

March 6, 2026

Ms. Karla Murrieta  
Air Permitting Unit Manager  
Arizona Department of Environmental Quality  
1110 W Washington  
Phoenix, AZ 85007

Re: Supplement to pending air permit application  
Mohave Energy Park, Arizona Electric Power Cooperative, Inc.

Dear Ms. Murrieta:

Arizona Electric Power Cooperative, Inc. (AEP CO) has applied for a Class II air quality permit to construct and operate the Mohave Energy Park in Mohave County. The U.S. Environmental Protection Agency (EPA) has proposed to repeal New Source Performance Standard Subpart (NSPS) Subparts TTTTa and TTTT. As currently written, NSPS TTTTa limits simple cycle combustion turbines, such as those proposed for installation at Mohave Energy Park, to 40 percent or lower capacity, while NSPS Subpart TTTT limits simple cycle combustion turbines to their design efficiency. If Subpart TTTTa and TTTT are repealed, then there would be no reason to restrict operation of the simple cycle combustion turbines. In light of the increase in energy demand throughout Arizona and in AEP CO's Members' service territories, it is imprudent for AEP CO to arbitrarily limit use of the turbines permanently due to a regulation that is proposed to be repealed.

Although AEP CO recognizes that it is still uncertain whether the repeal of Subpart TTTT and TTTTa would occur, AEP CO proposes that ADEQ place the following language in the applicability section of the NSPS Subpart TTTTa permit condition:

The Permittee shall operate GT 1 through 4 such that each unit is not subject to the requirements of base load combustion turbines under 40 CFR 60.552a(a) and Table 1 of Subpart TTTTa of Part 60. The Permittee shall comply with either the requirements of the low load combustion turbine category or the requirements of the intermediate load turbine category below, as applicable.

The effect of this language is to ensure that Mohave Energy Park is subject to NSPS Subpart TTTTa until such time the NSPS Subpart TTTTa limits no longer apply, which would require a successful repeal.

AEP CO is submitting revised calculations showing the emissions of the facility without the NSPS Subpart TTTTa limit being applicable. This would increase the potential to emit to 140.5 tons/year NOx, 193.8 tons/year CO, 71.6 tons/year PM, PM10, PM2.5, 8.4 tons/year SO2, 22.2 tons/year

for VOC, and 991,154 tons/year for CO<sub>2</sub>e. PSD is not triggered for any pollutant; Title V and Class I status would be triggered, and minor NSR is triggered for NO<sub>x</sub>, CO, VOC and PM<sub>10</sub> and PM<sub>2.5</sub>.

As outlined in the attached letter from Blue Sky Modeling, LLC, the June 23, 2025, modeling report adequately addresses these emissions because it modeled the startup/shutdown emissions rate, which is higher than the new potential to emit rate (when both are put in terms of lb/hr) for all hours of the year and determined that the National Ambient Air Quality Standards were met for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and that the CO and Ozone results are below the significant impact level. Therefore, the existing modeling demonstration adequately demonstrates that even if the Mohave Energy Park were to operate additional hours it would not cause an exceedance of the NAAQS.

Considering the changes discussed above, AEPCO is submitting this supplement to the proposed Mohave Energy Park facility permit application to request the following changes:

- Change the permit application to request a Class I permit to reflect the increase in the potential to emit should NSPS Subpart TTTT<sub>a</sub> be repealed.
- Revising the opening language of the permit conditions addressing NSPS Subpart TTTT<sub>a</sub> as set forth above.

AEPCO has attached an updated “Class I” standard application form due to the change in permit class.

AEPCO appreciates ADEQ’s consideration of this request. Please contact Michelle Freeark, AEPCO’s Executive Director of Regulatory Affairs and Corporate Services, if you have any questions or concerns.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this letter, including attachments, are true, accurate and complete.

Respectfully submitted,

Michelle R. Freeark  
Executive Director of Regulatory Affairs and Corporate Services

Attachments:

- “A” Standard Class I Application
- “B” Updated emissions calculations, Burns & McDonnell
- “C” Modeling letter, Blue Sky Modeling

CC (w/attachments):

Mary Hauner-Davis, Burns & McDonnell  
Bill Jones, Blue Sky Modeling  
Eric Hiser, Hiser Burggraff Curtis

# **ATTACHMENT A**

**SECTION 2.1**  
**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Air Quality Division**  
**1110 West Washington • Phoenix, AZ 85007 • Phone: (602) 771-2338**

**STANDARD CLASS I PERMIT APPLICATION FORM**

*(As required by A.R.S. § 49-426, and Chapter 2, Article 3, Arizona Administrative Code)*

