



Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

June 12, 2003

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

TO: Interested Parties / Applicant

RE: **Lear Corporation**

MSOP 133-16493-00018

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

Notice of Decision: Approval - Effective Immediately

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 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require 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, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen 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 consideration 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.

Enclosure

FNPER.wpd 8/21/02



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MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**Lear Corporation, Shenandoah Division
500 North Fillmore Road
Greencastle, Indiana 46135**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 133-16493-00018	
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 12, 2003 Expiration Date: June 12, 2008

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary injection molded plastic parts manufacturing source for use in automobile interiors.

Authorized Individual: General Manager
Source Address: 500 North Fillmore Road, Greencastle, Indiana 46135
Mailing Address: P.O. Box 491, Greencastle, Indiana 46135
General Source Phone: 765-653-2511
SIC Code: 3089
County Location: Putnam
Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD Rules;
Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) Two (2) bolster wraps, identified as Bolster Wrap 10A and 10B, exhausting to Stacks 10A and 10B, capacity: 130 plastic and fabric parts per hour each.
- (b) Two (2) bolster wraps, identified as Bolster Wrap 11 and 12, exhausting to Stacks 11 and 12, capacity: 130 plastic and fabric parts per hour each.
- (c) One (1) paint at press booth, identified as PAP₁, equipped with high volume low pressure (HVLP) spray guns and dry filters to control particulate overspray, exhausting to Stack 13, capacity: 130 plastic automotive parts per hour.
- (d) Two (2) glue booths and two (2) bolster wraps, identified as Glue Booths 7A and 8A and Bolster Wraps 7B and 8B, equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 7 and 8, capacity: 288 plastic automotive parts per hour total.
- (e) Three (3) paint at press booths with built-in infrared electric ovens, identified as PAP₂, PAP₃, and PAP₄, equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 14, 15, and 16, respectively, capacity: 130 automotive plastic parts per hour each.
- (f) Two (2) glue booths, identified as Glue Booths 17 and 18, equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 17 and 18, capacity: 130 automotive plastic parts per hour.
- (g) One (1) natural gas-fired comfort heat furnace, constructed after 1983, heat input capacity: 0.745 million British thermal units per hour.

- (h) Fifteen (15) natural gas-fired space heaters consisting of the following:
 - (1) Three (3) space heaters, heat input capacity: 0.060 million British thermal units per hour each,
 - (2) Two (2) space heaters, heat input capacity: 0.105 million British thermal units per hour each,
 - (3) Three (3) space heaters, heat input capacity: 0.200 million British thermal units per hour each, and
 - (4) Seven (7) space heaters, heat input capacity: 0.400 million British thermal units per hour each.
- (i) One (1) touch-up paint booth, identified as Paint 1, equipped with air atomized spray guns and dry filters to control particulate overspray, capacity: 0.100 gallons of coating per hour
- (j) One (1) mask washer in the paint room, using solvents that do not contain VOC.
- (k) One (1) printing ink labeling operation, capacity: 3.79 liters of printing ink per day.
- (l) Eight (8) thermoplastic storage silos.
- (m) Sixty-two (62) injection molding machines.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate 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.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating 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).

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

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

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if

received by IDEM, OAQ, on or before the date it is due.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, when applicable) U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.11 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52, Subpart P] [326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52, Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to 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 this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this 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 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.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements

C.6 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.10 Compliance Response Plan - Preparation and Implementation

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ, upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

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 Quality (OAQ) 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 OAQ, 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]

C.13 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

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

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Entire Source

- (a) Two (2) bolster wraps, identified as Bolster Wrap 10A and 10B, exhausting to Stacks 10A and 10B, capacity: 130 plastic and fabric parts per hour each.
- (b) Two (2) bolster wraps, identified as Bolster Wrap 11 and 12, exhausting to Stacks 11 and 12, capacity: 130 plastic and fabric parts per hour each.
- (c) One (1) paint at press booth, identified as PAP₁, equipped with high volume low pressure (HVLP) spray guns and dry filters to control particulate overspray, exhausting to Stack 13, capacity: 130 plastic automotive parts per hour.
- (d) Two (2) glue booths and two (2) bolster wraps, identified as Glue Booths 7A and 8A and Bolster Wraps 7B and 8B, equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 7 and 8, capacity: 288 plastic automotive parts per hour total.
- (e) Three (3) paint at press booths with built-in infrared electric ovens, identified as PAP₂, PAP₃, and PAP₄, equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 14, 15, and 16, respectively, capacity: 130 automotive plastic parts per hour each.
- (f) Two (2) glue booths, identified as Glue Booths 17 and 18, equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 17 and 18, capacity: 130 automotive plastic parts per hour.
- (g) One (1) natural gas-fired comfort heat furnace, constructed after 1983, heat input capacity: 0.745 million British thermal units per hour.
- (h) Fifteen (15) natural gas-fired space heaters consisting of the following:
 - (1) Three (3) space heaters, heat input capacity: 0.060 million British thermal units per hour each,
 - (2) Two (2) space heaters, heat input capacity: 0.105 million British thermal units per hour each,
 - (3) Three (3) space heaters, heat input capacity: 0.200 million British thermal units per hour each, and
 - (4) Seven (7) space heaters, heat input capacity: 0.400 million British thermal units per hour each.
- (i) One (1) touch-up paint booth, identified as Paint 1, equipped with air atomized spray guns and dry filters to control particulate overspray, capacity: 0.100 gallons of coating per hour
- (j) One (1) mask washer in the paint room, using solvents that do not contain VOC.
- (k) One (1) printing ink labeling operation, capacity: 3.79 liters of printing ink per day.
- (l) Eight (8) thermoplastic storage silos
- (m) Sixty-one (61) injection molding machines.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate Matter (PM) [40 CFR 52, Subpart P]

