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P.O. Box 52025
PHOENIX, AZ 85072-2025

Sara McCoy, Plant Manager
Agua Fria Generating Station
Mail Stop: AFS200
Direct Number: 602-236-3941

V95010-408152

June 17, 2015

Mr. Richard Sumner
Permitting Engineering Manager
Maricopa County Air Quality Department
1001 North Central Avenue
Phoenix, Arizona 85004-1942

Permit # V95010 - App ID 408152

Scott T.

Please return to Scott Treece after Scanning

Re: Title V Renewal Application
Salt River Project – Agua Fria Generating Stat
Title V Permit V95-010

Dear Mr. Sumner:

Salt River Project Agricultural Improvement and Power I
application for renewal of the Title V air quality permit (
Fria Generating Station (AFGS).

If you have any questions regarding this revision application, please contact Barbara Cenalmor at (602) 236-2322.

Sincerely,

Sara McCoy

Sara McCoy
Plant Manager

Cc w/attachment: Mr. Gerardo Rios, EPA Region 9
Von Wilcken, KGS
LOC 2-2-6

MCAQD TITLE V PERMIT APPLICATION

Salt River Project > Agua Fria Generating Station

Permit Renewal

Prepared By:

SALT RIVER PROJECT

P.O. Box 52025 PAB352
Phoenix, Arizona 85072-2025

June 2015

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY 1-1

1.1. Permit History 1-1
1.2. Air Quality Status 1-1
1.3. Organization of Application and proposed changes 1-1
1.3.1. New Applicable Requirements for Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ) 1-2
1.3.2. Dust Control Plan 1-2
1.3.3. Method 22 Measurements 1-2

2. MCAQD STANDARD PERMIT APPLICATION FORM 2-3

3. SITE PLAN 3-1

4. MCAQD APPENDIX B INFORMATION 4-1

4.1. Process Description 4-1
4.1.1. Electric Generating Units (EGUs) 4-1
4.1.2. Supporting Activities 4-1
4.2. Description of Products 4-1
4.3. Description of Alternate Operating Scenario 4-1
4.4. Description of Alternate Operating Scenario Products 4-1
4.5. Process Flow Diagram 4-1
4.6. Material Balance 4-1
4.7. Emissions Related Information 4-2
4.8. Applicable Requirements 4-2
4.9. Proposed Exemptions from Applicable Requirements 4-12
4.10. Process and Fuel Information 4-12
4.11. Process and Control Equipment 4-12
4.12. Stack Information 4-15
4.13. Site Diagram 4-15
4.14. Air Pollution Control Information 4-15
4.14.1. Paint Booth and Abrasive Blasting Booth and Cabinet 4-15
4.14.2. Continuous Emissions Monitoring Systems 4-15
4.15. Supplementary Manufacturer's Information 4-16
4.16. Compliance Plan 4-16
4.17. Compliance Certification 4-16
4.18. New Source Information 4-16
4.19. Calculations 4-16
4.19.1. Greenhouse Gas Emissions 4-16

APPENDIX A: EMISSION CALCULATIONS A

APPENDIX B: O&M PLANS B

APPENDIX C: DUST CONTROL PERMIT C

LIST OF FIGURES

Figure 3-1. AFGS Site Diagram 3-2

LIST OF TABLES

Table 4-1. Summary of Allowable Emissions and Applicable Requirements 4-3

Table 4-2. Process and Fuel Data for EGUs at AFGS (Per Unit) 4-13

Table 4-3. Equipment Descriptions 4-14

Table 4-4. Stack Information for EGUs 4-15

Table 4-5. CEMS Equipment 4-15

1. EXECUTIVE SUMMARY

Agua Fria Generating Station ("Agua Fria" or "AFGS") is an electric generating facility that is wholly owned by the Salt River Project Improvement and Power District ("SRP"). The facility is located at 7302 W. Northern Ave, Glendale, AZ 85303.

The facility currently consists of six generating units and various ancillary services. Units 1, and 2 are steam electric boilers each rated at approximately 113 MW. Unit 3 is rated approximately 181 MW. Units 4, 5, and 6 are simple cycle combustion turbines rated at 69 MW each. All six of the units use primarily natural gas as fuel, and diesel fuel is maintained as an emergency fuel.

The current permit expires December 31, 2015. In accordance with County Rule 210 Section 301.2.a and permit condition 14.E, SRP is hereby applying for a permit renewal at least six months, but no more than 18 months, prior to the date of the permit expiration of 12/31/2015. All information required by Appendix B of the Maricopa County Rules for the renewal is presented in this application. The Standard Permit Application Forms are presented in Section 2 of this package.

1.1. PERMIT HISTORY

Units 1 and 2 commenced operation in the late 1950's, Unit 3 in 1961 and Units 4, 5 and 6 in the mid 1970's.

Maricopa County Environmental Services Department (MCESD) issued SRP its initial Title V for Agua Fria on January 3, 2000. SRP applied for its initial Title V permit for AFGS in September 1995. The permit was renewed in December, 2010. Units 1, 2 and 3 are affected units as defined in 40 CFR Part 72 and is therefore subject to the Acid Rain requirements of Title IV. The Acid Rain permit is incorporated into the AFGS Title V permit. In accordance with Condition 14.E of the permit, SRP is submitting this application to request the renewal of the permit.

1.2. AIR QUALITY STATUS

AFGS is located in an area within Maricopa County that is currently designated as serious nonattainment of the National Ambient Air Quality Standards (NAAQS) for PM_{10}, particulate matter less than 10 microns; and attainment for carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxides (NO_2), and ozone (O_3). Nitrogen oxides (NOx) and volatile organic compounds (VOC) are regulated as precursors of O_3.

AFGS is a major source of NOx, VOC, CO, and PM_{10}; and an area source of Hazardous Air Pollutant (HAPs).

1.3. ORGANIZATION OF APPLICATION AND PROPOSED CHANGES

This application contains all of the information required in Appendix A of the MCAQD Rules. The Permit Application Form is included in Section 2 of this application.

As part of this application, SRP would like to propose changes to their Title V permit. None of these changes are considered permit modifications, but mostly administrative in nature. In addition to the changes summarized in the subsections below, some minor changes have been made to the Equipment List in Table 4-3 (shown in redline) .

1.3.1. New Applicable Requirements for Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ)

40 CFR Part 63, Subpart ZZZZ applies to owners or operators of a stationary reciprocating internal combustion engine (RICE) at a major or area source of hazardous air pollutant (HAP) emissions. Since the diesel emergency fire pump and emergency generator operated at AFGS are located at an area source of HAP emissions and were constructed before June 12, 2006, they are affected sources subject to Subpart ZZZZ per 40 CFR §63.6590(a)(1)(iii). AFGS will comply with the requirements of 40 CFR Part 63, Subpart ZZZZ listed in the applicable requirements Table 4.1.

1.3.2. Dust Control Plan

The following changes have been made to AFGS' Dust Control Plan (DCP), which will be implemented upon approval:

- Reformatting of the plan to be consistent with the previous SRP Title V Plans submitted to MCAQD;
- Change of individual responsible for submitting changes to plan;
- As previously approved for the Santan Generating Station, SRP is requesting that the recordkeeping and inspection frequency required by Rule 310, Section 502.1 occur on a monthly basis. SRP believes this schedule is appropriate for a facility where all unpaved areas are graveled and not traveled on a frequent basis, or parking/driving has been restricted. The proposed DCP shows AFGS' contingency measures for each of these areas, in cases where gravel does not provide enough control. MCAQD approved the same frequency of recordkeeping, with some provisions, for the Santan Generating Station on August 27, 2014.

Copies of the existing, approved DCP and the proposed DCP are included in Appendix C.

1.3.3. Method 22 Measurements

Permit Conditions 19.B.4) and 5) of the current permit require monitoring of particulate matter emissions using Method 22 from each steam unit and combustion turbine each week that the equipment is used for more than 10 hours.

SRP believes this permit condition was initially placed in the permit when the steam units and combustion turbines were allowed to burn oil. Currently, the units are only allowed to burn natural gas, and during emergencies and testing, fuel oil up to 36 hours per year.

By burning of natural gas and employing good combustion practices, visible emissions from point sources at AFGS are nonexistent; therefore, SRP believes that a more appropriate requirement for both subsections 4) and 5) would be:

"The Permittee shall monitor for compliance with the particulate matter emissions limits of the permit by taking a visual reading of the stack emissions from each steam unit and each combustion turbine using EPA Reference Method 22 each week of operation during which that equipment was used more than 10 hours while burning fuel oil."

2. MCAQD STANDARD PERMIT APPLICATION FORM

MARICOPA COUNTY
AIR QUALITY DEPARTMENT

1001 N. Central Ave., Ste 400
Phoenix, AZ 85004
(602) 506-6094

RECEIVED
JUN 22 2015
MARICOPA COUNTY
AIR QUALITY DEPARTMENT

STANDARD PERMIT APPLICATION FORM

Internet Copy

(As required by A.R.S. § 49-480, and Chapter 3, Article 3, Arizona Administrative Code)

1. Permit to be issued to: (Business license name of organization that is to receive permit)
   Salt River Agricultural Improvement and Power District
2. Mailing Address: P.O. Box 52025 PAB352
   City: Phoenix State: AZ ZIP: 85072-2025
3. Plant Name (if different from item #1 above): Agua Fria Generating Station
4. Name (or names) of Owner or Operator: Salt River Project (SRP)
   Phone: _____
5. Name of Owner's Agent: _____
   Phone: _____
6. Plant/Site Manager or Contact Person: Barbara Cenalmor - Contact Person
   Phone: (602) 236-2322
7. Proposed Equipment/Plant Location Address: 7302 West Northern Avenue
   City: Glendale County: MARICOPA ZIP: 85303
   Indian Reservation (if applicable): _____
   Section/Township/Range: _____
   Latitude: 33 ° 33 ' 25 " Longitude: 112 ° 13 ' 03 " Elevation: 1130 ft.
8. General Nature of Business: Electric Power Generation
   Standard Industrial Classification Code: 4911
9. Type of Organization: ☐ Corporation ☐ Individual Owner ☐ Partnership
   ☐ Government Entity (Government Facility Code: _____
   ☑ Other: Agricultural Improvement and Power District
10. Permit Application Basis: ☐ New Source ☐ Revision ☑ Renewal of Existing Permit
    ☐ Portable Source ☐ General Permit (Check all that apply)
    For renewal or modification, include existing permit number: V95-010 - 408152
    Date of Commencement of Construction or Modification: _____
    Is **any** of the equipment to be leased to another individual or entity? ☐ Yes ☑ No
11. Signature of Responsible Official of Organization Sara McCoy
    Official Title of Signer: Plant Manager
12. Typed or Printed Name of Signer: Sara McCoy
    Date: June 17, 2015 Phone Number: 602-236-3941

