

TECHNICAL REVIEW AND EVALUATION OF APPLICATION FOR AIR QUALITY PERMIT No. 100415

Clean Air, Safe Water Healthy Land for Everyone

I. INTRODUCTION

This Class II permit is for the continued operation of Phoenix Cement Company's Cholla Generating Station-flyash handling facility. Permit No. 100415 renews and supersedes Permit No. 75241. The facility's potential to emit (PTE) for particulate matter (PM) and particulate matter with an aerodynamic diameter less than 10 microns (PM10), without controls or operating hours limitations, is greater than significant levels identified in Arizona Administrative Code (A.A.C.) R18-2-101.130. A Class II permit is required for any stationary source that emits or has the uncontrolled potential to emit, significant quantities of regulated NSR pollutants in accordance with A.A.C. R18-2-302. B.2.

A. Company Information

Facility Name:	Cholla Generating Station-flyash handling facility		
Mailing Address:	Phoenix Cement Company, P.O. Box 428		
	Clarkdale, AZ 86324		
Facility Location:	Arizona Power Supply- Cholla Power Plant		
	Joseph City, AZ 86032		

B. Attainment Classification

The facility is located in Navajo County which is an attainment area with respect to all criteria air pollutants.

II. PROCESS DESCRIPTION

A. Process Equipment

The Phoenix Cement Company (PCC) Cholla Fly Ash facility is located within the APS near Joseph City, Arizona. Raw flyash is pneumatically transferred from APS into either the raw feed silo or the product silo. The flyash in the raw feed silo is pneumatically transferred directly into the product silo or metered into a classification system where the viable product is separated. The portion of flyash not viable is transferred back to APS. The viable flyash is stored in the product silo until it can be gravity fed into trucks or railcars for distribution. This process emits particulate matter (PM) and particulate matter with an aerodynamic diameter less than 10 microns (PM10).

B. Control Devices

This facility has three baghouse dust collectors with maximum rated capacities in cubic feet per minute (CFM) which are used for pollution control for the PM and PM10 emissions from the flyash handling process. The Raw Feed Silo is equipped with the Raw Feed Dust Collector (16,000 CFM). The Product Silo is equipped with the Product Dust Collector (10,000 CFM). The PM and PM10 emissions from the final flyash distribution are controlled by the Loadout Dust Collector (4,000 CFM).

C. Process Flow Diagram



III. COMPLIANCE HISTORY

This facility received one (1) full inspections during the previous permit term. Lastly, four (4) annual compliance certifications and one (1) partial compliance certification were reviewed by ADEQ.

IV. EMISSIONS

The facility's potential to emit (PTE) from the dust collectors were calculated based on the emission factors provided by the equipment vendors. The emissions are for the maximum annual operation of 8,760 hours per year.

Pollutant	Previous PTE (tpy)	Change in PTE (tpy)	Current PTE (tpy)	Permitting Exemption Threshold (tpy)	Minor NSR Triggered?
PM	30.41	-7.88	22.53	N/A	No
PM10	30.41	-7.88	22.53	7.5	No
PM2.5	30.41	-7.88	22.53	5	No

Table 1. Potential to Emit

The facility's PTE is provided in Table 1 below:

The decr	ease in current	t facility's PT	TE emission is	due to the remo	val of product dust
collector	(Equipment ID)-008) due to	decrease in air l	handling requirer	nents resulting from
the decrea	ase in fly ash fi	rom the shutde	own of Cholla	Units 2 and 4.	

V. MINOR NEW SOURCE REVIEW (NSR)

This renewal permit does not involve any changes to the facility's PTE due to new sources emission and thus minor NSR is not triggered as shown in Table 1.

VI. APPLICABLE REGULATIONS

Table 2 identifies applicable regulations and verification as to why that standard applies. The table also contains a discussion of any regulations the emission unit is exempt from.

Unit		Control Device	Rule	Discussion
Classifiers, Cyclor and Silos	es, B C	Baghouse Dust Collectors	A.A.C. R18-2-702.B	The emission from the listed units are Particulate Matter, and thus, opacity standard is applicable to all point sources of emissions.
			A.A.C. R18-2-730	The listed units fall under the Unclassified Sources, and thus unclassified sources standard is applicable
Fugitive dust source	s W D	Vater Trucks, Dust Suppressants	A.A.C. R18-2 Article 6 A.A.C. R18-2-702	These standards are applicable to all fugitive dust sources at the facility.

