

TO: Interested Parties / Applicant

RE: North America Packaging Corporation (NAMPAC) / R097-22447-00445
6061 Guion Road
Indianapolis, Indiana 46254

FROM: Felicia A. Robinson
Manager of Environmental Planning
Office of Environmental Services
Department of Public Works
City of Indianapolis

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact Carmen Bugay of my staff via e-mail at cbugay@indygov.org or phone at (317) 327-2512.

Enclosures

VIA CERTIFIED MAIL#: 7000 0600 0023 5186 9940



April 5, 2006

Mr. Stephan Dechert, Plant Manager
North America Packaging Corporation
6061 Guion Road
Indianapolis, Indiana 46254

Re: 1st Notice-Only-Change, 097-22447-00445, to a
Registered Construction and Operation Status,
097-16528-00445.

Dear Mr. Dechert:

Applications from North America Packaging Corporation received on April 4 and December 20, 2005, by Indianapolis Office of Environmental Services (OES), have been reviewed. The following is an amendment to the original registration numbered 097-16528-00445, which was issued on January 28, 2003, related to a screen printing operation, of the site located at 6061 Guion Road, Indianapolis, Indiana 46254.

An application from North America Packaging Corporation (NAMPAC) received on December 3, 2003 by Indianapolis Office of Environmental Services (OES), has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following emission units, located at 6061 Guion Road, Indianapolis, Indiana, are classified as registered:

- (a) One (1) screen printing operation, identified as Screen #1, constructed in 1980, with a maximum process rate of 125 bottles per hour.
- (b) Twenty-one (21) blow molders, identified as EM #1,#2, #3, #4, #7, #10, #11, #12, #14, #16, #17, #18, constructed in 1980; and #8, #19, #20, #21, #22, #23, #24, #25, #26, constructed in 2005. All blow molders have a total maximum capacity of 10,253 pounds of resin per hour.
- (c) Twenty-one (21) grinders, identified as G #1,#2, #3, #4, #7, #10, #11, #12, #14, #16, #17, #18, constructed in 1980; and #8, #19, #20, #21, #22, #23, #24, #25, #26, constructed in 2005. All grinders have a total maximum capacity of 1,025.3 pounds of defective bottles per hour, each equipped with a cyclone that is considered integral to the process.
- (d) Sixteen (16) natural gas-fired flame treaters, constructed in 1980, with a total maximum heat input of 0.62 MMBtu/hr.
- (e) Seven (7) plastic resin pellets storage silos, four (4) constructed in 1980 and three (3) constructed in 2006, each with a maximum capacity of 58,280 pounds of plastic resin pellets.

The following conditions shall be applicable:

- 1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes sixty (60) readings in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.



Air Quality Hotline: 317-327-4AIR | knozone.com

Department of Public Works
Office of Environmental Services

2700 Belmont Avenue
Indianapolis, IN 46221

317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw

- 2. Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the grinders shall not exceed 1.025 pounds per hour when operating at a process weight rate of 1,025.3 pounds per hour.

The pounds per hour limitation was calculated with the following equation:
Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

and

where E = rate of emission in pounds per hour;
P = process weight rate in tons per hour

- 3. Pursuant to 326 IAC 2-5.5 (Registrations), the cyclones associated with the grinders must be in operation at all times the grinders are in operation.

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the Indianapolis Office of Environmental Services (OES) that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Indiana Department of Environmental Management and
Compliance Branch
Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204-2251

City of Indianapolis
Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the IDEM, OAQ and the OES, if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. Questions may be directed to Carmen Bugay of my staff at cbugay@indygov.org or phone (317) 327-2512.

Sincerely,

Original signed by,

Felicia A. Robinson
Manager of Environmental Planning

FAR/cmb

- cc: Mindy Hahn, IDEM, OAQ
Marion County Health Department
Matt Mosier, OES, Air Compliance
OES files (3)

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	North America Packaging Corporation (NAMPAAC)
Address:	6061 Guion Road
City:	Indianapolis, Indiana 46254
Authorized individual:	Plant Manager
Phone #:	(317) 297-4638
Registration #:	097-16528-00445

I hereby certify that North America Packaging Corporation (NAMPAAC) is still in operation and is in compliance with the requirements of Registration 097-16528-00445.

