

**CONSTRUCTION PERMIT  
OFFICE OF AIR MANAGEMENT**

**Better Way Products, Inc.  
70891 CR 23  
New Paris, Indiana 46996**

is hereby authorized to construct fiberglass parts manufacturing facilities consisting of:

Plant 2

- (a) One (1) gelcoat booth, known as E-1, equipped with an air-assisted airless spray applicator, equipped with dry filters for overspray control, equipped with a 22,800 cubic feet per minute exhaust fan, capacity: 7.5 fiberglass parts per hour.
- (b) One (1) resin booth, known as E-2, equipped with air-assisted airless spray applicators, equipped with dry filters for overspray control, equipped with a 22,800 cubic feet per minute exhaust fan, capacity: 7.5 fiberglass parts per hour.
- (c) One (1) grinding area, equipped with two (2) hand grinders, known as D-1 and D-2, each equipped with a vacuum system and cartridge dust collector for particulate matter control, each equipped with a 10,000 cubic feet per minute exhaust fan, capacity: 7.5 fiberglass parts per hour.
- (d) Four (4) natural gas-fired infrared space heaters, capacity: 0.125 million British thermal units per hour, each.
- (e) Four (4) natural gas-fired radiant space heaters, capacity: 0.150 million British thermal units per hour, each.
- (f) One (1) natural gas-fired air make-up unit, capacity: 4.1 million British thermal units per hour.
- (g) Two (2) natural gas-fired office furnaces, capacity: 0.100 million British thermal units per hour, each.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP 039-8708-00141	
Issued by:  Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

### **Construction Conditions**

#### General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

#### Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

#### First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
  - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
  - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
  - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees)
  - (e) The Permittee has submitted their Part 70 (T-039-7106-00141) application on November 7, 1996 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.
7. That when the facility is constructed and placed into operation the following operation conditions shall

be met:

### **Operation Conditions**

#### General Operation Conditions

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
2. That the Permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

#### Preventive Maintenance Plan

3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
  - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
  - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
  - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

#### Transfer of Permit

4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
  - (a) In the event that ownership of this fiberglass parts manufacturing operations are changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
  - (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
  - (c) The OAM shall reserve the right to issue a new permit.

#### Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:
  - (a) Violation of any conditions of this permit.
  - (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM or other public official having jurisdiction.

Malfunction Condition

7. That pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):
- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
  - (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
  - (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
  - (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

PSD Minor Limit

8. (a) That the emissions of volatile organic compounds (VOC), including cleanup solvents, shall be limited to 228 tons per year, rolled on a monthly basis. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply. VOC emissions shall be calculated from VOC applied to the applicators, using the following method:

n materials

$$\text{VOC} = \frac{\text{units}}{\text{hour}} = 3 \text{ density of material} \times \text{gallons/unit} \times \text{weight percent volatile} \times \text{flashoff factor} \times \text{units/hour}$$

n = 1

- (b) A flashoff factor of 0.35 should be used for all gelcoats and 0.13 for all resins. All other materials have a flashoff factor equal to 1.00.
- (c) During the first 12 months of operation, the input raw material usage shall be limited such that the total emissions divided by the accumulated months of operation shall not exceed the limit specified.

Annual Emission Reporting

9. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. A copy of this rule is enclosed. The annual statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.

Opacity Limitations

10. That pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:
- (a) visible emissions shall not exceed an average of 40 percent opacity in 24 consecutive readings.
  - (b) visible emissions shall not exceed 60 percent opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

11. Particulate Matter (PM) Limitation

That pursuant to 326 IAC 6-3 (Process Operations), the vacuum system and cartridge dust collectors shall be in operation at all times when grinding is being performed, and shall not exceed the allowable particulate matter (PM) emission rate of 2.17 pounds per hour. This limitation will also make 326 IAC 2-2 not applicable.

Dust Collector Operating Condition

12. That the dust collectors shall be operated at all times when the grinding process is in operation.
- (a) An inspection shall be performed each calendar quarter of the all the dust collectors. Defective dust collectors shall be replaced. A record shall be kept of the results of the inspection and the number of dust collectors replaced.
  - (b) In the event that a dust collector's failure has been observed:
    - (i) The affected compartments will be shut down immediately until the failed units have

been replaced.

- (ii) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

Visible Emission Notations

- 13. That visible emission notations of all exhausts to the atmosphere from vacuum systems and cartridges shall be performed once per day. A trained employee will record whether emissions are normal or abnormal.
  - (a) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting start up or shut down time.
  - (b) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.
  - (c) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal and abnormal visible emissions for that specific process.
  - (d) The Preventive Maintenance Plan for this facility shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

Fugitive Dust Emissions

- 14. That pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the Permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) through (4) are violated. Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM. [326 IAC 6-4-5(c)].

- 15. That pursuant to 326 IAC 6-3 (Process Operations):

- (a) The dry filters for particulate matter overspray control shall be in operation at all times when the resin and gelcoat booths are in operation.
- (b) The resin and gelcoat booth operations shall comply with 326 IAC 6-3-2(c) using the following equation:

If P is equal to or less than 60,00 pounds per hour (30 tons per hour):

$$E = 4.10P^{0.67} \quad \text{where: } E = \text{rate of emission in pounds per hour,} \\ P = \text{process weight in tons per hour.}$$

and not exceed the allowable PM emission rate of 6.08 and 3.55 pounds per hour for the resin and gelcoat booths, respectively.

- (c) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the filters.

