

SETTLEMENT AGREEMENT

This Settlement Agreement (the “Agreement”), dated February 12, 2024 (the “Effective Date”), is entered into by and between MARTINEZ REFINING COMPANY LLC (“MRC”) and the BAY AREA AIR QUALITY MANAGEMENT DISTRICT (the “Air District”), each sometimes referred to herein as a “Party,” or collectively as the “Parties.”

RECITALS

WHEREAS, the Air District is the agency in California with primary responsibility for the control of air pollution from stationary sources in the San Francisco Bay Area Air Basin;

WHEREAS, the San Francisco Bay Area Air Basin encompasses Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and the southern portions of Solano and Sonoma Counties;

WHEREAS, in 2015, the Air District first adopted Regulation 6: Particulate Matter, Rule 5: *Particulate Emissions from Petroleum Refinery Fluidized Catalytic Cracking Units* (“Rule 6-5”);

WHEREAS, on July 21, 2021, the Air District and its Board of Directors approved amendments to Rule 6-5 prescribing, in relation to refinery fluidized catalytic cracking units (“FCCUs”), certain emissions limitations for Total PM₁₀ (“TPM”) and corresponding TPM monitoring requirements, among other provisions (the “Amendments”);

WHEREAS, Rule 6-5 applies to refineries in the Bay Area, including the refinery located in Martinez, California that is owned and operated by MRC (“Refinery”), and requires that, pursuant to Section 6-5-301.3, effective July 21, 2026, such refineries shall not cause TPM emissions from FCCUs that exceed 0.010 grains per dry standard cubic foot, corrected to 5% oxygen (“TPM Emission Limit”);

WHEREAS, Rule 6-5 provides two options for refineries to measure TPM emissions from their FCCUs. First, a refinery may conduct quarterly source testing by measuring TPM emissions from its FCCU, pursuant to Section 6-5-503.1. Second, if authorized by the Air Pollution Control Officer (“APCO”), a refinery may use an alternative emission monitoring system that the APCO has determined is functionally equivalent to such quarterly source testing to measure TPM emissions from its FCCU (“AEMS”), pursuant to Section 6-5-503.2;

WHEREAS, on September 7, 2021, MRC filed a verified Petition and Complaint in the Superior Court of the State of California for the County of Contra Costa against the Air District, challenging the Amendments on various grounds, captioned as *Martinez Refining Company LLC v. Bay Area Air Quality Management District et al.*, Case No. MSN21-1568 (the “Litigation”);

WHEREAS, in the Litigation, MRC alleged, among other things, that the Air District’s adoption of the Amendments violated the California Environmental Quality Act (“CEQA”) and its implementing regulations (Pub. Res. Code §21000 *et seq.*; Cal. Code Regs., title 14, § 15000 *et seq.*), certain provisions of the California Health & Safety Code, and California common law;

WHEREAS, on September 7, 2021, Chevron U.S.A. Inc. (“Chevron”) also filed a Petition for Writ of Mandate in the Superior Court for the State of California for the County of Contra Costa against the Air District, challenging the Amendments on similar grounds to MRC, captioned as *Chevron USA Inc. v. Bay Area Air Quality Management District, et al.* (Contra Costa Superior Court Case No. MSN21-1739) (“Related Case”);

WHEREAS, the administrative record has been certified and the Litigation and the Related Case are fully briefed, with a trial date set for February 29, 2024;

WHEREAS, in order to comply with the TPM Emission Limit adopted in the Amendments, MRC is implementing changes at the Refinery that will reduce emissions from the FCCU;

WHEREAS, MRC is seeking to utilize the provision in Section 6-5-503.2 allowing the use of an AEMS in order to demonstrate the Refinery’s compliance with the TPM Emission Limit;

WHEREAS, MRC’s AEMS would use the online continuous emissions monitoring systems installed on the Refinery FCCU’s Carbon Monoxide Boilers (“COBs”) to provide continuous monitoring of (i) ammonia (“NH₃”) and (ii) sulfur dioxide (“SO₂”) in the COBs’ flue gas as inputs to a correlation equation (“Correlation Equation”) for calculating TPM emissions from the FCCU based on the NH₃ and SO₂ continuous emissions data from those monitoring systems;

WHEREAS, the continuous emissions monitoring that serves as the basis for the Correlation Equation provides for continuous assessment of FCCU emissions in a way that is not possible through the quarterly source testing established by Section 6-5-503.1;

WHEREAS, the Correlation Equation is based on extensive source testing using, among other things, the source test methodology prescribed by the Amendments;

WHEREAS, on February 12, 2024, concurrently with the execution of this Agreement, the APCO approved in writing the AEMS pursuant to Section 6-5-503.2, subject to the provisions of this Agreement (attached hereto as Exhibit A and incorporated into and a part of this Agreement, and referred to herein as the “Approved AEMS”);

WHEREAS, the APCO has concluded that, subject to this Agreement and to subsequent validation pursuant to United States Environmental Protection Agency (“EPA”) Method 301, the Approved AEMS appears to provide for greater transparency with more complete and continuous assessment of TPM emissions than could be achieved by the quarterly source testing provided for in Section 6-5-503.1;

WHEREAS, the Approved AEMS is subject to subsequent validation to ensure that the Approved AEMS is accurately assessing TPM emissions from the FCCU, based on periodic source testing of TPM emissions from the FCCU;

WHEREAS, if the required validation shows that the Approved AEMS is not accurately assessing TPM emissions from the FCCU, then the Approved AEMS under Section 6-5-503.2 shall be revoked and MRC will be required to demonstrate compliance with the TPM Emission Limit using quarterly source testing under Section 6-5-503.1 or a later-approved AEMS pursuant to Section 6-5-503.2; and

WHEREAS, MRC and the Air District mutually desire to resolve the Litigation through a settlement that (i) reduces the uncertainty and risks of an adverse decision to both Parties and (ii) establishes the process for the APCO’s subsequent validation that the Approved AEMS is accurate.

NOW, THEREFORE, based on the foregoing recitals and in consideration of the mutual promises, covenants, and obligations herein, the sufficiency of which consideration is hereby expressly acknowledged by all Parties, the Parties agree as follows:

ARTICLE 1: RULE 6-5 COMPLIANCE

1.1. Full Compliance Required.

a. Nothing in this Agreement is intended to relieve MRC, nor shall it be construed as relieving MRC, from any obligation imposed by Rule 6-5. Rather, and for avoidance of doubt, this Agreement provides that MRC may utilize the Approved AEMS as an approved alternative mechanism to monitor emissions pursuant to Section 6-5-503.2 for purposes of determining whether MRC is meeting the TPM Emission Limit. In the event that the monitoring conducted pursuant to the Approved AEMS (or, if applicable under this Agreement after the First-Year Validation Period (as defined below), other monitoring required pursuant to this Agreement) shows that MRC is not in compliance with the TPM Emission Limit, then MRC shall be subject to the Air District’s full range of enforcement measures with respect to all provisions of Rule 6-5, subject to and in accordance with Articles 1.2 and 1.3 of this Agreement where applicable.

