<sub>2</sub> during normal operations.

(d) During authorized maintenance, startup, and shutdown (MSS) activities, EPN 34I1 (SRU Incinerator) and EPN 43I1 (SCOT Unit Incinerator) may not operate simultaneously and the combined emissions from these sources may not exceed 94.00 lb/hr SO<sub>2</sub>

(e) EPN 66FL1, EPN 66FL2, EPN 66FL3, EPN 66FL12, and EPN 66FL13 may only combust pipeline quality natural gas or a refinery gas stream with a maximum sulfur content of 162 parts per million by volume as hydrogen sulfide determined hourly on a three-hour rolling average basis.

(f) The combined emissions from EPN 66FL1, EPN 66FL2, EPN 66FL3, and EPN 66FL12 may not exceed 100.14 lb/hr SO<sub>2</sub> during normal operations and 850.00 lb/hr SO<sub>2</sub> during authorized MSS activities;

(g) The combined emissions from EPNs listed in §112.230(b)(6) of this title may not exceed 185.69 lb/hr SO<sub>2</sub> during normal operations.

(h) The combined emissions from EPNs listed in §112.230(b)(7) of this title may

not exceed 106.05 lb/hr SO<sub>2</sub> during authorized MSS activities.

#### (i) EPN 29P1 (Unit 29 FCCU Stack) emissions may not exceed the following:

#### (1) 155.49 lb/hr SO<sub>2</sub> during normal operations;

(2) 155.49 lb/hr SO<sub>2</sub> during authorized MSS activities with an exhaust flow rate greater than or equal to 210,922.60 actual cubic meters/hour (am<sup>3</sup>/hr);

(3) 140.00 lb/hr SO<sub>2</sub> during authorized MSS activities with an exhaust flow rate greater than or equal to 158,191.95 am<sup>3</sup>/hr and less than 210,922.60 am<sup>3</sup>/hr;

(4) 130.00 lb/hr SO<sub>2</sub> during authorized MSS activities with an exhaust flow rate greater than or equal to 105,461.30 am<sup>3</sup>/hr and less than 158,191.95 am<sup>3</sup>/hr; and

(5) exhaust flow rates below 105,461.30 am<sup>3</sup>/hr are prohibited.

(j) EPN 40P1 (Unit 40 FCCU Stack) emissions may not exceed the following:

(1) 155.49 lb/hr SO<sub>2</sub> during normal operations;

(2) 155.49 lb/hr SO<sub>2</sub> during authorized MSS activities with an exhaust flow rate greater than or equal to 298,242.71 am<sup>3</sup>/hr;

# (3) 140.00 lb/hr SO<sub>2</sub> during authorized MSS activities with an exhaust flow rate greater than or equal to 223,682.03 am<sup>3</sup>/hr and less than 298,242.71 am<sup>3</sup>/hr;

# (4) 130.00 lb/hr SO<sub>2</sub> during authorized MSS activities with an exhaust

flow rate greater than or equal to 149,121.36 am<sup>3</sup>/hr and less than 223,682.03 am<sup>3</sup>/hr; and

# (5) exhaust flow rates below 149,121.36 am<sup>3</sup>/hr are prohibited.

(k) Compliance with the emission limits in this section must be calculated on a block one-hour average basis.

(<u>1</u>) The owner or operator may request an alternative SO<sub>2</sub> emission limit if dispersion modeling and analysis consistent with the most recent attainment demonstration confirms the alternative limit will not increase the modeled regulatory design value in the nonattainment area. The alternative limit and any deviations from the modeling methodology from the most recent attainment demonstration must be approved by the executive director and the EPA.

#### §112.233. Monitoring Requirements.

(a) Install, operate, calibrate, and maintain a continuous emissions monitoring system (CEMS) to measure and record the sulfur dioxide (SO<sub>2</sub>) emissions and the exhaust gas flow rates from EPN 29P1 and EPN 40P1 in accordance with the 40 Code of Federal Regulations (CFR) §60.105a(g).

(b) Install, operate, calibrate, and maintain a CEMS to record hourly SO<sub>2</sub> emissions from EPN 34I1 and EPN 43I1 in accordance with 40 CFR §60.106a(a).

(c) Continuously monitor the flow rate and the total sulfur concentration EPN 66FL1, EPN 66FL2, EPN 66FL3, EPN 66FL12, and EPN 66FL13 inlet gas stream in accordance with the 40 CFR §60.107a(e) and (f)(1).

(d) Continuously monitor the flow rate and the total sulfur concentration for each affected EPN listed in §112.230(b)(6) and (7) of this title (relating to Applicability) in accordance with 40 CFR §60.107a(a), (e) and (f)(1).

(e) Continuous monitoring data collected in accordance with requirements in this section must undergo an appropriate quality assurance and quality control process and be validated for at least 95% of the time that the monitored emission point has emissions; an owner or operator must utilize an appropriate data substitution process based on the most accurate methodology available, which is at least equivalent to engineering judgement, to obtain all missing or invalidated monitoring data for the

remaining period the monitored emission point has emissions.

#### §112.234. Testing Requirements.

(a) Perform continuous emissions monitoring system (CEMS) relative accuracy tests in accordance with 40 Code of Federal Regulations (CFR) §60.105a(g)(2) for EPN 29P1 and EPN 40P1 and 40 CFR §60.106a(1)(iii) for EPN 34I1 and EPN 43I1.