Pursuant to AA 133-11897-00018, issued on February 14, 2002 and 40 CFR 52 Subpart P, the particulate matter (PM) from the four (4) bolster wraps (10A, 10B, 11, and 12), the two (2) glue booths and two (2) bolster wraps (7A, 7B, 8A and 8B), the two (2) glue booths (17 and 18), the four (4) paint at press booths (PAP₁, PAP₂, PAP₃, and PAP₄), and the one (1) touch-up booth (Paint 1) shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.2 Particulate [326 IAC 6-3-2(d)]

Pursuant to AA 133-11897-00018, issued on February 14, 2002 and 326 IAC 6-3-2(d), particulate from the surface coating shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the four (4) bolster wraps (10A, 10B, 11, and 12), the two (2) glue booths and two (2) bolster wraps (7A, 7B, 8A and 8B), the two (2) glue booths (17 and 18), the four (4) paint at press booths (PAP₁, PAP₂, PAP₃, and PAP₄), and the one (1) touch-up booth (Paint 1), and their respective control devices.

Compliance Determination Requirements

There are no specific Compliance Determination Requirements applicable to these emission units.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the four (4) bolster wrap stacks (10A, 10B, 11, and 12), the two (2) glue booths and two (2) bolster wrap stacks (7 and 8), the two (2) glue booths stacks (17 and 18), the four (4) paint at press booth stacks (13, 14, 15, and 16) and the one (1) touch-up booth while one or more of the surface coating processes are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stacks (7, 8, and 10A, 10B and 11 through 18) and the presence of overspray on the rooftops and the nearby

ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.

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

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
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 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES ?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. 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: _____ PHONE NO. : _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ 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: _____

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. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

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.

* **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:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Lear Corporation, Shenandoah Division
Address:	500 North Fillmore Road
City:	Greencastle, Indiana 46135
Phone #:	765-653-2511
MSOP #:	MSOP 133-16493-00018

I hereby certify that Lear Corporation, Shenandoah Division is still in operation.
 no longer in operation.

I hereby certify that Lear Corporation, Shenandoah Division is in compliance with the requirements of MSOP **133-16493-00018**.
 not in compliance with the requirements of MSOP **133-16493-00018**.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name:	Lear Corporation, Shenandoah Division
Source Location:	500 North Fillmore Road, Greencastle, Indiana 46135
County:	Putnam
SIC Code:	3089
Operation Permit No.:	MSOP 133-16493-00018
Permit Reviewer:	Michael S. Schaffer

The Office of Air Quality (OAQ) has reviewed an application from Lear Corporation, Shenandoah Division relating to the operation of an injection molded plastic parts manufacturing source for use in automobile interiors.

History

Lear Corporation, Shenandoah Division was issued a Part 70 Operating Permit (T 133-5053-00018) on May 16, 1998 for the operation of two (2) paint application lines, fourteen (14) glue booths, two (2) bolster wrap machines, one (1) paint at press booth, and the storage, handling, and processing of plastic resins that produced fugitive emissions. Subsequently, Lear Corporation, Shenandoah Division was issued CP 133-9756-00018 on December 9, 1998, for the construction and operation of four (4) paint at press booths and five (5) glue booths and two (2) bolster wrap machines. Lear Corporation, Shenandoah Division was then issued MSM 133-11168-00018, on August 10, 1999 which granted approval to construct two (2) sliding door glue booths and bolster wrap machines. Additionally, Lear Corporation, Shenandoah Division was issued MSM 133-11325-00018 and AA 133-11640-00018 on February 17, 2000, for the construction and operation of two (2) front door glue/bolster wrap booths. Shortly after that, Lear Corporation, Shenandoah Division was issued SPM 133-11265-00018 and MPM 133-11604-00018, on February 21, 2000 to relax monitoring requirements for visible emissions notations and to incorporate the constructed equipment from MSM 133-11168-00018, issued on August 10, 1999 into the existing Part 70. Finally, on February 14, 2002, Lear Corporation, Shenandoah Division was issued AA 133-11897-00018 to remove one (1) paint line, two (2) sliding door glue and bolster wrap booths, and incorporate equipment from CP 133-9756-00018, issued on December 9, 1998.

As part of their operating permit renewal application, received by IDEM, OAQ, on August 20, 2002, Lear Corporation, Shenandoah Division has requested to change their operating permit status from a Part 70 Operating Permit to a Minor Source Operation Permit (MSOP). This request is the result of the source deciding to remove one (1) paint line and two (2) glue/bolster wrap booths, add two (2) glue booths, and change the types of coatings delivered to the applicators in their glue, bolster wrap, and paint at press facilities. These changes to the source result in an unrestricted potential to emit of VOC from the entire source of less than one (100) tons per year which is less than the Part 70 and FESOP thresholds. Furthermore, the unrestricted potential to emit of PM₁₀, NO_x, CO, and SO₂, from the entire source will remain at less one hundred (100) tons per year each, the potential to emit any single HAP from the entire source is less than ten (10) tons per year and the potential to emit any combination of HAPs is less than twenty-five (25) tons per year, which is also below Part 70 and FESOP thresholds. As a result, IDEM OAQ will agree that Lear Corporation, Shenandoah Division's request to change to a Minor Source Operating Permit (MSOP) is appropriate.

