
MOJAVE DESERT
AIR QUALITY MANAGEMENT DISTRICT

NSR/FOP Evaluation Document

for
Boiler 22 Modification

Preliminary Determination - Statement of Basis

for
Modification to

FOP Number: 900002

For:

Searles Valley Minerals Operations, Inc.

Facility:

Searles Valley Minerals

Facility Address:

**13200 Main Street
Trona, CA 93562**

Document Date: July 1, 2019

Submittal date to EPA/CARB for review: 7/16/19

EPA/CARB 45-day Commenting Period ends: 8/30/19

Public Notice Posted: 7/22/19

Public Commenting Period ends: 8/22/19

Permit Issue date: on or after 9/3/19

Permitting Engineer:

Chris Anderson

14306 PARK AVENUE, VICTORVILLE, CALIFORNIA 92392
PHONE: (760) 245-1661 • FAX: (760) 245-2022 • EMAIL: PERMITTING@MDAQMD.CA.GOV

A. Introduction

1. Application and Setting

SVM OPERATIONS, INC. (SVM), TRONA, ARGUS, and WESTEND – Plants/Facilities. The three plants are considered one contiguous facility under the federal Title V operating permit program. The Argus and Trona plants are adjacent to each other and share a portion of common boundary. These two plants are located in the southwest side of Trona, CA. The Westend plant is located approximately 6 kilometers south of the Argus and Trona plants on Trona Road.

The Argus facility produces soda ash and preprocesses brine for additional mineral extraction at the Westend facility. Processing may sound complicated yet the soda ash produced is natural. Argus heats trona-bearing brine from a layer 200 ft. to 500 ft. below the lake's surface. It mixes the brine with carbon dioxide - provided in part from its power generation plant - to crystallize it into sodium bicarbonate, which is commonly known as baking soda. Additional carbon dioxide for this process streams in as recycled gas. Processing continues with bleaching and finally recrystallization into dense soda ash. After processing, most of the brine goes back to the lake and the remaining brine goes to the Westend plant where it returns to the lake after further processing.

The Westend facility takes brine from sodium sulfate-rich layer 20 ft. to 80 ft. below the lake's surface. By introducing heat into the brine layer, SVM raises the concentration of borates. Westend refrigerates the brine in a two-step process that produces primary borax and sodium sulfate decahydrate. Recrystallizing equipment transforms some of the primary borax into pentahydrate borax. The remaining primary borax moves on to the Trona facility to make various borax products.

The Trona facility houses two production plants. One plant produces boric acid and the other makes borax products. Trona's boric acid plant uses a solvent extraction process to recover boric acid from low-sodium borate brine pumped from a layer 100 ft. to 130 ft. below the lakes's surface. The Trona facility is more than its mineral refining and finishing systems. Its historic campus houses most of the administrative offices, warehouse space, and packaging equipment for the three facilities in Searles Valley.

The Mojave Desert Air Quality Management District (MDAQMD or District) received an application for proposed modification to permit condition language for Boiler 22 on March 27, 2019 and application for a Title V Significant Modification.

A copy of this application material can be viewed in Appendix A.

Pursuant to District Rule 1301 – *New Source Review Definitions*, SVM is an existing Major Facility for CO, NO_x, SO₂, PM_{10/2.5}, VOC and an area source of HAP. The SVM facility is located in an area of the MDAQMD which has been classified as non-attainment for the California ozone standard (CAAQS) and non-attainment for the California and Federal PM₁₀ standards. The area is attainment or unclassified for all other standards and averaging times. In accordance with District Rule 1303 – *New Source Review Requirements*, the proposed changes,

identified below, are neither subject to BACT or Offset requirements as the there is no net emission increase calculated pursuant to District Rule 1304(B). Subsequently, a NSR analysis is not required for this modification.

In addition, SVM is defined as a federal Major Facility pursuant to District Rule 1201 – *Federal Operating Permit Definitions*. The proposed modifications classify this permitting action as a Significant Modification to SVM Federal Operating Permit (FOP). Pursuant to District Rule 1205 – *Modifications of Federal Operating Permits*, section (B)(2) and District Rule 1302(D)(1)(d), this document serves as the preliminary decision and Statement of Legal and Factual Basis.

2. Description of Project

SVM Boiler 22 is a natural gas fired boiler that currently has historical permit conditions limiting Boiler 22 operation to a cold standby status. Additionally, current permit conditions connect Boiler 22 operation to the non-operation of the ACE boiler (the ACE boiler has been permanently shut down), as well as, to non-operation of SVM Boiler 25 and 26. Boiler 22 operating status is being changed from cold standby to prime operations. There is no emissions increase based on historic actual emissions, based on year 2017.

B. Analysis

1. Presentation of Emissions

Based on year 2017 emissions and using source test data from 1991, NO_x emissions are calculated in the following amounts.

The Potential to Emit, calculated Pursuant to District Rule 1304, the Emission Change for a new or modified Facility or Emissions Unit(s) shall be calculated, by subtracting Historic Actual Emission from Proposed Emissions (section (B)(1)(a)):

$$\text{Emissions Change} = (\text{Proposed Emissions}) - (\text{Historic Actual Emissions})$$

Table 1 presents the summary of maximum potential emissions for the Boiler 22 permit modification.

Table 1 - Emissions Analysis

		HAE, tpy	Proposed, tpy
Emissions Unit	District Permit	NO _x	NO _x
Boiler 22	M000483	62.0	62.0
Total Proposed Emissions			62.0
Total HAE		62.0	
NO _x Emissions Change		0	
NO _x Offsets Needed		NO	

As the resulting project emissions are less than or equal to historical emissions, no emission offsets are required. Detailed emissions calculations are presented in Appendix C.

2. Determination of Nonattainment NSR Requirements

a. BACT Evaluation

[District Rule 1302(C)(2)(a)]

Best Available Control Technology (BACT) is required for each Nonattainment Air Pollutant or its Precursors with potential to emit (PTE);

- a) new or modified permit unit; 25 pounds per day or more
- b) new or modified facility; 25 tons per year or more.

[District Rule 1303(A)]

Because this action does not constitute a net emission increase, a BACT analysis is not required.

b. Offsets Evaluation

[District Rule 1302(C)(3)]

Offsets are required for any new or modified Facility which has the Potential to Emit a Regulated Air Pollutant in an amount greater than or equal to the thresholds for the Nonattainment Air Pollutants and their Precursors specified in District Rule 1303 (B)(1). As noted above, there is a no net emission increase; therefore, emission Offsets are not required for this project.

c. Determination of Additional Federal Requirements
[District Rule 1302(C)(4)]

Pursuant to the requirements in District Rule 1302 B(1)(a)(ii), an analysis of Alternative Siting is not required as the proposed equipment is not a Major Modification as defined in District Rule 1301 (DDD).

Pursuant to the requirements in District Rule 1302 B(1)(a)(iii), an analysis of any anticipated impacts on visibility is not required as the proposed equipment does not qualify as an application for a new Major Facility, nor is it a Major Modification for NSR purposes.

3. *Determination of Requirements for Toxic Air Contaminants*

[District Rule 1302(C)(5)]

a. District Rule 1320 – New Source Review for Toxic Air Contaminants, is not applicable to this action because this action is not defined as a new, Modified, or Relocated Facility. No further action is required pursuant to this rule.

b. District Rule 1520 – Control of Toxic Air Contaminants from Existing Sources is not applicable to this action because this action is not defined as a new, Modified, or Relocated Facility. No further action is required pursuant to this rule. The SVM facilities are required to report their actual emissions on an annual basis as part of the District’s Inventory and Hotspots Programs.

