November 15, 2023

Electronic Delivery

Mr. Daniel Czecholinski
Air Quality Director
ADEQ – Air Quality Department
1110 West Washington Street
Phoenix, AZ 85007
Lat - 31°21'49"N, Long-109°33'7.5", Elv-1000ft

Re: Permit Renewal Application for Title V Permit #78417 – Fairview Generating Station

Mr. Daniel Czecholinski

This document is being submitted pursuant to Arizona Administrative Code R18-2-304 and constitutes a renewal application by Arizona Public Service (APS) for the Fairview Generating Station's Title V Air Quality Operating Permit (78417).

If you require additional information or have any questions, please contact Jeff Cocking at (928) 288-1307.

Based on information and belief formed after reasonable inquiry, the statement and information in the permit application are true, accurate and complete.

Sincerely,

Steve Worthington
Plant Manager
Fairview Power Plant
Arizona Public Service Company

cc: US EPA, Region IX
Air Permits Office
75 Hawthorne St
San Francisco, CA 94105

Contents

Section 1 – Standard Application Form

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 Public Service Company
2. Mailing Address: 400 North 5th Street, MS 9303
   City: Phoenix State: AZ ZIP: 85004
3. Name (or names) of Owners/ Principals: Arizona Public Service Company
   Phone: 480-446-0131 Fax: _____ Email: _____
4. Name of Owner's Agent: Arizona Public Service Company
   Phone: 480-446-0131 Fax: _____ Email: _____
5. Plant/Site Manager/ Contact Person and Title: Fairview Generating Station/ Stephen Worthington/ Plant Manager
   Phone: 480-446-0131 Fax: _____ Email: Stephen.Worthington@aps.com
6. Plant Site Name: Fairview Generating Station
7. Plant Site Location Address: Sulphur Springs and Lawrence
   City: Douglas County: Cochise Zip Code: 85607
   Indian Reservation (if applicable, which one): _____
   Latitude/ Longitude, Elevation: Lat - 31° 21' 49" N Long - 109° 33' 7.5" Elev - 1000 ft
   Section/ Township/ Range: Cochise
8. General Nature of Business: Electric 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): 7814, March 10, 2025
   Date of Commencement of Construction or Modification: _____
   Primary Standard Industrial Classification Code: Class I Air Quality Permit
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: [signature]
   Official Title of Signer: Plant Manager
   Typed or Printed Name of Signer: Stephen Worthington
   Date: 11/15/23 Telephone Number: 480-446-0131

Section 2.0 – Emission Sources

Description	Exhaust stack for Combustion Turbine
Exit Gas Temperature (°F)	885
Exit Gas Velocity	47.7
Height (ft)	32.2
Inside Dimensions (ft)	12.5 x 10.5

POLLUTANT	Frame 5 Combustion Turbine					
	Emission Factor	Source	Heat Input	Operating Hours	POTENTIAL TO EMIT	
	lb/mmBtu		mmBtu/hr	hr/yr	lb/hr	tons/yr
CO	4.0E-03	Source Test[1]	296	8,760	1.18	5.2
NO_x	6.1E-01	Source Test[1]	296	8,760	181.40	794.5
PM	1.2E-02	AP-42	296	8,760	3.55	15.6
PM_{10}	1.2E-02	AP-42	296	8,760	3.55	15.6
$PM_{2.5}$	1.2E-02	AP-42	296	8,760	3.55	15.6
SO_2	5.1E-02	Calculated[2]	296	8,760	14.94	65.5
VOC	4.1E-04	AP-42	296	8,760	0.12	0.5
CO_2	1.6E+02	40 CFR Part 98[3]	296	8,760	48,249.76	211,333.9
1,3-Butadiene	1.6E-05	AP-42	296	8,760	0.00	0.0
Benzene	5.5E-05	AP-42	296	8,760	0.02	0.1
Formaldehyde	2.8E-04	AP-42	296	8,760	0.08	0.4
Naphthalene	3.5E-05	AP-42	296	8,760	0.01	0.0
PAH	4.0E-05	AP-42	296	8,760	0.01	0.1
Arsenic	1.1E-05	AP-43	296	8,760	0.00	0.0
Beryllium	3.1E-07	AP-44	296	8,760	0.00	0.0
Cadmium	4.8E-06	AP-45	296	8,760	0.00	0.0
Chromium	1.1E-05	AP-46	296	8,760	0.00	0.0
Lead	1.4E-05	AP-47	296	8,760	0.00	0.0
Manganese	7.9E-04	AP-48	296	8,760	0.23	1.0
Mercury	1.2E-06	AP-49	296	8,760	0.00	0.0
Nickel	4.6E-06	AP-50	296	8,760	0.00	0.0
Selenium	2.5E-05	AP-51	296	8,760	0.01	0.0

[1] APS conducted a source test of the Fairview CT on 6/8/2001. The CO and NO_x emission factors listed were approved by ADEQ.

[2] SO_2 emission factor 1.01S, S = 0.05 permit limit.