Name (typed):
Title:
Signature:
Date:



VIA CERTIFIED MAIL#: 7000 0600 0023 5186 9940

April 5, 2006

Mr. Stephan Dechert, Plant Manager
North America Packaging Corporation (NAMPAC)
6061 Guion Road
Indianapolis, Indiana 46254

Re: 1st Notice-Only-Change (NOC), 097-22447-00445,
to a Registered Construction and Operation Status,
097-16528-00445.

Dear Mr. Dechert:

Applications from North America Packaging Corporation received on April 4, and December 20, 2005, by the Indianapolis Office of Environmental Services (OES), have been reviewed. The following is an amendment to the original registration numbered 097-16528-00445, which was issued on January 28, 2003, related to a screen printing operation, of the site located at 6061 Guion Road, Indianapolis, Indiana 46254.

Changes are as stated below. The **bold language is new** language that has been added, and the ~~language with a line through it~~ has been taken out. Pursuant to the provisions of 326 IAC 2-5.5-6 (d), the Registration is hereby amended as follows:

~~Mr. John Flynn~~ **Mr. Stephan Dechert, Plant Manger**
North America Packaging Corporation
6061 Guion Road
Indianapolis, Indiana 46254

Dear ~~Mr. Flynn~~ **Mr. Dechert:**

The application from North America Packaging Corporation (**NAMPAC**) received on December 3, 2003, by the Indianapolis Office of Environmental Services (OES), has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following emission units, located at 6061 Guion Road, Indianapolis, Indiana, are classified as registered:

- (b) ~~Sixteen (16)~~ **Twenty-one (21)** blow molders, identified as EM #1 through ~~#7, #2, #3, #4, #7, #10, #11, #9~~ through #12, and #14 through ~~#18, #16, #17, #18~~, constructed in 1980; and ~~#8, #19, #20, #21~~ **#22, #23, #24, #25, #26, constructed in 2005. All blow molders have** with a total maximum capacity of ~~8,630~~ **10,253** pounds of resin per hour.
- (c) ~~Sixteen (16)~~ **Twenty-one (21)** grinders, identified as G #1 through ~~#7, #2, #3, #4, #7, #10, #11, #9~~ through #12, and #14 through ~~#18, #16, #17, #18~~, constructed in 1980; and ~~#8, #19, #20, #21~~ **#22, #23, #24, #25, #26, constructed in 2005. All grinders have** with a total maximum capacity of ~~863~~ **1,025.3** pounds of defective bottles per hour, each equipped with a cyclone that is considered integral to the process.



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indygov.org/dpw

- (e) **Seven (7)** plastic resin pellets storage silos, four (4) constructed in 1980 **and three (3) constructed in 2006**, each with a maximum capacity of 58,280 pounds of plastic resin pellets.

The following conditions shall be applicable:

2. Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the ~~allowable~~ particulate emission rate from the grinders shall not exceed ~~2.33~~ **1.025** pounds per hour when operating at a process weight rate of ~~863~~ **1,025.3** pounds per hour.
4. ~~Pursuant to 326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions), any change or modification which may increase the potential VOC emissions from the screen printing operation or the blow molding operation to greater than twenty-five (25) tons per year must be approved by the IDEM, OAQ and OES before any such change may occur.~~

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the **Indiana Department of Environmental Management (IDEM)**, Office of Air Quality (**OAQ**) and **the Indianapolis** Office of Environmental Services (**OES**) that the source is in operation and in compliance with this registration pursuant to **326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3)**. The annual notice shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch
Office of Air Quality
100 North Senate Avenue
~~P.O. Box 6015~~
Indianapolis, IN ~~46206-6015~~ **46204-2251**

and City of Indianapolis
Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

no later than March 1 of each year, with the annual notice being submitted in the format attached.

~~The Office of Environmental Services (OES) has assigned the processing of this application to Eastern Research Group, Inc. (ERG). Therefore, questions should be directed to Yu-Lien Chu, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7871 to speak directly to Ms. Chu. Questions may also be directed to Monica Dick of my staff at (317) 327-2512.~~

An application or notification shall be submitted in accordance with 326 IAC 2 to the IDEM, OAQ and the OES, if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. Questions may be directed to Carmen Bugay of my staff at cbugay@indygov.org or phone (317) 327-2512.