(b) Perform initial testing for monitoring devices required by §112.233 of this title (relating to Monitoring Requirements) in accordance with the manufacturer's specifications to ensure that the required monitors are calibrated and function properly by the compliance date in §112.238 of this title (relating to Compliance Schedules).

(c) Conduct additional performance testing, if requested by the executive director, in compliance with 40 CFR §60.104a to demonstrate compliance with applicable emission limits or standards. The notification requirements of 40 CFR §60.8(d) apply to each initial performance test and to each subsequent performance test required by the executive director, except for performance tests conducted for the purpose of obtaining supplemental data because of continuous monitoring system breakdowns, repairs, calibration checks, or zero and span adjustments. All performance tests must be conducted using test methods allowed in §112.235 of this title (relating to Approved Test Methods).

(d) When analysis of fuels, including but not limited to refinery gas, is required under §112.233 of this title, the owner or operator shall use a test method in §112.235 of this title for the analysis.

#### §112.235. Approved Test Methods.

(a) Tests required under §112.234 of this title (related to Testing Requirements) must be conducted using the test methods in 40 Code of Federal Regulations (CFR) Part 60, Appendices A-1 through A-8 and Appendix B or other methods as specified in this section, except as provided in §60.8(b) (*36 Federal Register* (FR) 24877, published Dec. 23, 1971, as amended through 81 FR 59809, published Aug. 30, 2016).

(b) Sulfur dioxide (SO<sub>2</sub>) in exhaust gases must be determined using United States Environmental Protection Agency (EPA) Test Method 6 or 6C (40 CFR, Part 60, Appendix A).

(c) For flares subject to emissions limitations or standards in §112.232 of this title (relating to Control Requirements), the owner or operator shall use flare test methods and procedures in 40 CFR §60.104a (73 FR 35867, published June 24, 2008 as amended 77 FR 56470, published September 12, 2012 and 80 FR 75231, published December 1, 2015).

(d) Sulfur content of fuels must be determined using American Society for

Testing and Materials (ASTM) Method D1945-91 or ASTM Method D3588-93 for fuel composition.

(e) Alternate test methods as approved by the executive director and the EPA may be used.

## §112.236. Recordkeeping Requirements.

<u>The owner or operator shall maintain records sufficient to demonstrate</u> <u>compliance with each applicable requirement for a minimum of five years, including</u> <u>but not limited to:</u>

(1) all monitoring data and sampling analyses, including but not limited to continuous emissions monitoring system flow rate and sulfur composition data, used to quantify emissions, and for EPN 29P1 and EPN 40P1, authorized MSS activities records including one-hour average exhaust flow rates in am<sup>3</sup>/hr and emission rates;

(2) the methodology and any associated calculations employed to determine compliance;

(3) documentation of any period that emission limits or standards were exceeded, and exceedance reports submitted to the Texas Commission on Environmental Quality; and
(4) copies of emission test data and records.

#### §112.237. Reporting Requirements.

(a) For a source that is subject to an emissions limit in §112.232 of this title (relating to Control Requirements) and that exceeds an applicable emission limit or fails to meet a required stack parameter, the owner or operator shall submit to the Texas Commission on Environmental Quality (TCEQ) Regional Office for the area where the plant is located a report by March 31 of the year after an exceedance occurs documenting the excess emissions during the preceding calendar year, including at least the following:

(1) the date that each exceedance or failure to meet a required stack parameter occurred;

(2) an explanation of the exceedance or failure to meet a required stack parameter;

(3) a statement of whether the exceedance or failure to meet a required stack parameter was concurrent with a maintenance, startup, and shutdown period for or malfunction of an affected facility or control system;

(5) a written statement, signed by the owner or operator, certifying the accuracy and completeness of the information contained in the report.

(b) The owner or operator shall submit a copy of each stack test report to the <u>TCEQ Regional Office and any local air pollution control agency having jurisdiction for</u> <u>the area where the plant is located within 60 days after completion of the test.</u>

(c) After the effective date of a determination by the Environmental Protection Agency (EPA) that the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area has failed to attain the 2010 one-hour SO<sub>2</sub> National Ambient Air Quality Standard pursuant to Federal Clean Air Act § 179(c), 42 United States Code §7509(c), the TCEO will notify the owner or operator of the failure to attain and that the contingency measures in this subsection are triggered. Once notification is received from the TCEO, the owner or operator shall perform a full system audit (FSA) of all SO<sub>2</sub> sources subject to §112.230 of this title (relating to Applicability).

(1) Within 90 calendar days after the date of the notification, the owner or operator shall submit the FSA, including recommended provisional SO<sub>2</sub> emission control strategies as necessary, to the executive director of the TCEQ. (2) As part of the FSA, the owner or operator shall conduct a root cause analysis of the circumstances surrounding the cause of the determination of failure to attain, including a review and consideration of, at a minimum, hourly mass emissions of SO<sub>2</sub> from each SO<sub>2</sub> source subject to this division; the meteorological conditions recorded at the monitor or other relevant meteorological data, including the frequency distribution of wind direction temporally correlated with SO<sub>2</sub> readings greater than 75 parts per billion at the monitor for which the EPA's determination of failure to attain was made; and any exceptional event that may have occurred. The root cause analysis and associated records used to conduct the audit must consider information on the days that monitored exceedances occurred during the time period that the EPA evaluated in making the failure to attain determination.

