STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0982-AOP-R12 AFIN: 14-00040

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

American Fuel Cell and Coated Fabrics Company of Delaware, LLC
601 Firestone Drive
Magnolia, Arkansas 71753

3. PERMIT WRITER:

Bart Patton

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Rubber Product Manufacturing for Mechanical Use
NAICS Code: 326291

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
2/23/2026	Renewal	Add SN-24 fire pump; remove SN-14.2, 14.3, and 14.10 (Jet Fuel Storage Tanks) from service; increase SN-15.4's heat capacity; increase HAP content limits; add 187-gallon diesel tank for SN-24 (A-3), R&D QC Lab A-5), and Soap Air Testing on Fuel Cells (A-13) to IA List; remove one 1000-gallon diesel tank (A-3); change Calender Operations Heat Sources to Electric as a no-emissions source (I.A. A-1); change A-13 Mill Cyclone emissions
4/6/2026	Administrative Amendment	Add a parts washer (I.A. A-13)

6. REVIEWER'S NOTES:

This Title V renewal was issued to make the following changes:

1) Renew the Title V permit and update the permit shield
2) Remove the following sources:
    a. SN-14.2 Jet Fuel Storage Tank (10,000 gallons)
    b. SN-14.3 Jet Fuel Storage Tank (12,000 gallons)
    c. SN-14.10 Jet Fuel Storage Tank (5,000 gallons)
3) Add the following sources:
    a. SN-24 Diesel Fire Pump (144 hp)
4) Increase SN-15.4's heat capacity to match the unit installed (from 26.78 MMBtu/hr to 33.475 MMBtu/hr)
5) Add increases in hourly HAP limits for Fabrication Operations process source group
6) Add the following Insignificant Activities:
    a. 187-Gallon Diesel Tank for SN-24 (A-3)
    b. R&D QC Lab (A-5)
    c. Soap Air Testing on Fuel Cells (A-13)
7) Remove the following Insignificant Activities
    a. One 1,000 Gallon Diesel Tank (A-3)
8) Change Insignificant Activity (A-1) Calender Operations Heat Sources to Calender Operations Heat Sources (Electric), a no-emissions source
9) Change Insignificant Activity (A-13) Mill Cyclone's emissions based on new method of calculation

An April 2026 administrative amendment was incorporated to add Insignificant Activity (A-13) Parts Washer.

The permit was updated to use current standard language, including CAR citations. An annual opacity reading for emergency engines was added to match current standard practice. Specific Condition #49 for emergency engines was updated to match 40 C.F.R. §63.6640(f)(1-3).

Throughout the permit, when referring to cylinders and other pressing equipment used in rubber manufacturing, "calendar" was changed to "calender" for standardization. "Calendar," as in "calendar year," was left unchanged.

Annual permitted emissions increased as follows in tpy: 0.3, PM/PM10; 0.1, SO_2; 0.1, VOC; 2.7, CO; 3.2, NO_X; 5.64; 5.64, MIBK; 77.19, Xylene; and Total HAP, 0.07.

Annual permitted emissions decreased as follows, in tpy: 86.75, Toluene; and 40.38, Tetrachloroethylene.

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 November 8, 2023, and no concerns were noted. An unpermitted fire pump was included in the renewal application and presumably the facility will be in compliance with all requirements upon issuance. There are no complaints noted for this facility.

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/A

b) Is the facility categorized as a major source for PSD? N

- *Not on the list of 28 and no single pollutant ≥ 250 tpy (100 tpy < VOC ≤ 250 tpy; all other criteria pollutants ≤ 100 tpy)*

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
15.3, 15.4	Record Keeping Only	NSPS 40 C.F.R. Part 60 Subpart Dc
15.3, 15.4	HAP	NESHAP 40 C.F.R. Part 63 Subpart DDDDD
Fabrication Operations	VOC/HAP	NESHAP 40 C.F.R. Part 63 Subpart GG
23.1, 23.2, 23.3	HAP	NESHAP 40 C.F.R. Part 63 Subpart ZZZZ
24	HAP	NSPS 40 C.F.R. Part 60 Subpart IIII

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? Y
(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? Y

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
22	40 CFR Part 63, Subpart GG—National Emission Standards for Aerospace Manufacturing and Rework Facilities	This subpart applies only to the manufacture, rework, and repair of aerospace vehicles and components. SN-22 coats only female molds which are used elsewhere to produce male forms. The female molds do not meet the subpart's definition of an aerospace vehicle or component, because they are not a part, assembly of parts, or completed unit of any aircraft.