[3]CO2 emission factor based of of Greenhouse Gas Emission Factor 40 CFR Part 98, Table C-1

lb/hr = Emission Factor (lb/mmBtu) x Heat Input (mmBtu/hr)

tons/yr = lb/hr x Operating Hours (hr/yr)

POLLUTANT	Detroit Starting Diesel Engine					
	Emission Factor	Source	Heat Input (mmBtu)	Operating Hours[1]	POTENTIAL TO EMIT	
	lb/mmBtu			hour/yr	lb/hr	tons/yr
CO	9.50E-01	AP-42	8	30.4	7.60	0.12
NO_x	4.41E+00	AP-42	8	30.4	35.28	0.54
PM	3.10E-01	AP-42	8	30.4	2.48	0.04
PM_{10}	3.10E-01	AP-42	8	30.4	2.48	0.04
$PM_{2.5}$	3.10E-01	AP-42	8	30.4	2.48	0.04
SO_2	2.90E-01	AP-42	8	30.4	2.32	0.04
CO_2	1.64E+02	AP-42	8	30.4	1312.00	19.95
1,3-Butadiene	3.91E-05	AP-42	8	30.4	0.00	0.00
Acetaldehyde	7.67E-04	AP-42	8	30.4	0.01	0.00
Acrolein	9.25E-05	AP-42	8	30.4	0.00	0.00
Benzene	9.33E-04	AP-42	8	30.4	0.01	0.00
Formaldehyde	1.18E-03	AP-42	8	30.4	0.01	0.00
PAH	1.68E-04	AP-42	8	30.4	0.00	0.00
Propylene	2.58E-03	AP-42	8	30.4	0.02	0.00
Toluene	4.09E-04	AP-42	8	30.4	0.00	0.00
Xylene	2.85E-04	AP-42	8	30.4	0.00	0.00
[1] Operating Hours based on 365 starts with each start taking 5 minutes						
lb/hr = Emission Factor (lb/mmBtu) x Heat Input (mmBtu/hr)						
tons/yr = lb/hr x Operating Hours (hr/yr)						

POLLUTANT	Caterpillar Emergency Diesel Generator					
	Emission Factor	Source	kw	Operating Hours	POTENTIAL TO EMIT	
	g/kWhr			hour/yr	lb/hr	tons/yr
CO	1.15	Manufacture[1]	117	500	0.30	7.4E-02
NO_x + HC	3.73	Manufacture[1]	117	500	0.96	2.4E-01
PM	0.21	Manufacture[1]	117	500	0.05	1.4E-02
PM_{10}	0.21	Manufacture1	117	500	0.05	1.4E-02
$PM_{2.5}$	0.21	Manufacture1	117	500	0.05	1.4E-02
SO_2	1.25	AP-42[2]	117	500	0.32	8.0E-02
CO_2	699.20	AP-42[2]	117	500	180.19	4.5E+01
	lb/mmbtu		mmbtu/hr			
1,3-Butadiene	3.91E-05	AP-42	1.08	500	0.00	0.0
Acetaldehyde	7.67E-04	AP-42	1.08	500	0.00	0.0
Acrolein	9.25E-05	AP-42	1.08	500	0.00	0.0
Benzene	9.33E-04	AP-42	1.08	500	0.00	0.0
Formaldehyde	1.18E-03	AP-42	1.08	500	0.00	0.0
PAH	1.68E-04	AP-42	1.08	500	0.00	0.0

Propylene	2.58E-03	AP-42	1.08	500	0.00	0.0
	lb/mmbtu		**mmbtu/hr**			
Toluene	4.09E-04	AP-42	1.08	500	0.00	0.0
Xylene	2.85E-04	AP-42	1.08	500	0.00	0.0
[1] Manufacture Data provided with minor modification to add emergency diesel engine						
[2]AP-42 Table 3.3-1[a] To convert from lb/hp-hr to kg/kwhr, multiply by 0.608. Multiplied by 1,000 to convert kg/kwhr to g/kwhr.						
lb/hr = (Emission Factor (g/kWhr) x kw) / 454						
tons/yr = lb/hr x Operating Hours (hr/yr)						

Section 2.1- Equipment List

Equipment List					
Equipment ID	**Description**	**Size**	**Serial Number**	**Make/ Model**	**Manufacture/ Installation Date**
Combustion Turbine	Simple cycle combustion turbine	20.95 MW	214472	General Electric/ Company Frame 5	03/31/1972
Starting Diesel Engine	Diesel starting engine (ZZZZ)	500 hp	12VA026309	Detroit/ Diesel N 71237000	03/31/1972
Diesel Fuel Oil Storage Tank 1	Diesel fuel storage tank	20,000 barrels	N/A	N/A	03/31/1972
Emergency Engine w/fuel tank	Diesel emergency engine (IIII)	157 hp	CAT00C44LLC500135	Caterpillar/ C4.4 DIT	05/08/2014

Section 2.2- Permit Application Form

1. Description of the process to be carried out in each unit

The Fairview Generating Station is located in Douglas, Arizona, and is owned and operated by the Arizona Public Service Company (APS).

The Fairview Generating Station was built to meet the energy demands of the city of Douglas in case the main electrical supply is completely interrupted. The design base load capacity is 20.95 MW on #2 diesel and 21.4MW on natural gas. This unit is a simple cycle combustion turbine (SCC # 2-01-001-01) and placed into commercial operation on May 31, 1972.The unit consists of a General Electric Company Frame 5 gas turbine (17 stages axial flow compressor, 2-stage power turbine) and an electrical generator (air-cooled 23,000 kva, 13,200 stator volts, 3,600 rpm).