COMPANY NAME Salt River Project - Agua Fria Generating Station

EMISSION SOURCES

Estimated Potential to Emit as per R18-2-101(80).
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	R. AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION PT. (5)			STACK SOURCES (6)					NONPOINT SOURCES (7)	
								HEIGHT ABOVE GROUND /feet	HEIGHT ABOVE STRUC. /feet	EXIT DATA				
NUMBER	NAME	REGULATED AIR POLLUTANT NAME (2)	#/ HR (3)	TONS/ YEAR (4)	ZONE	EAST (Mtrs)	NORTH (Mtrs)			DIA (ft.)	VEL. (fps)	TEMP. (F)	LENGTH (ft.)	WIDTH (ft.)
U1	Unit 1 Boiler	PM10	9.3	40.9	12	387069	3713228	120	5	8	50	300		
	(natural gas)	SO2	0.7	3.2										
		NOx	344.0	1,506.5										
		CO	103.2	452.0										
		VOC	6.8	29.6										
		HAP	0.1	0.4										
U2	Unit 2 Boiler	PM10	9.3	40.9	12	387111	3713228	120	5	8	50	300		
	(natural gas)	SO2	0.7	3.2										
		NOx	344.0	1,506.5										
		CO	103.2	452.0										
		VOC	6.8	29.6										
		HAP	0.1	0.4										
U3	Unit 3 Boiler	PM10	14.6	63.8	12	387199	3713232	123	8	9.2	58	242		
	(natural gas)	SO2	1.2	5.0										
		NOx	536.9	2,351.8										
		CO	161.1	705.5										
		VOC	10.5	46.2										
		HAP	0.1	0.6										
U4	Unit 4 Gas Turbine	PM10	7.5	32.6	12	387217	3713147	34	20	36x12	63.5	942		
	(natural gas)	SO2	2.4	10.4										
		NOx	361.3	1,582.4										
		CO	92.6	405.5										
		VOC	2.4	10.4										
		HAP	0.8	3.5										
U5	Unit 5 Gas Turbine	PM10	6.4	28.2	12	387265	3713145	39	20	24x12	95	942		
	(natural gas)	SO2	2.0	9.0										
		NOx	311.7	1,365.2										
		CO	79.9	349.8										
		VOC	2.0	9.0										
		HAP	0.7	3.0										
U6	Unit 6 Gas Turbine	PM10	6.4	28.2	12	387313	3713144	39	20	24x12	95	942		
	(natural gas)	SO2	2.0	9.0										
		NOx	311.7	1,365.2										
		CO	79.9	349.8										
		VOC	2.0	9.0										
		HAP	0.7	3.0										
U1	Unit 1 Boiler	PM10	16.2	0.3	12	387069	3713228	120	5	8	50	300		
	(low sulfur diesel - excluding	SO2	8.6	0.2										
	emergency use)	NOx	161.9	2.9										
		CO	40.5	0.7										
		VOC	8.4	0.2										
		HAP	<1.0	<1.0										

COMPANY NAME Salt River Project - Agua Fria Generating Station

EMISSION SOURCES

Estimated Potential to Emit as per R18-2-101(80).
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REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS									
EMISSION POINT (1)		CHEMICAL COMPOSITION OF TOTAL STREAM	R. AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION PT. (5)			STACK SOURCES (6)					NONPOINT SOURCES (7)	
								HEIGHT ABOVE GROUND	HEIGHT ABOVE STRUC.	EXIT DATA				
NUMBER	NAME	REGULATED AIR POLLUTANT NAME (2)	#/ HR (3)	TONS/ YEAR (4)	ZONE	EAST (Mtrs)	NORTH (Mtrs)	/feet	/feet	DIA (ft.)	VEL. (fps)	TEMP. (F)	LENGTH (ft.)	WIDTH (ft.)
U2	Unit 2 Boiler	PM10	16.2	0.3	12	387111	3713228	120	5	8	50	300		
	(low sulfur diesel - excluding	SO2	8.6	0.2										
	emergency use)	NOx	161.9	2.9										
		CO	40.5	0.7										
		VOC	8.4	0.2										
		HAP	<1.0	<1.0										
U3	Unit 3 Boiler	PM10	24.2	0.4	12	387199	3713232	123	8	9.2	58	242		
	(low sulfur diesel - excluding	SO2	12.8	0.2										
	emergency use)	NOx	242.3	4.4										
		CO	60.6	1.1										
		VOC	12.6	0.2										
		HAP	<1.0	<1.0										
U4	Unit 4 Gas Turbine	PM10	11.8	0.2	12	387217	3713147	34	20	36x12	63.5	942		
	(low sulfur diesel - excluding	SO2	49.6	0.9										
	emergency use)	NOx	865.0	15.6										
		CO	3.2	0.1										
		VOC	0.4	0.0										
		HAP	<1.0	<1.0										
U5	Unit 5 Gas Turbine	PM10	11.7	0.2	12	387265	3713145	39	20	24x12	95	942		
	(low sulfur diesel - excluding	SO2	49.2	0.9										
	emergency use)	NOx	857.1	15.4										
		CO	3.2	0.1										
		VOC	0.4	0.0										
		HAP	<1.0	<1.0										
U6	Unit 6 Gas Turbine	PM10	11.7	0.2	12	387313	3713144	39	20	24x12	95	942		
	(low sulfur diesel - excluding	SO2	49.2	0.9										
	emergency use)	NOx	857.1	15.4										
		CO	3.2	0.1										
		VOC	0.4	0.0										
		HAP	<1.0	<1.0										
CT1	Cooling Tower 1	PM10	4.1	18.0	12	386912	3713333	51					321	48
CT2	Cooling Tower 2	PM10	4.1	18.0	12	386937	3713218	51					321	48
CT3	Cooling Tower 3	PM10	3.8	16.7	12	387429	3713194	51					321	49
FP	Fire Pump Engine	PM10	0.6	0.1	12	386902	3713301	10	0	0.3	30	500		
		SO2	0.5	0.1										
		NOx	8.0	2.0										
		CO	1.7	0.4										
		VOC	0.6	0.2										
EG	Emergency Generator	PM10	0.8	0.2	12	387135	3713272	6	0	0.3	30	500		
		SO2	0.7	0.2										
		NOx	11.0	2.8										
		CO	2.4	0.6										

COMPANY NAME Salt River Project - Agua Fria Generating Station

EMISSION SOURCES

Estimated Potential to Emit as per R18-2-101(80).
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	R. AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION PT. (5)			STACK SOURCES (6)					NONPOINT SOURCES (7)	
								HEIGHT ABOVE GROUND	HEIGHT ABOVE STRUC.	EXIT DATA				
NUMBER	NAME	REGULATED AIR POLLUTANT NAME (2)	#/ HR (3)	TONS/ YEAR (4)	ZONE	EAST (Mtrs)	NORTH (Mtrs)	/feet	/feet	DIA (ft.)	VEL. (fps)	TEMP. (F)	LENGTH (ft.)	WIDTH (ft.)
		VOC	0.9	0.2										
GAS	Gasoline Tank	VOC	0.2	0.0	12	387158	3713290						8	8
PT	Surface Coating - Paint Booth	VOC	1.2	0.2	12	387278	3713219	46	0	4x3	21	80		
PT2	Surface Coating - Bench	VOC	3.2	0.6	12	387162	3713263						5	3
SC	Solvent Cleaning - Bulk	VOC	5.3	1.0	12	387189	3713228						3	3
SC2	Solvent Cleaning - Aerosol	VOC	6.4	1.2	12	plantwide	plantwide						plantwide	plantwide
AC	Architectural Coating	VOC	1.4	0.3	12	plantwide	plantwide						plantwide	plantwide
WC	Wood Coating	VOC	0.2	0.0	12	387268	3713300						30	30
AB	Abrasive Blasting	PM10	0.1	0.0	12	387268	3713219	30	0	3x3	46	80		

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL 1,130 feet
ADEQ STANDARD CONDITIONS ARE 293 K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)

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 R18-2-101. Examples of typical component name are: Carbon Monoxide (CO), Nitrogen Oxides (NOx), Sulfur Dioxide (SO2), Volatile Organic Compounds (VOC), particulate matter (PM), particulate less than 10 microns (PM10), 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 R18-2-101.

3. SITE PLAN

The site plan is contained in Figure 3-1.

Figure 3-1. AFGS Site Diagram

4. MCAQD APPENDIX B INFORMATION

The following section contains the information required for a Title V permit renewal application, in accordance with the requirements of Appendix B of the MCAQD Rules.

4.1. PROCESS DESCRIPTION

4.1.1. Electric Generating Units (EGUs)

Agua Fria consists of six electric generating units. Units 1, 2, and 3 are steam electric boilers. Units 1 and 2 commenced operation in the late 1950's, and are each rated at approximately 113 MW. Unit 3 began operation in 1961 and is rated at approximately 181 MW. Each of these units has a mechanical induced draft cooling tower. Units 4, 5, and 6 are simple cycle combustion turbines. All three units commenced operation in the mid 1970's. They are each rated at approximately 69 MW. All six of the units use primarily natural gas as fuel. Diesel fuel is maintained as an emergency fuel.

4.1.2. Supporting Activities

In support of Agua Fria's primary operations, the following emissions-generating operations occur on a regular basis: painting (surface coating and architectural coating), abrasive blasting, solvent and wipe cleaning, routine dust generating operations, and periodic application/repair of asphalt.

Agua Fria currently has a diesel fire pump and a diesel emergency generator.

4.2. DESCRIPTION OF PRODUCTS

The only "product" of Agua Fria is electricity.

4.3. DESCRIPTION OF ALTERNATE OPERATING SCENARIO

There are no alternative operating scenarios.

4.4. DESCRIPTION OF ALTERNATE OPERATING SCENARIO PRODUCTS

The only "product" of Agua Fria is electricity.

4.5. PROCESS FLOW DIAGRAM

A site plan with all the equipment involved in generating electricity is included in Figure 3-1.

4.6. MATERIAL BALANCE

Emission calculations for AFGS are not based on a material balance; therefore there are no material balances included in this permit application.

4.7. EMISSIONS RELATED INFORMATION

The allowable emissions from existing sources at AFGS are listed in Condition 19 of the facility's existing Title V permit, and also summarized in Table 4-1 of this application, as well as in the Standard Permit Application Form included in Section 2.

4.8. APPLICABLE REQUIREMENTS

Table 4-1 contains a list of all applicable requirements to AFGS. This table also includes proposed methods for determining compliance with each requirement.

- Applicability of Rules 240 and 241: Rules 240 and 241 are not applicable to this permit renewal.
- Operation and Maintenance (O&M) Plans: The current permit for AFGS requires an O&M plan for the abrasive blast building baghouse. With this renewal, AFGS is proposing to revise the Operating Log to include a column which will indicate whether the blast nozzles have been inspected before blasting. The proposed O&M plan with redlined changes is included in Appendix B.

Table 4-1. Summary of Allowable Emissions and Applicable Requirements

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
Plantwide		
Do not discharge regulated air pollutants in excess of allowable emission standards.	Condition 1 SIP Rule 3 Rule 100 § 301	CEMS measurements, copies of the annual emissions inventories, and performance tests, are maintained on site.
Do not conceal or dilute emissions that would otherwise constitute a violation of the permit or an applicable rule.	Condition 2 Rule 100 § 104	Copies of annual emission inventories, monitoring reports, certifications, and all permit revision applications submitted to ensure compliance with the permit and all applicable rules, are maintained on site.
All submitted forms, reports, and certifications must be certified by a responsible official as being true, accurate, and complete.	Condition 3 Rule 100 § 401 Rule 210 § 301.7 Rule 210 § 305.1(e)	Copies of all submitted forms, reports, and certifications, along with certifications of truth, accuracy, and completeness, are maintained on site.
Comply with all conditions in the permit and all applicable rules.	Condition 4.A SIP Rule 220 § 302.2 Rule 210 § 301.8(b)(4) Rule 210 §§ 302.1(h)(1),(2),(6),(7)	Copies of all records and submittals required by this permit are maintained on site.
File a semiannual compliance certification with the MCAQD and EPA.	Condition 4.B Rule 210 § 305.1(d)	Copies of semiannual compliance certifications are maintained on site.
Comply with all applicable requirements that become effective during the permit term on a timely basis.	Condition 4.C Rule 210 § 305.1(g)	Copies of records and submittals related to newly effective applicable requirements are maintained on site.
Comply with Acid Rain provisions.	Conditions 6.A, 20.H, 21.C, 23.D 40 CFR Part 72-75	Designated Representative maintains records demonstrating compliance with Acid Rain requirements.