4. *Determination of Requirements for Prevention of Significant Deterioration*

[District Rule 1302(C)(6)]

a. PSD Analysis

The federal PSD regulations are provided in 40 CFR 52.21. Per 40 CFR 52.21(a)(2), these regulations apply to any new major stationary source or any existing major stationary source where a project results in a significant net emissions increase located in an unclassifiable or attainment area. The Facility is an existing major PSD stationary source. The PSD regulations only apply to federal attainment or unclassifiable pollutants which, for this Facility, are O₃, PM, PM_{2.5}, NO₂, SO₂, CO, and Pb. As this action does not result in either; 1) a new major stationary source, or 2) a major modification of any existing major stationary source, the project is not subject to PSD.

b. NAAQS Impact Analysis

District Rule 1302, section (D)(5)(b)(iv) requires that any new or Modified Facility located in an area classified by USEPA as attainment or unclassifiable shall determine if the Facility will cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS). The proposed modification, discussed herein, does not result in a net increase in emissions and therefore does not contribute to a violation of the NAAQS.

5. Rules and Regulations Applicable to the Proposed Project

District Rules

Rule 201/203 – *Permits to Construct/Permit to Operate*. Any equipment which may cause the issuance of air contaminants must obtain authorization for such construction from the Air Pollution Control Officer. SVM is in compliance with this rule as they appropriately applied for a District permit for all modified equipment and maintains District permits for all residing equipment.

Rule 204 – *Permit Conditions*. To assure compliance with all applicable regulations, the Air Pollution Control Officer (Executive Director) may impose written conditions on any permit. The District has imposed permit conditions to ensure SVM complies with all applicable regulations.

Rule 206 – *Posting of Permit to Operate*. Equipment shall not operate unless the entire permit is affixed upon the equipment or kept at a location for which it is issued and will be made available to the District upon request.

Rule 207 – *Altering or Falsifying of Permit*. A person shall not willfully deface, alter, forge, or falsify any issued permit.

Rule 209 – *Transfer and Voiding of Permits*. SVM shall not transfer, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another. When equipment which has been granted a permit is altered, changes location, or no longer will be operated, the permit shall become void.

Rule 210 – *Applications*. SVM provided all the required information to correctly address the proposed equipment pursuant to this rule.

Rule 212 – *Standards for Approving Permits*. This rule establishes baseline criteria for approving permits by the District for certain projects. In accordance with these criteria, the proposed modifications and application does not cause issuance of air contaminants in violation of Sections 41700 or 41701 of the State Health and Safety code.

Rule 221 – *Federal Operating Permit Requirement*. SVM complies with this rule, as they currently hold and maintain a Federal Operating Permit.

Rule 301 – *Permit Fees*. The proposed equipment will increase SVM’s annual permit fees by the applicable amounts described in section (E) of this rule.

Rule 401 – *Visible Emissions*. This rule limits visible emissions opacity to less than 20 percent (or Ringlemann No. 1). In normal operating mode, visible emissions are not expected to exceed 20 percent opacity.

Rule 402 – *Nuisance*. This rule prohibits facility emissions that cause a public nuisance. The proposed modifications and associated equipment is required by permit condition to employ good engineering and operational principles in order to minimize emissions and the possibility of a nuisance.

Rule 404 – *Particulate Matter Concentration*. This rule requires that no person exceed the particulate matter concentration provided in Table 404(a). Sole use of pipeline quality natural gas ensures compliance with this requirement.

Rule 405 – *Solid Particulate Matter – Weight*. This rule requires that no person exceed the particulate matter process weights provided in Table 405(a). Sole use of pipeline quality natural gas ensures compliance with this requirement.

Rule 408 – *Circumvention*. This rule prohibits hidden or secondary rule violations. The proposed modifications as described is not expected to violate Rule 408.

Rule 430 – *Breakdown Provisions*. Any Breakdown which results in a violation to any rule or regulation as defined by Rule 430 shall be properly addressed pursuant to this rule.

Rule 900 – *Standards of Performance for New Stationary Sources (NSPS)*. Rule 900 adopts all applicable provisions regarding standards of performance for new stationary sources as set forth in 40 CFR 60. The manufacturer nameplate predates all NSPS; therefore, this equipment is not subject to NSPS requirements.

Regulation X – *National Emission Standards for Hazardous Air Pollutants*. Pursuant to Regulation X, SVM is required to comply with all applicable ATCMs and under state law, a federal National Emission Standards for Hazardous Air Pollutants (NESHAP) becomes the State ATCM, unless the Air Resources Board (ARB) has already adopted an ATCM for the source category and associated hazardous air pollutant(s). SVM is an area source of HAP. There is one area source NESHAP category (Subpart JJJJJ) that Boiler 22 falls under, however, the regulation is not applicable as Boiler 22 only fires on natural gas except during limited circumstances (as specified by permit condition).

Regulation XII – *Title V Permits*

This regulation contains requirements for sources which must have a FOP. SVM currently has a FOP and is expected to comply with all applicable rules and regulations.

Rule 1201 – *Federal Operating Permit Definitions*. SVM is defined as a federal Major Facility pursuant to this rule.

Rule 1203 – *Federal Operating Permits*. This modification is classified as a Significant Modification of SVM FOP and all applicable provisions of District Regulation XII, including notice and comment period will be followed.

Rule 1205 – *Modifications of Federal Operating Permits*. The proposed equipment classifies as a Significant Permit Modification to SVM’s Federal Operating Permit (FOP), and subsequently, this permit modification is issued in accordance with the provisions District Rule 1203.

Rule 1207 – *Notice and Comment*. This Significant Modification of SVM FOP is being noticed in accordance with the procedures set forth in this rule. Notably, this affords the public the right to petition USEPA to reconsider the decision to not object to the permit action.

Rule 1208 – *Certification*. SVM included a Certification of Responsible Official as required with the submitted application for the proposed equipment.

Rule 1211 – *Greenhouse Gas Provisions of Federal Operating Permits*. SVM is a Major GHG Facility pursuant to Rule 1211. SVM’s FOP includes all the requirements of this rule.

Regulation XIII – *New Source Review*

Rule 1302 – *Procedure*. This rule applies to all new or Modified Facilities and requires certain requirements to be fulfilled when submitting an application. All applicable requirements of this rule are discussed in this NSR document as part of the Analysis procedure. Certification of compliance with the Federal Clean Air Act, applicable implementation plans, and all applicable District rules and regulations have been addressed. The Authority to Construct (ATC) application package for the proposed equipment includes sufficient documentation to comply with Rule 1302(D)(5)(b)(ii). Permit conditions for the proposed project will require compliance with Rule 1302(D)(5)(b)(iii).

Rule 1303 – *Requirements*. This rule requires BACT and offsets for selected facility modifications. Equipment installed shall meet BACT (see Section B(2)(a)). Offsets are not necessary to be obtained as the project PTE is demonstrated to be no net increase in emissions.

Rule 1304 – *Emissions Calculations*. The Proposed Emissions from the proposed modifications were calculated pursuant to section (B)(1)(a) of this rule.

Rule 1310 – *Federal Major Facilities and Modifications*. The Proposed Emissions from the proposed modification *are not* determined to be a Federal Major Modification.

Rule 1320 – *New Source Review for Toxic Air Contaminants* is not applicable to this action because this action is not defined as a new, Modified, or Relocated Facility. No further action is required pursuant to this rule.

Rule 1520 – *Control of Toxic Air Contaminants from Existing Source* is not applicable to this action because this action is not defined as a new, Modified, or Relocated Facility. No further action is required pursuant to this rule.

Regulation XVII – Prevention of Significant Deterioration

The purpose of this regulation is to set forth requirements for all new Major PSD Facilities and Major PSD Modifications which emit or have the potential to emit a PSD Air Pollutant pursuant to the requirements of 40 CFR 52.21. The proposed modification does not constitute a new Major PSD Facility or a Major PSD Modification; therefore, PSD does not apply to the proposed project.

