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***MOJAVE DESERT***  
***AIR QUALITY MANAGEMENT DISTRICT***

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**Preliminary Determination/Decision - Statement of Basis**  
*for the*  
*Significant Modification to*

**FOP Number: 008800567**

*For:*

**Naval Air Weapons Station,  
China Lake**

*Facility:*

**Naval Air Weapons Station,  
China Lake**

*Facility Address:*

**1 Administrative Circle  
Ridgecrest, CA 93555**

**Document Date:** March 30<sup>th</sup>, 2018

**Submittal date to EPA/CARB for review:** March 30<sup>th</sup>, 2018

**EPA/CARB 45-day Commenting Period ends:** May 15<sup>th</sup>, 2018

**Public Notice Posted:** April 3<sup>rd</sup>, 2018

**Permit Issue date:** On or about May 15<sup>th</sup>, 2018

Permitting Engineer:  
Guy Smith

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

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## **A. Introduction**

### ***1. Application and Setting***

Naval Air Weapons Station, China Lake (NAWS) NAWS China Lake 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.

The Mojave Desert Air Quality Management District (MDAQMD or District) received an application on April 27, 2017 to permit the use of five new diesel-fired internal combustion engines powering emergency use generators and to update their current Federal Operating Permit to reduce reporting and recordkeeping requirements and to clarify language used in numerous District permits. Specifically, NAWS is requesting the following changes:

- Adding three new 173 bhp diesel fueled Emergency Use generators.
- Adding one new 247 bhp diesel fueled Emergency Use generator.
- Adding one new 321 bhp diesel fueled Emergency Use generator.
- Reducing the allowed operating hours of two currently permitted diesel fueled generators.
- Removing the current requirement to record energetics testing results from sixteen permitted equipment units.
- Removing the current requirement to record post-testing meteorological conditions from thirteen permitted equipment units.
- Removing the current requirement to record daily natural gas usage from two permitted equipment units.
- Cancel two Dip Tank permits that only use acetone as the solvent and modify five additional permits to remove references to these two tanks.
- Replace per-test weight limit of 50 pounds each for explosives, propellants, and flares with a 150 pound per-test limit for all energetic materials on four permitted equipment units.
- Replace the District term "Batch" with the facility term "Grind Lot" in one permitted equipment unit.
- Removing six previously canceled equipment units from the FOP.

The District requested clarification of documentation for the new diesel engines and also requested additional information regarding emissions from explosives, propellants, and flares to properly address changes in emissions to the atmosphere. The facility submitted the requested engine information on November 16, 2017 and the application was deemed complete. A copy of this application can be viewed in Appendix A. Lastly, after reviewing the results of the most recent District annual inspection of the facility, it was determined that permitting the new engines as portable units would be contrary to their intended use as relocatable stationary units, therefore, the District has processed the facility's engine applications as Stationary units as defined in 40 CFR 1068.30.

Pursuant to District Rule 1301 – *New Source Review Definitions*, NAWS is an existing Major Facility for CO, NO<sub>x</sub>, PM<sub>10</sub>, and VOC. The portion of the MDAQMD where the facility is located has the following attainment classifications:

**Table 1: Criteria Pollutant Attainment Status for Naval Air Weapons Station, China Lake**

	Ozone	PM 10	PM 2.5	CO	SO2	NO2	Pb
Federal Status	A/U	<b>NON</b>	A/U	A/U	A/U	A/U	A/U
CA State Status	<b>NON</b>	<b>NON</b>	A/U	A/U	A/U	A/U	A/U

Key: “A/U” represents Attainment/Unclassified status and “**NON**” represents non-attainment status

Therefore, pursuant to District Rule 1303 – *New Source Review Requirements*, the proposed equipment is subject to both the BACT and Offset requirements for the Nonattainment Air Pollutant/Precursors of NO<sub>x</sub> and VOC (Ozone Precursors), as well as PM<sub>10</sub>. 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.

In addition, NAWS is defined as a federal Major Facility pursuant to District Rule 1201 – *Federal Operating Permit Definitions*. The proposed modifications classify as a Significant Modification to NAWS’s Federal Operating Permit (FOP) since it is changing emission limits (increasing some and decreasing others resulting in a slight decrease in overall facility emissions) that are federally enforceable and allows numerous recordkeeping relaxations. Pursuant to District Rule 1205 – *Modifications of Federal Operating Permits*, section (B)(2), this document serves as the preliminary determination to issue NAWS the modified FOP inclusive of the proposed changes. This preliminary determination will be submitted to USEPA, CARB, and the public for review and comment on March 30, 2018. The public notice for this preliminary determination will also be published on March, 2018, allowing for public comment until May 3, 2018.

## 2. Description of Project

NAWS’s proposal is comprised of two major parts: The addition of the five new engines and the changes to permit conditions for existing equipment. The following analysis will concentrate on the engines first and then follow with the proposed changes in the facility’s Federal Operating Permit conditions.

## B. Analysis

### 1. Proposed New Engines: Determination of Emissions

[District Rule 1302(C)(1)]

Addition of the proposed new engines does not constitute a NSR Modification, as defined under District Rule 1301, as the proposed changes do not result in any Net Emissions Increase as all emissions are simultaneously offset by reductions in emissions from other currently permitted equipment.

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)):

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

For a new emissions unit (engine), such as in the case of NAWs, 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 processes, shall be treated as part of its design only if the limitation or the effect it would have on emissions is Federally Enforceable.

