#### STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1571-AR-11 AFIN: 28-00101

#### 1. PERMITTING AUTHORITY:

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

#### 2. APPLICANT:

Anchor Packaging 2211 North 12th Avenue Paragould, Arkansas 72450

#### 3. PERMIT WRITER:

Adam McDaniel

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

NAICS Description: Plastics Material and Resin Manufacturing

NAICS Code: 325211

#### 5. SUBMITTALS:

8/2/2010

#### 6. REVIEWER'S NOTES:

Anchor Packaging (owned by a holding company, Hermann Companies, St. Louis, MO) operates a plastic packaging manufacturing facility located at 2211 N. 12<sup>th.</sup> Avenue in Paragould, Arkansas (Greene County). The plant manufactures semi-rigid plastic containers used primarily in the food industry for packaging. With this modification to the permit, Anchor will add eight additional inline machines. The new inline machines will be designated Inline #69 through 76. This modification will also update the permit to include new facilities constructed in November of 2008 and its emissions stacks. The new equipment will be installed in the new building over a period of three to five years. There will be ten new emission stacks (SN-30 through 39) located in the new building in the form of exhaust fans to allow for the circulation of air and the reduction of process generated heat. Two exhaust fans (SN-40 and SN-41) will be installed in the original facility to alleviate high ambient temperatures.

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The emissions calculations for this modification will be based upon the following expected production mix: six of the new production lines will produce part made from Polypropylene (PP) and two will produce part made from APET. Four of the six new production lines manufacturing PP components will be of the same configuration as previous (standard) installations and will have the same emissions and emissions rates. The two remaining PP lines will be larger and each line will produce twice the emissions of the standard machines. The two new APET lines will produce approximately the same annual volume as each of the PP lines but with the expected APET emissions.

The non-criteria pollutant HCl associated with the manufacture of PVC sheet will no longer be recorded due to the elimination of PVC production. The listing of said chemical and respective limitations will be removed from the permit. Breaker Plate Cleaner and Silo Baghouse (formerly SN-06) will be removed from the permit as well. Additionally, Anchor requested that the singular reporting for Inline #67 be included in the plant totals to eliminate the current separate reporting requirements. The total permitted annual emission rate limit changes associated with this modification include: +19.1 tpy PM/PM<sub>10</sub>, +10.3 tpy VOC, +19.8 tpy CO, +1.8 tpy NO<sub>X</sub>, -2.51 tpy HCl, and +1.44 tpy Vinyl Chloride.

#### 7. COMPLIANCE STATUS:

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

There are no outstanding compliance issues or enforcement actions.

#### 8. PSD APPLICABILITY:

- a. Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)?
- b. Is the facility categorized as a major source for PSD? 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 is not PSD?

### 9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

| Source | Pollutant | Regulation<br>(NSPS, NESHAP or PSD) |  |  |  |
|--------|-----------|-------------------------------------|--|--|--|
| N/A    |           |                                     |  |  |  |

#### 10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

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#### 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:

1<sup>st</sup> Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m³), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

| Pollutant      | TLV<br>(mg/m <sup>3</sup> ) | PAER (lb/hr) = 0.11 × TLV | Proposed lb/hr | Pass? |
|----------------|-----------------------------|---------------------------|----------------|-------|
| Vinyl Chloride | 2.56                        | 0.28                      | 0.5            | N     |

<sup>2&</sup>lt;sup>nd</sup> Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources (SN-01-03, 11-13, 21-25, 30-35, 40, 41, 4, 5, and 10) 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<br>Threshold Limit Value | Modeled Concentration (μg/m³) | Pass? |
|----------------|--|-------------------------------|-------|
| Vinyl Chloride | 25.56  | 4.32                          | Y     |

#### 12. CALCULATIONS:

| SN  | Emission Factor Source (AP-42, testing, etc.) | Emission Factor (lb/ton, lb/hr, etc.)   | Control<br>Equipment | Control<br>Equipment<br>Efficiency | Comments                           |
|---|---|---|----------------------|------------------------------------|------------------------------------|
| 01-03, 11-<br>13, 21-25,<br>& 04, 05,<br>10, 18, 19 | Stack Testing conducted in November 1995      | $\begin{array}{c} PM/PM_{10}-0.000333\\ VOC-0.000198\\ VC-0.0000121\\ CO-0.000387\\ NO_x-0.0000423 \end{array}$ | None                 | N/A                                | Uncontrolled<br>Emission<br>Factor |