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
Comply with local and federal asbestos requirements for all demolition and renovation projects.	Condition 6.B 40 CFR §§ 61.145, 146, 147, 150 Rule 370 § 301.8	Copies of building inspections and demolition/renovation notifications are maintained on site.
If applicable, submit a Risk Management Plan and certify compliance with the requirements of 40 CFR Part 68 in annual compliance certification.	Condition 6.C 40 CFR § 68	AFGS is not subject to risk management plan requirements. All regulated toxic and flammable substances are reviewed for compliance with 40 CFR Part 68 provisions prior to use.
Follow the applicable requirements of 40 CFR Part 82 for labeling of products using ozone depleting substances, and recycling and emission reductions.	Condition 6.D 40 CFR §§ 82.106 through 124,156,161	Records of maintenance performed on equipment containing materials regulated under 40 CFR Part 82 are maintained on site.
Comply with applicable requirements in 40 CFR Part 98 for Mandatory Greenhouse Gas (GHG) Reporting.	Condition 6.E 40 CFR § 98	The Designated Representative maintains records demonstrating compliance with GHG reporting requirements.
Submit supplementary facts or corrected information, if needed, for permit applications.	Condition 7 40 CFR § 70.5(b) Rule 210 § 301.6	Copies of permit revision applications and formal responses to comments are maintained on site.
Comply with County Rule 600 § 302 if an air pollution alert, warning, or emergency is declared.	Condition 8 SIP Rule 600 § 302 Rule 600 § 302	Records of compliance with these requirements, as applicable, are maintained on site.
If applicable, maintain records to demonstrate that an emergency situation qualifies for an affirmative defense.	Condition 9 Rule 130 §§ 201, 400 *locally enforceable only*	Copies of records and submittals are maintained on site.
If applicable, maintain records to demonstrate that a situation in which excessive emissions occurred qualifies for an affirmative defense.	Condition 10 SIP Rule 140 Rule 140 §§ 103, 400	Copies of records and submittals are maintained on site.
Pay fees pursuant to ARS 49-480(D) and County Rule 280.	Condition 11 SIP Rule 26 Rule 200 § 409 Rule 210 §§ 302.1(i), 401	Records of permit fee payments are maintained in the corporate files.

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
Perform modeling consistent with EPA guidelines when required by the MCAQD.	Condition 12 40 CFR § 51 App. W SIP Rule 26 Rule 200 § 407	Copies of records and submittals are maintained on site.
Monitor, sample, or perform other studies to quantify regulated air pollutant emissions as required by the permit or MCAQD.	Condition 13 SIP Rule 41, 27, 42 Rule 200 §§ 310, 408 Rule 210 § 302.1(c) Rule 270 §§ 300, 400, 405	Copies of records and submittals are maintained on site.
Permit may be revised, reopened, revoked, and reissued, or terminated for cause.	Condition 14.A 40 CFR § 70.7 Rule 210 § 302.1(h)(3)	Copies of permit revision applications are maintained on site.
Comply with County Rule 210 § 400 for all changes, amendments, and revisions at the facility and must obtain pre-approval from MCAQD when required.	Condition 14.B Rule 200 §§ 301, 309 Rule 210 §§ 301, 301.4(f), 302.1(j), 303.1(a), 303.2, 400, 405.4, 406.4	Copies of permit revision applications are maintained on site.
The Permittee shall keep a complete permit clearly visible and accessible on the site where the equipment is installed.	Condition 14.C SIP Rule 310 § 401 Rule 200 § 312 Rule 310 § 409	Copies of permit and dust control plan are posted on site.
The Permittee shall not willfully deface, alter, forge, counterfeit, of falsify this permit.	Condition 14.D Rule 200 § 311	Copies of the permit are posted on site.
Submit complete renewal application at least 6 months, but not more than 18 months, prior to the expiration.	Condition 14.E Rule 200 §§ 309, 403.2 Rule 210 §§ 301, 301.4(f), 301.9, 302	The permit was last renewed on December 23, 2010. SRP will comply with this schedule for the next permit renewal.
Specifies circumstances when the permit may be reopened and revised.	Condition 14.F Rule 210 §§ 301.2(c), 302.1(h)(3), 302.5, 407.3 Rule 200 §§ 402.1, (a)(1)	Copies of permit revision applications are maintained on site.

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
Specifies when an air quality permit, burn permit, and earthmoving permit are required.	Condition 14.G SIP Rule 310 §§ 302, 303.1 SIP Rule 314 Rule 200 §§ 306, 307 Rule 210 § 301.9 Rule 310 §§ 302.3, 402.1, 403.2 Rule 314	Copies of permit revision applications are maintained on site.
Issuance of a permit does not relieve the Permittee from compliance with any other applicable rules.	Condition 14.J Rule 200 § 309 Rule 210 § 407.2	AFGS complies with newly applicable rules in a timely manner.
This permit shall remain in effect for no more than 5 years from the date of issuance.	Condition 14.K Rule 210 §§ 302.1(a), 402	The permit was last renewed on December 23, 2010. SRP will comply with this schedule for the next permit renewal.
When allowed, permits may be transferred in the MCAQD receives notice in writing at least 30 days before the proposed transfer.	Condition 14.L Rule 200 § 404 *locally enforceable only*	Copies of records and submittals are maintained on site.
Maintain records of all emissions testing and monitoring, malfunctions, implementation of approved control plans/compliance schedules, and other records as required by the permit.	Condition 15.A SIP Rule 40.A Rule 100 § 501 Rule 310 § 502	Copies of records are maintained on site.
Unless a longer timeframe is specified in the permit or in rule, required records must be retained for 5 years after date report is submitted or record is generated.	Condition 15.B SIP Rule 40.C Rule 100 § 504	Copies of records are maintained on site for a minimum of 5 years.
Specifies the information that needs to be included in monitoring records required by the permit.	Condition 15.C Rule 210 §§ 302.1(d), 305.1(b)	Copies of monitoring records are maintained on site.
MCAQD may request in writing all documentation related to compliance status when the MCAQD has reasonable cause to believe the source is in violation of the permit of County Rule 100.	Condition 15.D SIP Rule 40.D Rule 100 §106	Copies of records and submittals are maintained on site.
Submit annual emissions inventory by April 30th or 90 days after MCAQD makes form available, whichever is later.	Condition 16.A SIP Rule 40 Rule 100 § 505	Copies of annual emission inventory submittals are maintained on site.

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
If requested by MCAQD, submit information needed to locate and classify air contaminant sources.	Condition 16.B SIP Rule 40 Rule 100 § 502	Copies of records and submittals are maintained on site.
Report deviations within 2 working days of knowledge of the deviation and identify all instances of deviations in the semiannual monitoring report.	Condition 16.C SIP Rule 40 Rule 210 §§ 302.1(e), 305.1(c)	Copies of deviation notifications and semiannual monitoring reports are maintained on site.
Report emergencies as soon as possible by phone and follow up with written notice within 2 working days of when emission limits were exceeded due to the emergency.	Condition 16.D Rule 130 402.4 *locally enforceable only*	Copies of records and submittals are maintained on site.
If requested by MCAQD, provide an emission statement showing measured actual or estimated actual emissions.	Condition 16.E SIP Rule 100 § 504 Rule 100 § 503	Copies of records and submittals are maintained on site.
Report excess emissions by phone or fax within 24 hours (hrs) of time when first learned of occurrence and follow up with written report within 72 hrs of phone/fax notification.	Condition 16.F SIP Rule 140 Rule 140 § 500	Copies of excess emission reports are maintained on site.
Provide copies of records within a reasonable time when requested by the MCAQD.	Condition 16.G Rule 210 § 302.1(h)(5)	Copies of records and submittals are maintained on site.
MCAQD may enter building, premises, or other site during reasonable hrs to enforce and administer County Rules or the ARS.	Condition 17 SIP Rule 43 Rule 100 § 105 Rule 210 305.1(f)	Access to the facility is available 24/7. Inspection records are maintained on site.
Sulfur dioxide ambient standards.	Condition 18.A.1) SIP Rule 32F	Dispersion modeling was conducted during the initial Title V permit to demonstrate compliance under permitted operating scenarios.
Opacity $\leq$ 20%.	Condition 18.A.2) Rule 300 § 301, 302	Opacity observations are conducted on the schedule outlined in the permit.
PM (lb/hr) $\leq 1.02\ Q^{0.769}$.	Condition 18.B.1) A.A.C. R-18-2-719	Opacity observations are conducted every week a unit operates more than 10 hours.

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
SO_2 <1.0 lb/MMBtu, max 2 hr avg	Condition 18.B.2) SIP Rule 32 County Rule 320	Fuel supplier certifications for the diesel fuel are maintained on site.
~~Emergency generators operate no more than 500 hrs/year and do not exceed 4,000 lb NOx or CO/year~~	~~Condition 18.C.1)~~ ~~County Rule 210 § 405.1(g)~~ ~~*Locally enforceable only*~~	~~Non-resettable meters on all emergency generators. Rolling total emissions are tracked.~~
No odors or gaseous emissions so as to cause air pollution.	Condition 19.A.1) Rule 320 § 300, 303 SIP Rule 32	An odor complaint log is maintained on site.
Store, use and transport materials so as to not cause or contribute to air pollution.	Condition 19.A.2) Rule 320 § 302 SIP Rule 32	Areas where materials are stored and used are periodically inspected.
Keep fuel supplier certifications of sulfur content for each fuel delivery.	Condition 20.A.1) Rule 210 § 302.1.d	Records of fuel supplier certifications are maintained on site.
Log all opacity readings.	Condition 20.A.2) Rule 300	An opacity observation log is maintained.
Log odor complaints.	Condition 20.A.3) Rule 210 § 302.1.c(2)	An odor complaint log is maintained on site.
Maintain all records on site that demonstrates the conclusions reached in the Compliance and Monitoring Reports.	Condition 21.A Rule 210 § 302.1.d	Copies of all records used to complete semiannual Compliance Reports are maintained on site.
Submit semiannual Compliance and Monitoring Reports.	Condition 21.A Rule 210 § 302.1.e	Copies of semiannual Compliance Reports are maintained on site.
Generating Units		
Use only pipeline natural gas when combusting gas.	Condition 19.B.2) Rule 322 § 301.1	Operating and fuel use records are maintained on site.
Monitor T across the combustion burners or locations around the back end of the turbine using a thermocouple.	Condition 19.B.3) County Rule 322 § 301.3	Operating records demonstrating good combustion practices are maintained on site.
Emergency fuel sulfur ≤ 0.05%.	Condition 20.B.3) Rule 210 *Locally enforceable only*	Copies of fuel supplier certifications and fuel sulfur testing results are maintained on site.

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
Method 22 of each unit each week with more than 10 hrs of operation. Method 9 follow up within 3 days unless problem is corrected first.	Condition 20.B Rule 210 § 302.1.c(2)	Records of hours of operation and of opacity observations are maintained on site.
Keep sulfur content supplier certification for oil combusted.	Condition 20.B.3 Rules 320, 210§ 302.1.d SIP Rule 32	Copies of fuel supplier certifications and fuel sulfur testing results are maintained on site.
Keep records of the natural gas supplier.	Condition 20.C.4 Rule 210 § 302.1.d	SRP fuels department maintains natural gas supplier records.
Daily record type, sulfur content, and amount of fuel used in each turbine.	Condition 20.C.5 Rule 210 § 302.1.c(1), (2)	Copies of the required records are kept on site.
Method 22 of each unit each week with more than 10 hrs of operation. Method 9 follow up within 3 days unless problem is corrected first.	Condition 20.B.5 Rule 210 § 302.1.c(2)	Records of hours of operation and of opacity observations are maintained on site.
Daily record hours of operation for each steam unit and each combustion turbine.	Condition 20.C.7) Rule 210 Locally enforceable only	Operating records are maintained on site.
CEMS		
Maintain records of all certifications, calibrations, testing, maintenance (including completed maintenance checklists), and repairs.	Condition 20.C.1) Rule 210 § 302.1.b, c(1) 40 CFR Part 75	Copies of the required records are maintained on site or by the Designated Representative.
Report facility data, emissions date, monitoring data, control equipment data, monitoring plans and QA data and results electronically on a quarterly basis.	Condition 21.B.1 40 CFR Part 75	The Designated Representative maintains records and submits reports demonstrating compliance with Part 75 requirements. Emissions data is maintained in the facility's DAHS.
Install, calibrate, maintain and operate CEMS for opacity except if Permittee is able to comply with applicable PM and opacity regulations without use of PM collection equipment and Permittee has never been found in violation of any ve standards.	Condition 21.B.2 40 CFR Part 75	AFGS is in compliance with the applicable PM and opacity standards without the use of CEMS.
Emergency IC Engine and Fire Pump		
No engine shall operate more than 500 hours per year	Condition 19.D.3) Rule 324 § 104 and 205	Engines are equipped with non-resettable meter and records are kept on site.

