INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

November 4, 2004

TO: Interested Parties / Applicant

RE: General Electric Company, dba LNP Engineering Plastics / 005-19868-00049

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

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 the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FN-REGIS.dot 9/16/03

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

November 4, 2004

Mr. John A. Curvey
General Electric Company dba LNP Engineering Plastics
945 S. Marr Road
Columbus, Indiana 47201

Re: Revised Registration
No. 005-19868-00049

Dear Mr. Curvey:

General Electric Company dba LNP Engineering Plastics, located at 945 South Marr Road, Columbus Indiana 47201 was issued Registration No. 005-17704-00049 on August 5, 2003, a re-registered 005-17886-00049 on October 8, 2003, and a revised registration 005-18797-00049 on May 28, 2004 for a fiber filled plastic pellets manufacturing plant. A letter requesting addition of one (1) natural gas-fired pyrolysis cleaning oven (identified as Unit G3) was received on August 11, 2004. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following fiber filled plastics manufacturing plant, is classified as registered:

(a) Four (4) long fiber filled extruded thermoplastic manufacturing lines, including:

(1) Line 71, constructed in 1994, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(2) Line 72, constructed in 1995, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(3) Line 73, constructed in 1998, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(4) Line 74, constructed in 2000, having a maximum throughput of 1,700 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(b) Six (6) short fiber filled extruded thermoplastic manufacturing lines, including:

(1) Line 81, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(2) Line 82, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(3) Line 84, constructed in 2002, having a maximum production rate of 200 pounds per hour, with emissions of particulate matter controlled using a dust collector.

(4) Line 90, constructed in January 2003, having a maximum production rate of 1,800 pounds per hour, with emissions of particulate matter controlled by a dust collector.

(5) Line 91, constructed in 1994, having a maximum production rate of 2,000 pounds per hour, with emissions of particulate matter controlled by a dust collector.

(6) Line 92, constructed in 1999, having a maximum production rate of 3,000 pounds of product per hour, with emissions of particulate matter controlled by a dust collector.

(c) Pneumatic conveyance systems used to transfer raw material, intermediates, and finished products between silos, storage bins and hoppers. Each system uses a series of cyclones, filters and dust collectors, which collect the transferred material and in some cases, prevent dust entering the vacuum pumps.

(d) One (1) color pigment blending room, constructed in 2002, having a maximum production rate of 237 pounds per hour. Emissions of particulate matter are controlled using a dust collector.

(e) One (1) molding room, constructed in 1994, consisting of two (2) molding units, identified as QC1 and QC2. Each molding unit has a maximum throughput of 1.5 pounds of product per hour.

(f) One (1) research and development line, constructed in 1998, consisting of a feeder, hopper, extruder, die block, cooling bath, pelletizer, and molder, with a maximum production capacity of 300 pounds of product per hour. Emissions from these units are exhausted at stacks RD1 and RD2.

(g) One (1) natural gas fired makeup air unit with a maximum heat input capacity of 1.458 MMBtu per hour for the long-fiber product research and development lab constructed in January 2003.

(h) Two (2) natural gas-fired pyrolysis cleaning ovens, identified as Units G1, and F, having a maximum heat input capacity of 0.37 and 1.5 MMBtu per hour, respectively. These ovens were constructed in 1994 and 1997, respectively.

(i) Natural gas-fired heaters having a combined heat input capacity of 28.08 MMBtu per hour.

(j) A cold cleaner used to perform non-halogenated organic solvent degreasing (mineral spirits) of parts in the maintenance shop that does not exceed 145 gallons per 12 months and that is not subject to 326 IAC 20-6. The cold cleaner is an offline system, batch type, which uses a cold spray, and is equipped with drain and remote reservoir with insignificant exposure to outside air.

(k) One (1) R&D coextrusion line (identified as RD3), constructed in 2004, with a maximum production rate of 300 pounds of product per hour.

(l) One (1) natural gas-fired rooftop unit, constructed in 2004, with a maximum heat input capacity of 0.80 MMBtu per hour, for the Gate 1 Office Area.

(m) One (1) fluidized bed-cleaning system (identified as unit G2), constructed in 2004, using a natural gas-fired burner with a maximum heat input capacity of 0.225 MMBtu per hour.