Although the Fairview Generating Station was designed to fire natural gas as well as #2 diesel, at the present time there is not a natural gas supply line to the plant, so the only source of fuel is #2 diesel. Fuel oil is delivered to the plant by trucks and held in a storage tank with a total capacity of 20,000 barrels.

2. Description of Products

The sole product of the Fairview Generating Station is electrical power.

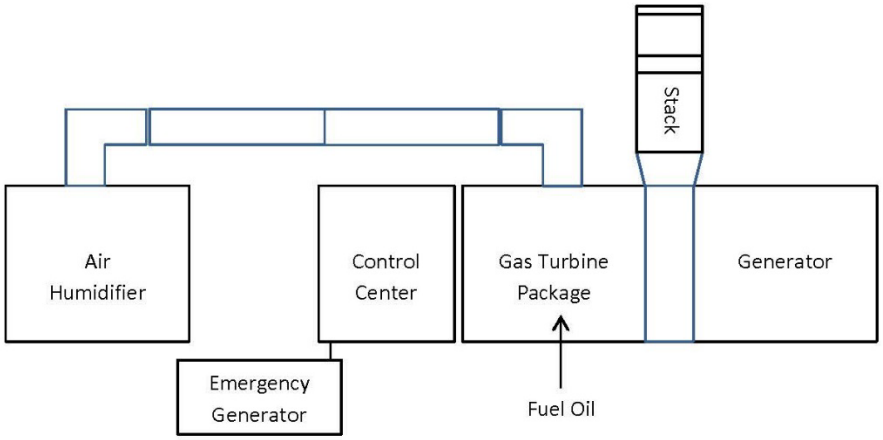
3. Description of Alternate Scenarios and Products

Because fuel oil is currently the only available fuel supply, the standard operating scenario for this source is to burn #2 diesel at a capacity of 0-100%, and there are no alternate operating scenario(s).

4. Description of alternate operating scenario product(s)

There is no alternate product of the Fairview Generating Station.

5. Flow Diagram(s)



6. Material Balances for All Processes

No new material balances were used in estimating raw material usage or air emissions from the Fairview Generating Station.

7. Emission Related Information

POLLUTANT	TOTAL POTENTIAL TO EMIT	
	lb/hr	tons/yr
CO	9.08	5.37
NO_x	217.64	795.30
PM	6.09	15.60
PM_{10}	6.09	15.60
$PM_{2.5}$	6.09	15.60
SO_2	17.59	65.57
VOC	0.12	0.53
CO_2	49741.95	211398.93
1,3-Butadiene	0.01	0.02
Benzene	0.02	0.07

Formaldehyde	0.09	0.36
Naphthalene	0.01	0.05
PAH	0.01	0.05
Arsenic	0.00	0.01
Beryllium	0.00	0.00
Cadmium	0.00	0.01
Chromium	0.00	0.01
Lead	0.00	0.02
Manganese	0.23	1.02
Mercury	0.00	0.00
Nickel	0.00	0.01
Selenium	0.01	0.03
Acetaldehyde	0.01	0.00
Acrolein	0.00	0.00
Propylene	0.02	0.00
Toluene	0.00	0.00
Xylene	0.00	0.00

8. Applicable Requirements

ARIZONA ADMINISTRATIVE CODE TITLE 18

ARTICLE 3. PERMITS AND PERMIT REVISIONS

R18-2-302 Applicability; Classes of Permits
A. Requirement to obtain permit or permit revision
B.1 Class I permits

R18-2-304 Permit Application Processing Procedures (except R18-2-304.I)

R18-2-306 Permit Contents

R18-2-306.01 Voluntarily Accepted Emission Limitations and Standards
*See Source Specific Applicable Requirements Chart below

R18-2-309 Compliance Plan; Certification

R18-2-310 Affirmative Defense for Excess Emissions Due to Malfunction, Startup, and Shutdown

R18-2-310.01 Reporting Requirements

R18-2-311 Test Methods and Procedures
A. Applicable test methods and procedures
B. Determine opacity using Reference Method 9 of the Arizona Testing Manual

R18-2-312 Performance Tests

R18-2-315 Posting of Permit

R18-2-317 Facility Changes Allowed Without Permit Revisions
D. Notification to director and administrator
E. Content of notification

R18-2-318	Administrative Permit Amendments (except R18-2-318.C and D)
R18-2-319	Minor Permit Revisions (except R18-2-320.E)
R18-2-320	Significant Permit Revisions
R18-2-321	Permit Reopenings, Revocation and Reissuances; Termination
B.	Response to notice that cause exists to reopen a Class I permit
R18-2-322	Permit Renewal and Expiration
A.	Procedural requirements
B.	Timely application and required testing
R18-2-325	Permit Shields
R18-2-326	Fees Related to Individual Permit
R18-2-327	Annual Emission Inventory Questionnaire (except R18-2-327.F)
R18-2-330	Public Participation
F.	Posting public notice at the source
ARTICLE 6.	EMISSIONS FROM EXISTING AND NEW NONPOINT SOURCES
R18-2-604	Open Areas, Dry Washes, or Riverbeds
B.	Particulate matter limits from open areas
R18-2-605	Roadways and Streets
R18-2-606	Material Handling
R18-2-607	Storage Piles
R18-2-614	Evaluation of Nonpoint Source Emissions
ARTICLE 7.	EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS
R18-2-702	General Provisions
B.	Opacity standards
R18-2-719	Standards of Performance for Existing Stationary Rotating Machinery
R18-2-726	Standards of Performance for Sandblasting Operations
R18-2-727	Standards of Performance for Spray Painting Operations
R18-2-730	Standards of Performance for Unclassified Sources
D.	Restriction of emissions of gaseous or odorous materials
F.	Handling and storage of VOCs
G.	Stack requirements
ARTICLE 8.	EMISSIONS FROM MOBILE SOURCE (NEW AND EXISTING)
R18-2-801	Classification of Mobile Sources