The new engines will have a Federally Enforceable operating hour limitation of 25 hours per year for maintenance and testing purposes placed on them to establish and limit their PTE. Concurrently, the hours of operation of the diesel fueled internal combustion engines described in District Permits B012343 and B012344 will be simultaneously reduced by a total of 150 hours to ensure no net emissions increases will occur. Tables 2 through 4 describe the new engines and summarize their maximum potential emissions, Tables 5 and 6 summarize the simultaneous emissions reductions from units B012343 and B012344, and Table 7 summarizes the net emissions changes. Detailed calculations used to obtain this summary data are contained in Appendix D. Please note that the slight differences are due to rounding.

<b><i>Table 2: General Characteristics of Proposed New Diesel Fueled IC Engines</i></b>						
ID	Manufacturer	Model	USEPA Family Name	Maximum Rated bhp	Year of Manufacture	USEPA Tier
1	Perkins	1206F-E70TTAG4	GPKXL07.0BN1	321	2016	4 (Final)
2	Perkins	1206F-E70TTAG3	FPKXL07.0BN1	247	2015	4 (Final)
3	Perkins	1204F-E44TTA	FPKXL04.4MU1	173	2015	4 (Final)
4	Perkins	1204F-E44TTA	FPKXL04.4MU1	173	2015	4 (Final)
5	Perkins	1204F-E44TTA	FPKXL04.4MU1	173	2015	4 (Final)

**Table 3: Certified Emission Factors of Proposed New Diesel Fueled IC Engines:  
All values are listed in g/bhp-hr**

ID	Manufacturer	Model	Maximum Rated bhp	NOx	VOC	PM10	SOx	CO
1	Perkins	1206F-E70TTAG4	321	0.20	0.0075	0.0015	0.005	0.97
2	Perkins	1206F-E70TTAG3	247	0.19	0.0075	0.0015	0.005	0.97
3	Perkins	1204F-E44TTA	173	0.21	0.0075	0.015	0.005	0.02
4	Perkins	1204F-E44TTA	173	0.21	0.0075	0.015	0.005	0.02
5	Perkins	1204F-E44TTA	173	0.21	0.0075	0.015	0.005	0.02

**Table 4: Maximum Annual Potential to Emit of Proposed New Diesel Fueled IC Engines:  
All values are listed in lbs/year**

ID	Manufacturer	Model	Maximum Rated bhp	NOx	VOC	PM10	SOx	CO
1	Perkins	1206F-E70TTAG4	321	3.54	0.13	0.03	0.09	17.16
2	Perkins	1206F-E70TTAG3	247	2.59	0.10	0.02	0.06	13.20
3	Perkins	1204F-E44TTA	173	1.99	0.07	0.14	0.05	0.21
4	Perkins	1204F-E44TTA	173	1.99	0.07	0.14	0.05	0.21
5	Perkins	1204F-E44TTA	173	1.99	0.07	0.14	0.05	0.21
<b>Total Annual PTE for all 5 new engines, in lbs:</b>				<b>12.10</b>	<b>0.44</b>	<b>0.47</b>	<b>0.30</b>	<b>30.99</b>

Note: This assumes that each engine is operated for the entire 25 hours of authorized runtime for testing and maintenance.

**Table 5: Certified Emission Factors of District Permit Units B012343 and B012344:  
All values are listed in g/bhp-hr**

ID	Manufacturer	Model	Maximum Rated bhp	NOx	VOC	PM10	SOx	CO
1	Perkins	1204E-E44TTAG2	146.6	1.94	0.01	0.002	0.005	0.07
2	Perkins	1204E-E44TTAG2	146.6	1.94	0.01	0.002	0.005	0.07

**Table 6: Annual Emissions Reductions from District Permit Units B012343 & B01234:**  
*All values are listed in lbs/year*

ID	Manufacturer	Model	Maximum Rated bhp	NOx	VOC	PM10	SOx	CO
1	Perkins	1204E-E44TTAG2	146.6	47.02	0.24	0.048	0.12	1.70
2	Perkins	1204E-E44TTAG2	146.6	47.02	0.24	0.048	0.12	1.70
<b>Total Annual reductions for both engines, lbs:</b>				<b>94.04</b>	<b>0.48</b>	<b>0.096</b>	<b>0.24</b>	<b>3.40</b>

Note: This assumes that each engine is operated for 75 fewer hours per year (12 month consecutive period), for a total of 150 reduced operating hours.

**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*

	NOx	VOC	PM10	SOx	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
<b>Net Change in PTE, lbs:</b>	<b>- 81.94</b>	<b>- 0.04</b>	<b>+ 0.37</b>	<b>+ 0.06</b>	<b>+ 27.99</b>

The slight 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 1:1 is applied for this interpollutant transfer and, as discussed in Rule 1305(C)(4), the two engines being used to provide the SERs meet RACT and do not require any further adjustments. After considering all adjustments this permitting action leaves a net decrease in both NOx and VOC emissions, thereby providing a net benefit to the environment.

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, and hereby requests CARB reviewal and concurrence and USEPA approval of the above mentioned interpollutant transfer as required by District Rule 1305(B)(6)(a).

## **2. Proposed New Engines: Determination of Nonattainment NSR Requirements**

[District Rule 1302(C)(2)]

### *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 has a facility PTE in excess of twenty five (25) tons per year for the Nonattainment Air Pollutant and Precursors of CO, NO<sub>x</sub>, PM<sub>10</sub>, and VOC. Therefore, in accordance with District Rules 1302 and 1303, the new engines must meet BACT.

The District's BACT determination for emergency use diesel-fueled engines of this class and category is to meet the emission limits imposed by the CA State Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition Engines (17 CCR 93115), which are:

- a. 0.15 g/bhp-hr of Diesel Particulate Matter (CAS # 9901), nor more than
- b. 3.0 g/bhp-hr of NMHC + NO<sub>x</sub>, nor more than
- c. 2.6 g/bhp-hr of CO for units 1 and 2, and 3.7 g/bhp-hr for units 3,4, and 5

As noted in Tables 3 and 8, all five proposed engines meet these BACT limits.

