TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT No. 96358

I. INTRODUCTION

Class II Synthetic Minor Permit No. 96358 is for the continued operation of the BLT Companies - Hot Mix Asphalt #1 plant. Permit No. 96358 renews and supersedes Permit No. 67115. A Class II Synthetic Minor permit is required because a voluntary operating hours limitation was accepted in accordance with Arizona Administrative Code (A.A.C.) R18-2-306.01 to reduce the facility's potential to emit carbon monoxide (CO) and sulfur dioxide (SO_2) below the major source threshold.

A. Company Information

Company Name: BLT Companies, LLLP

Mailing Address: P.O. Box 6486

Yuma, AZ 85366

Facility Name: BLT Companies – Hot Mix Asphalt #1

Facility Location: 5401 Highway 95

Yuma, AZ 85356

B. Attainment Classification

BLT Companies – Hot Mix Asphalt #1 is located in Yuma County, which is designated nonattainment for particulate matter with nominal aerodynamic diameter less than 10 microns (PM_{10}) and ozone.

II. PROCESS DESCRIPTION

A. Process Equipment

The BLT Companies Hot Mix Asphalt #1 facility consists of a stationary hot mix asphalt plant (HMAP), crushing and screening plant, wash plant, and concrete batch plant (CBP). The Permittee also operates a mobile crushing and screening plant.

The HMAP produces material suitable for paving by heating and mixing aggregate with asphaltic oil in a counter flow rotary drum dryer. The drum dryer burner is capable of being fueled by on-specification used oil or diesel fuel. The asphaltic oil is preheated in an indirect-fired tank to maintain liquid state to be pumped into the drum dryer and mixed with hot aggregate. Emissions from the rotary drum dryer are controlled by a baghouse to reduce emissions of particulate matter. The asphalt mix is conveyed to storage silos prior to being loaded into trucks.

The crushing and screening plant process run-of-mine material to produce various sizes of product. The product is divided at the splitter box, where approximately 1/3 of the product

is further processed for use in the asphalt plant or other off-site uses. The remaining product is processed through the wash plant, where product is cleaned for use in the CBP. The wash plant saturates material to wash out fines and does not produce emissions of particulate matter.

The CBP produces dry, transit mix concrete. Washed aggregate from the wash plant is fed to the plant and combined with cement and fly ash, which is loaded into transit mix trucks.

The mobile crushing and screening plant is a track mounted, self-propelled vertical shaft impact crusher powered by a non-road engine that is used to further process materials. The plant is stored at the facility and used for project on-site, but may also be mobilized for projects off-site.

B. Control Devices

The HMAP's drum dryer is equipped with a baghouse to control emissions of particulate matter. The CBP's fly ash silo, cement silo, and loading point are equipped with dust control systems to control emissions of particulate matter from silo filling and truck loading operations. The Crushing and Screening plant operates water sprays to control emissions of particulate matter.

III. COMPLIANCE HISTORY

The BLT Companies Hot Mix Asphalt #1 plant received two (2) full inspections and one (1) partial inspection, and submitted four (4) annual compliance certifications during the permit term. The Permittee was not subject to any enforcement actions in response to these compliance activities, however Consent Order No. A-43-15 was terminated after the requirements of the compliance schedule were satisfied during the permit term. The details of the Consent Order are discussed below:

A. Consent Order No. A-43-15

Consent Order No. A-43-15 went into effect on December 9, 2015 in response to an inspection conducted on July 15, 2015 after it was noted that the Permittee had not conducted the performance test to demonstrate compliance with the particulate matter emission limitation for the drum dryer stack within 180 days of Permit No. 56606's issuance date of July 23, 2013. The Consent Order included a compliance schedule, which required the Permittee to notify the Department in writing of any job awarded with sufficient throughput to conduct a representative performance test, conduct a performance test, and submit results of the performance test within thirty (30) days. The Permittee conducted the performance test on January 23, 2020, and submitted the results to the Department on February 12, 2020. Consent Order No. A-43-15 was terminated on February 19, 2020.