R18-2-802 Off-road Machinery

R18-2-804 Roadway and Site Cleaning Machinery

ARTICLE 11. FEDERAL HAZARDOUS AIR POLLUTANTS

R18-2-1101.A(8) Subpart M – Asbestos

FEDERAL REQUIREMENTS

40 CFR Part 60	STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES
Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines *This will become a regulatory requirement when the addition of the new emergency engine occurs
40 CFR Part 61	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS
Subpart M	National Emission Standards for Asbestos
40 CFR Part 63	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES
Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 82	STRATOSPHERIC OZONE PROTECTION, RECYCLING AND EMISSION REDUCTION
Subpart F	Recycling and Emission Reduction

9. Proposed Exemptions

No exemptions from applicable requirements are proposed for the Fairview Generating Station.

10. Process Information

This section provides information for the Fairview Generating Station not contained elsewhere in this permit renewal application.

MAXIMUM PROCESS RATES

GENERATION	
20.95mw/hr	(diesel combustion)
183,522 mw/yr	(8,760 hr/yr)
FUEL USAGE	
2,220 gal/hr	(diesel combustion)
19,447,200 gal/yr	(8,760 hr/yr)
HEAT INPUT	
295.92 mmBtu/hr	(diesel combustion)
2,592,259.2 mmBtu/yr	(8,760 hr/yr)

ANTICIPATED OPERATING SCHEDULES:

The Fairview combustion turbine operates on as-demanded schedule. Accordingly, operation of the unit during any time of the year, day of the week, or hours during the day is considered normal for this unit.

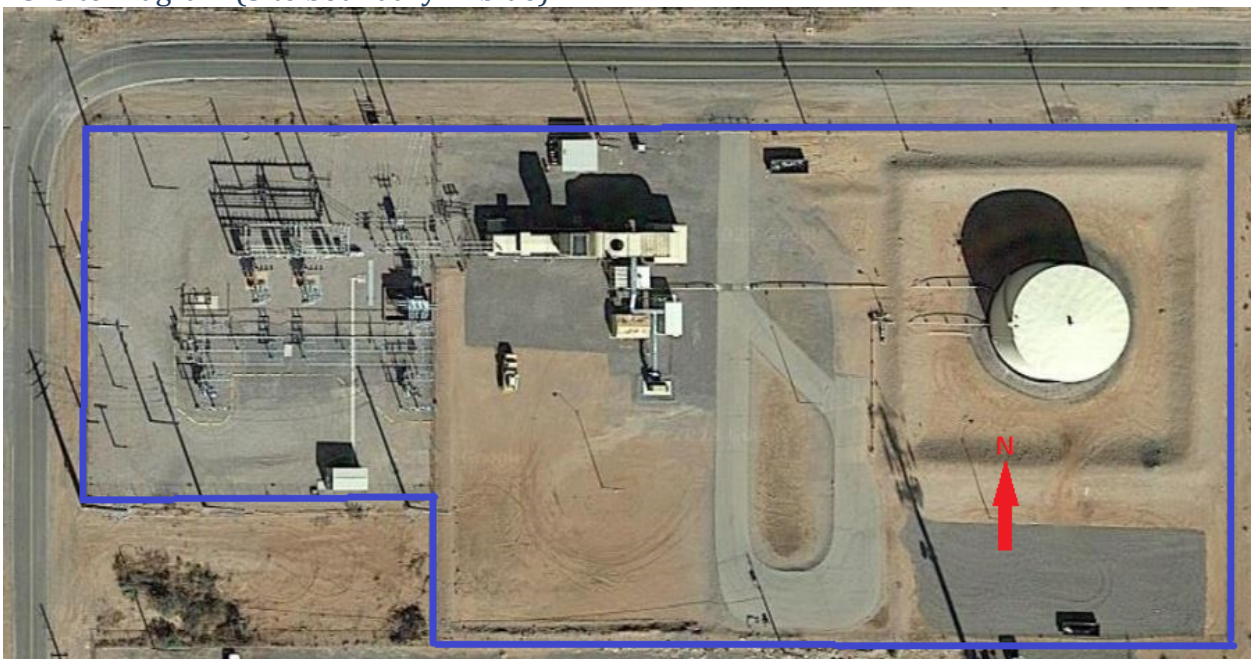
11. Process and Control Equipment

All process equipment for the Fairview Generating Station is described in Sections 2, 5 and 14 of this application.

12. Stack Information

Description	Exhaust stack for Combustion Turbine
Exit Gas Temperature (°F)	885
Exit Gas Velocity	47.7
Height (ft)	32.2
Inside Dimensions (ft)	12.5 x 10.5

13. Site Diagram (Site boundary in blue)



14. Air Pollution Control Information

The Fairview Generating Station has no air pollution control equipment other than the inherent design of the process equipment. Air emissions are minimized through good operational and maintenance practices.