(n) One (1) central vacuum system, constructed in 2004, consisting of two units (identified as CV1 and CV2). CV1 consists of a turbine providing vacuum suction through a vessel containing cartridge filters. CV2 consists of a turbine providing vacuum suction through an initial hopper for removal of pellets and a second hopper containing a bag filter.

o) One (1) natural gas-fired pyrolysis cleaning oven (identified as Unit G3), constructed in 2004, having a maximum heat input capacity of 0.55 MMBtu per hour. Emissions from this oven are exhausted to the atmosphere through stack G3.

The following conditions shall be applicable:

(a) 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:

(1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (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.

(b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the long fiber filled extruded thermoplastic manufacturing lines (Lines 71, 72, 73, and 74), short fiber filled extruded thermoplastic manufacturing lines (Lines 81, 82, 84, 90, 91, and 92), color pigment blending room, pneumatic conveyance systems, and two (2) research and development lines shall not exceed the pound per hour emission rates shown in the following table:

Process	Process Weight (lbs/hour)	Process Weight (tons/hour)	Particulate Limitation (lbs/hour)
Line 71 (including associated pneumatic conveyance system)	1,000	0.50	2.58
Line 72 (including associated pneumatic conveyance system)	1,000	0.50	2.58
Line 73 (including associated pneumatic conveyance system)	2,000	1.00	4.10
Line 74 (including associated pneumatic conveyance system)	1,700	0.85	3.68
Line 81 (including associated pneumatic conveyance system)	2,000	1.00	4.10
Line 82 (including associated pneumatic conveyance system)	2,000	1.00	4.10
Line 84 (including associated pneumatic conveyance system)	200	0.10	0.877
Line 90 (including associated pneumatic conveyance system)	1,800	0.90	3.82
Line 91 (including associated pneumatic conveyance system)	2,000	1.00	4.10
Line 92 (including associated pneumatic conveyance system)	3,000	1.50	5.38
Color Pigment Blending Room	237	0.12	0.98
Silo Pneumatic Conveying System	12,340	6.17	13.9
Each of the two (2) Research and Development Lines	300	0.15	1.15

The particulate emission limitations were calculated as follows:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from molders QC-1 and QC-2, and from central vacuum systems CV1 and CV2, each of which has a maximum process weight rate of less than 100 pounds per hour, shall not exceed 0.551 pounds per hour each.

(d) Each of the pyrolysis cleaning ovens (identified as units G1, G3, and F) has a maximum solid waste capacity of less than 100 pounds per hour. The fluidized bed cleaning system has a maximum solid waste capacity of 49 pounds per hour. Pursuant to 326 IAC 4-2 (Incinerators), each of these three incinerator units shall:

(1) Consist of primary and secondary chambers or the equivalent;

(2) Be equipped with a primary burner unless burning wood products;

(3) Comply with 326 IAC 5-1 and 326 IAC 2;

(4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and

(5) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.

(6) If any of the requirements of (d)(1) through (d)(5) above are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

The Permittee operating the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

(e) Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), the cold cleaning degreaser is subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations), because it was constructed in 1998, after the applicability date of January 1, 1980. Pursuant to this rule, the Permittee shall:

(1) Equip the cleaner with a cover;

(2) Equip the cleaner with a facility for draining cleaned parts;

(3) Close the degreaser cover whenever parts are not being handled in the cleaner;

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label summarizing the operation requirements;

(6) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

This registration is a revised registration 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 Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

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 Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions on this matter, please contact Nathan C. Bell, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 317-234-3350 or at 1-800-451-6027 (ext 43350).

Sincerely,

Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

NCB

cc: File - Bartholomew County
Air Compliance Section Inspector - Vaughn Ison
Permit Tracking
Compliance Data Section
Administrative and Development

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:	**LNP Engineering Plastics, Inc.**
Address:	**945 S. Marr Road**
City:	**Columbus, Indiana 47201**
Authorized individual:	**Mr. John Curvey**
Phone #:	**812-348-0229**
Registration #:	**005-19868-00049**

I hereby certify that General Electric Company dba LNP Engineering Plastics is still in operation and is in compliance with the requirements of Registration 005-19868-00049.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration Revision