1.2. Use of AEMS to Demonstrate Compliance.

a. MRC shall utilize the Approved AEMS to demonstrate compliance with the TPM Emission Limit, as follows:

(i) In accordance with the Approved AEMS, commencing with the July-to-September calendar quarter in 2026 and continuing through the subsequent three (3) calendar quarters (collectively, the “First-Year Validation Period”), the Approved AEMS shall be used by the Air District to determine compliance with the TPM Emission Limit.

(ii) If the Approved AEMS is validated, pursuant to Article 2.2, then the Approved AEMS shall thereafter be used by the Air District to determine compliance with the TPM Emission Limit, unless the Approved AEMS is thereafter invalidated, modified, or revoked pursuant to its terms or Article 2.2 below.

(iii) If the Approved AEMS is not validated during the First-Year Validation Period, the Approved AEMS shall not be used during the Refinement Period provided for under Article 2.2 below to determine compliance with the TPM Emission Limit. In that event, compliance shall be determined pursuant to Rule 6-5 in the same manner as it would if the Approved AEMS had not been approved, including, but not limited to, through the use of source testing pursuant to Section 6-5-503.1 or through the use of a revised AEMS approved by the APCO as a result of the Refinement Period provided for under Article 2.2 below.

(iv) Following the First-Year Validation Period, and based on the application of Article 2.2(c), the Air District may undertake enforcement action utilizing source tests, if the Approved AEMS is deemed invalid pursuant to Article 2.2(c) or Article 2.2(e). Specifically, the Air District may use any source test results, including but not limited to source test results from the First-Year Validation Period, in any such enforcement action to seek prospective relief, including but not limited to injunctive relief and penalties for any violation of the TPM Emission Limit after such time as the Approved AEMS is deemed invalid; but the Air District shall not use such source tests to claim or assert any penalties against MRC based on the FCCU's PM emissions for any periods in which the Approved AEMS was in effect pursuant to Article 2.1(c), including but not limited to the First-Year Validation Period.

1.3. Amendment or Revocation of Rule 6-5 in Related Case.

a. With respect to the Related Case filed by Chevron, if any court renders a decision that results in any portion of Rule 6-5 being rescinded, voided, invalidated or postponed (each a "Rule 6-5 Invalidation"), MRC shall comply with the Amendments and this Agreement, provided, however, that if the Air District does not adopt substantially identical provisions within two (2) years from the date of the earliest Rule 6-5 Invalidation, then neither party shall have any further obligations under Articles 1 and 2 of this Agreement.

b. Subject to Articles 1.2 and 1.3(a), in the event of any Rule 6-5 Invalidation, the Air District may take enforcement action against MRC to enforce the Amendments, and MRC's obligation to comply with the Amendments pursuant to Article 1.3(a) above, via a civil contract action to enforce this Agreement as follows:

(i) the Air District may seek any and all remedies available to it for violations of Air District regulations as provided for under the Health and Safety Code and related law, including but not limited to civil penalties under Health and Safety Code sections 42402 through 42403 and 42411 and injunctive relief under Health and Safety Code section 41513;

(ii) MRC may assert any and all defenses available to it to oppose the imposition of any such remedies that the Air District may seek, except that it may not assert a defense to liability or objection to any requested remedy based on the Rule 6-5 Invalidation; and

(iii) The Court shall award such remedy or remedies based on these claims and defenses as would be available to the Air District if the Amendments were still in effect and enforceable as regulatory requirements.

c. Irrespective of any Rule 6-5 Invalidation, if the Air District adopts a rule that is less stringent in terms of the TPM Emission Limit, then neither party shall have any further obligations under Articles 1 and 2 of this Agreement.

ARTICLE 2: USE OF AN ALTERNATIVE EMISSIONS MONITORING SYSTEM TO DEMONSTRATE RULE 6-5 COMPLIANCE

2.1. APCO Approval of AEMS.

a. Concurrent with the execution of this Agreement, the APCO has approved in writing MRC's use of the Approved AEMS, pursuant to Section 6-5-503.2.

b. The Approved AEMS shall utilize the Refinery FCCU's COBs' online continuous monitoring systems to provide continuous monitoring of NH₃ and SO₂ in the COBs' flue gas and shall use the NH₃ and SO₂ data from those monitoring systems as inputs to the Correlation Equation, as more particularly set forth in the Approved AEMS, to determine TPM emissions from the FCCU.

c. The Approved AEMS shall remain in effect unless deemed invalid, revoked or altered pursuant to its terms, or with the written approval of MRC or its successors or assigns.

2.2. Source Testing Validation of Approved AEMS.

a. In accordance with the Approved AEMS, during the First-Year Validation Period, MRC shall conduct quarterly source tests for TPM on each COB (a minimum of four (4) source tests on each COB). Each of these source tests shall include not fewer than three (3) runs on each COB. MRC shall conduct each of these source tests in compliance with all provisions of Section 6-5-503.1, except that MRC may use EPA Method 5B in the circumstances specified in the Approved AEMS.

b. The APCO shall use the results of the source tests conducted during the First-Year Validation Period, except for any authorized exclusions, ("Validating Tests") to validate the Approved AEMS pursuant to the validation procedures set forth therein and in EPA Method 301.

c. If, in the determination of the APCO after the conclusion of the First-Year Validation Period, the Validating Tests show that the Approved AEMS does not measure TPM emissions in an unbiased and precise manner in conformance with EPA Method 301, then the Approved AEMS shall be deemed invalid, and it shall no longer be used for determining compliance with the TPM Emission Limit. If the Approved AEMS is deemed invalid, then MRC and the APCO shall meet and confer and use all reasonable good faith efforts for a period of eighteen (18) months (or longer, upon written agreement of the Parties) to refine the Approved AEMS, if possible, so that it can measure TPM emissions in an unbiased and precise manner in conformance with EPA Method 301 (the "Refinement Period").

d. If, at the conclusion of the Refinement Period, MRC and the APCO are unable to agree that a revised version of the Approved AEMS measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301, then approval of the Approved AEMS shall automatically terminate and be revoked.

e. If, in the determination of the APCO after the conclusion of the First-Year Validation Period, the Validating Tests show that the Approved AEMS measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301, then the Approved AEMS shall be deemed valid. Thereafter, on an annual basis, MRC shall

conduct additional source testing for each COB, as provided for in the Approved AEMS, to confirm that the Approved AEMS remains valid. If, in the determination of the APCO, subsequent source tests show that the Approved AEMS is not measuring TPM emissions in an unbiased and precise manner as set forth therein, then the Approved AEMS shall be deemed invalid, and it shall no longer be used for determining compliance with the TPM Emission Limit. If the Approved AEMS is deemed invalid, then the Parties shall meet and confer and use all reasonable good faith efforts for a period of one (1) year (or longer, upon written agreement of the Parties) to refine the Approved AEMS, if possible, so that it measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301 (the “Subsequent Refinement Period”). If, at the conclusion of the Subsequent Refinement Period, the Parties are unable to agree that a revised version of the Approved AEMS measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301, then approval of the AEMS shall automatically terminate and be revoked.