- (d) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

BACT/MACT Condition

16. (a) That pursuant to 326 IAC 8-1-6 and 326 IAC 2-1-3.4, the as-installed the air assisted airless spray applicators shall be used at all times during resin and gelcoat fiberglass products spraying operations and subject to the VOC emission limitation contained in operation permit Condition No. 8. BACT/MACT was determined to be the as installed air-assisted airless spray applicators with a VOC limit of 228 tons per rolling 12-month period, a maximum styrene content of the resins used of 60.0 percent by weight and the following workplace standards:
- (i) All resins and gelcoats will be applied with air-assisted airless spray applicators.
  - (ii) Spray applicators will be cleaned with acetone.
  - (iii) The cleanup solvent containers used to transport solvent other than acetone from drums to work stations be closed containers having soft gasketed spring-loaded closures.
  - (iv) Cleanup rags saturated with solvent other than acetone shall be stored, transported, and disposed of in containers that are closed tightly.
  - (v) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent other than acetone into the air.
  - (vi) The overspray shall be minimized by spraying as close as practical into the molds.
  - (vii) The application equipment operators shall be instructed and trained on the methods and practices utilized to minimize the overspray emitted on the floor and into the air filters.
  - (viii) All solvent other than acetone sprayed during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
  - (ix) Storage containers used to store VOC and/or HAPs containing materials shall be kept covered when not in use.
- (b) Air-assisted airless spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

Reporting Requirements

17. That a log of information necessary to document compliance with operation permit condition no. 8 shall be maintained. These records shall be kept for at least the past 36-month period and made available upon request to the Office of Air Management (OAM).

- (a) A quarterly summary shall be submitted to:
- Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
within 30 days after the end of the quarter being reported in the format attached. These records shall include the coating, thinner and clean up solvent usage, material safety data sheet (MSDS) and the date of use.
- (b) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit shall be timely if:
- (i) Delivered by U.S. mail and postmarked on or before the date it is due; or
- (ii) Delivered by any other method if it is received and stamped by IDEM, OAM on or before the date it is due.
- (c) All instances of deviations from any requirements of this permit must be clearly identified in such reports.
- (d) Any corrective actions taken as a result of an exceedance of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.
- (e) The first report shall cover the period commencing the postmarked submission date of the Affidavit of Construction.

Open Burning

18. That the Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

Emergency Reduction Plans

19. Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):
- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 7, 1996.
- (b) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP. If after this time, the Permittee does not submit an approvable ERP, IDEM, OAM, shall supply such a plan.
- (c) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (d) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

- (e) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate level. [326 IAC 1-5-3].

**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ?\_\_\_\_, 100 LBS/HR VOC ?\_\_\_\_, 100 LBS/HR SULFUR DIOXIDE ?\_\_\_\_ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ?\_\_\_\_ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: Better Way Products, Inc. PHONE NO. 219 - 831 - 3340

LOCATION: (CITY AND COUNTY) New Paris / Elkhart

PERMIT NO. 039-8708 AFS PLANT ID: 039-00141 AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/ 19\_\_\_\_ \_\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/ 19\_\_\_\_ \_\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

Better Way Products  
New Paris, Indiana  
Permit Reviewer: MES

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CP 039-8708  
Plt ID 039-00141

**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1    Applicability of rule**

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO<sub>2</sub>, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

**326 IAC 1-2-39    “Malfunction” definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2373)

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**Quarterly Reporting Form**

Source Name: Better Way Products, Inc., Plant 2

Source Address: 70891 CR 23, New Paris, Indiana 46996

Permit No.: CP 039-8708-00141

Facility: Gelcoat Booth (E-1) and Resin Booth (E-2) Parameters Volatile Organic Compounds  
Delivered to the Applicators with Flashoff Factors of 35 and 13 percent, respectively, for  
the Gelcoat and Resin Booths. Limit: 228 tons per rolling 12-month period

Year: \_\_\_\_\_

Month	VOC Emissions This Month (tons)	VOC Emissions Last 12 Months (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Indiana Department of Environmental Management Office of Air Management

### Technical Support Document (TSD) for New Construction and Operation

#### Source Background and Description

Source Name: Better Way Products, Inc.  
Source Location: 70891 CR 23, New Paris, Indiana 46996  
County: Elkhart  
Construction Permit No.: CP 039-8708-00141  
SIC Code: 3089  
Permit Reviewer: Frank P. Castelli

The Office of Air Management (OAM) has reviewed an application from Better Way Products, Inc. relating to the construction and operation of fiberglass products manufacturing facilities, consisting of the following equipment:

#### Plant 2

- (a) One (1) gelcoat booth, known as E-1, equipped with an air-assisted airless spray applicator, equipped with dry filters for overspray control, equipped with a 22,800 cubic feet per minute exhaust fan, capacity: 7.5 fiberglass parts per hour.
- (b) One (1) resin booth, known as E-2, equipped with air-assisted airless spray applicators, equipped with dry filters for overspray control, equipped with a 22,800 cubic feet per minute exhaust fan, capacity: 7.5 fiberglass parts per hour.
- (c) One (1) grinding area, equipped with two (2) hand grinders, known as D-1 and D-2, each equipped with a vacuum system and cartridge dust collector for particulate matter control, each equipped with a 10,000 cubic feet per minute exhaust fan, capacity: 7.5 fiberglass parts per hour.
- (d) Four (4) natural gas-fired infrared space heaters, capacity: 0.125 million British thermal units per hour, each.
- (e) Four (4) natural gas-fired radiant space heaters, capacity: 0.150 million British thermal units per hour, each.
- (f) One (1) natural gas-fired air make-up unit, capacity: 4.1 million British thermal units per hour.
- (g) Two (2) natural gas-fired office furnaces, capacity: 0.100 million British thermal units per hour, each.

Construction of these facilities is scheduled to commence upon issuance of the permit and operations are estimated to begin in 1998. An interim construction petition for this operation was submitted on June 27, 1997.

### Source Definition

This fiberglass manufacturing source consists of two (2) plants:

- (a) Plant 1 is located at 70891 CR 23, New Paris, Indiana; and
- (b) Plant 2 is also located at 70891 CR 23, New Paris, Indiana.