Source Background and Description

Source Name:	General Electric Company dba LNP Engineering Plastics
Source Location:	945 S. Marr Road, Columbus, Indiana 47201
County:	Bartholomew
SIC Code:	3087
Permit Revision No.:	005-19868-00049
Permit Reviewer:	NCB

The Office of Air Quality (OAQ) has reviewed an application from General Electric Company dba LNP Engineering Plastics relating to the operation of a fiber filled plastics manufacturing plant. The source primarily engages in manufacturing of reinforced plastic composites (glass fiber filled) through compounding of purchased resins (SIC Code 3087). This manufacturing process is considered a finishing process (blending, additives introduction, curing, extruding/pultruding, annealing, cooling and drying, and/or pelletizing of thermoplastic resins).

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Four (4) long fiber filled extruded thermoplastic manufacturing lines, including:

(1) Line 71, constructed in 1994, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(2) Line 72, constructed in 1995, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(3) Line 73, constructed in 1998, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(4) Line 74, constructed in 2000, having a maximum throughput of 1,700 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(b) Six (6) short fiber filled extruded thermoplastic manufacturing lines, including:

(1) Line 81, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(2) Line 82, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

(3) Line 84, constructed in 2002, having a maximum production rate of 200 pounds per hour, with emissions of particulate matter controlled using a dust collector.

(4) Line 90, constructed in January 2003, having a maximum production rate of 1,800 pounds per hour, with emissions of particulate matter controlled by a dust collector.

(5) Line 91, constructed in 1994, having a maximum production rate of 2,000 pounds per hour, with emissions of particulate matter controlled by a dust collector.

(6) Line 92, constructed in 1999, having a maximum production rate of 3,000 pounds of product per hour, with emissions of particulate matter controlled by a dust collector.

(c) Pneumatic conveyance systems used to transfer raw material, intermediates, and finished products between silos, storage bins and hoppers. Each system uses a series of cyclones, filters and dust collectors, which collect the transferred material and in some cases, prevent dust entering the vacuum pumps.

(d) One (1) color pigment blending room, constructed in 2002, having a maximum production rate of 237 pounds per hour. Emissions of particulate matter are controlled using a dust collector.

(e) One (1) molding room, constructed in 1994, consisting of two (2) molding units, identified as QC1 and QC2. Each molding unit has a maximum throughput of 1.5 pounds of product per hour.

(f) One (1) research and development line, constructed in 1998, consisting of a feeder, hopper, extruder, die block, cooling bath, pelletizer, and molder, with a maximum production capacity of 300 pounds of product per hour. Emissions from these units are exhausted at stacks RD1 and RD2.

(g) One (1) natural gas fired makeup air unit with a maximum heat input capacity of 1.458 MMBtu per hour for the long-fiber product research and development lab constructed in January 2003.

(h) Two (2) natural gas-fired pyrolysis cleaning ovens, identified as Units G1, and F, having a maximum heat input capacity of 0.37 and 1.5 MMBtu per hour, respectively. These ovens were constructed in 1994 and 1997, respectively.

(i) Natural gas-fired heaters having a combined heat input capacity of 28.08 MMBtu per hour.

(j) A cold cleaner used to perform non-halogenated organic solvent degreasing (mineral spirits) of parts in the maintenance shop that does not exceed 145 gallons per 12 months and that is not subject to 326 IAC 20-6. The cold cleaner is an offline system, batch type, which uses a cold spray, and is equipped with drain and remote reservoir with insignificant exposure to outside air.

(k) One (1) R&D coextrusion line (identified as RD3), constructed in 2004, with a maximum production rate of 300 pounds of product per hour.

(l) One (1) natural gas-fired rooftop unit, constructed in 2004, with a maximum heat input capacity of 0.80 MMBtu per hour, for the Gate 1 Office Area.

(m) One (1) fluidized bed-cleaning system (identified as unit G2), constructed in 2004, using a natural gas-fired burner with a maximum heat input capacity of 0.225 MMBtu per hour.