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:

The non-criteria pollutants listed below were evaluated. Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Division of Environmental Quality has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
2,4-Toluene Diisocyanate	0.03561	0.00391	1.44E-03	Yes
Bis(2-Chloroethyl) Ether	0.004701	0.0005171	3.67E-03	No
Carbon Disulfide	3.11	0.3421	0.414	No
Formaldehyde	1.5	0.165	1.10E-02	Yes
Methanol	262.085	28.829	2.46	Yes
MIBK	81.93	9.0123	14.33	No
Styrene	85.20	9.37	15.06	No
Tetrachloroethylene	169.52	18.6472	20.13	No
Toluene	75.36	8.2896	49.372	No
Mercury	0.025	0.00275	1.11E-05	Yes
Manganese	0.02	0.0022	1.62E-05	Yes
Arsenic	0.01	0.0011	8.54E-06	Yes
Beryllium	0.00005	0.0000055	5.13E-07	Yes
Cadmium	0.002	0.00022	4.70E-05	Yes
Chromium	0.01	0.0011	5.99E-05	Yes
Cobalt	0.02	0.0022	0.003128	No
Lead	0.05	0.0055	2.14E-05	Yes
Selenium	0.2	0.022	1.03E-06	Yes

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Benzene	0.64	0.00024	Yes
Bis(2-Chloroethyl) Ether	0.04701	0.04675	Yes
Carbon Disulfide	31.14	13.57	Yes
Cobalt*	0.2	0.12	Yes
MIBK	819.3	260.9	Yes
Styrene	852.0	625.65	Yes
Tetrachloroethylene	1695.2	227.12	Yes
Toluene	753.6	709.20	Yes
Xylene	868.4	386	Yes

*Organic cobalt compound emissions adjusted to elemental cobalt emissions (at SN-22) using molecular weight approach, see calculations section.

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 Y
If exempt, explain: No H_2S Emissions

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
02	Mass Balance MSDS		None	N/A	
05	Mass Balance MSDS		None	N/A	
08	Mass Balance MSDS		None	N/A	
09	Mass Balance MSDS		None	N/A	
10	Mass Balance MSDS		None	N/A	
16	Mass Balance MSDS	Emissions included in SN-19	None	N/A	
18	Mass Balance MSDS		None	N/A	
19	Mass Balance MSDS		None	N/A	
15.3, 15.4	AP-42 1.4	PM_{10}=7.6 lb/MMScf PM=7.6 lb/MMScf NO_X=100 lb/MMScf SO_2=0.6 lb/MMScf CO=84 lb/MMScf VOC=5.5 lb/MMScf	None	N/A	SN-15.3 (16.8 MMBtu/hr) SN-15.4 (33.475 MMBtu/hr, 800 hp)
21	Mass Balance MSDS		None	N/A	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
22	Mass Balance MSDS	Cobalt Naphthenate Emission Rate: 0.02136 lb/hr MW Cobalt Napht.: 403.29 MW of Cobalt: 58.93 Elemental Cobalt Emissions = (58.93/403.29)*0.02136 = 0.00312 lb/hr Cobalt	None	N/A	Max spray gun capacity 2 gal/hr
23.1, 23.2, 23.3	AP-42 3.4 and Manufacturer Data	<u>lb/MMBtu</u> PM_{10}: 0.0573 SO_2: 0.002 HAP: 0.002 <u>g/kWh</u> PM: 0.018 TOC: 0.003 CO: 0.09 NO_x: 0.31			Diesel, 685 kW, 5.64 MMBtu/hr, 932 hp each. 500 hr/yr, each. 15 ppm sulfur fuel
24	AP-42 3.4 Tier 3 Emission Factor, 40 CFR 1039 Appendix I and Manufacturer Data	<u>Lb/hp-hr</u> SO_2: 0.00205 VOC:0.00251 <u>g/kWh</u> <u>lb/MMBtu</u> HAP:0.00225 PM: 0.3 CO: 5.0 NO_x: 4.0	None	N/A	Diesel, 1.361 MMBtu/hr, 144 hp. 500 hr/yr. 15 ppm sulfur fuel