Table 2: Applicable Regulations

Unit	Control Device	Rule	Discussion
Abrasive Blasting	Wet blasting;	A.A.C. R-18-2-702 A A C R-18-2-726	These standards are applicable
	equipment; Other approved methods	M.M.C. R 10 2 720	operation.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	These standards are applicable to any spray painting operation.
Demolition/renovation Operations	N/A	A.A.C. R18-2- 1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.

VII. PREVIOUS PERMIT REVISIONS AND CONDITIONS

A. Previous Permit Revisions

No permit revisions were made during the previous permit term.

B. Changes to Current Renewal

Table 3 addresses the changes made to the sections and conditions from Permit No. 75241:

Section	D	eterminat	ion	Commonto
No.	Added	Revised	Deleted	Comments
				General Provisions:
Att. "A"		Х		Revised to represent the most recent template
				language
A ++ "D"				Facility Wide Requirements:
All. D		Х		Revised to represent the most recent template
Section I				language
A ++ "D"				Flyash Handling Requirements:
All. D		Х		Revised to represent the most recent template
Section II				language
Att. "B"				Fugitive Dust Requirements:
Section		Х		Revised to represent the most recent template
III				language.

Table 3: Previous Permit Conditions

Section	D	eterminati	ion	Commonto	
No.	Added	Revised	Deleted	Comments	
Att. "B"				Other Periodic Activities:	
Section		Х		Revised to represent the most recent template	
VI				language.	
				Equipment List:	
Att "C"		\mathbf{V}		Revised to reflect the most recent equipment	
Au. C	Λ	Λ		operating at the facility and to include equipment	
				information provided.	

VIII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

Table 4 contains an inclusive but not an exhaustive list of the monitoring, recordkeeping and reporting requirements prescribed by the air quality permit. The table below is intended to provide insight to the public for how the Permittee is required to demonstrate compliance with the emission limits in the permit. Records are required be kept for a minimum of 5 years as outlined in Section XII of Attachment "A" of the permit.

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Flyash Handling Operations- silos, load out spouts, cyclones, and classifiers	PM	20% Opacity	Conduct a monthly survey of visible emissions emanating from the stacks of the baghouses controlling the silos, load out spouts, cyclones, and classifiers using EPA Reference Method 9.	Keep a record of the name of the observer, the date on which the instantaneous survey was made, and the results of the instantaneous survey	In accordance with Condition I.B of Attachment "B".
Fugitive Dust	PM	40% Opacity	A Method 9 observer is required to conduct a monthly survey of visible emissions.	Record of the dates and types of dust control measures employed, and if applicable, the results of any Method 9 observations, and any corrective action taken to lower the opacity of any excess emissions.	N/A

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Abrasive Blasting	PM	20% Opacity	Conduct a survey of visible emissions (if applicable).	Record the date, duration and pollution control measures of any abrasive blasting project.	N/A
Spray Painting	VOC	20% Opacity Control 96% of the overspray	Conduct a survey of visible emissions (if applicable).	Maintain records of the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.	N/A
Demolition/ Renovation	Asbestos		N/A	Maintain records of all asbestos related demolition or renovation projects including the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents	N/A

IX. ENVIRONMENTAL JUSTICE ANALYSIS

The EPA (Environmental Protection Agency) defines Environmental Justice (EJ) to include the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices. The goal of completing an EJ assessment in permitting is to provide an opportunity for overburdened populations or communities to allow for meaningful participation in the permitting process. Overburdened is used to describe the minority, low-income, tribal and indigenous populations or communities that potentially experience disproportionate environmental harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards.

There is no increase in emissions in this renewal permit and thus, it will not result in any additional impacts.

X. LEARNING SITE EVALUATION

In accordance with ADEQ's Environmental Permits and Approvals near Learning Sites Policy, ADEQ is required to conduct an evaluation to determine if any nearby learning sites would be adversely impacted by the facility. Learning sites consist of all existing public schools, charter schools and private schools in the K-12 level, and all planned sites for schools approved by the Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit approval is issued by ADEQ.

This renewal will not result in an increase in emissions and thus, it is exempt from a learning sites evaluation.

XI. LIST OF ABBREVIATIONS

A.A.C	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
AQD	Air Quality Division
A.R.S	Arizona Revised Statutes
CFM	Cubic Feet Per Minute
MMCFD	
PM	Particulate Matter
PM10	Particulate Matter less than 10 µm nominal aerodynamic diameter
PM2.5	Particulate Matter less than 2.5 µm nominal aerodynamic diameter
РТЕ	
TPY	