### *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 NO<sub>x</sub> and VOC and 15 tons per year for PM<sub>10</sub>; however, since the proposed permitting action results in a net emissions decrease as indicated in the Determination of Emissions section above, offsets are not required.

### *c. Determination of Additional Federal Requirements*

[District Rule 1302(C)(4)]

Pursuant to the requirements in District Rule 1302 B(1)(a)(ii), an analysis of Alternative Siting is not required as the proposed equipment does not require Offsets, nor is it a Major Modification as defined in District Rule 1301 (DDD).

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

### 3. Proposed New Engines: 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 is subject to both State and Federal Toxic New Source Review, as this proposed modification includes Emissions Units which have both the potential to emit a Toxic Air Contaminant and which are subject to an Airborne Toxic Control Measure (State T-NSR). NAWS 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. The Airborne Toxic Control Measure for Stationary Compression Ignition Engines, Title 17 of the California Code of Regulations, section 93115 et seq., applies to the five new engines being installed. The proposed engines all meet the ATCM’s emission limits for stationary emergency engines as noted in Table 8 below. State and District enforceable permit conditions have been included to ensure compliance.

**Table 8: Comparison of certified emissions and CA State ATCM emission limits of Proposed New Diesel Fueled IC Engines: All values are listed in g/bhp-hr**

ID	Make	Model	NO <sub>x</sub> plus NMHC Emission Factor		PM <sub>10</sub> Emission Factor		CO Emission Factor	
			Certified Actual	ATCM Limit	Certified Actual	ATCM Limit	Certified Actual	ATCM Limit
1	Perkins	1206F-E70TTAG4	0.209	3.0	0.0015	0.15	0.97	2.6
2	Perkins	1206F-E70TTAG3	0.201	3.0	0.0015	0.15	0.97	2.6
3	Perkins	1204F-E44TTA	0.216	3.0	0.015	0.15	0.02	3.7
4	Perkins	1204F-E44TTA	0.216	3.0	0.015	0.15	0.02	3.7
5	Perkins	1204F-E44TTA	0.216	3.0	0.015	0.15	0.02	3.7

The emission limits imposed by the State of California’s Stationary Diesel ATCM are more stringent than those in the federal New Source Performance Standard (40 CFR 60, subpart IIII) and are therefore used as the governing limits for the facility.

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 Scores were calculated using the proposed engine’s maximum Potential to Emit in HARP software, which is consistent with the 2016 *CAPCOA Facility Prioritization Guidelines*, and is based on a very conservative receptor selection of 500 meters (please refer to Appendix C for the Emission Unit Prioritization HARP data). Using this approach is a conservative reflection of the Emission Unit additions since the proposed action will result in an overall decrease in emissions. As shown in the table below, the carcinogenic Prioritization Scores for the new emission units is less than one (1) and therefore categorizes these engines as ‘Low Priority’. Pursuant to District Rule 1320, section (E)(2)(b), no further State T-NSR action is required.

<b>Unit ID</b>	<b>Description</b>	<b>Cancer Priority</b>	<b>Chronic Noncancer Priority</b>	<b>Acute Noncancer Priority</b>
1	Perkins 1206F-E70TTAG4	< 0.01	< 0.01	< 0.01
2	Perkins 1206F-E70TTAG3	< 0.01	< 0.01	< 0.01
3	Perkins 1204F-E44TTA	< 0.01	< 0.01	< 0.01
4	Perkins 1204F-E44TTA	< 0.01	< 0.01	< 0.01
5	Perkins 1204F-E44TTA	< 0.01	< 0.01	< 0.01

*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 new Emission Units (Diesel engines). As noted in section B.5 below, although no MACT Standards apply to these new engines, the Federal New Source Performance Standards (NSPS) found in 40 CFR 60, Subpart IIII do apply. The proposed engines meet all emission limits in the NSPS and federally enforceable permit conditions have been established to ensure full compliance with the regulation.

*b. District Rule 1520 – Toxic Hot Spots Analysis:*

District Rule 1520 – *Control of Toxic Air Contaminants from Existing Sources* applies to NAWS, as they are an existing facility that has a facility PTE greater than ten (10) tons per year for VOC, PM, and NO<sub>x</sub>, as well as a PTE to emit a TAC (Section (B)(1)(a) and (c)). NAWS’s most recent (2016 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. The Facility Prioritization Score was prepared 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 resultant Facility Prioritization Score for NAWS is greater than (1) and

less than ten (10), categorizing the facility as ‘Intermediate Priority’. Based on the requirements of District Rule 1520, section (E)(1)(b), no further analysis is required.

	<b>Cancer Priority</b>	<b>Chronic Noncancer Priority</b>	<b>Acute Noncancer Priority</b>
<i>Total Facility Prioritization Score</i>	8.68	0.0263	0.129

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 and this proposed modification. The District will reevaluate NAWS’ Prioritization Score this year utilizing 2017 emissions data to be provided by the facility.

**4. Proposed New Engines: Determination of Requirements for Prevention of Significant Deterioration**

[District Rule 1302(C)(6)]

*a. PSD Analysis*

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

*b. NAAQS Impact Analysis*

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

*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 is in compliance with this rule as they appropriately applied for a District permit for all new equipment and maintains District permits for all residing equipment.

Rule 204 – *Permit Conditions*. To assure compliance with all applicable regulations, the Air Pollution Control Officer (Executive Director) may impose written conditions on any permit. The District has imposed permit conditions to ensure NAWS 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 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 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 is in compliance with this rule, as they currently hold and maintain a Federal Operating Permit.