Permitted Emission Units and Pollution Control Equipment

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

- (a) Four (4) bolster wraps, identified as Bolster Wrap 10A, 10B, 11, and 12, exhausting to Stacks 10A, 10B, 11, and 12, capacity: 130 plastic and fabric parts per hour each.
- (b) One (1) paint at press booth, identified as PAP₁ (formerly identified as PPB₁ in Condition A.2 of AA 133-11897-00018, issued on February 14, 2002), equipped with high volume low pressure (HVLP) spray guns and dry filters to control particulate overspray, exhausting to Stack 13, capacity: 130 plastic automotive parts per hour.
- (c) Two (2) glue booths and two (2) bolster wraps, identified as Glue Booths 7A and 8A and Bolster Wraps 7B and 8B, equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 7 and 8, capacity: 288 plastic automotive parts per hour total.
- (d) Three (3) paint at press booths with built-in infrared electric ovens, identified as PAP₂, PAP₃, and PAP₄ (formerly identified as PB₂, PB₃, and PB₄ in Condition A.2 of AA 133-11897-00018, issued on February 14, 2002), equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 14, 15, and 16, respectively, capacity: 130 automotive plastic parts per hour each.

The source also consists of the following emission units that were considered insignificant activities in previous approvals:

- (e) One (1) natural gas-fired comfort heat furnace, constructed after 1983, heat input capacity: 0.745 million British thermal units per hour.
- (f) Fifteen (15) natural gas-fired space heaters consisting of the following:
 - (1) Three (3) space heaters, heat input capacity: 0.060 million British thermal units per hour each,
 - (2) Two (2) space heaters, heat input capacity: 0.105 million British thermal units per hour each,
 - (3) Three (3) space heaters, heat input capacity: 0.200 million British thermal units per hour each, and
 - (4) Seven (7) space heaters, heat input capacity: 0.400 million British thermal units per hour each.
- (g) One (1) touch-up paint booth, identified as Paint 1, equipped with air atomized spray guns and dry filters to control particulate overspray, capacity: 0.100 gallons of coating per hour
- (h) One (1) printing ink labeling operation, capacity: 3.79 liters of printing ink per day.
- (i) Eight (8) thermoplastic storage silos
- (j) Sixty-one (61) injection molding machines.

Unpermitted Emission Units and Pollution Control Equipment

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

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following equipment:

- (k) Two (2) glue booths, identified as Glue Booths 17 and 18, equipped with air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks 17 and 18, capacity: 130 automotive plastic parts per hour.

Emission Units and Pollution Control Equipment Removed

The following facilities will no longer operate and/or have not been included in this proposed permit:

- (a) One paint application line, identified as Paint Line 1, consisting of two (2) paint booths, 1 and 2, and one (1) curing oven, with a maximum capacity of 420 plastic parts per hour, with particulate matter overspray from each booth controlled by water curtain, and exhausting to Stacks 1, 2, and 5.
- (b) Two (2) front door bolster/glue booths, identified as Bolster/Glue Booths 23 and 24, equipped with air atomization spray applicators; dry filters for overspray control exhausting to Stacks 23 and 24; and infrared curing ovens. The maximum capacity of each of the bolster/glue booths is 15 interior automotive plastic parts per hour.
- (c) Two (2) natural gas-fired boilers, rated at 0.78 million British thermal units per hour and 1.092 million British thermal units per hour.
- (d) Touch-up paint booth 2 and mask washer in paint room.

Existing Approvals

The source has been operating under the following previous approvals:

- (a) T 133-5053-00018, issued on May 16, 1998;
- (b) CP 133-9756-00018, issued on December 9, 1998;
- (c) AA 133-11640-00018, issued on February 17, 2000;
- (d) SPM 133-11265-00018, issued on February 21, 2000;
- (e) MPM 133-11604-00018, issued on February 21, 2000; and
- (f) AA 133-11897-00018, issued on February 14, 2002.

All terms and conditions from previous approvals issued pursuant to the permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous approvals are superseded by this permit.

The following terms and conditions from previous approvals have been determined to be no longer applicable, and, therefore, are not incorporated into this permit:

AA 133-11897-00018, issued on February 14, 2002,

- (a) Section D.1 All Conditions - Paint line 1

Reason not incorporated: Paint Line 1 has been removed from service at this source.

- (b) Condition D.2.1 - Pursuant to CP 133-2380, issued on April 21, 1992, the VOC content of the glue supplied to the applicators of Bolster Wraps 11 and 12 shall not exceed a combined total of 2.0 tons per month. Compliance with this limit will make 326 IAC 8-1-6 (BACT) and 326 IAC 2-2 (PSD) not applicable to these booths.

Reason not incorporated: Due to changes in the glue and/or bolster wrap VOC delivered to the applicators and/or the gallons of glue and/or bolster wrap delivered to the applicators per unit coated, the potential to emit VOC from the glue and bolster wraps booths at this source is less than a combined total of twenty-five (25) tons per year. Therefore, a limit of twenty-five (25) tons of VOC for Bolster Wraps 11 and 12 is no longer necessary to render the requirements of 326 IAC 8-1-6 not applicable. However, any change or modification that increases the total potential to emit VOC from the six (6) bolster wraps and four (4) glue booths to greater than twenty-five (25) tons per year may render the requirements of 326 IAC 8-1-6 applicable and will require prior IDEM OAQ approval. Record keeping will be required to document compliance with this requirement.