(n) One (1) central vacuum system, constructed in 2004, consisting of two units (identified as CV1 and CV2). CV1 consists of a turbine providing vacuum suction through a vessel containing cartridge filters. CV2 consists of a turbine providing vacuum suction through an initial hopper for removal of pellets and a second hopper containing a bag filter.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The source plans to construct the following emission units and pollution control devices:

o) One (1) natural gas-fired pyrolysis cleaning oven (identified as Unit G3), constructed in 2004, having a maximum heat input capacity of 0.55 MMBtu per hour. Emissions from this oven are exhausted to the atmosphere through stack G3.

The potential to emit of all criteria pollutants from the new construction are within registration levels.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Registration 005-17704-00049, issued August 5, 2003.

(b) Registration Revision 005-17886-00049, issued October 8, 2003.

(c) Registration 005-18797-00049, issued May 28, 2004.

All conditions from previous approvals were incorporated into this registration.

Air Pollution Control Justification as an Integral Part of the Process

The company had submitted the following justification such that the cyclone and filter be considered as an integral part of the pneumatic conveyance system:

The process operations at the plant include pneumatic conveying to move pellets and powders from the storage areas to the processing lines. The nature of this operation is such that equipment typically viewed as air pollution control equipment is, for these operations, necessary to the proper functioning of the equipment, and therefore integral to the process units. The pneumatic transfer system works using a vacuum pump, which pulls air through the storage bin and associated conduits to a cyclone and filter, which are arranged in series. The cyclone is used to collect the transferred material, while the filter protects the vacuum pump from damage by fine particles that may be entrained in the air stream. Since the cyclone and filter make the transfer of the material possible and protect the vacuum pump from damage, they are considered integral to the process.

IDEM, OAQ has evaluated the justifications and agreed that the air pollution control equipment described above will be considered as an integral part of the pneumatic conveyance systems. Therefore, the permitting level will be determined using the potential to emit after the air pollution control equipment. Operating conditions in the proposed permit will specify that this air pollution control equipment shall operate at all times when the pneumatic conveyance systems are in operation.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

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

A complete application for the purposes of this review was received on August 11, 2004.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (^{o}F)
L1	Line 71-Long Fiber Pultrusion Line	58.5	1	2,000	120
L2	Line 72 – Die Block	58	1.2	5,500	110
L3	Line 73 – Pultrusion Line	58	2	10,000	110
L4	Line 74 – Long Fiber Pultrusion Line	45	2	9,000	110
A	Line 81 – Extruder	30	1.2	3,500	Between 70 and 90
B	Line 82 – Extruder	30	1.2	3,500	Between 70 and 90
M	Line 84 – Extruder	40	1	4,000	150
N	Line 84-Vaccuum Pump Exhaust	30	0.17	50	110
TO	Line 90	30	1.5	9,000	110
T1	Line 91-Twin Screw Compounding	58.5	1.5	3,500	120
G1	Pyrolysis Cleaning Oven	NA	NA	NA	NA
T2	Line 92 – Twin Screw Compounding	58	1.5	7,000	110
G2	0.29 MMBtu/hour Parts Oven	58	1.5	NA	180
F	Pyrolysis Cleaning Oven	25	1	1,200	100
G3	Pyrolysis Cleaning Oven	NA	NA	NA	NA
AA	Exhaust Fan for Quality Control Molding Machines	40	1.5	1,600	110
RD1	R & D Extruder	50	2	4,000	110
RD2	R & D Molder	50	1.3	800	110
RD3	R & D Coextrusion Line	30	2	8,000	110
AB	Ventilation for Toll Cleaning Area	12	1	500	Ambient

NA – Information not available.

Process Description

The source primarily engages in manufacturing of reinforced plastic composites (glass fiber filled) through compounding of the following purchased base resins (SIC Code 3087):

Base Resin	**Abbreviation**
Acrylonitrile Butadiene Styrene	ABS
Styrene Acrylonitrile	SAN
Polystyrene	PS
Polycarbonate	PC
Polycarbonate/ABS blends	PC/ABS
Polyoxymethylene	Acetal - POM
Polyethylene - mostly High Density Polyethylene (HDPE) - very little Low Density Polyethylene (LDPE)	PE
Polypropylene	PP
Nylon 4/6 Polyamide	PA 4/6
Nylon 6 Polyamide	PA 6
Nylon 6/6 Polyamide	PA 6/6
Nylon 6/10 Polyamide	PA 6/10
Nylon 6/12 Polyamide	PA 6/12
Nylon 11 Polyamide	PA 11
Nylon 12 Polyamide	PA 12
Polyphthalamide	PPA
Amorphous Nylon Polyamide	
Polyetherimide	PEI
Polyethersulfone	PES
Polysulfone	
Polyphenylenesulfide	PPS
Polyurethane	
Polybutylene Terephathalate	PBT
Polyester Elastomer	
Modified Polyphenylene oxide	PPO
Syndiotactic Polystyrene	

