STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1028-AR-3 AFIN: 15-00089

1. PERMITTING AUTHORITY:

Division of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Bitec, Inc.
#2 Industrial Park Drive
Morrilton, Arkansas 72110

3. PERMIT WRITER:

Jae Jung

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Asphalt Shingle and Coating Materials Manufacturing
NAICS Code: 324122

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
1/30/2026	Deminimis	• Adding a second thermal hot oil heater (SN-12)

6. REVIEWER'S NOTES:

With this deminimis, Bitec, Inc requests to add a second thermal hot oil heater, proposed SN-12, to be used to heat bitumen piping, bitumen pumps, mixing tanks, the pre-impregnator and the impregnator. Permitted Emission will increase by 0.2 tpy PM, 0.2 tpy PM_{10}, 0.1 tpy SO_2, 0.1 tpy VOC, 1.5 tpy CO, 1.8 tpy NO_X, and 0.04 tpy Total HAPs, and 8.59E-06 tpy Lead.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

The facility was last inspected on February 04th, 2015 with no violations identified. https://echo.epa.gov/detailed-facility-report?fid=110001710300

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? N

b) Is the facility categorized as a major source for PSD? N
- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
01(01A, 01B, 01C, 01D), 06, 07, 08, 11	PM and Opacity	NSPS UU
SN-01D Impregnator & Mixing vessels in SN-01	PAH or PM (BITEC chose PM)	NESHAP AAAAAAA

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
N/A				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N
(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any 8 CAR pt. 40 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? N
If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
N/A		

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
N/A		

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

Based on Department procedures for review of non-criteria pollutants, emissions of all non-criteria pollutants other than H_2S are below thresholds of concern.

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Benzene	0.06389	0.0070279	1.15E-05	Yes
Carbonyl Sulfide	12	1.32	2.00E-02	Yes
Dichlorobenzene	150	16.5	6.59E-06	Yes
Formaldehyde	15	1.65	2.29E-02	Yes
Hexane	176	19.36	9.88E-03	Yes

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Toluene	87	9.57	1.86E-05	Yes
Total POM	0.2	0.022	3.86E-06	Yes
Arsenic	0.01	0.0011	3.92E-06	Yes
Barium	0.5	0.055	2.42E-05	Yes
Beryllium	0.00005	0.0000055	6.59E-08	Yes
Cadmium	0.01	0.0011	6.04E-06	Yes
Chromium	0.5	0.055	7.69E-06	Yes
Cobalt	0.021	0.00231	4.61E-07	Yes
Copper	0.2	0.0022	9.41E-08	Yes
Manganese	0.02	0.0022	2.09E-06	Yes
Mercury	0.025	0.00275	1.43E-06	Yes
Molybdenum	0.5	0.055	6.04E-06	Yes
Nickel	1.5	0.165	1.15E-05	Yes
Selenium	0.2	0.022	1.32E-07	Yes
Vanadium	0.051	0.00561	1.26E-05	Yes
Zinc	2	0.22	1.60E-04	Yes

c) H_2S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H_2S Standards? N
If exempt, explain:_____

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H_2S	20 parts per million (5-minute average*)	4.98 E-4 ppm 0.303 $\mu g/m^3$ (1-hr)	Y
	80 parts per billion (8-hour average) residential area	0.102 ppb 0.143 $\mu g/m^3$ (8-hr)	Y

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
	100 parts per billion (8-hour average) nonresidential area	0.102 ppb 0.143 µg/m^3 (8-hr)	Y

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01A, 01B, 01D & 01E	CO, VOC, Formaldehyde, carbonyl sulfide - Trumbore, David, et. Al. (2005) research PM/PM_{10} – NESHAP Subpart AAAAAAA	CO: 0.060 lb/ton asphalt PM/PM_{10}: 0.06 lb/ton asphalt VOC: 0.29 lb/ton asphalt Formaldehyde: 0.0091 lb/ton asphalt Carbonyl sulfide: 0.0081 lb/ton asphalt	Protherm Monsanto "ES" mist eliminator (fiber bed filter)	99%	01C was removed in R2; 01A, 01B, 01D & 01E are all controlled with listed mist eliminator
02, 03, 04 and 05	AP-42 Section 1.4 (7/93)	PM/PM_{10}: 4.5 lb/MMscf natural gas VOC: 5.8 lb/MMscf natural gas CO: 21 lb/MMscf natural gas NO_x: 100 lb/MMscf natural gas SO_2: 0.6 lb/MMscf natural gas	None		Taken from application submitted January 15, 1996
06	Testing	PM/PM_{10}: 0.01 gr/scf	None		Taken from application submitted January 15, 1996
07 & 08	TANKS 4.0.9d with Trumbore, David (1999) research	PM/PM_{10}: 22% of HC fumes VOC: 78% of HC fumes CO: 500 ppm of HC fumes H_2S: 500 ppm of HC fumes	None		
09 & 10	AP-42 1.4 Natural Gas Combustion Tables 1.4-1 and 1.4-2	PM/PM_{10}: 7.6 lb/MMscf natural gas VOC: 5.5 lb/MMscf natural gas CO: 84 lb/MMscf natural gas NO_x: 100 lb/MMscf natural gas SO_2: 0.6 lb/MMscf natural gas	None		Max Hourly Natural Gas Usage:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
					0.00078 MMscf/hr
11	FIRE Database, Bulk Loading Operations	PM/PM_{10}: 0.02 lb/ton of product	None		
12	AP-42 Table 1.4-1, 1.4-2, 1.4-3	PM/ PM_{10}: 7.6 lb/MMscf natural gas SO_2: 0.6 lb/MMscf natural gas NO_x: 100 lb/MMscf natural gas CO: 84 lb/MMscf natural gas VOC: 5.5 lb/MMscf natural gas	None		Heat Input: 4.00 MMBty/hr Hourly Natural Gas Usage: 0.0039 MMscf/hr