The Permittee was required to conduct a performance test within 180 days of issuance of Permit No. 67115, and to satisfy the above Consent Order. The results of the performance test are detailed in Table 1 below:

Table 1: Performance Test Results

Emission Unit	Pollutant	Date of Tests	Results	Threshold	Pass/Fail
Drum Dryer Baghouse	Particulate Matter	1/23/2020	0.0080 gr/dscf	0.04 gr/dscf	Pass
	Opacity		3.3% Opacity	20% Opacity	Pass

IV. EMISSIONS

Emissions from the HMAP were evaluated using emission factors from AP-42 Chapter 11.1 "Hot Mix Asphalt Plants" assuming combustion of waste oil for the drum dryer controlled by a fabric filter baghouse. Emissions from the asphalt heater were evaluated using emission factors from AP-42 Chapter 11.1-13. The hot mix asphalt plant's potential to emit was evaluated using the facility's operating hours limitation of 3,416 hours per rolling 12-month period, which was voluntarily accepted to avoid the requirement to obtain a Class I permit.

Emissions from the crushing and screening operations, including crushing, screening, conveyor transfer points, and stackers were evaluated using controlled emission factors from AP-42 Chapter 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing." Emissions from storage piles and loading of the feed hopper were evaluated using predictive emission factor equations from AP-42 Chapter 13.2.4 "Aggregate Handling and Storage Piles."

Emissions from the CBP were evaluated using controlled emission factors from AP-42 Chapter 11.12 "Concrete Batching." Emissions from loading of the feed hopper were evaluate using predictive emission factor equations from AP-42 Chapter 13.2.4 "Aggregate Handling and Storage Piles."

The facility has potential to emit (PTE) of PM_{10} and particulate matter with nominal aerodynamic diameter less than 2.5 microns ($PM_{2.5}$) greater than the significant thresholds. The facility's potential to emit of carbon monoxide (CO) and sulfur dioxide (SO_2) exceed the major source threshold without the voluntarily accepted operating hours limitation for the HMAP, therefore the facility is a synthetic minor. The facility's PTE is provided in Table 2 below:

Table 2: Potential to Emit (tpy)

Pollutant	PTE
NO_X	38.2
PM_{10}	37.8
$PM_{2.5}$	17.0
CO	90
SO_2	38.2
VOC	25.4
HAPs	7.1

V. VOLUNTARILY ACCEPTED EMISSION LIMITATIONS AND STANDARDS

The permit contains the following voluntary emission limitations and standards:

A. Hot Mix Asphalt Plant Operating Hours

The Permittee has accepted a voluntary operating hour limitation of 3416 hours per rolling 12-month period for the Hot Mix Asphalt Plant in order to avoid the requirement to obtain a Class I permit.

VI. APPLICABLE REGULATIONS

Table 3 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.

Table 3: Applicable Regulations

Unit	Control Device	Rule	Discussion
Hot Mix Asphalt Plant	Baghouse	40 CFR 60 Subpart I	New Source Performance Standard (NSPS) Subpart I "Standards of Performance for Hot Mix Asphalt Facilities" applies to the following operations associated with a hot mix asphalt plant constructed after June 11, 1973: dryers, systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.
Asphalt Heater		A.A.C. R18-2-724	A.A.C. R18-2-724 "Standards of Performance for Fossil-fuel fired Industrial and Commercial Equipment" applies to industrial and commercial installations rated in aggregate greater than 500,000 Btu per hour, but less than 250,000,000 Btu per hour, in which fuel is burned for the primary purpose of producing steam, hot water, hot air or other liquids, gases, or solids and in the course of doing so the products of combustion do not come into direct contact with process materials and are not subject to NSPS.

Unit	Control Device	Rule	Discussion
Crushing and Screening Operation		40 CFR 60 Subpart OOO	NSPS Subpart OOO "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station at nonmetallic mineral processing plants constructed after August 31, 1983.
Concrete Batch Plant	Baghouses	A.A.C. R18-2-723	A.A.C. R18-2-723 "Standards of Performance for Existing Concrete Batch Plants" applies to fugitive sources of particulate matter at the concrete batch plant.
Fugitive dust sources	Water 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.
Abrasive Blasting	Wet blasting; Dust collecting equipment; Other approved methods	A.A.C. R-18-2-702 A.A.C. R-18-2-726	These standards are applicable to any abrasive blasting 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. Changes to Current Renewal

Table 4 addresses the changes made to the sections and conditions from Permit No. 67115

Table 4: Previous Permit Conditions

Section No.	Determination			Comments
	Added	Revised	Deleted	
Att. "A"		X		General Provisions: Revised to represent the most recent template language

Section No.	Determination			Comments
	Added	Revised	Deleted	
Att. "B" Section I		X		Facility Wide Requirements: Revised to represent the most recent template language
Att. "B" Section II		X		Hot Mix Asphalt Plant: Revised applicability statement, revised various citations to clarify underlying authority, and removed unnecessary permit conditions.
Att. "B" Section III		X		Asphalt Heater: Revised to remove fuel limitation.
Att. "B" Section IV		X		Crushing and Screening Operations: Revised applicability statement and various citations to clarify underlying authority.
Att. "B" Section V		X		Concrete Batch Plant: Revised to remove unnecessary permit conditions.
Att. "C"		X		Equipment List: Revised to reflect the most recent equipment operating at the facility and to include equipment information provided.