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
Diesel sulfur ≤ 0.05%.	Condition 20.D.1) Rule 324 § 301	Records of fuel supplier certifications are maintained on site. SRP only uses ULSD.
Maintain list of engines, type, manufacturer, model, hp, serial number and location	Condition 20.D.1) Rule 324 § 502.1 *Locally enforceable only*	Engine records are maintained on site.
Keep records of hours of operation and reason for use.	Condition 20.D.2) Rule 324 § 502.4 *Locally enforceable only*	Records of the hours and reasons for operation of the emergency engines are maintained on site.
Comply with requirements for existing stationary Reciprocating Internal Combustion Engines (RICE) located at area sources of Hazardous Air Pollutants (HAP) emissions. Operate and maintain engine & control device per manufacturer's instructions or owner-developed maintenance plan. Change oil and filter every 500 hrs, inspect air cleaner ever 1,000 hrs, and inspect all hoses and belts every 500 hrs of operation or annually, whichever comes first, and replace as necessary. Engine idling during startup may not exceed 30-min.	Condition TBD 40 CFR § 63.6603(a) 40 CFR § 63.6625(e),(f),(h),(i) 40 CFR § 63.6605 40 CFR § 63.6640(a),(e),(f) 40 CFR § 63.6650 40 CFR § 63.6655(d),(e),(f) 40 CFR § 63 Appendix Table 2d 40 CFR § 63 Appendix Table 6	Records of engine operating hrs, as determined using a non-resettable hour meter, are maintained on site. Operating and maintenance records are maintained on site.
Surface Coating		
If any surface coating operations are conducted, the Permittee shall comply with all applicable conditions of County Rule 336.	Condition 24 Rule 336	Records are maintained demonstrating compliance with Rule 336 whenever surface coating is conducted.
Solvent Cleaning		
Permittee will comply with Rule 331 when engaging in wipe cleaning operations	Condition 25 Rule 331	Inspections are conducted at all wipe cleaning operations.
Architectural Coating		
Permittee will comply with Rule 335 when engaging in architectural coating.	Condition 26 Rule 335 § 301	Records of activities and best practices are employed.
Unleaded Gasoline Tanks		

Summary of Applicable Requirements		
Description	**Citation**	**Method for Determining Compliance**
Limit gasoline throughput to less than 120,000 gallons per year.	Condition 19.C.1) Rule 353 § 305.2.a	Records of deliveries are kept.
Do not allow vapor or liquid to escape through outer surfaces or joints.	Condition 19.C.2) Rule 353 § 301	Requirements are communicated to staff through training and initial orientation.
Equip tanks with fill pipe that reaches to six inches from the bottom of the tank.	Condition 19.C.3) Rule 353 § 302.1	The fill pipe is inspected each time it is reinstalled.
Fill pipe caps shall have a securely attached, intact gasket	Condition 19.C.4) Rule 353 § 302.2	Inspection records are maintained on site.
Overfill prevention equipment shall be vapor tight to the atmosphere.	Condition 19.C.5) Rule 353 § 302.2	Inspection records are maintained on site.
NESHAP Requirements: • Do not handle gasoline in a manner that would result in vapor releases to the atmosphere for extended periods of time. Cover all open gasoline containers and all gasoline storage tank fill-pipes. • Records documenting gasoline throughput must be available within 24 hrs of a request by the EPA Administrator or MCAQD.	Condition 19.C.6) 40 CFR §§ 63.11113(a), (b), (c)	Records showing gasoline throughput are kept. Requirements are communicated to staff through training and initial orientation. A training log is maintained on site.
Weekly inspect fill tube, vapor valve and spill containment.	Condition 20 E.1) Rule 353 § 301	Weekly inspection records are maintained on site.
Record monthly and 12 month rolling quantity of gasoline deliveries.	Condition 20.E.3) and 4) Rule 353 § 302	Gasoline delivery records and inspection records are maintained on site.
Abrasive Blasting		
Abrasive blasting operations will comply with all applicable requirements of County Rule 312.	Condition 27.A Rule 312	Records of abrasive blasting activities, the equipment used, type of media and blasting and ECS are maintained on site.
Other VOC		
Comply with operational limitations specified in the County Rule 330.	Condition 28 Rule 330 § 302	A log of material usage is maintained on site. Training records are maintained.

4.9. PROPOSED EXEMPTIONS FROM APPLICABLE REQUIREMENTS

SRP is not proposing any exemptions from applicable requirements.

4.10. PROCESS AND FUEL INFORMATION

Process and fuel information for each of the EGUs is included in Table 4-3.

4.11. PROCESS AND CONTROL EQUIPMENT

Table 4-4 contains a list of all process and control equipment that requires an air quality permit. The table also provides a current list of insignificant activities at AFGS.

Table 4-2. Process and Fuel Data for EGUs at AFGS (Per Unit)

Unit	Unit 1 and 2 Boilers (EACH)		Unit 3 Boiler		Unit 4 Turbine		Units 5 and 6 Turbines (EACH)	
Fuel	Natural Gas	Diesel	Natural Gas	Diesel	Natural Gas	Diesel	Natural Gas	Diesel
Max Annual Process Rate (per unit) (MMBtu/yr)	10,974,528	40,788 (1)	17,133,509	61,056 (1)	9,312,292	35,388 (1)	9,217,933	35,064
Max Hourly Process Rate (per unit) (MMBtu/hr)	1,253	1,133	1,956	1,696	1,129	983	974	974
Fuel Information: (per unit)								
Quantity used per year (MMBtu/yr)	10,974,528	40,788 (1)	17,133,509	61,056 (1)	9,312,292	35,388 (1)	9,217,933	35,064
Max/ave hourly use (MMBtu/hr)	1,253	1,133	1,956	1,696	1,129	983	974	974
% used for process heat	0%	0%	0%	0%	0%	0%	0%	0%
Higher Heating Value	1,050 Btu/scf	19,500 Btu/lb	1,050 Btu/scf	19,500 Btu/lb	1,050 Btu/scf	19,500 Btu/lb	1,050 Btu/scf	19,500 Btu/lb
Sulfur Content	0.0075 gr/dscf	0.05%	0.0075 gr/dscf	0.05%	0.0075 gr/dscf	0.05%	0.0075 gr/dscf	0.05%
Ash Content	negligible	negligible	negligible	negligible	negligible	negligible	negligible	negligible
Anticipated Schedule:								
Hrs/day	24	(2)	24	(2)	24	(2)	24	(2)
Days/week	7	(2)	7	(2)	7	(2)	7	(2)
Hrs/year	8,760	36(1)	8,760	36(1)	8,760	36(1)	8,760	37
% Annual Throughput:								
Dec-Feb	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%
Mar-May	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%
Jun-Aug	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%
Sep-Nov	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%

(1) Excluding use during emergency situations.
(2) Periodic testing and training.

Table 4-3. Equipment Descriptions

Equipment Name/Type	Vendor or Manufacturer	Model	Serial Number	Date	Quantity	Capacity
Electric Generating Units:						
Unit 1 Boiler	Riley Stoker	3182	n/a	1958	1	1,253 MMBtu/hr
Unit 2 Boiler	Riley Stoker	3182	n/a	1957	1	1,253 MMBtu/hr
Unit 3 Boiler	Riley Stoker	3373	n/a	1961	1	1,956 MMBtu/hr
Unit 4 Gas Turbine	Westinghouse	W-501B2	n/a	1975	1	1,129 MMBtu/hr
Unit 5 Gas Turbine	Westinghouse	W-501B1	n/a	1974	1	1,118 MMBtu/hr
Unit 6 Gas Turbine	Westinghouse	W-501B1	n/a	1974	1	1,118 MMBtu/hr
Cooling Towers:						
Cooling Tower 1	Marley	n/a	n/a	1952	1	82,000 gpm
Cooling Tower 2	Marley	n/a	n/a	1954	1	82,000 gpm
Cooling Tower 3	Marley	n/a	n/a	~~2002~~1 961	1	76,250 gpm
Emergency Engines and Other Supporting Activities:						
Fire Pump	n/a	n/a	n/a	n/a	1	258 hp
Emergency Generator	n/a	n/a	n/a	n/a	1	355 hp
Gasoline Tank	n/a	n/a	n/a	n/a	1	500 gal
Parts Washers	n/a	n/a	n/a	n/a	misc.	n/a
~~Paint Booth – Steel~~	~~Binks~~	~~n/a~~	~~n/a~~	~~n/a~~	~~1~~	~~14,900 acfm~~
Small Paint Booth~~–Bench~~	Binks	n/a	n/a	n/a	1	3,500 acfm
Blast ~~Booth~~ Building	n/a	n/a	n/a	n/a	1	19,500 acfm
Abrasive Blasting Cabinet (aka Bead Blaster)	Clemco	3636	n/a	TBD	1	3' x 3' x 3'

Insignificant Activities	
Equipment Name/Type	**Capacity**
Diesel Tank #1	1,807,974 gal
Diesel Tank #2	2,861,964 gal
Diesel Tank #3	5,511,072 gal
Diesel Tank #3A	434,910 gal
Diesel Tank #3B	434,910 gal
Diesel Tank – Vehicles	550 gal
Diesel Tank – Fire Pump	275 gal
Diesel Tank – Emergency Generator	550 gal
Misc. chemical and petroleum storage tanks ≤ 250 gal	n/a
Misc. lube oil tanks ≤ 12,000 gal	n/a
Laboratory equipment	n/a
Acid storage	n/a
Welding exhaust	n/a
Hand held equipment	n/a

4.12. STACK INFORMATION

Stack information is presented in Table 4-4.

Table 4-4. Stack Information for EGUs

Parameter	Unit Description					
	U1A/B	U2A/B	U3A/B	U4	U5	U6
Building Dimensions	17 x 14 x 35	17 x 14 x 35	11 x 17 x 35	N/A	N/A	N/A
Exit Gas Temp. (K)	422	422	390	780	780	780
Exit Gas Velocity (m/s)	15.2	15.2	17.7	19.4	29	29
Stack Height (m)	36.6	36.6	37.5	10.4	11.9	11.9
Stack Diameter (m)	2.4	2.4	2.8	11 x 3.7	7.3 x 3.7	7.3 x 3.7

4.13. SITE DIAGRAM

A site diagram of AFGS is shown in Figure 3-1.

4.14. AIR POLLUTION CONTROL INFORMATION

The air pollution control and monitoring equipment in use at AFGS is described in the following sections. Test methods for determining compliance with applicable requirements are described in Table 4-1 of this permit application.

4.14.1. Paint Booth and Abrasive Blasting Booth and Cabinet

The "Small paint booth" is equipped with a filter to control particulate matter emissions during spray coating operations to remove at least 92% of overspray as required by Rule 315.

The abrasive blasting cabinet exhausts to a dust collector and the abrasive blasting building is exhausted to a baghouse to control particulate matter emissions. Monitoring of baghouse operations is conducted in accordance with the facility's O&M Plan.

4.14.2. Continuous Emissions Monitoring Systems

Agua Fria monitors emissions of NOx and CO_2 from Units 1, 2 and 3 in accordance with Acid Rain requirements (40 CFR Parts 72-76). The CEMS equipment is described in Table 4-5.