State Regulations

There are no project specific applicable state regulations.

Federal Regulations

40 CFR 64, *Compliance Assurance Monitoring*. The Compliance Assurance Monitoring (CAM) rule (40 CFR 64) applies to each Pollutant Specific Emissions Unit (PSEU) when it is located at a Major Facility that is required to obtain Title V, Part 70 or 71 permit and it meets all of the following criteria. “PSEU” means an emissions unit considered separately with respect to each regulated air pollutant.

The PSEU must:

- a. Be subject to an emission limitation or standard [40 CFR 64; AND,
- b. Use a control device to achieve compliance [40 CFR 64.2(a)(2)]; AND,
- c. Have the **potential pre-control** emissions that exceed or are equivalent to the major source threshold. [40 CFR 64.2(a)(3)]

Boiler 22 does not employ an emission control device; therefore, CAM is not applicable.

6. NSR Preliminary Decision - Conclusion

The District has reviewed the modified emission unit application for SVM and conducted a succinct written analysis as required by District Rule 1302, section (D)(1)(b) and District Rule 1203, section (B)(1)(a). The District has determined that the proposed equipment and application are in compliance with all applicable District, state, and federal rules and regulations as proposed and when operated in terms of the permit conditions stated below.

7. Operating Conditions

The following equipment descriptions and operating conditions will be placed on the Authorities to Construct (ATC) for the project and in Part III of SVM’s FOP. The specific section numbers of the FOP are identified here as well. Note that all modified equipment descriptions and permit conditions will be in redline/strikethrough form.

(Section) 41. BOILER NO. 22; MDAQMD PERMIT # M000483; consisting of the following::

Babcock and Wilcox, Type PF1-28'10"-16, Natural gas with fuel oil ~~backupstandby~~, heating surface 17,900 sq. ft., 300,000 lb/hr steam capacity @ 550 psig @ 760 degrees F, with four (4) 27" Babcock and Wilcox combination gas and oil burners rated at 418 million Btu/hr; forced draft Westinghouse fan, size 2371-D, style AKY-4655-2, driven by Elliot turbine drive, type 2BYRO, 750 bhp, inlet pressure 400 psig, outlet pressure 35 psig steam:

Date of manufacture is pre-1960.

PERMIT CONDITIONS:

1. This Boiler is ~~on cold standby and~~ shall ~~only~~ be fired under the following conditions:
 - a. ~~The boiler shall not emit NOx emissions in excess of 62 ton per year, except under the operating condition specified in item b below. Testing and maintenance for periods that shall be limited to a total of 72 hours of operation per six (6) month period.~~
 - b. ~~During maintenance and repair of Boiler 25 and/or Boiler 26. Boiler 22 operating hours when either Boiler 25 or Boiler 26 or both are not operating, the above Boiler 22 annual NOx emission limit shall not apply, but the sum of Boiler 22 and either Boiler 25 or Boiler 26 emission will be subject to the existing Boiler 25 and Boiler 26 combined hourly limit of 442 lb/hour NOx.~~
[District Rule 1303]
~~When one or more Argus boilers (Nos. 25,26) and/or ACE boiler are shutdown.~~[New Source Review (NSR)]
2. ~~To demonstrate compliance with Condition 1 above, records of Boiler 22 operating hours and firing rate will be kept (using a fuel rate meter and hour meter), separately reporting operating hours and total MMBtu fired where Boiler 22 operated in parallel with Boiler 25 and Boiler 26 and operating hours and total MMBtu fired where Boiler 22 operated when either Boiler 25, Boiler 26, or both were shut down for maintenance or repair. [District Rule 1303]The District shall be notified in writing of the dates for a scheduled Argus boiler outage and subsequent operation of this boiler 30 days in advance. This notification shall present data and/or calculations to substantiate compliance with the net NO_x and SO_x for the combined set of boilers. Prior to startup, written approval by the District is required.~~
~~————[NSR]~~
3. ~~Reports of annual NOx emission totals for Boiler 22 under each of the two operating conditions (operating in parallel with Boiler 25 and Boiler 26 versus operating when either Boiler 25, Boiler 26 or both are shutdown for maintenance or repair) will be submitted to MDAQMD upon request. [District Rule 1303]If the boiler is fired due to a breakdown of Argus boilers (Nos. 25 and/or 26) or the ACE boiler the owner / operator shall comply with the provisions of District Rule 430.~~
4. Annual compliance testing is not required for this equipment. However, compliance testing may be required at the discretion of the District. The emissions calculations ~~report required by item 2 above~~ shall be based on a compliance tests ~~previously~~ performed on this equipment on March 12, 1991 for NO_x, SO_x, and CO.

[NSR]

5. A log showing the fuel use for this shall be maintained on site for five (5) years and made available to District, state or federal personnel upon request. ~~NOTE: Per Rule 301(f)(2) the rating is adjusted to 70.6 million Btu/hr.~~

6. This equipment shall only use pipeline quality natural gas as the primary fuel, except that CARB diesel fuel can be burned only during periods of natural gas curtailment, gas supply interruptions, startups, or for periodic testing. Periodic testing on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.
[District Rule 431; 40 CFR Part 63 Subpart JJJJJ]

C. Title V Permit/FOP – Significant Permit Modification

1. Proposed Changes to FOP

SVM submitted an application for Significant Permit Modification in parallel with the application for District Permit modification. The District is processing the proposed FOP changes in accordance with procedures specified in District Rule 1302(D)(1)(d). This preliminary decision also serves as the statement of basis and draft FOP.

2. Title V/FOP – Conclusion

The District has reviewed the applications and proposed modifications to CalPortland's Federal Operating Permit. The District has determined that the proposed modification is in compliance with all applicable District, state, and federal rules and regulations as proposed when operated in the terms of the operating conditions given herein.

D. Comment Period and Notifications

1. Public Comment

This preliminary determination/decision will be publicly noticed on 7/22/19, allowing for public comment until 8/22/19. Please see Appendix B for noticing details.

2. Notifications

The preliminary decision will be submitted to USEPA and CARB pursuant to District Rule 1302 for a forty-five (45) day review period on 7/16/19. The final modified FOP shall be issued on or after 9/3/19.

All correspondence as required by District Rules 1302 will be forwarded electronically to the following recipients:

Director, Office of Air Division
United States EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105
via the CDX EPS Portal

Chief, Stationary Source Division
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812
via email to Permits@arb.ca.gov

Anoop Sukumaran
Environmental Manager
Searles Valley Minerals
P.O. Box 367
Trona, CA 93592-0367
via email to Sukumara@svminerals.com

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Appendix A Application



RECEIVED
MDA QMD
13200 Main St., Trona, CA 93562-1995
P.O. Box 367, Trona, CA 93592-0367

March 27, 2019

19 MAR 29 AM 11:06

Ms. Sheri Haggard
Mojave Desert Air Quality Management District
14306 Park Avenue
Victorville, CA 92392
Work: (760) 245-1661

Subject: Title V Permit Revision for Boiler 22, M000483 (Facility ID# 0002)

Dear Ms. Haggard:

The purpose of this letter is to present an application for permit condition modification for SVM Boiler 22, with Title V significant permit modification. This application is intended to modify permit condition language for purposes of clarification and does not involve an emission increase. This permit application does not qualify as a minor permit revision under Title V.

The following items are included with this application:

- Explanation for permit condition change (addendum to letter)
- Regulatory analysis for this permit application (addendum to letter)
- Permit condition modification language markup (separate attachment)
- Permit application form and fee check (separate attachments)

If you have any questions about this application, please contact Anoop Sukumaran of SVM at 760-372-2547, or Anne McQueen of Yorke Engineering at 949-248-8490 Ext. 244.

