MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

Preliminary Determination/Decision - Statement of Basis

for

Modification to

FOP Number: 008800567

For:

Naval Air Weapons Station, China Lake

Facility:

NAWS China Lake

Facility Address:

429 E Bowen Road
China Lake, CA 93555-6108

Document Date: December 10, 2019
Submittal date to EPA/CARB for review: December 10, 2019
EPA/CARB 45-day Commenting Period ends: January 25, 2020
Public Notice Posted: December 10, 2019
Public Commenting Period ends: January 10, 2020
Permit Issue date: On or about January 25, 2020

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A. Introduction

1. Application and Setting

Naval Air Weapons Station, China Lake (NAWS CL) provides and maintains land, facilities and other assets that support the United States Navy's research, development, acquisition, testing and evaluation (RDAT&E) of cutting-edge weapons systems for America's warfighting forces, and is of a size requiring a Title V Permit.

The Mojave Desert Air Quality Management District (MDAQMD or District) received an application on March 29, 2019, and an additional application on May 9, 2019, proposing the following:

- Correct the USEPA Family Names and emission rates for Permit Units B012343 and B012344.
- Permit the use of a new controlled abrasive blasting system using PM10 Simultaneous Emissions Reductions (SERs) from the revised emission rates resulting from the above USEPA Family Name corrections.
- Reduce the boiler tuneup requirement for Permit Units B001074 and B001075 from annually to every five years in accordance with 40 CFR 63.7540(a)(12).
- Add a new powder coating system to the currently existing Spray Booth described in Permit Unit S002204, including the installation of an electrically heated curing oven and an associated Dust Collector.
- Modify Permit Unit B003155 to allow the operation of the currently permitted hammer mill or the use of a newer, lower powered but more efficient hammer mill.
- Correct a typographical error in the model and serial number of the equipment in Permit Unit C004010.
- Remove unnecessarily specific chemical formulation references from the equipment descriptions in Permit Units B003141, B003155, B003156, and B003161.
- Cancel Permit Unit T010868 as it is no longer in service.
- Update the facility's Site Contact information.
- Perform minor formatting and spelling/typographical corrections.

A copy of these applications can be viewed in Appendix A.

Pursuant to District Rule 1301 – *New Source Review Definitions*, NAWS CL is an existing Major Facility for CO, NO_x, VOC, PM_{10}, and HAPs. The portion of the MDAQMD where the facility is located has the following pollutant attainment status:

Pollutant	State Attainment Status	Federal Attainment Status
Ozone	Non-Attainment	Unclassified/Attainment
PM10	Non-Attainment	Non-Attainment
PM2.5	Unclassified	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment
CO	Attainment	Unclassified/Attainment

Pb	Attainment	Unclassified/Attainment
NO_2*	Attainment*	Unclassified/Attainment*
H_2S	Attainment	Unclassified/Attainment

* NOTE: NOx / NO_2 and Volatile Organic Compounds (VOCs) are precursors to Ozone, therefore both are considered to be in State Non-Attainment.

Therefore, pursuant to District Rule 1303 – *New Source Review Requirements*, the proposed equipment is subject to both the BACT and Offset requirements for the Ozone Nonattainment Air Pollutant Precursors of NO_x and VOC as well as PM_{10}. The proposed modification does not constitute a NSR Modification as defined under District Rule 1301 as the proposed changes do not result in any Net Emissions Increase. This document serves as the preliminary decision for NSR purposes.

In addition, NAWS CL is defined as a federal Major Facility pursuant to District Rule 1201 – *Federal Operating Permit Definitions.* The proposed modification classifies as a Significant Modification to NAWS CL's Federal Operating Permit (FOP). Pursuant to section (B)(2) of District Rule 1205 – *Modifications of Federal Operating Permits*, this document serves as the preliminary determination to issue NAWS CL the modified FOP, inclusive of the proposed changes.

This preliminary decision/determination will be submitted to USEPA, CARB, and the public for review and comment on December 2, 2019. The public notice for this preliminary determination will be published on December 2, 2019, allowing for public comment until January 02, 2020.

2. Description of Project

a. Correct the USEPA Family Names and emission rates for Permit Units B012343 and B012344:
These Permit Units have been operating during District compliance inspections and the engine data plates could not be safely viewed until a recent maintenance period. It was then discovered that the USEPA Engine Families were different than what was given by the engine vendor. The correct engine families have lower NOx and VOC emission factors and a higher PM10 emission factor.

b. Permit the use of a new Abrasive Blasting System (ABS) using Simultaneous Emissions Reductions (SERs) from the revised emission rates resulting from the above USEPA Family Name corrections:
NAWS CL proposes to install the new ABS to support their Research, Development, Test, Acquisition, and Evaluation (RDTA&E) operations in Area R. The fully enclosed system measures 12 feet high by 16 feet wide by 24 feet long and is controlled by a pulse-jet style dust collector rated at 12,000 acfm (unobstructed) with 24 filter cartridges. Maximum hourly abrasive blasting material throughput is 2,000 lbs and the maximum PM10 grain loading of the dust collector is 0.001 grains/dscf.

c. Reduce the boiler tuneup requirement for Permit Units B001074 and B001075 from annually to every five years as authorized by 40 CFR 63.7540(a)(12):
NAWS CL is requesting to reduce their boiler tuneup interval for Permit Units B001074 and B001075. The facility has verified that both units are properly equipped with Continuous Oxygen Trim Systems required by 40 CFR 63.7540(a)(12) in order to allow for the less restrictive requirement.

d. Add a new powder coating system to the currently existing Spray Booth described in Permit Unit S002204, including the installation of an integral electrically heated curing oven:
NAWS CL is proposing to install a new powder coating operation to the existing spray booth. The VOC content of the powder coating material is less than the lowest coating material currently being used in the booth and the two operations cannot be conducted simultaneously, therefore this modification will result in lower net emissions to the atmosphere.

e. Modify Permit Unit B003155 to allow the operation of the currently permitted hammer mill or the use of a newer, lower powered but more efficient grinder:
NAWS CL is proposing to add a new grinding system to the permit, allowing the facility to use either the currently permitted hammermill or the new one. The two grinders cannot be used simultaneously, the throughput is the same for both units, and no increase in emissions to the atmosphere will result. This modification will allow the facility the ability to continue grinding operations in the event of a malfunction or scheduled maintenance of the single unit now permitted.

f. Correct a typographical error in the model and serial number of the equipment in Permit Unit C004010:
The District inadvertently changed the model number and serial number of the originally installed baghouse in a prior action. This administrative correction properly re-identifies the original baghouse.

g. Remove unnecessarily specific chemical formulation references from the equipment descriptions in Permit Units B003141, B003155, B003156, and B003161:
NAWS CL proposes to change the Permit Units' descriptions to replace specific chemical formulations with a more generic reference to energetic materials. The facility is already authorized to grind other materials than what is mentioned in the description sections (Please see Condition #2 for each of these Permit Units), therefore this is administrative in nature and does not change any emissions to the atmosphere.

h. Cancel Permit Unit T010868 as it is no longer in service:
The parts washer described in Permit Unit T010868 is no longer in service and all references to it will be removed from the FOP and the District Permit will be canceled.

i. Update the facility's Site Contact information:
The facility's Site Contact has changed. The FOP will be updated to reflect the new contact information.

j. Perform minor formatting and spelling/typographical corrections: The FOP will be formatted to conform with new District guidelines and minor typographical and spelling errors will be corrected. None of these changes alter any emissions limitations or relax any monitoring, recordkeeping, or reporting requirements.

B. Analysis

1. Determination of Emissions

[District Rule 1302(C)(1)]

The proposed new and modified equipment does not constitute a New Source Review (NSR) Modification as defined under District Rule 1301 as the proposed changes do not result in any Net Emissions Increase. The overall effect of this proposed permit modification is a net decrease demonstrated by the emission calculations below. Since the proposed project does not result in an emissions increase, offsets are not required. Please note that offsets are not required for CO or SO_X as the District is designated as Attainment or Unclassified for these Air Pollutants by both USEPA and the State.

District Rule 1304 – *Emissions Calculations*, provides the procedures and formulas to calculate emission increases and decreases for new or modified Facilities. Section (A)(1)(a)(iii), of this Rule states that District Rule 1304 shall determine the Potential to Emit of new or modified Facilities and Emission Unit(s). Pursuant to District Rule 1304, the emission change for a new or modified Facility or Emissions Unit(s) shall be calculated, in pounds per day, by subtracting Historic Actual Emission from Proposed Emissions (section (B)(1)(a)):

Emissions Change = (Proposed Emissions) – (Historic Actual Emissions)

For a modified Facility, such as in the case of NAWS CL, Proposed Emissions shall be equal to the Potential to Emit as defined in District Rule 1301 – NSR Definitions, section (UU). Section (UU) of District Rule 1301 specifically states that Potential to Emit is the maximum capacity of a Facility or Emissions Unit(s) to emit any Regulated Air Pollutant under its physical and operational design. It also states that any physical or operational limitation on the capacity of the Facility or Emissions Unit(s) to emit an Air Pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is Federally Enforceable.

District Rule 1304, section (D)(2)(a)(iv), allows Historic Actual Emissions, in the case of a modified Facility, as in the case of NAWS CL, to be equal to the Potential to Emit for that Emission Unit, as indicated by a Federally Enforceable Emissions Limitation, if all the emissions from that Emissions Unit have been previously offset in a documented prior NSR permitting action. All the emissions proposed for simultaneously reducing PM10 emissions associated with the new abrasive blasting system and the corrected emissions rates for the two diesel engines B012343 and B012344, were previously offset under prior NSR permitting actions. Therefore, the Historical Actual Emissions from these units will be equal to their Potential to Emit which

will be based on the operational limitation (i.e. Federally Enforceable Emissions Limitation) on the capacity of each unit.

a. Correct the USEPA Family Names and emission rates for Permit Units B012343 and B012344:

The facility notified the District that the vendor-supplied engine family data for these two diesel engines was incorrect and that the emission factors for the units needs to be corrected. The following table notes the differences between the two USEPA engine families:

Current Engine Family = EPKXK04.4MK1 Correct Engine Family = CPKXL04.4ML1	NOx	VOC	CO**	SOx**	PM
Currently Permitted Emission Factor (g/bhp-hr)	1.94	0.007	0.07	0.005	0.002
Correct Emission Factor (g/bhp-hr)	1.86	0.004	0.15	0.005	0.003
Correct Minus Permitted Differential (g/bhp-hr)	-0.08	-0.003	0.08	0	0.001
Maximum Permitted Annual Operating Hours	7850	7850	7850	7850	7850
Difference in Emissions to Atmosphere (lbs/year)*	-203.0	-7.6	203.0	0.0	2.5

* Negative numbers indicate a reduction in emissions to the atmosphere.
** The District is in Attainment/Unclassified status for both CO and SOx.

The increase in CO emissions to the atmosphere does not require any simultaneous emissions reductions as the facility is located within a CO attainment/unclassified area.

As NOx is a PM10 precursor, the facility has asked for an interpollutant transfer of NOx PTE to reduce the increase in PM10 PTE. In accordance with District Rule 1305(B)(6) and 1305(C), an offset ratio of 2:1 is applied for this interpollutant transfer and, as discussed in Rule 1305(C)(4), the two engines being used to provide the SERs meet BACT and do not require any further adjustments.

The District, having verified that the above interpollutant transfer is both technically justified and that the applicant has satisfactorily demonstrated that the combined effect of the offsets and increases from the new equipment will not cause or contribute to a violation of an Ambient Air Quality Standard, has approved the use of the interpollutant transfer. USEPA approval of the above mentioned interpollutant transfer as required by District Rule 1305(B)(6)(a) has already been granted as noted in USEPA Region IX email of November 6, 2019, a copy of which is included in Appendix B.

After taking the interpollutant transfer into account, the remaining difference in NOx emissions to the atmosphere is a net decrease of 198 lbs/year, which will be further used to offset PM10 emissions from the proposed abrasive blasting system discussed below.

b. Modification to allow the use of a new controlled abrasive blasting system:
As mentioned under the Description of Project, the system is capable of using a maximum of 2,000 lbs of abrasive blasting material per hour and the hourly usage per year is limited to no more than 1,350 hours; therefore, the system will be permitted with a throughput of 1,350 tons per year. The Potential to Emit for the proposed system is calculated as follows:

Using the STP-corrected flow rate at a filter differential pressure of 1.25 inches water column of 8,500 dscfm, operating 1,350 hours (which equals 1,350 tons) per year and applying a manufacturer's calculated grain loading of 0.001gr/dscf achieved through the use of the dust collector described in Permit Unit C013624:

$$\frac{8{,}500\ dscf}{min} \times \frac{0.001\ gr\ PM10}{dscf} \times \frac{1\ lb\ PM10}{7000\ gr\ PM10} \times \frac{81{,}000\ min}{year} = 98.4\ \frac{lb\ PM10}{yr}$$

The facility had initially proposed using Simultaneous Emissions Reductions (SERs) from a recent road paving project to offset these PM10 emissions. However, since the road project was conducted from September, 2017 through September, 2018 and the Title V modification was not submitted until March, 2019, the emission reduction was not simultaneous, therefore the road paving project could not be used as SERs. Alternatively, the facility has proposed, and the District concurs, to use a portion of the remaining 198 lbs of NOx reductions generated by the correction of the emission factors for the two diesel engines in Permit Units B012343 and B012344 discussed in paragraph B.1.a above as SERs: The facility has asked for an interpollutant transfer of NOx PTE to reduce the increase in PM10 PTE. In accordance with District Rule 1305(B)(6) and 1305(C), an offset ratio of 2:1 was applied for this interpollutant transfer and, as discussed in Rule 1305(C)(4), the two engines being used to provide the SERs meet BACT and do not require any further adjustments.

Again, having verified that the above interpollutant transfer is both technically justified and that the applicant has satisfactorily demonstrated that the combined effect of the offsets and increases from the new equipment will not cause or contribute to a violation of an Ambient Air Quality Standard, has approved the use of the interpollutant transfer. USEPA approval of the above mentioned interpollutant transfer as required by District Rule 1305(B)(6)(a) has already been granted as noted in USEPA Region IX email of November 6, 2019, a copy of which is included in Appendix B.

After considering all adjustments, this permitting action leaves a slight net decrease in both NOx and VOC emissions, thereby providing a net benefit to the environment.

Additionally, the calculated air to cloth ratio of 2.2:1 is within the parameters established in Chapter 6 of USEPA's Air Pollution Control Cost Manual of January 2002.

c. Reduce the boiler tuneup requirement for Permit Units B001074 and B001075 from annually to every five years as authorized by 40 CFR 63.7540(a)(12):
The proposed change to these Permit Units does not involve any changes in emissions. It merely recognizes the fact that both units are properly equipped with Continuous Oxygen Trim systems

and should have been required to conduct tuneups every five years as directed in 40 CFR 63.7540(a)(12). No District, State, or other Federal regulation requires the boilers to be tuned more frequently than every five years. The initial permit condition was in error and this modification corrects that error.

d. Add a new powder coating system to the currently existing Spray Booth described in Permit Unit S002204, including the installation of an integral electrically heated curing oven:
The highest VOC-Content powder coating material is lower than the lowest spray applied coating currently being used and the two operations cannot be conducted simultaneously, therefore the net result is a lowering of VOC emissions to the atmosphere

PM10 emissions will also be reduced as the powder has an average size range of 30 – 50 microns, well above the PM10 threshold and less than the PM10 generated by the HVLP paint spray guns. Also, there are no HAPs associated with the powders, thus providing an additional net benefit.

e. Modify Permit Unit B03155 to allow the operation of the currently permitted hammermill or the use of a newer, lower powered but more efficient grinder:
This modification gives the facility more flexibility by allowing the use of either grinding unit to prevent operating downtime for equipment maintenance and repairs. There is no increase in throughput or emissions to the atmosphere, but this added flexibility allows the facility to continue scheduled production during maintenance and repair actions. Furthermore, both units are exhausted to the same baghouses, therefore PM emissions are identically controlled. Lastly, the physical configuration of the building precludes the installation of both units simultaneously, so one unit will be placed in secure storage while the other unit is being utilized.

f. Correct a typographical error in the model and serial number of the equipment in Permit Unit C004010:
This change is administrative in nature and has no effect on emissions to the atmosphere.

g. Remove unnecessarily specific chemical formulation references from the equipment descriptions in Permit Units B003141, B003155, B003156, and B003161:
This change is administrative in nature and has no effect on emissions to the atmosphere.

h. Cancel Permit Unit T010868 as it is no longer in service:
This change is administrative in nature and has no effect on emissions to the atmosphere.

i. Update the facility's Site Contact information:
This change is administrative in nature and has no effect on emissions to the atmosphere.

j. Perform minor formatting and spelling/typographical corrections:
This change is administrative in nature and has no effect on emissions to the atmosphere.

2. Determination of Nonattainment NSR Requirements

a. BACT Evaluation
[District Rule 1302(C)(2)(a)]

Best Available Control Technology (BACT) is required for each new or Modified Permit Unit at a Modified Facility that emits, or has the Potential to Emit, twenty five (25) tons per year or more of any Nonattainment Air Pollutant or its Precursors (District Rule 1303(A)(3)). NAWS CL has a facility PTE in excess of twenty five (25) tons per year for the Nonattainment Air Pollutants/Precursors of NO_x, VOC, and PM_{10}. Therefore, the proposed new and modified Permit Units must be equipped with BACT pursuant to District Rule 1303. BACT is defined as the most stringent emission limit or control technique which has been achieved in practice, for such Permit Unit class and category of source [District Rule 1301].

To address BACT on the new Dust Collector (C013624) serving the new abrasive blasting system (A013623), the District has determined BACT for particulate to be 0.005 grains per dry standard cubic foot. NAWS CL has verified that their proposed system meets this emission rate by manufacturer's data.

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). The offset threshold is 25 tons per year for NOx and 15 tons per year for PM10; however, since the proposed permitting action results in no net emissions increase as indicated in the Determination of Emissions section above, offsets are not required.

3. Determination of Requirements for Toxic Air Contaminants
[District Rule 1302(C)(5)]

a. *District Rule 1320:*
Pursuant to District Rule 1320 – *New Source Review for Toxic Air Contaminants*, NAWS CL is subject to both State and Federal Toxic New Source Review, as NAWS CL is a Modified Facility (or Emissions Units) with the potential to emit a Toxic Air Contaminant, as well operating Emissions Units which are subject to an Airborne Toxic Control Measure (State T-NSR). NAWS CL also has the potential to emit 10 tons per year of any single Hazardous Air Pollutant (Federal T-NSR). Pursuant to the requirements of District Rule 1320, an applicability analysis of state and federal air toxic regulations was conducted for the proposed equipment (State T-NSR and Federal T-NSR, respectively). The State T-NSR and Federal T-NSR analyses are described below:

1. State T-NSR:

Section (E)(1)(b) of District Rule 1320 requires that if any ATCM applies to the proposed equipment, the requirements of that ATCM shall be added to the District permit. There are no ATCMs that apply to the proposed new abrasive blasting system, however the stationary diesel internal combustion engines are subject to 17 CCR 93115 - *Airborne Toxic Control Measure for Compression Ignition Engines*. Appropriate permit conditions have been included to ensure compliance with this regulation.

Pursuant to District Rule 1320, section (E)(2), State T-NSR also requires an Emission Unit Prioritization Score. Section (E)(2) requires prioritization scores to be calculated utilizing the most recently approved CAPCOA Facility Prioritization Guidelines, the most recently approved OEHHA Unit Risk Factor for cancer potency factors, and the most recently approved OEHHA Reference Exposure Levels for non-cancer acute factors, and non-cancer chronic factors. The Emission Unit Prioritization Score was calculated using NAWS CL's most recently approved (2018 emission year) Comprehensive Emission Inventory Report (CEIR) in HARP software, which is consistent with the 2016 *CAPCOA Facility Prioritization Guidelines*, and is based on a conservative receptor selection of 2,000 meters (please refer to Appendix C for the Emission Unit Prioritization HARP data). Using the 2018 CEIR is a conservative reflection of the Emission Unit modification since the proposed limit will result in a decrease in emissions. The toxic air contaminants/hazardous air pollutants and associated emission factors were taken from the 2018 CEIR and were calculated based on the calculated maximum emissions of the proposed equipment.

	Cancer Priority	Chronic Noncancer Priority	Acute Noncancer Priority
New Abrasive Blasting System (A013623/C013624)	1.64E-02	6.22E-03	2.70E-03
EPA Family Name Corrections (B012343/B012344)	1.09E-01	1.61E-04	1.61E-04
Total Emission Unit Prioritization Score	**1.25E-01**	**6.380E-03**	**2.86E-03**

As shown in the table above, the total Emission Unit Prioritization Scores for the proposed new and modified Emission Units are less than 1; therefore, categorized as "Low Priority." Pursuant to District Rule 1320, section (E)(2)(b), no further State T-NSR action is required.

A detailed HARP Prioritization Score breakdown inclusive of the new abrasive blasting system and the corrected engine data is presented in Appendix C.

2. Federal T-NSR:
Pursuant to section (F)(1) of District Rule 1320, the Modified Facility/Emissions Units were analyzed to determine if any current, enforceable Maximum Achievable Control Technology (MACT) standards apply to the equipment affected by this permitting action, and if so to ensure that those requirements are enforced by permit condition. Neither the Abrasive Blasting System nor the Diesel Engines are governed by any MACT.

b. District Rule 1520 – Toxic Hot Spots Analysis:
District Rule 1520 – *Control of Toxic Air Contaminants from Existing Sources* applies to NAWS CL, as they are an existing facility that has a facility PTE greater than ten (10) tons per year for VOC, PM, and NO_x, as well as the potential to emit a TAC (Section (B)(1)(a) and (c)). NAWS CL's most recently approved (2018 emission year) Comprehensive Emission Inventory Report (CEIR) was utilized to fulfill the requirements of section (D)(1)(b)(i) of District Rule 1520. Section (E)(1)(a)(ii) requires prioritization scores to be calculated utilizing the most recently approved CAPCOA Facility Prioritization Guidelines, the most recently approved OEHHA Unit Risk Factor for cancer potency factors, and the most recently approved OEHHA Reference Exposure Levels for non-cancer acute factors, and non-cancer chronic factors. Therefore, the District prepared the Facility Prioritization Scores using the July 2016 CAPCOA Facility Prioritization Guidelines (as these are the latest approved), and account for the recent updates to the OEHHA's Risk Assessment Guidance Document. The prioritization was calculated using these parameters, and the Facility Prioritization Scores for NAWS CL are greater than (1) and less than ten (10); therefore, categorizing NAWS CL as an 'Intermediate Priority' facility. Based on the requirements of District Rule 1520, section (E)(1)(b), no further analysis is required. The HARP data for the Facility Prioritization Scores can be viewed in Appendix C.

	Cancer Priority	Chronic Noncancer Priority	Acute Noncancer Priority
Current EY 2018 Facility Prioritization Score:	3.27E+00	1.30E-01	4.14E+00
New Abrasive Blasting System (A013623/C013624)	1.64E-02	6.22E-03	2.70E-03
EPA Family Name Corrections (B012343/B012344)	1.09E-01	1.61E-04	1.61E-04
Post-mod Total Facility Prioritization Score:	**3.40E+00**	**1.36E-01**	**4.14E+00**

Section (E)(2)(a) and (b) of District Rule 1520 allows the APCO to determine whether further toxic analysis of the facility is required for Facility Prioritization Scores that are categorized as "Intermediate Priority." At this time, the District is not requiring further toxic analysis for NAWS CL and the proposed modification. NAWS CL's toxic emissions are routinely tracked on an annual basis as part of the District's Hot Spots Program.

4. Determination of Requirements for Prevention of Significant Deterioration
[District Rule 1302(C)(6)]

a. PSD Analysis

In accordance with 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.

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 modifications discussed herein do not cause an increase in emissions; therefore, the proposed project will 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. NAWS CL is in compliance with this rule as they appropriately applied for a District permit for all new equipment and maintain 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 NAWS CL 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*. NAWS CL 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*. NAWS CL provided all the required information to correctly address the proposed equipment pursuant to this rule, although there were instances in which additional information were required, in which the thirty (30) day clock was restarted.

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.* NAWS CL complies with this rule as they currently hold and maintain a valid Federal Operating Permit.

Rule 301 – *Permit Fees*. The proposed equipment will increase NAWS CL'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 408 – *Circumvention*. This rule prohibits hidden or secondary rule violations. The proposed modifications as described are not expected to violate Rule 408.

Rule 430 – *Breakdown Provisions*. Any Breakdown which results in a violation of 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. There are no NSPSs applicable to the proposed Abrasive Blasting System, however 40 CFR 60, Subpart IIII – *New Source Performance Standards for Compression-Ignition Engines* - does apply to the two engines being updated with corrected USEPA Families and Emission Factors. The engines meet all requirements imposed by 40 CFR 60, Subpart IIII and appropriate permit conditions have been established to ensure compliance with the NSPS.

Regulation X – *National Emission Standards for Hazardous Air Pollutants*. Pursuant to Regulation X, NAWS CL is required to comply with all applicable ATCMs. The two engines being updated with corrected USEPA Families and Emission Factors are governed by the ATCM for stationary compression-ignition engines discussed in 17 CCR 93115. The engines meet all emission requirements imposed by the ATCM and appropriate permit conditions have been established to ensure compliance with the ATCM. Furthermore, both engines comply with the provisions of 40 CFR 63, Subpart ZZZZ – *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* - by virtue of complying with all requirements of 40 CFR 60, Subpart IIII.

Regulation XII – *Title V Permits*. This regulation contains requirements for sources which must have a FOP. NAWS CL currently has a FOP and is expected to comply with all applicable rules and regulations.

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

Rule 1203 – *Federal Operating Permits*. This document represents the preliminary determination for the proposed modifications to NAWS CL's FOP. This proposed Significant Modification will also be properly noticed pursuant to District Rule 1207, as required.

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

Rule 1208 – *Certification*. NAWS CL included a Certification of Responsible Official as required with the submitted application for the proposed modification.

Rule 1211 – *Greenhouse Gas Provisions of Federal Operating Permits*. NAWS CL is a Major GHG Facility pursuant to Rule 1211. NAWS CL'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 along with follow-on information supplied by the applicant in response to District requests 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 meets BACT and the proposed permitting action, which utilizes Simultaneous Emission Reductions, does not trigger offsets.

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

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 is discussed in further detail in section (B)(3)(a)(1) of this document.

Rule 1520 – *Control of Toxic Air Contaminants from Existing Sources*. The proposed project is subject to Rule 1520, as NAWS CL 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 (Section (B)(1)(a) and (c)). A Toxic 'Hot Spots' Program Analysis was conducted pursuant to section (E) of District Rule 1520. Facility Prioritization Scores were calculated pursuant to this rule and the results of the analysis is discussed in further detail in section (B)(3)(b), above.

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 apply to the proposed project.

State Regulations

17 CCR 93115 – *Airborne Toxic Control Measure for Compression Ignition Engines* – applies to the two engines being updated with corrected USEPA Families and Emission Factors. The engines meet all requirements imposed by the ATCM and appropriate permit conditions have been established to ensure compliance with the ATCM.

Federal Regulations

40 CFR 60, Subpart A – *NSPS General Provisions.* NAWS CL complies with this regulation per Section II(B) and Section II(C) of their FOP.

40 CFR 60, Subpart IIII – *NSPS for Stationary Compression Ignition Internal Combustion Engines*. NAWS CL complies with this regulation per Section III of their FOP.

40 CFR 61, Subpart M – *NESHAP for Asbestos*. NAWS CL complies with 40 CFR 61, Subpart M – *NESHAP for Asbestos* per Section II(C) of their FOP.

40 CFR 63, Subpart A – *NESHAP General Provisions*. NAWS CL complies with this regulation per Section II(C) of their FOP.

40 CFR 63, Subpart DDDDD – *NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters*. NAWS CL complies with this regulation per Section III of their FOP.

40 CFR 63, Subpart ZZZZ – *NESHAP for Stationary Reciprocating Internal Combustion Engines*. NAWS CL complies with this regulation per Section III of their FOP.

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)]
>
> The NAWS CL facility currently has no PSEU applicable to CAM.

40 CFR 98, *Mandatory Greenhouse Gas Reporting*. NAWS CL is required to comply with Subpart A – General Provisions. NAWS CL complies with this regulation per Section II(D) of their FOP.

8. NSR Preliminary Decision - Conclusion

The District has reviewed the proposed modifications and application for NAWS CL 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 modifications 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 of the associated revised FOP.

C. Title V Permit/FOP – Significant Permit Modification

1. Proposed Changes to FOP

The proposed changes to the FOP are indicated in the draft FOP dated January 15, 2020.

2. CAM Analysis

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; AND,
b. Use a control device to achieve compliance; AND,
c. Have the **potential pre-control** emissions that exceed or are equivalent to the major source threshold.