## §112.238. Compliance Schedules.

The owner or operator of a source subject to §112.230 of this title (relating to Applicability) shall comply with the requirements of this division as soon as practicable, but no later than January 1, 2025.

## SUBCHAPTER F – REQUIREMENTS IN THE HUTCHINSON COUNTY NONATTAINMENT AREA DIVISION 5 – REQUIREMENTS FOR THE TOKAI BORGER CARBON BLACK PLANT §§112.240 - 112.248

#### **Statutory Authority**

The new sections are proposed under Texas Water Code (TWC), §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.014, concerning Emission Inventory, which authorizes the commission to require companies whose activities cause emissions of air contaminants to submit information to enable the commission to develop an inventory of emissions; THSC, §382.015, concerning Power to Enter Property, which authorizes a member, employee, or agent of

the commission to enter public or private property to inspect and investigate conditions relating to emissions of air contaminants; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants, as well as require recordkeeping; and THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling methods and procedures to be used in determining violations of and procedures to be used in determining compliance.

The proposed new sections implement TWC, §5.103 and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017 and 382.021.

#### §112.240. Applicability.

(a) The requirements in this division apply to affected sources at the Tokai Borger Carbon Black Plant site (Regulated Entity Number (RN) 100222413) in the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area. Affected sources will remain subject to this division regardless of ownership, operational control, or other documentation changes. Once approved by the United States Environmental Protection Agency (EPA), the requirements in these rules continue to apply until the EPA approves their removal.

(b) Affected existing sources are designated by the emission point number (EPN)

2020;

and source name used in the site's New Source Review (NSR) permit as issued on the specified date. Applicable control devices to be authorized and constructed are similarly designated by the EPN that the company used to designate the future unit in the attainment demonstration modeling, with an appropriate name also used in the rules. The specific affected sources are as follows:

(1) EPN 119, Boiler Stacks, Boiler 1 and 2 Common Stack, in NSR Permit 1867A dated July 21, 2020;

(2) EPN 121, Plant 1 Dryer Stack, designated in NSR Permit 1867A dated July 21, 2020;

(3) EPN 122, Plant 2 Dryer Stack, in NSR Permit 1867A dated July 21,

(4) EPN 1, Plant 1 Number 1 and Number 2 Dryer Purge Stack, in NSR Permit 1867A dated July 21, 2020;

(5) EPN 3, Plant 1 Number 3 and Number 4 Dryer Purge Stack, in NSR Permit 1867A dated July 21, 2020;

# (6) EPN Flare-1, EPN Flare-2, EPN Flare-3 and EPN Flare-4, the four flares for the carbon black reactors, designated in NSR Permit 1867A dated July 21, 2020; and

## (7) EPN New-Flare, New Flare, if authorized and constructed to replace all existing flares (EPN Flare-1, EPN Flare-2, EPN Flare-3, and EPN Flare-4) for the carbon black reactors.

## §112.241. Definitions.

Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382), or in §101.1 or §112.1 of this title (relating to Definitions, respectively), the terms in this division have the meanings commonly used in the field of air pollution control. The following meanings apply in this division unless the context clearly indicates otherwise.

(1) Block one-hour average--An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour (e.g., from 12:00:00 to 12:59:59).

(2) Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area--The portion of Hutchinson County designated by the United States Environmental Protection Agency (EPA) as nonattainment for the 2010 SO<sub>2</sub> National Ambient Air

Quality Standard, 40 Code of Federal Regulations §81.344, as published on March 26, 2021 (86 *Federal Register* 16055), effective April 30, 2021.

(3) Pipeline quality natural gas--Natural gas containing no more than 0.25 grain of hydrogen sulfide and 5 grains of total sulfur per 100 dry standard cubic feet.

(4) Production unit--The carbon black oil furnace or group of carbon black oil furnaces, dryers or groups of dryers, and any ancillary units used in the manufacture of carbon black and producing tail gas.

(5) Tail gas--The exit gaseous stream of a carbon black oil furnace consisting of water vapor, carbon monoxide, hydrogen, pyrolysis by-products, and reduced and organic sulfur compounds as a result of the manufacture of carbon black.

## §112.242. Control Requirements.

(a) An owner or operator may not change the Regulated Entity Number (RN) or emission point number (EPN) designation of any source subject to §112.240 of this title (relating to Applicability) or otherwise contravene any of the control requirements in this section without the prior approval of the executive director and the United States Environmental Protection Agency (EPA).

(b) Hourly mass emissions of sulfur dioxide (SO<sub>2</sub>), on a block one-hour average,

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may not exceed the following when Boilers 1 or 2, singly or together, are operating:

(1) 109.10 lb/hr SO<sub>2</sub> for EPN 119 (Boiler Stacks, Boiler 1 and 2 Common

<u>Stack);</u>

## (2) 441.40 lb/hr SO<sub>2</sub> for EPN 121 (Plant 1 Dryer Stack); and

## (3) 595.60 lb/hr SO<sub>2</sub> for EPN 122 Plant 2 (Dryer Stack).

(c) If EPN New Flare is not authorized, constructed, and operated, hourly mass emissions of SO<sub>2</sub>, on a block one-hour average, may not exceed the following when both Boilers 1 and 2 are not operating:

(1) 420.00 lb/hr SO<sub>2</sub> for EPN Flare-1 (Plant 1, Unit 1 Primary Bag Filter Flare);

(2) 0.00 lb/hr SO<sub>2</sub> for EPN 119 (Boiler Stacks, Boiler 1 and 2 Common Stack);

(3) 250.00 lb/hr SO<sub>2</sub> for EPN 121 (Plant 1 Dryer Stack); and

(4) 400.00 lb/hr SO<sub>2</sub> for EPN 122 (Plant 2 Dryer Stack).