1. Permit to be issued to (Business license name of organization that is to receive permit):  
Arizona Electric Power Cooperative, Inc.
2. Mailing Address: 1000 S. Highway 80  
City: Benson State: Arizona ZIP: 85602
3. Name (or names) of Owners/ Principals: Arizona Electric Power Cooperative, Inc.  
Phone: 520-586-3631 Fax: Email:
4. Name of Owner's Agent:  
Phone: Fax: Email:
5. Plant/Site Manager/ Contact Person and Title: Chris Determan, Manager of Environmental Services  
Phone: 520-384-6522 Fax: Email: cdeterman@azgt.coop
6. Plant Site Name: Mohave Energy Park
7. Plant Site Location Address: 2999 East King Street  
City: Mohave Valley County: Mohave Zip Code: 86440  
Indian Reservation (if applicable, which one):  
Latitude/ Longitude, Elevation: 34.931209/-114.546549/580 ft asl  
Section/ Township/ Range: 19/18/21
8. General Nature of Business: Power Generation
9. Type of Organization:  
 Corporation  Individual Owner  Partnership  Government Entity (Government Facility Code-----)  
 Other
8. Permit Application Basis:  New Source  Revision  Renewal of Existing Permit  
(Check all that apply.)  
For renewal or modification, include existing permit number (and exp. date):  
Date of Commencement of Construction or Modification: 2026  
Primary Standard Industrial Classification Code: 4911
9. I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by ADEQ as public record. I also attest that I am in compliance with the applicable requirements of the Permit and will continue to comply with such requirements and any future requirements that become effective during the life of the Permit. I will present a certification of compliance to ADEQ no less than annually and more frequently if specified by ADEQ. I further state that I will assume responsibility for the construction, modification,

or operation of the source in accordance with Arizona Administrative Code, Title 18, Chapter 2 and any permit issued thereof.

Signature of Responsible Official: 

Official Title of Signer: Executive Director of Regulatory Affairs & Corporate Services

Typed or Printed Name of Signer: Michelle R. Freeark

Date: March 6, 2026 Telephone Number: 520-586-5122

## SECTION 2.2 - EMISSION SOURCES

Estimated "Potential to Emit" per A.A.C. R18-2-101.

Review of applications and issuance of permits will be expedited by supplying all necessary information on this Table.

REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS										
EMISSION POINT [1]		CHEMICAL COMPOSITION OF TOTAL STREAM	AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION POINT [5]			STACK SOURCES [6]			NONPOINT				
NUMBER	NAME	REGULATED AIR POLLUTANT NAME [2]	#/HR. [3]	TONS/YEAR [4]	ZONE	EAST (Mtrs)	NORTH (Mtrs)	HEIGHT ABOVE GROUND (feet)	HEIGHT ABOVE STRUC. (feet)	EXIT DATA			SOURCES [7]		
										DIA (ft.)	VEL. (fps)	TEMP. (°F)	LENGTH (ft.)	WIDTH (ft.)	
1	Gas Turbine 1	Please see Appendix B to this submittal and Appendix C in the June 25, 2025													
2	Gas Turbine 2	Please see Appendix B to this submittal and Appendix C in the June 25, 2025													
3	Gas Turbine 3	Please see Appendix B to this submittal and Appendix C in the June 25, 2025													
4	Gas Turbine 4	Please see Appendix B to this submittal and Appendix C in the June 25, 2025													
5	Emergency Fire Pump FP1	Please see Appendix B to this submittal and Appendix C in the June 25, 2025													
6	Emergency Generator EMGEN1	Please see Appendix B to this submittal and Appendix C in the June 25, 2025													

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL \_\_\_\_\_ feet

ADEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)

**\*\*Submit emission calculations spreadsheet with your application\*\***

**General Instructions:**

1. Identify each emission point with a unique number for this plant site, consistent with emission point identification used on plot plan, previous permits, and Emissions Inventory Questionnaire. Include fugitive emissions. Limit emission point number to eight (8) character spaces. For each emission point use as many lines as necessary to list regulated air pollutant data. Typical emission point names are: heater, vent, boiler, tank, reactor, separator, baghouse, fugitive, etc. Abbreviations are O.K.
2. Components to be listed include regulated air pollutants as defined in A.A.C. R18-2-101. Examples of typical component names are: Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>), Volatile Organic Compounds (VOC), particulate matter (PM), particulate less than 10 microns (PM<sub>10</sub>), etc. Abbreviations are O.K.
3. Pounds per hour (#/HR) is maximum potential emission rate expected by applicant.
4. Tons per year is annual maximum potential emission expected by applicant, which takes into account process operating schedule.
5. As a minimum applicant shall furnish a facility plot plan as described in the filing instructions. UTM coordinates are required only if the source is a major source or is required to perform refined modeling for the purposes of demonstrating compliance with ambient air quality guidelines.
6. Supply additional information as follows if appropriate:
  - (a) Stack exit configuration other than a round vertical stack. Show length and width for a rectangular stack. Indicate if horizontal discharge with a note.
  - (b) Stack's height above supporting or adjacent structures if structure is within 3 "stack height above the ground" of stack.
7. Dimensions of nonpoint sources as defined in A.A.C. R18-2-101.