ARTICLE 3: DISMISSAL OF COMPLAINT

3.1. Voluntary Dismissal of the Complaint. Within two (2) business days of the Effective Date, or sooner if practicable, MRC shall make an appropriate filing with the court seeking, and shall thereafter diligently pursue, voluntary dismissal of the Complaint, inclusive of all causes of action therein, with prejudice.

3.2. Effects of Dismissal of the Complaint. MRC agrees that, if the court allows dismissal of the Complaint, then:

a. MRC will not participate in, or support in any way, the prosecution of, or any appeal in, the Related Case.

b. If Chevron is successful in the Related Case, resulting in any Rule 6-5 Invalidation, then MRC shall not oppose, or seek judicial review of, any action by the Air District to re-adopt the same TPM Emission Limit in Rule 6-5 or another Air District regulation or any other provision of Rule 6-5 as adopted on July 21, 2021 (“Re-Adopted TPM Emission Limit”), provided that MRC is allowed to demonstrate compliance with the Re-Adopted TPM Emission Limit as contemplated in this Agreement and through the Approved AEMS.

3.3. Reservation of Rights. Other than as set forth in this Agreement, the Parties expressly reserve all other administrative, legal, equitable, and judicial rights, claims, and causes of actions. Nothing in this Agreement shall limit or prevent MRC from seeking administrative, legal, or equitable relief to: (i) enforce the terms of this Agreement or to otherwise challenge, including through judicial processes, any future actions taken by the Air District with respect to any rule, regulation, guidance, permit, or other action by the Air District, except as set forth in Article 3.2(b); or (ii) require the Air District to interpret, enforce, and implement Rule 6-5 in accordance with the provisions of this Agreement. Likewise, nothing in this Agreement shall limit or prevent the Air District from taking or seeking administrative, legal, or equitable relief to enforce the terms of this Agreement or to otherwise take enforcement action against MRC regarding its operation of the FCCU, its Refinery, or any other facility or activity.

ARTICLE 4: AIR DISTRICT LITIGATION COSTS

4.1. MRC will pay 50% of the Air District's total litigation costs (including reasonable attorneys' fees), incurred up until the Effective Date of this Agreement, up to a maximum of five hundred thousand (\$500,000) dollars. This amount shall be calculated by halving the Air District's total litigation costs in the Litigation and the Related Case up to the Effective Date of this Agreement. MRC shall pay this amount to the Air District within forty-five (45) calendar days after the Effective Date.

ARTICLE 5: MISCELLANEOUS PROVISIONS

5.1. Scope of Agreement.

a. This Agreement is binding upon the Parties only with respect to the matters specifically addressed herein and does not otherwise bind MRC or the Air District.

b. This Agreement does not alter, waive, or abrogate any right that any Party may have to prosecute or defend any currently pending litigation other than the Litigation.

c. Nothing in this Agreement is intended to waive, abridge, abrogate, or limit any procedural or substantive right, claim, defense, or argument that MRC or the Air District may have with respect to Rule 6-5 or the Amendments that is not expressly addressed in this Agreement.

d. Nothing in this Agreement is intended to waive any right of any Party to prosecute or defend the Litigation, or to seek a trial in the Litigation, in the event that this Agreement terminates or expires for any reason before the Litigation is dismissed.

5.2. Successors and Assigns. This Agreement may not be assigned by any Party without the express written consent of all of the other Parties. This Agreement is binding upon and shall inure to the benefit of the Parties, their respective beneficiaries, predecessors, successors, assigns, partners, partnerships, parent companies, subsidiaries, affiliated and related entities, officers, directors, principals, agents, servants, employees, representatives, and all persons, firms, petitioners, and/or persons or entities connected with each of them, including, without limitation, their insurers, sureties, attorneys, consultants, and experts.

5.3. No Presumption Regarding Drafting Party. This Agreement is the result of negotiations between the Parties, and it is the product of all of the Parties. This Agreement shall not be construed against any Party because of the involvement of that Party or its counsel in the preparation or drafting of this Agreement.

5.4. Severability. If any term or provision of this Agreement is to any extent illegal, otherwise invalid, or incapable of being enforced, then such term or provision shall be excluded only to the extent of such invalidity or unenforceability and all other terms and provisions contained in this Agreement shall remain in full force and effect. If application of this severability provision should materially affect the substance of this Agreement and the actions contemplated herein, the Parties agree to negotiate in good faith to amend this Agreement to include a replacement provision suitable to all Parties to give effect to the original intent of the Parties.

5.5. Notices. All notices, requests, demands and other communications made under this Agreement shall be in writing and shall be deemed duly given if (i) hand delivered against a signed receipt therefor, (ii) sent by registered mail, return receipt requested, first class postage prepaid, or (iii) sent by internationally recognized overnight delivery service. All notices shall be accompanied by a courtesy copy sent by electronic mail to those recipients for whom an email address is provided.

a. Notices to MRC pursuant to this Agreement shall be sent to:

| | |
|------------|--|
| Name: | General Counsel |
| Telephone: | 973-455-7500 |
| Address: | One Sylvan Way, Second Floor, Parsippany, New Jersey 07054 |

With a copy to Beveridge & Diamond P.C.:

| | |
|------------|--|
| Name: | Jacob Duginski |
| Email: | jduginski@bdlaw.com |
| Telephone: | 415.262.4018 |
| Address: | 456 Montgomery Street, Suite 1800, San Francisco, California 94104 |

b. Notices to the Air District pursuant to this Agreement shall be sent to:

| | |
|------------|---|
| Name: | Alexander Crockett, General Counsel |
| Email: | acrockett@baaqmd.gov |
| Telephone: | (415) 749-4732 |
| Address: | Bay Area Air Quality Management District Office of General Counsel 375 Beale Street, Suite 600 San Francisco, CA 94105 |

With a copy to:

| | |
|------------|---|
| Name: | Robert "Perl" Perlmutter |
| Email: | perlmutter@smwlaw.com |
| Telephone: | 415-552-7272 |
| Address: | Shute, Mihaly & Weinberger LLP 396 Hayes Street San Francisco, CA 94102 |

c. Either Party may alter that Party's contact information for purposes of notices, at any time, by giving notice of such change in conformity with the provisions of this Article 5.5.

d. Provided that an electronic copy is sent by electronic mail, notice shall be deemed to be effective: if hand delivered, when delivered; if mailed, at midnight on the third (3rd) business day after being sent by registered mail; and if sent by internationally

recognized overnight delivery service, on the next business day following delivery to such delivery service.

e. The Parties acknowledge and agree that the foregoing provisions for the giving of notice are not intended to cover day-to-day communications between the Parties when performing each such Party's duties and obligations hereunder.

f. The notice provisions contained in this Article 5.5 are not intended to alter in any way the procedures related to the Air District's regulatory and rulemaking processes, including but not limited to the provision of adequate public notice of regulatory actions, submission of public comments on such actions, and other notifications and procedures required or customary with respect to Air District's regulatory actions.

