



**TECHNICAL REVIEW AND EVALUATION
OF Air Curtain Incinerator General Permit**

I. INTRODUCTION

The Air Curtain Incinerator (ACI) General Permit is a Class I Title V Permit for a facility class (air curtain incinerators) that contains 10 or more facilities that are similar in nature, have substantially similar emissions, and would be subject to the same or substantially similar requirements. Equipment covered under this general permit are required to have an individual “Authorization To Operate” (ATO) for each air curtain incinerator and internal combustion engine.

II. EMISSIONS

Table 1 shows the potential to emit each criteria pollutant in tons per year, for each air curtain incinerator assuming that they operate at the maximum capacity of burning 35 tons per day.

Table 1: Criteria Pollutant Emissions (tons per year)

Pollutant	Potential to Emit	Permitting Exemption Threshold
NO _x	6.39	20
PM ₁₀	8.30	7.5
PM _{2.5}	7.03	5
CO	16.61	50
SO ₂	0.64	20
VOC	5.75	20

III. APPLICABLE REGULATIONS

Table 2 identifies applicable regulations and verification as to why that standard applies

Table 2: Applicable Regulations

Rule	Discussion
<i>ZZZZ</i>	40 CFR 63 Subpart ZZZZ are applicable to stationary reciprocating internal combustion engines located at an area source of HAP emissions.
III	40 CFR 60 Subpart IIII are applicable to stationary compression ignition internal combustion engines.
JJJ	40 CFR 60 Subpart JJJJ are applicable to stationary spark ignition internal combustion engines.
A.A.C R18-2-719	Engines not subject to NSPS
40 CFR 60 subpart EEEE	ACI's under this permit are subject to 40 CFR 60 subpart EEEE
Maricopa, Pima and Pinal Counties Specific Rules	These regulations apply to owners and operators of ACI under this permit when entering and operating in the given county

IV. PREVIOUS PERMIT AND CONDITIONS

Table 3 compares the substantive conditions in the 2017 ACI General Permit with the conditions in this renewal permit and cross-references the previous permit conditions to their location in the renewal permit

Table 3:

Section No.	Determination			Comments
	Revised	Keep	Delete	
Att. "A"	X			General Provisions – Revised to represent the most recent template language
Att. "B" Section I		X		
Att. "B" Section II		X		
Att. "B" Section III	X			Revised to represent the most recent template language. Removed county specific rules that did not apply to all counties. Removed state wide rules with no state wide citations.
Att. "B" Section IV	X			Revised to more explicitly reference the appropriate federal regulations
Att. "B" Section V	X			Revised to represent the most recent template language
Att. "B" Section VI	X			Revised based on updates to state regulation languages
Att. "B" Section VII			X	Removed from Stationary permits
Att. "B" Section VII	X			Moved and updated to be consistent with permit template language.
Att. "B" Section VIII	X			Revised to represent the most recent template language and updates to federal regulations, and new method of writing ICE regulations consistently within State of Arizona Air Quality Permits
Att. "C"	X			Revised to reflect updates to Maricopa county rules. Updated the engines section
Att. "D"	X			Revised to reflect updates to Pinal county rules
Att. "E"	X			Revised to reflect updates to Pima county rules. Added Opacity information and Class I Area protections.

V. MODELING REQUIREMENTS

Dispersion modeling will be conducted during the public notice period to ensure that the operation of Air Curtain Incinerators in Arizona do not violate National Ambient Air Quality Standards (NAAQS). Any changes made to the permit due to modeling will make the permit more stringent. Results of the dispersion modeling will be included in the final copy of the Technical Support Document

VI. LIST OF ABBREVIATIONS

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
Btu/ft ³	British Thermal Units per Cubic Foot
Btu/hr	British Thermal Units per Hour
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EPNG	El Paso Natural Gas Company
FERC	Federal Energy Regulatory Commissions
HAP	Hazardous Air Pollutant
hp	Horsepower
lb/hr	Pound per Hour
NO _x	Nitrogen Oxides
PM	Particulate Matter
PM ₁₀	Particulate Matter Nominally less than 10 Micrometers
SO _x	Sulfur Oxides
VOC	Volatile Organic Compound