Sincerely,

~~John B. Chavez~~ **Felicia A. Robinson**
~~Administrator~~ **Manager of Environmental Planning**

**Enclosure: 1st NOC Registration
Technical Support Document (TSD)
Appendix A to TSD**

~~ERG/YC-FAR/cmb~~

cc: ~~File - Marion County~~ **Mindy Hahn, IDEM, OAQ**
~~Permits - Holly M. Stockrahm~~ **Marion County Health Department**
~~Compliance - Matt Mosier~~ **Matt Mosier, OES, Air Compliance**
~~OAQ - Mindy Hahn~~ **OES files (3)**

**Indiana Department of Environmental Management
Office of Air Quality
and Indianapolis Office of Environmental Services**

Technical Support Document (TSD) for a Notice-Only-Change to a Registration

Source Background and Description

Source Name:	North American Packaging Corporation (NAMPAC)
Source Location:	6061 Guion Road, Indianapolis, IN 46254
County:	Marion
SIC Code:	3089
Operation Permit No.:	097-16528-00445
Operation Permit Issuance Date:	01-28-2003
Permit Modification No.:	097-22447-00445
Permit Reviewer:	Carmen Bugay

The Indianapolis Office of Environmental Services (OES) and Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) have reviewed a modification application from North America Packaging Corporation (NAMPAC) relating to the manufacturing of blow and injection molded polyethylene bottles and screen printing.

Explanation of Modification

This modification is being performed to the blow molders, grinders and silos of the screen printing registered operation. With the addition and removal of some blow molders, associated grinders, and silos, the potential to emit (PTE) for each individual new emission unit and overall for all the new units, are still below exemption thresholds under 326 IAC 2-1.1-3.

Blow molders and associated grinders that have been removed are: EM and G # 5, #6, #9, and #15. New blow molders and associated grinders are: EM and G #8, #19 – 26. In addition, three (3) new silos have been added.

Furthermore, the HAP emission calculations to the screen printing operations (Screen #1), have been modified to reflect lower emissions (below 1 ton per year) and the removal of glycol ethers (CAS No. 111-76-2) on November 29, 2004 (69FR69320) from the from the HAP list, section 112b of the Clean Air Act.

Justification for the Modification

This registration is being modified through a 1st Notice-Only-Change (NOC) pursuant to 326 IAC 2-5.5-6 (d), since new units and overall source-wide PTE is below exemption thresholds under 326 IAC 2-1.1-3 (Refer to revised calculations for new and source-wide PTE, page 8, Appendix A, of this TSD.).

Recommendation

The staff recommends to the Administrator that these changes to the registration be approved. This recommendation is based on the following facts and conditions:

Applications for the purposes of this review were received on April 4, and December 20, 2005. Additional information was received on December 27, December 29, December 30, 2005, March 14, March 21, and March 28, 2006.

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

Conclusion

These permit changes shall be added to the conditions of a NOC to the registration, R 097-22447-00445.

**Appendix A: Emission Calculations
VOC and PM/PM10 Emissions
From the Screen Printing (Screen 1)**

**Company Name: North American Packaging Corporation
Address: 6061 Guion Road, Indianapolis, IN 46254
Permit Number: R 097-22447-00455
Reviewed & verified by: Carmen Bugay
Date: March 13, 2006**

Material	Density (lb/gal)	Weight % Volatile (H ₂ O & Organics)	Weight % Water	Weight % Organics	Maximum Throughput (unit/hr)	Maximum Usage (gal/unit)	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (tons/yr)
Screen Ink	8.45	47.00%	0.0%	47.0%	125.0	0.0004	3.97	0.20	4.77	0.87
Screen Wash	7.49	99.00%	0.0%	99.0%	125.0	0.0002	7.42	0.22	5.34	0.97
Total								0.42		1.84

METHODOLOGY

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Max. Throughput (unit/hr) * Max. Usage (gal/unit)

Potential VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Max. Throughput (unit/hr) * Max. Usage (gal/unit) * (24 hr/day)

Potential VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Max. Throughput (unit/hr) * Max. Usage (gal/unit) * (8760 hr/yr) * (1 ton/2000 lbs)

**Appendix A: Emission Calculations
HAP Emissions
From the Screen Printing (Screen 1)**

**Company Name: North American Packaging Corporation
Address: 6061 Guion Road, Indianapolis, IN 46254
Permit No.: R 097-22447-00455**

**Reviewed & verified by: Carmen Bugay
Date: March 13, 2006**

Material	Density (Lb/Gal)	Maximum Throughput (unit/hr/booth)	Maximum Usage (gal/unit)	Weight % Glycol Ethers	Glycol Ethers* Emissions (tons/yr)	Weight % Formaldehyde	Formaldehyde Emissions (tons/yr)
Screen Ink	8.45	125.0	0.0004	38.56%	0.7136	0.85%	0.0157
Screen Wash	7.49	125.0	0.0002	99.00%	0.9743	0.00%	0
Total					1.6879		0.0157
Total ALL HAPs							0.0157

Notes:

*HAP List - removal from section 112b of the Clean Air Act (CAA), November 29, 2004 (69FR69320), glycol ethers, CAS No. 111-76-2.