5.6. Governing Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of California, without giving effect to any choice or conflict of law provision or rule (whether of the State of California or any other jurisdiction).

5.7. Recitals. The Recitals set forth in this Agreement are a material part of this Agreement and are hereby expressly incorporated by reference as though expressly set forth herein.

5.8. Authority. Each Party hereby represents and warrants that it has full power and authority to enable, execute and deliver this Agreement and to perform its obligations hereunder. Each of the undersigned individuals represents and warrants that s/he has read and understands this Agreement and has full and complete lawful authority to bind the respective Party and any respective principals, successors, subsidiaries, partners, limited partners, agents and assigns to this Agreement.

5.9. Entire Agreement. This Agreement, including the Exhibit hereto, constitutes the full, complete and final statement of the Parties on the matters addressed by this Agreement. The Parties acknowledge that this Agreement contains the entire understanding between the Parties with respect to the matters addressed by this Agreement.

5.10. Amendments in Writing. This Agreement may be amended or modified only by a written instrument signed by authorized representatives of all Parties.

5.11. Waiver. Any waiver of any provision or term of this Agreement shall be effective only if in writing and signed by all Parties. The waiver of any provision or term of this Agreement shall not be deemed as a waiver of any other provision of this Agreement.

5.12. No Third-Party Beneficiaries. There are no third-party beneficiaries to this Agreement and nothing expressed, implied, or referred to in this Agreement will be construed to give any Person, other than the Parties to this Agreement, any legal or equitable right, remedy, or claim under or with respect to this Agreement or any provision of this Agreement, except such rights as may inure to the predecessors, successors, subsidiaries, partners, limited partners, agents, principals, and permitted assigns of each Party as provided for herein.

5.13. Benefit and Burden. This Agreement is binding upon and shall inure to the benefit of the Parties, their respective beneficiaries, predecessors, successors, assigns, partners,

partnerships, parent companies, subsidiaries, affiliated and related entities, officers, directors, principals, agents, servants, employees, representatives, and all persons, firms, petitioners, and/or persons or entities connected with each of them, including, without limitation, their insurers, sureties, attorneys, consultants, and experts.

5.14. Reasonable Cooperation. The Parties agree to provide reasonable cooperation to each other as may be necessary to give effect to this Agreement. In addition, to the extent that MRC requires an authorization, permit, or environmental review from the Air District to implement the Approved AEMS, the Air District agrees to use diligent and good faith efforts to process any application or request for such authorization, permit, or environmental review as expeditiously as possible. The Air District will respond promptly to permit applications, supplemental information submittals, and other submittals by MRC, to the extent such response is required. MRC will likewise respond promptly to requests for information by the Air District and to requests for changes to permit application documentation. The Parties will work together and with other agencies to attempt to resolve all issues with respect to the permit review, approval, and issuance.

5.15. Air District Approvals. Where this Agreement, or an action contemplated by this Agreement, requires Air District approval, such approval shall not be unreasonably withheld.

5.16. No Admission. This Agreement does not constitute an admission by the Parties of any claims or allegations in the Litigation. This Agreement does not limit or affect the rights of the Parties against any third parties not party to this Agreement, nor shall this Agreement be construed to create rights in, or grant any cause of action to, any third party not party to this Agreement. The Parties reserve all defenses and all rights and remedies, legal and equitable, available to it in any action by a non-party to this Agreement.

5.17. Meet-and-Confer Requirement in the Event of Breach. In the event that one Party believes that the other Party is or will be in breach of this Agreement, the Parties will meet and confer regarding the alleged breach and how it may be cured before any Party may take action to enforce this Agreement. If the Parties cannot agree to a mutually acceptable resolution following this meet and confer session, the Parties shall engage in non-binding mediation with the cost of the mediator to be borne by MRC to try to resolve their differences, unless both Parties waive this requirement. Other than the mediator's cost, the Parties shall pay their own costs of any such mediation, including their attorney's fees associated with preparing for and participating in the mediation.

5.18. Dispute Resolution. If any dispute arises regarding this Agreement other than a dispute covered Article 5.17 above, the Parties shall first notify one another of any dispute and attempt to resolve it informally before taking legal action.

5.19. Force Majeure. If any event beyond the reasonable control of a Party occurs that may delay the performance of that Party's obligations under this Agreement, the Party shall notify the other Party soon as practicable, and the Parties shall negotiate a modification to this Agreement that will allow the Party additional time needed to perform its obligations. Regardless of whether MRC contends these events are beyond its reasonable control, this Force Majeure provision does not apply to MRC's failure or inability to comply with any provisions of Rule 6-5 or failure or inability to demonstrate to the satisfaction of the APCO, as set forth in the Approved AEMS or

this Agreement, that the Approved AEMS measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301.

5.20. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall have the same force and effect as an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, this Agreement has been executed by each of the Parties as of the date set forth beneath such Party's authorized representative's signature:

**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**
375 Beale Street, Suite 600
San Francisco, California 94105

By: 
Philip M. Fine
EXECUTIVE OFFICER/APCO

Date: 2/12/2024


MARTINEZ REFINING COMPANY LLC

By: _____
Trecia Canty
Senior Vice President, General Counsel

Date: _____

APPROVED AS TO FORM BY:

**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**
375 Beale Street, Suite 600
San Francisco, California 94105

By: 
Alexander Crockett
GENERAL COUNSEL

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IN WITNESS WHEREOF, this Agreement has been executed by each of the Parties as of the date set forth beneath such Party's authorized representative's signature:


**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

375 Beale Street, Suite 600
San Francisco, California 94105

By: _____
Philip M. Fine
EXECUTIVE OFFICER/APCO

Date: _____

MARTINEZ REFINING COMPANY LLC

By: 
Trecia Canty
Senior Vice President, General Counsel

Date: 2/12/2024

APPROVED AS TO FORM BY:

**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

375 Beale Street, Suite 600
San Francisco, California 94105

By: _____
Alexander Crockett
GENERAL COUNSEL

1735879.15

EXHIBIT

A



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

February 12, 2024

Daniel Ingram
Refinery Manager
Martinez Refining Company LLC
3485 Pacheco Boulevard
Martinez, California 94553

Re: Alternative emissions monitoring system (“AEMS”) under Regulation Section 6-5-503.2

Dear Mr. Ingram:

I am in receipt of your request for approval, pursuant to Air District Regulation 6, Rule 5 (“Rule 6-5”) Section 503.2, for Martinez Refining Company LLC (“MRC”) to use an alternative emissions monitoring system (“AEMS”) in lieu of quarterly source testing to ensure compliance with the limit on total PM₁₀ (“TPM”) emissions established under Rule 6-5, Section 301.3. As you know, the Air District has also extensively reviewed related source test data provided by MRC as part of settlement discussions in MRC’s litigation challenging the Air District’s amendments to Rule 6-5.