Since the two (2) plants are located on contiguous properties, have the same SIC codes and owned by one company, they will be considered as one (1) source. The addition of Plant 2 will be treated as a modification to the source (Plant 1). Plant 1 was issued Construction Permit CP 039-2414-00141, issued on September 13, 1996.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
E-1	Gelcoat Booth	29.0	3.0	22,800	Ambient
E-2	Resin Chop Booth	29.0	3.0	22,800	Ambient

### Recommendation

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

Information, unless otherwise stated, 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 June 19, 1997.

### Emissions Calculations

See pages 1 - 4 of Appendix A (Emissions Calculation Spreadsheets) for detailed calculations for emissions from surface coating and combustion.

The potential grinding PM emissions from each of the two (2) hand grinders were estimated by the applicant at 12.5 pounds per hour, each. This PM emission rate equates to  $2 \times 12.5 \text{ lbs/hr} \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2,000 \text{ lbs} = 110 \text{ tons/yr}$ . A vacuum capture system and dry filter are operated in series and the exhaust from the vacuum capture system is recirculated to the grinding area. The vacuum capture system has a 90 percent collection efficiency and the filters are conservatively estimated to control 85 percent of the emissions. Therefore, the overall control efficiency is 98.5 percent. The potential PM emissions after controls from grinding equals  $(1 - 0.985) \times 110 \text{ tons per year} = 1.65 \text{ tons per year}$ .

**Total Potential and Allowable Emissions**

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/yr)	Potential Emissions (tons/yr)
Particulate Matter (PM)	51.8	311
Particulate Matter (PM <sub>10</sub> )	51.8	311
Sulfur Dioxide (SO <sub>2</sub> )	0.014	0.014
Volatile Organic Compounds (VOC)	249	358
Carbon Monoxide (CO)	0.605	0.605
Nitrogen Oxides (NO <sub>x</sub> )	2.33	2.33
Single Hazardous Air Pollutant (HAP)	249	358
Combination of HAPs	249	358

(a) Allowable PM emissions from overspray are determined from the applicability of rule 326 IAC 6-3-2(c). The applicable 326 IAC 6-3-2 equation is as follows:  $E = 4.10 P^{0.67}$ , where P equals process weight in tons per hour for process weights up to and including sixty thousand (60,000) pounds per hour and E equals the allowable emission rate in pounds per hour. The process weights for the resin and gelcoat booths are 1.8 and 0.808 tons per hour, respectively. These process weights result in allowable PM emission rates of 6.08 and 3.55 pounds per hour (26.6 and 15.6 tons per year) for the resin and gelcoat operations, respectively. The combined overspray emissions from the resin and gelcoat operations after controls are only 10.2 tons per year and thus both operations comply with this rule.

Allowable PM emissions from the grinding area are determined from the applicability of rule 326 IAC 6-3-2(c). The 326 IAC 6-3-2 equation is as follows:  $E = 4.10 P^{0.67}$ , where P equals process weight in tons per hour for process weights up to and including sixty thousand (60,000) pounds per hour and E equals the allowable emission rate in pounds per hour. The process weight for grinding is 0.387 tons per hour. This process weight result in an allowable PM emission rate of 2.17 pounds per hour (9.51 tons per year). The grinding operations after controls have emissions of only 1.65 tons per year and thus complies with this rule.

(b) The allowable emissions based on the rules cited are less than the potential emissions, therefore, the allowable emissions are used for the permitting determination.

(c) Allowable emissions (as defined in the Indiana Rule) of volatile organic compounds and PM are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

(d) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and the allowable emissions of any combination of

the HAPs are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is required.

### County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as maintenance for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 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 PM emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on limited production):

Pollutant	Emissions (tons/yr)
PM	12.0
PM <sub>10</sub>	12.0
SO <sub>2</sub>	0.110
VOC	99.1
CO	0.442
NO <sub>x</sub>	1.68

- (a) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year (note that Elkhart County was designated as nonattainment for ozone when the application for CP 039-2414 was received) and it is not in one of the 28 listed source categories
- (b) These emissions were based on CP 039-2414, issued on September 13, 1996.

Better Way Products, Inc.  
New Paris, Indiana  
Permit Reviewer: MES

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CP 039-8708  
Plt ID 039-00141

### Proposed Modification

PTE from the proposed modification (based on production limit after controls):

Pollutant	PM (tons/yr)	PM <sub>10</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO <sub>x</sub> (tons/yr)
Proposed Modification	12.1	12.1	0.014	228	0.605	2.33
PSD Threshold Level	250	250	250	250	250	250

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply. VOC emissions are limited to 228 tons per rolling 12 month period to avoid the PSD requirements of 326 IAC 2-2.

### Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T-039-7106-00141) application on November 7, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

### Federal Rule Applicability

There are no New Source Performance Standards (326 IAC 12) and 40 CFR Parts 61 and 63 (NESHAPs) applicable to these facilities.

### State Rule Applicability

326 IAC 2-1-3.4 (New Source Toxic Control)

There are currently no promulgated or proposed Maximum Achievable Control Technology (MACT) standards for the reinforced plastics industry. Therefore, a case specific MACT determination is required by this rule.

An analysis was performed to determine a presumptive MACT standard for an open die spray layup fiberglass production process. The analysis was conducted in two parts. First, a survey of BACT and LAER determinations was made using the U.S. EPA's RBLC database. The second part was to poll regulatory and trade groups as to status and content of proposed MACT standards for this process.

The survey of the RBLC database showed eleven (11) determinations have been made for composite layup processes. Of these, only two (2) were for open die fiberglass layup processes which are comparable to Better Way Products' layup process. The other determinations were made for either closed die (injection of SMC) processes or pultrusion fabrication of composite tubular products. Open die layup requires a large layup area, whereas closed die and pultrusion processes occur in

tightly confined volumes. Because of this volume requirement, the open die process must be treated separately from the closed die and pultrusion processes. Both of the open die determinations in the database (BACT pursuant to PSD rules) were for no add-on controls, with specific work practices, such as HVLP guns and cleanup using non-VOC solvents. One of the determinations was for a PSD source in Indiana. Therefore, part 1 of this analysis shows that none of the similar processes have required add-on controls.