Emission Calculations

See Appendix A, pages 1 through 3, of this document for detailed emission calculations for this new emission unit (natural gas-fired pyrolysis oven, G3) and an emission summary of the entire source, including previously registered emission units. Detailed emission calculations for the previously registered units can be found in their respective registrations (See Existing Approvals).

Potential to Emit of the Entire Source Before Controls Including the Addition

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Criteria Pollutant	Potential to Emit (tons/year)
PM	18.1
PM-10	18.1
SO_2	0.09
VOC	13.4
CO	12.5
NO_x	14.9

HAP's	Potential To Emit* (tons/year)
Acetaldehyde	0.0052
Acrolein	0.0006
Acrylic Acid	0.0052
Benzene	0.0003
Dichlorobenzene	0.0002
Formaldehyde	0.0164
Hexane	0.2539
Methyl ethyl ketone	0.0026
Propionaldehyde	0.0013
Toluene	0.0005
Lead	0.0001
Cadmium	0.0002
Chromium	0.0002
Manganese	0.0001
Nickel	0.0003
Worst Single HAP	0.25
Combined HAP	0.29

*The potential to emit of HAPs is from natural gas combustion sources and from resin extrusion, pultrusion, and molding sources (assuming polypropylene as primary resin). See previous registrations for detailed emission calclations.

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of regulated criteria pollutants are less than twenty-five (25) tons per year, but greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were

in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Bartholomew County.

Criteria Pollutant	Status
PM10	Attainment or Unclassifiable
SO_2	Attainment
NO_2	Attainment or Unclassifiable
1-Hour Ozone	Attainment or Unclassifiable
8-Hour Ozone	Attainment or Unclassifiable
CO	Attainment or Unclassifiable
Lead	Attainment or Unclassifiable

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx are considered when evaluating the rule applicability relating to the ozone standards. Bartholomew County has been designated as attainment or unclassifiable for the ozone standards. Therefore, VOC emissions and NOx and were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) Bartholomew County has been classified as attainment for all regulated criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	18.1
PM10	18.1
SO_2	0.09
VOC	13.4
CO	12.5
NO_x	14.9
Worst Single HAP	0.25
Combined HAPs	0.29

(a) This existing source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(b) These emissions were based on potential to emit calculations for the source (Appendix A).

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons per year.

This status is based on the potential to emit calculations of the source (see Appendix A).

Federal Rule Applicability

(a) The natural gas-fired heaters and ovens are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63 Subpart DDDDD. The natural gas-fired heaters and ovens are part of the affected source for the small gaseous fuel subcategory, as defined by 40 CFR 63.7575, because they each have a rated capacity of less than or equal to 10 million British thermal units per hour heat input. However, pursuant to 40 CFR 63.7506(c), there are no applicable requirements from 40 CFR 63 Subpart DDDDD and 40 CFR, Subpart A for the affected source for the small gaseous fuel subcategory.

(b) This source is not subject to the requirements of 40 CFR 63 Subpart U (63.480 through 63.507) NESHAP Emission: Group I Polymers and Resins (326 IAC 20-19-1), because this source is not a major source of HAPs.

(c) This source is not subject to the requirements of 40 CFR 63 Subpart W (63.520 through 63.529) NESHAPs: Group II Polymers and Resins, Epoxy Resins Production and Non-Nylon Polyamides Production (326 IAC 20-20-1), because this source is not a major source of HAPs.

(d) This source is not subject to the requirements of 40 CFR 63 Subpart OOO (63.1400 through 63.1419) NESHAPs: Group III Polymers and Resins (326 IAC 20-58-1), because this source is not a major source of HAPs.