Based on the Air District’s comprehensive evaluation of the source test data provided by MRC, and subject to further validation pursuant to United States Environmental Protection Agency (“EPA”) Method 301, MRC’s use of an AEMS to ensure compliance with Rule 6-5 is approved pursuant to the protocol detailed below. I am issuing this approval concurrently with the execution of the settlement agreement between the Air District and MRC in *Martinez Refining Company LLC v. Bay Area Air Quality Management District*, Contra Costa County Superior Court Case No. MSN21-1568 (“Agreement”), and this approval shall take effect at the same time as that Agreement.

I. Summary and Purpose of AEMS

Rule 6-5 applies to refineries in the Bay Area, including the refinery located in Martinez, California that is owned and operated by MRC (“Refinery”). It requires that, pursuant to Section 6-5-301.3, effective July 21, 2026, such refineries shall not cause TPM emissions from refinery fluidized catalytic cracking units (“FCCUs”) that exceed

0.010 grains per dry standard cubic foot, corrected to 5% oxygen (“TPM Emission Limit”). Rule 6-5 provides two options for refineries to measure TPM emissions from their FCCUs. First, a refinery may conduct quarterly source testing by measuring TPM emissions from its FCCU, pursuant to Section 6-5-503.1. Second, if authorized by the Air Pollution Control Officer (“APCO”), a refinery may use an AEMS that the APCO has determined is functionally equivalent to such quarterly source testing to measure TPM emissions from its FCCU, pursuant to Section 6-5-503.2.

In order to comply with the TPM Emission Limit established by Rule 6-5, MRC is implementing changes at the Refinery to reduce emissions from the FCCU. MRC has requested permission to utilize the provision in Section 6-5-503.2 allowing the use of an AEMS in order to demonstrate the Refinery’s compliance with the TPM Emission Limit. The approved AEMS set forth herein authorizes and requires MRC to use the online continuous emissions monitoring systems (“CEMS”) installed on the Refinery FCCU’s Carbon Monoxide Boilers (“COBs”) to provide continuous monitoring of (i) ammonia (“NH₃”) and (ii) sulfur dioxide (“SO₂”) in the COBs’ flue gas as inputs to a correlation equation (“Correlation Equation”) for calculating condensable particulate matter (“CPM”) emissions from the FCCU based on the NH₃ and SO₂ continuous emissions data from those CEMS. The AEMS is based on a fixed amount of filterable particulate matter (“FPM”) from each COB, as derived from prior source testing. Total PM is calculated by adding the result of the correlation equation to the FPM amount for each COB.

The CEMS that serve as the foundation for the AEMS provides for continuous assessment of FCCU TPM emissions in a way that is not possible through the quarterly source testing established by Section 6-5-503.1. The AEMS is based on extensive source testing using, among other things, the source test methodology prescribed by Rule 6-5. Based on the Air District’s staff’s review and analysis of the source testing and other data provided by MRC, I have determined that the AEMS, if validated pursuant to EPA Method 301 as detailed below, will provide for greater transparency with more complete and continuous assessment of TPM emissions than could be achieved by the quarterly source testing provided for in Section 6-5-503.1. I have also determined that the AEMS, if validated pursuant to EPA Method 301, will provide for a means of measuring compliance with Rule 6-5’s TPM Emissions Limit in a manner that is functionally equivalent to the quarterly source testing provided for in Section 6-5-503.1.

The AEMS shall be subject to a validation process as set forth below. Please note that the process set forth in this approval differs in some respects from the process set forth in MRC’s request for approval and accompanying exhibit.

II. Scope and Applicability of AEMS Approval

This approval is limited to the FCCU facility and operations as they exist on the date that the APCO approves the Established Operational Parameters proposed by MRC, as provided in Part IV.D. below. This approval does not apply in the event of any

material change to the FCCU facility and its operations (i.e., a change that requires a permit or other regulatory approval) after the APCO has approved the Established Operational Parameters, unless the APCO modifies this approval in writing to apply to that change.

III. Correlation Equation and Calculation Methodology

The AEMS will calculate TPM through a correlation equation that calculates CPM and uses a fixed constant for FPM based on source testing at each individual COB. In summary, TPM is determined as follows:

$$TPM = CPM + FPM$$

This TPM calculation will be performed at each COB based on CPM and FPM values calculated for each COB according to the methods specified below.

A. CPM Calculation Using Correlation Equation:

As requested by MRC, the Air District approves the use of the Correlation Equation below to calculate CPM in grains per dry standard cubic foot (gr/dscf) corrected to 5% O₂ from NH₃ and SO₂ measurements from the continuous emissions monitors on each COB:

$$CPM = \left(\frac{1}{379.5} \right) * \left(\left(\frac{NH3 \text{ ppmv}}{1,000,000} \right) - \left(\frac{SO2 \text{ ppmv}}{1,000,000} \right) * 0.03 \right) * \left(\frac{123.5}{1.5} \right) * 7000$$

Where:

- 1/379.5=ratio of moles per one dscf using the ideal gas law
- NH₃ ppmv = measured NH₃ concentration corrected to 5% O₂ as measured by each COB CEMS in parts per million by volume (“ppmv”)
- SO₂ ppmv = measured SO₂ concentration corrected to 5% O₂ as measured by each COB CEMS in ppmv
- 1/1,000,000 = conversion from ppm to fraction
- 0.03 = ratio of sulfur trioxide (SO₃) formed to SO₂ in COB stack
- 123.5 = average molecular weight between ammonium bisulfate and ammonium sulfate based on MRC source test data which shows a ratio of 1.5 between NH₃ and sulfate (“SO₄”). This would indicate for every one mole of ammonium bisulfate [(NH₄)HSO₄] there is one mole of ammonium sulfate [(NH₄)₂SO₄]
- 1.5 = ratio between NH₃ and SO₄ based on source test data which translates to 1.5 moles of NH₃ and 1 mole of SO₄
- 7000 = conversion from pounds to grains

CPM will be calculated for each COB individually, using NH₃ and SO₂ data measured by the CEMS in the stack for that COB.

B. FPM Calculation

As requested by MRC, the AEMS is based on a constant for FPM in each COB. The table below shows the initial FPM values (“Initial FPM Values”) that shall be used to calculate TPM during the First-Year Validation Period, as described below. All FPM values are in gr/dscf corrected to 5% oxygen.

| COB1 | COB2 | COB3 |
|--------|--------|--------|
| 0.0038 | 0.0047 | 0.0059 |

These values were derived from source testing conducted by MRC using EPA Method 5B on the COBs in July through October of 2022.