Table 4-5. CEMS Equipment

Component	Description	Vendor	Model
NOx Analyzers	Chemiluminescence analyzer	TECO	42I
CO_2 Analyzers	Infrared analyzer	TECO	410i
Probes	External dilution probe	EPM	797.381L-S
PLC	Programmable logic controller	GE	90-30

DAHS	Data acquisition and handling system.	ESC	Stackvision

4.15. SUPPLEMENTARY MANUFACTURER'S INFORMATION

Supplementary information is not applicable for this application.

4.16. COMPLIANCE PLAN

AFGS is currently in compliance with all applicable requirements identified in Table 4-1 of this permit application. Therefore, a compliance plan is not required.

4.17. COMPLIANCE CERTIFICATION

Table 4-1 contains a list of all applicable requirements to AFGS. This table also includes proposed methods for determining compliance with each requirement. SRP will continue to perform annual compliance certifications in accordance with the schedule required by the permit. The Responsible Official's certification of truth, accuracy, and completeness, is included on the permit application form presented in Section 2 of this application.

4.18. NEW SOURCE INFORMATION

New source information is not applicable to this permit renewal.

4.19. CALCULATIONS

Emissions calculations are presented in Appendix A.

4.19.1. Greenhouse Gas Emissions

GHG emissions could be generated in the fuel combusting equipment operated at AFGS which includes the boilers, turbine electric generating units, and the diesel generators. Possible GHG emissions from these units would consist of releases of the following pollutants:

- Carbon dioxide (CO_2);
- Methane (CH_4); and
- Nitrous oxide (N_2O).

GHG emissions were estimated using the maximum rated heat capacity of the equipment and emission factors from Title 40 of the Code of Federal Regulations (40 CFR) Part 98, Subpart C. Emissions of CH_4 and N_2O were then converted to units of carbon dioxide (CO_2) equivalents (CO_2e) using the Global Warming Potentials (GWP) from Table A-1 of 40 CFR 98 Subpart A. Detailed emission calculations are included in Appendix A.

APPENDIX A: EMISSION CALCULATIONS

Table A.1. Estimated Emissions from Each of Units 1 & 2

NATURAL GAS USE:

Hourly Process Rate = 1,253 MMBtu
Annual Process Rate = 10,976,280 MMBtu

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.0075	lb/MMBtu	9	41	AP-42, Table 1.4-2
SO2	0.00059	lb/MMBtu	1	3	AP-42, Table 1.4-2
NOx	0.27	lb/MMBtu	344	1,507	AP-42, Table 1.4-1
CO	0.082	lb/MMBtu	103	452	AP-42, Table 1.4-1
VOC	0.0054	lb/MMBtu	7	30	AP-42, Table 1.4-2

Emissions of Hazardous Air Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
Formaldehyde	6.8E-05	lb/MMBtu	0.09	0.37	CATEF

* Other HAPs may be emitted, but are estimated to be in negligible quantities.

DISTILLATE OIL USE:

Hourly Process Rate = 1,133 MMBtu
Annual Process Rate = 40,788 MMBtu (excluding emergency use)

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.014	lb/MMBtu	16	0	AP-42, Table 1.3-1, 2
SO2	0.008	lb/MMBtu	9	0	AP-42, Table 1.3-1
NOx	0.143	lb/MMBtu	162	3	AP-42, Table 1.3-1
CO	0.036	lb/MMBtu	40	1	AP-42, Table 1.3-1
VOC	0.007	lb/MMBtu	8	0	AP-42, Table 1.3-3

* Since distillate oil is only permitted to be used for emergencies, testing and training, emissions of HAPs from distillate oil use will be negligible.

Table A.2. Estimated Emissions from Unit 3

NATURAL GAS USE:

Hourly Process Rate = 1,956 MMBtu
Annual Process Rate = 17,134,560 MMBtu

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.0075	lb/MMBtu	15	64	AP-42, Table 1.4-2
SO2	0.00059	lb/MMBtu	1	5	AP-42, Table 1.4-2
NOx	0.27	lb/MMBtu	537	2,352	AP-42, Table 1.4-1
CO	0.082	lb/MMBtu	161	706	AP-42, Table 1.4-1
VOC	0.0054	lb/MMBtu	11	46	AP-42, Table 1.4-2

Emissions of Hazardous Air Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
Formaldehyde	6.8E-05	lb/MMBtu	0.13	0.58	CATEF

* Other HAPs may be emitted, but are estimated to be in negligible quantities.

DISTILLATE OIL USE:

Hourly Process Rate = 1,696 MMBtu
Annual Process Rate = 61,056 MMBtu (excluding emergency use)

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.014	lb/MMBtu	24	0	AP-42, Table 1.3-1, 2
SO2	0.008	lb/MMBtu	13	0	AP-42, Table 1.3-1
NOx	0.143	lb/MMBtu	242	4	AP-42, Table 1.3-1
CO	0.036	lb/MMBtu	61	1	AP-42, Table 1.3-1
VOC	0.007	lb/MMBtu	13	0	AP-42, Table 1.3-3

* Since distillate oil is only permitted to be used for emergencies, testing and training, emissions of HAPs from distillate oil use will be negligible.

Table A.3. Estimated Emissions from Unit 4

NATURAL GAS USE:

Hourly Process Rate = 1,129 MMBtu
Annual Process Rate = 9,890,040 MMBtu

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.0066	lb/MMBtu	7	33	AP-42, Table 3.1-2
SO2	0.0021	lb/MMBtu	2	10	0.0075 gr S/scf
NOx	0.32	lb/MMBtu	361	1,582	AP-42, Table 3.1-1
CO	0.082	lb/MMBtu	93	405	AP-42, Table 3.1-1
VOC	0.0021	lb/MMBtu	2	10	AP-42, Table 3.1-2

Emissions of Hazardous Air Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
Formaldehyde	7.10E-04	lb/MMBtu	0.80159	3.51	AP-42, Table 3.1-3

* Other HAPs may be emitted, but are estimated to be in negligible quantities.

DISTILLATE OIL USE:

Hourly Process Rate = 983 MMBtu
Annual Process Rate = 35,388 MMBtu (excluding emergency use)

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.012	lb/MMBtu	12	0	AP-42, Table 3.1-2
SO2	0.051	lb/MMBtu	50	1	AP-42, Table 3.1-2
NOx	0.88	lb/MMBtu	865	16	AP-42, Table 3.1-1
CO	0.0033	lb/MMBtu	3	0	AP-42, Table 3.1-1
VOC	0.00041	lb/MMBtu	0	0	AP-42, Table 3.1-2

* Since distillate oil is only permitted to be used for emergencies, testing and training, emissions of HAPs from distillate oil use will be negligible.

Table A.4. Estimated Emissions from Each of Units 5 & 6

NATURAL GAS USE:

Hourly Process Rate = 974 MMBtu
Annual Process Rate = 8,532,240 MMBtu

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.0066	lb/MMBtu	6	28	AP-42, Table 3.1-2
SO2	0.0021	lb/MMBtu	2	9	0.0075 gr S/scf
NOx	0.32	lb/MMBtu	312	1,365	AP-42, Table 3.1-1
CO	0.082	lb/MMBtu	80	350	AP-42, Table 3.1-1
VOC	0.0021	lb/MMBtu	2	9	AP-42, Table 3.1-2

Emissions of Hazardous Air Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
Formaldehyde	7.10E-04	lb/MMBtu	0.69	3.03	AP-42, Table 3.1-3

* Other HAPs may be emitted, but are estimated to be in negligible quantities.

DISTILLATE OIL USE:

Hourly Process Rate = 974 MMBtu
Annual Process Rate = 35,064 MMBtu (excluding emergency use)

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.012	lb/MMBtu	12	0	AP-42, Table 3.1-2
SO2	0.051	lb/MMBtu	49	1	AP-42, Table 3.1-2
NOx	0.88	lb/MMBtu	857	15	AP-42, Table 3.1-1
CO	0.0033	lb/MMBtu	3	0	AP-42, Table 3.1-1
VOC	0.00041	lb/MMBtu	0	0	AP-42, Table 3.1-2

* Since distillate oil is only permitted to be used for emergencies, testing and training, emissions of HAPs from distillate oil use will be negligible.

Table A.5. Estimated PM10 Emissions from Cooling Towers

Unit	Circ Water Flow (gal/min)	Drift Rate (%)	TDS (mg/liter)	Emissions	
				(lb/hr)	(tons/yr)
Cooling Tower 1	82,000	0.003%	6,667	4.1	18.0
Cooling Tower 2	82,000	0.003%	6,667	4.1	18.0
Cooling Tower 3	76,250	0.003%	6,667	3.8	16.7

NOTES:
- Based on AP-42, 13.4, assuming PM10 is 50% of PM.

Table A.6. Estimated Emissions from Emergency Engines

Emergency Fire Pump

Hourly Process Rate = 258 hp

Annual Process Rate = 500 hrs

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.0022	lb/hp-hr	0.6	0.1	AP-42, Table 3.3-1
SO2	0.00205	lb/hp-hr	0.5	0.1	AP-42, Table 3.3-1
NOx	0.031	lb/hp-hr	8.0	2.0	AP-42, Table 3.3-1
CO	0.00668	lb/hp-hr	1.7	0.4	AP-42, Table 3.3-1
VOC	0.00251	lb/hp-hr	0.6	0.2	AP-42, Table 3.3-1

Emergency Generator

Hourly Process Rate = 355 hp

Annual Process Rate = 500 hrs

Emissions of Criteria Pollutants

Pollutant	Emission Factor	Units	Emissions (lb/hr)	Emissions (tons/yr)	Reference
PM10	0.0022	lb/hp-hr	0.8	0.2	AP-42, Table 3.3-1
SO2	0.00205	lb/hp-hr	0.7	0.2	AP-42, Table 3.3-1
NOx	0.031	lb/hp-hr	11.0	2.8	AP-42, Table 3.3-1
CO	0.00668	lb/hp-hr	2.4	0.6	AP-42, Table 3.3-1
VOC	0.00251	lb/hp-hr	0.9	0.2	AP-42, Table 3.3-1

* Since the engines are used so infrequently, HAPs will be negligible (e.g., < 0.1 tons/yr).

GHG Emissions

Unit	Rating	Tier 1 Em. Factor (Kg/MMBtu) [1]			CO_2e Emissions [2, 3]
	(hp)	CO_2	CH_4	N_2O	(tpy)
Fire Pump	258	73.96	0.003	0.0006	73.87
Diesel Emerg. Generator	355	73.96	0.003	0.0006	101.64
TOTAL					**175.51**

[1] Tier 1 emission factors acquired from Tables C-1 and C-2 of 40 CFR Part 98 Subpart C:

[2] Per AP-42 Appendix A (*Miscellaneous Data & Conversion Factors*): 7,000 Btu/hp-hr

[3] Global Warming Potentials (GWP) obtained from Table A-1 of 40 CFR Part 98 Subpart A:

CH_4 GWP = 25

N_2O GWP = 298

Table A.7. Estimated VOC Emissions from Evaporative Processes

Unit	Material Usage	Units	Emission Factor	Units	Emissions	
					(lb/hr)	(tons/yr)
Gas Tank	2,000	gal/yr	0.04	lb/gal	0.2	0.0
Paint Booth	120	gal/yr	3.5	lb/gal	1.2	0.2
Paint Bench	1,200	lbs/yr	0.98	lb/lb	3.2	0.6
Solvent Cleaning - Bulk	300	gal/yr	6.5	lb/gal	5.3	1.0
Solvent Cleaning - Aerosol	2,400	lbs/yr	0.98	lb/lb	6.4	1.2
Architectural Coating	240	gal/yr	2.1	lb/gal	1.4	0.3
Wood Coating	24	gal/yr	3.5	lb/gal	0.2	0.0

Notes:
- Hourly emissions are estimated as the annual emissions divided by 365.
- Emission factor for gas tank is from MCESD. All other factors are estimates based on average VOC content of the materials.
- Material usage estimates or based on historical usage.