The NAWS CL facility currently has no PSEU applicable to CAM. The proposed abrasive blasting system has the following CAM status, using the USEPA's AP-42 unconfined abrasive blasting emission factor of 27 lbs PM10 per ton of abrasive used:

a. The system IS subject to an emission limit or standard: Emissions to the atmosphere shall not exceed 0.005 gr/dscf nor shall the system be operated for more than 1350 hours in any consecutive twelve month period.

b. The system DOES use a control device to achieve compliance: The system shall not operate unless vented to the control device describe in Permit Unit C013624.

c. The system's 18.2 tpy pre-control emissions DO NOT equal or exceed the 100 tpy Federal Major Source PM10 threshold.

Therefore, CAM is stil NOT applicable.

2. Title V/FOP Preliminary Determination – Conclusion

The District has reviewed the applications and proposed modifications to NAWS CL'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 permit conditions given herein and in the attached revised FOP.

This preliminary determination will be submitted to USEPA, CARB, and the public for review and comment on December 06, 2019. The public notice for this preliminary determination will be published on December 06, 2019, allowing for public comment until January 02, 2020.

D. Comment Period and Notifications

1. Public Comment

This preliminary determination will be publicly noticed on December 10, 2019, allowing for public comment until January 02, 2020. Please see Appendix D for noticing details.

2. Notifications

The preliminary determination will be submitted to USEPA and CARB pursuant to District Rule 1207 for a forty-five (45) day review period on December 10, 2019. The final modified FOP shall be issued on or about January 15, 2020.

All correspondence as required by District Rules 1302 and 1207 was forwarded electronically to the following recipients:

Director, Office of Air Division
United States EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105
R9airpermits_AV_MD@epa.gov

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

Michael Olokode
Air Program Manager
Naval Air Weapons Station, China Lake
429 E Bowen Road, Stop 4014
China Lake, CA 93555-6100
michael.olokode@navy.mil

Appendix A
Applications

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DEPARTMENT OF THE NAVY
NAVAL AIR WEAPONS STATION
1 ADMINISTRATION CIRCLE
CHINA LAKE CA 93555-6100

IN REPLY REFER TO:
5090
PR241
15 Mar 19

Ms. Sheri Haggard
Mojave Desert Air Quality Management District
14306 Park Ave
Victorville, CA 92392

Dear Ms. Haggard:

I am writing in reference to Title V Operating Permit number 008800567, which was renewed by the District on October 1, 2015 and last revised on May 15, 2018.

Please find an application for Significant Modification of the Title V Permit enclosed within this letter.

The purpose of this modification is to apply for an Authority to Construct and Permit to Operate for a new Abrasive Blasting System and apply Simultaneous Emission Reductions associated with a road paving project at Weapons Survivability Laboratory. Naval Air Weapons Station, China Lake also requests minor revisions and corrections to the existing Title V, concerning boiler tuning frequency for PTOs B001074 and B001075.

The required filing fee of $1,152.00 will be paid electronically.

If you have any questions, please do not hesitate to contact Mr. Michael Olokode at 760-939-8966 or by email michael.olokode@navy.mil.

Sincerely,

P. M. DALE
Captain, U.S. Navy
Commanding Officer

Enclosure: (1) Authority to Construct and Permit to Operate Modification Applications for an Abrasive Blasting System and Minor Permit Revisions

AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE MODIFICATION APPLICATIONS FOR AN ABRASIVE BLASTING SYSTEM AND MINOR PERMIT REVISIONS

AT

NAVAL AIR WEAPONS STATION CHINA LAKE

FOR SUBMITTAL TO:

MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

March 2019

Prepared for

Naval Facilities Engineering Command Southwest
San Diego, California

Prepared Under

Contract N62473-16-D-2405

Task Order N6247318F5144

DCN: MMEC-2405-5144-0002

Prepared by

Multi-Media Environmental Compliance Group
9177 Sky Park Court
San Diego CA 92123-4341
(858) 278-3600

Project 5023-18-7765

Enclosure: (1)

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TABLE OF CONTENTS **Page**

ATTACHMENTS

LIST OF ABBREVIATIONS, ACRONYMS, AND SYMBOLS

ABS	Abrasive blasting system
APCO	Air Pollution Control Officer
ATC	Authority to Construct
BACT	Best Available Control Technology
BAAQMD	Bay Area Air Quality Management District
CARB	California Air Resources Board
CaH&SC	California Health and Safety Code
CCR	California Code of Regulations
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
HAP	Hazardous Air Pollutants
MDAQMD	Mojave Desert Air Quality Management District
NAWS	Naval Air Weapons Station
PM_{10}	Particulate Matter ten microns in diameter and less
PTE	Potential to Emit
PTO	Permit to Operate
SCAQMD	South Coast Air Quality Management District
SDAPCD	San Diego Air Pollution Control District
SER	Simultaneous Emission Reduction
WSL	Weapons Survivability Laboratory
%	Percentage
§	Section

1 BACKGROUND

Naval Air Weapons Station (NAWS) China Lake is submitting the attached application package to the Mojave Desert Air Quality Management District (MDAQMD) to complete the following:

- Obtain an Authority to Construct (ATC)/Permit to Operate (PTO) for one new abrasive blasting system (ABS). Please refer to Sections 4 and 5 for details.
- Apply emission reductions for particulate matter ten microns in diameter and less (PM_{10}) as a simultaneous emission reduction (SER) associated with a road paving project at the Weapons Survivability Laboratory (WSL).
- Request minor revisions and corrections to the existing Title V permit 008800567and corresponding changes to two local MDAQMD PTOs. Please refer to Section 4.3 for details.

The following attachments are included:

Attachment 1 - Title V – Permit Amendment / Modification (Form 1202-N)
Attachment 2 – Three General ATC/PTO Application Forms (PER-01)
Attachment 3 - ABS Specfication Sheets Provided by KB Construction
Attachment 4 - Emission Calculations and Emission Factor References

2 APPLICANT AND FACILITY INFORMATION

Facility: NAWS China Lake
Primary Company Business: Department of Defense, United States Navy - Research, development, test, and evaluation of aircraft warfare systems, aircraft
Primary North American Industry Classification System Code: 928110 (National Security)
Location: China Lake, CA

3 PERMIT FEE INFORMATION

Pursuant to MDAQMD Rule 301, all ATC and PTO Mod applications shall pay a filing fee of $288 per application. This multiplied by 4 applications equals $1,152.00.

4 PROCESS DESCRIPTION AND EMISSION CONTROLS

4.1 ABS

The ABS room will support the Area R operations. The Blast room dimensions are 12 feet high by 16 feet wide by 24 feet long. Exhaust gases will be routed to a cartridge dust collector, rated at 12,000 cubic feet per minute, with 16 filter cartridges and an auto pulse filter cleaning system.

4.2 Road Paving Project

NAWS China Lake is also requesting use of emission reductions as a SER for a recently completed upgrade of an unpaved road to an asphalt roadway at the WSL. By paving Drott Roadway, PM_{10} emissions have been reduced by 11,015 pounds per year.

The completed project to install an asphalt roadway at WSL consisted of grading and compacting an existing dirt roadway (Drott Roadway, G-2 Access Rd. (B-29)) with appropriate road bed and suitable drainage. The new access roadway is 24 feet wide for two-way traffic, to accommodate the site's heavy lift equipment. The length of the road is approximately 4,600 feet (0.87 miles) and is designed to support current and future heavy lift equipment in fully loaded condition. Attachment 4 provides the emission calculations.

4.3 Minor Revisions and Corrections

NAWS China lake is requesting changes to the boiler tuning frequency identified in Title V Permit 008800567 and PTOs B001074 and B001075 from annually to every five years. Title V Permit Condition III.B.6 states the following:

> ***6. Effective 01/31/2016, this boiler must be tuned up annually. The first such tune up must be conducted no later than 01/31/2016. [40 CFR 63.7540(a)(10), District Rule 204]***

NAWS China Lake currently complies with this requirement. The Permit Condition references the United States Environmental Protection Agency Boiler National Emission Standards for Hazardous Air Pollutants (Boiler NESHAP) for this annual tuning requirement. Section 63.7540(a)(10) requires boilers rated greater than 10 million British thermal units per hour perform an annual tune-up. However, section 63.7540(a)(10) further states that this section does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. If boilers are equipped with an oxygen trim system, then the Boiler NESHAP section 63.7540(a)(12) states that the boiler may conduct a tune-up every 5 years. Our review of the boilers regulated by MDAQMD PTO B001074 and B001075 indicates that they are equipped with oxygen trim systems. As such, NAWS China Lake is requesting MDAQMD revise Title V Permit Condition III.B.6 to state the following:

> ***6. Effective 01/31/2016, this boiler must be tuned up every five years. The next such tune up must be conducted no later than 01/31/2023. [40 CFR 63.7540(a)(12), District Rule 204]***

Because NAWS China Lake completed the last annual tune-up in 2018, we are requesting the next required tune-up to be no later than 01/31/2023. NAWS China Lake is also requesting MDAQMD revise PTOs B001074 Permit Condition 6 and PTO B001075 Permit Condition 6

5 EMISSION CALCULATIONS

Emissions presented in this section are categorized as criteria pollutants and hazardous air pollutants (HAPs). Attachment 4 provides the calculation methodology and emission factor references.

5.1 Criteria Pollutants Emissions

The PM_{10} emissions for the proposed ABS were calculated based on the use of sand with emissions vented to a cartridge-type dust collector. As shown in Section 6.3.1.1 below, a PM_{10} control efficiency of 99.9 percent (%) is required to satisfy the Best Available Control Technology (BACT) provisions of Rule 1303. Table 1 summarizes the ABS emissions.

Table 1. Summary of ABS Pollutant Emissions

Pollutant	Emission Factor* (lbs/ton)	Maximum Throughput (ton/hr)	Max Hourly Emissions (lb/hr)	Max Annual Emissions (lb/yr)	Max Annual Emissions (ton/yr)
PM_{10}	0.082	1	0.08	718	0.36

*Emission Factor Source: http://www3.aqmd.gov/webappl/help/newaer/index.html - Table 4. Emission Factors for Abrasive Blasting Operation.

5.2 Hazardous Air Pollutants Emissions

HAP emissions were calculated using the available generic emission factors from the San Diego Air Pollution Control District (SDAPCD) for sand. A control efficiency of 99.9% was used to estimate the emissions of inorganic HAPs. Table 2 summarizes the HAP emissions.

Table 2. Summary of ABS HAP Emissions*

Pollutant	Emission Factor (lb/ton)	Control Efficiency (%)	Emissions lbs/hr	Emissions lbs/year	Emissions tons/year
Cadmium	1.19E-02	99.90	1.19E-05	1.04E-01	5.21E-05
Chromium Non-hexavalent	1.20E-01	99.90	1.20E-04	1.05E+00	5.26E-04
Copper	1.08E-02	99.90	1.08E-05	9.46E-02	4.73E-05
Lead	1.08E-02	99.90	1.08E-05	9.46E-02	4.73E-05
Manganese	1.20E-01	99.90	1.20E-04	1.05E+00	5.26E-04
Nickle	1.20E-01	99.90	1.20E-04	1.05E+00	5.26E-04
Silica, Crystalline	1.00E+01	99.90	1.00E-02	8.76E+01	4.38E-02

*Emission factors source:
http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Misc/APCD_Silica_San_Blast_Medium_Site_Specific_Controls.pdf

5.3 Unpaved Road Emissions

Emission calculations were completed by applying the guidance detailed in MDAQMD Rule 1406(G)(1). Table 3 summarizes the emissions.

Table 3. Summary of Criteria Pollutant Emissions for Unpaved Road

Pollutant	Annual Emissions (lb/yr)	Annual Emissions (tons/yr)
PM_{10}	11,158	5.58

5.4 Paved Road Emissions

Emission calculations were completed by applying the guidance detailed in MDAQMD Rule 1406(G)(2). Table 4 summarizes the emissions.

Table 4. Summary of Criteria Pollutant Emissions for Paved Road

Pollutant	Annual Emissions (lb/yr)	Annual Emissions (tons/yr)
PM_{10}	142	0.07

5.5 Emission Reduction

Pursuant to MDAQMD Rule 1404 (A)(2)(c), the proposed annual emission reductions are considered actual emission reductions. Table 5 summarizes the emission reductions.

Table 5. Summary of Criteria Pollutant Emission Reduction

Pollutant	Annual Emission Reductions (lb/yr)	Annual Emission Reduction (tons/yr)
PM_{10}	**11,015**	**5.51**

6 REGULATORY ANALYSIS

The following is a summary of relevant and applicable local, state, and federal air quality regulatory requirements for the proposed abrasive blast room, along with an associated demonstration of compliance for those requirements.

6.1 Applicable MDAQMD Regulations

Rule 401 - Visible Emissions

This rule limits the visible emissions opacity to less than 20 percent (Ringelmann No. 1).

Analysis: In normal operating mode, visible emissions from the ABS are not expected to exceed 20 percent opacity.

Rule 402 - Nuisance

This rule prohibits facility emissions that cause a public nuisance.

Analysis: Because of the remote location of the ABS, no nuisance complaints are expected.

Rule 404 - Particulate Matter (PM)

This rule specifies standards of emissions for PM concentrations.

Analysis: Refer to ABS emission calculations detailed in Attachment 4. The calculations demonstrate compliance with the maximum concentration of PM emissions allowed by Rule 404.

Rule 405 - Solid PM

This rule provides process weight limits for PM emissions based on the process weight per hour. For the ABS, this hourly process weight is 2,000 pounds.

Analysis: Refer to ABS emission calculations detailed in Attachment 4. The calculations demonstrate compliance with the maximum solid PM emissions allowed by Rule 405.

Rule 430 - Breakdown Provisions

This rule requires the reporting of breakdowns and excess emissions.

Analysis: The ABS is required to comply with Rule 430.

6.2 Regulation XI - Source Specific Standards

There is no specific MDAQMD source specific standard applicable to the ABS emission unit.

6.3 Regulation XIII - New Source Review

6.3.1 Rule 1303 - Requirements

This rule applies to all new stationary sources and all modifications to existing stationary sources subject to Rule 201 (Permits Required).

The purpose of this rule is to:

- Provide for preconstruction review of new and modified stationary sources of affected pollutants to ensure emissions do not interfere with attainment of ambient air quality standards;
- Ensure appropriate new and modified sources of affected pollutants are constructed with BACT; and

- Provide for no significant net increase in emissions from new and modified stationary sources for all non-attainment pollutants and their precursors.

6.3.1.1 BACT Determination

Rule 1303(A)(1) states that BACT is required for any new permit unit which emits, or has the potential to emit (PTE), 25 pounds per day or more of any nonattainment air pollutant. Because NAWS China Lake exceeds the major source thresholds for criteria pollutants, even though the nonattainment air pollutant PTE for this equipment falls below the 25 pounds per day threshold, BACT is required for the ABS.

Analysis: A review of the United States Environmental Protection Agency (EPA) BACT Clearinghouse provided no determinations. However, review of the California Air Resources Board (CARB) BACT Clearing House, the South Coast Air Quality Management District (SCAQMD) and the Bay Area Air Quality Management District (BAAQMD) determined BACT for an ABS to be the following:

- San Joaquin Valley APCD determined BACT to be a dust collector with high-efficiency particulate air filters.
- SCAQMD determined BACT to the use of a baghouse or cartridge filter rated at 99.9%.
- BAAQMD determined BACT to be a baghouse or cartridge dust collector that can meet 0.01 gr/dscf for PM_{10}.

Table 6 details the expected high-efficiency cartridge dust collector particulate control efficiencies as a function of particle size associated with the ABS.

Table 6. Dust Collector Particle Control Efficiency

Particle Size	Particle Efficiency (%)
0.5 micron	99.8
1 micron	99.9
2 microns	100

Specifications for the ABS were provided by KB Construction and are presented in Attachment 3. Attachment 4 provides the emission calculations and emission factor references.

6.3.1.2 Offset Requirements

District Rule 1303 – New Source Review Requirements requires modified facilities that have the PTE a regulated air pollutant in an amount greater than the threshold amounts of the nonattainment air pollutants and their precursors listed in section (B)(1) of the rule, to offset those emissions. NAWS China Lake has a PTE in excess of the threshold amounts of the nonattainment air pollutants ozone (CA State) and PM_{10} (CA State and Federal) as well as their precursors, therefore all potential PM_{10} emissions from the proposed

equipment must be offset. A summary of the pollutant/precursor attainment status, District Rule 1303 Offset Thresholds, and NAWS China Lake's Offset Applicability is provided in Table 7:

Table 7. Summary of Naval Air Weapons Station China Lake's Offset Requirements

	NO_x*	CO	VOC*	SO_x	PM_{10}	Lead	H_2S
Attainment Status *Attainment/Unclassified = A/U* *Nonattainment = N* **Ozone Precursor*	N	A/U	N	A/U	N	A	U
District Rule 1303 Offset Threshold (tons per year)	25	100	25	25	15	0.6	10
NAWS China Lake PTE in excess of Offset Threshold?	Y	Y	Y	N	Y	N	N
Does this Permit Action Require Offsets?	N	N	N	N	Y	N	N

Potential to Emit for the ABS:

The PTE for the ABS is detailed in Section 5, Tables 1 and 2. Detailed emission calculations for the ABS are provided in Attachment 4.

SERs:

As required by District Rule 1303, NAWS China Lake must offset all of the potential new emissions listed in Table 1. District Rule 1305(B)(6) also allows a source to apply emissions reductions for one type of air pollutant to be used to offset another type of air pollutant upon approval of the Air Pollution Control Officer (APCO). Because NAWS China Lake is a Federal Major Facility and is located in a Federal nonattainment area for PM_{10}, the APCO's approval must also be made in consultation with CARB and receive EPA approval. Additionally, any requested interpollutant trades must demonstrate that it is technically feasible and that a violation of an ambient air quality standard will not occur.

These SERs are accomplished by the reduction in PM_{10} associated with a road paving project completed in May 2018 and applying the SERs to offset the new potential emissions. Table 8 lists the Historical Actual Emissions/SERs that will be applied in this action:

Table 8. SERS from the Reduction in Historical Actual Emissions from the WSL Road Paving Project

Emissions Available for SERs Pollutant	Max Annual Emissions (lb/yr)	Max Annual Emissions (ton/yr)
PM_{10}	11,015	5.51

By subtracting the potential to emit requiring offsets noted in Table 1 from the emissions available for SERs noted in Table 8, the net increase or decrease in emissions is obtained as detailed in Table 9. Net emissions decreases are represented by negative values (-).

Table 9: Net Emissions Decrease/Increase after applying Simultaneous Emissions Reductions in Pounds per Year

	PM_{10}
Total New Potential to Emit:	718
Emissions Available for SERs:	11,015
Net Emissions Decrease	-10,297

As previously discussed, the facility is required by District Rule 1303 to offset all non-attainment pollutants and their precursors. Therefore, they must offset PM_{10}. As shown in Table 9, the facility has met this requirement.

6.4 State of California Regulations

6.4.1 ABS Requirements

CARB regulates ABS operations through the California Health and Safety Code (Ca H&SC). The Ca H&SC authorizes CARB to adopt air pollution standards for sandblasting operations. Title 17 California Code of Regulations (CCR) sections 92000 - 92530 require that all abrasive blasting be conducted within a permanent building. CARB does provide specific exceptions allowing outdoor blasting in the following scenarios:

- When steel or iron shot / grit is used exclusively, or
- When the blasting is conducted with ARB certified abrasive, wet, hydroblasting, or vacuum blasting techniques and the item blasted exceeds 8 feet in any dimension or is situated at its permanent location.

The regulations also specify a 20 percent opacity visible emission standard to all permissible outdoor blasting regardless of the abrasive or the blasting technique used.

Analysis: Compliance with the CCR is expected because abrasive blasting is conducted within a permanent building as regulated by the MDAQMD issuance of the ATC with permit conditions. Additional information is available at: https://www.arb.ca.gov/ba/certabr/certabr.htm

6.5 Applicable Federal Regulations

There is no applicable New Source Performance Standards or National Emission Standards for Hazardous Air Pollutants for the ABS.

6.5.1 40 Code of Federal Regulations (CFR) Part 70

Operational flexibility, Off Permit Changes, is provided under the federal Clean Air Act Section (§) 502 (b)(10), 40 CFR §70.4(d)(3)(viii) and §70.4(b)(12). Permit Condition V.1 through 3 of the MDAQMD Title V permit issued to NAWS China Lake on October 1, 2015 (Revised May 15, 2018) addresses operational flexibility.

Analysis: While operational flexibility is provided under the federal Clean Air Act Section and the MDAQMD Title V Permit, MDAQMD has historically treated these types of applications as a significant modification and will require a modification to the current Title V permit. Title V application forms are included with this package.

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Attachments

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ATTACHMENT 1

Title V – Permit Amendment / Modification (Form 1202-N)

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RECEIVED
MDAQMD
19 MAR 29 PM 1:43

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: Naval Air Weapons Stations China Lake (NAWS CL)

2. FACILITY ID: 00567

3. TITLE V PERMIT NO: 008800567

4. TYPE OF ORGANIZATION: ☐ Corporation ☐ Sole Ownership ☒ Government ☐ Partnership ☐ Utility

5. COMPANY NAME: Naval Air Weapons Stations China Lake

6. COMPANY MAILING/BILLING ADDRESS:

STREET/P.O. BOX: 429 E. Bowen Rd, Stop 4014

CITY: China Lake STATE: California 9-DIGIT ZIP CODE: 93555-6108

7. FACILITY ADDRESS:

STREET: Same as above

CITY: _____ STATE: _____ 9-DIGIT ZIP CODE: _____

PROPOSED DATE OF INSTALLATION: Receipt of Permit

8. DISTANCES (FEET AND DIRECTION) TO CLOSEST:

FENCELINE: 14,232 RESIDENCE: 14,232 BUSINESS: NA SCHOOL: NA

9. GENERAL NATURE OF BUSINESS:

National Defense: Research, development, test, and evaluation (RDT&E) of aircraft warfare systems, aircraft

10. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s, if known, and use additional sheets if necessary) NAWS CL is applying for a new abrasive blasting system and modifying 2 additional permitted steam boilers regulated by Permit to Operate Number B001074 and B001075). Please refer to the cover letter, application narrative, MDAQMD Forms and other attachments for details.

11. PERSON TO CONTACT FOR INFORMATION ON THIS APPLICATION:

NAME: Mr. Michael Olokode PHONE NUMBER: (760) 939-8966

TITLE: Air Quality Specialist EMAIL: Michael.olokode@navy.mil

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:

PM

Signature of Responsible Official

15 MAR 19

Date

P. M Dale, Captain, U. S. Navy

Name of Responsible Official (please print)

Commanding Officer

Title of Responsible Official (please print)

For AQMD Use Only:

DATE STAMP

DISTRICT PERMIT APPLICATION NO: _____

COMPANY /FACILITY ID:

ATTACHMENT 2

THREE GENERAL ATC/PTO APPLICATION FORMS (PER-01)

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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

RECEIVED
MDAQMD
19 MAR 29 PM 1:43

General Application Form

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): United States Navy			b. Federal tax ID #:
c. Mailing/billing address (for above company name) *include city, state and zip code:* 429 E. Bowen Ave. Stop 4014 China Lake, CA 93555-6108			
d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Mike Olokode	Title: Air Qaulity Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Abrasive Blasting Operation

Application is for what type of permit:
☑ New construction ☐ Modification ☐ Change of owner

For modification or change of owner:
_____ Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
ABS room located at Area R.
The Blast room dimensions are 12' high by 16' wide by 24' feet long.
Exhaust gasses will be routed to a cartridge dust collector, rated at 12,000 cubic feet per minute, with 16 filter cartridges and an auto pulse filter cleaning system.

Manufacturer: CK CONSTRUCTION & IND. INC Model: _____ Serial number: _____

Add-on air pollution control equipment? ☑ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: See Attached Model: See Attached Serial #: See Attached CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: See Attached feet Exhaust stack diameter: See Attached feet

Stack is: ☐ horizontal ☑ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. 160 °F Maximum exhaust rate (CFM): 12,000

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
MD1N26605	47971/MD10302	A013623	88/5167

Section 4: Emissions data

Emission Factor Basis (attach any source specified): See attached emission calculation spreadsheet and manufacturer specification sheet for details.

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☑ Other (please specify): SCAQMD

Emissions data: Refer to the emission calculation spreadsheet attachment

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known. Refer to the attachment.

Section 5: Operation information

Fuel Consumption: N/A at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

Facility annual operation by quarters (percent):
☑ Uniform OR _____ % Jan-Mar _____ % Apr-Jun
_____ % Jul-Sep _____ % Oct-Dec

Expected operating hours of equipment
_____ Hrs/day _____ Days/wk _____ Wk/yr
Total annual hours 8,760

Section 6: 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 7: Certification

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

Keith Beeler	Head, EMD		3/5/19
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: 760-939-3213 Email: keith.beeler@navy.mil

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 the 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.***

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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**

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a. Permit to be issued to (company name): United States Navy			b. Federal tax ID #:
c. Mailing/billing address (for above company name) *include city, state and zip code:* 429 E. Bowen Ave. Stop 4014 China Lake, CA 93555-6108			
d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Mike Olokode	Title: Air Qaulity Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Existing natural gas-fired boiler permitted through B001074.

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
B001074 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Existing natural gas-fired steam boiler permitted through B001074. Please refer to the application narrative, section 4.3, for a description of the proposed modification

Manufacturer: See PTO Model: Serial number:

Add-on air pollution control equipment? ☑ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: See PTO Model: See PTO Serial #: See PTO CARB EO#:

Type (specify):

Stack data Exhaust stack height from ground: N/A feet Exhaust stack diameter: N/A feet N/A

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. N/A °F Maximum exhaust rate (CFM): N/A

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid PCR	47972/MD10303	B001074	88/567

Section 4: Emissions data

Emission Factor Basis (attach any source specified): See attached emission calculation spreadsheet and manufacturer specification sheet for details.

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: N/A at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

Facility annual operation by quarters (percent):
☑ Uniform OR _____ % Jan-Mar _____ % Apr-Jun
_____ % Jul-Sep _____ % Oct-Dec

Expected operating hours of equipment
_____ Hrs/day _____ Days/wk _____ Wk/yr
Total annual hours 8,760

Section 6: 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 7: Certification

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

Keith Beeler	Head, EMD	[signature]	3/5/19
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: 760-939-3213 Email: keith.beeler@navy.mil

Application submission instructions:

1) Submit completed application to Engineering@mdaqmd.ca.gov
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c. Mailing/billing address (for above company name) *include city, state and zip code:* 429 E. Bowen Ave. Stop 4014 China Lake, CA 93555-6108			
d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Mike Olokode	Title: Air Qaulity Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Existing natural gas-fired boiler permitted through B001075.

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
B001075 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Existing natural gas-fired steam boiler permitted through B001075. Please refer to the application narrative, section 4.3, for a description of the proposed modification

Manufacturer: See PTO Model: Serial number:

Add-on air pollution control equipment? ☑ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: See PTO Model: See PTO Serial #: See PTO CARB EO#:

Type (specify):

Stack data Exhaust stack height from ground: N/A feet Exhaust stack diameter: N/A feet N/A

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. N/A °F Maximum exhaust rate (CFM): N/A

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid PCR	47973/MD10304	B001075	88/567

Section 4: Emissions data

Emission Factor Basis (attach any source specified): See attached emission calculation spreadsheet and manufacturer specification sheet for details.

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: N/A at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

Facility annual operation by quarters (percent):
☑ Uniform OR _____ % Jan-Mar _____ % Apr-Jun
_____ % Jul-Sep _____ % Oct-Dec

Expected operating hours of equipment
_____ Hrs/day _____ Days/wk _____ Wk/yr
Total annual hours 8,760

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Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: 760-939-3213 Email: keith.beeler@navy.mil

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ATTACHMENT 3

ABS SPECIFICATION SHEETS PROVIDED BY KB CONSTRUCTION

This page intentionally left blank.