## SECTION 2.3 - EQUIPMENT LIST

The following table should include all equipment utilized at the facility, and should be completed with all the requested information. Be sure to notate the units (tons/hour, horsepower, etc.) when recording the Maximum Rated Capacity information, the Serial Number and/or the Equipment ID Number. The date of manufacture must be included in order to determine if portions of the facility are NSPS applicable. Make additional copies of this form if necessary.

**\*Submit photographs of the faceplates for all engines listed below. If an engine is certified, please also include a copy of the engine certification with the application. For any newly added equipment, include a copy of the specification sheet. These documents will be used to verify equipment information and determine applicable regulations.\***

Type of Equipment	Maximum Rated Capacity [1]	Make	Model	Serial Number	Date of Manufacture	Equipment ID Number
Combustion Turbine	482.5 MMBtu/hr	ProEnergy	LM6000	TBD	TBD	GT1
Combustion Turbine	482.5 MMBtu/hr	ProEnergy	LM6000	TBD	TBD	GT2
Combustion Turbine	482.5 MMBtu/hr	ProEnergy	LM6000	TBD	TBD	GT3
Combustion Turbine	482.5 MMBtu/hr	ProEnergy	LM6000	TBD	TBD	GT4
Emergency fire pump	350 hp	TBD	TBD	TBD	TBD	FP1
Emergency generator	2,000 kW	TBD	TBD	TBD	TBD	EMGEN1

[1] For generator sets, enter the maximum rated capacity of the engine rather than the maximum rated capacity of the generator.

# **ATTACHMENT B**

**AEPCO Mohave Energy Park  
Facility PTE - Update 02 18 2026**

Pollutant	Combustion Turbines	Emergency Fire Pump	Emergency Generator	Storage Tanks	Total	Permitting Exemption Threshold	Minor New Source Review
	tons per year						
NO <sub>x</sub>	132.9	0.6	7.1	--	140.5	20	Yes
CO	189.4	0.5	3.9	--	193.8	50	Yes
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	71.4	0.03	0.2	--	71.6	NA/7.5/5	NA/Yes/Yes
SO <sub>2</sub>	8.4	0.001	0.01	--	8.4	20	No
VOC	21.5	0.2	0.5	0.001	22.2	20	Yes
CO <sub>2</sub> e	990,177	84	893	--	991,154	NA	NA

Number of turbines	4
Approximate total natural gas hours (per turbine)	8,760
Approximate natural gas hours without start-up/shutdown (per turbine)	7,939
Natural gas start-up/shutdown events (per turbine)	1095
Approximate natural gas start-up/shutdown hours (per turbine)	821
Fuel input limit (MMBtu/yr), per turbine	4,226,586

**AEPCO Mohave Energy Park  
Combustion Turbine Emissions Summary**

Natural Gas Steady State Emissions Per Turbine			
Pollutant	100% Load	80% Load	50% Load
	lb/hr		
NO <sub>x</sub>	4.4	3.6	2.6
CO	2.7	2.2	1.6
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	4.1	3.4	2.4
SO <sub>2</sub>	0.5	0.4	0.3
VOC	0.7	0.6	0.6
CO <sub>2</sub>	56,459	46,614	33,575
CH <sub>4</sub>	1.1	0.9	0.6
N <sub>2</sub> O	0.1	0.1	0.1
CO <sub>2</sub> e	56,517	46,662	33,609

Temperature (F)	842	836	836
Exhaust Flow (acfm)	604,436	534,737	432,603
MMBtu/hr (HHV)	482.5	397.9	286.0

Natural Gas Start-up/Shutdown Emissions Per Turbine				
Pollutant	Start-up Emissions <sup>a</sup>	Shutdown Emissions <sup>b</sup>	Number of Starts Per Turbine	Start-up/Shutdown Emissions Per Turbine
	lb/start	lb/shutdown		tpy
NO <sub>x</sub> <sup>c</sup>	18.6	10.4	1095	15.9
CO <sup>c</sup>	38.9	28.3	1095	36.8
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	2.0	1.0	1095	1.7
SO <sub>2</sub>	0.2	0.1	1095	0.2
VOC <sup>c</sup>	2.9	1.5	1095	2.4
CO <sub>2</sub>	28,230	14,115	1095	23,183
CH <sub>4</sub>	0.5	0	1095	0.4
N <sub>2</sub> O	0.1	0	1095	0.0
CO <sub>2</sub> e	28,258	14,129	1095	23,207

- a) Based on start-up duration of 30 minutes  
b) Based on shutdown duration of 15 minutes  
c) Based on data provided by the vendor

Emission Factors - Natural Gas	
Pollutant	lb/MMBtu
CH <sub>4</sub>	2.20E-03
N <sub>2</sub> O	2.20E-04
Emission Factors - Fuel Oil	
Pollutant	lb/MMBtu
CH <sub>4</sub>	6.61E-03
N <sub>2</sub> O	1.32E-03
Global Warming Potentials	
CO <sub>2</sub>	1
CH <sub>4</sub>	28
N <sub>2</sub> O	265