Table A.8. Estimated PM10 Emissions from Abrasive Blasting						
Unit	Material Usage	Units	Emission Factor	Units	Emissions	
					(lb/hr)	(tons/yr)
Abrasive Blasting	50,000	lb/yr	0.69	lb/1000 lb	0.1	0.02

Notes:
- Emission factor from AP-42 Table 13.2.6-1.
- Hourly emissions are estimated as the annual emissions divided by 365.

Table A.9. GHG Estimated Emissions from Boilers/Turbines

Unit	Fuel Capacity	Normal Operation Emission Rate [1]	
	(MMBtu/yr)	(lb/hr)	(tpy)
U1U2	21952560	293,445	1,285,288
U3	17,134,560	229,042	1,003,202
U4	9,890,040	132,202	579,046
U5U6	17064480	228,105	999,099
Total	**66041640**		***3,866,635***

[1] Tier 1 emission factors acquired from Tables C-1 and C-2 of 40 CFR Part 98 Subpart C:

CO_2 Emission Factor = 53.06 kg/MMBtu

CH_4 Emission Factor = 0.001 kg/MMBtu

N_2O Emission Factor = 0.0001 kg/MMBtu

[2] Global Warming Potentials (GWP) obtained from Table A-1 of 40 CFR Part 98 Subpart A:

CH_4 GWP = 25

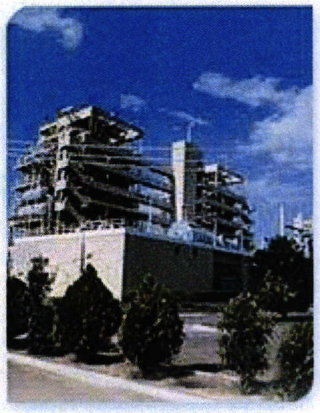
N_2O GWP = 298

APPENDIX B: O&M PLANS

BAGHOUSE OPERATION AND MAINTENANCE PLAN

Agua Fria Generating Station

7320 W. Northern Avenue
Glendale, Arizona 85303



SRP – Agua Fria Generating Station
Baghouse Operation and Maintenance (O&M) Plan
Maricopa County Title V Permit #V95-010

I) GENERAL INFORMATION

Business Name:	SRP – Agua Fria Generating Station
Business Address:	7302 W. Northern Avenue Glendale, Arizona 85303
Permit Number:	V95-010
Date of Preparation/Revision:	~~May 2011~~June 2015

General description of overall facility operations:

Agua Fria Generating Station (AFGS) has three steam generating units that commenced operation in the 1950's. Units 1 and 2 each have a 100 megawatt (MW) nameplate rating and Unit 3 has a 165 MW megawatt nameplate rating. The plant also has three combustion turbines that commenced operation in the 1970's. All units are 100% owned and operated by SRP. Natural gas is the primary fuel. Units 1, 2, and 3 have dual stacks. The site has a Title V Operating Permit issued by the Maricopa County Air Quality Department.

Description of process(es) ducted to control device(s) including pollutants controlled:

AFGS has an abrasive blast building that is enclosed and controlled by a baghouse. Objects to be blasted are placed within the building and blasted with abrasive media. The baghouse controls particulate matter (PM) emissions from the blasting.

Complete description of control device(s) covered by the O&M plan including manufacturer, model, rated capacity, total number of identical units, equipment identification number, etc.:

Item #	Equipment Name	Manufacturer	Model No.	Rated Capacity	Quantity
1	Baghouse	Fabric Filters NW	169-10	19,500 CFM	1

II) OPERATION PLAN

The table below provides a list of the operating parameters to be monitored, including the units of measure (inches H_2O, deg F, gpm, etc.), operating limits (upper and/or lower limits), and frequency of recording measurements (daily, continuous, etc.)

PARAMETER	UNITS	OPERATING LIMITS	FREQUENCY[1]
Baghouse Pressure Drop	Inches of water	0.1"-6.0"	Each day in which abrasive blasting with baghouse is performed

The table below lists the method of recording measurements (manual, stripchart recorder, data acquisition system, etc.) and type of instrumentation (magnehelic, temperature sensor, flowmeter, etc.) with instrument display range for each operating parameter:

PARAMETER	METHOD	INSTRUMENT	RANGE
Baghouse Pressure Drop	Manual	Magnehelic gauge	0-15" water column

A copy of the operational log sheet utilized to document operating parameters of the equipment is included.

III) MAINTENANCE PLAN

Maintenance procedures to be performed with the frequency of each procedure:

PROCEDURE	FREQUENCY
Inspect and service the filter elements	Quarterly
Inspect and service fans	Quarterly
Inspect and service ducting	Quarterly
Inspect and service control timer and other electronics	Quarterly
Calibrate magnehelic gauge	Annually
Inspect blast nozzles and service if needed	Prior to blast

AGFS retains copies of all maintenance checklists, computer printouts, etc. utilized to document completion of maintenance procedures performed for a minimum of five years. Annual maintenance activities are recorded in Maximo, an asset management database in use at AFGS. A copy of a Maximo work order is included.

Agua Fria Generating Station – Permit # V95-010

Blast Building Operating Log

OPERATORS MUST FILL OUT THIS LOG DAILY

Date	Start Time	Stop Time	Operator	Nozzles Inspected before blasting? (YES/NO)	Type of Blast Media (Stock Code or Brand Name)	Amount of Media Used (LB)	Magnehelic Gauge Reading 0.1"-6.0"

NOTES:

1. Do not operate blasting equipment if the reading is above 6" of Δ P (in water).
2. Inspect nozzles each operating day, and service if needed.

Observations:

_____

_____

_____

Work Order Details Report

WO #: P3138396
Job Plan: 17204
Safety Plan: N/A

UC [ENV] INSPECT TIMER ON SANDBLAST BLDG BAG HOUSE

Status:	CLOSED	Sched. Start Date:	3/7/2011 6:45:00 AM	Parent:	
Report Date:	3/3/2011 4:44:00	Sched. Finish Date:	4/7/2011 7:45:00 AM	Sequence:	

TAILBOARD / JOB BRIEFING INFORMATION

Job Briefing Held? Special Considerations:

Report By:		Target Start Date:	3/10/2011	Project:	
Change By:	GDWOODS	Target Finish Date:	4/7/2011	UCR:	1
Crew ID:	ICE	Phone:		Failure Code:	
Red Tag No.:		Red Tag Loc:			
Title V Ope.?:	Y	Title V Eq.?:		Unit:	C
Parent EQ:		Family Code:			
Parent EQ Desc:					

Location: 00008530 UC OUTSIDE BUILDINGS GROUNDS AND STRUCTURES
Equipment: 00034300 SANDBLAST BLDG BAG HOUSE

Lead Craft	Work Type	Priority	GL Account	Contract
17541	PM	1	833110201300510000	

Comments

Labor	Quantity	Planned Hrs
5853	1	1

Child/Task Work	Task?	Crew	Status

APPENDIX C: DUST CONTROL PERMIT

Existing Plan

DUST CONTROL PLAN
Salt River Project - Agua Fria Generating Station

Regulatory Background

As required by Condition (G)(2) of the Title V Permit for Agua Fria Generating Station (AFGS), this plan covers routine dust generating operations. All other dust generating operations are covered under a separate Dust Control Permit.

Contact Information

Individual Responsible for Submitting Revisions to Dust Control Plan	Individual Responsible for Implementing Dust Control Plan
Wendy Crites Senior Environmental Scientist/Engineer P.O. Box 52025, MS-PAB352 Phoenix, AZ 85025-2025 (602) 236-2321 (602) 818-5198	Von Wilcken Senior Environmental Scientist/Engineer Agua Fria Generating Station 7302 W. Northern Avenue Glendale, AZ 85303-1210 (602) 236-4390 (602) 809-3483

Site Map

A site map is included in Attachment #1.

Control Measures for Routine Dust Generating Operations

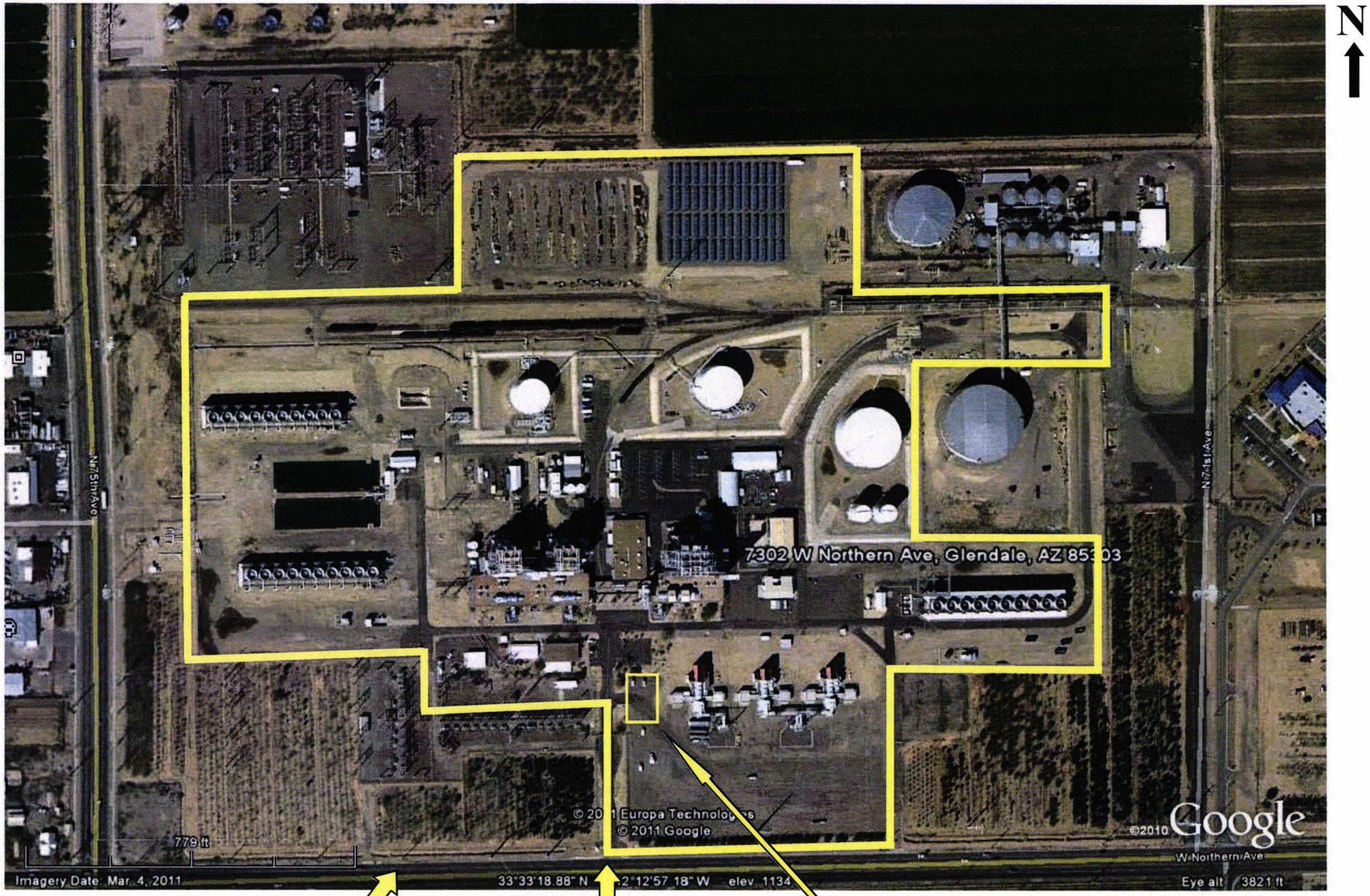
1. Vehicle Use in Open Areas
   Primary Dust Control Measure - Apply and maintain gravel or other suitable material
   Contingency Control Measure – Apply water or dust suppressant, as needed

2. Unpaved Parking Lots and Material Storage Areas
   Primary Dust Control Measure - Apply and maintain gravel or other suitable material
   Contingency Control Measure - Apply water or dust suppressant, as needed

3. Unpaved Haul Roads/Access Areas
   Primary Dust Control Measure - Apply and maintain gravel or other suitable material
   Contingency Control Measure - Apply water or dust suppressant, as needed

Attachment 1. Site Map

Dust Control Plan Site Map



Nearest Public Road

Public Entrance

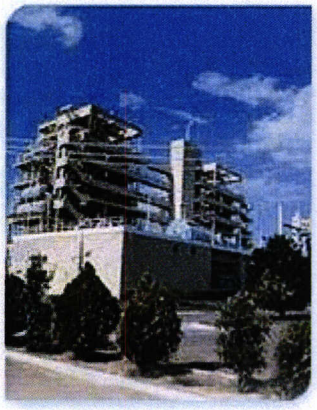
Graveled Parking Area

DUST CONTROL PLAN

Agua Fria Generating Station

7320 W. Northern Avenue

Glendale, Arizona 85303



Revised June 2015

This plan covers routine dust generating operations at the Agua Fria Generating Station (AFGS). All other dust generating operations are covered under a separate Dust Control Plan.