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(d) If EPN New Flare (New-Flare) is authorized, constructed, and operated, hourly mass emissions of SO<sub>2</sub>, on a block one-hour average, may not exceed the following when both Boilers 1 and 2 are not operating:

## (1) 806.60 lb/hr SO<sub>2</sub> for EPN New Flare (New-Flare);

(2) 0.00 lb/hr SO<sub>2</sub> for the EPN 119 (Boiler Stacks, Boiler 1 and 2 Common Stack);

## (3) 272.50 lb/hr SO<sub>2</sub> for EPN 121 (Plant 1 Dryer Stack); and

## (4) 436.00 lb/hr SO<sub>2</sub> for EPN 122 (Plant 2 Dryer Stack).

(e) Tail gas may only be combusted in a facility whose emissions are routed to EPN 119 (Boiler 1 and 2 Common Stack), EPN 121 (Plant 1 Dryer Stack), EPN 122 (Plant 2 Dryer Stack), EPN Flare-1 (Plant 1, Unit 1 Primary Bag Filter Flare), or EPN New Flare (New-Flare).

(f) If EPN New Flare (New-Flare) is not authorized, constructed, and operated, EPN Flare-2, EPN Flare-3, and EPN Flare-4 may not operate on or after the compliance date in §112.248 of this title (relating to Compliance Schedules).

(g) If EPN New Flare (New-Flare) is authorized, constructed, and operated, EPN

Flare-1, EPN Flare-2, EPN Flare-3, and EPN Flare-4 may not operate on or after the compliance date in §112.248 of this title.

(h) EPN 1 (Plant 1 Number 1 and Number 2 Dryer Purge Stack) and EPN 3 (Plant 1 Number 3 and Number 4 Dryer Purge Stack) may not operate on or after the compliance date in §112.248 of this title.

(i) If EPN New Flare (New-Flare) is authorized, constructed, and operated, it must meet the following parameters:

(1) EPN New Flare (New-Flare) must receive all waste gases instead of EPN Flare-1, EPN Flare-2, EPN Flare-3, and EPN Flare-4;

(2) tail gas may be routed to EPN New Flare (New-Flare) only when Boilers 1 and 2 are not operating; and

(3) EPN New Flare (New-Flare) must be constructed with a stack height of no less than 60.35 meters and must be located at Universal Transverse Mercator (UTM) coordinates UTM East Meters 279488 and UTM North Meters 3949627 in UTM Zone 14.

(j) If EPN New Flare (New-Flare) is not authorized, constructed, and operated, tail gas may be routed to EPN Flare-1 (Plant 1, Unit 1 Primary Bag Filter Flare) only when Boilers 1 and 2 are not operating.

(k) The owner or operator may request an alternative SO<sub>2</sub> emission limit if dispersion modeling and analysis consistent with the most recent attainment demonstration confirms the alternative limit will not increase the modeled regulatory design value in the nonattainment area. The alternative limit and any deviations from the modeling methodology from the most recent attainment demonstration must be approved by the executive director and the EPA.

## §112.243. Monitoring Requirements.

(a) Install, calibrate, and maintain a CEMS to monitor exhaust SO<sub>2</sub> from EPN 119 (Boiler Stacks, Boiler 1 and 2 Common Stack) in accordance with the requirements of 40 CFR Part 60 as follows:

<u>(1) §60.13;</u>

(2) Appendix B, Performance Specification 2, for SO<sub>2</sub>; and

(3) Appendix F, quality assurance procedures.

(b) Monitor the sulfur content of the carbon black oil feedstock and produced carbon black, as well as the production rate of the carbon black, as follows:

(1) measure daily the sulfur content by weight of the carbon black oil in the feed to each production unit according to the requirements of §112.245 of this title (relating to Approved Test Methods);

(2) for each grade of carbon black produced, measure daily the sulfur content by weight of the carbon black produced by each carbon black production unit according to the requirements of §112.245 of this title; and

(3) determine hourly the amount of each grade of carbon black produced by each carbon black production unit.

(c) Install, calibrate, maintain, and operate one or more totalizing fuel flow meters, with an accuracy of  $\pm$  5%, to continuously measure the feed rate of carbon black oil feedstock supplied to each carbon black production unit.

(d) Install, calibrate, maintain, and operate totalizing tail gas flow meters, with an accuracy of  $\pm$  5%, to continuously measure the volumetric flow rate of tail gas to each tail gas combustion device covered under §112.242 of this title (relating to <u>Control Requirements).</u>

(e) Continuous monitoring data collected in accordance with requirements in this subsection must undergo an appropriate quality assurance and quality control process and be validated for at least 95% of the time that the monitored emission point

has emissions; an owner or operator must utilize an appropriate data substitution process based on the most accurate methodology available, which is at least equivalent to engineering judgment, to obtain all missing or invalidated monitoring data for the remaining period the monitored emission point has emissions.