From 40 CFR Part 98

Pollutant	Natural Gas Operation	Natural Gas SUSD	Total
	tons per year		
NO <sub>x</sub>	69.4	63.4	132.9
CO	42.3	147.2	189.4
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	64.7	6.7	71.4
SO <sub>2</sub>	7.6	0.8	8.4
VOC	11.9	9.6	21.5
CO <sub>2</sub>	896,428	92,734	989161.7
CH <sub>4</sub>	16.9	1.7	18.6
N <sub>2</sub> O	1.7	0.2	1.9
CO <sub>2</sub> e	897,348	92,829	990177.3

Worst-Case Start-Up Shutdown Scenarios			
1 start-up + 1 shutdown + 15 min 100% load	1 start-up + 30 min 100% load	1 shutdown + 45 min 100% load	Worst-Case Scenario
lb/hr	lb/hr	lb/hr	lb/hr
30.06	20.8	13.7	30.06
67.87	40.2	30.3	67.87
4.08	4.1	4.1	4.08
0.48	0.5	0.5	0.48
4.59	3.3	2.1	4.59
56459.00	56459.0	56459.0	56459.00
1.06	1.1	1.1	1.06
0.11	0.1	0.1	0.11
56516.97	56517.0	56517.0	56516.97

Temperature (F)	837.50	839.0	840.5	837.50
Exhaust Flow (acfm)	475561.25	518519.5	561477.8	475561.25

AEP CO Turbine Emissions Data for Operating Scenarios												
CASE #		1	2	3	4	5	6	7	8	9	10	11
% Load		100%	80%	50%	100%	100%	80%	50%	100%	100%	80%	50%
Ambient Dry Bulb Temperature	°F	36	36	36	59	105	105	105	59	105	105	105
Altitude	ft	545	545	545	545	545	545	545	545	545	545	545
Barometric Pressure	psia	14.409	14.409	14.409	14.409	14.409	14.409	14.409	14.409	14.409	14.409	14.409
Relative Humidity	%	49	49	49	60	20	20	20	60	20	20	20
Inlet Conditioning Fogging		OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
Estimated Power Output - Gross	kW	51150	40920	25575	48619	35273	28217	17638	49494	44619	35696	22311
Total Heat Input, HHV	MMBtu/hr-HHV	482.487	397.883	285.973	462.787	360.379	307.731	231.128	469.377	429.352	360.981	266.759
Exhaust (stack) Flow	acfm	604436	534737	432603	585639	498653	447352	370594	591773	560436	498827	404411
Exhaust (Stack) temperature	°F	842	769	713	854	866	836	836	850	869	824	829
NO2/Nox Ratio		0.40	0.42	0.42	0.30	0.25	0.30	0.30	0.30	0.25	0.30	0.30
Engine Exhaust Flange Emissions (per engine)												
	ppm	25	25	25	25	25	25	25	25	25	25	25
NOx	lb/hr	43.741	36.029	25.857	41.959	32.651	27.863	20.912	42.560	38.924	32.699	24.150
	ppm	89	89	100	59	59	59	100	59	59	59	100
CO	lb/hr	94.785	78.074	62.955	60.275	46.904	40.026	50.916	61.138	55.915	46.973	58.800
	ppm	2.46	2.58	3.06	2	2	2	2	2	2	2	2
VOC	lb/hr	1.497	1.293	1.101	1.168	0.909	0.775	0.582	1.184	1.083	0.91	0.672
CO2	lb/hr	56459	46614	33575	54173	42226	36085	27145	54946	50278	42309	31298
SO2	lb/hr	0.479	0.395	0.284	0.459	0.358	0.305	0.229	0.466	0.426	0.358	0.265
PM	lb/hr	3.595	2.964	2.130	3.448	2.685	2.293	1.722	3.497	3.199	2.689	1.987
Stack Emissions (per engine)												
	ppm	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
NOx	lb/hr	4.374	3.603	2.586	4.196	3.265	2.786	2.091	4.256	3.892	3.270	2.415
	ppm	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
CO	lb/hr	2.663	2.193	1.574	2.554	1.987	1.696	1.273	2.591	2.369	1.990	1.470
	ppm	1.23	1.29	1.53	1	1	1	1	1	1	1	1
VOC	lb/hr	0.749	0.647	0.550	0.584	0.454	0.388	0.291	0.592	0.542	0.455	0.336
CO2	lb/hr	56459	46614	33575	54173	42226	36085	27145	54946	50278	42309	31298
SO2	lb/hr	0.479	0.395	0.284	0.459	0.358	0.305	0.229	0.466	0.426	0.358	0.265
PM	lb/hr	4.075	3.364	2.42	3.988	3.145	2.683	2.012	4.047	3.739	3.139	2.317
	ppm	10	10	10	10	10	10	10	10	10	10	10
NH3	lb/hr	6.466	5.326	3.822	6.203	4.827	4.119	3.091	6.291	5.754	4.834	3.570