(e) This source is not subject to the requirements of 40 CFR 63 Subpart JJJ (63.1310 through 63.1335) NESHAP Emissions: Group IV Polymers and Resins (326 IAC 20-21-1), because the source is not a major source of HAPs and only performs finishing processes (blending, additives introduction, curing, extruding, pultruding, annealing, cooling and drying, pelletizing of thermoplastic resins), which are specifically exempt from the requirements of this rule under 40 CFR 63.1310(d).

(f) This source is not subject to the requirements of 40 CFR 63 Subpart WWWW (63.5780 through 63.5935) - NESHAPs: Reinforced Plastic Composites Production (326 IAC 20-25-1), because this source is not a major source of HAPs.

(g) This source is not subject to the requirements of 40 CFR 63 Subpart J (63.210 through 63.217) - NESHAPs: Polyvinyl Chloride and Copolymers Production (326 IAC 20-69-1), because this source is not a PVC plant (i.e., is not a plant where vinyl chloride alone or in combination with other materials is polymerized; 40 CFR 61.61(c)) and is not a major source of HAPs.

(h) This source is not subject to the requirements of 40 CFR 63 Subpart YY (63.1100 through 63.1114) - NESHAPs for Source Categories: Generic Maximum Achievable Control Technology Standards (326 IAC 20-44-1), because this source is not a major source of HAPs.

(i) This source is not subject to the requirements of 40 CFR 63 Subpart III (63.1290 through 63.1309) - NESHAPs: Flexible Polyurethane Foam Production (326 IAC 20-22-1), because this source is not a major source of HAPs.

(j) This source is not subject to the requirements of 40 CFR 63 Subpart MMMMM (63.8780 through 63.8830) - NESHAPs: Flexible Polyurethane Foam Fabrication Operation (326 IAC 20-66-1), because this source is not a major source of HAPs.

(k) This source is not subject to the following NESHAPs, because this source is not a major source of HAPs and this source primarily engages in manufacturing of reinforced plastic composites (glass fiber filled) through compounding of purchased resins under SIC Code 3087, and does not manufacture chemicals.

(1) 40 CFR 63 Subpart F (63.100 through 63.107), NESHAPs From the Synthetic Organic Chemical Manufacturing Industry (326 IAC 20-11-1)

(2) 40 CFR 63 Subpart G (63.110 through 63.153), NESHAPs From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (326 IAC 20-11-1)

(3) 40 CFR 63 Subpart H (63.160 through 63.183), NESHAPs: Organic Hazardous Air Pollutants for Equipment Leaks (326 IAC 20-11-1)

(4) 40 CFR 63 Subpart I (63.190 through 63.193), NESHAPs: Certain Processes Subject to the Negotiated Regulation for Equipment Leaks (326 IAC 20-12-1)

(l) This source is not subject to the requirements of 40 CFR 63 Subpart EEE (63.1200 through 63.1214), NESHAPs from Hazardous Waste Combustors (326 IAC 20-28-1), because the natural gas-fired ovens are not considered hazardous waste incinerators and the source is not a major source of HAPs.

(m) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 20 and 40 CFR Parts 61 and 63) included for this source.

(n) The source primarily engages in manufacturing of reinforced plastic composites (glass fiber filled) through compounding of purchased resins under SIC Code 3087, and does not manufacture synthetic resins through predominantly chemical processes (e.g., SIC Codes 2821 and 2824). Therefore, this source is not subject to the requirements of 40 CFR 60 Subpart DDD (60.560 through 60.566), Standards of Performance for VOC Emissions from the Polymer Manufacturing Industry (326 IAC 12).

(o) This source is not subject to the requirements of 40 CFR 60 Subpart E (60.50 through 60.54), Standards of Performance for Incinerators (326 IAC 12), because the natural gas-fired ovens and have a charging rate less than fifty (50) tons per day and they do not burn refuse consisting of more than 50 percent municipal type waste (household, commercial/retail, and/or institutional waste).

