STATEMENT OF BASIS

For the issuance of Air Permit # 0288-AR-16 AFIN: 66-00212

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

GNB Fort Smith LLC
4115 South Zero
Fort Smith, Arkansas 72903

3. PERMIT WRITER:

Kyle Crane

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Storage Battery Manufacturing
NAICS Code: 335911

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
9/23/2020	Minor Mod	None

6. REVIEWER'S NOTES:

GNB Fort Smith LLC owns and operates a lead-acid battery manufacturing facility in Fort Smith, Arkansas. This modification is to:

- Add a Casting process involving lead casting of all post seal products including tining station, lead pot, re-melt pot, and drossing. Emissions from this process are accounted for under the existing SN-58 Baghouse;
- Add a Coating process involving adding a coating to all lead casting posts to provide a seal between lead and injection molded plastic. Emissions form this process are accounted for under the existing SN-54 Non-Point Source Emissions and Specific Condition #7;

- Add a Plasticizing process as an A-13 Insignificant Activity;
- Modify the Helium Leak Tester process that is currently an A-13 Insignificant Activity;
- And add an Induction Welding process as an A-7 Insignificant Activity.

The permit's general conditions were updated. Annual permitted emissions do not change with this modification.

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 30, 2018 and was found to be in compliance. EPA ECHO shows no data for the 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

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)
01-04, 37, 51, 53, 56, 57, 58	Lead	*NSPS Subpart KK*

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 Regulation 18 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:

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?
H_2SO_4	1	0.11	0.3	No

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 Division of Environmental Quality 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?
H_2SO_4	10*	2.0	Yes

*New modeling was not performed for permit #0288-AR-16 as there was not an increase of modeled pollutant emissions.

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: The facility does not emit H_2S

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
04 - Curing Ovens	AP-42	lb/MMcf PM/PM_{10}: 7.6 SO_2: 0.6 VOC: 5.5 CO: 84 NO_x: 94	Baghouse	99%	15 curing ovens @ .015 mmBTU/hr each

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
04 - Grid Casters & Ladle Burners	AP-42	lb/MMcf PM/PM_{10}: 7.6 SO_2: 0.6 VOC: 5.5 CO: 84 NO_x: 94	Baghouse	99%	Total Burner Rating = 0.1 mmBTU/hr (4 grid casters @ 0.025 mmBTU/hr each)
56 - 7 Grid Casters & Ladle Burners	AP-42	lb/MMcf PM/PM_{10}: 7.6 SO_2: 0.6 VOC: 5.5 CO: 84 NO_x: 94	Baghouse	99%	7 grid casters @ 0.025 mmBTU/hr each
56 - 5 Lead Pots & Emission Ducts	AP-42	lb/MMcf PM/PM_{10}: 7.6 SO_2: 0.6 VOC: 5.5 CO: 84 NO_x: 100	Baghouse	99%	5 casting pots @ 0.8 mmBTU/hr each
58	Facility Limit NSPS (lead)	0.0075 gr/dscfm PM/PM_{10} 0.00032 gr/dscfm lead	Baghouse	99%	60,000 actual cfm

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01, 02, 03, 04, 37, 51, 53, 56, 57, 58	Lead, PM/PM_{10}	5	5 years	To demonstrate compliance with the permitted emission limits.

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)
01-04, 37, 51, 53, 56, 57, 58	Maintenance records	N/A	Monthly	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01-04, 37, 51, 53	0%	Opacity limit from last permit.	Baghouse-Annual Compliance Test Reference Method 12 for lead Reference Method 5 for PM/PM_{10}
11, 55	5%	Department guidance. Natural gas fired.	EPA Reference Method 9
47, 48, 54	0%	Opacity limit from last permit.	EPA Reference Method 9
56, 57, 58	0%	NSPS Subpart KK	Baghouse-Annual Compliance Test Reference Method 12 for lead Reference Method 5 for PM/PM_{10}

20. DELETED CONDITIONS:

Former SC	Justification for removal
N/A	

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
20 Lead Pots (NG fired at 0.8 MM BTU/hr each)	A-1							
2 Linburg ovens (0.5 MM Btu/hr each)	A-1							
Milling machine, drill press, grinder, sander at electrical test lab	A-5							
23 Battery Chargers Area	A-5							
Induction Welding	A-7							0.1
Sink Station	A-13							
Heat Sealer	A-13							
Helium Leak Tester	A-13						0.5 He	
Finishing and Pack Operation	A-13							
Shop Size Glass Bead Blaster	A-13							
Milling and Sawing of Post at Casting Operation	A-13							
Plasticizing	A-13			0.1			0.1	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 #
0288-AR-15

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Facility Name: GNB Fort Smith LLC
Permit Number: 0288-AR-16
AFIN: 66-00212

			Old Permit	New Permit
$/ton factor	23.93	Permit Predominant Air Contaminant	84.34	84.34
Minimum Fee $	400	Net Predominant Air Contaminant Increase	0	
Minimum Initial Fee $	500			
		Permit Fee $	400	
Check if Administrative Amendment	☐	Annual Chargeable Emissions (tpy)	84.34	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	84.34	84.34	0
PM_{10}	84.34	84.34	0
$PM_{2.5}$	0	0	0
SO_2	0.6	0.6	0
VOC	18.2	18.2	0
CO	8	8	0
NO_X	10.2	10.2	0
Lead	3.91	3.91	0
Sulfuric Acid	0.8	0.8	0