**ESTIMATED GAS FUEL SU/SD Emissions**

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**Gas turbine emissions during START-UP shall not exceed**

Pollutant	lb/event
NOx (as NO2)	18.59
CO	38.9
VOC (as CH4)	2.9

Conditions for Start-Up Emissions

Start-up shall not exceed 30 minutes

10-minutes start-up to full load

Stack emissions compliance will be achieved in 30 minutes

**Gas turbine emissions during SHUT-DOWN shall not exceed**

Pollutant	lb/event
NOx (as NO2)	10.38
CO	28.3
VOC (as CH4)	1.5

Conditions for Shut-Down Emissions

Shut-Down shall not exceed 15 minutes

**AEPCO Mohave Energy Park  
Auxiliary Equipment Emissions Estimate**

**Emergency Diesel Fire Pump**

Size	261	KW
	350	hp
	15	gal/hr
	2.1	MMBtu/hr
Operation	500	hours/year
Sulfur Content	0.0015	%
Fuel Heating Value	0.137	MMBtu/gal

**Stack Parameters**

Height (ft)	Temp. (F)	Velocity (ft/sec)	Diameter (ft)	ACFM	Stack Discharge Type	Fuel
17.0	961.0	118.8	0.5	1,398	Vertical	ULSD

Pollutant	Emission Factors			Source	Emissions	
	g/hp-hr	lb/hp hr	lb/MMBtu		lb/hr	tpy
NO <sub>x</sub>	3.0	--	--	NSPS <sup>a</sup>	2.3	0.6
CO	2.6	--	--	NSPS <sup>a</sup>	2.0	0.5
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	0.15	--	--	NSPS <sup>a</sup>	0.1	0.03
SO <sub>2</sub>	--	1.21E-05	--	AP-42 <sup>b</sup>	4.25E-03	1.06E-03
VOC	--	2.47E-03	--	AP-42 <sup>b</sup>	0.9	0.22
H <sub>2</sub> SO <sub>4</sub> Mist	--	--	--	Mass Balance	6.50E-04	1.6E-04
CO <sub>2</sub>	--	--	163.1	Federal Register <sup>c</sup>	335	84
CH <sub>4</sub>	--	--	0.0066	Federal Register <sup>c</sup>	1.36E-02	3.40E-03
N <sub>2</sub> O	--	--	0.00132	Federal Register <sup>c</sup>	2.72E-03	6.80E-04
CO <sub>2e</sub>	--	--	--	Federal Register <sup>c</sup>	336	84

- (a) NSPS 40 CFR Part 60, Subpart IIII Limits  
(b) AP-42 Section 3.3 (10/96)  
(c) Federal Register - Subpart C of Part 98

**Emergency Diesel Generator**

Size	2,000	KW
	2682	hp
	159.4	gal/hr
	21.8	MMBtu/hr
Operation	500	hours/year
Sulfur Content	0.0015	%
Fuel Heating Value	0.137	MMBtu/gal

**Stack Parameters**

Height (ft)	Temp. (F)	Velocity (ft/sec)	Diameter (ft)	ACFM	Stack Discharge Type	Fuel
15.6	987.0	327	1.1	19,209	Vertical	ULSD

Pollutant	Emission Factors			Source	Emissions	
	g/kW-hr	lb/hp hr	lb/MMBtu		lb/hr	tpy
NO <sub>x</sub>	6.4	--	--	NSPS <sup>a</sup>	28.2	7.1
CO	3.5	--	--	NSPS <sup>a</sup>	15.4	3.9
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	0.20	--	--	NSPS <sup>a</sup>	0.9	0.22
SO <sub>2</sub>	--	1.21E-05	--	AP-42 <sup>b</sup>	0.03	0.008
VOC	--	7.05E-04	--	AP-42 <sup>b</sup>	1.9	0.47
H <sub>2</sub> SO <sub>4</sub> Mist	--	--	--	Mass Balance	4.98E-03	1.2E-03
CO <sub>2</sub>	--	--	163.1	Federal Register <sup>c</sup>	3,561	890
CH <sub>4</sub>	--	--	0.0066	Federal Register <sup>c</sup>	0.14	0.036
N <sub>2</sub> O	--	--	0.00132	Federal Register <sup>c</sup>	0.03	0.007
CO <sub>2e</sub>	--	--	--	Federal Register <sup>c</sup>	3,572	893

- (a) NSPS 40 CFR Part 60, Subpart IIII, (40 CFR 60.4205(b) and 40 CFR 89.112 - Table 2 to Appendix I)  
(b) AP-42 Section 3.4 (10/96)  
(c) Federal Register - Subpart C of Part 98