I. BASIC INFORMATION

Business Name: SRP- Agua Fria Generating Station

Business Address: 7302 W. Northern Ave, Glendale

Business Phone: (602) 236-2555

Permit No: V95-010

Date of Revision: June 2015

Contact Information:

Individual responsible for submitting to Maricopa County any changes to SRP's Agua Fria Dust Control Plan	Designated Dust Control Coordinator
Barbara Cenalmor Senior Environmental Compliance Scientist/Engineer P.O. Box 52025, MS-PAB352 Phoenix, AZ 85025-2025 (602) 236-2322 (602) 323-6455	Von Wilcken Senior Environmental Scientist/Engineer Agua Fria Generating Station 7302 W Northern Ave Glendale, AZ (602) 236-2561 (480) 209-9911

Description of routine dust generating operations performed:

Pursuant to Title V Permit No. V95-010 and Maricopa County Air Quality Division (MCAQD) Rule 310, Fugitive Dust from Dust Generating Operations, AFGS is required to implement a Dust Control Plan (DCP) for routine dust generating operations that occur on site. As a result, SRP is developing this DCP and proposed controls for the following dust generating operations that are currently available at AFGS:

- Vehicles/Motorized Equipment;
- Disturbed Surface Areas;
- Track out and Erosion

Any dust generating operations that may occur at AFGS other than those noted above are either authorized by the SRP Construction and Maintenance (C&M) division Block Earth Moving Permit, or will be authorized in separate MCAQD dust control permits

obtained by SRP, or its contractors. The site map showing areas of routine dust generating activities is shown in Attachment 1.

AFGS is not a project site and is not required to post a Project Information Sign. AFGS does not use dust suppressants, other than water. During earth-moving activities performed by contractors under an individual dust control permit, an individual having successfully completed a Comprehensive Dust Control Training Class will be on-site. This individual will be designated as the Dust Control Coordinator.

AFGS is surrounded by a variety of landscaping and man-made structures, including shrubbery, block fences surrounding the facility, and paved/graveled surface covering a majority of the site.

Agua Fria is located in an industrial area in Glendale, Arizona. The site is comprised of approximately 75 acres of land and is bordered to the west by 75th Avenue, to the south by Northern Avenue, to the east by 71st Avenue, and to the north by agricultural and industrial facilities.

These features provide partial enclosure for the facility and prohibit fugitive dust from traveling beyond property lines. Due to this partial enclosure, SRP proposes that daily monitoring is redundant and provides no additional benefit in terms of preventing fugitive dust emissions. Furthermore, dust control measures are maintained at disturbed areas at AFGS. These measures are not expected to have any silt loading or content. This cover is not expected to be affected by daily operations. Typical traffic to unpaved areas is approximately 8 rounds per day for operators, line crew, and security personnel. Lay down areas may see forklift activities up to several times per day. There is one entrance to the facility off of Northern Avenue. It is paved and SRP does not expect any track out from the entrance. Inspections will be conducted monthly and after significant storm events.

The following control measures, forms and documentation demonstrate that the AFGS Dust Control Plan meets all of the applicable requirements of MCAQD Rule 310.

II. CONTROL MEASURES

A. Vehicles/Motorized Equipment
   1. Vehicle Use in Open Areas
      i. Primary Dust Control Measure(s) - Install physical barriers to prevent access, including, but not limited to curbs, fences, gates, posts, signs, shrubs or trees.
   2. Contingency Control Measure(s) - Restrict trespass by installing signs.
      i. Unpaved Parking Lots

ii. Primary Dust Control Measure(s) – Apply water, so that the standards in Rule 310, Section 301 are met **or** apply and maintain gravel or other suitable material so that the standards in Rule 310, Section 301 are met.

3. Contingency Control Measure(s) - Limit vehicle speeds to 15 mph on the site.

4. Unpaved Haul Roads/Access Areas

   i. Primary Dust Control Measure(s) – Apply water, so that the standards in Rule 310, Section 301 are met **or** apply and maintain gravel or other suitable material so that the standards in Rule 310, Section 301 are met.

   ii. Contingency Control Measure(s) - Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 mph **or** apply and maintain dust suppressant(s), other than water, so that the standards in Rule 310, Section 301 are met **or** cease operations.

B. Disturbed Surface Areas

1. Before Dust Generating Operations Occur

   i. Primary Dust Control Measure(s) – Pre-water site to the depth of cuts so that the standards in Rule 310, Section 301 are met.

   ii. Contingency Control Measure(s) - Phase work to reduce the amount of disturbed surface area at any one time.

2. During Dust Generating Operations

   i. Primary Dust Control Measure(s) – Apply water so that the standards in Rule 310, Section 301 are met.

   ii. Contingency Control Measure(s) - Apply water in combination with dust suppressant(s) other than water, so that standards in Rule 310, Section 301 are met, **or** limit vehicle speeds to 15 mph **or** cease operations.

3. Temporary Stabilization Including Weekends, After Work Hours, Holidays and Periods up to 30 days

   i. Primary Dust Control Measure(s) – Apply water or other dust suppressant so that the standards in Rule 310, Section 301 are met.

   ii. Contingency Control Measure(s) - Apply and maintain gravel, asphalt or other suitable material, so that standards in Rule 310, Section 301 are met, **or** restrict vehicle access to area in addition to applying water or other dust suppressant(s) to establish and maintain a visible crust.

4. Permanent Stabilization Required Within 10 Days Following Completion of Dust Generating Operations if Finished for 30 Days or Longer
   i. Primary Dust Control Measure(s) – Apply water or other dust suppressant so that the standards in Rule 310, Section 301 are met.
   ii. Contingency Control Measure(s) - Apply and maintain gravel, asphalt or other suitable material for stabilization, **or** restrict vehicle access to area in addition to applying water or other dust suppressant(s) to establish and maintain a visible crust or establish vegetative ground cover (landscaping), **or** pave.

C. Bulk Material Handling
1. Prior to and/or During Stacking, Loading and Unloading Operations
   i. Primary Dust Control Measure(s) – Spray material with water, as necessary, before/during/or after stacking, loading and unloading.
   ii. Contingency Control Measure(s) - Pre-water and maintain surface soil in a stabilized condition where support equipment and vehicles will operate, **or** empty loader bucket slowly and keep loader bucket close to the truck to minimize the drop height while dumping **or** cease operations.
2. Open Storage Piles
   i. Primary Dust Control Measure(s) – Spray material with water as necessary.
   ii. Contingency Control Measure(s) - Cover open storage piles with tarps, plastic or other material, **or** apply water to maintain a soil crust.
3. Onsite Hauling Within the Boundaries of the Work Site and Crossing a Paved Area Accessible to the Public
   i. Primary Dust Control Measure(s) – Load all haul trucks so that the freeboard is not less than 3 inches and prevent spillage or loss of bulk material from holes or other openings in the cargo compartment and install a suitable trackout control device if hauling ≥100 cubic yards of material or if the worksite is ≥2 acres.
   ii. Contingency Control Measure(s) - Cover haul truck with tarps, plastic or other material, **or** apply water to the top of the load **or** cease operations.
4. Onsite Hauling Within the Boundaries of the Worksite
   i. Primary Dust Control Measure(s) – Cover haul truck with tarps, or some other suitable enclosure, **or** apply water to the top of the load.

ii. Contingency Control Measure(s) – Limit vehicle speeds to 15 mph or less while traveling on the worksite such that visible emissions coming off the load do not exceed 20% opacity **or** cease operations.

5. Offsite Hauling Onto Paved Areas Accessible to the Public

i. Primary Dust Control Measure(s) – Cover all haul trucks with a tarp or some other suitable closure and load all haul trucks so that the freeboard is not less than 3 inches and prevent spillage or loss of bulk material from holes or other openings in the cargo compartment and clean the interior of the cargo compartment of the empty haul trucks before leaving the site.

ii. Contingency Control Measure(s) – Apply water to the top of the load **or** cease operations.

D. Track-out, Carry-out, Spillage, and Erosion

1. Track-out Control Device *(A Track-out control device is needed if work site has 2 acres or more of disturbed surface area or if it hauls 100 cubic yards or more of material on or off-site per day.)*

i. Primary Dust Control Measure(s) – Install at all exits to a paved area accessible to the public at least one of the following trackout control device to control trackout: gravel pad or grizzly, or wheel wash system, or a paved area. A combination of the aforementioned trackout control devices may be used so as to sufficiently control trackout.

ii. Contingency Control Measure(s) – Cease operations.

2. Cleaning *(Track-out/carry-out must be cleaned up immediately if track-out/carry-out extends more than 25 feet along a paved area accessible to the public. If track-out/carry-out extends less than 25 feet out onto a paved area accessible to the public, it must be cleaned up no later than the end of the work day.)*

i. Primary Dust Control Measure(s) – Operate a street sweeper or wet broom as needed with sufficient water to clean up track-out.

ii. Contingency Control Measure(s) – Manually sweep up deposits as needed.

E. Weed Abatement

1. Disturbance Operations

i. Primary Dust Control Measure(s) – Pre-water site and apply water before and during weed abatement by discing or blading, so that one of the standards in Rule 310, Section 301 are met.

ii. Contingency Control Measure(s) – Cease operations.

2. Stabilization
   i. Primary Dust Control Measure(s) – Apply water or other dust suppressant(s) to establish and maintain visible crust.
   ii. Contingency Control Measure(s) – Apply gravel to establish and maintain a threshold friction velocity for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher **or** apply gravel to establish and maintain a percent cover that is equal to or greater than 10% for non-erodible elements **or** establish vegetative ground cover (landscaping) **or** pave.

F. Blasting Operations **(No blasting operations are anticipated at the plant site, so measures are for reserve possibilities only.)**
   1. Primary Dust Control Measure(s) – Discontinue blasting operations if wind gusts above 25 mph and pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
   2. Contingency Control Measure(s) – Apply water **or** water in combination with dust suppressants so that standards in Rule 310, Section 301 are met.