CK CONSTRUCTION & IND. INC

215 PACKER STREET SUNBURY, PA 17801
(570)286-4128 PHONE (570)309-0452 FAX

Date 8/3/2017

Quotation No. 6565-1R1

F.O.B. SUNBURY, PA

Page No. 1 of 1

SAALEX CORP

ATTN: RICHARD

EMAIL: richard.d.baker.ctr@navy.mil

We acknowledge receipt of your inquiry no. PHONE dated 6/21/2017 and are pleased to quote as shown below
Estimated shipment after receipt of your order 4-6 WEEKS
Prices are valid for 45 **days.**

Quantity	Part Number	Description	Unit Price	Extension
1	BR1001N	NEW/SURPLUS 12' H X 16' W X 24' L BLAST ROOM, STURDY 12 AND 14 GAUGE GALVANIZED STEEL BOLT TOGETHER CONSTRUCTION, INCLUDES: * NEW/SURPLUS FULL LENGTH LIGHTING, 8 LIGHTS * NEW/SURPLUS MANDOOR WITH VIEW WINDOW * NEW/SURPLUS DOUBLE SWING FRONT DOORS * NEW/SURPLUS 6 CU. FT. BLAST MACHINE WITH, BLAST HOSE, NOZZLE AND REMOTE CONTROL * NEW/SURPLUS 6 CU. FT. STORAGE HOPPER * NEW/SURPLUS 12,000 CFM CARTRIDGE DUST COLLECTOR WITH 16 FILTER CARTRIDGES, WITH AUTO PULSE FILTER CLEANING SYSTEM * NEW/SURPLUS 25 HP MOTOR/FAN, 230/460 VOLT, 3 PHASE * NEW/SURPLUS BUCKET ELEVATOR WITH AIR WASH AND VIBRATING SCREEN FOR ABOVE GROUND MOUNT * NEW/SURPLUS 16' SCREW CONVEYOR FOR ABOVE GROUND MOUNT * SAFETY DOOR INTERLOCKS PREPAID FREIGHT TO CHINA LAKE, CA INSTALLATION AND TRAINING WITH CUSTOMER INSTALLATION ASSISTANCE **MINIMUM COMPRESSOR 200 CFM REQUIRED		

ed or used, we guarantee to replace such material. In no case, shall our liability
ed the purchase price, plus any transportation charges. All claims must be made
within five working days after receipt of material.

CANCELLATIONS: Orders entered on our books cannot be countermanded with our consent, and upon terms that will indemnify us against loss.

By_____
STACEY RUDISILL

ALL ORDERS ARE SUBJECT TO OUR TERMS AND FINAL ACCEPTANCE.

MECHANICAL RECLAIM SYSTEM WITH
6 CU. FT. BLAST MACHINE AND AUGER

The mechanical recovery system is designed for production blast facility to reclaim abrasive, Includes:

- Recovery Hopper
- 15' Bucket Elevator with Air Wash Separator and Vibratory Screen
- 6 cu. ft. Storage Hopper

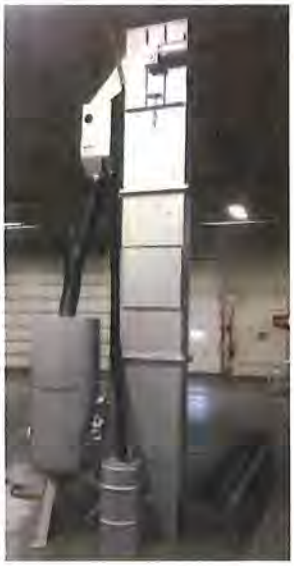
SPECIFICATIONS:

Bucket Elevator

- 15' bucket elevator (recovery hopper)
- (35) 4" x 3" Maxi-Lift elevator buckets
- 4 ½" W x 32' L elevator belt
- 1 HP Baldor motor, 230/460 volt
- Air wash separator with vibratory screen, requires 600 C.F.M. for air wash
- 6 cu. ft. media storage hopper
- 100 C.F.H. recovery rate

OVERALL DIMENSIONS:

Elevator: 9" W x 24" L x 184" H
Blast Machine with Hopper: 36" W x 36" L x 75" H



CK Construction Industrial

215 Packer Street, Sunbury, PA 17801
(570)286-4128 Phone ** (570)309-0452 Fax

12,000 CFM CARTRIDGE DUST COLLECTOR SPECIFICATIONS

FILTER INFORMATION:

24 CARTRIDGES FILTERS, 13" X 26" LONG
5,424 SQ. FT. FILTER AREA
FILTER PULSE/AUTO PULSE WITH TIMER
INLET SIZE: 20" DUCT, 22 GAUGE

MOTOR/FAN:

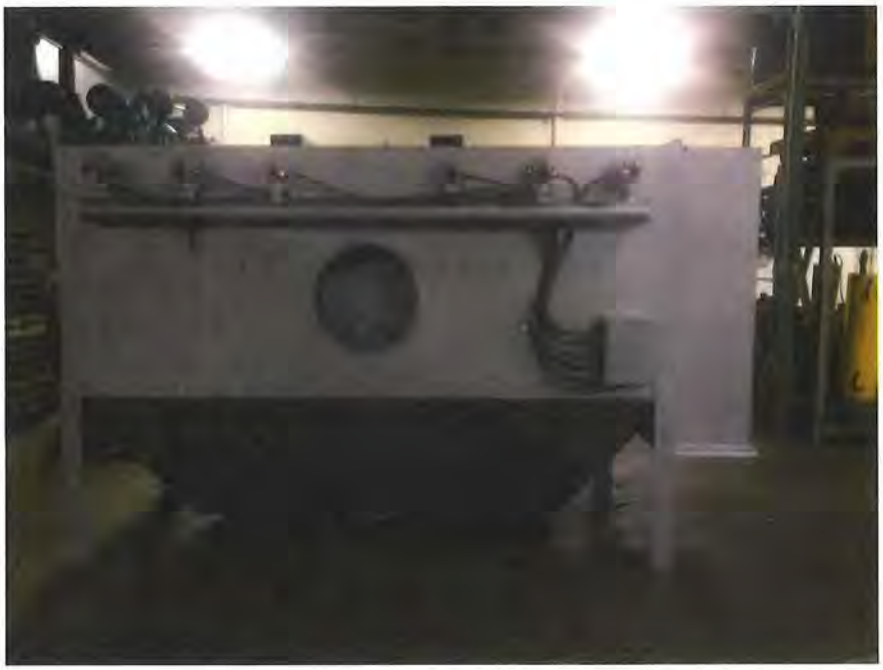
12,000 CFM W/25 H.P. MOTOR
1,800 RPM
208/230/460 VOLT, 3 PHASE
8" STATIC PRESSURE
60 HERTZ
AMPS: 68 @ 230 VOLT
34 @ 460 VOLT

DIMENSIONS:

120" WIDE X 60" DEEP X 132" HIGH

MISC. DETAILS:

12 GAUGE CONSTRUCTION
12 – 1" PULSE VALVES



CK Construction Industrial

215 Packer Street, Sunbury, PA 17801
(570)286-4128 Phone ** (570)309-0452 Fax

Dimensions:	Height:	26"
	Outside Diameter:	12.75"
	Inside Diameter:	8.375"
Top End Cap:	Material:	Electro Galvanized (22 ga)
	Style:	Open
Bottom End cap:	Material:	Electro Galvanized (22 ga)
	Style:	Closed
	Bolt Hole:	0.540"
Gasket:	1/2" x 1/2" x 10.25" ID isoprene sponge applied on top cap	
Inner Retainer:	Electro galvanized expanded metal 3/8" x 5/8" (9.53 mm x 15.88 mm) 72% open area	
Outer Retainer:	Electro galvanized expanded metal 3/8" x 5/8" (9.53 mm x 15.88 mm) 72% open area	
Filter Media Area:	226 ft^2	
Pleat Count:	325 +/- 2	
Media Type:	Cellulose/Polyester Blend	
Permeability:	14 cfm/ft^2 @ 0.5" w.g. 112 $L/sec/m^2$ @ ΔP 20	
Maximum Temperature:	180° F (82.22° C)	

PARTICLE EFFICIENCY BY WEIGHT. TEST DUST: AC FINE

PARTICLE SIZE:	0.5 micron----------	99.8%
	1.0 micron----------	99.9%
	2.0 micron----------	100 %

ATTACHMENT 4

EMISSION CALCULATIONS AND EMISSION FACTOR REFERENCES

This page intentionally left blank.

Controlled Particulate Emissions for Abrasive Blasting Operation

Enclosed Abrasive Blasting Emissions

Maximum Hourly Sand Throughput: 1 ton/hour*
Maximum Annual Throughput: 8760 tons/year
Equipment Operations: 8760 hours/year

					PM_{10} Emissions	
Sand Controlled Emission Factor:	0.082 lbs/ton**		=		0.08	lbs/hour
0.082 lbs / Ton	x	8760 tons / year	=		718	lbs/year
			=		0.36	tons/year

* Information provided by KB Construction in a 11 October 2017 phone call.

** http://www3.aqmd.gov/webappl/help/newaer - Table 4., Emission Factors for Abrasive Blasting Operation. Applies a 99.9% control efficiency. The sand emission factor was applied.

MDAQMD Rule 404 - Particulate Matter Concentration Calculation

Pollutant	Calculated Emissions (lb/hr)	Exhaust Flow Rate[1] (cu ft/min)	Temperature[2] (ºF)	Standard Flow Rate (scf/min)	Standard Flow Rate (scf/hr)	Emissions (lb/scf)	Conversion Factor (grains/lb)[3]	Calculated Emissions (grains/cu ft)	Rule 404 Limit (grains/cu ft)
PM_{10}	0.08	12,000	180	9,749	584,930	1.40E-07	7,000	0.001	0.073

1. Information obtained from KB Construction.
2. Maximum temperature is assumed to be 180 degrees F as provided by the manufacturer.
3. Conversion Factor: 1 pound (lb) = 7,000 grains

MDAQMD Rule 405 - Solid Particulate Matter Weight

Pollutant	Process Weight Per Hour (lbs)[1]		Calculated Emissions (lb/hr)	Rule 405 Maximum Discharge Weight per
PM_{10}	2,000.00		0.08	3.70

1. Information obtained from KB Construction.

Hazardous Air Pollutants*

Pollutant	Emission Factor (lb/ton)	Control Efficiency (%)	Emissions lbs/hr	Emissions lbs/year	Emissions tons/year
Cadmium	1.19E-02	99.9	1.19E-05	1.04E-01	5.21E-05
Chromium Non-hexavalent	1.20E-01	99.9	1.20E-04	1.05E+00	5.26E-04
Copper	1.08E-02	99.9	1.08E-05	9.46E-02	4.73E-05
Lead	1.08E-02	99.9	1.08E-05	9.46E-02	4.73E-05
Manganese	1.20E-01	99.9	1.20E-04	1.05E+00	5.26E-04
Nickle	1.20E-01	99.9	1.20E-04	1.05E+00	5.26E-04
Silica, Crystalline	1.00E+01	99.9	1.00E-02	8.76E+01	4.38E-02

*Emission factors source: http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Misc/APCD_Silica_San_Blast_Medium_Site_Specific_Controls.pdf

Abrasive Blasting Operations

Top Previous Next

For abrasive blasting operations, the facility must report particulate matter (PM) emissions based on the total amount of blasting medium and emissions from fuel burned in the portable Internal Combustion Engine (ICE). If the abrasive blasting work is done by portable equipment which is registered under the CARB Registration Program, the facility is exempt from reporting under AER program. **Table 4** lists the uncontrolled and controlled Emission Factors (EF), for typical abrasives which can be used to estimate the PM emissions. The emission factors are provided in pounds of PM per ton of abrasive material (lbs/ton). The uncontrolled EFs are used for outdoor dry blasting. The controlled EFs are provided for different types of controlled blasting work such as wet blasting, indoor blasting in abrasive blasting housing/cabinet, or blasting in a room which is vented to an Air Pollution Control Device such as filter or bag house.

Table 4., Emission Factors for Abrasive Blasting Operation

Abrasive Material	Abrasive Blasting PM Emission Factors (lb/ton)			
	Uncontrolled	Controlled		
	Outdoor Dry Material (0% reduction)	Wet (50% reduction)	Indoor (Housing, Cabinet, etc.) (85% reduction)	Indoor (with Baghouse) (99% reduction)
Sand	82.00	41.00	12.30	0.82
Grit, Slag/Other Materials	19.68	9.84	2.95	0.20
Shot	8.20	4.10	1.23	0.08

Default Factors for Particulate Matter (PM) Emissions from Spray Coating Operations

The following default factors are assumed in calculating PM emissions from spray coating operations:

Solid Content: One gallon of coating contains approximately 3 lbs. (or 37.5 %) of solid.

Transfer Efficiency:

- HVLP Spray Gun: 65%
- Electrostatic Application: 75%

Overall Control Efficiencies:

- Conventional Filter: 90%
- Three-Stage Aerospace NESHAP-Compliant Filters: 95%
- High Efficiency Particulate Arrestor (HEPA)* Filters: 99.97%

* The HEPA filters used shall be individually dioctyl phthalate [DOP] tested with 0.3 micron particles and certified to have an efficiency of not less than 0.9997.

A06 - ABRASIVE BLASTING, SILICA SAND, UNCONTROLLLED

CALCULATION METHODS

Ea = Ua x EF (lbs/ton blast material used)

Eh = Uh x EF (lbs/ton blast material used)

NOTES:

- Control devices, methods, and efficiencies must be identified in the database to correctly calculate emissions. Emission factors are "uncontrolled" (before the control device).
- TSP and PM10 factors are based on District engineering estimates (76 through 96).
- Trace metal default emission factors are based on ARB particulate matter speciation profile (#353). Use site and/or equipment specific data if available.
- Trace metal composition of the particulate emissions is assumed to be equivalent to the PM10 fraction of the spent blast material. Base factors on actual blast waste analyses if possible.

POLLUTANT	District Emission Factor (lbs/ton blast material used)	EPA REFERENCE DOCUMENT	ARB FACTOR	(UNITS)	COMMENTS
NOX					
CO					
SOX					
TOG					
ROG					
TSP	25.00	No EPA abrasive blasting documents found.			Based on District Engineering estimates (permit files).
PM10	25.00				Assumes all emissions are PM10.
ALUMINUM					
ARSENIC					
BARIUM					
BERYLLIUM					
CADMIUM	1.19E-02		0.05%	lbs/lb PM	Based on ARB Particulate Matter Species Profile #353 (8/91)
CHROMIUM HEXAVALENT					Assumes all Chromium compounds are nonhexavalent.
CHROMIUM NONHEXAVALENT	1.20E-01		0.48%	lbs/lb PM	Based on ARB Particulate Matter Species Profile #353 (8/91)
COBALT					
COPPER	1.08E-02		0.04%	lbs/lb PM	Based on ARB Particulate Matter Species Profile #353 (8/91)
LEAD	1.08E-02		0.04%	lbs/lb PM	Based on ARB Particulate Matter Species Profile #353 (8/91)
MANGANESE	1.20E-01		0.48%	lbs/lb PM	Based on ARB Particulate Matter Species Profile #353 (8/91)
MERCURY					
NICKEL	1.20E-01		0.48%	lbs/lb PM	Based on ARB Particulate Matter Species Profile #353 (8/91)
SELENIUM					
SILICA, CRYSTALLINE	1.00E+01		40.00%	lbs/lb PM	Assume 1/2 of unspecified compounds = blast medium.
ZINC					

Last Updated on 8/23/99
By D. Byrnes

MDAQMD Emission Calculations for Paved and Unpaved Roads

	Units	Total		
Length of Road	miles	0.87		
Vehicle Traffic[1]	passes/day	42.00		
Vehicle Miles Traveled (VMT)[2]	miles/year	9,513.64		
Emission Factor (Unpaved)[3]	lb PM10/VMT	1.17		
Emission Factor (Paved)[4]	lb PM10/VMT	0.01		
Unpaved PM_{10} Emissions	lbs/year	**11,158**	tons/year	**5.58**
Paved PM_{10} Emissions	lbs/year	**142**	tons/year	**0.07**
PM_{10} Emission Reduction	lbs/year	**11,015**	tons/year	**5.51**

Notes;

1. Vehicle Traffic was determined on the number of employees present at facility and minimum passes each employee would make per business day. There are 21 total employees; assuming 1 passes to and from facility for a total of 2 passes/day
2. VMT calculated using 260 days/year.
3. Unpaved emission factor calculation based on MDAQMD District Rule 1406(G)(1)
4. Paved emission factor calculation based on MDAQMD District Rule 1406(G)(2)

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

Request to cancel a permit

(ATC or PTO)

PERMIT ISSUED TO:	CONTACT NAME:		PHONE:
Naval Air Weapons Station China Lake	Michael Olokode		(760) 939-8966
EQUIPMENT PHYSICAL ADDRESS:	**CITY:**	**STATE:**	**ZIP:**
429 E. Bowen St.	China Lake	CA	93555
OWNER OR OPERATOR (DISTRICT COMPANY NUMBER):	**EQUIPMENT LOCATION (DISTRICT FACILITY NUMBER):**		
88	567		

PERMIT NUMBER(S) TO CANCEL:	CORRESPONDING EQUIPMENT DESCRIPTION:
1 T010868	Parts Washer (CENTRAL SITE BUILDING 70150)
2	
3	
4	
5	

If applying to cancel more than 5 permits, use additional forms or attach a list of additional permit numbers and corresponding equipment descriptions.

Cancellation of the permit described above is hereby requested for the following reason:

- ☐ Equipment has been: ☐ sold ☐ replaced ☐ destroyed ☐ removed from premises.
- ☑ Equipment will no longer be used.
- ☐ Equipment is exempt from permit requirement by Rule 219 Section _____ .
- ☐ Replaced by statewide permit. *(Please attach copies of statewide permits.)*
- ☐ Other: _____

IT IS UNDERSTOOD THAT ANY FUTURE USE OF THIS EQUIPMENT MAY REQUIRE A NEW PERMIT APPLICATION AND THAT OPERATION OF THIS EQUIPMENT WITHOUT A VALID PERMIT MAY CONSTITUTE LEGAL ACTION AND PENALITIES OF UP TO $25,000 FOR EACH DAY OF VIOLATION.

SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION	TITLE	DATE
	Head, EMD	4/22/2019

PRINTED NAME	PHONE NO.	EMAIL ADDRESS
Keith Beeler	(760) 939-3213	keith.beeler@navy.mil

-For District use only-

SIGNATURE OF ENGINEERING SUPERVISOR	DATE SIGNED
Sheri Haggard	10/8/19

88/567
Category:
10/11/19

Invoice #
Credit #
Payment #

DEPARTMENT OF THE NAVY
NAVAL AIR WEAPONS STATION
1 ADMINISTRATION CIRCLE
CHINA LAKE CA 93555-6100

IN REPLY REFER TO:
5090
Ser PR241/067
6 May 19

Ms. Sheri Haggard
Mojave Desert Air Quality Management District
14306 Park Ave
Victorville, CA 92392

Dear Ms. Haggard:

I am writing in reference to Title V Operating Permit number 008800567, which was renewed by the District on October 1, 2015 and last revised on May 15, 2018.

Please find an application for Administrative Amendments to the Title V Permit enclosed within this letter.

The purpose of this application is to request administrative changes to several operating permits. The required filing fee of $2,304.00 will be paid electronically.

If you have any questions, please do not hesitate to contact Mr. Michael Olokode at 760-939-8966 or by email at michael.olokode@navy.mil.

Sincerely,

P. M. DALE
Captain, U.S. Navy
Commanding Officer

Enclosure: 1. Administrative Amendment to Title V Operating Permit

Co/Fac:
Section/Category:
Type:
Date:

ADMINISTRATIVE AMENDMENT

TO

TITLE V OPERATING PERMIT 008800567

AT

NAVAL AIR WEAPONS STATION CHINA LAKE

FOR SUBMITTAL TO:

MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

Naval Facilities Engineering Command Southwest
San Diego, California

March 2019

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Table of Contents

ATTACHMENTS

1. Background

Naval Air Weapons Station China Lake (NAWSCL) is submitting an application for an administrative amendment for Federal Operating Permit (FOP) Number 008800567 and associated state-only permits to operate (PTO) to the Mojave Desert Air Quality Management District (MDAQMD). The purpose of the administrative amendments is to implement the following minor revisions to the FOP and PTOs:

- Addition of powder coating to an existing coating operation regulated by PTO S002204, along with the addition of an electrically powered booth heater for curing the coating after application.
- Correction to equipment description model number for the grinder regulated by PTO B003141.
- Revision of PTO B003155 by establishing an alternative operating scenario under which the existing hammer mill may be replaced with a Micropulverizer Manufacturing Works grinder under the same operational limits.
- Correction of copy-and-paste error in C004010 to use the correct model and serial number rather than the information copied from C003157.
- Removal of unnecessarily specific material references from the equipment descriptions and conditions of PTOs B003141, B003155, B003156, and B003161.
- Correction to EPA Family name information supplied by the vendor for engines on PTOs B012343 and B012344.
- Cancellation of PTO for parts washer T010868 and removal of those requirements from the FOP along with requirements for several other previously-cancelled parts washers.

2. Applicant and Facility Information

Facility: NAWS China Lake

Primary Company Business: Department of Defense, United States Navy – Research, Development, Test, and Evaluation (RDT&E) of aircraft warfare systems and aircraft

Primary North American Industry Classification System Code: 928110 (National Security)

Location: China Lake, California

3. Permit Fee Information

This application for the FOP administrative amendment is accompanied by an application fee of $288. Although no Permit to Construct is required for the proposed revisions, each PTO must also be revised to incorporate the same revisions as are being made to the FOP. A total of $2,304 is enclosed for revisions to a total of eight PTOs.

4. Requested Administrative Amendments

4.1. Powder Coating Operation

NAWSCL proposes to revise the coating operation under PTO S002204 to provide for the use of powder coatings, in addition to the existing liquid coatings currently permitted. Pursuant to Rule 219(E)(13)(n), spray coating equipment operated within a control enclosure is not required to obtain a permit, so no Permit to Construct is required to implement this change. However, S002204 condition 4 prohibits the use of application methods "other than HVLP spray guns, hand-held Aerosol Coating Products or Hand Application method unless prior written approval is obtained from the District." NAWSCL therefore requests that electrostatic spray be added to the list of approved application methods in condition 4, in accordance with Rule 1115(C)(1)(a)(i), Rule 1114(C)(3)(a)(ix), Rule 1116(C)(6)(a)(i), and Rule 1118(C)(4)(a)(i). NAWSCL will update its recordkeeping practices to ensure all powder coating use is included in its records, although VOC emissions from application of powder coatings will be negligible.

For curing of powder coatings, NAWSCL proposes to utilize an electric heater. Since there are no combustion or other emissions associated with electric space heating, this equipment is not subject to the requirement to obtain a permit.

Proposed FOP 008800567 Condition III.DD.4 and PTO S002204 condition 4:

"The owner/operator shall not use an application method other than HVLP spray guns, electrostatic application, hand-held Aerosol Coating Products, or Hand Application methods, unless prior written approval is obtained from the District. [District Rules 442, 1113, 1114, 1115, and 1116]

4.2. Milling Operations

The milling operation under PTO B003155, located at Salt Wells Building 15980, is used to grind various energetic materials down to approximately 10-micron size for use in research and development. The current milling operation incorporates a Raymond model 64059 hammer mill as the major component. This mill includes four electric motors with a combined total of 34.5 hp. NAWSCL proposes to remove this hammer mill and place it in secure storage so it cannot be utilized elsewhere, and to replace it with a new Micropulverizer Manufacturing Works model 1SH grinder identical to the one currently permitted under PTO B003141. This grinder utilizes a total of two electric motors with a combined total of 5.25 hp. The milling operation regulated under PTO B003155 is vented to a device operated under PTOs C003157 or C004010 to provide product recovery and prevent dispersal of potentially explosive material. NAWSCL proposes that PTO B003155 be revised to allow for either the Raymond hammer mill or the Micropulverizer grinder to be used in conjunction with the product recovery equipment.

Rule 219, *Equipment Not Requiring a Permit*, provides in section (E)(3)(a) that "structural changes that cannot change the quality, nature or quantity of air contaminant emissions" are among the list of particular equipment not required to obtain a permit in accordance with District Rules 201, *Permits to Construct*, and 203, *Permit to Operate*. While the existing and proposed pieces of equipment employ different nomenclatures, being referred to as a "hammer mill" and a "grinder" respectively, a review of

publicly-available information on the Micropulverizer model 1SH reveals that it is, in fact, a hammer mill utilizing a rotating shaft with impact hammers crushing feed material against an anvil to reduce the size of the feed material. Therefore, the operation using either the Raymond hammer mill or the Micropulverizer grinder will be referred to as a "milling operation".

In addition to the revision to B003155, permit B003141 utilizes a Micropulverizer Manufacturing Works grinder listed on the permit with an understandable error on the model number for this equipment. While the current permit lists the grinder as a model "ISH", a direct inspection of the data plate following the failure of an internet search to turn up any examples of this make and model combination revealed that the numeral "1" has, for some time, been mistaken for a capital "I". NAWSCL requests that the equipment description be corrected to include a model "1SH" grinder.

With regard to B003141, B003155, and B003156, NAWSCL requests that references to specific energetic materials such as ammonium perchlorate be removed from the permit. While these material was specifically referenced in the original Permit to Construct application in 1993, which only permitted ammonium perchlorate to be processed in B003155 (B003141 authorized processing of ammonium perchlorate and other materials, B003156 refers to ammonium perchlorate), the resulting PTOs issued in 1994 allowed processing of "ammonium perchlorate and other materials", except that B003156 refers to ammonium perchlorate, RDX, and HMX. Current condition 2 (present in both permits), which allows the equipment to "grind explosives or other materials" is appropriate to the manner in which the equipment is utilized, but the equipment descriptions still refer to ammonium perchlorate being a primary material for these operations. While ammonium perchlorate is one of the materials that these operations may process, it is only one of many energetic materials that may be processed by this equipment for research and development purposes. Indeed, it is the nature for research and development operations to work with an ever-changing variety of components over time as different materials are developed and compared to determine their respective advantages and disadvantages in particular applications. NAWSCL believes that the reference to specific energetic materials is an overly-specific and unnecessary level of detail and therefore requests that the reference to these specific energetic materials in the equipment descriptions be replaced with a reference to "various energetic materials".

Similarly, PTO B003161 regulates operation of a steam-heated oven used to cure propellants, explosives, and inert simulate formulations, as well as to dry explosives and melt TNT based explosives from ordinance for R&D. The original ATC application and resulting ATC specified the use of the oven for curing various mixtures, including propellants, explosives, and inert simulate formulations, but when the subsequent PTO was issued this operation had been extended to drying explosives and melting TNT based explosives for removal from ordinance. While permit condition 2 now refers more generically to these processes, the equipment description continues to include the overly-specific and unnecessary detail of "melting TNT based explosives from ordinance". It is noted that PTO B003159 appears to have undergone the same evolution with regard to specific references to TNT based explosives, but these references have already been removed from the PTO.

Proposed FOP 008800567 and PTO B003141 description should read:

"GRINDER/MILL SYSTEM (BLDG 15730) consisting of: A Grinding subsystem made by Micropulverizer Manufacturing Works, model 1SH, capable of processing up to 100 lbs. of materials per batch, with each batch taking up to three hours to process. Nominal production rate is approximately three batches per two-week period. A milling subsystem made by Trost, Inc., model TX-2147 Fluid Energy Mill, capable of processing up to 50 lbs. of material per batch, with each batch taking up to one hour to process. Both subsystems operate in a closed, sealed room and are vented to a product recovery device which is used for product recovery and health and safety reasons and not for air pollution control purposes. The primary purpose of these subsystems is to size various energetic materials to 18 or 24-microns for research and development."

Proposed FOP 008800567 and PTO B003155 description should read:

"Mill (SALT WELLS BLDG 15980) consisting of: Either a Micropulverizer Manufacturing Works model 1SH or a Raymond model 64059, capable of processing up to 500 lbs. of material per batch with each batch taking approximately one hour to process, though the normal batch size is approximately 250 lbs. The processing equipment operates in a closed, sealed room and is vented to the equipment described in District permits C003157 or C004010, dust collectors capable of capturing 99.6% of particulate matter of 30 microns aerodynamic diameter and less. The dust collectors are used for safety reasons and not for air pollution control purposes. The primary purpose of the processing equipment is to size various energetic materials down to 6 to 11-microns for research and development."

Proposed FOP 008800567 and PTO B003156 description should read:

"Mill, Fluid Energy (SALT WELLS BLDG 15980) consisting of: A milling system made by Fluid Energy Aljet, Inc., model 8 Micro-Jet, Serial Number P-11770, capable of processing up to 400 lbs. of material at a time. This mill operates in a closed, sealed room and is vented to the equipment described in District permits C003157 or C004010, dust collectors capable of capturing 99.6% of particulate matter of 30 microns aerodynamic diameter and less. The dust collectors are used for safety reasons and not for air pollution control purposes. The primary purpose of the processing equipment is to size various energetic materials for research and development."

Proposed FOP 008800567 and PTO B003161 description should read:

"OVEN (BLDG 15707) consisting of: at the SALTWELLS AREA, BUILDING 15707, 20TH STREET. This unit is by Spray Booth Systems of Ft. Forth, Texas. Its dimensions are 20 ft. by 10 ft. by 12 ft. high. It is heated by steam (at the rate of 572 lbs./hr. and 50 psi) to produce a maximum temperature of 250 degrees F at atmospheric pressure. Input power of 208 V, 3 phase, 150 A drive the following associated motors: exhaust fan, 30 hp; circulation fan, 2 hp; and steam condensate pump, 1 hp. Compressed air at 30 psi is provided also.

This unit is used to dry, cure, or melt propellants, explosives, casings, and inert simulate formulations for research and development."