METHODOLOGY

HAPs emission rate (tons/yr) = Density (lb/gal) x Max. Throughput (unit/hr) * Max. Usage (gal/unit) x Weight % HAP x 8760 hr/yr x 1 ton/2000 lbs

**Appendix A: Emissions Calculations
VOC, PM/PM10, CO, and HAP Emissions
From Twenty-one (21) Blow Molders**

**Company Name: North American Packaging Corporation
Address: 6061 Guion Road, Indianapolis, IN 46254
Permit No.: R 097-22447-00455
Reviewed & verified by: Carmen Bugay
Date: March 13, 2006**

Unit ID	Maximum Capacity (lbs/hour)	*VOC Emission Factor (lb/1,000,000 lbs)	PTE of VOC (lbs/hr)	PTE of VOC (ton/yr)	*PM/PM10 Emission Factor (weight ppm)	PTE of PM/PM10 (lbs/hr)	PTE of PM/PM10 (ton/yr)	**CO Emission Factor (weight ppm)	PTE of CO (lbs/hr)	PTE of CO (ton/yr)
EM1	300	17.7	0.0053	0.023	39.6	0.0119	0.052	50.0	0.0150	0.066
EM2	300	17.7	0.0053	0.023	39.6	0.0119	0.052	50.0	0.0150	0.066
EM3	460	17.7	0.0081	0.036	39.6	0.0182	0.080	50.0	0.0230	0.101
EM4	550	17.7	0.0097	0.043	39.6	0.0218	0.095	50.0	0.0275	0.120
EM7	630	17.7	0.0112	0.049	39.6	0.0250	0.109	50.0	0.0315	0.138
#EM8	275	17.7	0.0050	0.021	39.6	0.0110	0.048	50.0	0.0140	0.060
EM10	460	17.7	0.0081	0.036	39.6	0.0182	0.080	50.0	0.0230	0.101
EM11	1400	17.7	0.0248	0.109	39.6	0.0555	0.243	50.0	0.0700	0.307
EM12	460	17.7	0.0081	0.036	39.6	0.0182	0.080	50.0	0.0230	0.101
EM14	480	17.7	0.0085	0.037	39.6	0.0190	0.083	50.0	0.0240	0.105
EM16	300	17.7	0.0053	0.023	39.6	0.0119	0.052	50.0	0.0150	0.066
EM17	300	17.7	0.0053	0.023	39.6	0.0119	0.052	50.0	0.0150	0.066
EM18	630	17.7	0.0112	0.049	39.6	0.0250	0.109	50.0	0.0315	0.138
#EM19	480	17.7	0.0080	0.037	39.6	0.0190	0.083	50.0	0.0240	0.105
#EM20	630	17.7	0.0110	0.049	39.6	0.0250	0.109	50.0	0.0320	0.138
#EM21	273	17.7	0.0050	0.021	39.6	0.0110	0.047	50.0	0.0140	0.060
#EM22	550	17.7	0.0100	0.043	39.6	0.0220	0.095	50.0	0.0280	0.120
#EM23	550	17.7	0.0100	0.043	39.6	0.0220	0.095	50.0	0.0280	0.120
#EM24	250	17.7	0.0040	0.019	39.6	0.0100	0.043	50.0	0.0130	0.055
#EM25	250	17.7	0.0040	0.019	39.6	0.0100	0.043	50.0	0.0130	0.055
#EM26	725	17.7	0.0130	0.056	39.6	0.0290	0.126	50.0	0.0360	0.159
#Total New Units	3983		0.0700	0.3080		0.1590	0.6890		0.2020	0.8720
TOTAL ALL UNITS	10,253		0.1810	0.7941		0.4075	1.7775		0.5155	2.2451

*Emission factors for VOC and PM are from "Development of Emission Factors for Polyethylene Processing"(1996), Journal of Air and Waste Management, Volume 46, pp 569-580. Assume all PM emissions equal to PM10 emissions.