Rule 301 – *Permit Fees*. The proposed equipment will increase NAWS'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 is not expected to violate Rule 408.

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

Rule 900 – *Standards of Performance for New Stationary Sources (NSPS)*. Rule 900 adopts all applicable provisions regarding standards of performance for new stationary sources as set forth in 40 CFR 60. The New Source Performance Standards found in 40 CFR 60, Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines,

apply. The proposed engines meet all emission limits in the NSPS and federally enforceable permit conditions have been established to ensure full compliance with the regulation.

Regulation X – *National Emission Standards for Hazardous Air Pollutants*. Pursuant to Regulation X, NAWS is required to comply with all applicable ATCMs. The Airborne Toxic Control Measure for Stationary Compression Ignition Engines found in Title 17 of the California Code of Regulations, section 93115 et seq., applies to the five new engines being installed. State and District enforceable permit conditions have been included to ensure compliance.

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

Rule 1201 – *Federal Operating Permit Definitions*. NAWS 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’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’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 included a Certification of Responsible Official as required with the submitted application for the proposed equipment.

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

#### Regulation XIII – *New Source Review*

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

Rule 1303 – *Requirements*. This rule requires BACT and offsets for selected facility modifications. Equipment installed shall meet BACT and prior to the commencement of construction the proponent shall have obtained sufficient offsets to comply with Rule 1303(B)(1). The proposed permitting action does trigger BACT but does not require offsets. BACT is met by using engines certified to meet the CA ATCM for Stationary Compression Ignition Engines.

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 has a facility PTE greater than ten (10) tons per year for VOC, PM, and NO<sub>x</sub>, as well as a PTE 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)(6), above.

Regulation XVII – *Prevention of Significant Deterioration*. The purpose of this regulation is to set for 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*

No state regulations are applicable to the proposed permitting action.

#### *Federal Regulations*

40 CFR 60, Subpart A – *NSPS General Provisions*. NAWS complies with this regulation per Appendix C, Sections C1 and C2 of their FOP.

40 CFR 60, Subpart IIII – *NSPS for Stationary Compression Ignition Internal Combustion Engines*. NAWS complies with this regulation per Appendix C, Section C12 for all emergency and non-emergency engines within their FOP.

40 CFR 61, Subpart M – *NESHAPS for Asbestos*. NAWS complies with 40 CFR 61, Subpart M – *NESHAP for Asbestos* per conditions in Part II, section C.7, C.8, and C.9 of their FOP.

40 CFR 63, Subpart A – *NESHAP General Provisions*. NAWS complies with this regulation per Appendix C, Sections C3 through C7 of their FOP.

40 CFR 63, Subpart ZZZZ – *NESHAP for Stationary Reciprocating Internal Combustion Engines*. NAWS complies with this regulation for all emergency and non-emergency engines in 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)]

As none of the proposed engines have potential pre-control emissions that will exceed the major source threshold (nor do any of the proposed changes to current permit conditions), this proposed modification does not require Naval Air Weapons Station, China Lake to implement a CAM Plan in any way.

40 CFR 82, *Protection of Stratospheric Ozone*. NAWS complies with this regulation per Appendix C, Section C13 of their FOP.

40 CFR 98, *Mandatory Greenhouse Gas Reporting*. NAWS is not currently required to comply with Subpart A – General Provisions (40 CFR 98.2(a)(3). This status is proposed for addition to their FOP under Part IV, condition 22.

#### **6. Proposed NSR Equipment-Specific Permit Conditions**

The District proposed the following equipment-specific permit conditions be added to PART III of the facility’s Title V Federal Operating Permit:

1. This certified stationary compression-ignited internal combustion engine and its associated emission control systems shall be installed, operated and maintained in strict accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of air contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

[40 CFR 60.4211(a); District Rule 1160]

2. [For District Permit Units E012799 and E012800 only] This engine shall not be operated unless all of the following emission control systems are properly functioning:

- a. Diesel Oxidation Catalyst
- b. Electronic Control Module
- c. Exhaust Gas Recirculation
- d. Continuous Trap Oxidizer
- e. SCR-Urea
- f. Ammonia Oxidation Catalyst

Furthermore, no changes shall be made to any of the above systems unless done so by a factory certified technician.

[40 CFR 60.4211, MDAQMD Rules 1302 and 1320]

2. [For District Permit Units E012793, E012801, and E012802 only] This engine shall not be operated unless all of the following emission control systems are properly functioning:

- a. Diesel Oxidation Catalyst
- b. Electronic Control Module
- c. Exhaust Gas Recirculation
- d. SCR-Urea
- e. Ammonia Oxidation Catalyst

Furthermore, no changes shall be made to any of the above systems unless done so by a factory certified technician.

[40 CFR 60.4211, MDAQMD Rules 1302 and 1320]

3. This equipment shall only be fired on diesel fuel that meets the following requirements, or an alternative fuel approved by the ATCM for Stationary CI Engines:

- a. Ultra-low sulfur concentration of 0.0015% (15 ppm) or less, on a weight per weight basis; and,
- b. A cetane index or aromatic content, as follows:
  1. A minimum cetane index of 40; or,
  2. A maximum aromatic content of 35 volume percent.

[17 CCR 93115.5(a) and 40 CFR 80.510(c)]

Note: Use of CARB certified ULSD fuel satisfies the above requirements.