4.3. Product Recovery Devices

NAWSCL has previously noted that the two product recovery operations, regulated through PTOs C003157 and C004010, are described as having identical make, model and serial numbers on the permit. Both PTOs reflect a Mikro Pulsaire device, model 31855, serial number 79H5223. NAWSCL requests that the description for PTO C004010 be corrected to reflect the correct model and serial number as were present on the permit from ATC issuance in 1994 until an error occurred on the October 1, 2015 PTO. The correct equipment description should include a Mikro Pulsaire model 20-6, serial number 64H440.

Proposed FOP 008800567 and PTO C003157 description should continue to read:

"BAGHOUSE (SALT WELLS BLDG 15980) consisting of: A Mikro Pulsaire model 31855, serial number 79H5223. This unit is rated to be 99.4% efficient and is equipped with cloth socks (fine mesh 1 to 3-microns). It is exhausted by a 2 hp electric motor, producing an airflow of 1500 ACFM. This baghouse is primarily operated as a safety device to contain potentially explosive materials and only secondarily as an air pollution control device."

Proposed FOP 008800567 and PTO C004010 description should read:

"BAGOUSE (SALT WELLS BLDG 15980) consisting of: A Mikro Pulsaire model 20-6, serial number 64H440. This united is rated to be 99.4% efficient and is equipped with cloth socks (fine mesh 1 to 3-microns). It is exhausted by a 2 hp electric motor, producing an air flow of 1500 ACFM. This baghouse is primarily operated as a safety device to contain potentially explosive materials and only secondarily as an air pollution control device."

4.4. Engine Family Corrections

During the August 2018 MDAQMD annual inspection, concerns arose about the EPA Family names specified in the equipment descriptions for PTOs B012343 and B012344. These are the two permitted prime-use MOM site diesel engine powered generators. These engines were originally permitted based on data provided by the generator vendor. Visual inspection of the data plates on the engine blocks could not be accomplished when the engines were operating due to the placement of add-on devices within the generator housing. Recently, the engines were shut down for maintenance and, after several attempts to view the engine data plates, NAWS CL determined that the EPA Engine Family names provided by the generator vendor were incorrect. NAWS CL requests the correct Engine Family names be inserted in the permit equipment descriptions.

Additionally, the emission rates specified in the permits must also be corrected. The engines regulated by PTOs B012343 and B012344 are certified Tier 4i engines and were permitted to operate for 8,000 hours per year, combined. These were evaluated under the MDAQMD NSR regulations prior to installation. Emissions from these engines were then reduced in 2018, to produce simultaneous emission reductions (SERs) in support of ATC applications for five new emergency engines, by reducing the combined engine operating hours by 150 hours per year, resulting in a new, combined

operating limit of 7,850 hours per year. The May 15, 2018 MDAQMD Statement of Basis (SOB) determined that the new engines would result in certain emission increases, which would be offset under Rule 1304 by the SERs produced by reducing the operating time of the two existing engines B012343 and B012344, as summarized in Table 7 below (ref. May 15, 2018 SOB):

Table 7: Net Change in PTE from adding 5 new emergency engines and simultaneously reducing PTE from currently permitted engines:

All values are listed in lbs./year

	NO_x	VOC	PM_{10}	SO_x	CO
Annual PTE Increases due to installation of new engines	12.10	0.44	0.47	0.30	30.99
Annual PTE Reductions due to reduction of allowed hours for current engines	94.04	0.48	0.096	0.24	3.40
Net Change in PTE, lbs.:	**-81.94**	**-0.04**	**+0.37**	**+0.06**	**+27.59**

The SOB further noted that the emissions increase for CO does not require any further emission reduction, as the equipment is located in a CO attainment area, and that the NOx emission reductions can be used to provide SERs to offset the increase in PM10 emissions. This is permissible because NOx is a precursor to PM_{10} and because the overall change in emissions results in a net benefit to the environment.

NAWSCL must also address the actual certified emissions from the corrected engine family name. While both the mistaken certification and the correct one involve certifying that the engines comply with the same Tier 4i emission standards, the different engine families have manufacturer-certified values with slightly different emissions that still comply with the emission standard. The difference in emission rates and annual emissions is summarized below, while copies of the executive orders listing these emission factors are included in Attachment 4:

Engine Family	Units	NO_x	VOC	PM_{10}	SO_x	CO
Corrected CPKXL04.4ML1	gm/bhp-hr.	1.87	0.004	0.003	0.005	0.15
	Lbs./yr. (two engines)[1]	90.66	0.19	0.15	0.24	7.27
Permitted EPKXL04.4ML1	gm/bhp-hr.	1.94	0.01	0.002	0.005	0.07
	Lbs./yr. (two engines) [1]	94.04	0.48	0.096	0.24	3.40
Net Change in PTE, lbs./yr. (original):		-81.94	-0.04	+0.37	+0.06	+27.59
Net Change in PTE, lbs./yr. (corrected):		-78.56	+0.25	+0.32	+0.06	+23.72

1: This calculation shows the emissions from two engines of 146.6 bhp each, operating 75 fewer hours per year (150 fewer hours total).

As detailed in the table above, the correction in engine family and emission rates results in very small changes (i.e., less than 0.4 pounds per year) in the annual emissions of all pollutants except SO_x (where no emission change occurred).

The relevant net increase in emissions of 0.32 lb-PM_{10}/yr. and 0.25 lbs.-VOC/yr., and a reduction of 78.56 lbs.-NO_x/yr. NO_x is a precursor for PM_{10}, so inter-pollutant offsets of NO_x for PM_{10} are permissible as discussed in the original SOB. NO_x and VOC are both precursors to ozone, so inter-pollutant offsets of NO_x for VOC is also permissible. Despite the correction in engine families and emission rates, the reduction in NO_x continues to outweigh the combined increase in PM_{10} and VOC by a factor of over 100, resulting in a net benefit to air quality within the Mojave Desert air basin. NAWSCL is requesting MDAQMD concur that this correction in emissions will have no additional NSR implications than were previously addressed in the original SOB.

Proposed FOB 00880567 and MDAQDM PTO B012343 description should read:

DIESEL IC ENGINE, GENERATOR (MOM SITE, UNIT #1) consisting of: A certified Tier 4i diesel engine, EPA Family CPKXL04.4ML1, manufactured by Perkins Engines in 2012 with factory installed emissions control devices/systems included. Exhaust flow is 576 CFM at 871 degrees F:

One Perkins, Diesel fired internal combustion engine Model No. 1204E-E44TTAG2 and Serial No. U000484W, Direct Injected, Turbo Charged, After Cooled, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Electronic Control Module, Compression-Ignited, producing 146.6 bhp with 4

cylinders at 1800 rpm while consuming a maximum of 8.1 gal/hr. This equipment powers a Generator Model No. 220395-501 and Serial No. 1016496-001, rated at 100 kW(e).

Revised Emission Rates to MDAQMD PTO B012343:

Emission Type	Est. Max Load	Unit
CO	0.15	gm/bhp-hr.
NO_x	1.87	gm/bhp-hr.
PM_{10}	0.003	gm/bhp-hr.
SO_x	0.005	gm/bhp-hr.
VOC	0.004	gm/bhp-hr.

Proposed FOP 008800567 and MDAQMD PTO B012344 description should read:

DIESEL IC ENGINE, GENERATOR (MOM SITE, UNIT #2) consisting of: A certified Tier 4i diesel engine, EPA Family CPKXL04.4ML1, manufactured by Perkins Engines in 2012 with factory installed emissions control devices/systems included. Exhaust flow is 576 CFM at 871 degrees F:

One Perkins, Diesel fired internal combustion engine Model No. 1204E-E44TTAG2 and Serial No. U000485W, Direct Injected, Turbo Charged, After Cooled, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Electronic Control Module, Compression-Ignited, producing 146.6 bhp with 4 cylinders at 1800 rpm while consuming a maximum of 8.1 gal/hr. This equipment powers a Generator Model No. 220395-501 and Serial No. 1020738-004, rated at 100 kW(e).

Revised Emission Rates to MDAQMD PTO B012344:

Emission Type	Est. Max Load	Unit
CO	0.15	gm/bhp-hr.
NO_x	1.87	gm/bhp-hr.
PM_{10}	0.003	gm/bhp-hr.
SO_x	0.005	gm/bhp-hr.
VOC	0.004	gm/bhp-hr.

4.5. Parts Washers

NAWS CL wishes to cancel the PTO for a parts washer located at building 70150 and regulated under PTO T010868. While cancelling PTO T010868 is accomplished by its inclusion on the "Request to Cancel a Permit", the condition associated with this PTO must also be removed from the FOP. NAWS CL believes it appropriate to remove or modify the following conditions, applicable to this parts washer, from the FOP as part of this administrative amendment. In addition, PTOs T003150 and T003152 were cancelled during the 2018 permit renewal and references to them must also be removed from the FOP as indicated below.

Finally, NAWS CL notes that condition III.EE.2 of the FOP, regarding parts washer regulated by PTO T009804, does not match condition 2 of the PTO. When this PTO was first issued in 2009, the equipment description indicated the use of "Breakthrough" while condition 2 referred to the use of "paint thinner as described above." It appears that when the Title V permit was renewed in 2014 the condition referring to paint thinner was used as a basis for including T009804 in condition III.EE.2 of the FOP, even though Breakthrough is, from a chemical perspective, a substantially different product than paint thinner (CAS 64742-88-7). Local PTO T009804 was corrected in May 2018, but the FOP continues to refer to paint thinner. NAWS CL proposes to include a new condition in the FOP to match the local PTO.

Proposed Revisions to FOP 008800567 Conditions:

III.EE.2. ~~[For T003150] The solvent used in this tank is limited to Citrikleen parts cleaner or equivalent. This solvent shall not be heated above ambient temperature. [District Rule 1104]~~

or

~~[For T003152, T005063, and T009804]~~ [For T005063] The solvent used in this tank is limited to paint thinner (CAS 64742-88-7). This solvent shall not be heated above ambient temperature. [District Rule 1104]

or

[For T009804] The solvent used in this tank shall be "Breakthrough" (a registered Trademark product) or an equivalent low volatility solvent. This solvent shall not be heated above ambient temperature. [District Rule 1104]~~or~~

~~[For T010868] The solvent used in this tank is limited to EcoLink "New II" Environmentally Preferred Parts Cleaner or equivalent. This solvent shall not be heated above ambient temperature. [District Rule 1104]~~

III.EE.7 Total solvent used in all Dip Tanks and Parts Washers under District permit numbers ~~T003150, T003152~~, T005063 and T009804 ~~and T010868~~ shall not exceed 548 gallons in any consecutive twelve-month period. [District Rule 204]

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ATTACHMENTS

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ATTACHMENT 1

Title V – Permit Amendment / Modification (Form 1202-N)

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: Naval Air Weapons Station China Lake

2. FACILITY ID: 00567

3. TITLE V PERMIT NO: 008800567

4. TYPE OF ORGANIZATION: ☐ Corporation ☐ Sole Ownership ☒ Government ☐ Partnership ☐ Utility

5. COMPANY NAME: Naval Air Weapons Station China Lake

6. COMPANY MAILING/BILLING ADDRESS:
STREET/P.O. BOX: 429 E. Bowen Rd, Stop 4014
CITY: China Lake STATE: CA 9-DIGIT ZIP CODE: 93555-6108

7. FACILITY ADDRESS:
STREET: Same as above.
CITY: _____ STATE: _____ 9-DIGIT ZIP CODE: _____

PROPOSED DATE OF INSTALLATION: ASAP

8. DISTANCES (FEET AND DIRECTION) TO CLOSEST:
FENCELINE: _____ RESIDENCE: _____ BUSINESS: N/A SCHOOL: N/A

9. GENERAL NATURE OF BUSINESS: National defense: Research, development, test, and evaluation of aircraft warfare systems

10. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE
(include Permit #'s if known, and use additional sheets if necessary)

See attached documentation for discussion of the proposed amendments.

11. PERSON TO CONTACT FOR INFORMATION ON THIS APPLICATION:

NAME: Mr. Michael Olokode PHONE NUMBER: (760) 939-8966

TITLE: Air Quality Specialist EMAIL: michael.olokode@navy.mil

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

06 MAY 2019

Date

P. M. Dale, Captain, U. S. Navy

Name of Responsible Official (please print)

Commanding Officer

Title of Responsible Official (please print)

For AQMD Use Only:

DATE STAMP	*DISTRICT PERMIT APPLICATION NO:* _____	*COMPANY /FACILITY ID:* _____

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ATTACHMENT 2

ATC/PTO APPLICATION FORM

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

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General Application Form

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): United States Navy			b. Federal tax ID #:
c. Mailing/billing address (for above company name) *include city, state and zip code:* 429 E. Bowen Ave., Stop 4014 China Lake, CA 93555-6108			
d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Michael Olokode	Title: Air Quality Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing, and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Milling system

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
B003141 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Naval Air Weapons Station China Lake is submitting an application for an administrative amendment of its federal operating permit (FOP) to the Mojave Desert Air Quality Management District (MDAQMD) pursuant to consultation with MDAQMD engineering staff in order to implement certain minor revisions to the FOP and MDAQMD state-only PTOs. Please refer to the attachments for details.

Manufacturer: _____ Model: _____ Serial number: _____

Add-on air pollution control equipment? ☐ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: _____ Model: _____ Serial #: _____ CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: _____ feet Exhaust stack diameter: _____ feet

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. _____ °F Maximum exhaust rate (CFM): _____

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid Mod/PCR	49173/MD11188	B003141	88/567

Section 4: Emissions data

Emission Factor Basis (attach any source specified): _____

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: _____ at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

Facility annual operation by quarters (percent):
☑ 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 6: 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 7: Certification

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

Keith Beeler	Head, EMD		4/22/2019
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: (760) 939-3213 Email: keith.beeler@navy.mil

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 the 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.***

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d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Michael Olokode	Title: Air Quality Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing, and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Milling system

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
B003155 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Naval Air Weapons Station China Lake is submitting an application for an administrative amendment of its federal operating permit (FOP) to the Mojave Desert Air Quality Management District (MDAQMD) pursuant to consultation with MDAQMD engineering staff in order to implement certain minor revisions to the FOP and MDAQMD state-only PTOs. Please refer to the attachments for details.

Manufacturer: _____ Model: _____ Serial number: _____

Add-on air pollution control equipment? ☐ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: _____ Model: _____ Serial #: _____ CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: _____ feet Exhaust stack diameter: _____ feet

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. _____ °F Maximum exhaust rate (CFM): _____

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid Mod/PCR	49174/MD11189	B003155	

Section 4: Emissions data

Emission Factor Basis (attach any source specified): _____

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: _____ at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

Facility annual operation by quarters (percent):
☑ 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 6: 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)

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Section 7: Certification

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

Keith Beeler	Head, EMD	Keith Beeler	4/22/2019
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: (760) 939-3213 Email: keith.beeler@navy.mil

Application submission instructions:

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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.

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

Payment by credit card:
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c. Mailing/billing address (for above company name) *include city, state and zip code:* 429 E. Bowen Ave., Stop 4014 China Lake, CA 93555-6108			
d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Michael Olokode	Title: Air Quality Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing, and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Milling system

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
B003156 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Naval Air Weapons Station China Lake is submitting an application for an administrative amendment of its federal operating permit (FOP) to the Mojave Desert Air Quality Management District (MDAQMD) pursuant to consultation with MDAQMD engineering staff in order to implement certain minor revisions to the FOP and MDAQMD state-only PTOs. Please refer to the attachments for details.

Manufacturer: _____ Model: _____ Serial number: _____

Add-on air pollution control equipment? ☐ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: _____ Model: _____ Serial #: _____ CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: _____ feet Exhaust stack diameter: _____ feet

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. _____ °F Maximum exhaust rate (CFM): _____

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid Mod/PCR	49175/MD11190	B003156	88/567

Section 4: Emissions data

Emission Factor Basis (attach any source specified): _____

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: _____ at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

Facility annual operation by quarters (percent):
☑ 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 6: 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 7: Certification

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

Keith Beeler	Head, EMD	Keith Beeler	4/22/2019
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: (760) 939-3213 Email: keith.beeler@navy.mil

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 the 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:
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Click ***"Pay Fees"***
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MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT
BRAD POIRIEZ, *EXECUTIVE DIRECTOR*
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760.245.1661 • Fax 760.245.2022
Email: **engineering@mdaqmd.ca.gov**
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Section 1: Owner information

a. Permit to be issued to (company name): United States Navy			b. Federal tax ID #:
c. Mailing/billing address (for above company name) *include city, state and zip code:* 429 E. Bowen Ave., Stop 4014 China Lake, CA 93555-6108			
d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Michael Olokode	Title: Air Quality Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing, and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Milling system

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
B003161 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Naval Air Weapons Station China Lake is submitting an application for an administrative amendment of its federal operating permit (FOP) to the Mojave Desert Air Quality Management District (MDAQMD) pursuant to consultation with MDAQMD engineering staff in order to implement certain minor revisions to the FOP and MDAQMD state-only PTOs. Please refer to the attachments for details.

Manufacturer: _____ Model: _____ Serial number: _____

Add-on air pollution control equipment? ☐ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: _____ Model: _____ Serial #: _____ CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: _____ feet Exhaust stack diameter: _____ feet

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. _____ °F Maximum exhaust rate (CFM): _____

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid Mod/PCR	49176/MD11191	B003161	88/567

Section 4: Emissions data

Emission Factor Basis (attach any source specified): _____

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: _____ at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

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

Section 6: 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 7: Certification

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

Keith Beeler	Head, EMD		4/22/2019
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: (760) 939-3213 Email: keith.beeler@navy.mil

Application submission instructions:

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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.

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e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Michael Olokode	Title: Air Quality Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing, and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Prime IC engine powering a generator

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
B012343 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Naval Air Weapons Station China Lake is submitting an application for an administrative amendment of its federal operating permit (FOP) to the Mojave Desert Air Quality Management District (MDAQMD) pursuant to consultation with MDAQMD engineering staff in order to implement certain minor revisions to the FOP and MDAQMD state-only PTOs. Please refer to the attachments for details.

Manufacturer: _____ Model: _____ Serial number: _____

Add-on air pollution control equipment? ☐ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: _____ Model: _____ Serial #: _____ CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: _____ feet Exhaust stack diameter: _____ feet

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. _____ °F Maximum exhaust rate (CFM): _____

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid Mod/PCR	49177/MD11192	B012343	88/567

Section 4: Emissions data

Emission Factor Basis (attach any source specified): _____

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: _____ at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

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Keith Beeler	Head, EMD	Keith Beeler	4/22/2019
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: (760) 939-3213 Email: keith.beeler@navy.mil

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e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Michael Olokode	Title: Air Quality Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing, and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Prime IC engine powering a generator

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
B012344 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Naval Air Weapons Station China Lake is submitting an application for an administrative amendment of its federal operating permit (FOP) to the Mojave Desert Air Quality Management District (MDAQMD) pursuant to consultation with MDAQMD engineering staff in order to implement certain minor revisions to the FOP and MDAQMD state-only PTOs. Please refer to the attachments for details.

Manufacturer: _____ Model: _____ Serial number: _____

Add-on air pollution control equipment? ☐ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: _____ Model: _____ Serial #: _____ CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: _____ feet Exhaust stack diameter: _____ feet

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. _____ °F Maximum exhaust rate (CFM): _____

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid Mod/PCR	49178/MD11193	B012344	88/567

Section 4: Emissions data

Emission Factor Basis (attach any source specified): _____

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: _____ at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

Facility annual operation by quarters (percent):
☑ 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 6: 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 7: Certification

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

Keith Beeler	Head, EMD		4/22/2019
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: (760) 939-3213 Email: keith.beeler@navy.mil

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 the 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
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

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General Application Form

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): United States Navy			b. Federal tax ID #:
c. Mailing/billing address (for above company name) *include city, state and zip code:* 429 E. Bowen Ave., Stop 4014 China Lake, CA 93555-6108			
d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Michael Olokode	Title: Air Quality Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing, and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Please refer to the attachment for amendments to PTOs.

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
C004010 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Naval Air Weapons Station China Lake is submitting an application for an administrative amendment of its federal operating permit (FOP) to the Mojave Desert Air Quality Management District (MDAQMD) pursuant to consultation with MDAQMD engineering staff in order to implement certain minor revisions to the FOP and MDAQMD state-only PTOs. Please refer to the attachments for details.

Manufacturer: _____ Model: _____ Serial number: _____

Add-on air pollution control equipment? ☐ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: _____ Model: _____ Serial #: _____ CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: _____ feet Exhaust stack diameter: _____ feet

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. _____ °F Maximum exhaust rate (CFM): _____

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid Mod/PCR	49179/MD11194	C004010	88/5167

Section 4: Emissions data

Emission Factor Basis (attach any source specified): _____

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: _____ at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

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

Section 6: 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 7: Certification

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

Keith Beeler	Head, EMD		4/22/2019
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: (760) 939-3213 Email: keith.beeler@navy.mil

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 the 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
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

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MDAQMD
19 MAY -9 PM 12:00

General Application Form

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): United States Navy			b. Federal tax ID #:
c. Mailing/billing address (for above company name) *include city, state and zip code:* 429 E. Bowen Ave., Stop 4014 China Lake, CA 93555-6108			
d. Facility or business license name (for equipment location): NAWS China Lake			
e. Facility Address — Location of equipment (if same as for company, enter "Same"): Same			Equip. coordinates (lat/long):
f. Contact name: Michael Olokode	Title: Air Quality Specialist	Email address: michael.olokode@navy.mil	Phone: 760-939-8966
General nature of business: Research, Development, Testing, and Evaluation (RDT&E)			Company NAICS:

Type of Organization
☐ Individual owner ☐ Partnership ☐ Corporation ☐ Utility ☐ Local agency ☐ State agency
☑ Federal agency

Section 2: Nature of application

Application is hereby made for the following equipment:
Paint spray booth

Application is for what type of permit:
☐ New construction ☑ Modification ☐ Change of owner

For modification or change of owner:
S002204 Current Permit Number

Do you claim Confidentiality of Data? ☑ No ☐ Yes (attach explanation; specify which information provided is confidential)

Section 3: Equipment information

Equipment description (give a brief description of the equipment and/or process):
Naval Air Weapons Station China Lake is submitting an application for an administrative amendment of its federal operating permit (FOP) to the Mojave Desert Air Quality Management District (MDAQMD) pursuant to consultation with MDAQMD engineering staff in order to implement certain minor revisions to the FOP and MDAQMD state-only PTOs. Please refer to the attachments for details.

Manufacturer: _____ Model: _____ Serial number: _____

Add-on air pollution control equipment? ☐ Yes ☐ No (Note: *most APCE require a separate application*)

If yes: Manufacturer: _____ Model: _____ Serial #: _____ CARB EO#: _____

Type (specify): _____

Stack data Exhaust stack height from ground: _____ feet Exhaust stack diameter: _____ feet

Stack is: ☐ horizontal ☐ vertical ☐ open ☐ weather cap

Vent data: Exhaust temp. _____ °F Maximum exhaust rate (CFM): _____

-For District use only-

Application number:	Invoice number:	Permit number:	Company/facility number:
Paid Mod/PCR	49180/MD 11195	S002204	88/567

Section 4: Emissions data

Emission Factor Basis (attach any source specified): _____

☐ Manufacturer ☐ Source test ☐ MDAQMD default ☐ USEPA AP-42
☐ Other (please specify): _____

Emissions data: _____

Pollutant	Pre-control max. emissions	Units	Post control max. emissions	Units
NO_x				
NMHC				
CO				
PM_{10}				
SO_x				

Toxic pollutants — Please include a list of all toxic air pollutants and their emission rates if known.

Section 5: Operation information

Fuel Consumption: _____ at max rated load ☐ gal/hour ☐ SCF/hour ☐ MMBtu/hr

Typical load: 100%

Facility annual operation by quarters (percent):
☑ 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 6: 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 7: Certification

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

Keith Beeler	Head, EMD		4/22/2019
Name of responsible official	Official title	Signature of responsible official	Date signed

Phone: (760) 939-3213 Email: keith.beeler@navy.mil

Application submission instructions:

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Click ***"Pay Fees"***
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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**

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ATTACHMENT 3

REQUEST TO CANCEL A PERMIT FORM

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ATTACHMENT 4

ENGINE EXECUTIVE ORDERS

California Environmental Protection Agency **Air Resources Board**	PERKINS ENGINES COMPANY LTD.	EXECUTIVE ORDER U-R-022-0191 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2014	EPKXL04.4MK1	4.4	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Continuous Trap Oxidizer	Cranes, Loaders, Tractor, Dozer, Pump, Compressor, Generator Set

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Interim Tier 4 / ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		FEL	N/A	N/A	N/A	N/A	0.01	N/A	N/A	N/A
		CERT	0.01	2.6	--	0.1	0.003	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005 and last amended October 25, 2012.

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 18th day of December 2013.

Erik White, Chief
Mobile Source Operations Division

Attachment 1 of 2

U-R-0[illegible]-0191
12-11-'13

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
EPKXL04.4MK1	Cert Test 1	3584/2200	148@2200	111.6	54	413@1400	126.2	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	1	3584/2200	148@2200	111.6	54	413@1400	126.2	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	2	3638/2200	142@2200	108.9	53	413@1400	125.8	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	3	3636/2200	137@2200	105.4	51	413@1400	126.2	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	4	3632/2200	131@2200	101.7	49	391@1400	119.6	37	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	5	3640/2200	124@2200	96.8	47	391@1400	120.6	37	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	6	3644/2200	122@2200	95.2	46	369@1400	113.6	35	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	7	3648/2200	115@2200	91.5	44	369@1400	114	35	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	8	3634/2200	110@2200	84.8	41	332@1400	101.8	31	DDI TAA ECM DOC CTOX EGR EPR

Attachment 2 of 2

Engine Model Summary Template

II-R-022 0191
12-11-'13

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
EPKXL04.4MK1	9	3656/2200	100@2200	77.3	31	332@1400	101.8	31	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	10	3658/2200	94@2200	73.6	28	295@1400	89.9	28	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	11	3654/2200	88@2200	70	26	274@1400	83.8	26	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	12	3630/1950	121@1950	89.7	34	361@1400	110.7	34	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	13	3662/1800	95@1800	85.1	29	305@1350	93.4	29	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	Cert Test 14	3792/1800	109@1800	98.1	39	319@1800	98.1	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	14	3792/1800	109@1800	98.1	39	319@1800	98.1	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	15	3660/2200	83@2200	65.0	31	256@1400	79.8	24	DDI TAA ECM DOC CTOX EGR EPR

TAA = TC + CAC

California Environmental Protection Agency AIR RESOURCES BOARD	PERKINS ENGINES COMPANY LTD.	EXECUTIVE ORDER U-R-022-0177-1 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2012	CPKXL04.4ML1	4.4	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Oxidation Catalyst, Continuous Trap Oxidizer	Cranes, Loaders, Tractor, Dozer, Pump, Compressor, Generator Set

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Interim Tier 4 / ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		FEL	N/A	N/A	N/A	N/A	0.01	N/A	N/A	N/A
		CERT	0.005	2.5	--	0.2	0.004	--	--	--

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations. This Executive Order hereby supersedes Executive Order U-R-022-0177 dated October 25, 2011.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 22 day of June 2012.

Annette Hebert, Chief
Mobile Source Operations Division

Attachment 1 of 1

Engine Model Summary Template

U-R-022-0177-1
6/1/2012

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
CPKXL04.4ML1	Cert Test 1	3586/2200	174@2200	135.3	65	553@1400	170.2	52	DDI TAA ECM DOC CTOX EGR EPR
CPKXL04.4ML1	1	3586/2200	174@2200	135.3	65	553@1400	170.2	52	DDI TAA ECM DOC CTOX EGR EPR
CPKXL04.4ML1	2	3626/2200	157@2200	121.8	59	504@1400	155	48	DDI TAA ECM DOC CTOX EGR EPR
CPKXL04.4ML1	3	3744/2200	150@2200	117.1	56	479@1400	148	45	DDI TAA ECM DOC CTOX EGR EPR
CPKXL04.4ML1	4	3624/2200	141@2200	110.8	53	465@1400	143.8	44	DDI TAA ECM DOC CTOX EGR EPR
CPKXL04.4ML1	5	3862/1800	164@1800	146.2	58	525@1350	160.8	49	DDI TAA ECM DOC CTOX EGR EPR
CPKXL04.4ML1	Cert Test 6	3790/1800	173@1800	157.1	62	505@1800	157.1	62	DDI TAA ECM DOC CTOX EGR EPR
CPKXL04.4ML1	6	3790/1800	173@1800	157.1	62	505@1800	157.1	62	DDI TAA ECM DOC CTOX EGR EPR

Appendix B
USEPA Region IX Approval of Interpollutant Transfer

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Guy Smith

From: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Sent: Wednesday, November 6, 2019 3:52 PM
To: Sheri Haqqard
Cc: Alan De Salvio; Guy Smith
Subject: MDAQMD SIP Approved Interpollutant Offsets Requirements - Rule 1305

Hi Sheri,

We discussed this issue internally today.