- (c) Condition D.2.9 - A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the report forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

Reason not incorporated: The limit in Condition D.2.1 will not be incorporated in this MSOP, thus, the quarterly reporting for this limitation is no longer necessary.

- (d) Condition D.3.1(a) - Pursuant to CP 133-8746-00018, issued on September 11, 1997, the VOC content of the glue supplied to the applicators of Glue Booths 7A and 8A and Bolster Wraps 7B and 8B shall not exceed a combined total of 2.0 tons per month. Compliance with this limit will make the requirements of 326 IAC 8-1-6 not applicable.

Reason not incorporated: Due to changes in the glue and/or bolster wrap VOC delivered to the applicators and/or the gallons of glue and/or bolster wrap delivered to the applicators per unit coated, the potential to emit VOC from the glue and bolster wraps booths at this source is less than a combined total of twenty-five (25) tons per year. Therefore, a limit of twenty-five (25) tons of VOC for Glue Booths 7A and 8A and Bolster Wraps 7B and 8B is no longer necessary to render the requirements of 326 IAC 8-1-6 not applicable. However, any change or modification that increases the total potential to emit VOC from the six (6) bolster wraps and four (4) glue booths to greater than twenty-five (25) tons per year may render the requirements of 326 IAC 8-1-6 applicable and will require prior IDEM OAQ approval. Record keeping will be required to document compliance with this requirement.

- (e) Condition D.3.1(b) - Pursuant to CP 133-8476-00018, issued on September 11, 1997, the VOC content delivered to the applicators of the paint at press booth (PPB₁ (now PAP₁)) shall not exceed 2.0 tons per month. Compliance with this limit will make 326 IAC 8-1-6 (BACT) not applicable to these facilities.

Reason not incorporated: Due to changes in the coatings delivered to the applicators and/or in the gallons of coating delivered to the applicators per unit coated the potential to emit VOC from the paint at press booths at this source is less than a combined total of twenty-five (25) tons per year. Therefore, a limit of twenty-five (25) tons of VOC for PAP₁ is no longer necessary to render the requirements of 326 IAC 8-1-6 not applicable. However, any change

or modification that increases the potential to emit VOC from the four (4) paint at press booths to greater than twenty-five (25) tons per year may render the requirements of 326 IAC 8-1-6 applicable and will require prior IDEM OAQ approval. Record keeping will be required to document compliance with this requirement.

- (f) Condition D.3.2 - The VOC content delivered to the applicator of Glue Booths 7A and 8A, Bolster Wraps 7B and 8B and the paint at press booth (PPB₁ (now PAP₁)), shall be such that VOC emissions from these combined facilities shall not exceed 3.25 tons per month. Compliance with these limits makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

Reason not incorporated: Due to the removal of equipment at this source and changes in coating delivered to the applicators and/or gallons of coating delivered to the applicators per unit coated at this source, the potential to emit of the entire source is less than two hundred fifty (250) tons per year. Therefore, a PSD minor limit for Glue Booths 7A and 8A, Bolster Wraps 7B and 8B, and PB₁ is no longer necessary to render the requirements of 326 IAC 2-2 not applicable.

- (g) Condition D.3.10 - A quarterly summary of the information to document compliance with Condition D.3.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

Reason not incorporated: The limit in Condition D.3.2 will not be incorporated in this MSOP, thus, the quarterly reporting for this limitation is no longer necessary.

- (h) Condition D.5.1 - Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions from the 0.78 MMBtu per hour boiler, the 1.092 MMBtu hour boiler, and the 0.745 MMBtu per hour boiler shall be limited to 0.6 pounds per MMBtu heat input.

Reason not incorporated: The two (2) boilers rated at 0.78 million British thermal units per hour and 1.092 British thermal units per hour, respectively, have been removed from service at this source. Furthermore, the comfort heat furnace is not considered a source of indirect heating, thus, the requirements of 326 IAC 6-2-4 is not applicable this facility.

- (i) Condition D.6.1 - Pursuant to CP 133-2333, issued on January 28, 1992, the insignificant touch-up booth 1 and the mask washer in the paint room have been limited to combined VOC emissions less than twenty-four (24) tons per year to retain a registered status and so that 326 IAC 8-1-6 does not apply. Any change or modification that would cause an increase in potential emissions above 25 tons per year shall require prior approval by OAQ.

Reason not incorporated: Due to the removal of the mask washer in the paint room and changes in the coatings delivered to the applicators and/or the gallons of coating delivered to the applicators per unit coated, the potential to emit VOC from the touch-up booth 1 is less than twenty-five (25) tons per year. Therefore, a limit of twenty-five (25) tons of VOC for Touch-up Booth 1 is no longer necessary to render the requirements of 326 IAC 8-1-6 not applicable. However, any change or modification that increases the potential to emit of touch-up paint booth (Paint 1) to greater than twenty-five (25) tons per year may render the requirements of 326 IAC 8-1-6 applicable and will require prior IDEM OAQ approval. Record keeping will be required to comply with this requirement. In addition, Touch-up Booth 1 is no longer required to maintain a registered status because the entire source wishes to operate at an MSOP status.