**Sulfuric Acid Mist**

		Conversion Percent			
Assume 10% of SO <sub>2</sub> is converted to SO <sub>3</sub>		10		SO <sub>2</sub> + 1/2 O <sub>2</sub> = SO <sub>3</sub>	
Assume 100% of SO <sub>3</sub> is converted to H <sub>2</sub> SO <sub>4</sub>		100		SO <sub>3</sub> + H <sub>2</sub> O = H <sub>2</sub> SO <sub>4</sub>	
Name	lb/hr SO <sub>2</sub>	lb/hr SO <sub>2</sub> converted to SO <sub>3</sub>	lb/hr SO <sub>3</sub> created	lb/hr H <sub>2</sub> SO <sub>4</sub> created	tons/year H <sub>2</sub> SO <sub>4</sub>
Emergency Diesel Generator	0.03	0.003	0.004	5.0E-03	1.2E-03
Emergency Diesel Fire Pump	0.00	0.000	0.001	6.5E-04	1.6E-04

Molecular Weights	
SO <sub>2</sub>	64.1
SO <sub>3</sub>	80.1
H <sub>2</sub> SO <sub>4</sub>	98.1

**CO<sub>2</sub> Equivalent Ratios**

Greenhouse Gas	CO <sub>2</sub> Equivalent Ratio
Carbon Dioxide	124-38-9
Methane	74-82-8
Nitrous Oxide	10024-97-2
Hydrofluorocarbons	Various
Perfluorocarbons	Various
Sulfur Hexafluoride	2551-62-4
Chlorofluorocarbons	Various

Greenhouse Gas	CO <sub>2</sub> Equivalent Ratio
CO <sub>2</sub>	1
CH <sub>4</sub>	28
N <sub>2</sub> O	265
CHF (various)	12 - 11,700
CF (various)	6500 - 17,340
SF <sub>6</sub>	23,900
CCIF (various)	Not Available

## AEPCO Mohave Energy Park Storage Tanks

### TANKS 5.1 Inputs

Description	Diesel Generator Tank		Diesel Fire Pump Tank	
	Value	Units	Value	Units
Tank Type	Horizontal Tank		Horizontal Tank	
Location (meteorological data)	Prescott, AZ		Prescott, AZ	
Tank Contents	Distillate Fuel Oil #2		Distillate Fuel Oil #2	
Shell Height	26.00	ft	8.51	ft
Diameter <sup>a</sup>	3.00	ft	3.00	ft
Avg. Liquid Height	--		--	
Volume	1,260	gal	450.0	gal
Turnovers				
Net Throughput	79,700.00	gal	7,500.00	gal
Tank heated (y/n)	n		n	
Shell Color/Shade	Gray		Gray	
Shell Condition	Good		Good	
Roof Color/Shade	n		n	
Roof Condition	--		--	
Roof Type	--		--	
Roof Height	--		--	
Slope (Cone Roof)	--		--	
Vacuum Settings (psig)	-0.03		-0.03	
Pressure Settings (psig)	0.03		0.03	
Working Loss	1.51	lb/yr	0.14	lb/yr
Breathing Loss	0.57	lb/yr	0.19	lb/yr
Total losses	2.08	lb/yr	0.33	lb/yr
<b>Total Emissions</b>	<b>1.04E-03</b>	<b>tpy</b>	<b>1.64E-04</b>	<b>tpy</b>

(a) TANKS 5.1 software does not allow a diameter less than 5 ft. Therefore, emissions from both tanks were based on a diameter of 5 ft, making these calculations conservative.

**AEPCO Mohave Energy Park  
Facility HAP Emissions**

Hours of Operation		
Combustions Turbine =	8,760	hours per year
Emergency Diesel Fire Pump =	500	hours per year
Emergency Diesel Generators =	500	hours per year

Size			
	MMBtu/hr	mmCF/hr	Quantity
Combustion Turbine =	482	--	4
Emergency Diesel Fire Pump =	2.06	--	1
Emergency Diesel Generator =	21.8	--	1

1,020 MMBtu/MMcf

**Total Facility: Hazardous Air Pollutants Emissions**

HAP	Maximum Potential Emissions
	tpy
1st Maximum: Formaldehyde	1.71
2nd Maximum: Toluene	1.10
3rd Maximum: Xylene	0.54
All HAPs	4.40