Sincerely,

A handwritten signature in black ink, appearing to read 'Anoop Sukumaran', written over a circular stamp or mark.

Anoop Sukumaran
Environmental Manager
Searles Valley Minerals
Sukumara@SVMinerals.com

Enclosures:

1. Addendum A – Explanation for SVM B22 Permit Condition Change
2. Addendum B – AQ Rule Compliance for SVM Boiler 22 Permit Condition Modification

Addendum A – Explanation for SVM B22 Permit Condition Change, March 27, 2019

SVM Boiler B22 is a natural gas-fired boiler that currently has historical permit conditions limiting B22 operation to a cold standby status and connecting B22 operation to non-operation of the Ace boiler, which has been permanently shut down. Therefore, SVM wishes to clean up the existing permit language for B22, without altering the meaning of the permit and without increasing emissions.

Whereas the earlier language only allowed B22 to operate when one or more of boilers B25, B26, or Ace boiler were shutdown, the new language assigns separate limits for operation when either B25 or B26 is shutdown and for other operating periods (when boiler B22 is operating in parallel with B25 and B26, which the current permit allows).

Once the permit condition language changes are made as shown, SVM will be able to operate the boiler up to full-time operation, subject to the annual NOx limit as shown during periods when boiler B22 is operating in parallel with both boilers B25 and B26, and to the B25/B26 combined hourly NOx limit during the periods when boiler B22 is operating where either B25, B26, or both boilers are shutdown.

Specifically, B22 NOx emissions will be limited to the maximum actual annual NOx emissions from the past two years (2017-2018), based on a 1991 source test for the NOx emission factor and actual throughput. The limit is being taken based on the maximum of the two years, not the average, because the year selected (2017) corresponds to the year when there was a major shutdown requiring the use of B22, and, for a standby unit, it makes sense to base the limit on the shutdown year.

When either B25, B26, or both boilers are shutdown, B22 emissions will be combined with B25 and B26 emissions and the combined emissions will be subject to the B25/B26 combined hourly limit of 442 lb/hour for these hourly periods. Records will be kept of operating hours, fuel firing rate during each operating hour, and whether B25 and B26 are operating during each hour that B22 operates.

The following recordkeeping and reporting conditions will be added to the B22 permit:

- Records of B22 operating hours and firing rate will be kept (using a fuel rate meter and hour meter), separately reporting operating hours and total MMBTU fired where B22 operated in parallel with B25 and B26 and operating hours and total MMBTU fired where B22 operated when B25, B26 or both were shut down.
- Reports of annual NOx emission totals for B22 under each of the two operating conditions (operating in parallel with B25 and B26 and operating when either B25, B26, or both are shut down) will be submitted to MDAQMD upon request.

**Addendum B – AQ Rule Compliance for SVM Boiler 22 Permit Condition Modification,
March 27, 2019 (p. 1 of 2)*****Determination of Requirements for Prevention of Significant Deterioration******PSD Analysis***

Per the language in the applicability procedures of 40 CFR 52.21 (a)(2)(i) and (ii), PSD applies to “any new major stationary source or the major modification of any existing major stationary source”. The proposed modification does not result in a new major stationary source and does not constitute a major modification; hence, the project is not subject to PSD.

NAAQS Impact Analysis

District Rule 1302, section (D)(5)(b)(iv) requires that any new or Modified Facility located in an area classified by USEPA as attainment or unclassifiable shall determine if the Facility will cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS). The proposed modification, discussed herein, does not cause an increase in emissions; therefore, the proposed project will not contribute to a violation of the NAAQS.

Rules and Regulations Applicable to the Proposed Project***District Rules***

Rule 301 – Permit Fees. The proposed equipment will not change annual permit fees described in section (E) of this rule.

Rule 401 – Visible Emissions. This rule limits visible emissions opacity to less than 20 percent (or Ringlemann No. 1). In normal operating mode, visible emissions are not expected to exceed 20 percent opacity.

Rule 402 – Nuisance. This rule prohibits facility emissions that cause a public nuisance. The proposed modification is required by permit condition to employ good engineering and operational principles in order to minimize emissions and the possibility of a nuisance.

Rule 404 – Particulate Matter Concentration. The proposed new equipment is expected to operate in compliance with Rule 404.

Rule 405 – Solid Particulate Matter-Weight. The proposed new equipment is expected to operate in compliance with Rule 405.

Rule 408 – Circumvention. This rule prohibits hidden or secondary rule violations. The proposed modifications as described is not expected to violate Rule 408.

**Addendum B – AQ Rule Compliance for SVM Boiler 22 Permit Condition Modification,
March 27, 2019 (p. 2 of 2)**

Rule 430 – *Breakdown Provisions.* Any Breakdown which results in a violation to any rule or regulation as defined by Rule 430 shall be properly addressed pursuant to this rule.

Rule 900 – *Standards of Performance for New Stationary Sources (NSPS).*

Rule 900 adopts all applicable provisions regarding standards of performance for new stationary sources as set forth in 40 CFR 60. This permit application does not trigger any changes to NSPS requirements, where applicable.

Regulation X – *National Emission Standards for Hazardous Air Pollutants (NESHAP)*
Pursuant to Regulation X, SVM is required to comply with all applicable NESHAP standards. This permit application does not trigger any changes to NESHAP requirements, where applicable.

Regulation XII – *Title V Permits*

This regulation contains requirements for sources which must have a FOP. SVM currently has a FOP and is expected to comply with all applicable rules and regulations.

This permit application does not qualify as a minor permit modification under Title V, and requires EPA review and public notification.

Regulation XIII – *New Source Review*

There is no emission increase associated with this permit condition modification for Boiler 22, and hence BACT and offsets are not required.

Rule 1320 – *New Source Review for Toxic Air Contaminants.*

Pursuant to the requirements of District Rule 1302, an applicability analysis of state and federal air toxic regulations was conducted for the proposed modifications (State T-NSR and Federal T-NSR, respectively) and none of these requirements apply, because there is no TAC emission increase.

Rule 1520 – *Control of Toxic Air Contaminants from Existing Sources.*

The proposed project is subject to Rule 1520, as SVM has a facility PTE greater than ten (10) tons per year for VOC, PM, and NO_x, as well as a potential to emit a TAC. Because there is no TAC emission increase, a Toxic 'Hot Spots' Program Analysis was not needed, pursuant to section (E) of District Rule 1520, and Facility Prioritization Scores were not calculated.

41. BOILER NO. 22; MDAQMD PERMIT # M000483:

Babcock and Wilcox, Type PF1-28'10"-16, Natural gas with fuel oil backup standby, heating surface 17,900 sq. ft., 300,000 lb/hr steam capacity @ 550 psig @ 760 degrees F, with four (4) 27" Babcock and Wilcox combination gas and oil burners rated at 418 million Btu/hr; forced draft Westinghouse fan, size 2371-D, style AKY-4655-2, driven by Elliot turbine drive, type 2BYRO, 750 bhp, inlet pressure 400 psig, outlet pressure 35 psig steam:

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PERMIT CONDITIONS:

1. **This Boiler is on cold standby and shall only be fired under the following conditions:**
 - a. ~~The boiler shall not emit NOx emissions in excess of 62 tons per year, except under the operating condition specified in Item b below. Testing and maintenance for periods that shall be limited to a total of 72 hours of operation per six (6) month period.~~
 - b. For Boiler 22 operating hours when either Boiler 25 or Boiler 26 or both are not operating, the above Boiler 22 annual NOx emission limit shall not apply, but the sum of B22 and either B25 or B26 emissions will be subject to the existing B25/B26 combined hourly limit of 442 lb/hour.