(f) Calculate total SO<sub>2</sub> emissions from each carbon black production unit using the equation in subsection (j) of this section which assumes that all the sulfur in the carbon black oil feedstock, which is not accounted for by sulfur in the carbon black product, is converted to SO<sub>2</sub>.

(g) If EPN New Flare (New-Flare) is not authorized, constructed, and operated, demonstrate compliance with the allowable emission requirements of §112.242 of this title for EPN 121 (Plant 1 Dryer Stack), EPN 122 (Plant 2 Dryer Stack), and EPN Flare-1 (Plant 1, Unit 1 Primary Bag Filter Flare) by calculating the actual hourly emissions of SO<sub>2</sub> by using the mass balance approach in subsection (j) of this section as well as the ratio of the total volumetric flow of tail gas to the boilers or flare versus the total volumetric flow of tail gas and the ratio of the total volumetric flow of tail gas to the dryers versus the total volumetric flow of tail gas.

(h) If EPN New Flare (New-Flare) is authorized, constructed, and operated, demonstrate compliance with the applicable emission requirements of §112.242 of this title for EPN 121 (Plant 1 Dryer Stack), EPN 122 (Plant 2 Dryer Stack), and EPN New Flare (New Flare) by calculating the actual hourly emissions of SO<sub>2</sub> by using the mass

balance approach in subsection (j) of this section as well as the ratio of the volumetric flow of tail gas to the boilers or flare versus the total volumetric flow of tail gas and the ratio of the total volumetric flow of tail gas to the dryers versus the total volumetric flow of tail gas.

(i) Actual emissions of  $SO_2$  from each EPN specified under §112.242 of this title for each operational scenario occurring during any block one-hour period must be determined on a block one-hour average.

(j) Calculate total SO<sub>2</sub> emissions from each production unit using the following equation.

Figure: 30 TAC §112.243(j)

## $SO_2 = (SI - SRB) \times 2$

Where:

- SO<sub>2</sub> = mass emissions of SO<sub>2</sub>, expressed in units of lb/hr;
- SI = the sulfur input from the carbon black oil feedstock determined by sampling as required by §112.243(2)(A);
- 2 = the molecular weight ratio of SO<sub>2</sub> to sulfur.

#### §112.244. Testing Requirements.

(a) Perform an initial demonstration of compliance test on the emission points specified in §112.242(b) - (d) of this title (relating to Control Requirements) for sulfur dioxide (SO<sub>2</sub>), while the associated facilities are firing tail gas, except for flares, by the compliance date in §112.248 of this title (relating to Compliance Schedules).

(b) Use the methods provided in §112.245 of this title (relating to Approved Test Methods) for the initial demonstration of compliance test required under subsection (a) of this section.

(c) During stack testing, operate the facility at the maximum rated capacity, or as near thereto as practicable.

(d) Conduct additional performance testing requested by the executive director using test methods allowed in §112.245 of this title.

(e) When analysis of produced carbon black, carbon black oil, and fuels, including but not limited to tail gas, is required for monitoring under §112.243 of this title (relating to Monitoring Requirements), the owner or operator shall use a test method in §112.245 of this title for the analysis.

#### §112.245. Approved Test Methods.

(a) Tests required under §112.244 of this title (relating to Testing Requirements) must be conducted using the test methods in 40 Code of Federal Regulations (CFR) Part 60, Appendices A-1 through A-8 and Appendix B or other methods as specified in this section, except as provided in §60.8(b) (*36 Federal Register* (FR) 24877, published Dec. 23, 1971, as amended through 81 FR 59809, published Aug. 30, 2016).

(b) Sulfur dioxide (SO<sub>2</sub>) in exhaust gases must be determined using United States Environmental Protection Agency (EPA) Test Method 6 or 6C (40 CFR, Part 60, Appendix A).

(c) For flares subject to emissions limitations or standards in §112.242 of this title (relating to Control Requirements), the owner or operator shall use flare test methods and procedures in 40 CFR §60.104a (73 FR 35867, published June 24, 2008 as amended 77 FR 56470, published September 12, 2012 and 80 FR 75231, published December 1, 2015) as if the federal rules apply to carbon black plants.

(d) Sulfur content of fuels and carbon black oil must be determined using American Society for Testing and Materials (ASTM) Method D1945-91 or ASTM Method D3588-93 for fuel composition.

(e) Sulfur content of carbon black must be determined using ASTM Test Method D1619.

(f) Alternate test methods as approved by the executive director and the EPA may be used.

## §112.246. Recordkeeping Requirements.

<u>The owner or operator shall maintain records sufficient to demonstrate</u> <u>compliance with each applicable requirement for a minimum of five years, including</u> <u>but not limited to:</u>

(1) records in units of pounds per hour (lb/hr) of production of carbon black for each grade of carbon black from each carbon black production unit;

(2) daily records of sulfur content by weight of the carbon black oil feedstock;

(3) daily records of sulfur content by weight of the carbon black produced for each grade of carbon black produced by each carbon black production unit;

(4) records of continuous carbon black oil feedstock flow rates for each carbon black production unit;

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(5) records of continuous tail gas volumetric flow rates to each tail gas combustion device covered by §112.242 of this title (relating to Control Requirements);

(6) for each block one-hour period of operation of a carbon black production unit, the required mass balance calculations of emissions of SO<sub>2</sub> from each EPN for those sources in operation without a continuous emissions monitoring system (CEMS) for SO<sub>2</sub> and for control devices;

(7) the continuous emissions monitoring data of emissions of  $SO_2$  for each EPN for those sources in operation with a CEMS for  $SO_2$ ; and

(8) copies of required emission test data and records.

