STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2205-A AFIN: 47-00943

1. **PERMITTING AUTHORITY:**

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

2. APPLICANT:

Lexicon, Inc. dba Prospect Steel Co. 3892 N. County Road 903 Armorel, Arkansas 72315

3. **PERMIT WRITER:**

Michael Lynch

4. **PROCESS DESCRIPTION AND NAICS CODE:**

NAICS Description:Fabricated Structural Metal ManufacturingNAICS Code:332312

5. SUBMITTALS:

3/5/2009

6. **REVIEWER'S NOTES**:

Lexicon, Inc. d/b/a Prospect Steel Company (Lexicon) operates an existing steel fabrication job shop at 3892 N. County Road 903, Armorel, Mississippi County, Arkansas. The shop receives steel materials such as steel plates, I-beams, H-beams, angles, flat bars, etc. directly from steel mills or from warehouse distributors. The steel material may be shipped out without modification or may be fabricated to individual job specifications.

Until recently, fabrication specifications have required very little surface preparation and/or surface coating. Lexicon anticipates that more surface preparation and surface coating will be required in the future, which would raise emission levels above permitting thresholds. Lexicon seeks to obtain a new minor source air permit in preparation for such conditions. Permitted emissions consist of 11.9 tpy PM, 6.9 tpy PM_{10} , 95.0 tpy VOC, 20.0 tpy Acetone, 9.20 tpy Single HAP, 23.50 tpy Combined HAP and 0.03 tpy Arsenic.

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7. COMPLIANCE STATUS:

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

This is the initial permit for this facility. At his time, no active/pending enforcement actions have been identified.

8. **PSD** APPLICABILITY:

- a. Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? Y/N
- b. Is the facility categorized as a major source for PSD? Y/N

Single pollutant \geq 100 *tpy and on the list of 28 or single pollutant* \geq 250 *tpy and not on list?*

If yes, explain why this permit modification not PSD?

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)	
01B, 02 and 03	Metal HAPs	NESHAP, Subpart XXXXXX	

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. MODELING:

Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time Non-Criteria Pollutants:

This permit contains a TLV table for non-criteria pollutants. Modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLV) that pass the PAER or PAIL. Therefore, modeling of specific non-criteria pollutants was not performed.

Other Modeling: None

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12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Material	.057 lb/gal PM/PM ₁₀	Fiberglass Filter	99.3%	Includes 22.5% overspray
A	Balance (42 gal/hr)	7.2 lb/gal VOC 6.6 lb/gal Acetone			Single/Combined HAP controlled by TLV table values
	AP-42, 12.19-1 and Material Balance (180.2 lb/hr welding consumables)	15.1 lb/1,000 lb of welding consumables – 0.019 lb/hr PM/PM ₁₀ <u>lb/hr metallic HAP</u>			
01B	MSDS and % PM/PM ₁₀	1.8E-4 Antimony 1.0E-5 Arsenic 1.0E-5 Beryllium 1.0E-5 Cadmium 3.42E-4 Chromium 1.0E-4 Cobalt 1.0E-5 Lead 1.62E-4 Manganese	E-4 Antimony 0E-5 ArsenicFiberglass 99.3%E-5 BerylliumFilter99.3%DE-5 Cadmium2E-4 Chromium.0E-4 Cobalt1.0E-5 Lead	99.3%	
		9.6E4 Nickel 6.32E-3 Total HAP 0.69 lb/1,000 lb of			
	AP-42, 13.2.6-1	abrasive – 0.03 lb/hr PM/PM ₁₀			
02	MSDS and % PM/PM ₁₀	lb/hr metallic HAP 1.4E-4 Antimony 2.0E-5 Arsenic 2.0E-5 Beryllium 2.0E-5 Cadmium 1.5E-4 Chromium 2.0E-5 Cobalt 1.0E-5 Lead 4.8E-4 Manganese 2.0E5 Nickel 8.8E-4 Total HAP			
03	AP-42, 13.2.6-1	55 lb/1,000 lb abrasive – 13.9 lb/hr PM			Average Wind Speed 8.8 mph (Memphis) 1,050 hrs/yr

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SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		13 lb/1,000 lb			
		abrasive – 3.28			
		lb/hr PM ₁₀			
		<u>lb/hr metallic HAP</u>			
		1.48E-3 Antimony			
		1.5E-4 Arsenic			
		1.5E-4 Beryllium			
	MSDS and %	1.5E-4 Cadmium			
		1.64E-4 Chromium			
	PM_{10}	1.5E-4 Cobalt			
1		7.0E-5 Lead			
		3.28E-4 Manganese			
		1.6E4 Nickel			
		7.23E-4 Total HAP			

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
		None Required		

14. 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)

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15. 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)
SN-01A	VOC/HAPs	9.2 tpy Individual 23.5 tpy Combined	Monthly	N
SN-03	Slag shot abrasive	1,000,000 lb/yr	Monthly	N

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism		
	None Required				

17. DELETED CONDITIONS:

Former SC	Justification for removal
	None

18. GROUP A INSIGNIFICANT ACTIVITIES

	Group A	Emissions (tpy)						
Source Name	Category	PM/PM ₁₀	50	Voc		NOx	HAPs	
			SO ₂	VOC	CO	INO _x	Single	Total
Machining Operations								
Gas torch Cutting Operations	A-7							
Plasma Cutting Operations							*****	0.0008 tpy

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19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #	
N/A	

20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Phillip Murphy, P.E.

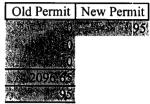
APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Facility Name: Lexicon, Inc. dba Prospect Sic-JICO. Permit Number 2205-A AFIN: 47:409943

\$/ton factor	22.07
Minimum Fee \$	400
Minimum Initial Fee \$	500

Permit Predominant Air Contaminant Net Chargable Emission Increase Permit Modification Fee \$ Initial Permit Fee \$ Annual Chargeable Emissions (tpy)



Check if Administrative Amendment

Pollutant (tpy)	Old Permit	New Permit	Change
PM	0	11.9	11.9
PM ₁₀	0	6.9	6.9
SO ₂	0	0	0
VOC	0	95	95
CO	0	0	0
NO _X	0	0	0
Acetone	0	20	20
Single HAP*	0	9.2	9.2
Combined HAP*	0	23.5	23.5
Arsenic**	0	0.03	0.03
* HAP included in VOC total	0	0	0
** Metal HAP included in PM total	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
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