15. Supplementary Equipment Information

All process equipment for the Fairview Generating Station is described in Section 2, 7, 10, and 14 of this application.

16. Compliance Plan

ARIZONA DEPARTMENT

OF

ENVIRONMENTAL QUALITY

1110 West Washington Street Phoenix, Arizona 85007

(602) 771-2300 www.azdeq.gov

Air Permit Compliance Certification

Company: APS - FAIRVIEW POWER PLANT

LTF #: 78417

Facility: APS - FAIRVIEW GENERATING STATION

Reporting Frequency: 04/01/2023 - 09/30/2023

Compliance Certification Questions

Master Question: Did you operate in this reporting period?

Answer: Yes

Excess emissions/ Permit Deviation Reports:

Date Submitted	Type	Date of Discovery	Status

Do you have any excess emission / deviation to report?

Answer: No

Question #	Question Text	Provided details
1	ATTACHMENT A.XI.A General Provisions, Excess Emissions, Permit Deviations, and Emergency Reporting Were there any excess emission events during the compliance period?	Answer: NO
2	ATTACHMENT A.XI.B General Provisions, Excess Emissions, Permit Deviations, and Emergency Reporting Were there any permit deviations from permit requirements, including those attributable to upset conditions as defined in the permit?	Answer: NO
3	ATTACHMENT A General Provisions Did the Permittee comply with all other sections of Attachment "A"of the permit?	Answer: Continuous Method: Recordkeeping Reporting Supporting Documents Needed: No Supporting Documents Provided:No
4	ATTACHMENT B.I.A.1 Specific Conditions, Facility Wide Requirements Did the Permittee, at all times, have, on-site or on-call, a person	Answer: Continuous Method: Recordkeeping

	that is certified in EPA Reference Method 9?	Supporting Documents Needed: No Supporting Documents Provided:No
5	ATTACHMENT B.I.B Specific Conditions, Facility Wide Requirements Did the Permittee operate and maintain the equipment identified in Attachment "C" in accordance with vendor-supplied operations and maintenance instructions, or in the absence of vendor-supplied operations and maintenance instructions, did the Permittee operate the equipment in accordance with the Operation and Maintenance Plan prepared by the Permittee?	Answer: Continuous Method: Operation & Maintenance Plans Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
6	ATTACHMENT B.I.C.1 Specific Conditions, Facility Wide Requirements Did the Permittee maintain on-site records of the manufacturer's specifications or Operation and Maintenance Plan for minimizing emissions for all process and control equipment listed in Attachment "C"?	Answer: Continuous Method: Operation & Maintenance Plans Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
7	ATTACHMENT B.I.C.2 Specific Conditions, Facility Wide Requirements Did the Permittee submit reports of all monitoring activities required in Attachment "B" along with this compliance certifications?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
8	ATTACHMENT B.II.B.1 Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee only combust #2 diesel fuel with sulfur content less than or equal to 0.05 percent in the simple cycle combustion turbine and the black start engine?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
9	ATTACHMENT B.II.B.2 Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine	Answer: Continuous Method:

	Did the Permittee maintain a 12-month rolling total of the hours that the simple cycle combustion turbine is operated?	Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
10	ATTACHMENT B.II.C.1.a Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee not emit or cause to be emitted into the atmosphere gases containing particulate matter in excess of the amount calculated by the following equation? E = 1.02 Q 0.769 Where: E = the maximum allowable particulate emissions rate in pounds-mass per hour. Q = the heat input in million Btu per hour.	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
11	ATTACHMENT B.II.C.1.b Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee not emit or cause to be emitted into the atmosphere gases exhibiting opacity greater than 40 percent for any period greater than 10 consecutive seconds? Visible emissions when starting cold equipment is exempt from this requirement for the first 10 minutes.	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
12	ATTACHMENT B.II.C.2.a Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee record the lower heating value of the #2 diesel fuel being fired in the simple cycle combustion turbine and the black start engine?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
13	ATTACHMENT B.II.C.2.b Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine For each 80 hours that the simple cycle combustion turbine operated, did the Permittee conduct an instantaneous survey of the emissions emanating from the stack of the simple cycle combustion engine while operating at normal representative conditions? If the black start engine was in operation at the time the instantaneous survey was required for the simple cycle	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: Yes Supporting Documents Provided: Simple Cycle Black Start Opacity Observations 2023.pdf

	turbine, did the Permittee conduct an instantaneous survey of emissions emanating from the stack of the black start engine while operating at normal representative conditions? Did the Permittee maintain records of all instantaneous surveys and any required opacity observations? Note: a minimum of one visual survey must be conducted for every 80 hours that the simple cycle combustion turbine operated.	
14	ATTACHMENT B.II.D Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee operate the simple cycle combustion turbine in excess of 1,103 hours based on a 12-month rolling total?	Answer: NO
15	ATTACHMENT B.II.E.1 Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee not emit or cause to be emitted into the atmosphere any gases containing sulfur dioxide in excess of 1.0 pound per million Btu heat input?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
16	ATTACHMENT B.II.E.2.a,c Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee record daily the sulfur content of the fuel (sulfur weight percent) being fired in the simple cycle combustion turbine and the black start engine? Did the Permittee keep on record a copy of the fuel oil purchase specification sheet containing sulfur content of #2 diesel fuel?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
17	ATTACHMENT B.II.E.2.b Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the sulfur content of the fuel being fired in the simple cycle combustion turbine or the black start engine exceed 0.8 percent?	Answer: NO
18	ATTACHMENT B.II.F.2.a Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine	Answer: Continuous Method:

	Did the Permittee operate and maintain the black start engine according to either the manufacturer's emission-related written instructions or the Permittee developed maintenance plan?	Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
19	ATTACHMENT B.II.F.2.b Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee minimize the black start engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not exceeding 30 minutes?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
20	ATTACHMENT B.II.F.2.d Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee conduct an oil analysis every 500 hours of operation or annually, whichever comes first?	Answer: NO
21	ATTACHMENT B.II.F.2.c(1) Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee change the oil and filter every 500 hours of operation or annually, which ever comes first?	Answer: YES
21.1	ATTACHMENT B.II.F.3.a Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee keep records of the oil changes?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
22	ATTACHMENT B.II.F.2.c(2) Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee inspect air cleaner every 1,000 hours of operation or annually, whichever comes first?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
23	ATTACHMENT B.II.F.2.c(3) Specific Conditions, Simple Cycle	Answer: Continuous

	Combustion Turbine and Black Start Engine Did the Permittee inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary?	Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
24	ATTACHMENT B.II.F.3.b Specific Conditions, Simple Cycle Combustion Turbine and Black Start Engine Did the Permittee submit all reports required along with the annual compliance certification?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: Yes Supporting Documents Provided: 2023_4_19 Quad ZZZZ.pdf
25	ATTACHMENT B.III.B Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee use diesel fuel that meets the requirements of non-road diesel fuel listed in 40 CFR 80.510(b)?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
26	ATTACHMENT B.III.C Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee comply with the emission standards listed in the Condition III.C?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
27	ATTACHMENT B.III.D.1 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee install a non-resettable hour meter prior to the startup of the engine?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
28	ATTACHMENT B.III.D.2 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee limit operation of the engines for uses other	Answer: Continuous Method: Recordkeeping

	than emergency operation, maintenance and testing, and non-emergency situations for 50 hours or less per year?	Supporting Documents Needed: No Supporting Documents Provided:No
29	ATTACHMENT B.III.D.4 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee operate and maintain the ICE and the control device according to the manufacturer's written instructions? Did the Permittee keep onsite a copy of the manufacturer's instructions or procedures?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
30	ATTACHMENT B.III.D.5 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee only change those emission-related settings that were permitted by the manufacturer?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
31	ATTACHMENT B.III.D.6 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee meet the applicable requirements of 40 CPR Part 89, 94 and 1068?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
32	ATTACHMENT B.III.E.1 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) as applicable, for the same model year and maximum engine power?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
33	ATTACHMENT B.III.E.2 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee not install, configure, operate, and maintain the ICE and control device according to the manufacturer's emission-related written instructions, or change the emission-related setting in a way that were not permitted?	Answer: NO

34	ATTACHMENT B.III.F.1 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee maintain a copy of engine certification or other documentation demonstrating that the engine complies with the applicable standards in this permit?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
35	ATTACHMENT B.III.F.2 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee record the time of operation of the engine and the reason the engine was in operation during that time?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
36	ATTACHMENT B.III.F.3 Specific Conditions, Emergency Generator subject To New Source Performance Standards Did the Permittee keep records of fuel supplier specifications?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
37	ATTACHMENT B.IV.B Specific Conditions, Diesel Storage Tank Did the Permittee not emit gaseous or odorous materials from equipment, operations or premises under the Permittee's control in such quantities or concentrations as to cause air pollution?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
38	ATTACHMENT B.V.B.1.a Specific Conditions, Fugitive Dust Requirements Did the emissions from all fugitive dust non-point sources not exceed 40 percent opacity?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
39	ATTACHMENT B.V.B.1.b Specific Conditions, Fugitive Dust Requirements Did the emissions from all fugitive dust point sources not	Answer: Continuous Method: Recordkeeping

	exceed 20 percent opacity ?	Supporting Documents Needed: No Supporting Documents Provided:No
40	ATTACHMENT B.V.B.1.c Specific Conditions, Fugitive Dust Requirements Did the Permittee employ the reasonable precautions listed in Condition V.B.1.c to prevent excessive amounts of particulate matter from becoming airborne?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
41	ATTACHMENT B.V.B.2.a Specific Conditions, Fugitive Dust Requirements Did the Permittee adopt any of the control measures listed in Condition V.B.1.c?	Answer: NO
42	ATTACHMENT B.V.B.2.b Specific Conditions, Fugitive Dust Requirements Did the Permittee conduct a quarterly visual survey in accordance with Condition I.A of visible emissions from the fugitive dust sources?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No Supporting Documents Provided:No
43	ATTACHMENT B.VI.A Specific Conditions, Other Periodic Activities Did the Permittee conduct abrasive blasting activities during the compliance period?	Answer: NO
44	ATTACHMENT B.VI.B Specific Conditions, Other Periodic Activities Did the Permittee conduct spray painting during the compliance period?	Answer: NO
45	ATTACHMENT B.VI.B.2.a Specific Conditions, Other Periodic Activities Did the Permittee not cause, allow or permit visible emissions from painting operations in excess of 20% opacity?	Answer: Continuous Method: Recordkeeping Supporting Documents Needed: No

		Supporting Documents Provided:No
46	ATTACHMENT B.VI.C Specific Conditions, Other Periodic Activities Did the Permittee conduct demolition or renovation activities during the compliance period?	Answer: NO

Additional Comments:If you have any questions on the report please contact Jeff Cocking at jeff.cocking@aps.com or 928-288-1307.