As I previously stated, the federal regulations for major sources in nonattainment areas require offsets to always be for the same pollutant. The exceptions are (1) NOX and VOC can be traded for ozone (if certain requirements are met) and (2) PM2.5 and PM2.5 precursors can be traded (if certain requirements are met). 40 CFR 51.165(a)(11).

Because of that, we think it could be difficult for us to approve interprecusor trading for PM_{10} in the case of a new major stationary source of PM_{10} or a federal major modification at an existing major source. However, MDAQMD's SIP-approved NSR program contains more stringent offset requirements than the federal minimum, as there are no offset requirements under the federal program for non-major sources/non-major modifications (what the EPA refers to as "minor NSR") or criteria for obtaining offsets for minor NSR actions. Given MDAQMD's program goes beyond the federal minimum, individual approval from the EPA for PM10 interprecsuor trading will not be required in the case of minor NSR actions. That is, for minor NSR actions, you can cite to this email as the EPA's approval of your general 2:1 offset ratio for PM10 interprecursor trading. To be clear, this approval does not include actions that are federal major modifications or major modifications at existing major sources.

Thanks for your patience!
Lisa

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Appendix C
HARP Emission Unit and Facility-Wide Prioritization Scores

Please note that the HARP data for the new abrasive blaster (A013623) and the two diesel engines (B012623 and B013624) have been highlighted in yellow on pages C-29, C-30, and C-33 for ease of identification.

File name: C:\Users\guys.MDAIRQ\Desktop\naws tem\HARP PS New Abrasive Blaster A013623 and Engine Family Corrections.rtf

HARP Facility Prioritization Report

HARP EIM Version: 2.1.1

For new controlled abrasive blaster A013623/C013624 and revised Engine Families for B012343 and B012344. Calculated for 8760 hours per year at 1036 meter receptor distance.
Reporting Year: 2018
Project Path: C:\Users\guys.MDAIRQ\Desktop\naws tem
Project Database: C:\Users\guys.MDAIRQ\Desktop\naws tem\temp.mdb
CEIDARS Utility Database: C:\HARP2\Tables\CEIDARSTables092019.mdb
HARP Health Talbe: HEALTH201909
Sorting Order: DIS, AB, CO, TS, FACID, DEV, POLABBREV
Date Created: 11/21/2019 1:33:11 PM
Operator: GS
****

POLLUTANT HEALTH VALUES FROM HARP HEALTH DATABASE:

POLLUTANT ID	POLLUTANT	CANCERURF(INH) (ug/m^3)^-1	ACUTEREL ug/m^3	CHRONICREL(INH) ug/m^3
71556	1,1,1-TCA	N/A	6.80E+04	1.00E+03
79005	1,1,2TriClEthan	1.60E-05	N/A	N/A
75343	1,1-DiClEthane	1.60E-06	N/A	N/A
95636	1,2,4TriMeBenze	N/A	N/A	N/A
78875	1,2-DiClPropane	N/A	N/A	N/A
106990	1,3-Butadiene	1.70E-04	6.60E+02	2.00E+00
542756	1,3-DiClPropene	N/A	N/A	N/A
123911	1,4-Dioxane	7.70E-06	3.00E+03	3.00E+03
35822469	1-4,6-8HpCDD	3.80E-01	N/A	4.00E-03
67562394	1-4,6-8HpCDF	3.80E-01	N/A	4.00E-03
70648269	1-4,7,8HxCDF	3.80E+00	N/A	4.00E-04
3268879	1-8OctaCDD	1.10E-02	N/A	1.30E-01
39001020	1-8OctaCDF	1.10E-02	N/A	1.30E-01
540841	2,2,4TriMePentn	N/A	N/A	N/A
121142	2,4-DiNitToluen	8.90E-05	N/A	N/A
606202	2,6-DiNitToluen	N/A	N/A	N/A
60851345	2-4,6-8HxCDF	3.80E+00	N/A	4.00E-04
91576	2MeNaphthalene	N/A	N/A	N/A
79469	2-Nitropropane	N/A	N/A	N/A
119937	3,3'DiMeBenzidn	N/A	N/A	N/A

56495	3-MeCholanthren	6.30E-03	N/A	N/A
57976	7,12-DB[a]anthr	7.10E-02	N/A	N/A
83329	Acenaphthene	N/A	N/A	N/A
208968	Acenaphthylene	N/A	N/A	N/A
75070	Acetaldehyde	2.70E-06	4.70E+02	1.40E+02
107028	Acrolein	N/A	2.50E+00	3.50E-01
107131	Acrylonitrile	2.90E-04	N/A	5.00E+00
107051	AllylChlor	6.00E-06	N/A	N/A
7429905	Aluminum	N/A	N/A	N/A
120127	Anthracene	N/A	N/A	N/A
7440360	Antimony	N/A	N/A	N/A
7440382	Arsenic	3.30E-03	2.00E-01	1.50E-02
56553	B[a]anthracene	1.10E-04	N/A	N/A
50328	B[a]P	1.10E-03	N/A	N/A
205992	B[b]fluoranthen	1.10E-04	N/A	N/A
192972	B[e]pyrene	N/A	N/A	N/A
191242	B[g,h,i]perylen	N/A	N/A	N/A
205823	B[j]fluoranthen	1.10E-04	N/A	N/A
207089	B[k]fluoranthen	1.10E-04	N/A	N/A
7440393	Barium	N/A	N/A	N/A
71432	Benzene	2.90E-05	2.70E+01	3.00E+00
92875	Benzidine	1.40E-01	N/A	N/A
271896	Benzofuran	N/A	N/A	N/A
7440417	Beryllium	2.40E-03	N/A	7.00E-03
92524	Biphenyl	N/A	N/A	N/A
111444	Bis(2ClEth)Ethr	7.10E-04	N/A	N/A
75252	Bromoform	N/A	N/A	N/A
85687	ButylBenzPhthal	N/A	N/A	N/A
7440439	Cadmium	4.20E-03	N/A	2.00E-02
56235	CCl4	4.20E-05	1.90E+03	4.00E+01
7782505	Chlorine	N/A	2.10E+02	2.00E-01
108907	Chlorobenzn	N/A	N/A	1.00E+03
67663	Chloroform	5.30E-06	1.50E+02	3.00E+02
76062	Chloropicrin	N/A	2.90E+01	4.00E-01
7440473	Chromium	N/A	N/A	N/A
218019	Chrysene	1.10E-05	N/A	N/A
42101	CO	N/A	N/A	N/A
7440484	Cobalt	N/A	N/A	N/A
7440508	Copper	N/A	1.00E+02	N/A
18540299	Cr(VI)	1.50E-01	N/A	2.00E-01
98828	Cumene	N/A	N/A	N/A
110827	Cyclohexane	N/A	N/A	N/A
53703	D[a,h]anthracen	1.20E-03	N/A	N/A
117817	Di2-EthHxPhthal	2.40E-06	N/A	N/A
132649	Dibenzofuran	N/A	N/A	N/A
25321226	DiClBenzenes	N/A	N/A	N/A
9901	DieselExhPM	3.00E-04	N/A	5.00E+00
79447	DiMeCarbamyCl	N/A	N/A	N/A
106934	EDB	7.10E-05	N/A	8.00E-01
107062	EDC	2.10E-05	N/A	4.00E+02
100414	Ethyl Benzene	2.50E-06	N/A	2.00E+03
75003	Ethyl Chloride	N/A	N/A	3.00E+04
74851	Ethylene	N/A	N/A	N/A
151564	Ethyleneimine	N/A	N/A	N/A
206440	Fluoranthene	N/A	N/A	N/A
86737	Fluorene	N/A	N/A	N/A
50000	Formaldehyde	6.00E-06	5.50E+01	9.00E+00
110009	Furan	N/A	N/A	N/A
111308	Glutaraldhyd	N/A	N/A	8.00E-02

7647010	HCl	N/A	2.10E+03	9.00E+00
74908	HCN	N/A	3.40E+02	9.00E+00
67721	HexaClEthane	N/A	N/A	N/A
110543	Hexane	N/A	N/A	7.00E+03
193395	In[1,2,3-cd]pyr	1.10E-04	N/A	N/A
78842	Isobutyraldehyd	N/A	N/A	N/A
78591	Isophorone	N/A	N/A	2.00E+03
67630	Isopropyl Alcoh	N/A	3.20E+03	7.00E+03
7439921	Lead	1.20E-05	N/A	N/A
7439965	Manganese	N/A	N/A	9.00E-02
1634044	Me t-ButylEther	2.60E-07	N/A	8.00E+03
78933	MEK	N/A	1.30E+04	N/A
7439976	Mercury	N/A	6.00E-01	3.00E-02
74839	Methyl Bromide	N/A	3.90E+03	5.00E+00
74873	Methyl Chloride	N/A	N/A	N/A
74953	MethyleneBromid	N/A	N/A	N/A
108101	MIBK	N/A	N/A	N/A
108383	m-Xylene	N/A	2.20E+04	7.00E+02
91203	Naphthalene	3.40E-05	N/A	9.00E+00
7664417	NH3	N/A	3.20E+03	2.00E+02
7440020	Nickel	2.60E-04	2.00E-01	1.40E-02
42603	NOX	N/A	N/A	N/A
95487	o-Cresol	N/A	N/A	6.00E+02
95534	o-Toluidine	N/A	N/A	N/A
95476	o-Xylene	N/A	2.20E+04	7.00E+02
1150	PAHs-w/	N/A	N/A	N/A
106445	p-Cresol	N/A	N/A	6.00E+02
127184	Perc	6.10E-06	2.00E+04	3.50E+01
198550	Perylene	N/A	N/A	N/A
85018	Phenanthrene	N/A	N/A	N/A
108952	Phenol	N/A	5.80E+03	2.00E+02
75445	Phosgene	N/A	4.00E+00	N/A
11101	PM	N/A	N/A	N/A
85101	PM10	N/A	N/A	N/A
88101	PM25	N/A	N/A	N/A
115071	Propylene	N/A	N/A	3.00E+03
106423	p-Xylene	N/A	2.20E+04	7.00E+02
129000	Pyrene	N/A	N/A	N/A
110861	Pyridine	N/A	N/A	N/A
16113	ROG	N/A	N/A	N/A
7782492	Selenium	N/A	N/A	2.00E+01
1175	Silica, Crystln	N/A	N/A	3.00E+00
42401	SOX	N/A	N/A	N/A
100425	Styrene	N/A	2.10E+04	9.00E+02
7664939	Sulfuric Acid	N/A	1.20E+02	1.00E+00
79345	TetraClEthane	5.80E-05	N/A	N/A
43101	TOG	N/A	N/A	N/A
108883	Toluene	N/A	3.70E+04	3.00E+02
75694	TriClFluorMetha	N/A	N/A	N/A
25551137	TriMeBenzns	N/A	N/A	N/A
51796	Urethane	2.90E-04	N/A	N/A
7440622	Vanadium	N/A	3.00E+01	N/A
108054	Vinyl Acetate	N/A	N/A	2.00E+02
75014	Vinyl Chloride	7.80E-05	1.80E+05	N/A
43104	VOC	N/A	N/A	N/A
1330207	Xylenes	N/A	2.20E+04	7.00E+02
7440666	Zinc	N/A	N/A	N/A

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MULTIPATHWAY POLLUTANTS ADJUSTMENT FACTORS OTHER THAN 1:

None.

PRIORITIZATION SCORE SUMMARY:

Facility Name
Proximity Method
Optional Factors

FACID	CO	AB	DIS	DEVICE	Emission and Potency Procedure Cancer	Acute	Chronic	NonCancer	Dispersion Adjustment Procedure Cancer	Acute	Chronic	NonCancer	Highest Score
NAWS CHINA LAKE													
Proximity Method:													
Annual Operating Hours				8760									
567	36	MD	MOJ		3.39	4.14	0.13	4.15	3.38	4.14	0.13	4.15	4.15
				Device ID 1063	8.75E-02	2.53	8.85E-03	2.53	8.73E-02	2.53	8.85E-03	2.53	
				Device ID 1064	7.51E-03	5.98E-03	3.14E-05	5.98E-03	7.49E-03	5.98E-03	3.14E-05	5.98E-03	
				Device ID 1065	2.55E-03	1.77E-02	1.05E-02	1.82E-02	2.54E-03	1.77E-02	1.05E-02	1.82E-02	
				Device ID 1066	1.20E-05	6.65E-03	6.76E-04	6.65E-03	1.20E-05	6.65E-03	6.76E-04	6.65E-03	
				Device ID 1068	5.72E-05	9.49E-02	3.21E-03	9.49E-02	5.71E-05	9.49E-02	3.21E-03	9.49E-02	
				Device ID 1072	1.68	0.32	9.68E-02	0.32	1.68	0.32	9.68E-02	0.32	
				Device ID 1074	2.66E-03	1.09E-03	1.94E-04	1.14E-03	2.66E-03	1.09E-03	1.94E-04	1.14E-03	
				Device ID 1075	7.72E-03	7.49E-04	5.63E-04	8.87E-04	7.70E-03	7.49E-04	5.63E-04	8.87E-04	
				Device ID 2204	7.06E-04	1.03E-04	1.21E-06	1.03E-04	7.04E-04	1.03E-04	1.21E-06	1.03E-04	
				Device ID 2952	4.11E-04	5.55E-02	1.56E-04	5.56E-02	4.10E-04	5.55E-02	1.56E-04	5.56E-02	
				Device ID 3062	2.10E-04	5.30E-06	5.01E-06	5.53E-06	2.10E-04	5.30E-06	5.01E-06	5.53E-06	
				Device ID 3131	1.03E-03	6.90E-04	4.73E-04	9.12E-04	1.02E-03	6.90E-04	4.73E-04	9.12E-04	
				Device ID 3132	6.18E-04	8.47E-04	5.41E-04	1.14E-03	6.16E-04	8.47E-04	5.41E-04	1.14E-03	
				Device ID 3133	9.44E-03	6.03E-02	3.91E-04	6.03E-02	9.42E-03	6.03E-02	3.91E-04	6.03E-02	
				Device ID 3139	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3141	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3142	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3147	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3148	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3156	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3159	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3161	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3162	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				Device ID 3277	9.54E-04	6.16E-03	4.41E-05	6.17E-03	9.51E-04	6.16E-03	4.41E-05	6.17E-03	
				Device ID 3315	2.34E-04	1.30E-04	1.73E-05	1.34E-04	2.34E-04	1.30E-04	1.73E-05	1.34E-04	
				Device ID 3316	6.98E-05	1.46E-04	5.16E-06	1.48E-04	6.97E-05	1.46E-04	5.16E-06	1.48E-04	
				Device ID 3570	5.14E-04	1.29E-05	1.22E-05	1.35E-05	5.12E-04	1.29E-05	1.22E-05	1.35E-05	
				Device ID 4897	4.60E-04	7.75E-03	1.43E-05	7.75E-03	4.59E-04	7.75E-03	1.43E-05	7.75E-03	
				Device ID 4898	2.61E-04	0.00E+00	3.86E-07	3.86E-07	2.60E-04	0.00E+00	3.86E-07	3.86E-07	
				Device ID 4899	1.36E-03	0.00E+00	2.01E-06	2.01E-06	1.35E-03	0.00E+00	2.01E-06	2.01E-06	
				Device ID 5156	4.71E-02	0.14	6.80E-04	0.14	4.70E-02	0.14	6.80E-04	0.14	
				Device ID 7890	6.56E-02	0.33	2.66E-03	0.33	6.54E-02	0.33	2.66E-03	0.33	
				Device ID 7945	1.65E-02	0.00E+00	2.45E-05	2.45E-05	1.65E-02	0.00E+00	2.45E-05	2.45E-05	
				Device ID 7948	0.57	0.00E+00	8.49E-04	8.49E-04	0.57	0.00E+00	8.49E-04	8.49E-04	
				Device ID 8521	6.45E-02	0.00E+00	9.56E-05	9.56E-05	6.43E-02	0.00E+00	9.56E-05	9.56E-05	

Device ID	8555	2.39E-02	0.00E+00	3.55E-05	3.55E-05	2.39E-02	0.00E+00	3.55E-05	3.55E-05
Device ID	9072	6.48E-06	1.57E-03	2.05E-07	1.57E-03	6.46E-06	1.57E-03	2.05E-07	1.57E-03
Device ID	9083	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Device ID	9804	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Device ID	9915	1.22E-08	1.32E-03	5.16E-10	1.32E-03	1.21E-08	1.32E-03	5.16E-10	1.32E-03
Device ID	9973	9.47E-03	0.00E+00	1.40E-05	1.40E-05	9.45E-03	0.00E+00	1.40E-05	1.40E-05
Device ID	10539	6.53E-03	3.06E-02	2.66E-04	3.06E-02	6.51E-03	3.06E-02	2.66E-04	3.06E-02
Device ID	10633	4.90E-03	0.00E+00	7.26E-06	7.26E-06	4.89E-03	0.00E+00	7.26E-06	7.26E-06
Device ID	10828	0.59	0.00E+00	8.79E-04	8.79E-04	0.59	0.00E+00	8.79E-04	8.79E-04
Device ID	11470	2.06E-02	6.43E-04	1.03E-05	6.43E-04	2.05E-02	6.43E-04	1.03E-05	6.43E-04
Device ID	12343	5.44E-02	0.00E+00	8.07E-05	8.07E-05	5.43E-02	0.00E+00	8.07E-05	8.07E-05
Device ID	12344	7.35E-03	0.00E+00	1.09E-05	1.09E-05	7.33E-03	0.00E+00	1.09E-05	1.09E-05
Device ID	12364	5.44E-02	0.00E+00	8.07E-05	8.07E-05	5.43E-02	0.00E+00	8.07E-05	8.07E-05
Device ID	12374	2.00E-02	0.00E+00	2.97E-05	2.97E-05	2.00E-02	0.00E+00	2.97E-05	2.97E-05
Device ID	12400	2.25E-03	0.52	2.83E-04	0.52	2.25E-03	0.52	2.83E-04	0.52
Device ID	12461	1.69E-04	4.27E-06	4.03E-06	4.45E-06	1.69E-04	4.27E-06	4.03E-06	4.45E-06
Device ID	12793	6.45E-05	0.00E+00	9.56E-08	9.56E-08	6.43E-05	0.00E+00	9.56E-08	9.56E-08
Device ID	12799	4.09E-05	0.00E+00	6.07E-08	6.07E-08	4.08E-05	0.00E+00	6.07E-08	6.07E-08
Device ID	12800	9.41E-05	0.00E+00	1.39E-07	1.39E-07	9.38E-05	0.00E+00	1.39E-07	1.39E-07
Device ID	12801	2.85E-05	0.00E+00	4.23E-08	4.23E-08	2.85E-05	0.00E+00	4.23E-08	4.23E-08
Device ID	12802	1.76E-05	0.00E+00	2.61E-08	2.61E-08	1.75E-05	0.00E+00	2.61E-08	2.61E-08
Device ID	13623	1.64E-02	2.70E-03	6.22E-03	6.22E-03	1.64E-02	2.70E-03	6.22E-03	6.22E-03
Device ID	90108	1.60E-04	6.61E-06	1.18E-05	1.21E-05	1.60E-04	6.61E-06	1.18E-05	1.21E-05
Device ID	90113	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Device ID	90114	9.64E-04	4.11E-05	7.02E-05	7.29E-05	9.61E-04	4.11E-05	7.02E-05	7.29E-05

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PRIORITIZATION SCORES AND POLLUTANTS: (For proximity method or optional factors information, please see section above.)

Note: 1. Annual Emissions units: LBS/YR for toxics, TONS/YR for criteria pollutants, CURIES/YR for radionuclides.
2. Hourly Maximum Emissions units: LBS/HR for toxics, MILLICURIES/HR for radionuclides.
3. * GHGs, non-regulatory pollutants, and user defined pollutants are marked by an asterisk with the pollutant ID.
These pollutants are not included in the prioritization score calculation.

Facility Name / FACID	CO	AB	DIS	DEVICE	Emission and Potency Procedure Cancer	Acute	Chronic	NonCancer	Dispersion Adjustment Procedure Cancer	Acute	Chronic	NonCancer	Highest Score
NAWS CHINA LAKE													
Annual Operating Hours: 8760													
567	36	MD	MOJ		3.39	4.14	0.13	4.15	3.38	4.14	0.13	4.15	4.15
Device ID	1063				8.75E-02	2.53	8.85E-03	2.53	8.73E-02	2.53	8.85E-03	2.53	

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71556	1,1,1-TCA	1.454E-02	3.275E-03
	79005	1,1,2TriCl	1.454E-02	3.275E-03
	95636	1,2,4TriMe	3.300E-07	7.436E-08
	106990	1,3-Butadi	13.768	3.098
	123911	1,4-Dioxan	3.300E-10	7.436E-11
	35822469	1-4,6-8HpC	1.769E-09	3.986E-10
	67562394	1-4,6-8HpC	3.099E-09	6.984E-10
	70648269	1-4,7,8HxC	8.240E-10	1.857E-10
	3268879	1-8OctaCDD	5.020E-09	1.131E-09
	39001020	1-8OctaCDF	2.442E-09	5.502E-10
	540841	2,2,4TriMe	2.310E-05	5.205E-06
	121142	2,4-DiNitT	1.588E-04	3.577E-05
	606202	2,6-DiNitT	3.099E-05	6.984E-06

60851345	2-4,6-8HxC	7.000E-10	1.577E-10
91576	2MeNaphtha	1.996	0.446
79469	2-Nitropro	9.405E-03	2.119E-03
119937	3,3'DiMeBe	3.300E-07	7.436E-08
56495	3-MeCholan	5.809E-07	1.309E-07
57976	7,12-DB[a]	5.164E-06	1.164E-06
83329	Acenaphthe	0.122	2.727E-02
208968	Acenaphthy	0.628	0.141
75070	Acetaldehy	5.941	1.339
107028	Acrolein	1.161	0.260
107131	Acrylonitr	6.849E-03	1.543E-03
7429905	Aluminum	53.354	12.023
120127	Anthracene	0.191	4.301E-02
7440382	Arsenic	6.454E-05	1.454E-05
56553	B[a]anthra	5.005E-02	1.128E-02
50328	B[a]P	5.115E-02	1.153E-02
205992	B[b]fluora	8.085E-02	1.822E-02
192972	B[e]pyrene	2.475E-02	5.577E-03
191242	B[g,h,i]pe	3.795E-02	8.552E-03
205823	B[j]fluora	5.809E-07	1.309E-07
207089	B[k]fluora	1.100E-02	2.479E-03
7440393	Barium	1.421E-03	3.200E-04
71432	Benzene	32.957	7.250
271896	Benzofuran	3.300E-10	7.436E-11
7440417	Beryllium	3.873E-06	8.727E-07
92524	Biphenyl	3.300E-07	7.436E-08
75252	Bromoform	6.970E-03	1.571E-03
7440439	Cadmium	3.550E-04	7.999E-05
56235	CCl4	3.027E-03	6.821E-04
7782505	Chlorine	16.591	3.739
67663	Chloroform	6.970E-03	1.571E-03
76062	Chloropicr	9.405E-03	2.119E-03
7440473	Chromium	4.518E-04	1.018E-04
218019	Chrysene	4.620E-02	1.041E-02
42101	CO	0.344	7.684E-02
7440484	Cobalt	2.711E-05	6.109E-06
7440508	Copper	0.153	3.421E-02
98828	Cumene	2.271E-04	5.118E-05
110827	Cyclohexan	5.670E-03	1.278E-03
53703	D[a,h]anth	4.456E-03	1.004E-03
132649	Dibenzofur	1.512E-03	3.407E-04
25321226	DiClBenzen	3.873E-04	8.727E-05
100414	Ethyl Benz	2.229	0.496
74851	Ethylene	0.336	7.569E-02
151564	Ethyleneim	6.849E-03	1.543E-03
206440	Fluoranthe	0.221	4.982E-02
86737	Fluorene	0.387	8.713E-02
50000	Formaldehy	22.606	5.094
110009	Furan	3.300E-10	7.436E-11
111308	Glutaraldh	1.013E-03	2.283E-04
7647010	HCl	581.102	130.944
74908	HCN	1.105	0.249
110543	Hexane	1.481E-02	3.242E-03
193395	In[1,2,3-c	3.245E-02	7.312E-03
78591	Isophorone	3.300E-07	7.436E-08
67630	Isopropyl	2.310E-05	5.205E-06
7439921	Lead	5.744E-04	8.428E-05
7439965	Manganese	2.738E-03	5.894E-04
1634044	Me t-Butyl	3.300E-10	7.436E-11

78933	MEK	2.310E-05	5.205E-06
7439976	Mercury	8.391E-05	1.891E-05
74839	Methyl Bro	1.954E-03	4.402E-04
74873	Methyl Chl	1.954E-03	4.402E-04
108383	m-Xylene	3.300E-07	7.436E-08
91203	Naphthalen	6.882	1.538
7664417	NH3	2.997	0.675
7440020	Nickel	6.777E-04	1.527E-04
42603	NOX	3.861E-02	4.048E-03
95487	o-Cresol	3.300E-07	7.436E-08
95476	o-Xylene	3.300E-07	7.436E-08
1150	PAHs-w/	1.291E-04	2.909E-05
106445	p-Cresol	3.300E-07	7.436E-08
198550	Perylene	1.430E-02	3.222E-03
85018	Phenanthre	0.809	0.182
75445	Phosgene	1.954E-03	4.402E-04
11101	PM	0.269	5.980E-02
85101	PM10	0.269	5.980E-02
88101	PM2.5	0.269	5.980E-02
115071	Propylene	50.734	11.414
106423	p-Xylene	3.300E-07	7.436E-08
129000	Pyrene	0.219	4.945E-02
110861	Pyridine	3.300E-07	7.436E-08
16113	ROG	0.549	0.123
7782492	Selenium	7.745E-06	1.745E-06
42401	SOX	2.687E-03	5.961E-04
100425	Styrene	1.287	0.290
43101	TOG	0.550	0.123
108883	Toluene	9.487	2.095
75694	TriClFluor	3.027E-03	6.821E-04
51796	Urethane	4.617E-02	1.040E-02
7440622	Vanadium	7.423E-04	1.673E-04
108054	Vinyl Acet	2.310E-05	5.205E-06
75014	Vinyl Chlo	4.128E-03	9.301E-04
1330207	Xylenes	7.755	1.747
7440666	Zinc	8.619E-02	1.705E-02

Device ID	1064	7.51E-03	5.98E-03	3.14E-05	5.98E-03	7.49E-03	5.98E-03	3.14E-05	5.98E-03

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71556	1,1,1-TCA	1.816E-03	5.189E-05
	106990	1,3-Butadi	2.841E-02	8.118E-04
	35822469	1-4,6-8HpC	3.067E-09	8.762E-11
	67562394	1-4,6-8HpC	5.373E-09	1.535E-10
	70648269	1-4,7,8HxC	1.428E-09	4.081E-11
	3268879	1-8OctaCDD	8.702E-09	2.486E-10
	39001020	1-8OctaCDF	4.233E-09	1.209E-10
	540841	2,2,4TriMe	1.420E-04	4.056E-06
	121142	2,4-DiNitT	2.860E-04	8.172E-06
	606202	2,6-DiNitT	5.431E-05	1.552E-06
	60851345	2-4,6-8HxC	1.214E-09	3.467E-11
	75070	Acetaldehy	1.756E-03	5.017E-05
	107028	Acrolein	7.221E-03	2.063E-04
	107131	Acrylonitr	1.187E-02	3.392E-04
	107051	AllylChlor	1.277E-03	3.649E-05
	7429905	Aluminum	36.448	1.041
	7440393	Barium	1.703E-02	4.865E-04
	71432	Benzene	1.067	3.049E-02
	111444	Bis(2ClEth	2.199E-04	6.284E-06