If MRC believes that subsequent source testing warrants adjustment to any Initial FPM Values, it may request in writing that the APCO adjust these values. Any such request must be based on source test data using either EPA Method 5B or EPA Method 201A, provided, however, that MRC must use the same source test method that was used to set the Initial FPM Values to request any modification to any of these values in the future and also to demonstrate compliance as part of the AEMS. Accordingly, if MRC wishes to use EPA Method 201A in source tests to request a modification to the Initial FPM Values, it must first revalidate the Initial FPM Values using EPA Method 201A. MRC may only use a modified FPM Value if the APCO has issued written approval for MRC to do so (“Modified FPM Value”).

As further described below, as part of the First-Year Validation process, the Initial FPM Value, and any Modified FPM Value approved by the APCO, shall be replaced by the average (mean) value of all source tests conducted on each COB during the First-Year Validation Period (“Validated FPM Value”).

C. Accuracy of the Continuous Emissions Monitors

Given the role of data collected by the CEMS in the AEMS, all CEMS must meet appropriate standards of accuracy and data availability. Specifically, MRC must ensure that the NH₃, SO₂, and O₂ CEMS meet the certification and maintenance requirements in both 40 CFR Part 60, Appendix B Performance Specifications and Appendix F Quality Assurance requirements, and the Air District’s Manual of Procedures, Volume V. The NH₃ and SO₂ CEMS must also meet alternative annual Relative Accuracy (“RA”) and Field Accuracy Test (“FAT”) standards of ten percent (10%). Each NH₃, SO₂ and O₂ CEMS must provide valid, certified data sufficient to ensure that the data availability requirements in Sections IV.E and VI.A below are satisfied. No later than January 1, 2026, MRC shall submit an application to the Air District to amend its Title V Major

Facility Review Permit and shall request in that application to have these 10% RA and FAT standards, and the 90% quarterly data availability, added as enforceable permit conditions in its Major Facility Review Permit for the FCCU for the NH₃, SO₂, and O₂ CEMS. The Air District shall process MRC's application with a goal of incorporating the 10% RA and FAT standards, and 90% data availability, into MRC's Major Facility Review Permit for the FCCU.

IV. First-Year Validation Period

A. Overview

Commencing with the July-to-September calendar quarter in 2026 and continuing through the subsequent three (3) calendar quarters (collectively, the "First-Year Validation Period"), the Air District will use the AEMS to determine the FCCU's compliance with the TPM Emission Limit.

The purposes of the First-Year Validation Period are to: (1) confirm that the AEMS is functionally equivalent to quarterly source testing in determining compliance with the TPM Emission Limit set forth in Section 6-5-301.3; and (2) confirm the operational parameters necessary to ensure that the AEMS continues to measure TPM emissions in an unbiased and precise manner.

If the APCO determines that the source tests conducted during the First-Year Validation Period show that the AEMS measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301 as specified in Section IV.C, **then the AEMS shall be deemed valid**. In that event, to confirm that the AEMS remains valid, MRC shall conduct additional source testing in subsequent years subject to Section VI below.

If the APCO determines that the source tests conducted during the First-Year Validation Period do not show that the AEMS measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301, **then the AEMS shall be deemed invalid**, and MRC will thereafter be required to demonstrate compliance with the TPM Emission Limit using quarterly source testing under Section 6-5-503.1, unless the APCO subsequently approves a revised AEMS pursuant to Section V (the "Refinement Process") described below.

B. Source Testing

During the First-Year Validation Period, MRC shall conduct source tests at least quarterly on each COB (a minimum of four (4) source tests on each COB). Each of these source tests shall include not fewer than three (3) runs on each COB. MRC shall conduct each of these source tests in compliance with all provisions of Section 6-5-503.1, with the option to use EPA Method 5B instead of EPA Method 201A for FPM where permitted as

specified in Section III.B., above. MRC shall submit the results of all source tests to the Air District as specified below.

C. Validation of the AEMS

The Air District shall use EPA Method 301 to determine the validity of the AEMS as compared with the standard EPA source test methods specified in Section 6-5-503.1. The Air District will compare the source test results from the First-Year Validation Period with the simultaneous AEMS results using the portions of EPA Method 301 relevant to the determination of bias and precision, specifically Section 11 of EPA Method 301 concerning the comparison with validated methods. The AEMS must meet the precision standard of Method 301, applying alternate calculation procedures detailed in EPA Performance Specification 18, Section 12.3.2 for single, rather than paired, train sampling runs. The AEMS must either meet the bias standard of Method 301 or apply the appropriate bias correction specified in the Method. In addition, the Air District will calculate the standard deviation of the source tests for each COB. The Air District will use this standard deviation metric to determine if future source tests are within the expected variability of source test results, as further detailed below.

To facilitate the Air District's review and validation of the AEMS, MRC shall submit all source test results conducted during the First-Year Validation Period to the Source Test Section of the Air District, within sixty (60) days of each source test completion. All process and operational data necessary for the Air District to perform a complete review of the source test results must be included in each report. In addition, following the conclusion of the First-Year Validation Period, MRC shall provide the Air District with its written evaluation of all source test results and a comparison with the AEMS measurements in conformance with EPA Method 301 ("AEMS Evaluation"). MRC's AEMS Evaluation shall include and utilize the results of all source tests conducted during the First-Year Evaluation Period unless MRC provides substantial evidence of source testing issues, including contamination, that led to unreliable results and receives written concurrence from the APCO that a particular test run can be excluded. MRC shall provide its AEMS Evaluation to the Air District Source Test Section within sixty (60) days of the conclusion of the First-Year Validation Period.

In the event that the Air District determines that MRC's AEMS Evaluation is incomplete or that additional information is necessary for the Air District to review that evaluation, MRC shall provide the additional information to the Air District as promptly as possible and, in any event, in no more than thirty (30) days after a request by the Air District to correct deficiencies or provide additional information.

MRC shall also include in its AEMS Evaluation a proposed Validated FPM Value for each COB based on the average (mean) value of all source tests conducted on that COB during the First-Year Validation Period.

Within sixty (60) days of receipt of the above complete AEMS Evaluation from MRC, the APCO shall issue its written determination of whether the AEMS is valid based on its determination whether the quarterly sources tests conducted during the First-Year Validation Period show that the AEMS measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301. The APCO's determination shall also indicate whether the Air District has approved MRC's proposed Validated FPM Values and, if not, shall specify the Validated FPM Values that the APCO has determined is appropriate.

MRC may request an extension for any of the reporting or source testing deadlines set forth in this Section IV or Sections V or VI if it believes that events beyond its reasonable control have prevented it from meeting that deadline. The APCO will not unreasonably deny such a request.

If the APCO determines that the AEMS is valid, then MRC shall continue to use the AEMS to measure compliance with the TPM Emission Limit, subject to Section VI below.