In the second part of the analysis, the U.S. EPA at Research Triangle Park was contacted and indicated that there has been no proposed MACT standard for reinforced plastic products. EPA stated that "reinforced plastic products" have been differentiated from boat manufacturing, particularly layup of boat hulls and decks, therefore any proposed MACT standards to boat hull and deck fabrication is not germane to any standards that will be proposed for smaller reinforced plastic parts.

Mr. Steve McNally of the Composite Fabricators Association was also contacted regarding MACT for this type of process. Mr. McNally indicated that while add-on controls may be feasible for closed die processes and pultrusion, the high air flows required by safety regulations make add-on control of open die processes economically not feasible.

In summary, there is no precedent for imposing any add-on controls to limit emissions at this source at this time. In light of BACT/LAER precedents, MACT for this source is the Best Available Control Technology (BACT), which is detailed under the discussion of state rule 326 IAC 8-1-6.

#### 326 IAC 2-2 (Prevention of Significant Deterioration, PSD)

This facility is not subject to 326 IAC 2-2 since the source has agreed to limit VOC emissions to no more than 228 tons per rolling 12-month period. VOC emissions shall be calculated using the following method:

$$\text{VOC} = \sum_{n=1}^n \text{Density of material} \times \text{gallons/unit} \times \text{weight percent volatile} \times \text{flashoff factor} \times \text{units/hour}$$

A flashoff factor of 0.35 should be used for all gelcoats and 0.13 for all resins. All other materials have a flashoff factor equal to 1.00.

#### 326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 10 tons per year in Elkhart County of VOC. Pursuant to this rule, the owner/ operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

#### 326 IAC 5-1-2 (Visible Emission Limitations)

This rule requires the visible emissions from the boiler operations to meet the following:

- (a) visible emissions shall not exceed an average of 40 percent opacity in 24 consecutive readings,

- (b) visible emissions shall not exceed 60 percent opacity for more than a cumulative total of 15 minutes (60 readings) in a 6 hour period.

326 IAC 6-3-2 (Particulate Emission Limitations)

The grinding and overspray operations comply with this rule. See Emissions Calculations section for detailed calculations that confirm compliance.

326 IAC 8-1-6 (Best Available Control Technology)

Since this coating source has the potential to emit more than 25 tons per year of VOC, 326 IAC 8-1-6 is applicable. The following BACT cost analysis was prepared by the applicant:

**Capital Cost**

Option	Base Price	Direct Cost	Indirect Cost	Total
RTO	\$3,405,000	\$987,450	\$1,055,550	\$5,448,000
Catalytic Incinerator	\$4,256,250	\$1,234,300	\$1,319,450	\$6,810,000
Thermal Incinerator	\$2,979,375	\$864,025	\$923,600	\$4,767,000

**Annual Operating, Maintenance & Recovery Cost**

Option	Direct Cost	Indirect Cost	Capital Recovery Cost	Total
RTO	\$845,875	\$1,108,000	\$886,625	\$1,953,875
Catalytic Incinerator	\$1,186,350	\$1,384,150	\$1,108,300	\$2,570,500
Thermal Incinerator	\$2,244,825	\$969,925	\$775,800	\$3,214,750

**Evaluation**

Option	Potential Emissions (tons/yr)	Emissions Removed (tons/yr)	Control Efficiency (%)	\$/ton removed
RTO	249	244.0	98.0	\$8,008
Catalytic Incinerator	249	236.6	95.0	\$10,864
Thermal Incinerator	249	244.0	98.0	\$13,175

Note: 249 tons per year potential is equivalent to the limited amount of 228 tons per rolling 12-month period.

**Methodology:**

Emissions removed = (potential emissions)\*(control efficiency)

\$/ton removed = total annual cost/emissions removed

The cost breakdown is as follows:

**(a) Capital Cost**

- (1) Base price: purchase price, auxiliary equipment, instruments, controls, taxes and freight.
- (2) Direct installation cost: foundations/supports, erection/handling, electrical, piping, insulation, painting, site preparation and building/facility.
- (3) Indirect installation cost: engineering, supervision, construction/filed expenses, construction fee, start up, performance test, model study and contingencies.

**(b) Annual Cost**

- (1) Direct operating cost: operating labor (operator, supervisor), labor and material maintenance, operating materials, utilities (electricity, gas).
- (2) Indirect operating cost: overhead, property tax, insurance, administration and capital recovery cost (for 10 yrs life of the system at 10 % interest rate).

Due to the excessive costs per ton of VOC removed for the add-on controls, BACT was determined to be the as installed air-assisted airless spray applicators with a VOC limit of 228 tons per rolling 12-month period, a maximum styrene monomer content of the resins of sixty (60) percent by weight and the following workplace standards:

- (a) All resins and gelcoats will be applied with air-assisted airless spray applicators.
- (b) Spray applicators will be cleaned with acetone.
- (c) The cleanup solvent containers used to transport solvent from drums to work stations be closed containers having soft gasketed spring-loaded closures.
- (d) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.
- (e) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.
- (f) The overspray shall be minimized by spraying as close as practical into the molds.
- (g) The application equipment operators shall be instructed and trained on the methods and practices utilized to minimize the overspray emitted on the floor and into the air filters.
- (h) The parts shall be placed underneath infrared lights to decrease the gelation time as required by ambient temperature conditions.
- (i) All solvent sprayed during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
- (j) Storage containers used to store VOC and/or HAPs containing materials shall be kept covered when not in use.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

This proposed modification will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the Clean Air Act. The concentrations of these air toxics were modeled and found to be (in worst case possible) as follows: The concentrations of these air toxics were compared to the Permissible Exposure Limits (PEL) developed by the Occupational Safety and Health Administration (OSHA). The Office of Air Management (OAM) does not have at this time any specific statutory or regulatory authority over these substances.