- (j) Section D.7 All Conditions - Two (2) front door bolster/glue booths (Bolster Glue Booths 23 and 24)

Reason not incorporated: The two (2) front door bolster/glue booths, identified as Bolster/ Glue Booths 23 and 24, have been removed from service at this source.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
Stack 7	Glue Booths and Bolster Wraps	40.0	1.50	4,000	Ambient
Stack 8	Glue Booths and Bolster Wraps	40.0	1.50	4,000	Ambient
Stacks 10A&B	Bolster Wraps	40.0	1.50	4,000	Ambient
Stack 11	Bolster Wraps	40.0	1.50	4,000	Ambient
Stack 12	Bolster Wraps	40.0	1.50	4,000	Ambient
Stack 13	Paint at Press Booth	40.0	1.50	4,000	Ambient
Stack 14	Paint at Press Booth	40.0	1.50	4,000	Ambient
Stack 15	Paint at Press Booth	40.0	1.50	4,000	Ambient
Stack16	Paint at Press Booth	40.0	1.50	4,000	Ambient
Stack17	Glue Booth	40.0	1.50	4,000	Ambient
Stack 18	Glue Booth	40.0	1.50	4,000	Ambient

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the 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.

An application for the purposes of this review was received on August 20, 2002, with additional information received on October 2, 2002 as well as March 28 and 31, 2003.

Emission Calculations

See Pages 1 through 8 of 8 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

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.®

Pollutant	Potential To Emit (tons/year)
PM	22.7
PM ₁₀	22.8
SO ₂	0.012
VOC	35.6
CO	1.99
NO _x	1.67

HAPs	Potential To Emit (tons/year)
Hexane	3.81
MEK	2.49
Methanol	0.261
Toluene	3.13
Glycol Ethers	4.35
Ethylbenzene	0.014
MIBK	0.526
Xylene	0.066
Benzene	0.00004
Dichlorobenzene	0.00002
Formaldehyde	0.001
Lead	0.00001
Cadmium	0.00002

HAPs	Potential To Emit (tons/year)
Chromium	0.00003
Manganese	0.00001
Nickel	0.00004
TOTAL	14.6

The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	-
PM ₁₀	-
SO ₂	-
VOC	23.0
CO	-
NO _x	-
HAP	-

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the emission units.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Glue Booths and Bolster Wraps (7A&B, 8A&B, 10A&B, 11, 12, 17, and 18)	71 0.6	71 0.6	-	16.0	-	-	Single 3.77 Total 9.65
Paint at Press Booths (PPB ₁ , PPB ₂ , PPB ₃ , and PPB ₄)	39 0.4	39 0.4	-	4.95	-	-	Single 4.35 Total 4.35

Touch-Up Booth	22	0.0	22	0.0	-	9	3.0	-	-	Single 0.526 Total 0.606		
Printing Ink Labeling	-	-	-	-	-	01	0.0	-	-	-		
Natural Gas Combustion	38	0.0	51	0.1	12	09	0.1	7	1.6	9	1.9	Single 0.036 Total 0.037
Injection Molding	-	-	-	-	-	6	11.	-	-	-	-	-
Total Emissions	7	1.1	8	1.2	12	6	35.	7	1.6	9	1.9	Single Less than 10 Total Less than 25

County Attainment Status

The source is located in Putnam County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Putnam County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Putnam County has been classified as attainment or unclassifiable for all 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, 40 CFR 52.21, or 326 IAC 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.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source based on the emissions summarized in this permit, MSOP 133-16493-00018, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

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

This status is based on the calculations stated on Pages 1 through 8 of Appendix A of this document.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

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

The potential to emit PM, PM₁₀, NO_x, SO₂, VOC and CO, is less than two hundred fifty (250) tons per year and this source is not one of the 28 sources listed under 326 IAC 2-2. Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 do not apply to this source.

326 IAC 2-4.1-1 (New Source Toxics Control)

The potential to emit of any single HAP from the entire source is limited to less than ten (10) tons per year and the potential emit of any combination of HAPs from the entire source is limited less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2.4.1-1 do not apply to this source.

326 IAC 2-6 (Emission Reporting)

This source is located in Putnam County and the potential to emit PM₁₀, NO_x, SO₂, VOC and CO is less than one hundred (100) tons per year, therefore, 326 IAC 2-6 does not apply.

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 this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) 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 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.

State Rule Applicability - Individual Facilities

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The one (1) natural gas-fired comfort heat furnace, constructed after 1983, is not considered a source of indirect heating. Therefore, the requirements of 326 IAC 6-2-4 are not applicable.

On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the following requirements from the previous version of 326 IAC 6-3 (Process Operations) which has been approved into the SIP will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

326 IAC 6-3 (Process Operations)

Pursuant to AA 133-11897-00018, issued on February 14, 2002 and 40 CFR 52 Subpart P, the particulate matter (PM) from the six (6) bolster wraps (7B, 8B, 10A, 10B, 11, and 12), four (4) glue booths (7A, 8A, 17 and 18), four (4) paint at press booths (PAP₁, PAP₂, PAP₃, and PAP₄), and one (1) touch-up booth (Paint 1), shall be limited by the following:

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

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

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Pursuant 326 IAC 6-3-2(d), under the rule revision, particulate from the shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer-s specifications.