85687	ButylBenzP	2.838E-02	8.109E-04
7782505	Chlorine	1.128E-02	3.223E-04
7440473	Chromium	9.436E-03	2.696E-04
7440508	Copper	8.514E-02	2.433E-03
18540299	Cr(VI)	1.894E-03	5.412E-05
98828	Cumene	4.584E-04	1.310E-05
110827	Cyclohexan	9.907E-03	2.831E-04
117817	Di2-EthHxP	2.838E-02	8.109E-04
132649	Dibenzofur	2.626E-03	7.502E-05
79447	DiMeCarbam	1.277E-03	3.649E-05
100414	Ethyl Benz	5.002E-02	1.429E-03
75003	Ethyl Chlo	2.199E-04	6.284E-06
74851	Ethylene	0.531	1.517E-02
151564	Ethyleneim	1.187E-02	3.392E-04
111308	Glutaraldh	1.756E-03	5.017E-05
7647010	HCl	1.206E-04	3.446E-06
74908	HCN	0.915	2.616E-02
67721	HexaClEtha	1.703E-04	4.865E-06
110543	Hexane	2.504E-02	7.155E-04
78591	Isophorone	1.515E-04	4.328E-06
7439921	Lead	9.224E-02	2.635E-03
7439965	Manganese	1.203E-03	3.437E-05
74839	Methyl Bro	1.206E-04	3.446E-06
74873	Methyl Chl	1.206E-04	3.446E-06
91203	Naphthalen	1.878E-03	5.366E-05
7664417	NH3	0.966	2.759E-02
42603	NOX	1.981E-02	5.660E-04
127184	Perc	1.703E-04	4.865E-06
115071	Propylene	9.982E-02	2.852E-03
16113	ROG	1.895E-03	5.416E-05
42401	SOX	3.860E-05	1.103E-06
100425	Styrene	2.228	6.367E-02
7664939	Sulfuric A	6.240E-03	1.783E-04
79345	TetraClEth	1.703E-04	4.865E-06
43101	TOG	1.895E-03	5.416E-05
108883	Toluene	0.330	9.426E-03
75014	Vinyl Chlo	1.632E-04	4.662E-06
7440666	Zinc	5.321E-03	1.520E-04

Device ID	1065	2.55E-03	1.77E-02	1.05E-02	1.82E-02	2.54E-03	1.77E-02	1.05E-02	1.82E-02

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71556	1,1,1-TCA	9.636E-02	1.095E-03
	79005	1,1,2TriCl	9.636E-02	1.095E-03
	106990	1,3-Butadi	1.587E-02	1.803E-04
	91576	2MeNaphtha	9.712E-02	1.104E-03
	79469	2-Nitropro	6.235E-02	7.085E-04
	83329	Acenaphthe	7.595E-04	8.631E-06
	208968	Acenaphthy	7.595E-04	8.631E-06
	107028	Acrolein	1.190E-02	1.353E-04
	7429905	Aluminum	169.745	1.929
	71432	Benzene	0.166	1.886E-03
	75252	Bromoform	3.918E-02	4.452E-04
	56235	CCl4	1.671E-03	1.899E-05
	7782505	Chlorine	33.060	0.376
	67663	Chloroform	3.918E-02	4.452E-04
	76062	Chloropicr	6.235E-02	7.085E-04
	7440508	Copper	8.661E-02	9.842E-04
	74851	Ethylene	0.272	3.092E-03

7647010	HCl	340.528	3.870	
74908	HCN	3.888	4.418E-02	
7439965	Manganese	2.446E-04	2.779E-06	
74839	Methyl Bro	1.078E-03	1.226E-05	
74873	Methyl Chl	1.078E-03	1.226E-05	
91203	Naphthalen	0.358	4.066E-03	
7664417	NH3	4.937	5.611E-02	
42603	NOX	2.049E-02	2.339E-06	
75445	Phosgene	1.078E-03	1.226E-05	
115071	Propylene	9.327E-02	1.060E-03	
16113	ROG	3.231E-04	3.689E-08	
100425	Styrene	1.020E-02	1.159E-04	
43101	TOG	3.231E-04	3.689E-08	
75694	TriClFluor	1.671E-03	1.899E-05	
51796	Urethane	0.306	3.478E-03	
75014	Vinyl Chlo	2.279E-03	2.589E-05	
7440666	Zinc	4.177E-02	4.747E-04	

Device ID 1066	1.20E-05	6.65E-03	6.76E-04	6.65E-03	1.20E-05	6.65E-03	6.76E-04	6.65E-03

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	1.420E-04	5.917E-06
	83329	Acenaphthe	1.420E-04	5.917E-06
	208968	Acenaphthy	1.420E-04	5.917E-06
	7429905	Aluminum	3.124	0.130
	71432	Benzene	1.619E-02	6.745E-04
	75252	Bromoform	1.193E-04	4.970E-06
	56235	CCl4	3.124E-04	1.302E-05
	7782505	Chlorine	1.306	5.443E-02
	67663	Chloroform	1.193E-04	4.970E-06
	7440508	Copper	1.562E-02	6.508E-04
	7647010	HCl	59.640	2.485
	7439965	Manganese	4.572E-05	1.905E-06
	74839	Methyl Bro	2.016E-04	8.402E-06
	74873	Methyl Chl	2.016E-04	8.402E-06
	91203	Naphthalen	1.420E-04	5.917E-06
	7664417	NH3	0.195	8.130E-03
	42603	NOX	4.402E-04	5.025E-08
	75445	Phosgene	2.016E-04	8.402E-06
	115071	Propylene	4.828E-04	2.012E-05
	16113	ROG	8.861E-06	1.012E-09
	43101	TOG	8.861E-06	1.012E-09
	75694	TriClFluor	3.124E-04	1.302E-05
	75014	Vinyl Chlo	4.260E-04	1.775E-05
	7440666	Zinc	7.810E-03	3.254E-04

Device ID 1068	5.72E-05	9.49E-02	3.21E-03	9.49E-02	5.71E-05	9.49E-02	3.21E-03	9.49E-02

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	6.750E-04	8.438E-05
	83329	Acenaphthe	6.750E-04	8.438E-05
	208968	Acenaphthy	6.750E-04	8.438E-05
	7429905	Aluminum	14.850	1.856
	71432	Benzene	7.695E-02	9.619E-03
	75252	Bromoform	5.670E-04	7.088E-05
	56235	CCl4	1.485E-03	1.856E-04
	7782505	Chlorine	6.210	0.776
	67663	Chloroform	5.670E-04	7.088E-05
	7440508	Copper	7.425E-02	9.281E-03

7647010	HCl	283.500	35.438	
7439965	Manganese	2.174E-04	2.717E-05	
74839	Methyl Bro	9.585E-04	1.198E-04	
74873	Methyl Chl	9.585E-04	1.198E-04	
91203	Naphthalen	6.750E-04	8.438E-05	
7664417	NH3	0.927	0.116	
42603	NOX	2.093E-03	2.389E-07	
75445	Phosgene	9.585E-04	1.198E-04	
115071	Propylene	2.295E-03	2.869E-04	
16113	ROG	4.212E-05	4.808E-09	
43101	TOG	4.212E-05	4.808E-09	
75694	TriClFluor	1.485E-03	1.856E-04	
75014	Vinyl Chlo	2.025E-03	2.531E-04	
7440666	Zinc	3.713E-02	4.641E-03	

Device ID	1072	1.68	0.32	9.68E-02	0.32	1.68	0.32	9.68E-02	0.32

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71556	1,1,1-TCA	1.360	4.250E-02
	79005	1,1,2TriCl	1.360	4.250E-02
	106990	1,3-Butadi	0.224	7.000E-03
	91576	2MeNaphtha	1.443	4.509E-02
	79469	2-Nitropro	0.880	2.750E-02
	119937	3,3'DiMeBe	4.965E-03	1.552E-04
	57976	7,12-DB[a]	2.317E-02	7.241E-04
	83329	Acenaphthe	8.275E-02	2.586E-03
	208968	Acenaphthy	8.275E-02	2.586E-03
	107028	Acrolein	0.168	5.250E-03
	7429905	Aluminum	2160.000	67.500
	56553	B[a]anthra	2.317E-02	7.241E-04
	71432	Benzene	1.650	5.155E-02
	92875	Benzidine	0.497	1.552E-02
	75252	Bromoform	0.544	1.700E-02
	7782505	Chlorine	368.000	11.500
	67663	Chloroform	0.544	1.700E-02
	76062	Chloropicr	0.880	2.750E-02
	7440508	Copper	4.320E-02	1.350E-03
	53703	D[a,h]anth	2.317E-02	7.241E-04
	74851	Ethylene	4.916	0.154
	7647010	HCl	304.000	9.500
	74908	HCN	54.880	1.715
	7439965	Manganese	2.665E-02	8.327E-04
	91203	Naphthalen	5.123	0.160
	7664417	NH3	168.659	5.271
	42603	NOX	5.508	6.288E-04
	95534	o-Toluidin	0.563	1.758E-02
	115071	Propylene	1.462	4.569E-02
	16113	ROG	4.480E-03	5.114E-07
	100425	Styrene	0.144	4.500E-03
	43101	TOG	4.480E-03	5.114E-07
	108883	Toluene	0.563	1.758E-02
	51796	Urethane	4.320	0.135

Device ID	1074	2.66E-03	1.09E-03	1.94E-04	1.14E-03	2.66E-03	1.09E-03	1.94E-04	1.14E-03

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	3.608E-04	3.960E-07
	56495	3-MeCholan	2.706E-05	2.970E-08
	57976	7,12-DB[a]	2.405E-04	2.640E-07

83329	Acenaphthe	2.706E-05	2.970E-08
208968	Acenaphthy	2.706E-05	2.970E-08
75070	Acetaldehy	4.660E-02	5.115E-05
107028	Acrolein	4.059E-02	4.455E-05
120127	Anthracene	3.608E-05	3.960E-08
7440382	Arsenic	3.007E-03	3.300E-06
56553	B[a]anthra	2.706E-05	2.970E-08
50328	B[a]P	2.405E-05	2.640E-08
205992	B[b]fluora	2.706E-05	2.970E-08
191242	B[g,h,i]pe	2.405E-05	2.640E-08
205823	B[j]fluora	2.706E-05	2.970E-08
7440393	Barium	6.614E-02	7.260E-05
71432	Benzene	8.719E-02	9.570E-05
7440417	Beryllium	1.804E-04	1.980E-07
7440439	Cadmium	1.654E-02	1.815E-05
7440473	Chromium	2.105E-02	2.310E-05
218019	Chrysene	2.706E-05	2.970E-08
42101	CO	4.585E-05	5.033E-08
7440484	Cobalt	1.263E-03	1.386E-06
7440508	Copper	1.278E-02	1.403E-05
53703	D[a,h]anth	2.405E-05	2.640E-08
25321226	DiClBenzen	1.804E-02	1.980E-05
100414	Ethyl Benz	0.104	1.139E-04
206440	Fluoranthe	4.510E-05	4.950E-08
86737	Fluorene	4.209E-05	4.620E-08
50000	Formaldehy	1.127	1.238E-03
110543	Hexane	6.915E-02	7.590E-05
193395	In[1,2,3-c	2.706E-05	2.970E-08
7439921	Lead	7.516E-03	8.250E-06
7439965	Manganese	5.712E-03	6.270E-06
7439976	Mercury	3.908E-03	4.290E-06
91203	Naphthalen	4.510E-03	4.950E-06
7440020	Nickel	3.157E-02	3.465E-05
42603	NOX	6.314E-02	6.930E-05
1150	PAHs-w/	6.013E-03	6.600E-06
85018	Phenanthre	2.556E-04	2.805E-07
11101	PM	5.712E-02	6.270E-05
85101	PM10	5.712E-02	6.270E-05
88101	PM2.5	5.712E-02	6.270E-05
115071	Propylene	7.967	8.745E-03
129000	Pyrene	7.516E-05	8.250E-08
7782492	Selenium	3.608E-04	3.960E-07
42401	SOX	4.510E-03	4.950E-06
43101	TOG	8.268E-02	9.075E-05
108883	Toluene	0.398	4.373E-04
7440622	Vanadium	3.457E-02	3.795E-05
43104	VOC	4.134E-02	4.538E-05
1330207	Xylenes	0.296	3.251E-04
7440666	Zinc	0.436	4.785E-04

Device ID	1075	7.72E-03	7.49E-04	5.63E-04	8.87E-04	7.70E-03	7.49E-04	5.63E-04	8.87E-04

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	1.047E-03	2.722E-07
	56495	3-MeCholan	7.851E-05	2.041E-08
	57976	7,12-DB[a]	6.979E-04	1.814E-07
	83329	Acenaphthe	7.851E-05	2.041E-08
	208968	Acenaphthy	7.851E-05	2.041E-08
	75070	Acetaldehy	0.135	3.515E-05

107028	Acrolein	0.118	3.062E-05
120127	Anthracene	1.047E-04	2.722E-08
7440382	Arsenic	8.723E-03	2.268E-06
56553	B[a]anthra	7.851E-05	2.041E-08
50328	B[a]P	6.979E-05	1.814E-08
205992	B[b]fluora	7.851E-05	2.041E-08
191242	B[g,h,i]pe	6.979E-05	1.814E-08
205823	B[j]fluora	7.851E-05	2.041E-08
7440393	Barium	0.192	4.990E-05
71432	Benzene	0.253	6.577E-05
7440417	Beryllium	5.234E-04	1.361E-07
7440439	Cadmium	4.798E-02	1.247E-05
7440473	Chromium	6.106E-02	1.588E-05
218019	Chrysene	7.851E-05	2.041E-08
42101	CO	0.289	7.504E-05
7440484	Cobalt	3.664E-03	9.526E-07
7440508	Copper	3.707E-02	9.639E-06
53703	D[a,h]anth	6.979E-05	1.814E-08
25321226	DiClBenzen	5.234E-02	1.361E-05
100414	Ethyl Benz	0.301	7.825E-05
206440	Fluoranthe	1.308E-04	3.402E-08
86737	Fluorene	1.221E-04	3.175E-08
50000	Formaldehy	3.271	8.505E-04
110543	Hexane	0.201	5.216E-05
193395	In[1,2,3-c	7.851E-05	2.041E-08
7439921	Lead	2.181E-02	5.670E-06
7439965	Manganese	1.657E-02	4.309E-06
7439976	Mercury	1.134E-02	2.948E-06
91203	Naphthalen	1.308E-02	3.402E-06
7440020	Nickel	9.159E-02	2.381E-05
42603	NOX	0.215	5.593E-05
1150	PAHs-w/	1.745E-02	4.536E-06
85018	Phenanthre	7.415E-04	1.928E-07
11101	PM	0.166	4.309E-05
85101	PM10	0.166	4.309E-05
88101	PM2.5	0.166	4.309E-05
115071	Propylene	23.117	6.010E-03
129000	Pyrene	2.181E-04	5.670E-08
7782492	Selenium	1.047E-03	2.722E-07
42401	SOX	1.308E-02	3.402E-06
43101	TOG	0.240	6.237E-05
108883	Toluene	1.156	3.005E-04
7440622	Vanadium	0.100	2.608E-05
43104	VOC	0.120	3.119E-05
1330207	Xylenes	0.859	2.234E-04
7440666	Zinc	1.265	3.289E-04

Device ID	2204	7.06E-04	1.03E-04	1.21E-06	1.03E-04	7.04E-04	1.03E-04	1.21E-06	1.03E-04

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	100414	Ethyl Benz	12.218	0.394
	78933	MEK	5.081	0.164
	108101	MIBK	0.514	1.657E-02
	11101	PM	9.772E-04	3.150E-05
	85101	PM10	9.772E-04	3.150E-05
	88101	PM2.5	9.772E-04	3.150E-05
	16113	ROG	4.686E-02	1.511E-03
	43101	TOG	4.686E-02	1.511E-03
	108883	Toluene	3.039	9.798E-02

25551137	TriMeBenzn	1.693E-02	5.456E-04	
43104	VOC	4.686E-02	1.511E-03	
1330207	Xylenes	5.150	0.166	

Device ID 2952	4.11E-04	5.55E-02	1.56E-04	5.56E-02	4.10E-04	5.55E-02	1.56E-04	5.56E-02

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	7440439	Cadmium	2.603E-03	2.440E-04
	7440473	Chromium	2.630E-02	2.466E-03
	7440508	Copper	2.356E-03	2.209E-04
	7439921	Lead	2.356E-03	2.209E-04
	7439965	Manganese	2.630E-02	2.466E-03
	7440020	Nickel	2.630E-02	2.466E-03
	11101	PM	2.740E-03	0.514
	85101	PM10	2.740E-03	0.514
	1175	Silica, Cr	2.192	0.206

Device ID 3062	2.10E-04	5.30E-06	5.01E-06	5.53E-06	2.10E-04	5.30E-06	5.01E-06	5.53E-06

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71432	Benzene	0.277	3.167E-05
	100414	Ethyl Benz	0.248	2.834E-05
	1634044	Me t-Butyl	1.707	1.948E-04
	16113	ROG	2.813E-02	3.211E-06
	43101	TOG	2.813E-02	3.211E-06
	108883	Toluene	1.241	1.417E-04
	43104	VOC	1.701E-02	1.942E-06
	1330207	Xylenes	0.372	4.251E-05

Device ID 3131	1.03E-03	6.90E-04	4.73E-04	9.12E-04	1.02E-03	6.90E-04	4.73E-04	9.12E-04

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71556	1,1,1-TCA	4.335E-03	2.152E-05
	79005	1,1,2TriCl	4.335E-03	2.152E-05
	106990	1,3-Butadi	0.105	5.112E-05
	35822469	1-4,6-8HpC	1.068E-09	5.301E-12
	67562394	1-4,6-8HpC	1.871E-09	9.289E-12
	70648269	1-4,7,8HxC	4.973E-10	2.469E-12
	3268879	1-8OctaCDD	3.030E-09	1.504E-11
	39001020	1-8OctaCDF	1.474E-09	7.318E-12
	121142	2,4-DiNitT	9.582E-05	4.758E-07
	606202	2,6-DiNitT	1.871E-05	9.289E-08
	60851345	2-4,6-8HxC	4.225E-10	2.098E-12
	91576	2MeNaphtha	1.807E-02	2.168E-05
	79469	2-Nitropro	2.805E-03	1.393E-05
	83329	Acenaphthe	8.681E-04	1.528E-07
	208968	Acenaphthy	4.370E-03	4.953E-07
	75070	Acetaldehy	4.172E-02	4.692E-06
	107028	Acrolein	1.104E-02	1.514E-05
	107131	Acrylonitr	4.134E-03	2.053E-05
	7429905	Aluminum	7.562	3.755E-02
	120127	Anthracene	1.321E-03	1.508E-07
	56553	B[a]anthra	3.463E-04	3.954E-08
	50328	B[a]P	3.540E-04	4.041E-08
	205992	B[b]fluora	5.595E-04	6.387E-08
	192972	B[e]pyrene	1.713E-04	1.955E-08
	191242	B[g,h,i]pe	2.626E-04	2.998E-08
	207089	B[k]fluora	7.612E-05	8.689E-09
	71432	Benzene	0.599	1.870E-03

	75252	Bromoform	1.760E-03	8.738E-06
	56235	CCl4	6.772E-05	3.362E-07
	7782505	Chlorine	1.456	7.230E-03
	67663	Chloroform	1.760E-03	8.738E-06
	76062	Chloropicr	2.805E-03	1.393E-05
	218019	Chrysene	3.197E-04	3.650E-08
	42101	CO	2.360E-03	1.172E-05
	7440508	Copper	3.529E-03	1.750E-05
	98828	Cumene	1.369E-04	6.797E-07
	110827	Cyclohexan	3.422E-03	1.699E-05
	53703	D[a,h]anth	3.083E-05	3.519E-09
	132649	Dibenzofur	9.125E-04	4.531E-06
	100414	Ethyl Benz	3.256E-02	8.609E-05
	74851	Ethylene	0.190	9.443E-04
	151564	Ethyleneim	4.134E-03	2.053E-05
	206440	Fluoranthe	1.530E-03	1.747E-07
	86737	Fluorene	2.676E-03	3.054E-07
	50000	Formaldehy	0.156	1.786E-05
	111308	Glutaraldh	6.114E-04	3.036E-06
	7647010	HCl	13.897	6.900E-02
	74908	HCN	0.488	2.423E-03
	110543	Hexane	8.669E-03	4.304E-05
	193395	In[1,2,3-c	2.246E-04	2.563E-08
	7439921	Lead	2.588E-06	2.954E-10
	7439965	Manganese	7.609E-04	3.778E-06
	74839	Methyl Bro	4.371E-05	2.170E-07
	74873	Methyl Chl	4.371E-05	2.170E-07
	91203	Naphthalen	6.397E-02	8.309E-05
	7664417	NH3	0.531	2.636E-03
	42603	NOX	7.579E-03	3.738E-05
	198550	Perylene	9.896E-05	1.130E-08
	85018	Phenanthre	5.595E-03	6.387E-07
	75445	Phosgene	4.371E-05	2.170E-07
	11101	PM	1.836E-03	9.118E-06
	85101	PM10	1.836E-03	9.118E-06
	88101	PM2.5	1.836E-03	9.118E-06
	115071	Propylene	0.388	1.862E-04
	129000	Pyrene	1.519E-03	1.734E-07
	16113	ROG	5.230E-03	1.871E-05
	42401	SOX	2.855E-07	1.417E-09
	100425	Styrene	0.776	3.854E-03
	43101	TOG	5.230E-03	1.871E-05
	108883	Toluene	0.178	5.664E-04
	75694	TriClFluor	6.772E-05	3.362E-07
	51796	Urethane	1.377E-02	6.837E-05
	75014	Vinyl Chlo	9.234E-05	4.585E-07
	1330207	Xylenes	5.366E-02	6.126E-06
	7440666	Zinc	1.701E-03	8.406E-06

Device ID	3132	6.18E-04	8.47E-04	5.41E-04	1.14E-03	6.16E-04	8.47E-04	5.41E-04	1.14E-03

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	106990	1,3-Butadi	0.103	2.410E-04
	91576	2MeNaphtha	7.639E-05	1.661E-07
	56495	3-MeCholan	3.971E-07	9.278E-10
	57976	7,12-DB[a]	3.530E-06	8.247E-09
	83329	Acenaphthe	7.150E-05	1.661E-07
	208968	Acenaphthy	7.150E-05	1.661E-07
	75070	Acetaldehy	0.159	3.705E-04

107028	Acrolein	0.107	2.500E-04
120127	Anthracene	5.295E-07	1.237E-09
7440382	Arsenic	2.707E-04	5.293E-07
56553	B[a]anthra	3.971E-07	9.278E-10
50328	B[a]P	3.530E-07	8.247E-10
205992	B[b]fluora	3.971E-07	9.278E-10
191242	B[g,h,i]pe	3.530E-07	8.247E-10
205823	B[j]fluora	3.971E-07	9.278E-10
7440393	Barium	9.707E-04	2.268E-06
71432	Benzene	8.810E-02	2.050E-04
7440417	Beryllium	2.647E-06	6.185E-09
7440439	Cadmium	2.453E-04	5.670E-07
7782505	Chlorine	1.308	3.057E-03
7440473	Chromium	3.124E-04	7.216E-07
218019	Chrysene	3.971E-07	9.278E-10
42101	CO	2.362E-03	5.492E-06
7440484	Cobalt	1.853E-05	4.330E-08
7440508	Copper	1.947E-04	4.381E-07
18540299	Cr(VI)	1.783E-07	4.167E-10
53703	D[a,h]anth	3.530E-07	8.247E-10
25321226	DiClBenzen	2.647E-04	6.185E-07
100414	Ethyl Benz	1.056E-02	2.365E-05
206440	Fluoranthe	6.618E-07	1.546E-09
86737	Fluorene	6.177E-07	1.443E-09
50000	Formaldehy	0.476	1.109E-03
7647010	HCl	31.284	7.309E-02
74908	HCN	9.755E-02	2.279E-04
110543	Hexane	2.868E-04	6.701E-07
193395	In[1,2,3-c	3.971E-07	9.278E-10
7439921	Lead	1.103E-04	2.577E-07
7439965	Manganese	1.067E-04	1.959E-07
7439976	Mercury	5.736E-05	1.340E-07
91203	Naphthalen	2.954E-02	6.870E-05
7664417	NH3	9.769E-02	2.283E-04
7440020	Nickel	4.655E-04	1.082E-06
42603	NOX	1.244E-02	2.112E-05
1150	PAHs-w/	3.383E-02	7.883E-05
85018	Phenanthre	3.750E-06	8.762E-09
108952	Phenol	1.591E-02	3.716E-05
11101	PM	2.269E-03	5.211E-06
85101	PM10	2.269E-03	5.211E-06
88101	PM2.5	2.269E-03	5.211E-06
115071	Propylene	3.382E-03	7.902E-06
129000	Pyrene	1.103E-06	2.577E-09
16113	ROG	3.092E-03	5.450E-06
7782492	Selenium	5.295E-06	1.237E-08
42401	SOX	1.977E-03	4.225E-06
100425	Styrene	1.783E-02	4.167E-05
43101	TOG	3.164E-03	5.450E-06
108883	Toluene	3.401E-02	7.545E-05
7440622	Vanadium	5.074E-04	1.186E-06
1330207	Xylenes	2.555E-02	5.969E-05
7440666	Zinc	6.836E-03	1.495E-05

Device ID	3133	9.44E-03	6.03E-02	3.91E-04	6.03E-02	9.42E-03	6.03E-02	3.91E-04	6.03E-02

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71556	1,1,1-TCA	5.120E-07	7.529E-09
	106990	1,3-Butadi	1.665	2.446E-02

35822469	1-4,6-8HpC	1.825E-10	2.684E-12
67562394	1-4,6-8HpC	3.198E-10	4.703E-12
70648269	1-4,7,8HxC	8.502E-11	1.250E-12
3268879	1-8OctaCDD	5.179E-10	7.616E-12
39001020	1-8OctaCDF	2.519E-10	3.705E-12
540841	2,2,4TriMe	5.198E-05	7.644E-07
121142	2,4-DiNitT	1.821E-05	2.677E-07
606202	2,6-DiNitT	5.023E-06	7.387E-08
60851345	2-4,6-8HxC	7.223E-11	1.062E-12
91576	2MeNaphtha	3.042E-05	4.474E-07
119937	3,3'DiMeBe	1.825E-06	2.684E-08
83329	Acenaphthe	3.042E-05	4.474E-07
208968	Acenaphthy	3.042E-05	4.474E-07
75070	Acetaldehy	2.557	3.760E-02
107028	Acrolein	1.726	2.537E-02
107131	Acrylonitr	7.067E-04	1.039E-05
107051	AllylChlor	3.600E-07	5.294E-09
7429905	Aluminum	0.308	4.535E-03
7440360	Antimony	2.239E-03	3.293E-05
7440382	Arsenic	3.653E-03	5.372E-05
7440393	Barium	4.800E-06	7.059E-08
71432	Benzene	1.484	2.080E-02
92875	Benzidine	1.825E-06	2.684E-08
111444	Bis(2ClEth	6.200E-08	9.118E-10
85687	ButylBenzP	8.000E-06	1.176E-07
7440439	Cadmium	4.275E-05	6.286E-07
7782505	Chlorine	3.180E-06	4.676E-08
7440473	Chromium	5.940E-05	8.343E-07
42101	CO	1.788E-04	4.177E-07
7440508	Copper	1.406E-04	1.714E-06
18540299	Cr(VI)	3.410E-06	4.229E-08
98828	Cumene	2.853E-05	4.195E-07
110827	Cyclohexan	5.850E-04	8.603E-06
117817	Di2-EthHxP	8.000E-06	1.176E-07
132649	Dibenzofur	1.560E-04	2.294E-06
79447	DiMeCarbam	3.600E-07	5.294E-09
100414	Ethyl Benz	0.166	2.400E-03
75003	Ethyl Chlo	6.200E-08	9.118E-10
74851	Ethylene	3.112E-02	4.577E-04
151564	Ethyleneim	7.067E-04	1.039E-05
50000	Formaldehy	7.655	0.113
111308	Glutaraldh	1.045E-04	1.537E-06
7647010	HCl	3.400E-08	5.000E-10
74908	HCN	5.831E-02	8.575E-04
67721	HexaClEtha	4.800E-08	7.059E-10
110543	Hexane	2.642E-03	3.885E-05
78591	Isophorone	7.001E-05	1.030E-06
7439921	Lead	3.664E-03	5.389E-05
7439965	Manganese	1.592E-02	2.342E-04
74839	Methyl Bro	3.400E-08	5.000E-10
74873	Methyl Chl	3.400E-08	5.000E-10
91203	Naphthalen	0.474	6.972E-03
7664417	NH3	0.100	1.474E-03
7440020	Nickel	3.653E-05	5.372E-07
42603	NOX	4.879E-02	1.111E-04
95534	o-Toluidin	1.095E-04	1.610E-06
1150	PAHs-w/	0.544	8.001E-03
127184	Perc	4.800E-08	7.059E-10
108952	Phenol	0.256	3.772E-03

11101	PM	6.218E-04	1.453E-06	
85101	PM10	6.218E-04	1.453E-06	
88101	PM2.5	6.218E-04	1.453E-06	
115071	Propylene	5.883E-03	8.651E-05	
16113	ROG	3.772E-02	8.787E-05	
42401	SOX	2.720E-03	6.356E-06	
100425	Styrene	0.420	4.229E-03	
79345	TetraClEth	4.800E-08	7.059E-10	
43101	TOG	3.772E-02	8.787E-05	
108883	Toluene	0.540	7.658E-03	
75014	Vinyl Chlo	4.600E-08	6.765E-10	
1330207	Xylenes	0.412	6.058E-03	
7440666	Zinc	7.074E-03	1.040E-04	