(p) This source is not subject to the requirements of the following New Source Performance Standards (NSPS), because the natural gas-fired ovens are not considered municipal waste combustors or hospital/medical/infectious waste incinerators:

(1) 40 CFR 60 Subpart Ea (60.50a through 60.59a), Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or before September 20, 1994 (326 IAC 12)

(2) 40 CFR 60 Subpart Eb (60.50b through 60.59b), Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994, or for Which Modification or Reconstruction is commenced after June 19, 1996 (326 IAC 12)

(3) 40 CFR 60 Subpart Ec (60.50c through 60.58c), Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after January 20, 1996 (326 IAC 12)

(4) 40 CFR 60 Subpart AAAA (60.1000 through 60.1465), Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 (326 IAC 12)

(q) The three (3) natural gas-fired pyrolysis cleaning ovens (G1, G3, and F) and the fluidized bed cleaning system (G2) are exempt from the requirements of 40 CFR 60 Subpart CCCC (60.2000 through 60.2265), Standards of Performance for Commercial and Industrial Solid Waste Incinerations Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001 (326 IAC 12), because these units are considered parts reclamation units (40 CFR 60.2020(k)).

(s) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this source.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is located in Bartholomew County, it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year.

326 IAC 2-2 (Prevention of Significant Deterioration)

LNP Engineering Plastics, Inc. was a minor source under PSD when it was constructed in 1994 and is not in one (1) of the twenty-eight (28) source categories. The source was modified numerous times between 1994 and 2004, none of which triggered PSD. The source submitted an application on August 11, 2004 requesting construction one (1) natural gas-fired pyrolysis cleaning oven (identified as Unit G3) having a maximum heat input capacity of 0.55 MMBtu per hour. After this modification, the potential to emit of each criteria pollutant from the entire source remains less than 250 tons per year. Therefore, this source is not subject to the requirements of 326 IAC 2-2.

326 IAC 5-1 (Opacity Limitations)

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, unless otherwise stated in the permit:

(a) Opacity shall not exceed an average of forty percent (40%) 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 fifteen (15) minutes (sixty (60) readings) in a six (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.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the fiber filled plastic pellet manufacturing plant will emit less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

State Rule Applicability - Filled Fiber Plastic Pellets Manufacturing

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the long fiber filled extruded thermoplastic manufacturing lines (Lines 71, 72, 73, and 74), short fiber filled extruded thermoplastic manufacturing lines (Lines 81, 82, 84, 90, 91, and 92), color pigment blending room, pneumatic conveyance systems, and two (2) research and development lines shall not exceed the pound per hour emission rates shown in the following table:

Process	Process Weight (lbs/hour)	Process Weight (tons/hour)	Particulate Limitation (lbs/hour)
Line 71 (including associated pneumatic conveyance system)	1,000	0.50	2.58
Line 72 (including associated pneumatic conveyance system)	1,000	0.50	2.58
Line 73 (including associated pneumatic conveyance system)	2,000	1.00	4.10
Line 74 (including associated pneumatic conveyance system)	1,700	0.85	3.68
Line 81 (including associated pneumatic conveyance system)	2,000	1.00	4.10
Line 82 (including associated pneumatic conveyance system)	2,000	1.00	4.10
Line 84 (including associated pneumatic conveyance system)	200	0.10	0.877
Line 90 (including associated pneumatic conveyance system)	1,800	0.90	3.82
Line 91 (including associated pneumatic conveyance system)	2,000	1.00	4.10
Line 92 (including associated pneumatic conveyance system)	3,000	1.50	5.38
Color Pigment Blending Room	237	0.12	0.98
Silo Pneumatic Conveying System	12,340	6.17	13.9
Each of the two (2) Research and Development Lines	300	0.15	1.15

The particulate emission limitations were calculated as follows:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from molders QC-1 and QC-2, and from central vacuum systems CV1 and CV2, each of which has a maximum process weight rate of less than 100 pounds per hour, shall each not exceed the particulate allowable emission of 0.551 pounds per hour.

326 IAC 4-2 (Incinerators)

The pyrolysis cleaning ovens (identified as units G1, G3, and F) and the fluidized bed cleaning system (identified as unit G2) are subject to the requirements of 326 IAC 4-2 because these type of units are considered as an incinerator. Pursuant to 326 IAC 4-2 (Incinerators), the pyrolysis cleaning ovens and fluidized bend cleaning system shall:

(1) Consist of primary and secondary chambers or the equivalent;

(2) Be equipped with a primary burner unless burning wood products;

(3) Comply with 326 IAC 5-1 and 326 IAC 2;

(4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and

(5) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.