**Air Toxic Emissions**

Pollutant	Rate (lbs/hr)	Rate @ 8,760 hrs/yr (tons/yr)	Rate @ 5579 hrs/yr (tons/yr)	Modeled Concentration (µg/m³)	OSHA PEL (µg/m³)	% OSHA PEL
Styrene	81.8	358	228	1,282	215,000	0.60
Methacrylate	9.37	41.0	26.1	147	410,000	0.036
Lead Compounds	0.028	0.122	0.078	0.497	150	0.331
MEK	3.78	16.6	10.6	59	590,000	0.01
Ethylbenzene	2.27	9.94	6.33	36	435,000	0.008
Glycol Ethers	0.045	0.195	0.124	0.7	N/A	N/A

**Conclusion**

The construction of the one (1) resin booth, one (1) gelcoat booth, grinding area and eleven (11) combustion units will be subject to the conditions of the attached proposed **Construction Permit No. CP 039-8708-00141**.

**Appendix A: Potential Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

**Company Name: Better Way Products, Inc.  
Address City IN Zip: 70891 CR 23, New Paris, IN 46996  
CP: 039-8708  
Plt ID: 039-00141  
Reviewer: Frank P. Castelli  
Date: June 19, 1997**

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Flash-off (fraction)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential tons per year	lb VOC /gal solids	Transfer Efficiency
<b>Gelcoats</b>																	
GT40006	10.18	36.72%	0.0%	36.7%	0.0%	N/A	2.66	7.50	0.35	3.74	3.74	26.10	626.43	114.32	112.58	N/A	80%
NT20643	10.83	33.00%	0.0%	33.0%	0.0%	N/A	2.66	7.50	0.35	3.57	3.57	24.95	598.91	109.30	126.81	N/A	80%
101-62339U	10.62	40.00%	0.0%	40.0%	0.0%	N/A	2.66	7.50	0.35	4.25	4.25	29.66	711.88	129.92	111.36	N/A	80%
101-62339UH	10.00	36.00%	0.0%	36.0%	0.0%	N/A	2.66	7.50	0.35	3.60	3.60	25.14	603.29	110.10	111.85	N/A	80%
101-7200	9.16	37.00%	0.0%	37.0%	0.0%	N/A	2.66	7.50	0.35	3.39	3.39	23.67	567.96	103.65	100.85	N/A	80%
132-72400F	10.08	34.00%	0.0%	34.0%	0.0%	N/A	2.66	7.50	0.35	3.43	3.43	23.93	574.33	104.82	116.27	N/A	80%
150-9908	8.75	46.00%	0.0%	46.0%	0.0%	N/A	2.66	7.50	0.35	4.03	4.03	28.10	674.51	123.10	82.58	N/A	80%
28368	10.83	33.00%	0.0%	33.0%	0.0%	N/A	2.66	7.50	0.35	3.57	3.57	24.95	598.91	109.30	126.81	N/A	80%
29650	8.83	40.00%	0.0%	40.0%	0.0%	N/A	2.66	7.50	0.35	3.53	3.53	24.66	591.89	108.02	92.59	N/A	80%
36507	9.16	40.00%	0.0%	40.0%	0.0%	N/A	2.66	7.50	0.35	3.66	3.66	25.58	614.01	112.06	96.05	N/A	80%
37262	10.38	38.58%	0.0%	38.6%	0.0%	N/A	2.66	7.50	0.35	4.00	4.00	27.96	671.09	122.47	111.42	N/A	80%
37831	10.35	38.59%	0.0%	38.6%	0.0%	N/A	2.66	7.50	0.35	3.99	3.99	27.89	669.33	122.15	111.08	N/A	80%
37981	10.05	39.41%	0.0%	39.4%	0.0%	N/A	2.66	7.50	0.35	3.96	3.96	27.66	663.73	121.13	106.42	N/A	80%
38613	10.38	38.37%	0.0%	38.4%	0.0%	N/A	2.66	7.50	0.35	3.98	3.98	27.81	667.44	121.81	111.80	N/A	80%
38780	10.17	39.47%	0.0%	39.5%	0.0%	N/A	2.66	7.50	0.35	4.01	4.01	28.03	672.68	122.76	107.58	N/A	80%
56690	9.11	47.52%	0.0%	47.5%	0.0%	N/A	2.66	7.50	0.35	4.33	4.33	30.23	725.47	132.40	83.55	N/A	80%
59000	8.94	50.73%	0.0%	50.7%	0.0%	N/A	2.66	7.50	0.35	4.54	4.54	31.67	760.02	138.70	76.98	N/A	80%
GH1-5204	10.73	35.10%	0.0%	35.1%	0.0%	N/A	2.66	7.50	0.35	3.77	3.77	26.30	631.14	115.18	121.70	N/A	80%
GT9-0004	10.28	36.30%	0.0%	36.3%	0.0%	N/A	2.66	7.50	0.35	3.73	3.73	26.06	625.35	114.13	114.44	N/A	80%
GV45042	8.05	77.60%	0.0%	77.6%	0.0%	N/A	2.66	7.50	0.35	6.25	6.25	43.62	1046.84	191.05	31.51	N/A	80%
GV53050	10.83	34.08%	0.0%	34.1%	0.0%	N/A	2.66	7.50	0.35	3.69	3.69	25.77	618.51	112.88	124.76	N/A	80%
13272334F	10.16	35.00%	0.0%	35.0%	0.0%	N/A	2.66	7.50	0.35	0.00	3.56	24.83	595.91	108.75	115.41	N/A	80%
GV45797	10.00	35.40%	0.0%	35.4%	0.0%	N/A	2.66	7.50	0.35	3.54	3.54	24.72	593.23	108.27	112.90	N/A	80%
GV03894	10.00	39.80%	0.0%	39.8%	0.0%	N/A	2.66	7.50	0.35	3.98	3.98	27.79	666.97	121.72	105.21	N/A	80%
37175	10.41	44.60%	0.0%	44.6%	0.0%	N/A	2.66	7.50	0.35	4.64	4.64	32.42	778.05	141.99	100.79	N/A	80%
37176	10.83	36.60%	0.0%	36.6%	0.0%	N/A	2.66	7.50	0.35	3.96	3.96	27.68	664.25	121.23	120.00	N/A	80%
<b>Resins</b>																	
7746935	9.00	46.30%	0.0%	46.3%	0.0%	N/A	7.11	7.50	0.13	4.17	4.17	28.89	693.28	126.52	56.44	N/A	95%
COR54183895	10.83	41.00%	0.0%	41.0%	0.0%	N/A	7.11	7.50	0.13	4.44	4.44	30.78	738.75	134.82	74.62	N/A	95%
35049	9.70	45.00%	0.0%	45.0%	0.0%	N/A	7.11	7.50	0.13	4.37	4.37	30.26	726.22	132.54	62.30	N/A	95%
35052	9.70	45.00%	0.0%	45.0%	0.0%	N/A	7.11	7.50	0.13	4.37	4.37	30.26	726.22	132.54	62.30	N/A	95%
35227	10.15	38.00%	0.0%	38.0%	0.0%	N/A	7.11	7.50	0.13	3.86	3.86	26.74	641.70	117.11	73.49	N/A	95%
22237	9.41	45.00%	0.0%	45.0%	0.0%	N/A	7.11	7.50	0.13	4.23	4.23	29.35	704.51	128.57	60.44	N/A	95%
57026T	9.00	46.20%	0.0%	46.2%	0.0%	N/A	7.11	7.50	0.13	4.16	4.16	28.82	691.78	126.25	56.55	N/A	95%
35075	9.16	35.00%	0.0%	35.0%	0.0%	N/A	7.11	7.50	0.13	3.21	3.21	22.22	533.40	97.34	69.53	N/A	95%
35076	9.16	35.00%	0.0%	35.0%	0.0%	N/A	7.11	7.50	0.13	3.21	3.21	22.22	533.40	97.34	69.53	N/A	95%
35284	9.16	60.00%	0.0%	60.0%	0.0%	N/A	7.11	7.50	0.13	5.50	5.50	38.10	914.39	166.88	42.79	N/A	95%
22437	9.41	33.50%	0.0%	33.5%	0.0%	N/A	7.11	7.50	0.13	3.15	3.15	21.85	524.47	95.72	73.08	N/A	95%
22504	9.41	44.90%	0.0%	44.9%	0.0%	N/A	7.11	7.50	0.13	4.23	4.23	29.29	702.95	128.29	60.55	N/A	95%
<b>Cleaner</b>																	
Superclean 179-T	8.90	100.00%	95.0%	5.0%	0.0%	N/A	0.10	1.00	1.00	0.45	0.45	0.045	1.068	0.195	0.000	N/A	100%