Chemical	CAS	POM?	Natural Gas - Internal Combustion			Fuel Oil						Total tpy
			Emission Factor <sup>a</sup> lb/MMBtu	Combustion Turbines <sup>a</sup>		Emission Factor <sup>c</sup> lb/MMBtu	Emergency Diesel Fire Pump <sup>c</sup>		Emission Factor <sup>d</sup> lb/MMBtu	Emergency Diesel Generator <sup>d</sup>		
				lb/hr (each)	tpy (total)		lb/hr	tpy		lb/hr	tpy	
Acenaphthene	83-32-9	POM				1.42E-06	2.9E-06	7.3E-07	4.68E-06	1.0E-04	2.6E-05	2.6E-05
Acenaphthylene	203-96-8	POM				5.06E-06	1.0E-05	2.6E-06	9.23E-06	2.0E-04	5.0E-05	5.3E-05
Acetaldehyde	75-07-0		4.0E-05	1.9E-02	3.4E-01	7.67E-04	1.6E-03	3.9E-04	2.52E-05	5.5E-04	1.4E-04	3.4E-01
Acrolein	107-02-8		6.4E-06	3.1E-03	5.4E-02	9.25E-05	1.9E-04	4.8E-05	7.88E-06	1.7E-04	4.3E-05	5.4E-02
Anthracene	120-12-7	POM				1.87E-06	3.8E-06	9.6E-07	1.23E-06	2.7E-05	6.7E-06	7.7E-06
Benz(a)anthracene	56-55-3	POM				1.68E-06	3.5E-06	8.6E-07	6.22E-07	1.4E-05	3.4E-06	4.3E-06
Benzene	71-43-2		1.2E-05	5.8E-03	1.0E-01	9.33E-04	1.9E-03	4.8E-04	7.76E-04	1.7E-02	4.2E-03	1.1E-01
Benzo(a)pyrene	50-32-8	POM				1.88E-07	3.9E-07	9.7E-08	2.57E-07	5.6E-06	1.4E-06	1.5E-06
Benzo(b)fluoranthene	205-99-2	POM				9.91E-08	2.0E-07	5.1E-08	1.11E-06	2.4E-05	6.1E-06	6.1E-06
Benzo(g,h,i)perylene	191-24-2	POM				4.89E-07	1.0E-06	2.5E-07	5.56E-07	1.2E-05	3.0E-06	3.3E-06
Benzo(k)fluoranthene	205-82-3	POM				1.55E-07	3.2E-07	8.0E-08	2.18E-07	4.8E-06	1.2E-06	1.3E-06
1,3-Butadiene	106-99-0		4.3E-07	2.1E-04	3.6E-03	3.91E-05	8.0E-05	2.0E-05				3.7E-03
Chrysene	218-01-9	POM				3.53E-07	7.3E-07	1.8E-07	1.53E-06	3.3E-05	8.4E-06	8.5E-06
Dibenz(a,h)anthracene	53-70-3	POM				5.83E-07	1.2E-06	3.0E-07	3.46E-07	7.6E-06	1.9E-06	2.2E-06
Ethylbenzene	100-41-4		3.2E-05	1.5E-02	2.7E-01							2.7E-01
Fluoranthene	206-44-0	POM				7.61E-06	1.6E-05	3.9E-06	4.03E-06	8.8E-05	2.2E-05	2.6E-05
Fluorene	86-73-7	POM				2.92E-05	6.0E-05	1.5E-05	1.28E-05	2.8E-04	7.0E-05	8.5E-05
Formaldehyde	50-00-0		2.0E-04	9.7E-02	1.7E+00	1.18E-03	2.4E-03	6.1E-04	7.89E-05	1.7E-03	4.3E-04	1.7E+00
Indeno(1,2,3-cd)pyrene	193-39-5	POM				3.75E-07	7.7E-07	1.9E-07	4.14E-07	9.0E-06	2.3E-06	2.5E-06
Naphthalene	91-20-3		1.3E-06	6.3E-04	1.1E-02	8.48E-05	1.7E-04	4.4E-05	1.30E-04	2.8E-03	7.1E-04	1.2E-02
PAH			2.2E-06	1.1E-03	1.9E-02							1.9E-02
Phenanthrene	85-01-8	POM				2.94E-05	6.0E-05	1.5E-05	4.08E-05	8.9E-04	2.2E-04	2.4E-04
Propylene Oxide	75-56-9		2.9E-05	1.4E-02	2.5E-01							2.5E-01
Pyrene	129-00-0	POM				4.78E-06	9.8E-06	2.5E-06	3.71E-06	8.1E-05	2.0E-05	2.3E-05
Toluene	108-88-3		1.3E-04	6.3E-02	1.1E+00	4.09E-04	8.4E-04	2.1E-04	2.81E-04	6.1E-03	1.5E-03	1.1E+00
Xylene	1330-20-7		6.4E-05	3.1E-02	5.4E-01	2.85E-04	5.9E-04	1.5E-04	1.93E-04	4.2E-03	1.1E-03	5.4E-01
<b>TOTAL</b>				0.25	4.39		0.008	2.0E-03		0.034	0.009	4.40

(a) Emission factors for combustion turbines from AP-42 Section 3.1, Updated 4/2000. Formaldehyde emission factor from Sims Roy EPA Memo "Hazardous Air Pollutant (HAP) Emission Control Technology for New Stationary Combustion Turbines" 8/21/2001.

