

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
Armored, Arkansas 72315

3. PERMIT WRITER:

Michael Lynch

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Fabricated Structural Metal Manufacturing
NAICS 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, Armored, 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 PM₁₀, 95.0 tpy VOC, 20.0 tpy Acetone, 9.20 tpy Single HAP, 23.50 tpy Combined HAP and 0.03 tpy Arsenic.

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 this 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 ≥ 100 tpy and on the list of 28 or single pollutant ≥ 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

12. CALCULATIONS:

| SN | Emission Factor Source (AP-42, testing, etc.) | Emission Factor (lb/ton, lb/hr, etc.) | Control Equipment | Control Equipment Efficiency | Comments |
|------|---|---|-------------------|------------------------------|--|
| 01 A | Material Balance (42 gal/hr) | .057 lb/gal PM/PM ₁₀ | Fiberglass Filter | 99.3% | Includes 22.5% overspray |
| | | 7.2 lb/gal VOC 6.6 lb/gal Acetone | — | — | Single/Combined HAP controlled by TLV table values |
| 01B | 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 | Fiberglass Filter | 99.3% | |
| | MSDS and % PM/PM ₁₀ | <u>lb/hr metallic HAP</u> 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 9.6E-4 Nickel 6.32E-3 Total HAP | | | |
| 02 | AP-42, 13.2.6-1 | 0.69 lb/1,000 lb of abrasive – 0.03 lb/hr PM/PM ₁₀ | — | — | |
| | MSDS and % PM/PM ₁₀ | <u>lb/hr metallic HAP</u> 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 2.0E-5 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 |

| 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 | | | |
| | MSDS and % PM ₁₀ | <u>lb/hr metallic HAP</u> 1.48E-3 Antimony 1.5E-4 Arsenic 1.5E-4 Beryllium 1.5E-4 Cadmium 1.64E-4 Chromium 1.5E-4 Cobalt 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) |
|---------------|--|------------------------------------|-----------|--------------|
| None Required | | | | |

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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