4. The owner/operator shall maintain an operations log for this engine current and on-site (or at a central location) for a minimum of five (5) years, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the following information:

- a. Date of each use and duration of each use (in hours);
- b. Reason for each use (testing & maintenance, emergency, emission testing, etc.);
- c. Monthly and calendar year operation in terms of total hours; and
- d. Records of all maintenance and repair actions performed on the engine and all emission control systems listed in Condition 2 above

[40 CFR 60.4245, 40 CFR 1048, District Rule 1302]

5. This engine may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where the engine is located or expects to order such outages at a particular time, the engine is located in the area subject to the rotating outage, the engine is operated no more than 30 minutes prior to the forecasted outage, and the engine is shut down immediately after the utility advises that the outage is no longer imminent or in effect.

[District Rule 1302]

6. This unit shall not be used to provide power during a voluntarily agreed to power outage and/or power reduction initiated under an Interruptible Service Contract (ISC); Demand

Response Program (DRP); Load Reduction Program (LRP) and/or similar arrangement(s) with the electrical power supplier.  
[40 CFR 60.4243(d), 60.4248]

7. This engine is subject to the requirements of the New Source Performance Standards (NSPS) for Stationary Spark Ignition IC Engines (40 CFR 60, Subpart JJJJ).  
[40 CFR 60, Subpart JJJJ, District Rule 1302]

8. This engine meets all emission limits of 40 CFR 60 subpart IIII and 17 CCR 93115 for use as a stationary emergency engine and therefore may be used to provide intermittent emergency power to stationary test sites throughout the South Range area of operations and relocated to protected locations when not in use to prevent exposure to severe weather.  
[40 CFR 60 subpart IIII; 17 CCR 93115; District Rule 204]

### ***7. NSR Preliminary Decision - Conclusion***

The District has reviewed the proposed modifications and application for NAWS 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 requested changes to the FOP are included in the proposed draft FOP dated May 15, 2018. Additionally, a description and explanation of those changes are indicated below:

## **PART I: INTRODUCTORY INFORMATION**

This section of the Federal Operating Permit contains general information about the NAWS facility, including facility identifying information (section A), a description of the facility (section B), and a descriptive summary of the facility's equipment (section C).

A description of the facility was added as a new section B and the descriptive summary of the facility's equipment was changed from section B to section C. Furthermore, numerous grammatical, typographic, and editorial errors require correction to improve the quality and clarity of the permit. The following proposed administrative changes to the Title V FOP Section I.C do not allow for any increases in emissions nor provide any relaxations to any existing conditions, but merely provide a summary overview of each piece of equipment. Please see the specific operating constraints and limits promulgated in Section III:

1. Title V Section I.C, Equipment unit B003146: The capacity should read “150 gallons” vice “150 gallons per hour”.



2. Title V Section I.C, Equipment unit B003155: The capacity should read “500 lbs” vice “500 lbs per hour” and “Used with control devices under MDAQMD Permits C003157 or C004010” vice “Used with control devices under MDAQMD Permits C003157 and C004010”.
3. Title V Section I.C, Equipment unit B003156: The capacity should read “400 lbs” vice “400 lbs per hour” and “Used with control devices under MDAQMD Permits C003157 or C004010” vice “Used with control devices under MDAQMD Permits C003157 and C004010”.
4. Title V Section I.C, Equipment unit B004375: Should read “Used with control device under MDAQMD Permit C004376 unless approved in advance by District” vice “Used with control device under MDAQMD Permit C003154”.
5. Title V Section I.C, Equipment unit B004898: Should read “Designated as a Low-Use engine and therefore limited to 20 hours of operation per consecutive 12 month period (State and District enforceable only).” vice “Does not meet CA state mandated emission limits (State and District enforceable only)”.
6. Title V Section I.C, Equipment unit C004376: Should have additional entry reading “Use may be specifically exempted by District on a case-by-case basis”.
7. Title V Section I.C, Equipment unit S003138: Should read “Exhausted through twenty filters, each measuring 20 inches x 25 inches x 2 inches” vice “Exhausted through twelve filters, each measuring 20 inches x 25 inches x 2 inches”.
8. Title V Section I.C, Equipment units B012343 and B012344 should read " May be operated with B012344 for a combined total of 7850 hours per year" and "May be operated with B012343 for a combined total of 7850 hours per year" respectively.
9. Title V Sections I.C and III: Delete all references to equipment units B008076, B008078, B008386, B008658, E007943, and E007944.

## **PART II: FACILITYWIDE APPLICABLE REQUIREMENTS; EMISSIONS LIMITATIONS; MONITORING, RECORDKEEPING, REPORTING AND TESTING REQUIREMENTS; COMPLIANCE CONDITIONS; COMPLIANCE PLANS**

This section of the Federal Operating Permit contains requirements applicable to the entire facility and equipment (section A), facility-wide monitoring, recordkeeping, and reporting requirements (section B), and facility-wide compliance conditions (section C).

*No changes were made to this section.*

## **PART III: EQUIPMENT SPECIFIC APPLICABLE REQUIREMENTS; EMISSIONS LIMITATIONS; MONITORING, RECORDKEEPING, REPORTING AND TESTING REQUIREMENTS; COMPLIANCE CONDITIONS; COMPLIANCE PLANS**

This section of the Federal Operating Permit contains equipment-specific applicable requirements including emission limitations, monitoring and recordkeeping, reporting and testing, and compliance plans.

*Changes made to this section of the FOP:*

- a. Modification to Title V Section III.C.4.a: Relaxation of fuel usage monitoring for equipment units B003315 and B003316.

The Applicant proposes relaxing the natural gas usage monitoring requirement from daily to monthly. The permits have no usage restrictions whatsoever and the usage data is used for emission inventory purposes only.