Device ID	3139	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	43101	TOG	6.222E-02	7.760E-05
	43104	VOC	6.222E-02	7.760E-05

Device ID	3141	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	11101	PM	1.770E-03	2.021E-07
	85101	PM10	1.770E-03	2.021E-07
	88101	PM2.5	1.770E-03	2.021E-07

Device ID	3142	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	43101	TOG	5.332E-03	7.760E-05
	43104	VOC	5.332E-03	7.760E-05

Device ID	3147	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	43101	TOG	4.273E-04	8.536E-04
	43104	VOC	4.273E-04	8.536E-04

Device ID	3148	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	43101	TOG	4.273E-05	8.536E-04
	43104	VOC	4.273E-05	8.536E-04

Device ID	3156	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	11101	PM	2.355E-02	2.688E-06
	85101	PM10	2.355E-02	2.688E-06
	88101	PM2.5	2.355E-02	2.688E-06

Device ID	3159	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	43101	TOG	4.656E-04	8.536E-04
	43104	VOC	4.656E-04	8.536E-04

Device ID	3161	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	43101	TOG	0.190	7.760E-05
	43104	VOC	0.190	7.760E-05

Device ID	3162	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	43101	TOG	0.308	7.760E-05
	43104	VOC	0.308	7.760E-05

Device ID	3277	9.54E-04	6.16E-03	4.41E-05	6.17E-03	9.51E-04	6.16E-03	4.41E-05	6.17E-03

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	106990	1,3-Butadi	0.161	2.469E-03
	35822469	1-4,6-8HpC	7.991E-11	1.229E-12
	67562394	1-4,6-8HpC	1.400E-10	2.154E-12
	70648269	1-4,7,8HxC	3.722E-11	5.727E-13
	3268879	1-8OctaCDD	2.268E-10	3.489E-12
	39001020	1-8OctaCDF	1.103E-10	1.697E-12
	540841	2,2,4TriMe	3.427E-05	5.273E-07
	121142	2,4-DiNitT	8.507E-06	1.309E-07
	606202	2,6-DiNitT	2.735E-06	4.208E-08
	60851345	2-4,6-8HxC	3.162E-11	4.865E-13
	91576	2MeNaphtha	2.315E-05	3.561E-07
	119937	3,3'DiMeBe	1.389E-06	2.136E-08
	57976	7,12-DB[a]	2.492E-07	3.834E-09
	83329	Acenaphthe	2.315E-05	3.561E-07
	208968	Acenaphthy	2.315E-05	3.561E-07
	75070	Acetaldehy	0.247	3.796E-03
	107028	Acrolein	0.167	2.562E-03
	107131	Acrylonitr	3.094E-04	4.760E-06
	7429905	Aluminum	2.565E-02	3.946E-04
	7440360	Antimony	1.638E-03	2.520E-05
	7440382	Arsenic	3.525E-04	5.423E-06
	56553	B[a]anthra	2.492E-07	3.834E-09
	71432	Benzene	0.168	2.100E-03
	92875	Benzidine	6.675E-06	1.027E-07
	7440439	Cadmium	4.125E-06	6.346E-08
	7440473	Chromium	5.475E-06	8.423E-08
	42101	CO	1.725E-05	4.030E-08
	7440508	Copper	1.125E-05	1.731E-07
	18540299	Cr(VI)	2.775E-07	4.269E-09
	98828	Cumene	1.025E-05	1.576E-07
	110827	Cyclohexan	2.561E-04	3.940E-06
	53703	D[a,h]anth	2.492E-07	3.834E-09
	132649	Dibenzofur	6.830E-05	1.051E-06
	100414	Ethyl Benz	1.706E-02	2.423E-04
	74851	Ethylene	1.368E-02	2.104E-04
	151564	Ethyleneim	3.094E-04	4.760E-06
	50000	Formaldehy	0.739	1.137E-02
	111308	Glutaraldh	4.576E-05	7.040E-07
	74908	HCN	2.343E-02	3.604E-04
	110543	Hexane	1.495E-03	2.299E-05
	7439921	Lead	2.662E-03	4.095E-05
	7439965	Manganese	1.163E-02	1.790E-04
	91203	Naphthalen	4.582E-02	7.038E-04
	7664417	NH3	5.526E-02	8.502E-04
	7440020	Nickel	3.525E-06	5.423E-08

42603	NOX	5.204E-03	1.072E-05	
95534	o-Toluidin	8.617E-05	1.326E-06	
1150	PAHs-w/	5.250E-02	8.077E-04	
108952	Phenol	2.475E-02	3.808E-04	
11101	PM	6.000E-05	1.402E-07	
85101	PM10	6.000E-05	1.402E-07	
88101	PM2.5	6.000E-05	1.402E-07	
115071	Propylene	2.584E-03	3.975E-05	
16113	ROG	3.681E-03	8.480E-06	
42401	SOX	2.625E-04	6.133E-07	
100425	Styrene	8.581E-02	8.932E-04	
43101	TOG	3.681E-03	8.480E-06	
108883	Toluene	5.887E-02	7.731E-04	
1330207	Xylenes	3.975E-02	6.115E-04	
7440666	Zinc	6.825E-04	1.050E-05	
Device ID 3315	2.34E-04	1.30E-04	1.73E-05	1.34E-04	2.34E-04	1.30E-04	1.73E-05	1.34E-04

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	3.293E-05	5.040E-08
	56495	3-MeCholan	2.470E-06	3.780E-09
	57976	7,12-DB[a]	2.195E-05	3.360E-08
	83329	Acenaphthe	2.470E-06	3.780E-09
	208968	Acenaphthy	2.470E-06	3.780E-09
	75070	Acetaldehy	5.900E-03	9.030E-06
	107028	Acrolein	3.704E-03	5.670E-06
	120127	Anthracene	3.293E-06	5.040E-09
	7440382	Arsenic	2.744E-04	4.200E-07
	56553	B[a]anthra	2.470E-06	3.780E-09
	50328	B[a]P	2.195E-06	3.360E-09
	205992	B[b]fluora	2.470E-06	3.780E-09
	191242	B[g,h,i]pe	2.195E-06	3.360E-09
	205823	B[j]fluora	2.470E-06	3.780E-09
	7440393	Barium	6.037E-03	9.240E-06
	71432	Benzene	1.098E-02	1.680E-05
	7440417	Beryllium	1.646E-05	2.520E-08
	7440439	Cadmium	1.509E-03	2.310E-06
	7440473	Chromium	1.921E-03	2.940E-06
	218019	Chrysene	2.470E-06	3.780E-09
	42101	CO	5.762E-02	8.820E-05
	7440484	Cobalt	1.152E-04	1.764E-07
	7440508	Copper	1.166E-03	1.785E-06
	53703	D[a,h]anth	2.195E-06	3.360E-09
	25321226	DiClBenzen	1.646E-03	2.520E-06
	100414	Ethyl Benz	1.303E-02	1.995E-05
	206440	Fluoranthe	4.116E-06	6.300E-09
	86737	Fluorene	3.842E-06	5.880E-09
	50000	Formaldehy	2.332E-02	3.570E-05
	110543	Hexane	8.644E-03	1.323E-05
	193395	In[1,2,3-c	2.470E-06	3.780E-09
	7439921	Lead	6.860E-04	1.050E-06
	7439965	Manganese	5.214E-04	7.980E-07
	7439976	Mercury	3.567E-04	5.460E-07
	91203	Naphthalen	4.116E-04	6.300E-07
	7440020	Nickel	2.881E-03	4.410E-06
	42603	NOX	6.860E-02	1.050E-04
	1150	PAHs-w/	5.488E-04	8.400E-07
	85018	Phenanthre	2.332E-05	3.570E-08
	11101	PM	5.214E-03	7.980E-06

	85101	PM10	5.214E-03	7.980E-06					
	88101	PM2.5	5.214E-03	7.980E-06					
	115071	Propylene	1.003	1.535E-03					
	129000	Pyrene	6.860E-06	1.050E-08					
	7782492	Selenium	3.293E-05	5.040E-08					
	42401	SOX	4.116E-04	6.300E-07					
	43101	TOG	7.546E-03	1.155E-05					
	108883	Toluene	5.022E-02	7.686E-05					
	7440622	Vanadium	3.156E-03	4.830E-06					
	43104	VOC	3.773E-03	5.775E-06					
	1330207	Xylenes	3.732E-02	5.712E-05					
	7440666	Zinc	3.979E-02	6.090E-05					
Device ID	3316	6.98E-05	1.46E-04	5.16E-06	1.48E-04	6.97E-05	1.46E-04	5.16E-06	1.48E-04

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	9.816E-06	5.688E-08
	56495	3-MeCholan	7.362E-07	4.266E-09
	57976	7,12-DB[a]	6.544E-06	3.792E-08
	83329	Acenaphthe	7.362E-07	4.266E-09
	208968	Acenaphthy	7.362E-07	4.266E-09
	75070	Acetaldehy	1.759E-03	1.019E-05
	107028	Acrolein	1.104E-03	6.399E-06
	120127	Anthracene	9.816E-07	5.688E-09
	7440382	Arsenic	8.180E-05	4.740E-07
	56553	B[a]anthra	7.362E-07	4.266E-09
	50328	B[a]P	6.544E-07	3.792E-09
	205992	B[b]fluora	7.362E-07	4.266E-09
	191242	B[g,h,i]pe	6.544E-07	3.792E-09
	205823	B[j]fluora	7.362E-07	4.266E-09
	7440393	Barium	1.800E-03	1.043E-05
	71432	Benzene	3.272E-03	1.896E-05
	7440417	Beryllium	4.908E-06	2.844E-08
	7440439	Cadmium	4.499E-04	2.607E-06
	7440473	Chromium	5.726E-04	3.318E-06
	218019	Chrysene	7.362E-07	4.266E-09
	42101	CO	5.651E-03	3.275E-05
	7440484	Cobalt	3.436E-05	1.991E-07
	7440508	Copper	3.477E-04	2.015E-06
	53703	D[a,h]anth	6.544E-07	3.792E-09
	25321226	DiClBenzen	4.908E-04	2.844E-06
	100414	Ethyl Benz	3.886E-03	2.252E-05
	206440	Fluoranthe	1.227E-06	7.110E-09
	86737	Fluorene	1.145E-06	6.636E-09
	50000	Formaldehy	6.953E-03	4.029E-05
	110543	Hexane	2.577E-03	1.493E-05
	193395	In[1,2,3-c	7.362E-07	4.266E-09
	7439921	Lead	2.045E-04	1.185E-06
	7439965	Manganese	1.554E-04	9.006E-07
	7439976	Mercury	1.063E-04	6.162E-07
	91203	Naphthalen	1.227E-04	7.110E-07
	7440020	Nickel	8.589E-04	4.977E-06
	42603	NOX	1.395E-03	8.085E-06
	1150	PAHs-w/	1.636E-04	9.480E-07
	85018	Phenanthre	6.953E-06	4.029E-08
	11101	PM	1.554E-03	9.006E-06
	85101	PM10	1.554E-03	9.006E-06
	88101	PM2.5	1.554E-03	9.006E-06
	115071	Propylene	0.299	1.732E-03

129000	Pyrene	2.045E-06	1.185E-08	
7782492	Selenium	9.816E-06	5.688E-08	
42401	SOX	1.227E-04	7.110E-07	
43101	TOG	2.250E-03	1.304E-05	
108883	Toluene	1.497E-02	8.674E-05	
7440622	Vanadium	9.407E-04	5.451E-06	
43104	VOC	1.125E-03	6.518E-06	
1330207	Xylenes	1.112E-02	6.446E-05	
7440666	Zinc	1.186E-02	6.873E-05	

Device ID	3570	5.14E-04	1.29E-05	1.22E-05	1.35E-05	5.12E-04	1.29E-05	1.22E-05	1.35E-05

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71432	Benzene	0.677	7.729E-05
	100414	Ethyl Benz	0.606	6.917E-05
	1634044	Me t-Butyl	4.166	4.756E-04
	16113	ROG	6.927E-02	7.838E-06
	43101	TOG	6.927E-02	7.838E-06
	108883	Toluene	3.030	3.459E-04
	43104	VOC	4.212E-02	4.740E-06
	1330207	Xylenes	0.909	1.038E-04

Device ID	4897	4.60E-04	7.75E-03	1.43E-05	7.75E-03	4.59E-04	7.75E-03	1.43E-05	7.75E-03

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71432	Benzene	0.665	4.651E-02
	42101	CO	0.212	1.485E-02
	100414	Ethyl Benz	0.254	1.779E-02
	110543	Hexane	0.581	4.063E-02
	42603	NOX	5.498E-03	3.845E-04
	11101	PM	7.681E-04	5.371E-05
	85101	PM10	7.681E-04	5.371E-05
	88101	PM2.5	7.681E-04	5.371E-05
	7782492	Selenium	1.132	7.915E-02
	42401	SOX	2.862E-04	2.001E-05
	43101	TOG	1.110E-02	7.765E-04
	43104	VOC	1.110E-02	7.765E-04

Device ID	4898	2.61E-04	0.00E+00	3.86E-07	3.86E-07	2.60E-04	0.00E+00	3.86E-07	3.86E-07

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	3.118E-04	6.236E-03
	9901	DieselExhP	3.760E-02	0.752
	42603	NOX	1.447E-03	2.895E-02
	11101	PM	1.880E-05	3.760E-04
	85101	PM10	1.880E-05	3.760E-04
	88101	PM2.5	1.880E-05	3.760E-04
	42401	SOX	5.030E-07	1.006E-05
	43101	TOG	2.953E-05	5.906E-04
	43104	VOC	2.754E-05	5.509E-04

Device ID	4899	1.36E-03	0.00E+00	2.01E-06	2.01E-06	1.35E-03	0.00E+00	2.01E-06	2.01E-06

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	2.091E-04	1.046E-03
	9901	DieselExhP	0.196	0.980
	42603	NOX	9.615E-04	4.807E-03
	11101	PM	9.799E-05	4.900E-04
	85101	PM10	9.799E-05	4.900E-04

		88101	PM2.5	9.799E-05	4.900E-04					
		42401	SOX	4.305E-07	2.153E-06					
		43101	TOG	1.011E-04	5.053E-04					
		43104	VOC	7.688E-05	3.844E-04					
Device ID	5156	4.71E-02		0.14	6.80E-04	0.14	4.70E-02	0.14	6.80E-04	0.14

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	106990	1,3-Butadi	7.500	0.208
	91576	2MeNaphtha	1.080	3.000E-02
	83329	Acenaphthe	6.600E-02	1.833E-03
	208968	Acenaphthy	0.342	9.500E-03
	75070	Acetaldehy	3.240	9.000E-02
	107028	Acrolein	0.630	1.750E-02
	120127	Anthracene	0.104	2.892E-03
	56553	B[a]anthra	2.730E-02	7.583E-04
	50328	B[a]P	2.790E-02	7.750E-04
	205992	B[b]fluora	4.410E-02	1.225E-03
	192972	B[e]pyrene	1.350E-02	3.750E-04
	191242	B[g,h,i]pe	2.070E-02	5.750E-04
	207089	B[k]fluora	6.000E-03	1.667E-04
	71432	Benzene	17.550	0.488
	218019	Chrysene	2.520E-02	7.000E-04
	42101	CO	0.186	5.167E-03
	7440508	Copper	4.200E-04	1.167E-05
	53703	D[a,h]anth	2.430E-03	6.750E-05
	100414	Ethyl Benz	1.200	3.333E-02
	206440	Fluoranthe	0.121	3.350E-03
	86737	Fluorene	2.109	5.858E-02
	50000	Formaldehy	12.330	0.343
	193395	In[1,2,3-c	1.770E-02	4.917E-04
	7439921	Lead	2.040E-04	5.667E-06
	91203	Naphthalen	3.723	0.103
	42603	NOX	4.050E-03	1.125E-04
	198550	Perylene	7.800E-03	2.167E-04
	85018	Phenanthre	0.441	1.225E-02
	11101	PM	0.145	4.021E-03
	85101	PM10	0.145	4.021E-03
	88101	PM2.5	0.145	4.021E-03
	115071	Propylene	27.630	0.768
	129000	Pyrene	0.120	3.325E-03
	16113	ROG	0.297	8.250E-03
	42401	SOX	2.250E-05	6.250E-07
	43101	TOG	0.297	8.250E-03
	108883	Toluene	5.070	0.141
	1330207	Xylenes	4.230	0.118
	7440666	Zinc	6.300E-04	1.750E-05

Device ID	7890	6.56E-02		0.33	2.66E-03	0.33	6.54E-02	0.33	2.66E-03	0.33

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	106990	1,3-Butadi	11.638	0.134
	540841	2,2,4TriMe	4.197E-06	4.824E-08
	121142	2,4-DiNitT	1.635E-07	1.879E-09
	606202	2,6-DiNitT	1.635E-07	1.879E-09
	91576	2MeNaphtha	2.725E-06	3.132E-08
	119937	3,3'DiMeBe	1.635E-07	1.879E-09
	83329	Acenaphthe	2.725E-06	3.132E-08
	208968	Acenaphthy	2.725E-06	3.132E-08

75070	Acetaldehy	17.892	0.206	
107028	Acrolein	12.073	0.139	
7440360	Antimony	2.006E-04	2.305E-06	
7440382	Arsenic	2.556E-02	2.938E-04	
71432	Benzene	9.898	0.114	
92875	Benzidine	1.635E-07	1.879E-09	
7440439	Cadmium	2.991E-04	3.438E-06	
7440473	Chromium	3.970E-04	4.563E-06	
42101	CO	1.251E-03	2.922E-06	
7440508	Copper	8.158E-04	9.377E-06	
18540299	Cr(VI)	2.012E-05	2.313E-07	
100414	Ethyl Benz	1.142	1.313E-02	
74851	Ethylene	4.251E-05	4.886E-07	
50000	Formaldehy	53.568	0.616	
110543	Hexane	1.036E-04	1.190E-06	
7439921	Lead	3.259E-04	3.746E-06	
7439965	Manganese	1.422E-03	1.635E-05	
91203	Naphthalen	3.317	3.813E-02	
7664417	NH3	3.744E-03	4.304E-05	
7440020	Nickel	2.556E-04	2.938E-06	
42603	NOX	0.333	3.823E-03	
95534	o-Toluidin	9.810E-06	1.128E-07	
1150	PAHs-w/	3.807	4.376E-02	
108952	Phenol	1.795	2.063E-02	
11101	PM	4.351E-03	5.001E-05	
85101	PM10	4.351E-03	5.001E-05	
88101	PM2.5	4.351E-03	5.001E-05	
115071	Propylene	1.090E-05	1.253E-07	
16113	ROG	0.263	3.025E-03	
42401	SOX	1.903E-02	4.447E-05	
100425	Styrene	2.012	2.313E-02	
43101	TOG	0.263	3.025E-03	
108883	Toluene	3.644	4.188E-02	
1330207	Xylenes	2.882	3.313E-02	
7440666	Zinc	4.949E-02	5.688E-04	

Device ID 7945	1.65E-02	0.00E+00	2.45E-05	2.45E-05	1.65E-02	0.00E+00	2.45E-05	2.45E-05

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	2.540E-03	4.233E-04
	9901	DieselExhP	2.380	0.397
	42603	NOX	1.168E-02	1.946E-03
	11101	PM	1.190E-03	1.984E-04
	85101	PM10	1.190E-03	1.984E-04
	88101	PM2.5	1.190E-03	1.984E-04
	42401	SOX	5.229E-06	8.715E-07
	43101	TOG	1.228E-03	2.046E-04
	43104	VOC	9.338E-04	1.556E-04

Device ID 7948	0.57	0.00E+00	8.49E-04	8.49E-04	0.57	0.00E+00	8.49E-04	8.49E-04

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	8.818E-02	6.630E-04
	9901	DieselExhP	82.646	0.621
	42603	NOX	0.405	3.049E-03
	11101	PM	4.132E-02	3.107E-04
	85101	PM10	4.132E-02	3.107E-04
	88101	PM2.5	4.132E-02	3.107E-04
	42401	SOX	1.815E-04	1.365E-06

	43101	TOG	4.262E-02	3.205E-04					
	43104	VOC	3.242E-02	2.438E-04					
Device ID 8521			6.45E-02	0.00E+00	9.56E-05	9.56E-05	6.43E-02	0.00E+00	9.56E-05	9.56E-05
Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS					
	42101	CO	1.086E-02	1.192E-04					
	9901	DieselExhP	9.307	0.102					
	42603	NOX	0.118	1.294E-03					
	11101	PM	4.654E-03	5.108E-05					
	85101	PM10	4.654E-03	5.108E-05					
	88101	PM2.5	4.654E-03	5.108E-05					
	42401	SOX	1.004E-04	1.103E-06					
	43101	TOG	8.157E-03	8.954E-05					
	43104	VOC	6.205E-03	6.811E-05					
Device ID 8555			2.39E-02	0.00E+00	3.55E-05	3.55E-05	2.39E-02	0.00E+00	3.55E-05	3.55E-05
Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS					
	42101	CO	4.029E-03	1.192E-04					
	9901	DieselExhP	3.453	0.102					
	42603	NOX	4.374E-02	1.294E-03					
	11101	PM	1.727E-03	5.108E-05					
	85101	PM10	1.727E-03	5.108E-05					
	88101	PM2.5	1.727E-03	5.108E-05					
	42401	SOX	3.726E-05	1.103E-06					
	43101	TOG	3.027E-03	8.954E-05					
	43104	VOC	2.302E-03	6.811E-05					
Device ID 9072			6.48E-06	1.57E-03	2.05E-07	1.57E-03	6.46E-06	1.57E-03	2.05E-07	1.57E-03
Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS					
	91576	2MeNaphtha	1.012E-08	1.012E-08					
	56495	3-MeCholan	7.593E-10	7.593E-10					
	57976	7,12-DB[a]	6.749E-09	6.749E-09					
	83329	Acenaphthe	7.593E-10	7.593E-10					
	208968	Acenaphthy	7.593E-10	7.593E-10					
	75070	Acetaldehy	1.308E-06	1.308E-06					
	107028	Acrolein	1.139E-06	1.139E-06					
	120127	Anthracene	1.012E-09	1.012E-09					
	7440382	Arsenic	8.436E-08	8.436E-08					
	56553	B[a]anthra	7.593E-10	7.593E-10					
	50328	B[a]P	6.749E-10	6.749E-10					
	205992	B[b]fluora	7.593E-10	7.593E-10					
	191242	B[g,h,i]pe	6.749E-10	6.749E-10					
	205823	B[j]fluora	7.593E-10	7.593E-10					
	7440393	Barium	1.856E-06	1.856E-06					
	71432	Benzene	9.257E-03	9.255E-03					
	7440417	Beryllium	5.062E-09	5.062E-09					
	7440439	Cadmium	4.640E-07	4.640E-07					
	7440473	Chromium	5.905E-07	5.905E-07					
	218019	Chrysene	7.593E-10	7.593E-10					
	42101	CO	2.959E-03	2.955E-03					
	7440484	Cobalt	3.543E-08	3.543E-08					
	7440508	Copper	3.585E-07	3.585E-07					
	53703	D[a,h]anth	6.749E-10	6.749E-10					
	25321226	DiClBenzen	5.062E-07	5.062E-07					
	100414	Ethyl Benz	3.543E-03	3.540E-03					
	206440	Fluoranthe	1.265E-09	1.265E-09					

86737	Fluorene	1.181E-09	1.181E-09	
50000	Formaldehy	3.164E-05	3.164E-05	
110543	Hexane	8.087E-03	8.085E-03	
193395	In[1,2,3-c	7.593E-10	7.593E-10	
7439921	Lead	2.109E-07	2.109E-07	
7439965	Manganese	1.603E-07	1.603E-07	
7439976	Mercury	1.097E-07	1.097E-07	
91203	Naphthalen	1.265E-07	1.265E-07	
7440020	Nickel	8.858E-07	8.858E-07	
42603	NOX	1.088E-04	7.650E-05	
1150	PAHs-w/	1.687E-07	1.687E-07	
85018	Phenanthre	7.171E-09	7.171E-09	
11101	PM	1.230E-05	1.069E-05	
85101	PM10	1.230E-05	1.069E-05	
88101	PM2.5	1.230E-05	1.069E-05	
115071	Propylene	2.236E-04	2.236E-04	
129000	Pyrene	2.109E-09	2.109E-09	
16113	ROG	1.552E-04	1.545E-04	
7782492	Selenium	1.575E-02	1.575E-02	
42401	SOX	4.024E-06	3.983E-06	
43101	TOG	1.557E-04	1.545E-04	
108883	Toluene	1.118E-05	1.118E-05	
7440622	Vanadium	9.702E-07	9.702E-07	
1330207	Xylenes	8.310E-06	8.310E-06	
7440666	Zinc	1.223E-05	1.223E-05	

Device ID 9083	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	43101	TOG	3.407E-02	7.760E-05
	43104	VOC	3.407E-02	7.760E-05

Device ID 9804	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	16113	ROG	1.605E-02	3.664E-03
	43101	TOG	1.605E-02	3.664E-03

Device ID 9915	1.22E-08	1.32E-03	5.16E-10	1.32E-03	1.21E-08	1.32E-03	5.16E-10	1.32E-03

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	5.040E-10	1.584E-07
	56495	3-MeCholan	3.780E-11	1.188E-08
	57976	7,12-DB[a]	3.360E-10	1.056E-07
	83329	Acenaphthe	3.780E-11	1.188E-08
	208968	Acenaphthy	3.780E-11	1.188E-08
	120127	Anthracene	5.040E-11	1.584E-08
	7440382	Arsenic	4.200E-09	1.320E-06
	56553	B[a]anthra	3.780E-11	1.188E-08
	50328	B[a]P	3.360E-11	1.056E-08
	205992	B[b]fluora	3.780E-11	1.188E-08
	191242	B[g,h,i]pe	3.360E-11	1.056E-08
	205823	B[j]fluora	3.780E-11	1.188E-08
	7440393	Barium	9.240E-08	2.904E-05
	71432	Benzene	9.240E-06	2.904E-03
	7440417	Beryllium	2.520E-10	7.920E-08
	7440439	Cadmium	2.310E-08	7.260E-06
	7440473	Chromium	2.940E-08	9.240E-06
	218019	Chrysene	3.780E-11	1.188E-08

42101	CO	2.100E-07	6.600E-05	
7440484	Cobalt	1.764E-09	5.544E-07	
7440508	Copper	1.785E-08	5.610E-06	
53703	D[a,h]anth	3.360E-11	1.056E-08	
25321226	DiClBenzen	2.520E-08	7.920E-06	
206440	Fluoranthe	6.300E-11	1.980E-08	
86737	Fluorene	5.880E-11	1.848E-08	
50000	Formaldehy	1.848E-05	5.808E-03	
110543	Hexane	2.310E-06	7.260E-04	
193395	In[1,2,3-c	3.780E-11	1.188E-08	
7439921	Lead	1.050E-08	3.300E-06	
7439965	Manganese	7.980E-09	2.508E-06	
7439976	Mercury	5.460E-09	1.716E-06	
91203	Naphthalen	1.281E-08	4.026E-06	
7440020	Nickel	4.410E-08	1.386E-05	
42603	NOX	1.050E-06	3.300E-04	
85018	Phenanthre	3.570E-10	1.122E-07	
11101	PM	3.150E-08	9.900E-06	
85101	PM10	3.150E-08	9.900E-06	
88101	PM2.5	3.150E-08	9.900E-06	
129000	Pyrene	1.050E-10	3.300E-08	
16113	ROG	5.565E-08	1.749E-05	
7782492	Selenium	5.040E-10	1.584E-07	
42401	SOX	6.300E-09	1.980E-06	
43101	TOG	1.265E-07	3.977E-05	
108883	Toluene	4.620E-06	1.452E-03	
7440622	Vanadium	4.830E-08	1.518E-05	
43104	VOC	5.565E-08	1.749E-05	
7440666	Zinc	6.090E-07	1.914E-04	

Device ID 9973	9.47E-03	0.00E+00	1.40E-05	1.40E-05	9.45E-03	0.00E+00	1.40E-05	1.40E-05

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	5.127E-03	2.320E-04
	9901	DieselExhP	1.367	6.186E-02
	42603	NOX	2.679E-02	1.212E-03
	11101	PM	6.836E-04	3.093E-05
	85101	PM10	6.836E-04	3.093E-05
	88101	PM2.5	6.836E-04	3.093E-05
	42401	SOX	5.291E-05	2.394E-06
	43101	TOG	1.853E-03	8.387E-05
	43104	VOC	1.410E-03	6.379E-05

Device ID 10539	6.53E-03	3.06E-02	2.66E-04	3.06E-02	6.51E-03	3.06E-02	2.66E-04	3.06E-02