**State Potential Emissions**

<b>Worst Case GELCOAT</b>	43.62	1046.84	191.05	126.81
<b>Worst Case RESIN</b>	38.10	914.39	166.88	74.62
<b>Cleaner</b>	0.045	1.068	0.195	0.000
<b>Total</b>	<b>81.8</b>	<b>1962</b>	<b>358</b>	<b>201</b>

										Control Efficiency		Controlled	Controlled	Controlled	Controlled
										VOC	PM	VOC pounds per hour	VOC pounds per day	VOC tons/yr	Particulate tons/yr
										<b>0</b>	<b>0.95</b>				
<b>Controlled Emissions due to Surface Coating Operations and Controls</b>										<b>Worst Case Totals:</b>		<b>81.8</b>	<b>1962</b>	<b>358</b>	<b>10.1</b>

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
 Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* Flash-off  
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day) \* Flash-off  
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs) \* Flash-off  
 Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1 - Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids) \* Flash-off  
 Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations  
Natural Gas Combustion Only  
MM Btu/hr < 0.3  
Residential Furnaces**

**Company Name: Better Way Products, Inc.  
Address City IN Zip: 70891 CR 23, New Paris, IN 46996  
CP: 039-8708  
Plt ID: 039-00141  
Reviewer: Frank P. Castelli  
Date: June 19, 1997**

Four space heaters rated at 0.15 MMBtu/hr each  
Two office heaters rated at 0.10 MMBtu/hr each  
Four infrared heaters rated at 0.125 MMBtu/hr each

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.30	11.4

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	11.2	11.2	0.6	94.0	7.3	40.0
Potential Emission in tons/yr	0.064	0.064	0.003	0.535	0.042	0.228

**Methodology**

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 94

Emission Factors for CO: uncontrolled = 40

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.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations  
 Natural Gas Combustion Only  
 MM Btu/hr 0.3 - < 10  
 Commercial Boiler**

**Company Name: Better Way Products, Inc.**  
**Address City IN Zip: 70891 CR 23, New Paris, IN 46996**  
**CP: 039-8708**  
**Plt ID: 039-00141**  
**Reviewer: Frank P. Castelli**  
**Date: June 19, 1997**

One Air Make-up Unit  
 Heat Input Capacity  
 MMBtu/hr

Potential Throughput  
 MMCF/yr

4.1

35.9

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	12.0	12.0	0.6	100.0	5.3	21.0
Potential Emission in tons/yr	0.215	0.215	0.011	1.796	0.095	0.377

**Methodology**

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low NOx Burner = 17, Flue gas recirculation = 36

Emission Factors for CO: uncontrolled = 21, Low NOx Burner = 27, Flue gas recirculation = ND

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 #1-03-006-03

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAP Emission Calculations

Company Name: Better Way Products, Inc.  
 Plant Location: 70891 CR 23, New Paris, IN 46996  
 County: Elkhart  
 Permit Reviewer: Frank P. Castelli  
 Date: June 19, 1997