- b. Modification to Title V Sections III.D.8.f, III.E.5.f, III.F.5.e, and III.G.6.f: Removal of requirement to record testing results for equipment units B001065, B001066, B001067, B001068, B001069, B001070, B001071, B001072, B002908, B003132, B004091, B004375, B011470, I001063, I001064, I003131, and I009100.

The Applicant proposes removing the test result recording requirement as the test results are only used to evaluate the performance of the R&D materials being tested and contain no emissions data or useful information regarding any facet of air quality.

- c. Modification to Title V Sections III.D.8.e, III.G.6.e, and III.P.4.d: Removal of requirement to record post-testing meteorological data from equipment units B001065, B001066, B001067, B001068, B001069, B001070, B001071, B001072, B003132, B004011, B004091, B004375, and B011470.

The Applicant proposes removing the post-testing meteorological data recording requirement as the data is not used to calculate any emissions or air quality information. Furthermore, these equipment units are already precluded from conducting more than one test within an interval such that measurable exposure from one test is added to the emissions from other tests or other activities emitting significant pollutants.

- d. Modification to Title V Section III.D.2 to allow the facility to refuel and defuel liquid propellant aerial targets in Skytop Test Bay IV.

The Applicant proposes relaxing the requirement for the facility to obtain written approval of a test plan from the District prior to conducting routine aerial target fueling and defueling operations in this test bay as the District has already allowed the facility to conduct such operations via letter authorizations since 2002: This change only codifies the District's administrative letter authorization process. The proposed new condition will only allow the addition of refueling/defueling operations and does not allow for any testing or burning of liquid propellants without prior written consent from the District. The proposed modified condition will read as follows:

“This test stand shall be limited to the use of solid propellant rocket motors unless prior written approval of a test plan is obtained from the District. This limitation does not apply to liquid propellant fueling/defueling of aerial targets”  
[District Rule 204]

- e. Modification to Title V Section III.EE to remove equipment units T003151 and T005062 from this Section.

The Applicant proposes removing these equipment units from the Title V FOP as they are only authorized to use acetone, which is exempt from Federal, State, and District regulation. Furthermore, the District proposes removing references to these two

equipment units from Section III.EE.7 for equipment units T003150, T003152, T005063, T009804, and T010868.

f. Modification to Title V Sections III.H.3.d, III.H.3.e, and III.H.3.f to consolidate three individual test item weight limits into one single combined weight limit for equipment units B003133, B003277, B007890, and B010539.

The Applicant proposes eliminating the individual per test weight limit of 50 lbs for each of three types of materials (propellants, explosives, and flares) and replace it with a single 150 lb combined limit for all three materials.

- This allows a relaxation in the per-test limit, but does not allow for any daily or annual increase in the amounts of materials being tested nor allow any increase in expected emissions from the testing.
- There are no relaxations for recordkeeping or reporting.
- The change gives the facility more flexibility in scheduling tests. There are other test pads where the above quantities can be tested, but allowing this change allows them to test at more pads where access and instrumentation could be improved.
- The facility is already permitted to exceed the 50 lb limit at these 4 test pads by requesting an exemption from the District, which is routinely approved to prevent delays in testing programs involving national security. This proposed modification will eliminate this formality.

g. Modification to Title V Section III.J.5 to specifically add a weight-based throughput limit of 1,200 lbs per 7-day period to equipment unit B003156.

The Applicant proposes adding this specific weight limit to make the condition more easily enforceable. The change does not allow for any increase in throughput and eliminates the confusion created by using the term “batch” versus the facility’s common term of “grind lot”. Furthermore, the Applicant proposes changing the equipment description section of the District-level permit for this equipment unit to change the term “batch” to the term “grind lot” and to clarify the throughput rate of the unit.

h. In consonance with B.5.g above, the Applicant also proposes changing the equipment description section of the District-level permit unit B003146 to change the term “batch” to the term “grind lot” and to clarify that the dust collectors/HEPA filters are used for safety reasons and not for air pollution control purposes. The District Permit’s Equipment Description field for B003156 already contains such language.

i. Addition of Title V Section III.GG to include the following operating conditions for the five new diesel fueled emergency generators:

1. This certified stationary compression-ignited internal combustion engine and its associated emission control systems shall be installed, operated and maintained in strict accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of air contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

[40 CFR 60.4211(a); District Rule 1160]

2. [For District Permit Units E012799 and E012800 only] This engine shall not be operated unless all of the following emission control systems are properly functioning:

- a. Diesel Oxidation Catalyst
- b. Electronic Control Module
- c. Exhaust Gas Recirculation
- d. Continuous Trap Oxidizer
- e. SCR-Urea
- f. Ammonia Oxidation Catalyst

Furthermore, no changes shall be made to any of the above systems unless done so by a factory certified technician.

[40 CFR 60.4211, MDAQMD Rules 1302 and 1320]

2. [For District Permit Units E012793, E012801, and E012802 only] This engine shall not be operated unless all of the following emission control systems are properly functioning:

- a. Diesel Oxidation Catalyst
- b. Electronic Control Module
- c. Exhaust Gas Recirculation
- d. SCR-Urea
- e. Ammonia Oxidation Catalyst

Furthermore, no changes shall be made to any of the above systems unless done so by a factory certified technician.

[40 CFR 60.4211, MDAQMD Rules 1302 and 1320]

3. This equipment shall only be fired on diesel fuel that meets the following requirements, or an alternative fuel approved by the ATCM for Stationary CI Engines:

- a. Ultra-low sulfur concentration of 0.0015% (15 ppm) or less, on a weight per weight basis; and,
- b. A cetane index or aromatic content, as follows:
  - 1. A minimum cetane index of 40; or,
  - 2. A maximum aromatic content of 35 volume percent.