If the APCO determines that the AEMS is invalid or that MRC has not provided sufficient information for the APCO to reach a definitive determination regarding the validity of the AEMS, then MRC shall thereafter be required to demonstrate compliance with the TPM Emission Limit using quarterly source testing under Section 6-5-503.1, unless the APCO subsequently approves a revised AEMS during the Refinement Process. During the first quarter after MRC submits its AEMS Evaluation, MRC shall continue to use the AEMS; MRC shall also conduct source testing during that first quarter, which shall include not fewer than three (3) runs on each COB. MRC shall conduct each of these source tests in compliance with all provisions of Section 6-5-503.1, with the option to use EPA Method 5B instead of EPA Method 201A for FPM where permitted under this approval.

D. Operational Parameters:

MRC must ensure that the FCCU operating conditions under which the AEMS will be used to measure TPM emissions are consistent with ensuring that the AEMS will be sufficiently precise and unbiased for all COBs. For example, COB firebox temperature may be a factor in ensuring complete combustion of organic compounds entering the COB. Partially combusted organic compounds could increase CPM emissions in a manner that would not be captured by the AEMS as currently designed. Therefore, low COB firebox temperatures may result in conditions where the AEMS is not functionally equivalent to source testing. For these reasons, in order for the AEMS to validly measure TPM emissions, MRC must ensure that the FCCU operates within the operational parameters on which the AEMS is based.

To address the foregoing concerns regarding operational parameters, MRC shall develop for Air District review and approval both a list of established operational parameters (“Established Operational Parameters”) for FCCU operations and a testing plan covering all operational parameters that are potentially relevant to TPM emissions from the FCCU and COBs (“Operational Parameters Testing Plan”).

MRC may address a particular parameter through one of the following means: (1) establish through substantial evidence and source test data that, over the anticipated operating conditions, a particular parameter does not impact TPM emissions to an extent where the AEMS would fail the bias and precision tests of EPA Method 301; (2) demonstrate through substantial evidence that the impact of a particular parameter on TPM emissions is accounted for by other parameters either in the AEMS and/or for which an operational window has been set; (3) set limits on the values of the parameter as part of the AEMS that would ensure the operation of the FCCU and COBs are consistent with the conditions necessary to ensure that the AEMS calculates TPM in an unbiased and precise manner in conformance with EPA Method 301 (“Operating Window”); or (4) incorporate the parameter into the AEMS based on substantial evidence including source test data. Using the example of COB firebox temperatures, MRC could set a minimum COB firebox temperature during the First-Year Validation Period that would then become an operational constraint for that COB for use of the AEMS.

1. Established Operational Parameters

No later than March 1, 2026, MRC shall submit proposed Established Operational Parameters to the Air District for review and approval. For each operating parameter potentially relevant to TPM emissions from the FCCU and COBs, the Established Operational Parameters must be addressed in one of the four methods listed above. If MRC determines, with the APCO’s written concurrence, that an additional parameter needs to be incorporated into the AEMS, this submittal must include a plan for monitoring that parameter in a fashion providing equivalent accuracy and availability as required of CEMS in Sections III.C. and IV.E. These Established Operational Parameters shall be utilized by the APCO both during the First-Year Validation Period and, if applicable, during Ongoing Source Testing to ensure that the FCCU is operating within the operational conditions for which the AEMS has been established and validated.

The Established Operational Parameters shall address at least the following operational parameters of the FCCU, COBs and ESPs: stripping rate, regenerator blower rate, coke burn, Flexigas flow rate, FCCU feed API, COB firebox temperature, FCC regen flue gas CO, ESP power consumption, and ESP spark rate.

2. Operational Parameters Testing Plan

No later than March 1, 2026, MRC shall submit a proposed Operational Parameters Testing Plan to the Air District for review and approval. The proposed plan

shall incorporate MRC's proposed Established Operational Parameters and shall include, for each parameter subject to an Operating Window all of the following: (1) a requirement for MRC to monitor whether the FCCU is operating within the specified Operating Window; (2) a requirement for MRC to maintain records of such monitoring documenting the measured parameter values for a period of at least five (5) years; (3) a mechanism by which MRC will identify in real time any operation when the FCCU is operating outside the Operating Window for that parameter; and (4) a requirement that MRC report any such operation outside the Operating Window to the Air District within ninety-six (96) hours (collectively, "Operational Window Monitoring Provisions"). MRC's proposed Operational Parameters Testing Plan shall address all of the Established Operational Parameters.

The Air District and MRC will work collaboratively to ensure that the Operational Parameter Testing Plan is adequate to allow the Air District to undertake its evaluation of the AEMS during the First-Year Validation Period. No later than July 1, 2026, APCO shall either approve the Operational Parameter Testing Plan, including the Established Operational Parameters and any modifications ("Approved Testing Plan"), or notify MRC that the Air District lacks sufficient information to do so.

E. Data Availability

During the First-Year Validation Period, MRC shall ensure that the AEMS generates COB-specific valid hourly-average TPM emissions measurements for at least 90% of the COB operating hours in each quarter. For purposes of this paragraph, the AEMS shall be deemed to be generating valid hourly-average TPM emissions measurements if (i) the FCCU and related equipment is operating in conformance with the Operating Window for all Established Operational Parameters identified in the Approved Testing Plan, and (ii) the NH₃, SO₂ and O₂ CEMS on each COB are providing valid, certified data. MRC may not use the AEMS for hourly periods where the AEMS is not generating valid hourly-average TPM emissions measurements for any hours exceeding 10% of the COB operating hours in a quarter. Any operation during such hourly periods exceeding 10% of the COB operating hours in a quarter shall constitute operating without an approved AEMS under Section 6-5-503.2. If the AEMS fails to generate valid hourly-average TPM emissions measurements for more than 75% of the COB operating hours in any quarter, then the APCO may determine that the AEMS is invalid, subject to the Refinement Process and related provisions as specified herein.

V. Refinement Period

A. Refinement Process

If, as a result of the validation process conducted during the First-Year Validation Period, the APCO determines that the AEMS is not valid, MRC and the APCO shall meet and confer and use all reasonable good faith efforts for a period of eighteen (18) months

(or longer, upon written agreement) (the “Refinement Period”) to refine the AEMS, if possible, so that it can satisfy the validation requirements listed above. Such refinements could potentially involve changes to the operating parameters of the FCCUs and COBs or changes to the AEMS.

During the Refinement Period, MRC shall be required to demonstrate compliance with the TPM Emission Limit using quarterly source testing under Section 6-5-503.1, unless and until the APCO provides written notice of approval of a refined or revised AEMS.

B. Final Determination

If, at any point during the Refinement Period, the APCO and MRC are able to agree upon refinements to the AEMS or the operating parameters of the FCCU or COBs that the APCO determines satisfy the validation requirements listed above, then the APCO shall approve a refined or revised AEMS (“Revised AEMS”) and shall promptly provide MRC written notice of that approval. Thereafter, MRC shall use the Revised AEMS to measure compliance with the TPM Emission Limit, pursuant to Section VI. below.