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| SN     | Emission Factor Source (AP-42, testing, etc.) | Emission Factor<br>(lb/ton, lb/hr, etc.)          | Control<br>Equipment | Control<br>Equipment<br>Efficiency | Comments                           |
|--------|---|---|----------------------|------------------------------------|------------------------------------|
| 18, 19 | AP-42-6.6.2                                   | PM/PM <sub>10</sub> – 0.0003g<br>APET/kg storage. | None                 | N/A                                | Uncontrolled<br>Emission<br>Factor |

# 13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

|     | SN | Pollutants | Test Method | Test Interval | Justification |
|-----|----|------------|-------------|---------------|---------------|
| N/A |    |            |             |               |               |

## 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) |
|-----|--|------------------------------------|-----------|--------------|
| N/A |  |                                    |           |              |

## 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<br>(Y/N) |
|---------------------|---------------------|--------------------|-----------|-----------------|
| Sheetlines          | Material Throughput | 175,686,194 lbs/yr | Monthly   | N               |
| Sheetline Additives | Material Throughput | 140,664 lbs/yr     | Monthly   | N               |
| Sheetline (SL11)    | Material Throughput | 35,040,000 lbs/yr  | Monthly   | N               |
| Inlines             | Material Throughput | 263,410,171 lbs/yr | Monthly   | N               |
| Inline Additives    | Material Throughput | 200,000 lbs/yr     | Monthly   | N               |
| Inline #76 & 76     | Material Throughput | 33,147,840 lbs/yr  | Monthly   | N               |

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## 16. OPACITY:

| SN                                    | Opacity | Justification for limit | Compliance<br>Mechanism |  |
|---------------------------------------|---------|-------------------------|-------------------------|--|
| 01-05, 10-13, 18, 19,<br>21-25, 30-41 | 20%     | Regulation 19.501       | N/A                     |  |

### 17. DELETED CONDITIONS:

| Former SC | Justification for removal                       |
|-----------|---|
| 10        | PVC sheet is no longer produced at the facility |

## 18. GROUP A INSIGNIFICANT ACTIVITIES

|                        | Group A  |                     |           | Emissi                 | ons (tpy              | )               | <u> </u>     |             |
|------------------------|----------|---------------------|-----------|------------------------|-----------------------|-----------------|--------------|-------------|
| Source Name            | Category | PM/PM <sub>10</sub> | $SO_2$    | VOC                    | СО                    | NO <sub>x</sub> | HA<br>Single | Ps<br>Total |
| Three Parts<br>Washers | A-13     | Was liste           | d as SN-2 | 20, but mo<br>Permit # | ved to Ins<br>1571-AF | •               | t Activiti   | es in       |

# 19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

| Permi   | # |
|---------|---|
| 1571-AI |   |

## 20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Phillip Murphy, P.E.



## **Fee Calculation for Minor Source**

Revised 03-01-10

Facility Name: Anchor Packaging Permit Number: 1571-AR-11

AFIN: 28-00101

|                                   |         |                                    | Old Permit | New Permit |
|-----------------------------------|---------|------------------------------------|------------|------------|
| \$/ton factor                     | 22.07   | Permit Predominant Air Contaminant | 51.2       | 70.3       |
| Minimum Fee \$                    | 400     | Net Chargable Emission Increase    | 19.1       |            |
| Minimum Initial Fee \$            | 500     | Permit Modification Fee \$         | 421.537    |            |
|                                   |         | Initial Permit Fee \$              | 0          |            |
| Check if Administrative Amendment | <b></b> | Annual Chargeable Emissions (tpy)  | 70.3       |            |

| Pollutant (tpy)  | Old Permit | New Permit | Change |
|------------------|------------|------------|--------|
| PM               | 51.2       | 70.3       | 19.1   |
| PM <sub>10</sub> | 51.2       | 70.3       | 19.1   |
| SO <sub>2</sub>  | 0          | 0          | 0      |
| voc              | 29.6       | 39.9       | 10.3   |
| co               | 58.4       | 78.2       | 19.8   |
| NO <sub>X</sub>  | 6.7        | 8.5        | 1.8    |
| HCI              | 2.51       | 0          | -2.51  |
| Vinyl Chloride   | 0.96       | 2.4        | 1.44   |