[17 CCR 93115.5(a) and 40 CFR 80.510(c)]

Note: Use of CARB certified ULSD fuel satisfies the above requirements.

4. The owner/operator shall maintain an operations log for this engine current and on-site (or at a central location) for a minimum of five (5) years, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the following information:

- a. Date of each use and duration of each use (in hours);
- b. Reason for each use (testing & maintenance, emergency, emission testing, etc.);
- c. Monthly and calendar year operation in terms of total hours; and
- d. Records of all maintenance and repair actions performed on the engine and all emission control systems listed in Condition 2 above

[40 CFR 60.4245, 40 CFR 1048, District Rule 1302]

5. This engine may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where the engine is located or expects to order such outages at a particular time, the engine is located in the area subject to the rotating outage, the engine is operated no more than 30 minutes prior to the forecasted outage, and the engine is shut down immediately after the utility advises that the outage is no longer imminent or in effect.

[District Rule 1302]

6. This unit shall not be used to provide power during a voluntarily agreed to power outage and/or power reduction initiated under an Interruptible Service Contract (ISC); Demand Response Program (DRP); Load Reduction Program (LRP) and/or similar arrangement(s) with the electrical power supplier.

[40 CFR 60.4243(d), 60.4248]

7. This engine is subject to the requirements of the New Source Performance Standards (NSPS) for Stationary Spark Ignition IC Engines (40 CFR 60, Subpart JJJJ).

[40 CFR 60, Subpart JJJJ, District Rule 1302]

8. This engine meets all emission limits of 40 CFR 60 subpart IIII and 17 CCR 93115 for use as a stationary emergency engine and therefore may be used to provide intermittent emergency power to stationary test sites throughout the South Range area of operations and relocated to protected locations when not in use to prevent exposure to severe weather.

[40 CFR 60 subpart IIII; 17 CCR 93115; District Rule 204]

#### **PART IV: STANDARD FEDERAL OPERATING PERMIT CONDITIONS**

This section of the Federal Operating Permit contains standard federal operating permit conditions.

A new condition 23 was added to clarify that the facility is not currently required to report greenhouse gases as noted in 40 CFR 98.2(a)(3), but may require compliance in the future if the Facility's CO<sub>2e</sub> emissions exceed 25,000 metric tons.

#### **PART V: OPERATIONAL FLEXIBILITY**

This section of the Federal Operating Permit contains information on Off Permit Changes.

*No changes were made to this section.*

#### **PART VI: PERMIT SHIELD**

*No changes were made to this section.*

## **PART VII: CONVENTIONS, ABBREVIATIONS, DEFINITIONS**

*No changes were made to this section.*

### **2. CAM Plan**

*No changes were made requiring NAWS to implement a CAM Plan.*

### **3. Title V/FOP Preliminary Determination – Conclusion**

The District has reviewed the applications and proposed modifications to NAWS'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 the attached revised FOP.

This preliminary determination will be submitted to USEPA, CARB, and the public for review and comment on March 30, 2018. The public notice for this preliminary determination will be published on March 30, 2018 as well, allowing for public comment until May 3, 2018.

## **D. Comment Period and Notifications**

**1. Public Comment**

This preliminary determination will be publicly noticed on or about April 3<sup>rd</sup>, 2018, allowing for public comment until May 3<sup>rd</sup>, 2018. Please see Appendix B for noticing details.

**2. Notifications**

The preliminary determination was submitted to USEPA and CARB pursuant to District Rule 1207 for a forty-five (45) day review period on March 30<sup>th</sup>, 2018. The final modified FOP shall be issued on or about May 15<sup>th</sup>, 2018.

All correspondence required by District Rules 1302 and 1207 will be forwarded electronically to the following recipients on March 30, 2018:

Director, Office of Air Division  
United States EPA, Region IX  
75 Hawthorne Street  
San Francisco, CA 94105  
[R9airpermits\\_AV\\_MD@epa.gov](mailto:R9airpermits_AV_MD@epa.gov)

Chief, Stationary Source Division  
California Air Resources Board  
P.O. Box 2815  
Sacramento, CA 95812  
[ttle@arb.ca.gov](mailto:ttle@arb.ca.gov)

Brenda Abernathy  
Air Program Manager, Code N45NCW  
Naval Air Weapons Station, China Lake  
429 E. Bowen Rd, Stop 4014  
China Lake, CA 93555-6108  
[brenda.abernathy@navy.mil](mailto:brenda.abernathy@navy.mil)

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# Appendix A Application

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## Appendix B 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 Friday, March 30<sup>th</sup>, 2018.
- 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 Friday, March 30<sup>th</sup>, 2018.
- Posted on the MDAQMD Website at the following link:  
<http://mdaqmd.ca.gov/permitting/public-notices-advisories/public-notices-permitting-regulated-industry>

**Preliminary Determination/Decision - Statement of Basis**

**Naval Air Weapons Station, China Lake  
March 30<sup>th</sup>, 2018**

## **NOTICE of TITLE V PERMIT SIGNIFICANT MODIFICATION**

NOTICE IS HEREBY GIVEN THAT Naval Air Weapons Station, China Lake, CA, operating their facility in China Lake, California, located within the Mojave Desert Air Quality Management District (MDAQMD) has applied for a Significant Modification to their Federal Operating Permit (FOP) pursuant to the provisions of MDAQMD Regulation XII. The applicant is a United States Navy facility engaged in research, development, test, and evaluation of aircraft warfare systems, aircraft weapons integration, and airborne electronic warfare systems and is of a size requiring a Title V Permit. The applicant is required to submit a change to their FOP because the facility is requesting to (1) install five new emergency use diesel internal combustion engines, (2) reduce the allowed operating hours for two currently permitted diesel internal combustion engines, (3) cancel the permits for two currently operating dip tanks, and update permit conditions to forty two other currently permitted pieces of equipment. The proposed changes constitute a significant modification pursuant to Rule 1201(T)(3) in that a case-by-case determination of Best Available Control Technology pursuant to District Regulation XIII – New Source Review – was required for the new engines and a portion of the updated permit conditions represent relaxations in recordkeeping and reporting requirements . There will be a slight overall decrease in criteria pollutants as a result of this action.