326 IAC 8-1-6 (New facilities; General Reduction Requirements)

Since the surface coating of plastic parts is not covered any of the requirements of 326 IAC 8, the source, which was constructed after 1981, may have facilities which are subject to the requirements of 326 IAC 8-1-6 (New Facilities: General Reduction Requirements). The potential to emit VOC from the six (6) bolster wraps (7B, 8B, 10A, 10B, 11, and 12), four (4) glue booths (7A, 8A, 17 and 18), four (4) paint at press booths (PAP₁, PAP₂, PAP₃, and PAP₄), one (1) touch-up booth (Paint 1), and the sixty-one (61) injection molding machines, is each less than a total of twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

Any change or modification that increases the total potential to emit VOC from the four (4) paint at press booths to greater than twenty-five (25) tons of VOC per year, may render the requirements of

326 IAC 8-1-6 applicable and will require prior IDEM, OAQ approval.

Any change or modification that increases the total potential to emit VOC from the six (6) bolster wraps and four (4) glue booths to greater than twenty-five (25) tons of VOC per year, may render the requirements of 326 IAC 8-1-6 applicable and will require prior IDEM, OAQ approval.

Any change or modification that increases the potential to emit VOC from the one (1) touch-up paint booth (Paint 1) to greater than twenty-five (25) tons per year, may render the requirements of 326 IAC 8-1-6 applicable and will require prior IDEM, OAQ approval.

Conclusion

The operation of this injection molded plastic parts manufacturing source for use in automobile interiors shall be subject to the conditions of the attached proposed Minor Source Operating Permit 133-16493-00018.

**Appendix A: Emissions Calculations
VOC and Particulate
From Bolster Wraps and Glue Booths**

**Company: Lear Corporation, Shenandoah Division
Address City IN Zip: 500 North Fillmore Road, Greencastle, Indiana 46135
MSOP: 133-16493
Plt ID: 133-00018
Reviewer: Michael S. Schaffer
Date: August 20, 2002**

Material	Density of Solid (lbs/gal)	Fluid Ozs of Mat. (ozs/unit)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	Transfer Efficiency
Bolster Wrap and Glue Booths										
Glue K1018 (7A & B and 8A & B)	1.36	0.28000	0.00219	288.000	3.74	2.36	56.5	10.32	1.689	55%
Glue K1018 (10A & B)	1.36	0.21000	0.00164	130.000	3.74	0.798	19.1	3.49	0.572	55%
Glue Fastbond 2000 (11 & 12)	4.78	0.30000	0.00234	130.000	0.430	0.131	3.14	0.57	2.871	55%
Material	% Solid Content	Weight % VOC	Grams of Mat. (grams/unit)	Maximum (units/hour)	Pounds VOC (grams/hour)	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	Transfer Efficiency
Glue Booths										
Glue Trimbond 2000 (17 and 18)	49.72%	4.40%	16.0	240	169	0.372	8.93	1.63	8.29	55%

PM Control Efficiency 95.00%

Uncontrolled	3.66	87.8	16.0	13.4
Controlled	3.66	87.8	16.0	0.671

Methodology

Gal of Material (gal/unit) = Fluid Ozs of Material (ozs/unit) * (1lb/128ozs)
 Potential VOC Pounds per Hour (7A&B, 8A&B, 10A&B, 11&12) = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day (7A&B, 8A&B, 10A&B, 11&12) = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24hrs/1day)
 Potential Pollutant Tons per Year (7A&B, 8A&B, 10A&B, 11&12) = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year (7A&B, 8A&B, 10A&B, 11&12) = (units/hour) * (gal/unit) * Density of solid (lbs/gal) * (1-Transfer Efficiency) * (8760hrs/yr) * (1 ton/2000lbs)
 Potential VOC Grams per Hour (17&18) = Weight % VOC * Grams of Material (gms/unit) * Maximum (units/hr)
 Potential VOC Pounds per Hour (17&18) = Potential VOC Grams per Hour * (1lb/453.9gms)
 Potential VOC Pounds per Day (17&18) = Potential VOC Pounds per Hour * (24hrs/day)
 Potential VOC Tons per Year (17&18) = Potential VOC Pounds per Hour * (8760hrs/yr) * (1ton/2000lbs)
 Particulate Potential Tons per year (17&18) = (units/hour) * (gms/unit) * (% solid content) * (1-Transfer Efficiency) * (8760hrs/yr) * (1 tons/2000 lbs) / (453.9gms/lb)

**Appendix A: Emissions Calculations
HAPs
From Bolster Wraps and Glue Booths**

**Company: Lear Corporation, Shenandoah Division
Address City IN Zip: 500 North Fillmore Road, Greencastle, Indiana 46135
MSOP: 133-16493
Plt ID: 133-00018
Reviewer: Michael S. Schaffer
Date: August 20, 2002**