(6) If any of the requirements of 326 IAC 4-2-2(a)(1) through 326 IAC 4-2-2(a)(5) above are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

All facilities constructed after January 1, 1980, the applicability date for this rule, have potential VOC emissions less than twenty-five (25) tons per year. Therefore, this source is not subject to the requirements of 326 IAC 8-1-6.

326 IAC 8-3-2 (Cold Cleaner Operations)

Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), the cold cleaning degreaser is subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations), because it was constructed in 1998, after the applicability date of January 1, 1980. Pursuant to this rule, the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The degreasing operation is not subject to the requirements of 326 IAC 8-3-5 because the degreaser has a remote solvent reservoir.

326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)

The natural gas-fired heaters and ovens are not subject to the rule 326 IAC 7-1 because the potential and the actual emissions are less than 25 tons per year and 10 pounds per hour respectively.

Conclusion

The operation of this fiber filled plastic pellet manufacturing plant shall be subject to the conditions of the Registration Revision 005-19868-00049.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Pyrolysis Oven Cleaning System

Company Name: **LNP Engineering Plastics Inc.**
Address City IN Zip: **945 S. Marr Road, Columbus, Indiana 47201**
Registration: **005-19868**
Plt ID: **005-00049**
Reviewer: **NCB**
Date: **09/10/04**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
0.55	4.8

Pollutant

	PM*	PM10*	SO2	NO_x	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.02	0.02	0.001	0.2	0.01	0.2

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology

All Emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Pyrolysis Oven Cleaning System

Company Name: **LNP Engineering Plastics Inc.**
Address City IN Zip: **945 S. Marr Road, Columbus, Indiana 47201**
Registration: **005-19868**
Plt ID: **005-00049**
Reviewer: **NCB**
Date: **09/10/04**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.059E-06	2.891E-06	1.807E-04	4.336E-03	8.191E-06

HAPs - Metals

	Lead	Cadmuim	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.205E-06	2.650E-06	3.373E-06	9.154E-07	5.059E-06

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
Summary Emissions

Company Name: General Electric Company dba LNP Engineering Plastics
Address: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-19868
Plt ID: 005-00049
Reviewer: NCB
Date: 09/10/04

POTENTIAL TO EMIT OF CRITERIA POLLUTANTS IN TONS PER YEAR

Emission Units	PM	PM10	SO_2	NO_x	VOC	CO
Existing Units						
Polymer melting Processes	16.4	16.4			11.6	
Pyrolysis Ovens (G1 and F)	0.06	0.06	0.005	0.8	0.05	0.7
Degreaser					0.49	
Heaters and Ovens	1.04	1.04	0.082	13.7	0.76	11.5
Coextrusion Line	0.10	0.10			0.46	
Fluidized bed cleaning system	0.01	0.01	0.001	0.1	0.01	0.1
Roof top unit	0.003	0.003	0.0002	0.04	0.002	0.03
Central vacuum system	0.45	0.45				
New Unit						
Pyrolysis Oven (G3)	0.02	0.02	0.001	0.2	0.01	0.2
TOTAL from the entire source	**18.1**	**18.1**	**0.09**	**14.9**	**13.4**	**12.5**

POTENTIAL TO EMIT OF HAZARDOUS AIR POLLUTANTS IN TONS PER YEAR

	Emissions (tons/yr)		
HAP	Existing Units	New Unit	TOTAL
Acetaldehyde	0.0052		0.0052
Acrolein	0.0006		0.0006
Acrylic Acid	0.0052		0.0052
Benzene	0.0003	5.1E-06	0.0003
Dichlorobenzene	0.0002	2.9E-06	0.0002
Formaldehyde	0.0162	0.0002	0.0164
Hexane	0.2496	0.0043	0.2539
Methylethylketone	0.0026		0.0026
Propionaldehyde	0.0013		0.0013
Toluene	0.0005	8.2E-06	0.0005
Lead	0.0001	1.2E-06	0.0001
Cadmuim	0.0002	2.6E-06	0.0002
Chromium	0.0002	3.4E-06	0.0002
Manganese	0.0001	9.2E-07	0.0001
Nickel	0.0003	5.1E-06	0.0003
		Total	**0.29**