If the APCO has not approved a Revised AEMS by the conclusion of the Refinement Period, then the AEMS shall automatically terminate and be revoked without any further action required by the Air District.

VI. Ongoing Operations, AEMS Reporting, and Source Testing after First-Year Validation Period

In the event that the APCO determines that the AEMS is valid as a result of the source testing conducted during the First-Year Validation Period, the following provisions shall apply to MRC’s operation of the FCCU.

A. Data Availability

MRC shall ensure that the AEMS generates COB-specific valid hourly-average TPM emissions measurements for at least 90% of the COB operating hours in each quarter. For purposes of this paragraph, the AEMS shall be deemed to be generating valid hourly-average TPM emissions measurements if (i) the FCCU and related equipment is operating in conformance with the Operating Window for all Established Operational Parameters identified in the Approved Testing Plan, and (ii) the NH₃, SO₂ and O₂ CEMS on each COB are providing valid, certified data. MRC may not use the Approved AEMS for hourly periods where the Approved AEMS is not generating valid hourly-average TPM emissions measurements for any hours exceeding 10% of the COB operating hours in a quarter. Any operation during such hourly periods exceeding 10% of the COB operating hours in a quarter shall constitute operating without an approved AEMS under

Section 6-5-503.2. If the AEMS fails to generate valid hourly-average TPM emissions measurements for more than 75% of the COB operating hours in any quarter, then the APCO may determine that the AEMS is no longer valid, in which case the APCO shall so notify MRC, and MRC shall thereafter be required to demonstrate compliance with the TPM Emission Limit by quarterly source tests pursuant to Section 6-5-503.1. In that event, MRC may re-apply for approval of a modified AEMS.

B. AEMS Reporting

After the completion of the First-Year Validation Period, MRC shall report AEMS results to the Air District within thirty (30) days after the conclusion of every calendar quarter. The reports shall be in a spreadsheet, delimited text file, or other electronic format that enables access to relevant numeric results and calculations (“Quarterly AEMS Report”). Each Quarterly AEMS Report shall include hourly average measurements for O₂, SO₂, NH₃, and TPM emissions as calculated by the AEMS, with a summary of the quarterly-average TPM emissions averaged over the entire quarter. Each Quarterly AEMS Report shall also include records that demonstrate compliance with the Established Operational Parameters, including but not limited to all information specified in the Operational Window Monitoring Provisions, and provide MRC’s analysis of whether the FCCU complied with the TPM Emission Limit based on the AEMS results for the preceding twelve (12) months. The Air District shall determine compliance with the TPM Emission Limit by calculating a rolling four (4) quarter average of AEMS results at the end of each calendar quarter.

C. Ongoing Source Testing

After the First-Year Validation Period, MRC shall conduct further source testing at least once per year on each COB in compliance with all provisions of Section 6-5-503.1. However, if the Validated FPM Values used in the AEMS were set based on Method 5B, then Method 5B shall be used to measure FPM in these annual source tests. This annual source testing shall take place no later than the anniversary of the first source test conducted during the First-Year Validation Period. The annual source test results shall be reported to the Air District no later than sixty (60) days after the completion of the annual source test (“Annual Source Test Report”).

At least thirty (30) calendar days prior to conducting any source tests that MRC will include in its Annual Source Test Report, MRC shall notify the Air District of its intent to conduct such tests. MRC may, in its election, conduct more than one source test per COB each year for inclusion in the Annual Source Test Report, provided however, that (i) MRC must first notify the Air District as required by the preceding sentence for any source test that will be included in the Annual Source Test Report, and (ii) any source test for which MRC has given such notice to the Air District must be included in the Annual Source Test Report unless MRC provides substantial evidence of source

testing issues, including contamination, that led to unreliable results and receives written concurrence from the APCO that a particular test run can be excluded.

The Air District shall compare the results of all source tests reported in the Annual Source Test Report for each year, as well as any source tests conducted by the Air District during that year (“Annual Results”), to the simultaneous calculations by the AEMS and the data generated by the source tests conducted during the First-Year Validation Period. For each COB, the average source test results will be compared with the average simultaneous results of the AEMS. The difference between the average source test results on each COB and the average simultaneous results of the AEMS must be within 1.5 standard deviations of the results from the First-Year Validation Period. In addition, for each COB, the average source test results may not differ from the average value calculated by the AEMS by more than 30%. If the Annual Results do not meet both of these requirements, then the APCO shall notify MRC that the AEMS is no longer valid, and MRC shall thereafter be required to demonstrate compliance with the TPM Emission Limit by quarterly source tests pursuant to Section 6-5-503.1. In that event, MRC and the Air District shall meet and confer as set forth below.

In addition, after the First-Year Validation Period, the APCO shall review the value used for the contribution of FPM to TPM and, if necessary, adjust it as follows. In the event that any FPM source test that MRC conducts for any COB in order to comply with requirements in its Title V Major Facility Review Permit shows a measured value that varies by more than $\pm 10\%$ from the Validated FPM Value utilized in the AEMS for that COB, then the APCO shall establish a revised Validated FPM Value for that COB based on the new source test results or additional source testing.

In the event that MRC desires to replace the current fluid catalytic cracking catalyst inventory with a materially different type of fluid catalytic cracking catalyst after the First Year Validation Period (a “catalyst change”), MRC shall first submit a written engineering report to the APCO demonstrating that the AEMS will continue to measure TPM emissions in an unbiased and precise manner in conformance with EPA Method 301. A catalyst change does not include the use of a different type of catalyst due to an emergency or temporary supply disruption, or a replacement of fresh catalyst that has substantially identical physical and chemical characteristics. MRC shall not implement a catalyst change unless it has received written approval by the APCO. If requested by the APCO, MRC shall further validate the AEMS by providing subsequent source testing results. Any additional source testing will be evaluated as set forth in this Section V.C.

D. Subsequent Refinement Period

If the AEMS is deemed invalid pursuant to section VI.C above, then MRC and the Air District shall meet and confer and use all reasonable good faith efforts for a period of one (1) year (or longer, upon written agreement of both parties) to refine the AEMS so that it measures TPM emissions in an unbiased and precise manner in conformance with

EPA Method 301 (the “Subsequent Refinement Period”). If, at the conclusion of the Subsequent Refinement Period, the APCO has not issued a written determination that a revised version of the AEMS measures TPM emissions in an unbiased and precise manner in conformance with EPA Method 301, then approval of the AEMS shall automatically terminate and be revoked.

VII. Other Requirements

All records associated with the initial and ongoing validation of the AEMS shall be retained by MRC as long as the AEMS is being used to demonstrate compliance, and for a period of five (5) years thereafter. MRC must make these records, and all other records required to be kept under this approved AEMS, available to the Air District upon request.

Sincerely,



Philip M. Fine
Executive Officer/APCO

cc: Greg Nudd, Deputy Executive Officer of Science & Policy
Dr. Meredith Bauer, Deputy Executive Officer of Engineering & Compliance
Alexander Crockett, Esq., General Counsel