Do you have any additional files to upload?:Yes

Uploaded files:Derek Opacity Cert 09_2022_03_2023.pdf,Open Area Opacity Reads 092023.pdf,

CERTIFICATION OF SUBMISSION

JAMES D EDWARDS

You validated your identity by answering your personal security question and password on myDEQ at **08:33 AM** on **11/06/2023**. At this time, you certified the summary information above by checking that you agreed to the following statement:

Certify your submission:

By checking this box I certify under penalty of law that this submittal was prepared by me, or under my direction or supervision of personnel appropriately qualified to properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that all information submitted to ADEQ is public record unless otherwise identified by law as confidential. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

17. Compliance Certification

Certification of Compliance

I, Stephen Worthington as Responsible Official, Plant Manager for the APS Fairview Generating Station, hereby certify that:

1. The applicable requirements for the Fairview Generating Station that are the basis of this certification are set forth in the Fairview Title V Permit.

2. The Fairview Generating Station is in compliance with the applicable requirements listed in the Fairview Title V Permit, and will comply with any additional requirements, if any, become applicable during the permit term.

3. The methods used to determine compliance with the listed applicable requirements are set forth in Sections 9 of this permit application and in the Fairview Title V Permit.

4. Arizona Public Service Company will submit required semi-annual compliance certifications no later than May 15th , for operations between October 1st of the previous year and March 31st of the current year, and the second report will be submitted no later than November 15th, for operations between April 1st and September 30th.

5. Based on information and belief formed after reasonable inquiry, the statement and information in the permit application are true, accurate and complete.

Date: 11/15/23

Stephen Worthington
Fairview Plant Manager

18. Acid Rain Program Compliance Plan

Sources subject to the Federal acid rain regulations shall use nationally-standardized forms for acid rain portions of permit applications and compliance plans, as required by regulations promulgated under Title IV of the Act and incorporated pursuant to A.A.C. R18-2-333. Not applicable to facility per 40 CFR § 72.6.

19. New or Modified Sources within the Non-Attainment Area

The Fairview Generating Station is an existing major source as defined in A.A.C. R18-2-101.38 and R18-2-401-9.b and has not undergone a major modification.

20. Calculations

POLLUTANT	Frame 5 Combustion Turbine					
	Emission Factor	Source	Heat Input	Operating Hours	POTENTIAL TO EMIT	
	lb/mmBtu		mmBtu/hr	hr/yr	lb/hr	tons/yr
CO	4.0E-03	Source Test[1]	296	8,760	1.18	5.2
NO_x	6.1E-01	Source Test[1]	296	8,760	181.40	794.5
PM	1.2E-02	AP-42	296	8,760	3.55	15.6
PM_{10}	1.2E-02	AP-42	296	8,760	3.55	15.6
$PM_{2.5}$	1.2E-02	AP-42	296	8,760	3.55	15.6
SO_2	5.1E-02	Calculated[2]	296	8,760	14.94	65.5
VOC	4.1E-04	AP-42	296	8,760	0.12	0.5
CO_2	1.6E+02	40 CFR Part 98[3]	296	8,760	48,249.76	211,333.9
1,3-Butadiene	1.6E-05	AP-42	296	8,760	0.00	0.0
Benzene	5.5E-05	AP-42	296	8,760	0.02	0.1
Formaldehyde	2.8E-04	AP-42	296	8,760	0.08	0.4
Naphthalene	3.5E-05	AP-42	296	8,760	0.01	0.0
PAH	4.0E-05	AP-42	296	8,760	0.01	0.1
Arsenic	1.1E-05	AP-43	296	8,760	0.00	0.0
Beryllium	3.1E-07	AP-44	296	8,760	0.00	0.0
Cadmium	4.8E-06	AP-45	296	8,760	0.00	0.0
Chromium	1.1E-05	AP-46	296	8,760	0.00	0.0
Lead	1.4E-05	AP-47	296	8,760	0.00	0.0
Manganese	7.9E-04	AP-48	296	8,760	0.23	1.0
Mercury	1.2E-06	AP-49	296	8,760	0.00	0.0
Nickel	4.6E-06	AP-50	296	8,760	0.00	0.0
Selenium	2.5E-05	AP-51	296	8,760	0.01	0.0

[1] APS conducted a source test of the Fairview CT on 6/8/2001. The CO and NO_x emission factors listed were approved by ADEQ.

[2] SO_2 emission factor 1.01S, S = 0.05 permit limit.