~~When one or more Argus boilers (Nos. 25, 26) and/or ACE boiler are shutdown.~~
[New Source Review (NSR)]
2. To demonstrate compliance with Condition #1 above, records of B22 operating hours and firing rate will be kept (using a fuel rate meter and hour meter), separately reporting operating hours and total MMBTU fired where B22 operated in parallel with B25 and B26 and operating hours and total MMBTU fired where B22 operated when either B25, B26 or both were shut down.
3. Reports of annual NOx emission totals for B22 under each of the two operating conditions (operating in parallel with B25 and B26 versus operating when either B25, B26 or both are shut down) will be submitted to MDAQMD upon request.
4. ~~The District shall be notified in writing of the dates for a scheduled Argus boiler outage and subsequent operation of this boiler 30 days in advance. This notification shall present data and/or calculations to substantiate compliance with the net NOx and SOx for the combined set of boilers. Prior to startup, written approval by the District is required. [NSR]~~
5. ~~If the boiler is fired due to a breakdown of Argus boilers (Nos. 25 and/or 26) or the ACE boiler the owner/operator shall comply with the provisions of District Rule 430.~~
6. **Annual compliance testing is not required for this equipment. However, compliance testing may be required at the discretion of the District. The emission calculations shall be based on emissions report required by item 2 above shall be based on a compliance test previously performed on this equipment on March 12, 1991, for NOx, SOx, and CO for [NSR]**
7. **A log showing the fuel use for this shall be maintained on site for five (5) years and made available to District, state or federal personnel upon request.**

NOTE: Per Rule 301(f)(2) the rating is adjusted to 70.6 million Btu/hr.

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41. BOILER NO. 22; MDAQMD PERMIT # M000483:

Babcock and Wilcox, Type PF1-28'10"-16, Natural gas with fuel oil backup, heating surface 17,900 sq. ft., 300,000 lb/hr steam capacity @ 550 psig @ 760 degrees F, with four (4) 27" Babcock and Wilcox combination gas and oil burners rated at 418 million Btu/hr; forced draft Westinghouse fan, size 2371-D, style AKY-4655-2, driven by Elliot turbine drive, type 2BYRO, 750 bhp, inlet pressure 400 psig, outlet pressure 35 psig steam:

PERMIT CONDITIONS:

1. This Boiler shall be fired under the following conditions:
 - a. The boiler shall not emit NOx emissions in excess of 62 tons per year, except under the operating condition specified in Item b below.
 - b. For Boiler 22 operating hours when either Boiler 25 or Boiler 26 or both are not operating, the above Boiler 22 annual NOx emission limit shall not apply, but the sum of B22 and either B25 or B26 emissions will be subject to the existing B25/B26 combined hourly limit of 442 lb/hour.
[New Source Review (NSR)]
2. To demonstrate compliance with Condition #1 above, records of B22 operating hours and firing rate will be kept (using a fuel rate meter and hour meter), separately reporting operating hours and total MMBTU fired where B22 operated in parallel with B25 and B26 and operating hours and total MMBTU fired where B22 operated when either B25, B26 or both were shut down.
3. Reports of annual NOx emission totals for B22 under each of the two operating conditions (operating in parallel with B25 and B26 versus operating when either B25, B26 or both are shut down) will be submitted to MDAQMD upon request.
4. Annual compliance testing is not required for this equipment. However, compliance testing may be required at the discretion of the District. The emission calculations shall be based on a compliance test performed on this equipment on March 12, 1991, for NOx, SOx, and CO.
[NSR]
5. A log showing the fuel use for this shall be maintained on site for five (5) years and made available to District, state or federal personnel upon request.

RECEIVED
MDAOMD
MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT
BRAD POIRIEZ, EXECUTIVE DIRECTOR
 14306 Park Avenue, Victorville, CA 92392-2310
 760.245.1661 • Fax 760.245.2022
 Email: engineering@mdaqmd.ca.gov
 www.MDAQMD.ca.gov • @MDAQMD

19 MAR 29 AM 11:06



Application for external combustion engine (boiler, etc.) only

Remit **\$288.00** with this document (\$164.00 for change of owner)

PLEASE TYPE OR PRINT

Section 1: Owner information

a. Permit to be issued to (company name): Searles Valley Minerals Operations, Inc.		b. Federal tax ID #:	
c. Mailing/billing address (for above company name) include city, state and zip code: P.O. Box 367, Trona, CA 93592-0367			
d. Facility or business license name (for equipment location): Searles Valley Minerals Operations, Inc.			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): 13200 Main Street, Trona, CA 93562		Equip. coordinates (lat/long):	
f. Contact name Anoop Sukumaran	g. Title: Environmental Manager	h. Email address: Sukumara@svminerals.com	i. Phone: (760) 382-2430
j. General nature of business: Sodium and Boron Minerals Processing Facility		k. Principal product: Sodium and Boron Minerals Products	
Type of Organization <input type="checkbox"/> Individual owner <input type="checkbox"/> Partnership <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Utility <input type="checkbox"/> Local agency <input type="checkbox"/> State agency <input type="checkbox"/> Federal agency			

Section 2: Nature of application

Application is hereby made for authority to construct (ATC) and permit to operate (PTO) the following equipment: Natural gas fired Boiler #22	
Application is for what type of permit: <input type="checkbox"/> New construction <input checked="" type="checkbox"/> Modification <input type="checkbox"/> Change of owner	For modification or change of owner: M000483 Current Permit Number
Do you claim Confidentiality of Data? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (attach explanation; specify which information provided is confidential)	

Section 3: Equipment information

<input checked="" type="checkbox"/> Boiler <input type="checkbox"/> Dryer <input type="checkbox"/> Furnace <input type="checkbox"/> Heater <input type="checkbox"/> Kiln <input type="checkbox"/> Oven <input type="checkbox"/> Other, specify: _____	
Manufacturer: Babcock and Wilcox	Model: PFI-28'10"-16 Serial number: _____
Maximum heat input rating (use Higher Heating Value): 418 mmbtu/hr MMBtu/hr or kW	
Burner manufacturer: Babcock and Wilcox	Model no.: _____ Number of burners: 4 Max. heat input rating: 118 mmbtu/hr or kW
Percent excess air (or n/a): _____ Operating temperatures (C <input type="checkbox"/> or F <input 2"="" type="checkbox>): _____ avg. _____ max</td> </tr> <tr> <td colspan="/> Specify primary fuel (*attach fuel analysis for these fuels specifying HHV and sulfur content): <input checked="" type="checkbox"/> Natural gas <input type="checkbox"/> LPG (propane)	
<input type="checkbox"/> CARB diesel <input type="checkbox"/> Coal* <input type="checkbox"/> Petroleum coke* <input type="checkbox"/> Digester gas* <input type="checkbox"/> Landfill gas* <input type="checkbox"/> Refinery gas* <input type="checkbox"/> Other*, specify: _____	
Maximum hourly primary fuel usage: _____	Fuel units (ft ³ , gal, etc.): _____
f secondary fuel is proposed, specify: Fuel oil Maximum hourly usage: _____	
Feedstock type and maximum process rate (specify units): _____	
Maximum annual hours: _____	Exhaust stack height: _____ feet Inside diameter: _____ inches

Section 4: Emission controls

Check all that apply: <input type="checkbox"/> Low NO _x burner <input type="checkbox"/> Oxygen trim <input type="checkbox"/> Flue or exhaust gas recirculation (FGR or EGR) <input type="checkbox"/> Oxidation catalyst	
<input type="checkbox"/> Selective catalytic reduction (SCR) <input type="checkbox"/> Selective non-catalytic reduction (SNCR) <input type="checkbox"/> Afterburner <input type="checkbox"/> ESP <input type="checkbox"/> Baghouse	
<input type="checkbox"/> Other, specify: _____	