G. Demolition Activities
   1. Primary Dust Control Measure(s) – Apply water **or** water in combination with dust suppressant(s) to demolition debris immediately following demolition activity so that standards in Rule 310, Section 301 are met as well as apply water **or** water in combination with dust suppressant(s) to all surrounding areas and to all disturbed soil surfaces immediately following demolition activity, so that the standards in Rule 310, Section 301 are met.
   2. Contingency Control Measure(s) – Thoroughly clean debris from paved and other surfaces following demolition activity.
   3. Wind Event
   4. When Dust Generating Operation is Occurring
   5. Primary Dust Control Measure(s) – Cease dust generating operations for the duration of the wind event when the 60-minute average wind speed is greater than 25 mph and stabilize the work area, if dust generating operation is ceased for the remainder of the work day.
   6. Contingency Control Measure(s) – Apply water or other suitable dust suppressant at least twice per hour so that standards in Rule 310, Section 301 are met.
   7. Temporary Disturbed Surface Areas (After work hours, Weekends, and Holidays)

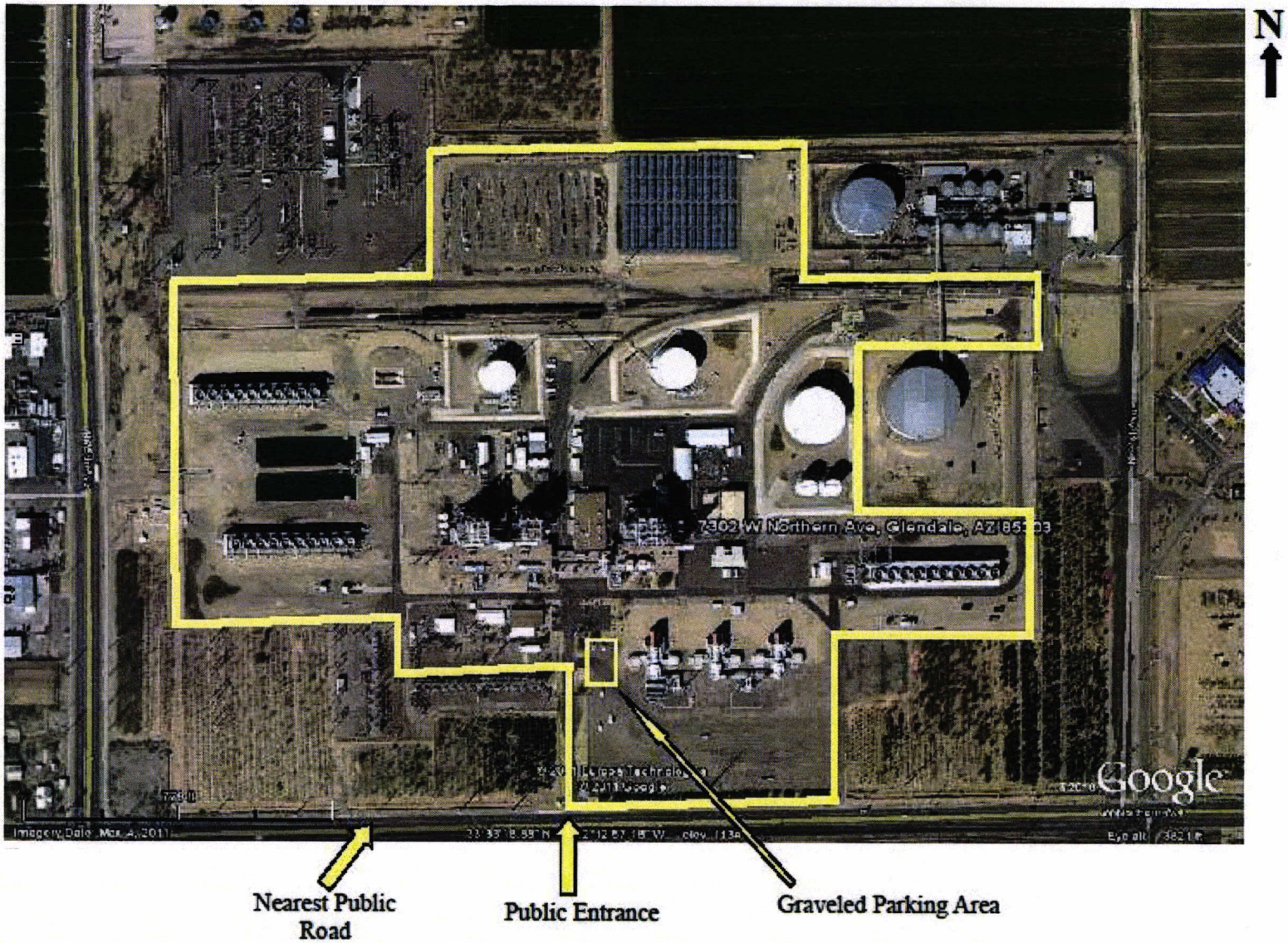
8. Primary Dust Control Measure(s) – Uniformly apply and maintain surface gravel or dust suppressants.
9. Contingency Control Measure(s) – Apply water or other suitable dust suppressant at least twice per hour so that standards in Rule 310, Section 301 are met, **or** cover open storage piles with tarps, plastic, or other material such that wind will not remove the coverings.

III. MONITORING AND RECORDKEEPING

1. Compliance with primary control measures will be documented by facility personnel monthly and after significant rain events. See Attachment B for an example log.
2. These documented inspections will be maintained on site for 5 years.
3. A Dust Control Coordinator trained in Comprehensive Dust Control by MCAQD will be available on site during primary dust generating operations. A record of these individuals will be maintained through SRP corporate training.

Attachment A. Site Map

Dust Control Plan Site Map



Attachment B. Dust Log

AGUA FRIA GENERATING STATION
Monthly Fugitive Dust Generation - Disturbed Area Inspection

Inspector: _____ Date:_____

Inspection is required each month. Re-inspection is required following significant rain events.

Assess the integrity of the disturbed areas paying particular attention to open areas, material storage area and unpaved parking lots and roads. Any stabilization or corrective action needed should be communicated to the Dust Control Coordinator.

Soil Stabilization Measures					
Area		**Stabilized? (Yes/No)**	**Stabilization Required? (Yes/No)**	**Stabilized With**	**Condition**
Open Areas		YES	**Y/N**	Gravel/asphalt	
Unpaved Haul Roads/Access Areas		YES	**Y/N**	Gravel	
Unpaved Parking Lots		YES	**Y/N**	Gravel	
Material Storage Areas		YES	**Y/N**	Gravel	

Maricopa County
Air Quality Department
1001 N Central Avenue
Phoenix, AZ 85004
602-506-6010

Cntr 303 06/22/15-A 12:47pm
Guests 1 EC Table (STANDEE)
Reference# 32711210303

1..Permit Renewal 3500.00
| V95010-408152

Items 3500.00
Tax .00
TOTAL 3500.00

Visa 3500.00
1.VISA/xxxxxxxxxxxx2298/XXXX S A:096294
CENALMOR B, B 5277 06/22 12:47 3500.00
Check 303 PAID 12:47pm ENV-W-1#1-A

Maricopa County
Air Quality Department
1001 N Central Avenue
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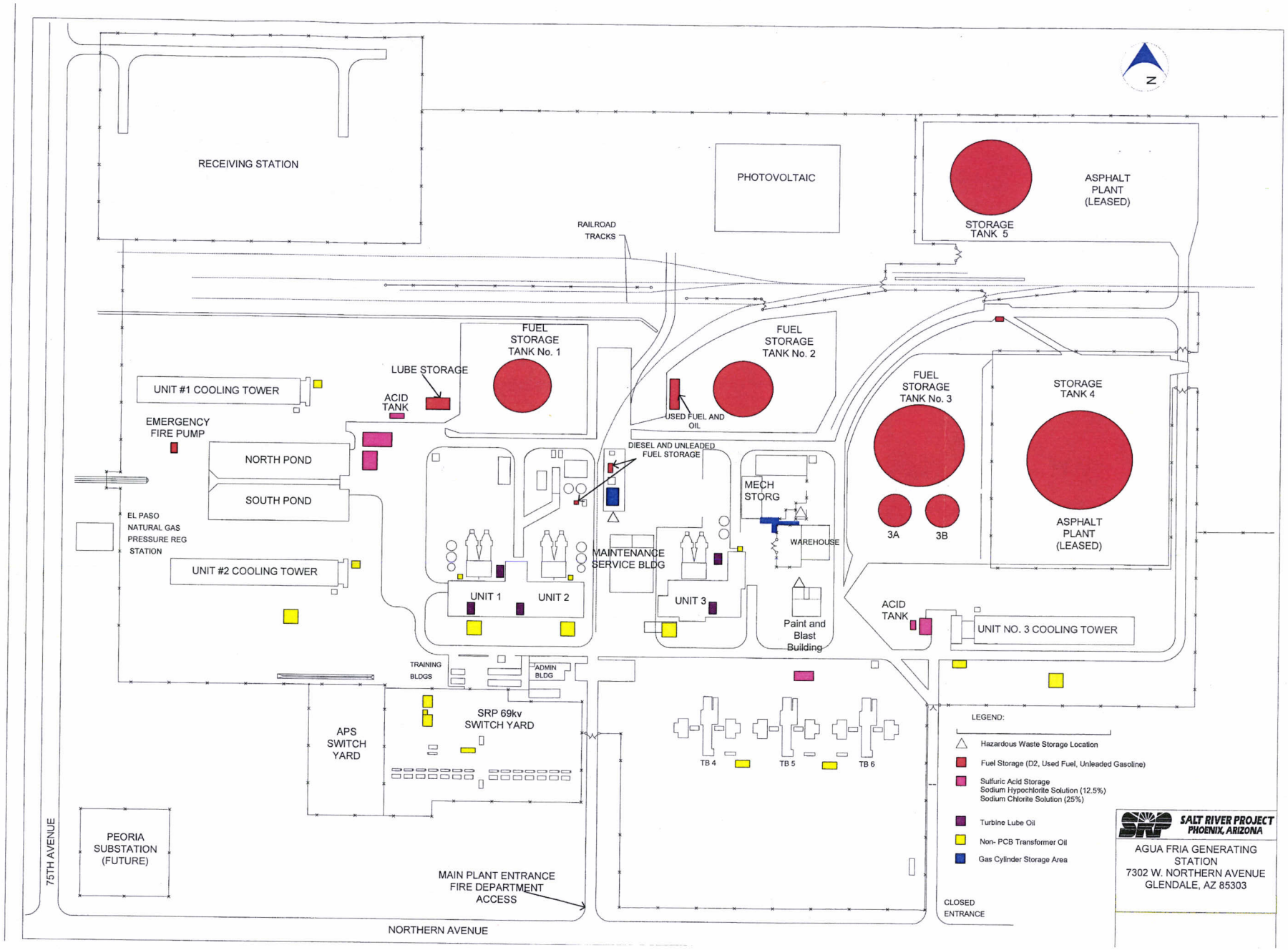
N
RECEIVING STATION
PHOTOVOLTAIC
ASPHALT PLANT (LEASED)
STORAGE TANK 5
RAILROAD TRACKS
FUEL STORAGE TANK No. 1
FUEL STORAGE TANK No. 2
FUEL STORAGE TANK No. 3
STORAGE TANK 4
LUBE STORAGE
ACID TANK
UNIT #1 COOLING TOWER
EMERGENCY FIRE PUMP
NORTH POND
SOUTH POND
USED FUEL AND OIL
DIESEL AND UNLEADED FUEL STORAGE
MECH STORG
WAREHOUSE
3A
3B
ASPHALT PLANT (LEASED)
EL PASO NATURAL GAS PRESSURE REG STATION
UNIT #2 COOLING TOWER
MAINTENANCE SERVICE BLDG
UNIT 1
UNIT 2
UNIT 3
Paint and Blast Building
ACID TANK
UNIT NO. 3 COOLING TOWER
TRAINING BLDGS
ADMIN BLDG
APS SWITCH YARD
SRP 69kv SWITCH YARD
TB 4
TB 5
TB 6
LEGEND:
Hazardous Waste Storage Location
Fuel Storage (D2, Used Fuel, Unleaded Gasoline)
Sulfuric Acid Storage
Sodium Hypochlorite Solution (12.5%)
Sodium Chlorite Solution (25%)
Turbine Lube Oil
Non- PCB Transformer Oil
Gas Cylinder Storage Area
SALT RIVER PROJECT
PHOENIX, ARIZONA
AGUA FRIA GENERATING STATION
7302 W. NORTHERN AVENUE
GLENDALE, AZ 85303
PEORIA SUBSTATION (FUTURE)
75TH AVENUE
MAIN PLANT ENTRANCE FIRE DEPARTMENT ACCESS
CLOSED ENTRANCE
NORTHERN AVENUE