CP#: 039-8708  
 Pit ID#: 039-00141

Material	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Flash-off (fraction)	Weight % Methyl methacrylate	Weight % Styrene	Weight % Lead Compounds	Weight % MEK	Weight % Ethyl benzene	Weight % Glycol Ethers	Methyl methacrylate Emissions (tons/yr)	Styrene Emissions (tons/yr)	Lead Compounds * Emissions (tons/yr)	MEK Emissions (tons/yr)	Ethyl benzene Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)
<b>Gelcoats</b>																
GT40006	10.18	2.66	7.50	0.35	4.00%	32.72%	2.66%	0.00%	0.00%	0.00%	12.45	101.87	0.083	0.00	0.00	0.00
NT20643	10.83	2.66	7.50	0.35	0.00%	33.00%	0.00%	0.00%	0.00%	0.00%	0.00	109.30	0.00	0.00	0.00	0.00
101-62339U	10.62	2.66	7.50	0.35	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	0.00	129.92	0.00	0.00	0.00	0.00
101-62339UH	10.00	2.66	7.50	0.35	5.00%	31.00%	0.00%	0.00%	0.00%	0.00%	15.29	94.81	0.00	0.00	0.00	0.00
101-7200	9.16	2.66	7.50	0.35	0.00%	37.00%	0.00%	0.00%	0.00%	0.00%	0.00	103.65	0.00	0.00	0.00	0.00
132-72400F	10.08	2.66	7.50	0.35	0.00%	34.00%	0.00%	0.00%	0.00%	0.00%	0.00	104.82	0.00	0.00	0.00	0.00
150-9908	8.75	2.66	7.50	0.35	2.00%	44.00%	0.00%	0.00%	0.00%	0.00%	5.35	117.75	0.00	0.00	0.00	0.00
28368	10.83	2.66	7.50	0.35	0.00%	25.00%	0.00%	5.00%	3.00%	0.00%	0.00	82.80	0.00	16.56	9.94	0.00
29650	8.83	2.66	7.50	0.35	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	0.00	108.02	0.00	0.00	0.00	0.00
36507	9.16	2.66	7.50	0.35	4.00%	36.00%	0.00%	0.00%	0.00%	0.00%	11.21	100.85	0.00	0.00	0.00	0.00
37262	10.38	2.66	7.50	0.35	4.60%	33.66%	0.00%	0.00%	0.00%	0.00%	14.60	106.86	0.00	0.00	0.00	0.00
37831	10.35	2.66	7.50	0.35	4.60%	33.62%	0.00%	0.00%	0.00%	0.00%	14.56	106.42	0.00	0.00	0.00	0.00
37981	10.05	2.66	7.50	0.35	4.51%	34.34%	0.00%	0.00%	0.00%	0.00%	13.86	105.55	0.00	0.00	0.00	0.00
38613	10.38	2.66	7.50	0.35	4.68%	33.69%	0.00%	0.00%	0.00%	0.00%	14.86	106.95	0.00	0.00	0.00	0.00
38780	10.17	2.66	7.50	0.35	4.50%	34.62%	0.00%	0.00%	0.00%	0.00%	14.00	107.68	0.00	0.00	0.00	0.00
56690	9.11	2.66	7.50	0.35	0.00%	47.52%	0.00%	0.00%	0.00%	0.00%	0.00	132.40	0.00	0.00	0.00	0.00
59000	8.94	2.66	7.50	0.35	15.00%	35.73%	0.00%	0.00%	0.00%	0.00%	41.01	97.69	0.00	0.00	0.00	0.00
GH1-5204	10.73	2.66	7.50	0.35	4.00%	31.08%	0.00%	0.00%	0.00%	0.00%	13.13	101.99	0.00	0.00	0.00	0.00
G19-0004	10.28	2.66	7.50	0.35	4.00%	32.28%	2.00%	0.00%	0.00%	0.00%	12.58	101.49	0.063	0.00	0.00	0.00
GV45042	8.05	2.66	7.50	0.35	0.00%	77.60%	0.00%	0.00%	0.00%	0.00%	0.00	191.05	0.00	0.00	0.00	0.00
GV53050	10.83	2.66	7.50	0.35	0.00%	34.08%	0.00%	0.00%	0.00%	0.00%	0.00	112.88	0.00	0.00	0.00	0.00
13272334F	10.16	2.66	7.50	0.35	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00	108.75	0.00	0.00	0.00	0.00
GV45797	10.00	2.66	7.50	0.35	2.30%	33.10%	0.00%	0.00%	0.00%	0.00%	7.03	101.23	0.00	0.00	0.00	0.00
GV03894	10.00	2.66	7.50	0.35	3.00%	36.80%	4.00%	0.00%	0.00%	0.00%	9.18	112.55	0.122	0.00	0.00	0.00
37175	10.41	2.66	7.50	0.35	4.94%	39.61%	0.00%	0.00%	0.00%	0.00%	15.73	126.11	0.00	0.00	0.00	0.00
37176	10.83	2.66	7.50	0.35	4.39%	32.24%	0.00%	0.00%	0.00%	0.00%	14.54	106.78	0.00	0.00	0.00	0.00
<b>Resins</b>																
7746935	9.00	7.11	7.50	0.13	0.00%	46.30%	0.00%	0.00%	0.00%	0.00%	0.00	126.52	0.00	0.00	0.00	0.00
COR54183895	10.83	7.11	7.50	0.13	0.00%	41.00%	0.00%	0.00%	0.00%	0.00%	0.00	134.82	0.00	0.00	0.00	0.00
35049	9.70	7.11	7.50	0.13	0.00%	45.00%	0.00%	0.00%	0.00%	0.00%	0.00	132.54	0.00	0.00	0.00	0.00
35052	9.70	7.11	7.50	0.13	0.00%	45.00%	0.00%	0.00%	0.00%	0.00%	0.00	132.54	0.00	0.00	0.00	0.00
35227	10.15	7.11	7.50	0.13	0.00%	38.00%	0.00%	0.00%	0.00%	0.00%	0.00	117.11	0.00	0.00	0.00	0.00
22237	9.41	7.11	7.50	0.13	0.00%	45.00%	0.00%	0.00%	0.00%	0.00%	0.00	128.57	0.00	0.00	0.00	0.00
57026T	9.00	7.11	7.50	0.13	0.00%	46.20%	0.00%	0.00%	0.00%	0.00%	0.00	126.25	0.00	0.00	0.00	0.00
35075	9.16	7.11	7.50	0.13	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00	97.34	0.00	0.00	0.00	0.00
35076	9.16	7.11	7.50	0.13	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00	97.34	0.00	0.00	0.00	0.00
35284	9.16	7.11	7.50	0.13	0.00%	60.00%	0.00%	0.00%	0.00%	0.00%	0.00	166.88	0.00	0.00	0.00	0.00
22437	9.41	7.11	7.50	0.13	0.00%	33.50%	0.00%	0.00%	0.00%	0.00%	0.00	95.72	0.00	0.00	0.00	0.00
22504	9.41	7.11	7.50	0.13	0.00%	44.90%	0.00%	0.00%	0.00%	0.00%	0.00	128.29	0.00	0.00	0.00	0.00
<b>Cleaner</b>																
Superclean 179-T	8.90	0.10	1.00	1.00	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00	0.00	0.000	0.00	0.00	0.19
<b>Worst-case Gelcoat:</b>											<b>41.01</b>	<b>191.0</b>	<b>0.122</b>	<b>16.56</b>	<b>9.94</b>	<b>0.00</b>
<b>Worst-case Resin:</b>											<b>0.00</b>	<b>166.9</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Cleaner:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.19</b>