-For District use only-

Application number: Paid PCR	Invoice number: 479166/MD10298	Permit number: M000483	Company/facility number: 9/2
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Section 5: Max. emission rates (controlled)

Pollutant	Concentration ppmv/d or gr/dscf	Mass pounds/hour
Oxides of nitrogen (NO _x)	See cover letter for emissions discussion	
Oxides of sulfur (SO _x)		
Carbon monoxide (CO)		
Total particulates (TSP or PM ₁₀)		
Coarse respirable particulates (PM ₁₀)		
Fine respirable particulates (PM _{2.5})		
Total organics (TOG)		
Volatile organic compounds (VOC, ROG or NMOG)		

Section 6: Dryers only

Check one: Centrifugal Chip Fluidized bed Rotary Spray Other, specify _____

Section 7: Furnace only

Check one: Annealing Burnoff Calcining Crucible Cupola Diffusion Electric Forge Pot
 Holding Heat treating Melting Reveratory Rotary Sweating Oxide growth

Section 8: Oven only

Check one: Bakery Baking Curing Drying Fluidized bed Stripping Solder reflow
 Roasting, specify type: _____ Firing method: Direct Indirect

Section 9: Operation information

Facility annual operation by quarters (percent): <input type="checkbox"/> Uniform OR _____ % Jan-Mar _____ % Apr-Jun _____ % Jul-Sep _____ % Oct-Dec	Expected operating hours of equipment _____ Hrs/day _____ Days/wk _____ Wk/yr Total annual hours _____
--	--

Section 10: Receptor information

Distance (feet) and direction to the property line of closest: _____ residence _____ business _____ school _____

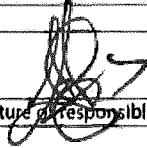
Name of closest school (K-12) _____

If the proposed equipment operates within 1,000 feet of a school site and operation results in the emission of hazardous air pollutants, a public notice will be required at the expense of the applicant (CH&S §42301.6)

***Please note: District staff may contact you for further information. Failure to provide additional information as requested in a timely manner may result in delays in the processing of this permit application.**

Section 11: Certification

I hereby certify that all information contained herein is true and correct

Anoop Sukumaran	Environmental Manager		3/25/2019
Name of responsible official	Official title	Signature of responsible official	Date signed
Phone (760) 382-0400 / 760-372-2547		Email	Sukumara@svminerals.com

Application submission instructions:

- 1) Submit completed application to Engineering@mdaqmd.ca.gov
- 2) Pay the corresponding application fee of \$288 per permit for new or modified permit (or \$164 for change of owner) via check or credit card.

Payment by check:
 Make check payable to **Mojave Desert AQMD**
 Mail the check with a copy of this completed application to:
Mojave Desert AQMD
 14306 Park Avenue
 Victorville, CA 92392

Payment by credit card:
 Pay online at <http://www.mdaqmd.ca.gov>
 Click "Pay Fees"
 Please note: a surcharge applies for all credit card payments.

- 3) If payment is made online via credit card, please email the receipt to Engineering@mdaqmd.ca.gov
- Should you have any additional questions, please, do not hesitate to contact the permitting division at 760-245-1661, or via email at engineering@mdaqmd.ca.gov

Mojave Desert Air Quality Management District

TITLE V – PERMIT AMENDMENT / MODIFICATION

I. PERMIT ACTION (Check appropriate box)

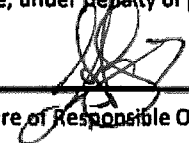
- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION
 OFF-PERMIT CHANGE

1. FACILITY NAME: <u>Searles Valley Minerals Operations, Inc.</u>	
2. FACILITY ID: <u>0002</u>	
3. TITLE V PERMIT NO: <u>900002</u>	
4. TYPE OF ORGANIZATION: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
5. COMPANY NAME: <u>Searles Valley Minerals Operations, Inc.</u>	
6. COMPANY MAILING/BILLING ADDRESS: STREET/P.O. BOX: <u>P.O. Box 367</u> CITY: <u>Trona</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>93592-0367</u>	
7. FACILITY ADDRESS: STREET: <u>13200 Main Street</u> CITY: <u>Trona</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>93562</u>	PROPOSED DATE OF INSTALLATION:
8. DISTANCES (FEET AND DIRECTION) TO CLOSEST: FENCELINE: _____ RESIDENCE: _____ BUSINESS: _____ SCHOOL: _____	
9. GENERAL NATURE OF BUSINESS: <u>Sodium and Boron Minerals Processing</u>	
10. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (Include Permit #'s if known, and use additional sheets if necessary) <u>Boiler #22, M000483. See cover letter.</u>	
11. PERSON TO CONTACT FOR INFORMATION ON THIS APPLICATION: NAME: <u>Anoop Sukumaran</u> PHONE NUMBER: <u>(760) 392-2430 / 760-372-2547</u> TITLE: <u>Environmental Manager</u> EMAIL: <u>Sukumara@SVMinerals.com</u>	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and check all for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:



Signature of Responsible Official

3/25/2019

Date

Anoop Sukumaran

Name of Responsible Official (please print)

Environmental Manager

Title of Responsible Official (please print)

For AQMD Use Only:

DATE STAMP	DISTRICT PERMIT APPLICATION NO: _____	COMPANY / FACILITY ID: _____
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APPLICATION FOR TITLE V MODIFICATION

- Instructions -

Page 1 of 4

I. PERMIT ACTION

On the application form, mark the box to indicate what type of Title V modification this is. Definitions follow in these instructions. Only one application form is needed for each facility.

- Line 1.** Enter the name of the facility.
- Line 2.** Enter the MDAQMD Facility ID number
- Line 3.** Enter the current Title V permit number
- Line 4.** Indicate the organizational structure of the facility
- Line 5.** Enter the name of the facility owner
- Line 6.** List the mailing address where correspondence regarding the application and the Permit to Operate may be sent. Please include your nine-digit zip code.
- Line 7.** Enter the facility mailing address. Indicate the installation date of any equipment changes from this modification.
- Line 8.** Indicate the distance of equipment, (including feet and direction), from the closest fenceline, residence, business, and school.
- Line 9.** Indicate the general nature of the business performed by the facility.
- Line 10.** Describe each emissions unit. You may reference existing valid District Permits to Operate for each permitted emissions unit.
- Line 11.** Provide the name, title, phone number, and email address of a person to contact for further information on this application.

II. Compliance Certification

A compliance certification is a certification by the Responsible Official that each of the statements initialed in this section are true, accurate, and complete. The Responsible Official must check each box for which the statements are true, sign and date, and print his/her name and title.

For a corporation, the responsible official shall be a president, secretary, treasurer, or vice president in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation. The responsible official may be a duly authorized representative rather than any of the above if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit; and

1. the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million in 1980 dollars; or
2. the District has approved a petition from the original responsible person to delegate authority.

APPLICATION FOR TITLE V MODIFICATION

- Instructions -

Page 2 of 4

For a public agency the responsible official shall be either the principal executive officer or the ranking elected official. The principal executive officer, in the case of a federal agency, may be the executive officer having responsibility for a geographical unit.

For a partnership or sole proprietorship, the responsible official is a general partner or the proprietor, respectively.

OTHER REQUIRED INFORMATION

If needed to complete the processing of your Title V permit application, the District may request additional information.

APPLICATION FOR TITLE V MODIFICATION

- Instructions -

Page 3 of 4

Administrative Permit Amendment

An administrative amendment is a modification to a FOP that is being made solely for the purpose of accomplishing one or more of the following objectives:

1. Corrects typographical errors.
2. Makes an administrative change at the source such as the name, address, or phone number of a person named in the Part 70 permit.
3. Requires more frequent monitoring or reporting by the permittee.
4. Allows for the transfer of ownership or operational control of a stationary source provided that a written agreement containing a specific date for transfer of Part 70 permit responsibility, coverage and liability between the current and new permittee has been submitted to the District.