## §112.247. Reporting Requirements.

(a) For a source that is subject to an emissions limit in §112.242 of this title (relating to Control Requirements) and that exceeds an applicable emission limit or fails to meet a required stack parameter, the owner or operator shall submit to the Texas Commission on Environmental Quality (TCEQ) Regional Office for the area where the plant is located a report by March 31 of the year after an exceedance occurs documenting the excess emissions during the preceding calendar year, including at least the following:

(1) the date that each exceedance or failure to meet a required stack parameter occurred;

(2) an explanation of the exceedance or failure to meet a required stack parameter:

(3) a statement of whether the exceedance or failure to meet a required stack parameter was concurrent with an authorized maintenance, startup, and shutdown activity or malfunction of an affected facility or control system;

(4) a description of the action taken, if any; and

(5) a written statement, signed by the owner or operator, certifying the accuracy and completeness of the information contained in the report.

(b) The owner or operator shall submit a copy of each stack test report to the <u>TCEQ Regional Office and any local air pollution control agency having jurisdiction for</u> <u>the area where the plant is located within 60 days after completion of the test.</u>

(c) After the effective date of a determination by the Environmental Protection Agency (EPA) that the Hutchinson County sulfur dioxide (SO<sub>2</sub>) nonattainment area has failed to attain the 2010 one-hour SO<sub>2</sub> National Ambient Air Quality Standard pursuant to Federal Clean Air Act § 179(c), 42 United States Code §7509(c), the TCEQ will notify

the owner or operator of the failure to attain and that the contingency measures in this subsection are triggered. Once notification is received from the TCEO, the owner or operator shall perform a full system audit (FSA) of all SO<sub>2</sub> sources subject to §112.240 of this title (relating to Applicability).

(1) Within 90 calendar days after the date of the notification, the owner or operator shall submit the FSA, including recommended provisional SO<sub>2</sub> emission control strategies as necessary, to the executive director of the TCEQ.

(2) As part of the FSA, the owner or operator shall conduct a root cause analysis of the circumstances surrounding the cause of the determination of failure to attain, including a review and consideration of, at a minimum, hourly mass emissions of SO<sub>2</sub> from each SO<sub>2</sub> source subject to this division; the meteorological conditions recorded at the monitor or other relevant meteorological data, including the frequency distribution of wind direction temporally correlated with SO<sub>2</sub> readings greater than 75 parts per billion at the monitor for which the EPA's determination of failure to attain was made; and any exceptional event that may have occurred. The root cause analysis and associated records used to conduct the audit must consider information on the days that monitored exceedances occurred during the time period that the EPA evaluated in making the failure to attain determination.

#### §112.248. Compliance Schedules.

## The owner or operator of a source subject to §112.240 of this title (relating to

## <u>Applicability</u>) shall comply with the requirements of this division as soon as

practicable, but no later than January 1, 2025.

## SUBCHAPTER G: REQUIREMENTS INTHE NAVARRO COUNTY NONATTAINMENT AREA

#### <u>§§112.300 - 112.308</u>

#### **Statutory Authority**

The new sections are proposed under Texas Water Code (TWC), §5.103, concerning Rules, and TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.014, concerning Emission Inventory, which authorizes the commission to require companies whose activities cause emissions of air contaminants to submit information to enable the commission to develop an inventory of emissions; THSC, §382.015, concerning Power to Enter Property, which authorizes a member, employee, or agent of

the commission to enter public or private property to inspect and investigate conditions relating to emissions of air contaminants; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants, as well as require recordkeeping; and THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling methods and procedures to be used in determining violations of and procedures to be used in determining compliance.

The proposed new sections implement TWC, §5.103 and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017 and 382.021.

#### §112.300. Applicability.

(a) The requirements in this subchapter apply to affected sources at the Arcosa Lightweight Streetman site (Regulated Entity Number (RN) RN100211283) in the Navarro County sulfur dioxide (SO<sub>2</sub>) nonattainment area. Affected sources will remain subject to this subchapter regardless of ownership, operational control, or other documentation changes. Once approved by the United States Environmental Protection Agency (EPA), the requirements in section continue to apply until the EPA approves their removal.

(b) The affected source is designated by emission point number (EPN) and

source name used in the site's New Source Review (NSR) permit as issued on the specified date. The affected source is EPN E3-1, Kiln Scrubber Stack, in New Source Review Permit 5337 dated May 29, 2020. This designation must continue to be used as the EPN for the lightweight aggregate kiln or any control device for SO<sub>2</sub> regardless of any changes made to the lightweight aggregate kiln or its control system.

#### §112.301. Definitions.

Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382), or in §101.1 or §112.1 of this title (relating to Definitions, respectively), the terms in this subchapter have the meanings commonly used in the field of air pollution control. The following meanings apply in this subchapter unless the context clearly indicates otherwise.

(1) Lightweight aggregate kiln--A rotary kiln used to produce lightweight aggregate material. Any calciner or other associated devices used with the kiln for production are included as part of the kiln.