[3]CO2 emission factor based of of Greenhouse Gas Emission Factor 40 CFR Part 98, Table C-1

lb/hr = Emission Factor (lb/mmBtu) x Heat Input (mmBtu/hr)

tons/yr = lb/hr x Operating Hours (hr/yr)

POLLUTANT	Detroit Starting Diesel Engine					
	Emission Factor	Source	Heat Input (mmBtu)	Operating Hours[1]	POTENTIAL TO EMIT	
	lb/mmBtu			hour/yr	lb/hr	tons/yr
CO	9.50E-01	AP-42	8	30.4	7.60	0.12
NO_x	4.41E+00	AP-42	8	30.4	35.28	0.54
PM	3.10E-01	AP-42	8	30.4	2.48	0.04
PM_{10}	3.10E-01	AP-42	8	30.4	2.48	0.04
$PM_{2.5}$	3.10E-01	AP-42	8	30.4	2.48	0.04
SO_2	2.90E-01	AP-42	8	30.4	2.32	0.04
CO_2	1.64E+02	AP-42	8	30.4	1312.00	19.95
1,3-Butadiene	3.91E-05	AP-42	8	30.4	0.00	0.00
Acetaldehyde	7.67E-04	AP-42	8	30.4	0.01	0.00
Acrolein	9.25E-05	AP-42	8	30.4	0.00	0.00
Benzene	9.33E-04	AP-42	8	30.4	0.01	0.00
Formaldehyde	1.18E-03	AP-42	8	30.4	0.01	0.00
PAH	1.68E-04	AP-42	8	30.4	0.00	0.00
Propylene	2.58E-03	AP-42	8	30.4	0.02	0.00
Toluene	4.09E-04	AP-42	8	30.4	0.00	0.00
Xylene	2.85E-04	AP-42	8	30.4	0.00	0.00
[1] Operating Hours based on 365 starts with each start taking 5 minutes						
lb/hr = Emission Factor (lb/mmBtu) x Heat Input (mmBtu/hr)						
tons/yr = lb/hr x Operating Hours (hr/yr)						

POLLUTANT	Caterpillar Emergency Diesel Generator					
	Emission Factor	Source	kw	Operating Hours	POTENTIAL TO EMIT	
	g/kWhr			hour/yr	lb/hr	tons/yr
CO	1.15	Manufacture[1]	117	500	0.30	7.4E-02
NO_x + HC	3.73	Manufacture[1]	117	500	0.96	2.4E-01
PM	0.21	Manufacture[1]	117	500	0.05	1.4E-02
PM_{10}	0.21	Manufacture1	117	500	0.05	1.4E-02
$PM_{2.5}$	0.21	Manufacture1	117	500	0.05	1.4E-02
SO_2	1.25	AP-42[2]	117	500	0.32	8.0E-02
CO_2	699.20	AP-42[2]	117	500	180.19	4.5E+01
	lb/mmbtu		mmbtu/hr			
1,3-Butadiene	3.91E-05	AP-42	1.08	500	0.00	0.0
Acetaldehyde	7.67E-04	AP-42	1.08	500	0.00	0.0
Acrolein	9.25E-05	AP-42	1.08	500	0.00	0.0
Benzene	9.33E-04	AP-42	1.08	500	0.00	0.0
Formaldehyde	1.18E-03	AP-42	1.08	500	0.00	0.0

PAH	1.68E-04	AP-42	1.08	500	0.00	0.0
Propylene	2.58E-03	AP-42	1.08	500	0.00	0.0
Toluene	4.09E-04	AP-42	1.08	500	0.00	0.0
Xylene	2.85E-04	AP-42	1.08	500	0.00	0.0
[1] Manufacture Data provided with minor modification to add emergency diesel engine						
[2]AP-42 Table 3.3-1[a] To convert from lb/hp-hr to kg/kwhr, multiply by 0.608. Multiplied by 1,000 to convert kg/kwhr to g/kwhr.						
lb/hr = (Emission Factor (g/kWhr) x kw) / 454						
tons/yr = lb/hr x Operating Hours (hr/yr)						

Section 2.3- PSD/NNSR/Minor NSR Applicability

This facility is not subject to PSD, NNSR, or Minor NSR.

Section 2.4 - APPLICATION ADMINISTRATIVE COMPLETENESS CHECKLIST

SECTION 4.0 - APPLICATION ADMINISTRATIVE COMPLETENESS CHECKLIST

	REQUIREMENT	MEETS REQUIREMENTS			COMMENT
		YES	NO	N/A	
1	Has the standard application form been completed?	✓			
2	Has the responsible official signed the standard application form?	✓			
3	Has a process description been provided?	✓			
4	Are the facility's emissions documented with all appropriate supporting information?	✓			
5	Is the facility subject to Minor NSR requirements? If the answer is "YES", answer 6a, 6b and 6c as applicable. If the answer is "NO", skip to 7.		✓		
6.a	If the facility chooses to implement RACT, is the RACT determination included for the affected pollutants for all affected emission units?			✓	
6.b	If the facility chooses to demonstrate compliance with NAAQS by screen modeling, is the modeling analysis included?			✓	
6.c	If refined modeling has been conducted, is a comprehensive modeling report along with all modeling files included?			✓	
7	Does the application include an equipment list with the type, name, make, model, serial number, maximum rated capacity, and date of manufacture?	✓			
8	Does the application include an identification and description of Pollution Controls? (if applicable)	✓			
9	For any application component claimed as confidential, are the requirements of AR.S. 49-432 and A.A.C. R18-2-305 addressed?			✓	
10	For any current non-compliance issue, is a compliance schedule attached?			✓	
11	For minor permit revision that will make a modification upon submittal of application, has a suggested draft permit been attached?			✓	
12	For major sources, have all applicable requirements been identified?	✓			
13	For major sources, has a CAM applicability analysis been provided? For CAM applicable units, have CAM plans been provided?			✓	
14	For major sources subject to requirements under Article 4 of the A.A.C., have all necessary New Source Review analyses identified in the application been presented?			✓	