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	106990	1,3-Butadi	1.158	1.244E-02
	35822469	1-4,6-8HpC	2.246E-11	2.415E-13
	67562394	1-4,6-8HpC	3.936E-11	4.232E-13
	70648269	1-4,7,8HxC	1.046E-11	1.125E-13
	3268879	1-8OctaCDD	6.374E-11	6.854E-13
	39001020	1-8OctaCDF	3.101E-11	3.334E-13
	540841	2,2,4TriMe	6.191E-06	6.657E-08
	121142	2,4-DiNitT	2.257E-06	2.427E-08
	606202	2,6-DiNitT	6.348E-07	6.826E-09
	60851345	2-4,6-8HxC	8.890E-12	9.559E-14
	91576	2MeNaphtha	4.020E-06	4.323E-08
	119937	3,3'DiMeBe	2.412E-07	2.594E-09
	83329	Acenaphthe	4.020E-06	4.323E-08

208968	Acenaphthy	4.020E-06	4.323E-08
75070	Acetaldehy	1.779	1.913E-02
107028	Acrolein	1.201	1.291E-02
107131	Acrylonitr	8.698E-05	9.352E-07
7440360	Antimony	2.959E-04	3.181E-06
7440382	Arsenic	2.542E-03	2.733E-05
71432	Benzene	0.993	1.058E-02
92875	Benzidine	2.412E-07	2.594E-09
7440439	Cadmium	2.974E-05	3.198E-07
7440473	Chromium	3.948E-05	4.245E-07
42101	CO	1.244E-04	2.906E-07
7440508	Copper	8.112E-05	8.723E-07
18540299	Cr(VI)	2.001E-06	2.152E-08
98828	Cumene	2.880E-06	3.097E-08
110827	Cyclohexan	7.200E-05	7.742E-07
132649	Dibenzofur	1.920E-05	2.065E-07
100414	Ethyl Benz	0.114	1.221E-03
74851	Ethylene	3.807E-03	4.093E-05
151564	Ethyleneim	8.698E-05	9.352E-07
50000	Formaldehy	5.327	5.728E-02
111308	Glutaraldh	1.286E-05	1.383E-07
74908	HCN	6.586E-03	7.081E-05
110543	Hexane	3.352E-04	3.604E-06
7439921	Lead	4.808E-04	5.170E-06
7439965	Manganese	2.103E-03	2.261E-05
91203	Naphthalen	0.330	3.547E-03
7664417	NH3	1.212E-02	1.303E-04
7440020	Nickel	2.542E-05	2.733E-07
42603	NOX	3.323E-02	7.728E-05
95534	o-Toluidin	1.447E-05	1.556E-07
1150	PAHs-w/	0.379	4.071E-03
108952	Phenol	0.178	1.919E-03
11101	PM	4.326E-04	1.011E-06
85101	PM10	4.326E-04	1.011E-06
88101	PM2.5	4.326E-04	1.011E-06
115071	Propylene	7.169E-04	7.708E-06
16113	ROG	2.618E-02	6.114E-05
42401	SOX	1.893E-03	4.422E-06
100425	Styrene	0.216	2.152E-03
43101	TOG	2.618E-02	6.114E-05
108883	Toluene	0.365	3.896E-03
1330207	Xylenes	0.287	3.082E-03
7440666	Zinc	4.921E-03	5.292E-05

Device ID 10633	4.90E-03	0.00E+00	7.26E-06	7.26E-06	4.89E-03	0.00E+00	7.26E-06	7.26E-06

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	1.928E-03	1.555E-04
	9901	DieselExhP	0.707	5.701E-02
	42603	NOX	1.038E-02	8.370E-04
	11101	PM	3.534E-04	2.850E-05
	85101	PM10	3.534E-04	2.850E-05
	88101	PM2.5	3.534E-04	2.850E-05
	42401	SOX	1.953E-05	1.575E-06
	43101	TOG	7.181E-04	5.791E-05
	43104	VOC	5.462E-04	4.405E-05

Device ID 10828	0.59	0.00E+00	8.79E-04	8.79E-04	0.59	0.00E+00	8.79E-04	8.79E-04

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	0.241	2.332E-04
	9901	DieselExhP	85.589	8.292E-02
	42603	NOX	0.940	9.108E-04
	11101	PM	4.279E-02	4.146E-05
	85101	PM10	4.279E-02	4.146E-05
	88101	PM2.5	4.279E-02	4.146E-05
	42401	SOX	1.734E-03	1.680E-06
	43101	TOG	6.505E-02	6.302E-05
	43104	VOC	4.948E-02	4.794E-05

Device ID	11470	2.06E-02	6.43E-04	1.03E-05	6.43E-04	2.05E-02	6.43E-04	1.03E-05	6.43E-04

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	106990	1,3-Butadi	2.122E-02	1.560E-04
	35822469	1-4,6-8HpC	1.638E-13	1.204E-15
	67562394	1-4,6-8HpC	2.870E-13	2.110E-15
	70648269	1-4,7,8HxC	7.630E-14	5.610E-16
	3268879	1-8OctaCDD	4.648E-13	3.418E-15
	39001020	1-8OctaCDF	2.261E-13	1.663E-15
	540841	2,2,4TriMe	3.952E-02	2.906E-04
	121142	2,4-DiNitT	6.656E-04	4.894E-06
	606202	2,6-DiNitT	5.824E-04	4.282E-06
	60851345	2-4,6-8HxC	6.482E-14	4.766E-16
	119937	3,3'DiMeBe	1.290E-03	9.482E-06
	57976	7,12-DB[a]	5.824E-04	4.282E-06
	75070	Acetaldehy	9.380E-08	6.897E-10
	107028	Acrolein	3.857E-07	2.836E-09
	107131	Acrylonitr	6.342E-07	4.663E-09
	56553	B[a]anthra	5.824E-04	4.282E-06
	7440393	Barium	0.229	1.682E-03
	71432	Benzene	0.499	3.671E-03
	92875	Benzidine	1.290E-03	9.482E-06
	98828	Cumene	2.100E-08	1.544E-10
	110827	Cyclohexan	2.871E-03	2.111E-05
	53703	D[a,h]anth	5.824E-04	4.282E-06
	132649	Dibenzofur	4.993E-04	3.672E-06
	100414	Ethyl Benz	1.914E-02	1.407E-04
	74851	Ethylene	1.206	8.871E-03
	151564	Ethyleneim	6.342E-07	4.663E-09
	111308	Glutaraldh	9.380E-08	6.897E-10
	74908	HCN	4.802E-05	3.531E-07
	110543	Hexane	1.456E-02	1.071E-04
	78591	Isophorone	1.165E-02	8.565E-05
	7439921	Lead	54.080	0.398
	7439965	Manganese	6.698E-04	4.925E-06
	91203	Naphthalen	2.246E-03	1.652E-05
	7664417	NH3	2.858	2.101E-02
	42603	NOX	5.575E-02	4.099E-04
	95534	o-Toluidin	0.125	9.176E-04
	115071	Propylene	0.212	1.560E-03
	16113	ROG	3.482E-04	2.560E-06
	100425	Styrene	1.510E-02	1.110E-04
	43101	TOG	3.482E-04	2.560E-06
	108883	Toluene	0.125	9.178E-04

Device ID	12343	5.44E-02	0.00E+00	8.07E-05	8.07E-05	5.43E-02	0.00E+00	8.07E-05	8.07E-05

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS

	42101	CO	1.797E-02	1.205E-05				
	9901	DieselExhP	7.850	7.230E-04				
	42603	NOX	0.467	3.133E-04				
	11101	PM	5.391E-04	3.615E-07				
	85101	PM10	5.391E-04	3.615E-07				
	88101	PM2.5	5.391E-04	3.615E-07				
	42401	SOX	1.205E-03	8.080E-07				
	43101	TOG	2.363E-03	1.584E-06				
	43104	VOC	1.797E-03	1.205E-06				
Device ID 12344	7.35E-03	0.00E+00	1.09E-05	1.09E-05	7.33E-03	0.00E+00	1.09E-05	1.09E-05
Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS				
	42101	CO	1.767E-02	1.205E-05				
	9901	DieselExhP	1.060	7.230E-04				
	42603	NOX	0.460	3.133E-04				
	11101	PM	5.302E-04	3.615E-07				
	85101	PM10	5.302E-04	3.615E-07				
	88101	PM2.5	5.302E-04	3.615E-07				
	42401	SOX	1.185E-03	8.080E-07				
	43101	TOG	2.323E-03	1.584E-06				
	43104	VOC	1.767E-03	1.205E-06				
Device ID 12364	5.44E-02	0.00E+00	8.07E-05	8.07E-05	5.43E-02	0.00E+00	8.07E-05	8.07E-05
Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS				
	42101	CO	4.380E-04	7.761E-05				
	9901	DieselExhP	7.850	3.314E-02				
	42603	NOX	1.604E-03	2.842E-04				
	11101	PM	9.351E-05	1.657E-05				
	85101	PM10	9.351E-05	1.657E-05				
	88101	PM2.5	9.351E-05	1.657E-05				
	42401	SOX	2.461E-06	4.360E-07				
	43101	TOG	1.186E-04	1.966E-05				
	43104	VOC	8.440E-05	1.496E-05				
Device ID 12374	2.00E-02	0.00E+00	2.97E-05	2.97E-05	2.00E-02	0.00E+00	2.97E-05	2.97E-05
Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS				
	42101	CO	7.219E-03	5.179E-06				
	9901	DieselExhP	2.888	2.071E-03				
	42603	NOX	0.261	1.869E-04				
	11101	PM	1.444E-03	1.036E-06				
	85101	PM10	1.444E-03	1.036E-06				
	88101	PM2.5	1.444E-03	1.036E-06				
	42401	SOX	4.841E-04	3.472E-07				
	43101	TOG	1.803E-02	1.294E-05				
	43104	VOC	1.372E-02	9.839E-06				
Device ID 12400	2.25E-03	0.52	2.83E-04	0.52	2.25E-03	0.52	2.83E-04	0.52
Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS				
	79005	1,1,2TriCl	9.899E-03	1.489E-03				
	75343	1,1-DiClEt	7.336E-03	1.103E-03				
	95636	1,2,4TriMe	1.616E-02	2.431E-03				
	78875	1,2-DiClPr	8.386E-03	1.261E-03				
	106990	1,3-Butadi	0.208	3.121E-02				
	542756	1,3-DiClPr	8.222E-03	1.236E-03				
	540841	2,2,4TriMe	0.141	2.126E-02				

91576	2MeNaphtha	7.044E-03	1.059E-03
83329	Acenaphthe	5.556E-04	8.355E-05
208968	Acenaphthy	3.242E-03	4.876E-04
75070	Acetaldehy	1.866	0.281
107028	Acrolein	1.564	0.235
205992	B[b]fluora	5.578E-05	8.387E-06
192972	B[e]pyrene	5.656E-05	8.505E-06
191242	B[g,h,i]pe	7.128E-05	1.072E-05
207089	B[k]fluora	3.236E-05	4.866E-06
71432	Benzene	0.375	5.644E-02
92524	Biphenyl	2.786E-02	4.189E-03
56235	CCl4	1.142E-02	1.718E-03
108907	Chlorobenz	8.652E-03	1.301E-03
67663	Chloroform	8.859E-03	1.332E-03
218019	Chrysene	1.707E-04	2.567E-05
42101	CO	1.381E-04	2.077E-05
106934	EDB	1.379E-02	2.073E-03
107062	EDC	7.603E-03	1.143E-03
100414	Ethyl Benz	1.583E-02	2.381E-03
75003	Ethyl Chlo	4.825E-04	7.256E-05
206440	Fluoranthe	3.020E-04	4.541E-05
86737	Fluorene	1.822E-03	2.739E-04
50000	Formaldehy	7.053	1.061
110543	Hexane	0.201	3.017E-02
78842	Isobutyral	5.463E-02	8.215E-03
74953	MethyleneB	2.145E-02	3.226E-03
91203	Naphthalen	2.714E-02	4.082E-03
42603	NOX	8.631E-04	1.298E-04
1150	PAHs-w/	3.809E-02	5.728E-03
127184	Perc	6.399E-04	9.622E-05
198550	Perylene	1.282E-06	1.928E-07
85018	Phenanthre	2.414E-03	3.630E-04
108952	Phenol	8.528E-03	1.282E-03
11101	PM	2.417E-04	3.634E-05
85101	PM10	2.417E-04	3.634E-05
88101	PM2.5	2.417E-04	3.634E-05
115071	Propylene	4.822	0.725
129000	Pyrene	4.751E-04	7.144E-05
42401	SOX	6.905E-05	1.038E-05
100425	Styrene	8.790E-03	1.322E-03
79345	TetraClEth	1.349E-02	2.029E-03
43101	TOG	1.381E-04	2.077E-05
108883	Toluene	0.192	2.887E-02
75014	Vinyl Chlo	4.641E-03	6.979E-04
43104	VOC	6.905E-06	1.038E-06
1330207	Xylenes	7.242E-02	1.089E-02

Device ID 12461	1.69E-04	4.27E-06	4.03E-06	4.45E-06	1.69E-04	4.27E-06	4.03E-06	4.45E-06

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	71432	Benzene	0.223	2.549E-05
	100414	Ethyl Benz	0.200	2.281E-05
	1634044	Me t-Butyl	1.374	1.568E-04
	16113	ROG	2.276E-02	2.585E-06
	43101	TOG	2.276E-02	2.585E-06
	108883	Toluene	0.999	1.140E-04
	43104	VOC	1.381E-02	1.563E-06
	1330207	Xylenes	0.300	3.421E-05

Device ID 12793	6.45E-05	0.00E+00	9.56E-08	9.56E-08	6.43E-05	0.00E+00	9.56E-08	9.56E-08

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	6.204E-05	3.814E-06
	9901	DieselExhP	9.306E-03	5.721E-04
	42603	NOX	6.514E-04	4.005E-05
	11101	PM	4.653E-06	2.860E-07
	85101	PM10	4.653E-06	2.860E-07
	88101	PM2.5	4.653E-06	2.860E-07
	42401	SOX	1.551E-05	9.535E-07
	43101	TOG	3.059E-05	1.880E-06
	43104	VOC	2.326E-05	1.430E-06

Device ID 12799	4.09E-05	0.00E+00	6.07E-08	6.07E-08	4.08E-05	0.00E+00	6.07E-08	6.07E-08

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	1.911E-03	3.432E-04
	9901	DieselExhP	5.909E-03	1.062E-03
	42603	NOX	3.939E-04	7.077E-05
	11101	PM	2.955E-06	5.308E-07
	85101	PM10	2.955E-06	5.308E-07
	88101	PM2.5	2.955E-06	5.308E-07
	42401	SOX	9.848E-06	1.769E-06
	43101	TOG	1.942E-05	3.489E-06
	43104	VOC	1.477E-05	2.654E-06

Device ID 12800	9.41E-05	0.00E+00	1.39E-07	1.39E-07	9.38E-05	0.00E+00	1.39E-07	1.39E-07

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	4.388E-03	2.641E-04
	9901	DieselExhP	1.357E-02	8.168E-04
	42603	NOX	8.596E-04	5.173E-05
	11101	PM	6.786E-06	4.084E-07
	85101	PM10	6.786E-06	4.084E-07
	88101	PM2.5	6.786E-06	4.084E-07
	42401	SOX	2.262E-05	1.361E-06
	43101	TOG	4.461E-05	2.685E-06
	43104	VOC	3.393E-05	2.042E-06

Device ID 12801	2.85E-05	0.00E+00	4.23E-08	4.23E-08	2.85E-05	0.00E+00	4.23E-08	4.23E-08

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	2.746E-05	3.814E-06
	9901	DieselExhP	4.119E-03	5.721E-04
	42603	NOX	2.883E-04	4.005E-05
	11101	PM	2.060E-06	2.860E-07
	85101	PM10	2.060E-06	2.860E-07
	88101	PM2.5	2.060E-06	2.860E-07
	42401	SOX	6.865E-06	9.535E-07
	43101	TOG	1.354E-05	1.880E-06
	43104	VOC	1.030E-05	1.430E-06

Device ID 12802	1.76E-05	0.00E+00	2.61E-08	2.61E-08	1.75E-05	0.00E+00	2.61E-08	2.61E-08

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	42101	CO	1.691E-05	3.814E-06
	9901	DieselExhP	2.536E-03	5.721E-04
	42603	NOX	1.775E-04	4.005E-05
	11101	PM	1.268E-06	2.860E-07

85101	PM10	1.268E-06	2.860E-07
88101	PM2.5	1.268E-06	2.860E-07
42401	SOX	4.227E-06	9.535E-07
43101	TOG	8.336E-06	1.880E-06
43104	VOC	6.341E-06	1.430E-06

Device ID 13623	1.64E-02	2.70E-03	6.22E-03	6.22E-03	1.64E-02	2.70E-03	6.22E-03	6.22E-03

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	7440439	Cadmium	0.104	1.190E-05
	7440473	Chromium	1.050	1.200E-04
	7440508	Copper	9.460E-02	1.080E-05
	7439921	Lead	9.460E-02	1.080E-05
	7439965	Manganese	1.050	1.200E-04
	7440020	Nickel	1.050	1.200E-04
	85101	PM10	1.000E-01	2.900E-02
	1175	Silica, Cr	87.600	1.000E-02

Device ID 90108	1.60E-04	6.61E-06	1.18E-05	1.21E-05	1.60E-04	6.61E-06	1.18E-05	1.21E-05

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	2.251E-05	2.569E-09
	56495	3-MeCholan	1.688E-06	1.927E-10
	57976	7,12-DB[a]	1.500E-05	1.713E-09
	83329	Acenaphthe	1.688E-06	1.927E-10
	208968	Acenaphthy	1.688E-06	1.927E-10
	75070	Acetaldehy	4.032E-03	4.603E-07
	107028	Acrolein	2.532E-03	2.890E-07
	120127	Anthracene	2.251E-06	2.569E-10
	7440382	Arsenic	1.876E-04	2.141E-08
	56553	B[a]anthra	1.688E-06	1.927E-10
	50328	B[a]P	1.500E-06	1.713E-10
	205992	B[b]fluora	1.688E-06	1.927E-10
	191242	B[g,h,i]pe	1.500E-06	1.713E-10
	205823	B[j]fluora	1.688E-06	1.927E-10
	7440393	Barium	4.126E-03	4.710E-07
	71432	Benzene	7.502E-03	8.564E-07
	7440417	Beryllium	1.125E-05	1.285E-09
	7440439	Cadmium	1.032E-03	1.178E-07
	7440473	Chromium	1.313E-03	1.499E-07
	218019	Chrysene	1.688E-06	1.927E-10
	42101	CO	3.939E-02	4.496E-06
	7440484	Cobalt	7.877E-05	8.992E-09
	7440508	Copper	7.971E-04	9.099E-08
	53703	D[a,h]anth	1.500E-06	1.713E-10
	25321226	DiClBenzen	1.125E-03	1.285E-07
	100414	Ethyl Benz	8.909E-03	1.017E-06
	206440	Fluoranthe	2.813E-06	3.212E-10
	86737	Fluorene	2.626E-06	2.997E-10
	50000	Formaldehy	1.594E-02	1.820E-06
	110543	Hexane	5.908E-03	6.744E-07
	193395	In[1,2,3-c	1.688E-06	1.927E-10
	7439921	Lead	4.689E-04	5.353E-08
	7439965	Manganese	3.564E-04	4.068E-08
	7439976	Mercury	2.438E-04	2.783E-08
	91203	Naphthalen	2.813E-04	3.212E-08
	7440020	Nickel	1.969E-03	2.248E-07
	42603	NOX	4.689E-02	5.353E-06
	1150	PAHs-w/	3.751E-04	4.282E-08

85018	Phenanthre	1.594E-05	1.820E-09	
11101	PM	3.564E-03	4.068E-07	
85101	PM10	3.564E-03	4.068E-07	
88101	PM2.5	3.564E-03	4.068E-07	
115071	Propylene	0.686	7.826E-05	
129000	Pyrene	4.689E-06	5.353E-10	
7782492	Selenium	2.251E-05	2.569E-09	
42401	SOX	2.813E-04	3.212E-08	
43101	TOG	5.158E-03	5.888E-07	
108883	Toluene	3.432E-02	3.918E-06	
7440622	Vanadium	2.157E-03	2.462E-07	
43104	VOC	2.579E-03	2.944E-07	
1330207	Xylenes	2.551E-02	2.912E-06	
7440666	Zinc	2.720E-02	3.105E-06	

Device ID	90113	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	16113	ROG	2.512E-04	2.868E-08
	43101	TOG	2.512E-04	2.868E-08
	43104	VOC	2.512E-04	2.868E-08

Device ID	90114	9.64E-04	4.11E-05	7.02E-05	7.29E-05	9.61E-04	4.11E-05	7.02E-05	7.29E-05

Pollutant	POL ID	POLLUTANT	ANNUAL EMS	HR MAX EMS
	91576	2MeNaphtha	1.306E-04	1.491E-08
	56495	3-MeCholan	9.795E-06	1.118E-09
	57976	7,12-DB[a]	8.707E-05	9.940E-09
	83329	Acenaphthe	9.795E-06	1.118E-09
	208968	Acenaphthy	9.795E-06	1.118E-09
	75070	Acetaldehy	1.687E-02	1.926E-06
	107028	Acrolein	1.469E-02	1.677E-06
	120127	Anthracene	1.306E-05	1.491E-09
	7440382	Arsenic	1.088E-03	1.242E-07
	56553	B[a]anthra	9.795E-06	1.118E-09
	50328	B[a]P	8.707E-06	9.940E-10
	205992	B[b]fluora	9.795E-06	1.118E-09
	191242	B[g,h,i]pe	8.707E-06	9.940E-10
	205823	B[j]fluora	9.795E-06	1.118E-09
	7440393	Barium	2.394E-02	2.733E-06
	71432	Benzene	3.156E-02	3.603E-06
	7440417	Beryllium	6.530E-05	7.455E-09
	7440439	Cadmium	5.986E-03	6.833E-07
	7440473	Chromium	7.619E-03	8.697E-07
	218019	Chrysene	9.795E-06	1.118E-09
	7440484	Cobalt	4.571E-04	5.218E-08
	7440508	Copper	4.626E-03	5.280E-07
	53703	D[a,h]anth	8.707E-06	9.940E-10
	25321226	DiClBenzen	6.530E-03	7.455E-07
	100414	Ethyl Benz	3.755E-02	4.286E-06
	206440	Fluoranthe	1.633E-05	1.864E-09
	86737	Fluorene	1.524E-05	1.739E-09
	50000	Formaldehy	0.408	4.659E-05
	110543	Hexane	2.503E-02	2.858E-06
	193395	In[1,2,3-c	9.795E-06	1.118E-09
	7439921	Lead	2.721E-03	3.106E-07
	7439965	Manganese	2.068E-03	2.361E-07
	7439976	Mercury	1.415E-03	1.615E-07
	91203	Naphthalen	1.633E-03	1.864E-07

7440020	Nickel	1.143E-02	1.305E-06
1150	PAHs-w/	2.177E-03	2.485E-07
85018	Phenanthre	9.251E-05	1.056E-08
115071	Propylene	2.884	3.292E-04
129000	Pyrene	2.721E-05	3.106E-09
7782492	Selenium	1.306E-04	1.491E-08
108883	Toluene	0.144	1.646E-05
7440622	Vanadium	1.252E-02	1.429E-06
1330207	Xylenes	0.107	1.224E-05
7440666	Zinc	0.158	1.802E-05

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Appendix D
Public Notice

Noticing Methods include the following, per District Rule 1207 (A)(1)(a) and 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 December 10, 2019. (See Page D-3)
- 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 December 10, 2019. (See Page D-4)
- Posted on the MDAQMD Website at the following link: http://www.mdaqmd.ca.gov/permitting/public-notices-advisories/public-notices-permitting-regulated-industry

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NOTICE OF TITLE V PERMIT ACTIONS

NOTICE IS HEREBY GIVEN THAT *Naval Air Weapons Station, China Lake.* located at *429 E Bowen Road (Stop 4014), China Lake, CA 93555-6108*, located within the Mojave Desert Air Quality Management District (MDAQMD), has applied for a significant modification of their Federal Operating Permit (FOP) pursuant to the provisions of MDAQMD Regulation XII. The applicant is a *United States Navy Research, Development, Acquisition, Testing, and Evaluation* facility of a size requiring a Title V Permit.

REQUEST FOR COMMENTS: Interested persons are invited to submit written comments and/or other documents regarding the terms and conditions of the proposed Federal Operating Permit and the proposed reissuance. If you submit written comments, you may also request a public hearing on the proposed issuance of the FOP. To be considered, comments, documents and requests for public hearing must be submitted no later than 5:00 P.M. on *January 2nd, 2020* to the MDAQMD, at the address listed below.

PETITION FOR REVIEW: Title V Permits, once issued, are also subject to review and approval by USEPA. If USEPA has not objected to a proposed permit and the MDAQMD has not addressed a public comment in a satisfactory manner, the public may petition USEPA, Region IX, Operation Permits Section at 75 Hawthorne Street, San Francisco, CA 94105 within 60 days after the end of the USEPA review period for USEPA to reconsider its decision not to object to the permit.

AVAILABILITY OF DOCUMENTS: Copies of the *modified permit* and supporting documentation are available from the MDAQMD by contacting *Guy Smith* at Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392-2310; Phone: (760) 245-1661, *1854*, via email at gsmith@mdaqmd.ca.gov or via www.mdaqmd.ca.gov.

Traducción esta disponible por solicitud.

Sheri Haggard
Supervising Air Quality Engineer
Mojave Desert Air Quality Management District

Name	Title	Organization
	Chief	San Gabriel Band of Mission Indians
Director, Air Division (Attn: AIR-3)		United States EPA, Region IX
Ms. Lisa Beckham	Environmental Engineer	United States EPA, Region IX
Mr. Jon Boyer		High Desert Power Project LLC
Chief, Bureau of Air Quality		NDCNR, Env Prot Div (Air)
Mr. Ramon Campos	Environmental Compliance Manager	Blythe Energy Project
Mr. Kent T. Christensen	HS&E Manager	Ducommun Aerostructures
Environmental Contact		Specialty Minerals Inc.
Mr. Steve Cummings	Senior Air Quality Tech Specialist	Southern California Edison
Mr. Josh Dugas	Division Chief	San Bernardino County EHS
Mr. John F. Espinoza	Principal Advisor	MP Materials
Mr. Anthony Fang		Metropolitan Water District
Ms. Karin Fickerson	Air Quality Team Lead	SoCalGas
Ms. Diana Furman	Senior Gas Engineer	PG&E (Attn: Air Permits)
Ms. Jessica Gammett	Environmental Manager	CalPortland
Ms. Christine Grandstaff		Evolution Markets
Mr. Dan Guillory	Environmental Contact	Metropolitan Water District of So Calif
Ms. Desirea Haggard	Environmental Manager	CalPortland-Oro Grande
Ms. Sheri Haggard	Supervising Permit Engineer	MDAQMD
Ms. Angela Harrell		Elementis Specialties
Mr. Joseph Hower	Principal, Air Sciences	Ramboll Environ
Ms. Carol Kaufman		Metropolitan Water District
Mr. Glen King	Environmental Manager	Luz Solar Partners
Mr. Randy Lack	Chief Marketing Officer	Element Markets, LLC
Ms. Jenna Latt		CARB/Office of Ombudsman
Ms. Janet Laurain		Adams Broadwell Joseph & Cardozo
Mr. Dan Madden	EH&S Manager	Northwest Pipe Co.
Air Program Manager	Environmental Division	USMC MCLB
City Manager		City of Barstow
Environmental Manager		Duffield Marine, Inc.
Environmental Manager		Mobile Pipe Lining & Coating, Inc
Ms. Anne McQueen	Senior Engineer	Yorke Engineering, LLC
Ms. Alexandra Minitrez	Air Compliance Specialist	MP Materials
Mr. Michael Olokode	Air Program Manager, N45NCW	Naval Air Weapons Station, China Lake
Mr. Ralph McCullers	EH&S Manager	OMYA (California), Inc.
Mr. Juziel Picado	Specialist - Permitting	Kinder-Morgan
Chief, Planning Division		California Air Resources Board
Mr. Mike Plessie		HQBN B CO, NREA MCAGCC
Mr. David Rib	Environmental Manager	Mitsubishi Cement Corporation
Andrew Salas	Chairman	Gabriel Band of Mission Indians - Kizh Nation
Mr. Don Shepherd		National Park Service, Air Resources Div
Mr. Steve Smith		SB County Transportation Authority
Mr. Mark Solheid	Senior EHS Analyst	NASA/Goldstone DSCC
Mr. Anoop Sukumaran	Environmental Engineer	Searles Valley Minerals Operations, Inc.
Mr. Mike Sword	Planning Div Mgr	Clark Co Dept of Air Q and Env. Mngmt.
Mr. Zeyd Tabbara	Broker	BGC Environmental Brokerage Services
Mr. Larry Trowsdale		mchsi
Mr. John Vidic	Air Program Manager	USAF 412 CEG/CEVC