E.F. of VOC (lb/1,000,000 lbs) = $(0.046 \times t)^{-3}$, where t = temperature = 450F

E.F. of PM (lb/1,000,000 lbs) = $(0.3923 \times t)^{-136.9}$, where t = temperature = 450F

** CO emission factor is from "Volatile Emissions During Thermoplastics Processing - A Review" (1995), Advances in Polymer Technology, Vol. 14, No. 1, pp. 67-77.

Methodology

PTE = Potential to Emit

Potential to Emit (lbs/hr) = Max. Capacity (lbs/hr) x Emission Factor (lbs/1,000,000 lbs)

Appendix A: Emissions Calculations (continued)
VOC, PM/PM10, CO, and HAP Emissions
From Twenty-one (21) Blow Molders
Registration: 097-22447-00455

PTE - HAPs

Blow Molder	Max Capacity (lb/hr)	Formaldehyde Emissions Rate (tpy)	Acrolein Emission Rate (tpy)	Acetaldehyde Emission Rate (tpy)	Propionaldehyde Emission Rate (tpy)
EM1	300	0.00018	0.00003	0.00012	0.00003
EM2	300	0.00018	0.00003	0.00012	0.00003
EM3	460	0.00028	0.00004	0.00018	0.00004
EM4	550	0.00034	0.00005	0.00022	0.00005
#EM8	275	0.00017	0.00002	0.00011	0.00002
EM10	460	0.00028	0.00004	0.00018	0.00004
EM11	1400	0.00086	0.00012	0.00055	0.00012
EM12	460	0.00028	0.00004	0.00018	0.00004
EM14	480	0.00029	0.00004	0.00019	0.00004
EM16	300	0.00018	0.00003	0.00012	0.00003
EM17	300	0.00018	0.00003	0.00012	0.00003
EM18	630	0.00039	0.00006	0.00025	0.00006
#EM19	480	0.00029	0.00004	0.00019	0.00004
#EM20	630	0.00039	0.00006	0.00025	0.00006
#EM21	273	0.00017	0.00002	0.00011	0.00002
#EM22	550	0.00034	0.00005	0.00022	0.00005
#EM23	550	0.00034	0.00005	0.00022	0.00005
#EM24	250	0.00015	0.00002	0.00010	0.00002
#EM25	250	0.00015	0.00002	0.00010	0.00002
#EM26	725	0.00044	0.00006	0.00029	0.00006
#TOTAL NEW UNITS	3983	0.00244	0.00035	0.00157	0.00035
TOTAL ALL UNITS	9,623	0.00590	0.00084	0.00379	0.00084

Methodology

PTE = Potential to Emit

Potential to Emit (lbs/hr) = Max. Capacity (lbs/hr) x Emission Factor (lbs/1,000,000 lbs)

Potential to Emit (tons/yr) = Max. Capacity (lbs/hr) x Emission Factor (lbs/1,000,000 lbs) x 8760 hr/yr x 1 ton/2000 lbs

Appendix A: Emission Calculations
PM/PM10 Emissions
from Twenty-one (21) Grinders

Company Name: North American Packaging Corporation
Address City IN Zip: 6061 Guion Road, Indianapolis, IN 46254
Permit No.: R 097-22447-00455
Reviewed & Verified by: Carmen Bugay
Date: March 13, 2006

1. Process Description:

There is one grinder associated with each blow molder, and one cyclone connected to each grinder. The grinding operation is used to reduce the defects to a size about 0.25 inches square. The plastic scraps are collected by a cyclone, and all the collected material is recycled back to the molding process.

Number of Grinders:		21
Maximum Input:		1025.3 lb/hr (assume 10% of the products are defects that go through the grinders)
*Cyclone Efficiency:	99.9%	1.0253 lb/hr
PTE of grinders after modification		4.491 tpy

*Note: The primary purpose of the cyclone is to collect the plastic scraps for recycle, not to control pollution. In addition, no grinding can occur without that the cyclones are in operation. Therefore, these cyclones are considered integral parts of the grinders and the potential to emit PM/PM10 is calculated based on the emissions after the cyclone.

2. Potential to Emit PM/PM10:

Assume all the PM emissions are PM10 emissions.

PTE NEW UNITS PM/PM-10=	3983 lbs/hr x (1-99.9%) =	0.398 lb/hr
(EM8, EM19-26)		1.745 tpy
 PTE PM/PM10 ALL UNITS =	 10253 lbs/hr x 10% (0.1) x (1-99.9%) =	 1.025 lb/hr
	1.025 lbs/hr x 8760 hr/yr x 1 ton/2000 lbs =	4.491 ton/yr