(2) Lightweight aggregate material--Minerals, rock materials, rock-like products, and byproducts of manufacturing processes, which are used as bulk fillers in lightweight structural concrete, concrete building blocks, precast structural units, road surfacing materials, plaster aggregates, and insulating fill, or other similar materials

(<u>3) Navarro County sulfur dioxide (SO<sub>2</sub>) nonattainment area--The portion</u> of Navarro County designated by the United States Environmental Protection Agency (EPA) as nonattainment for the 2010 SO<sub>2</sub> National Ambient Air Quality Standard, 40 Code of Federal Regulations §81.344, as published on March 26, 2021 (86 *Federal Register* 16055), effective April 30, 2021.

(4) Pipeline quality natural gas--Natural gas containing no more than 0.25 grain of hydrogen sulfide and 5 grains of total sulfur per 100 dry standard cubic feet.

## §112.302. Control Requirements.

(a) The owner or operator may not change the Regulated Entity Number (RN) or the emission point number (EPN) designation of a source subject to §112.300 of this title (relating to Applicability) or otherwise contravene any of the control requirements in this section without the prior approval of the executive director and the United States Environmental Protection Agency (EPA).

(b) The EPN E3-1 (Kiln Scrubber Stack) and the associated lightweight kiln must emit all exhaust gases through a stack that is at least 35.052 meters tall and must be located at Universal Transverse Mercator (UTM) coordinates UTM East Meters 750666.0 and UTM North Meters 3533945.0 in UTM Zone 14.

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(c) Emissions from EPN E3-1 (Kiln Scrubber Stack) and lightweight aggregate kiln may not exceed 248.00 pounds per hour (lb/hr) sulfur dioxide (SO<sub>2</sub>), except as provided for in subsection (d) of this section, the temperature of the exhaust gas exiting from the stack may not fall below 125 degrees Fahrenheit, and the velocity of the exhaust gas exiting from the stack may not drop below 65 feet per second (ft/s).

(d) If the stack temperature is at least 150 degrees Fahrenheit and the exhaust velocity is 66 ft/s or greater, emissions from EPN E3-1 (Kiln Scrubber Stack) and lightweight aggregate kiln may not exceed 283.00 lb/hr SO<sub>2</sub>.

(e) The fuel used in the lightweight aggregate kiln must be coal or petroleum coke for which the sulfur content is determined as specified in §112.303 of this title (relating to Monitoring Requirements), pipeline quality natural gas, or a combination of these fuels.

(f) The total sulfur content of all fuel burned in the lightweight aggregate kiln may not exceed 200.00 lb/hr.

(g) The owner or operator may request an alternative SO<sub>2</sub> emission limit if dispersion modeling and analysis consistent with the most recent attainment demonstration confirms the alternative limit will not increase the modeled regulatory design value in the nonattainment area. The alternative limit and any deviations from the modeling methodology from the most recent attainment demonstration must be

approved by the executive director and the EPA.

## §112.303. Monitoring Requirements.

The owner or operator shall monitor the following parameters of the lightweight aggregate kiln, the fuels combusted, and the raw materials treated in the kiln:

(1) the amount of shale and any other raw material processed each hour;

(2) the amount of each type of fuel used during each hour;

(3) the total sulfur content of the natural gas at least monthly; an analysis provided by the supplier of the natural gas is sufficient for this monitoring requirement;

(4) the average sulfur content of coal and petroleum coke combusted each week; an analysis provided by the supplier of the coal or petroleum coke is sufficient for this monitoring requirement;

(5) the average total sulfur content of the shale and any other raw material processed each week from all sources; for any raw material supplied from a source not affiliated with the owner or operator, an analysis provided by the supplier of a raw material is sufficient for this monitoring requirement;

(6) continuous monitoring of the temperature and velocity of exhaust gases at the outlet after the control device, if installed, or at the outlet of the stack from the kiln or any bypass, if present; and

#### (7) continuous monitoring data collected in accordance with

requirements in this subsection must undergo an appropriate quality assurance and quality control process and be validated for at least 95% of the time that the monitored emission source operates; an owner or operator must utilize an appropriate data substitution process based on the most accurate methodology available, which is at least equivalent to engineering judgement, to obtain all missing or invalidated monitoring data for the remaining period the monitored source is in operation.

#### §112.304. Testing Requirements.

(a) By the compliance date in §112.308 of this title (relating to Compliance Schedules), the owner or operator shall conduct a stack test to determine the current emission rate from the lightweight aggregate kiln, unless testing in subsection (b) of this section has been conducted.

(b) After installation of any control device for sulfur dioxide on or after the effective date of this rule, the owner or operator shall conduct a stack test to determine the control efficiency of the control device within 60 days of installation.

(c) If the kiln or the control device is modified after the compliance date, including but not limited to addition of a control device, or if there is a change of the raw material used, the owner or operator shall conduct a stack test within 60 days.

(d) Any stack test conducted under subsections (a) – (c) of this section must be conducted while the lightweight aggregate kiln is operating at full load and while raw material and fuels with the maximum anticipated sulfur content are in use.

(e) When analysis of fuels is required for monitoring under §112.303 of this title (relating to Monitoring Requirements), the owner or operator shall use a test method in §112.305(c) of this title (relating to Approved Test Methods) for the analysis.

(f) The owner or operator shall analyze the shale and any other raw material treated in the lightweight aggregate kiln using a method suitable for the specific material. Prior to the initial use of each test method, the owner or operator shall submit the test method to the executive director and receive approval for its use for the specific raw material.