\*Note: Lead particulate emissions after transfer efficiency and control

Total State Potential Emissions

<b>TOTALS:</b>	<b>(tons/yr):</b>	<b>41.0</b>	<b>358</b>	<b>0.122</b>	<b>16.6</b>	<b>9.94</b>	<b>0.195</b>
	<b>(lb/hr):</b>	<b>9.37</b>	<b>81.8</b>	<b>0.028</b>	<b>3.78</b>	<b>2.27</b>	<b>0.045</b>
	<b>(g/sec):</b>	<b>1.18</b>	<b>10.3</b>	<b>0.004</b>	<b>0.477</b>	<b>0.286</b>	<b>0.006</b>

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for New Construction and Operation

Source Name: Better Way Products, Inc.  
Source Location: 70891 CR 23, New Paris, Indiana 46996  
County: Elkhart  
Construction Permit No.: CP 039-8708-00141  
SIC Code: 3089  
Permit Reviewer: Frank P. Castelli

On October 24, 1997, the Office of Air Management (OAM) had a notice published in the Truth Publishing, Elkhart, Indiana, stating that Better Way Products, Inc. had applied for a construction permit to construct and operate a fiberglass products manufacturing facility with cartridge dust collectors for particulate control. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On November 18, 1997, Bill Strange of DECA on behalf of Better Way Products, Inc., submitted comments on the proposed construction permit. The comments and corresponding responses are as follows:

#### **COMMENT 1:**

##### **Operation Condition 13 - Visible Emissions Notations**

This condition is redundant, it should be removed in its entirety.

Condition 10 limits visible emissions to 40% opacity. At the same time, Condition 12 requires that the control equipment be in operation at all times the grinding process is in operation. Together, conditions 10 & 12 assure compliance with the calculated 326 IAC 6-3-2 PM emission limit stated in Condition 11. Therefore, the inclusion of Condition 13 which requires visible emission notations is redundant and unnecessary to assure compliance.

#### **RESPONSE 1:**

Condition 10 limits visible emissions to an opacity of 40% as specified in 326 IAC 5-1-2 for facilities or the source. A given facility can have "abnormal" visible emissions and still comply with the rule. Thus Condition 13, which appears to be redundant, is necessary because daily observations of visible emissions provide routine checking of those controls that may at times result in abnormal emissions, if malfunctioning. Condition 13 also specifies that a Preventative Maintenance Plan shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed. Operation Condition 12 requires quarterly inspections of the dust collectors which does not provide the routine assurance of normal daily visible emissions from the facilities. Therefore, Condition 13 cannot be removed from the Permit.

**COMMENT 2:**

**Operation Condition 16 - BACT/MACT Condition**

Sections (iii), (iv), (v), (ix), and (x) all refer to solvent usage or solvent containers. We believe that these conditions should be rephrased to "solvents other than acetone."

As stated in the application acetone is utilized as the clean up solvent. As acetone is not a volatile organic compound and is not a hazardous air pollutant it is not subject to regulation.

**RESPONSE 2:**

The recommendation has been implemented by adding the words "other than acetone" after the word "solvent" in Operation Condition 16. Section (x) specifically refers to storage containers used to store VOCs and/or HAPs. Since acetone is neither a VOC nor a HAP, the wording does not have to be revised. Thus, only Sections (iii), (iv), (v) and (ix) renumbered as (viii) have been updated as follows (changes are in bold for emphasis):

- (iii) The cleanup solvent containers used to transport solvent **other than acetone** from drums to work stations be closed containers having soft gasketed spring-loaded closures.
- (iv) Cleanup rags saturated with solvent **other than acetone** shall be stored, transported, and disposed of in containers that are closed tightly.
- (v) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent **other than acetone** into the air.
- (viii) All solvent **other than acetone** sprayed during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

**COMMENT 3:**

**Operation Condition 16 - BACT/MACT Condition**

Section (viii) - remove in it's entirety.

The building will be heated with space heaters so the ambient temperature will be constant.

**RESPONSE 3:**

The suggestion has been accepted and Section (viii) has been deleted.

**COMMENT 4:**

**Page 6 of the Technical Support Document**

“This rule requires the visible emissions from the boiler operations to meet the following:” Change to “This rule requires that the visible emissions from this source to meet the following:”

There are no boilers installed at this source therefore visible emissions from boiler operations cannot be regulated.

**RESPONSE 4:**

The word boiler should have been “source” in the Technical Support Document. The permit does not need to be revised.