Minor Permit Modification

A minor permit modification is a revision to a FOP which is not an Administrative Permit Amendment and which meets all of the following criteria:

1. The proposed modification does not violate or cause a violation of any Applicable Requirement; and
2. The proposed modification does not relax any monitoring requirements or relax any reporting or record keeping requirements; and
3. The proposed modification does not require or change a federally mandated case-by-case determination of an emission limitation or other standard, a Facility specific determination of ambient impacts for temporary Facilities, or a visibility or increment analysis or require or change a case-by-case determination of an emissions limitation or other standard required or imposed pursuant to District Regulation XIII – New Source Review; and
4. The proposed modification does not impose or change a permit condition which allows the Facility, or any Permit Unit at the Facility, to operate below the threshold of applicability for any Applicable Requirement or of this regulation; and
5. The proposed modification is not a modification under Title I of the Federal Clean Air Act.

Significant Permit Modification/Title I Modification

A significant permit modification is a revision or proposed revision to a FOP which does not meet the qualifications for an Administrative Permit Amendment or a Minor Permit Modification. All Title I Modifications must be treated as Significant Permit Modification. A Title I modification is a modification to a FOP that meets any of the following criteria:

APPLICATION FOR TITLE V MODIFICATION

- Instructions -

Page 4 of 4

1. A modification under Section 111 (New Source Performance Standards (NSPS)), i.e. when a modification of an existing unit at a Title V facility is considered a modification as defined in 40 CFR Part 60.14. (This does not include new units subject to NSPS.)
2. A modification under Section 112 (Hazardous Air Pollutants (HAPS)), i.e. when either a new project or a modification of an existing emissions unit at a Title V facility would increase the potential to emit for HAPs and would constitute either the construction or reconstruction of a major source of HAPs as defined in 40 CFR part 63.41. This type of modification also occurs when a modification to an existing emissions unit occurs that would not be considered a reconstruction of a major source of HAPs, but would still increase HAP emissions beyond the HAP major levels such that federal promulgated MACT requirements for the emissions unit category would become applicable.
3. A major modification under Part C of Title I (PSD), i.e. when a new project or modification of an existing emissions unit at a Title V facility will require a PSD permit. This is a major modification under Part C of Title I of the Clean Air Act.
4. A major modification under Part D of Title I (Nonattainment Areas), i.e. when the potential to emit from all new, modified, replacement, or relocated emission units at the stationary source, which are covered by the application for such Part 70 permit modification, plus all other emission increases that occurred during the specified evaluation period are equal to or greater than 25 tons/year for ROC or 25 tons/year for NOx.

The evaluation period is a period of five consecutive calendar years consisting of the calendar year in which the application for such Part 70 permit modification is submitted to the District and the four calendar years immediately prior to the calendar year in which the application for such Part 70 permit modification is submitted to the District.

Boiler 22 NOx Emission Calculation

2017 Heat Input (MMBTU/yr)¹	NOx Emission Factor (lb/MMBTU)²	NOx Emissions (ton/yr)
354,262	0.348	62

1. 2017 heat input is based on cubic feet of gas burned, as listed in the EY2017 GHG report, and 1037 MMBTU/MMSCF, the average factor from the US Energy Information Administration.
2. NOx emission factor is from the 1991 NOx source test result of 287 ppm @ 3% O₂, converted to 0.348 lb/MMBTU using the natural gas F Factor from EPA Method 19.

418 mod-11c

low production rate
 - 300,000 lb
 this is usually max possible
 capacity of 300,000 lb
 could be set

COMPANY : NORTH AMERICAN CHEMICAL COMPANY
 UNIT : BOILER 22 TRONA FACILITY
 DATE : 3-12-91
 REPORT : 46-561

SUMMARY OF METHOD 2,3,4 TESTS

TEST NO:	RUN #1	RUN #2	RUN #3	RUN #4	AVERAGE
TIME:	900	1010	1125	1235	

PROCESS CONDITIONS:					
%O2 (%VOL DRY)	9.8	9.8	9.8		9.8
%CO2 (%VOL DRY)	6.2	6.2	6.2		6.2
%N2 (VOL DRY)	84.0	84.0	84.0		84.0
% H2O (%VOL)	10.83	11.13	10.83		10.93
GAS TEMP (°F)	224	231	234		230
STATIC PRESSURE("H2O)	-0.19	-0.19	-0.19		-0.19
MOLECULAR WEIGHT	28.15	28.11	28.15		28.14

VOLUME FLOW RATES					
VEL (FPS)	53.41	55.77	54.66		54.61
ACFM	123313	128762	126199		126091
DSCFM	80929	83367	81629		81975

NOx, CO, AND SO2 EMISSIONS

NOx DATA					
PPM	176	175	176	178	177
PPM @ 3% O2	283	285	283	298	287
LBS/HR	105.03	104.56	105.13	106.40	105.28

CO DATA					
PPM	0.00	0.00	0.00	0.10	0.02
PPM @ 3% O2	0.00	0.00	0.00	0.20	0.05
LBS/HR	0.00	0.00	0.00	0.04	0.01

SO2 DATA					
PPM	0.30	0.14	0.20	0.41	0.26
PPM @ 3% O2	0.50	0.20	0.30	0.70	0.43
LBS/HR	0.25	0.12	0.17	0.34	0.22

Appendix B Public Notice

Noticing Methods include the following, per District Rule 1302(D)(2) and (3):

- Published in newspapers of general circulation - *Riverside Press Enterprise* (Riverside County) and the *Daily Press* (San Bernardino County) on or before 7/22/19.
- Mailed and/or emailed to MDAQMD contact list of persons requesting notice of actions (see the contact list following the Public Notice in this Appendix) on or before 7/22/19.
- Posted on the MDAQMD Website at the following link:
<http://www.mdaqmd.ca.gov/permitting/public-notices-advisories/public-notices-permitting-regulated-industry>

NOTICE of TITLE V PERMIT MODIFICATION



NOTICE IS HEREBY GIVEN THAT *Searles Valley Minerals (SVM) – Trona* - located in Trona, California; owned and operated by *Searles Valley Minerals Operations, Inc*, has applied for modification of condition Permit to Operate for Boiler 22 (existing natural gas fired boiler), and application for Significant Permit Modification of SVM Title V Permit (#900002) at this facility pursuant to the provisions of Mojave Desert Air Quality Management District (MDAQMD) Regulation XII and XIII. Applicant is a company operating a solution mining and chemicals processing facility. The modification is intended to modify permit condition language for purposes of clarification and does not involve an emissions increase.

REQUEST FOR COMMENTS: Interested persons are invited to submit written comments and/or other documents regarding the terms and conditions of the proposed Preconstruction Review. If you submit written comments, you may also request a public hearing on the proposed issuance of the Permit. To be considered, comments, documents and requests for public hearing must be submitted no later than 5:00 P.M. on August 22, 2019, or thirty days after the publication date of this notice (whichever is later) to the MDAQMD, Attention: Chris Anderson at the address listed below.

RIGHT TO PETITION USEPA FOR RECONSIDERATION: Preconstruction Review in accordance with Enhanced NSR are also subject to review and approval by USEPA. If USEPA has not objected to a proposed permit action and District has not addressed a public comment in a satisfactory manner, the public may also petition the Administrator of USEPA at 1200 Pennsylvania Ave, N.W., Washington, D.C. 20460, within 60 days after the end of the 45-day USEPA review period, to reconsider the decision to not object to the permit action.