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
N/A				

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)
N/A				

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)
02, 05, 08, 09, 10, 16, 18, 19, 21, 22	VOC and HAP Emissions (MSDS's, concentration, wt%, gallons of material used)	223.0 tpy VOC 216.30 tpy Total HAPs Annual limits for speciated pollutants by source	Monthly	Y
	Test results for samples taken for credits for scrap VOC and/or HAPs	None	Monthly	Y
	Specific mixture IDs used in each manufacturing area	Only approved mixtures (per the R12 renewal application, unless further permitting approval)	Daily	Y
15.3, 15.4	Natural Gas Usage	N/A	Monthly	N
22	Gallons Used	2,000 gallons	Monthly	N
	VOC wt%	7.53 lb/gal	Monthly	N
	HAP wt% Elemental Cobalt wt%	7.53 lb/gal 0.0015 lb/gal	Monthly	N

23.1, 23.2, 23.3	Fuel Sulfur Content	15 ppm	Annual	Y
02, 05, 08, 09, 10, 16, 18, 19, 21	Failure to meet applicable standard	N/A	As Applicable	N
21	Total organic HAP content, organic HAP weight fraction, water weight fraction, density, and mass of organic HAP.	8.6 lb/gallon HAP 8.6 lb/gal VOC	Annual	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
15.3, 15.4	5%	Reg.18.501	Natural Gas Usage
23.1, 23.2, 23.3, 24	20%	Reg.18.501 & 40 CFR §63.6604(c)	Max 15 ppm sulfur diesel fuel

20. DELETED CONDITIONS:

Former SC	Justification for removal
8-10	Removed SN-14.2, SN-14.3, and SN-14.10 from service

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
Calender Operations—Heat Sources (Electric)	A-1							
Natural Gas Heater for Sizing Hot Room (0.4 MMBtu/hr)	A-1	0.02	0.01	0.01	0.15	0.18	0.01	0.01
10,000 Gallon Jet Fuel tank	A-3			<0.1				

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Jet fuel test fuel cells	A-3			<0.1				
2,000-Gallon Diesel Tank for SN-23.1 and 23.2	A-3			<0.1				
1,000-Gallon Diesel Tank for SN-23.3	A-3			<0.1				
187-Gallon Diesel Tank for SN-24	A-3			<0.1				
A-3 Totals				<0.5				
Quality Control Lab*	A-5							
R&D QC Lab*	A-5							
Foam Operations	A-13	0.1						
Sand Blast Units	A-13	0.1						
Mill Cyclone	A-13	3.29						
Bossing Department (Sanding of Seam)	A-13	0.44						
Firing Range*	A-13							
Hot Room*	A-13							
Fitting Oven*	A-13							
Buffing Machine	A-13	0.1						
Leak Testing**	A-13							
Exhaust from Paint Kitchen*	A-13							
Soap Air Testing on Fuel Cells	A-13			2.39				
Parts Washer	A-13			0.55			0.55	0.55
A-13 Totals		4.03	0	2.94	0	0	0.55	0.55
IA Totals		4.05	0.01	3.45	0.15	0.18	0.56	0.56

* Emissions from these sources are accounted for in other sources through usage of process materials (e.g., coatings).
** Emissions from this source is accounted for by other sources (jet fuel tank and test fuel cell).

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 #
0982-AOP-R11

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: American Fuel Cell and Coated Fabrics Company of Delaware, LLC
Permit Number: 0982-AOP-R12
AFIN: 14-00040

$/ton factor	28.14	Annual Chargeable Emissions (tpy)	391.1
Permit Type	Modification	Permit Fee $	1000

Minor Modification Fee $	500
Minimum Modification Fee $	1000
Renewal with Minor Modification $	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	☐
If Hold Active Permit, Amt of Last Annual Air Permit Invoice $	0
Total Permit Fee Chargeable Emissions (tpy)	-36.65
Initial Title V Permit Fee Chargeable Emissions (tpy)	

HAPs not included in VOC or PM: *Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride*

Air Contaminants: *All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)*

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		1.8	2.1	0.3		
PM_{10}		1.8	2.1	0.3	0.3	2.1
$PM_{2.5}$		0	0	0		
SO_2		0.5	0.6	0.1	0.1	0.6
VOC		224.6	224.7	0.1	0.1	224.7
CO		16.1	18.8	2.7		
NO_X		19.4	22.6	3.2	3.2	22.6
Methanol	☐	10.42	10.42	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
MIBK	☐	36.28	41.92	5.64		
Toluene	☐	216.35	129.6	-86.75		
Xylene	☐	42.65	119.84	77.19		
Tetrachloroethylene	☑	88.15	47.8	-40.35	-40.35	47.8
Total HAPs	☐	216.69	216.76	0.07		
Acetone	☑	93.3	93.3	0	0	93.3
Cobalt	☐	0.03	0.03	0		