(g) The owner or operator shall conduct additional performance testing, if requested by the executive director. All performance tests must be conducted using test methods allowed in §112.305 of this title.

#### §112.305. Approved Test Methods.

(a) Sulfur dioxide (SO<sub>2</sub>) in exhaust gases must be determined using United States Environmental Protection Agency (EPA) Test Method 6 or 6C (40 Code of Federal Regulations (CFR), Part 60, Appendix A).

(b) Stack tests must be conducted using a method in subsection (a) and EPA Test Method 2 (40 CFR Part 60, Appendix A) for exhaust gas flow and following the measurement site criteria of EPA Test Method 1, §11.1 (40 CFR Part 60, Appendix A), or EPA Test Method 19 (40 CFR Part 60, Appendix A) for exhaust gas flow in conjunction with the measurement site criteria of Performance Specification 2, §8.1.3 (40 CFR Part 60, Appendix B).

(c) Sulfur content of fuels must be determined using American Society for Testing and Materials (ASTM) Method D1945-91 or ASTM Method D3588-93 for fuel composition.

(d) Sulfur content of shale and other raw materials processed in the lightweight aggregate kiln must be tested using a method approved by the executive director.

(e) Alternate methods as approved by the executive director and the EPA may be used.

### §112.306. Recordkeeping Requirements.

The owner or operator shall maintain, for a minimum of five years, records

sufficient to demonstrate compliance with all applicable requirements in this

subchapter, including but not limited to:

(1) hourly records of the amount of each fuel used;

(2) records of the results of each monthly analysis of the natural gas

<u>used;</u>

(3) records of the results of each weekly analysis of the coal and of the petroleum coke combusted;

(4) hourly records of the amounts of shale and other raw materials processed in the lightweight aggregate kiln;

(5) records of the continuous monitoring of exhaust gas temperature and velocity from the appropriate stack(s);

(6) records of calculations of the sulfur content of all fuels combusted and raw materials processed each hour, which are calculated by multiplying the sulfur <u>content of each fuel or raw material by the amount consumed in an hour and summing</u> the results for all materials;

(7) records of mass balance calculations of the amounts of sulfur emitted on an hourly basis, which is calculated by multiplying the summed sulfur contents in paragraph (6) of this subsection by two to convert the weight of sulfur to the weight of sulfur dioxide;

(8) records of any exceedance of the sulfur dioxide emission limits or the stack parameters associated with an emission limit in §112.302 of this title (relating to Control Requirements); and

## (9) a copy of each stack test conducted and associated records.

## §112.307. Reporting Requirements.

(a) If an affected source exceeds the applicable emission limit or fails to meet a required stack parameter, the owner or operator shall submit Texas Commission on Environmental Quality (TCEQ) Regional Office for the area where the plant is located a report by March 31 of the year after an exceedance occurs documenting the excess emissions during the preceding calendar year, including at least the following:

(1) the date that each exceedance or failure to meet a required stack parameter occurred;

(2) an explanation of the exceedance or failure to meet a required stack parameter:

(3) a statement of whether the exceedance or failure to meet a required stack parameter was concurrent with an authorized MSS activity for or malfunction of an affected facility or control system;

(4) a description of the action taken, if any; and

(5) a written statement, signed by the owner or operator, certifying the accuracy and completeness of the information contained in the report.

(b) The owner or operator shall submit a copy of each stack test report to the <u>TCEQ Regional Office and any local air pollution control agency having jurisdiction for</u> <u>the area where the plant is located within 60 days after completion of the test.</u>

(c) After the effective date of a determination by the United States Environmental Protection Agency (EPA) that the Navarro County sulfur dioxide (SO<sub>2</sub>) nonattainment area has failed to attain the 2010 one-hour SO<sub>2</sub> National Ambient Air Quality Standard pursuant to Federal Clean Air Act § 179(c), 42 United States Code

§7509(c), the TCEQ will notify the owner or operator of the failure to attain and that the contingency measures in this subsection are triggered. Once notification is received from the TCEQ, the owner or operator shall perform a full system audit (FSA) of the SO<sub>2</sub> sources subject to §112.300 of this title (relating to Applicability).

(1) Within 90 calendar days after the date of the notification, the owner or operator shall submit the FSA, including recommended provisional SO<sub>2</sub> emission control strategies as necessary, to the executive director of the TCEQ.

(2) As part of the FSA, the owner or operator shall conduct a root cause analysis of the circumstances surrounding the cause of the determination of failure to attain, including a review and consideration of, at a minimum, hourly mass emissions of SO<sub>2</sub> from each SO<sub>2</sub> source subject to this subchapter; the meteorological conditions recorded at the monitor or other relevant meteorological data, including the frequency distribution of wind direction temporally correlated with SO<sub>2</sub> readings greater than 75 parts per billion at the monitor for which the EPA's determination of failure to attain was made; and any exceptional event that may have occurred. The root cause analysis and associated records used to conduct the audit must consider information on the days that monitored exceedances occurred during the time period that the EPA evaluated in making the failure to attain determination.

#### §112.308. Compliance Schedules.

<u>The owner or operator of the Arcosa Lightweight Streetman site (Regulated</u> <u>Entity Number 100211283) shall comply with the requirements of this subchapter as</u> <u>soon as practicable, but no later than January 1, 2025.</u>