AVAILABILITY OF DOCUMENTS: The Preliminary Decision, including the application and other supporting documentation are available for review at the MDAQMD offices, 14306 Park Avenue, Victorville, CA 92392. Please contact Chris Anderson, Air Quality Engineer, at the above address or (760) 245-1661, x 1846 to obtain copies of these documents.

Traducción en español esta disponible por solicitud. Por favor llame: (760) 245-1661 x1846

Mr. Larry Trowsdale
mchsi
951 E Skylark Ave
Ridgecrest, CA 93555

Chief, Planning Division
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

Mr. Mike Sword
Planning Div Mgr, Clark Co Dept of Air Q and
4701 Russell Road, Suite 200
Las Vegas, NV 89118

Environmental Manager
Duffield Marine, Inc.
17260 Muskrat Avenue
Adelanto, CA 92301

Mr. Jon Boyer
High Desert Power Project LLC
19000 Perimeter Rd
Victorville, CA 92394

Ms. Carol Kaufman
Metropolitan Water District
700 N Alameda Street, 8th Floor, Rm 106
Los Angeles, CA 90012

Mr. John F. Espinoza
HES Manager, Molycorp Minerals, LLC
HC-1 Box 224
Mountain Pass, CA 92366

Chief, Bureau of Air Quality
NDCNR, Env Prot Div (Air)
901 South Stewart St, Suite 4001
Carson City, NV 89701-5249

Mr. Steve Smith
SB County Transportation Authority
1170 W. Third Street, Second Floor
San Bernardino, CA 92410

Mr. Michael Eichenlaub
Specialty Minerals Inc.
P.O. Box 558
Lucerne Valley, CA 92356-0558

Ms. Janet Laurain
Adams Broadwell Joseph & Cardozo
601 Gateway Blvd., St. 1000
South San Francisco, CA 94080-7037

Ms. Desirea Haggard
Environmental Manager, CalPortland-Oro
2025 E Financial Way
Glendale, CA 91741

Ms. Brenda Abernathy
Air Program Manager, N45NCW, Naval Air
429 E Bowen Rd, Stop 4014
China Lake, CA 93555-6108

Mr. Randy Lack
Chief Marketing Officer, Element Markets,
3555 Timmons Lane, Suite 900
Houston, TX 77027

Mr. Glen King
Environmental Manager, Luz Solar Partners
43880 Harper Lake Road
Harper Lake, CA 92347

Mr. David Rib
Environmental Manager, Mitsubishi Cement
5808 State Highway 18
Lucerne Valley, CA 92356-9691

Mr. Mark Solheid
Senior EHS Analyst, NASA/Goldstone DSCC
93 Goldstone Road
Fort Irwin, CA 92310

Mr. Mike Peay
EH&S Manager, Northwest Pipe Co.
12351 Rancho Road
Adelanto, CA 92301

Mr. Anoop Sukumaran
Environmental Engineer, Searles Valley
P.O. Box 367
Trona, CA 93592-0367

Director, Air Division (Attn: AIR-3)
United States EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Mr. Ramon Campos
Environmental Compliance Manager, Blythe
P.O. Box 1210
Blythe, CA 92226

City Manager
City of Barstow
220 East Mountain View, Suite A
Barstow, CA 92311

Mr. Kent T. Christensen
HS&E Manager, Ducommun Aerostructures
4001 El Mirage Road
Adelanto, CA 92301

Ms. Christine Grandstaff
Evolution Markets
27801 Golden Ridge Lane
San Juan Capistrano, CA 92675

Mr. Mike Plessie
HQB N B CO, NREA MCAGCC
Box 78110
Twentynine Palms, CA 92278-8110

Environmental Manager
Mobile Pipe Lining & Coating, Inc
12766 Violet Road
Adelanto, CA 92301

Mr. Don Shepherd
National Park Service, Air Resources Div
12795 W Alameda Pkwy
Lakewood, CO 80228

Ms. Diana Furman
Senior Gas Engineer, PG&E (Attn: Air)
P.O. Box 7640
San Francisco, CA 94120

Ms. Karin Fickerson
Air Quality Team Lead, SoCalGas
1650 Mountain View Avenue
Oxnard, CA 93030

Ms. Anne McQueen
Senior Engineer, Yorke Engineering, LLC
31726 Rancho Viejo Road, Suite 218
San Juan Capistrano, CA 92675

Air Program Manager
Environmental Division, USMC MCLB
Box 110170 Bldg 196
Barstow, CA 92311

Mr. Anthony Fang
Metropolitan Water District
700 N Alameda Street, 8th Floor Rm 106
Los Angeles, CA 90012

Ms. Lisa Beckham
United States EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Bureau of Indian Affairs
1451 Research Park Drive, Suite 100
Riverside, CA 92507

Andrew Salas
Chairman, Gabriel Band of Mission Indians -
PO Box 393
Covina, CA 91723

Chief, San Gabriel Band of Mission Indians
PO Box 693
San Gabriel, CA 91778

Ms. Sheri Haggard
Supervising Permit Engineer, MDAQMD
14306 Park Ave
Victorville, CA 92392

Mr. Steve Cummings
Senior Air Quality Tech Specialist, Southern
P.O. Box 800
Rosemead, CA 91770

Ms. Angela Harrell
Elementis Specialties
31763 Mountain View Road
Newberry Springs, CA 92365

Ms. Jenna Latt
CARB/Office of Ombudsman
9480 Telstar Avenue, Annex 1
El Monte, CA 91731

Mr. Luis Pacheco
EH&S Manager, OMYA (California), Inc.
7225 Crystal Creek Rd
Lucerne Valley, CA 92356

Mr. Joseph Hower
Principal, Air Sciences, Ramboll Environ
350 S Grand Ave, Ste 2800
Los Angeles, CA 90017

Mr. Guy Smith
Permit Engineer, Mojave Desert AQMD
14306 Park Ave
Victorville, CA 92392

Mr. Josh Dugas
Division Chief, San Bernardino County EHS
385 N Arrowhead Ave, Second Floor
San Bernardino, CA 92415-0160

Mr. Juziel Picado
Specialist - Permitting, Kinder-Morgan
1100 Town & Country Road, Ste 700
Orange, CA 92868

Mr. John Vidic
Air Program Manager, USAF 412
120 N. Rosamond Blvd, Bldg. 3735 (Ste A)
Edwards AFB, CA 93524

Mr. Dan Guillory
Environmental Contact, Metropolitan Water
P O Box 54153
Los Angeles, CA 90054

Ms. Jessica Gammett
Environmental Manager, CalPortland
19409 National Trails Hwy
Oro Grande, CA 92368

Appendix C Emission Calculations

Searles Valley Minerals				
Trona Plant				
Boiler 22- Maximum Potential to Emit, NOX*				
2017 Heat Input	354,262 MMBtu/yr			
	Emission Factors		Emissions	
Pollutant	lb/MM scf	lb/MMBtu	lb/yr	ton/yr
NOX	41	3.5E-01	124007	62.00
Nox emission factors from 1991 source test of Boiler 22.				
Permit/Source Test Data				
	Max Fuel rate:	418	MMBtu/hr	
	Max Flow rate:	418,000	SCFH	
		6,967	scfm	
	Fd	8610	DSCF exhaust per MMBtu in	lb/MM cu.ft.
NOx	Source Test	287	ppm @	3% % O2 40.7
*During maintenance or repair of Boiler 25 and/or Boiler 26, Boiler 22 emissions are capped by Boiler 25 and 26 limits and are not subject to the above limits.				
Calculations				
NOX, lb/MMscf=	ppm * (20.95/(20.95-3%*100))*46/379			
NOX, lb/MMBtu=	lb/MM scf * 8610 DSCF/MMBtu			
NOX, lb/yr=	MMBtu/yr* lb/MMBtu			
NOX, ton/yr=	lb/yr/2000			