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01 (Fiber Bed Filter Mist Eliminator)	PM	Method 5A	Once (conducted October 7-10, 2016; submitted to USEPA Region 6 for approval)	Table 3 of 40 CFR 63 Subpart AAAAAAA

17. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
01 (Fiber Bed Filter Mist Eliminator)	Inlet Gas Temperature of Fiber Bed Filter Mist Eliminator (FBFME)	CPMS – Temperature Gauge	Once every 15 minutes for a period of consecutive observations (Continuous)	N

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
01 (Fiber Bed Filter Mist Eliminator)	Pressure Drop across Device Main Filters of FBFME	CPMS – Pressure Gauge	Once every 15 minutes for a period of consecutive observations (Continuous)	N

18. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
Facility	Rolls of 95 pound per roll modified bituminous waterproofing membrane	750,000 rolls per 12 month rolling average	Monthly	N
01A, 01B, 07 and 08	Opacity	0%	Annually	N
06 and 11	Opacity	1%	Annually	N
01, 02, 03, 04, 05, 09, 10, and 12	Opacity	20%	Annually	N
01 (Fiber Bed Filter Mist Eliminator)	Inlet Gas Temperature to control device	< 120 °F (3-hour average)	Record each operating parameter once every 15 minutes – Continuously & on-going	Yes -only for initial approval (Submitted for approval to USEPA Region 6)
01 (Fiber Bed Filter Mist Eliminator)	Pressure Drop across Control Device main Filters	8 - 20 inches H_2O (3-hour average)	Record each operating parameter once every 15 minutes – Continuously & on-going	Yes -only for initial approval (Submitted for approval to USEPA Region 6)
01 (Fiber Bed Filter Mist Eliminator)	IPT PM Emission Test Conducted October 7-10, 2016	0.06 lb/ton Limit Result 0.0035 lb/ton	Once unless modified – keep for life of unit	Yes -only for initial approval (Submitted for approval to USEPA Region 6)

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01 (Fiber Bed Filter Mist Eliminator)	Original Spec/ Doc (info describing the op of control device (FBFME) & process parameters, which would indicate proper operation and maintenance of device	As specified in Manufacturing Specifications	On-going	No (Keep on-site for Life of unit)
Facility	Site-specific Monitoring Plan (SSMP)	(1.) Proper install & location of gauges; (2.) Performance and eq. specs for the probe, signal analyzer, data collection and reduction system; & (3.) Performance evaluation procedures and acceptance criteria.	On-going	Yes -only for initial approval (Submitted for approval to USEPA Region 6)

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01A, 01B, 07 and 08	0%	§60.472(c)	Annual ADEQ Inspection
06 and 11	1%	§60.472(d)	
01, 02, 03, 04, 05, 09, 10, and 12	20%	8 CAR § 41-403 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311	

20. DELETED CONDITIONS:

Former SC	Justification for removal
06	Original two tanks physically cannot be used simultaneously. Of two new tanks, one is piped for continuous flow, the second is additional storage not piped to flow to process.

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Diesel Storage Tank	A-3			< 0.1				

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1028-AR-2

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Revised 03-11-16

Facility Name: Bitec, Inc.

Permit Number: 1028-AR-3

AFIN: 15-00089

			Old Permit	New Permit
		Permit Predominant Air Contaminant	4.5	6.3
$/ton factor	28.14	Net Predominant Air Contaminant Increase	1.8	
Minimum Fee $	400			
Minimum Initial Fee $	500			
		Permit Fee $	400	
Check if Administrative Amendment	☐	Annual Chargeable Emissions (tpy)	6.3	No Annual Fee

Pollutant (tpy)	Old Permit	New Permit	Change
PM	2.2	2.4	0.2
PM_{10}	2.2	2.4	0.2
$PM_{2.5}$	0	0	0
SO_2	0.6	0.7	0.1
VOC	3.9	4	0.1
CO	2.4	3.9	1.5
NO_X	4.5	6.3	1.8
Lead	0	8.59E-06	0.000008 59