Material	Fluid Ozs of Mat. (ozs/unit)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds Hexane per gallon of coating	Potential Hexane (pounds per hour)	Potential Hexane (tons per year)	Pounds MEK per gallon of coating	Potential MEK (pounds per hour)	Potential MEK (tons per year)	Pounds Methanol per gallon of coating	Potential Methanol (pounds per hour)	Potential Methanol (tons per year)	Pounds Toluene per gallon of coating	Potential Toluene (pounds per hour)	Potential Toluene (tons per year)
<i>Bolster Wrap and Glue Booths</i>															
Glue K1018 (7A & B and 8A & B)	0.28000	0.00219	288.000	1.02	0.643	2.81	0.680	0.428	1.88	0.000	0.000	0.000	1.020	0.843	2.81
Glue K1018 (10A & B)	0.21000	0.00164	130.000	1.02	0.218	0.953	0.680	0.145	0.617	0.000	0.000	0.000	1.020	0.218	0.000
Glue Fastbond 2000 (11 & 12)	0.30000	0.00234	130.000	0.000	0.000	0.000	0.000	0.000	0.000	0.19565	0.060	0.261	0.23435	0.071	0.313
Individual Total						3.77			2.49			0.261			3.13
Overall Total						9.65									

METHODOLOGY

Gal of Material (gal/unit) = Fluid Ozs of Material (ozs/unit) * (1lb/128ozs)

Potential Pollutant Pounds per Hour (7A&B, 8A&B, 10A&B, 11&12) = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential Pollutant Tons per Year (7A&B, 8A&B, 10A&B, 11&12)= Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

**Appendix A: Emission Calculations
VOC, PM, and HAP Emission Calculations
From Paint at Press Booths**

**Company: Lear Corporation, Shenandoah Division
Address City IN Zip: 500 North Fillmore Road, Greencastle, Indiana 46135
MSOP: 133-16493
Pit ID: 133-00018
Reviewer: Michael S. Schaffer
Date: August 20, 2002**

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	Transfer Efficiency
Red Spot Waterbased	8.90	50.00%	0.00192	520.000	1.13	1.13	27.12	4.95	8.77	55%

PM Control Efficiency 95.00%

Potential to Emit

Worst Case Uncontrolled	1.13	27.12	4.95	8.77
Worst Case Controlled	1.13	27.12	4.95	0.439

METHODOLOGY

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Glycol Ethers	Glycol Ether Emissions (tons/yr)
Red Spot Waterbased	8.94	0.00192	520.000	11.10%	4.35

**Individual Total 4.35
Overall Total 4.35**

METHODOLOGY

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

**Appendix A: Emissions Calculations
VOC and Particulate
From Touch-Up Operations**

Company: Lear Corporation, Shenandoah Division
Address City IN Zip: 500 North Fillmore Road, Greencastle, Indiana 46135
MSOP: 133-16493
Pit ID: 133-00018
Reviewer: Michael S. Schaffer
Date: August 20, 2002

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Solids	Weight % Organics	Pounds VOC per gallon of coating	Maximum Gallons of Material Per Hour	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	Transfer Efficiency
Solvent Based Paint Base Color	7.71	70.20%	29.3%	70.2%	5.41	0.100	0.541	13.0	2.37	0.445	55%
Thinner	6.58	25.03%	0.0%	25.0%	1.65	0.100	0.165	3.95	0.721	0.00	100%

PM	Control Efficiency	95.00%			
	Uncontrolled	0.706	16.9	3.09	0.445
	Controlled	0.706	16.9	3.09	0.022

METHODOLOGY

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Maximum Gallons of Material Per Hour
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Maximum Gallons of Material Per Hour * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Maximum Gallons of Material Per Hour * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (lbs/gal) * (Weight % Solids) * Maximum Gallons of Material Per Hour * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Material	Maximum Gallons of Material Per Hour	Pounds Ethylbenzene per gallon of coating	Potential Ethylbenzene (pounds per hour)	Potential Ethylbenzene (tons/yr)	Pounds MIBK per gallon of coating	Potential MIBK (pounds per hour)	Potential MIBK (tons/yr)	Pounds Xylene per gallon of coating	Potential Xylene (pounds per hour)	Potential Xylene (tons/yr)
Solvent Based Paint Base Color	0.100	0.031	0.003	0.014	1.201	0.120	0.526	0.151	0.015	0.066

Individual Total	0.014						0.526			0.066
Overall Total	0.606									

Potential Pollutant Pounds per Hour = Maximum Gal of Material per Hour * Maximum Pounds of Pollutant per Gallon of Coating
 Potential Pollutant Tons per Year = Potential Pollutant Pounds per Hour * (8760 hr/yr) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
VOC
From Printing Ink Labeling**

**Company: Lear Corporation, Shenandoah Division
Address City IN Zip: 500 North Fillmore Road, Greencastle, Indiana 46135
MSOP: 133-16493
PIt ID: 133-00018
Reviewer: Michael S. Schaffer
Date: August 20, 2002**

Material	VOC content of Component (gms/liter)	Volume Mixing ratio	VOC Content as Mixed (gms/liter)
Ink	0.551	0.200	0.110
Hardener	0.344	0.040	0.014
Flow	0.500	0.010	0.005
Thinner	0.906	0.020	0.018
Total:		0.270	0.147

Material	Volume Mixing ratio	VOC Content as Mixed (grms/liter)	Volume Capacity (liters/day)	Potential VOC (grams per day)	Potential VOC (pounds per day)	Potential VOC (tons per year)
Printing Ink Labeling Mixture	0.270	0.147	3.79	2.06	0.005	0.001

METHODOLOGY

VOC Content as Mixed = VOC Content of Component (grams/liter) * Volume Mixing Ratio
 Potential VOC Grams per Day = Volume Capacity (liters/day) * Total VOC Content as Mixed (grams/liter) / Total Volume Mixing Ratio
 Potential VOC Pounds per Day = Potential VOC Grams per Day * (1 lb/453.9grams)
 Potential VOC Tons per Year = Potential VOC Pounds Per Day * (365days/yr) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