**REQUEST FOR COMMENTS:** Interested persons are invited to submit written comments and/or other documents regarding the terms and conditions of the proposed changes. If you submit written comments, you may also request a public hearing on the proposed modification of the FOP. To be considered, comments, documents and requests for public hearing must be submitted no later than 5:00 P.M. on Thursday, May 3, 2018 to the MDAQMD, Attention: Guy Smith, at the address listed below.

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

**AVAILABILITY OF DOCUMENTS:** Copies of the Application, the Statement of Legal and Factual Basis, New Source Review Preliminary Decision / FOP Modification Preliminary Determination, the Proposed Draft FOP, and other supporting documentation are available from the MDAQMD by mail, in person, via the following link on the MDAQMD website: <http://mdaqmd.ca.gov/permitting/public-notices-advisories/public-notices-permitting-regulated-industry> or by contacting Guy Smith, Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392, Phone: (760) 245-1661, extension 1854, Facsimile: (760) 245-2022 or at [gsmith@mdaqmd.ca.gov](mailto:gsmith@mdaqmd.ca.gov) .

Appendix C  
Emission Unit Prioritization Scores

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# HARP Facility Prioritization Report

HARP EIM Version: 2.1.1

Reporting Year: 2018  
Project Path: C:\Users\guys\Desktop\\_\_2018 Permitting Project HARP Files  
Project Database: C:\Users\guys\Desktop\\_\_2018 Permitting Project HARP Files\GES\_Permitting\_Projects\_2018.mdb  
CEIDARS Utility Database: C:\HARP2\Tables\CEIDARSTables022016.mdb  
HARP Health Talbe: HEALTH201708  
Sorting Order: DIS, AB, CO, TS, FACID, DEV  
Date Created: 3/20/2018 10:18:17 AM  
Operator: GS

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## POLLUTANT HEALTH VALUES FROM HARP HEALTH DATABASE:

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POLLUTANT ID	POLLUTANT	CANCERURF (INH) (ug/m^3)^-1	ACUTEREL ug/m^3	CHRONICREL (INH) ug/m^3
106990	1,3-Butadiene	1.70E-04	6.60E+02	2.00E+00
540841	2,2,4TriMePentn	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
7440382	Arsenic	3.30E-03	2.00E-01	1.50E-02
71432	Benzene	2.90E-05	2.70E+01	3.00E+00
42101	CO	N/A	N/A	N/A
18540299	Cr(VI)	1.50E-01	N/A	2.00E-01
1080	DiBenFurans(Cl)	3.80E+01	N/A	4.00E-05
9901	DieselExhPM	3.00E-04	N/A	5.00E+00
1086	Dioxins-w/o	3.80E+01	N/A	4.00E-05
100414	Ethyl Benzene	2.50E-06	N/A	2.00E+03
50000	Formaldehyde	6.00E-06	5.50E+01	9.00E+00
110543	Hexane	N/A	N/A	7.00E+03
7439965	Manganese	N/A	N/A	9.00E-02
7439976	Mercury	N/A	6.00E-01	3.00E-02
7440020	Nickel	2.60E-04	2.00E-01	1.40E-02
42603	NOX	N/A	N/A	N/A
1151	PAHs-w/o	1.10E-03	N/A	N/A
123386	Propionaldehyde	N/A	N/A	N/A
42401	SOX	N/A	N/A	N/A
108883	Toluene	N/A	3.70E+04	3.00E+02
43104	VOC	N/A	N/A	N/A
1330207	Xylenes	N/A	2.20E+04	7.00E+02

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MULTIPATHWAY POLLUTANTS ADJUSTMENT FACTORS OTHER THAN 1:  
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None.

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PRIORITIZATION SCORE SUMMARY:  
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Facility Name  
Proximity Method  
Optional Factors

FACID	CO AB	DIS	DEVICE	Emission and Potency Procedure				Dispersion Adjustment Procedure				Highest Score
				Cancer	Acute	Chronic	NonCancer	Cancer	Acute	Chronic	NonCancer	
COMMANDER NAWS - CODE N45NCW												
Proximity Method: Proximity manually edited by user as 500 m.												
Annual Operating Hours 25												
8800567	36	MD	MOJ	1.30E-02	2.74E-03	8.28E-03	9.11E-03	1.30E-02	2.74E-03	8.28E-03	9.11E-03	1.30E-02
			Device ID	12793	3.89E-03	4.37E-04	2.21E-03	2.34E-03	3.88E-03	4.37E-04	2.21E-03	2.34E-03
			Device ID	12799	7.46E-04	8.09E-04	9.42E-04	1.19E-03	7.44E-04	8.09E-04	9.42E-04	1.19E-03
			Device ID	12800	5.74E-04	6.20E-04	7.19E-04	9.10E-04	5.73E-04	6.20E-04	7.19E-04	9.10E-04
			Device ID	12801	3.89E-03	4.37E-04	2.21E-03	2.34E-03	3.88E-03	4.37E-04	2.21E-03	2.34E-03
			Device ID	12802	3.89E-03	4.37E-04	2.21E-03	2.34E-03	3.88E-03	4.37E-04	2.21E-03	2.34E-03



Appendix D  
Detailed Emissions Calculations

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