VIII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

Table 5 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.

Table 5: Permit No. 96358

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Hot Mix Asphalt Plant	PM	.04 gr/dscf 20% Opacity	Conduct a monthly survey of visible emissions from affected facilities of the hot mix asphalt plant. Install, operate, calibrate, and maintain a device of continuous measurement of pressure drop across the drum dryer baghouse. Conduct a black light inspection on the drum dryer baghouse every six months. Conduct a performance test for the drum dryer baghouse during the first year of the permit term. If results exceed 75% of the emissions standard, subsequent performance testing shall be conducted between 10 and 14 months	Maintain records number of hours that the hot mix asphalt plant operated each day, month, and rolling 12-month period. Measure and record pressure drop across the baghouse each day. Maintain records of the inspector, date, time, results of the black light inspection, and any repairs made, as necessary.	

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
			following the previous test. If results are less than or equal to 75% of the emissions standard, no subsequent testing shall be required during the permit term.		
Asphalt Heater	PM	15% Opacity	Conduct a monthly survey of visible emissions emanating from the asphalt heater.	Maintain records of fuel supplier certifications.	Report all 6-minute periods during which visible emissions from the asphalt heater exceed 15% opacity.
During Crushing and Screening Equipment	PM	Crushers: 15% Opacity Other Affected Facilities: 10% Opacity	Conduct a monthly survey of visible emissions emanating from all affected facilities associated with the crushing and screening plant.		Submit a report of any wet processing operations that process saturated material and subsequently process unsaturated materials.
Concrete Batch Plant	PM	20% Opacity	Conduct a monthly survey of visible emissions emanating from all point sources associated with the concrete batch plant.		
Fugitive Dust	PM	40% Opacity	A Method 9 observer is required to conduct a	Record of the dates and types of dust control measures employed, and if	

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
			monthly survey of visible emissions.	applicable, the results of any Method 9 observations, and any corrective action taken to lower the opacity of any excess emissions.	
Abrasive Blasting	PM	20% Opacity		Record the date, duration and pollution control measures of any abrasive blasting project.	
Spray Painting	VOC	20% Opacity Control 96% of the overspray		Maintain records of the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray-painting project.	
Demolition/ Renovation	Asbestos			Maintain records of all asbestos related demolition or renovation projects including the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents	

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. The renewal permit does not allow or permit any increases in emissions and will not result in any additional impacts.

X. LEARNING SITE EVALUATION

In accordance with ADEQ's Environmental Permits and Approvals near Learning Sites Policy, the Department 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 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 Class II permit renewal will not result in any increase in emissions as there are no changes to any equipment. Hence the facility is exempt from the learning sites evaluations.

XI. LIST OF ABBREVIATIONS

A.A.C. ..... Arizona Administrative Code
ADEQ ..... Arizona Department of Environmental Quality
A.R.S. ..... Arizona Revised Statutes
CBP ..... Concrete Batch Plant
CFR ..... Code of Federal Regulations
CO ..... Carbon Monoxide
EJ ..... Environmental Justice
EPA ..... Environmental Protection Agency
gr/dscf ..... Grains per Dry Standard Cubic Foot
HAP ..... Hazardous Air Pollutant
HMAP ..... Hot Mix Asphalt Plant
MSDS ..... Material Safety Data Sheet
NESHAP ..... National Emission Standards for Hazardous Air Pollutants
NO_X ..... Nitrogen Oxides
NSPS ..... New Source Performance Standards
PM_{10} ..... Particulate Matter less than 10 µm nominal aerodynamic diameter
$PM_{2.5}$ ..... Particulate Matter less than 2.5 µm nominal aerodynamic diameter
PTE ..... Potential to Emit
SO_2 ..... Sulfur Dioxide
TPY ..... Tons per Year
VOC ..... Volatile Organic Compound