**Company: Lear Corporation, Shenandoah Division
Address City IN Zip: 500 North Fillmore Road, Greencastle, Indiana 46135
MSOP: 133-16493
Plt ID: 133-00018
Reviewer: Michael S. Schaffer
Date: August 20, 2002**

Source-wide natural gas-fired combustion

One (1) comfort heat furnace @ 0.745 MMBtu/hr
Three (3) space heaters @ 0.060 MMBtu/hr, each
Two (2) space heaters @ 0.105 MMBtu/hr, each
Three (3) space heaters @ 0.200 MMBtu/hr, each
Seven (7) space heater @ 0.400 MMBtu/hr, each

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
4.54	39.73

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.038	0.151	0.012	1.99	0.109	1.67

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx 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 are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 7 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

**Company Name: Lear Corporation, Shenandoah Division
Address City IN Zip: 500 North Fillmore Road, Greencastle, Indiana 46135
MSOP: 133-16493
Plt ID: 133-00018
Reviewer: Michael S. Schaffer
Date: August 20, 2002**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 0.0021	Dichlorobenzene 0.0012	Formaldehyde 0.0750	Hexane 1.8000	Toluene 0.0034
Potential Emission in tons/yr	0.00004	0.00002	0.001	0.036	0.0001

HAPs - Metals

Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.00038	Nickel 0.0021	Total HAPs
Potential Emission in tons/yr	0.00001	0.00002	0.00003	0.00001	0.00004	0.037

Methodology is the same as page 6.

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

Source-wide natural gas-fired combustion

One (1) comfort heat furnace @ 0.745 MMBtu/hr
Three (3) space heaters @ 0.060 MMBtu/hr, each
Two (2) space heaters @ 0.105 MMBtu/hr, each
Three (3) space heaters @ 0.200 MMBtu/hr, each
Seven (7) space heater @ 0.400 MMBtu/hr, each

**Appendix A: Molding Emissions:
Fugitive Resins: ABS and Polypropylene**

Company: Lear Corporation, Shenandoah Division
Address City IN Zip: 500 North Fillmore Road, Greencastle, Indiana 46135
MSOP: 133-16493
Plt ID: 133-00018
Reviewer: Michael S. Schaffer
Date: August 20, 2002

Sixty-two (62) injection molding machines

New Number	CLAMP Pressure	Capacity (ounces)	Throughput (lbs/min)	Throughput (lbs/hr)
101	1760	232	14.5	870
102	1000	110	6.875	412.5
103	1000	110	6.875	412.5
104	1000	110	6.875	412.5
105	1000	125	7.8125	468.75
106	1000	260	16.25	975
106B	75			0
107	2200	288	18	1080
108	400	20	1.25	75
109	400	20	1.25	75
110	850	76	4.75	285
111	1000	125	7.8125	468.75
112	300	31	1.9375	116.25
113	700	70	4.375	262.5
114	300	31	1.9375	116.25
115	700	70	4.375	262.5
116	500	48	3	180
201	1500	165	10.3125	618.75
202	1650	165	10.3125	618.75
203	1000	125	7.8125	468.75
204	1500	260	16.25	975
205	1500	260	16.25	975
206	1000	125	7.8125	468.75
207	1000	125	7.8125	468.75
208	700	80	5	300
209	500	60	3.75	225
210	495	54	3.375	202.5
211	500	60	3.75	225
212	700	80	5	300
213	500	60	3.75	225
214	700	80	5	300
215	700	110	6.875	412.5
216	1000	125	7.8125	468.75
301	2000	232	14.5	870
302	2200	288	18	1080
306	3000	362	22.625	1357.5
307	1500	165	10.3125	618.75
308	1500	165	10.3125	618.75
309	2000	231	14.4375	866.25
310	3000	160	10	600
401	500	60	3.75	225

New Number	CLAMP Pressure	Capacity (ounces)	Throughput (lbs/min)	Throughput (lbs/hr)
402	700	70	4.375	262.5
403	1500	165	10.3125	618.75
404	1100	179	11.1875	671.25
405	1000	125	7.8125	468.75
406	850	140	8.75	525
407	300	24	1.5	90
408	650	70	4.375	262.5
411	300	29.5	1.84375	110.625
412	300	32	2	120
413	400	20	1.25	75
414	385	35	2.1875	131.25
415	400	40.8	2.55	153
416	400	20	1.25	75
417	385	35	2.1875	131.25
418	400	40.8	2.55	153
501	400	20	1.25	75
502	400	36	2.25	135
503	400	54	3.375	202.5
504	2000	288	18	1080
505	1500	160	10	600
506	1500	160	10	600

Total Throughput (lbs/hr) 26502
VOC emission factor (ABS) (ppmw) 99
(AWMA Journal, Sept. 1995)
VOC emissions (lbs/hr) 2.62
VOC emissions (tons/yr) 11.5

VOC emission factor for polypropylene is less: 59 ppmw (AWMA Journal, January, 1999).

METHODOLOGY

VOC Emissions (lbs/hr) = Total Throughput (lbs/hr) x (VOC Emission ppmw / 1,000,000)

VOC Emissions (tons/yr) = VOC Emissions (lbs/hr) x (1 ton / 2,000 pounds) x (8,760 hours / 1 year)