(b) Emission factors from AP-42 Section 1.4, Updated 7/1998

(c) Emission factors from AP-42 Section 3.3, Updated 4/2025

(d) Emission factors from AP-42 Section 3.4, Updated 4/2025

Chemical	CAS	POM?	Natural Gas - Internal Combustion			Fuel Oil						Total tpy
			Emission Factor <sup>a</sup> lb/MMBtu	Combustion Turbines <sup>a</sup>		Emission Factor <sup>c</sup> lb/mmCF	Emergency Diesel Fire Pump <sup>c</sup>		Emission Factor <sup>d</sup> lb/MMBtu	Emergency Diesel Generators <sup>d</sup>		
				lb/hr (each)	tpy (total)		lb/hr	tpy		lb/hr	tpy	
Lead												0.0E+00

(a) Emission factors for combustion turbines from AP-42 Section 3.1, Updated 2/2000. Formaldehyde emission factor from Sims Roy EPA Memo "Hazardous Air Pollutant (HAP) Emission Control Technology for New Stationary Combustion Turbines" 8/21/2001.

(b) Emission factors from AP-42 Section 1.4, Updated 7/1998

(c) Emission factors from AP-42 Section 3.3, Updated 4/2025

(d) Emission factors from AP-42 Section 3.4, Updated 4/2025

# **ATTACHMENT C**



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President

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March 6, 2026

Michelle Freeark  
Executive Director of Regulatory Affairs and Corporate Services  
Arizona Electric Power Cooperative, Inc.  
1000 South Highway 80  
Benson, AZ 85602

Re: Effect of NSPS Subpart TTTTa repeal on Mohave Energy Park modeling

Dear Michelle:

As you know, Blue Sky Modeling, LLC (BSM) was retained to conduct air dispersion modeling for Arizona Electric Power Cooperative, Inc.'s (AEP/CO's) Mohave Energy Park (MEP) in Mohave County, Arizona. BSM submitted a Modeling Report for that analysis to the Arizona Department of Environmental Quality (ADEQ) on September 23, 2025<sup>1</sup>, and uploaded the corresponding modeling files to ADEQ on October 30, 2025. ADEQ approved the modeling analysis on November 6, 2025<sup>2</sup>.

Since that time, EPA has proposed to repeal NSPS Subpart TTTTa, which effectively limits MEP to 3,500 hours a year of operation. This letter is to confirm that the modeling submitted to and approved by ADEQ already accounted for continuous operation at maximum emission rates and therefore no additional modeling needs to be conducted to ensure protection of the NAAQS even if the proposed repeal were to occur. Details are presented below.

#### COMBUSTION TURBINES

Combustion turbine emissions for three operating loads (100%, 80%, and 50% load) were taken from Vendor Data (presented in Appendix A of the Modeling Report), which provided emissions and other stack parameters for 14 different cases across those three operating loads. For each of those operating loads the modeling used the highest emission rate across the scenarios provided in the Vendor Data. An example of this process, for NO<sub>x</sub> 100% load, is given in the table below.

**Table 1** NO<sub>x</sub> emission rates for Combustion Turbines, 100% Load

Emission Rate from Vendor Data for 100% Load					Modeled Emission Rate
Case 1	Case 4	Case 5	Case 8	Case 9	
4.374	4.196	3.265	4.256	3.892	4.374

Startup/Shutdown (SUSD) emissions for the combustion turbines for a given hour were calculated based on emissions during Startup and Shutdown operations in conjunction with the number of minutes each of those activities would occur, with the remainder being allocated to 100% load to calculate emissions.

<sup>1</sup> Revised Modeling Report for Arizona Electric Power Cooperative, Mohave Energy Park, September 23, 2025.

<sup>2</sup> Email from Feng Mao (ADEQ) to Bill Jones (BSM), November 6, 2025.

The modeling that was previously submitted and approved did not use any Emission Factors to limit the operation of the combustion turbines; in other words, they were modeled as if they emitted continuously throughout the year (including the SUSD scenario). Therefore, because they were modeled at their maximum emission rate for all 8760 hours in a year for any operational scenario, the existing model demonstrates that even if NSPS Subpart TTTTa were repealed and hours of operation were to increase as a result, the NAAQS would be protected.

#### **EMERGENCY GENERATOR AND FIREWATER PUMP**

The Emergency Generator and Firewater Pump will be limited to 500 hours/year of operation. Accordingly, for all annual modeling their hourly emission rates were multiplied by 500/8760 to reflect the annual limit of 500 hrs/yr; for all short-term modeling (except 1-hr NO<sub>2</sub>) they were assumed to operate continuously at their maximum hourly emission rate (e.g., for 24-hr PM<sub>2.5</sub> modeling they were assumed to run all 24 hours of any given day). Based on EPA's guidance concerning intermittent sources<sup>3</sup>, they were not included in the 1-hr NO<sub>2</sub> modeling.

The NSPS Subpart TTTTa repeal will not affect the Emergency Generator and Firewater Pump. Therefore, the modeling that was previously submitted and approved is sufficient.

If you have any questions or need anything else, please contact me at [bjones@blueskymodeling.com](mailto:bjones@blueskymodeling.com) or at 410.499.9918.

Best regards,



William B. Jones  
President

<sup>3</sup> Memorandum, Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO<sub>2</sub>

National Ambient Air Quality Standard. Tyler Fox to Regional Air Division Directors, March 1, 2011.

