CONSTRUCTION PERMIT and ENHANCED NEW SOURCE REVIEW (ENSR)
OFFICE OF AIR MANAGEMENT

Lear Corporation - Shenandoah Division
500 North Filmore Road
Greencastle, Indiana 46135

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-133-9756-00018	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 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

The Permittee owns and operates a stationary plant that manufactures injection molded plastic parts for use in automobile interiors.

Responsible Official:	Mr. Dennis Hamilton, General Manager
Source Address:	500 North Filmore Road, Greencastle, Indiana 46135
Mailing Address:	500 North Filmore Road, Greencastle, Indiana 46135
SIC Code:	3089
County Location:	Putnam
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) paint at press booth, identified as PPB, either using a high-volume low-pressure spray (HVLP) or air atomization applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, and exhausting through stacks 21 and 22;

(b) Two (2) glue booths, identified as 22 and 23, equipped with air atomization spray applicators, with dry filters for overspray control, and exhausting to stack 20A and Two (2) bloster wrap machines identified as 24 & 25, equipped with air atomization spray applicators, for coating plastic parts, with a combined maximum capacity of glue booths and bloster wrap machines of 288 automotive parts per hour, using dry filters for overspray control, exhausting through a stack identified as 20;

(c) Three (3) glue booths, identified as 27, 28 and 29, each with a maximum capacity of 125 plastic and fabric parts per hour, with dry filters of particulate matter (PM) overspray control, with booth 27 exhausting to stack 13, and glue booths 28 & 29 exhausting to stack 23.

(d) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_2, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 27 and 28, respectively;

(e) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_3, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 29;

(f) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_4, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 30.

The above-mentioned items (a) and (b) have been permitted by a Construction Permit (CP-133-8476-00018), issued on September 11, 1997. Item (c) has been permitted as Enhanced New Source Review (ENSR) under Title V Operating Permit (T133-5083-00018), issued March 26, 1998. The OAM relies on "USEPA's interpretations" that all modifications of the project at the source within twelve (12) months must be aggregated in order to determine whether the modification, in and of itself, is significant.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is issued a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

A.4 Prior Permit Conditions Superseded [326 IAC 2]

This construction permit will supersede all terms and conditions in the construction permit (CP-133-8476-00018) issued on September 11, 1997 and an Enhanced New Source Review (ENSR) (Section D.4) under Title V Operating Permit (T133-5083-00018), issued on March 26, 1998. All terms and conditions in such construction permit and ENSR are no longer in effect.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

Construction Conditions [326 IAC 2-1-3.2]

B.1 General Construction Conditions

(a) 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).

(b) 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.

B.2 Effective Date of the Permit [IC13-15-5-3]

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

B.3 Revocation of Permits [326 IAC 2-1-9(b)]

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.

B.4 Permit Review Rules [326 IAC 2]

Notwithstanding Construction Condition (B.5), 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).

B.5 Administrative Permit Amendments [326 IAC 2-7-11(a) (5)]

This construction shall be incorporated in the Part 70 Operating Permit 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.

(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 an 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 Administrative Amendment to the Part 70 Permit (T133-5083-00018), issued on March 26, 1998 that incorporates the facilities under this Enhanced New Source Review (ENSR).

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

Operation Conditions

B.6 General Operation Conditions

(a) 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).

(b) 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 (IC13-17) and the rules promulgated thereunder.

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

If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:

(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.

B.8 Transfer of Permit [326 IAC 2-1-6]

Pursuant to 326 IAC 2-1-6 (Transfer of Permits):

(a) In the event that ownership of a source or facility is 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.

B.9 Permit Revocation [326 IAC 2-1-9]

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).

B.10 Availability of Permit [326 IAC 2-1-3(l)]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards

C.1 Major Source

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21, this source is a major source.

C.2 Notice of Malfunction [326 IAC 1-6-2]

(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]

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings, as determined in 326 IAC 5-1-4.

(b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) 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).

Testing Requirements

C.5 Performance Testing [326 IAC 3-6]

(a) 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 methods approved by IDEM, OAM.

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 Management
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. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements

C.6 Compliance Monitoring [326 IAC 2-1-3]

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, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend a compliance schedule an additional ninety (90) days provided the Permittee notifies:

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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

C.7 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

Corrective Actions and Response Steps

C.8 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

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

within 180 days from the date on which this source commences operation.

The ERP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) 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.

(d) 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.

(e) 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.

(f) 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 episode level. [326 IAC 1-5-3]

C.9 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-1-3]

(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 corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(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, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements

C.10 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission 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

(c) The annual emission statement 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, OAM, on or before the date it is due.

C.11 Monitoring Data Availability [326 IAC 2-1-3]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.12 General Record Keeping Requirements [326 IAC 2-1-3]

(a) Records of all required monitoring data 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 and available upon the request of an IDEM, OAM, representative. 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 written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.13 General Reporting Requirements [326 IAC 2-1-3]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.

(b) The report required in (a) of this condition and 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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) 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, OAM, on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.

(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) 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.

The documents submitted pursuant to this condition do not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.1 FACILITY OPERATION CONDITIONS

(a) One (1) paint at press booth, identified as PPB, either using a high-volume low-pressure spray (HVLP) or air atomization applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, and exhausting through stacks 21 and 22;

(b) Two (2) glue booths, identified as 22 and 23, equipped with air atomization spray applicators, with dry filters for overspray control, and exhausting to stack 20A and Two (2) bloster wrap machines identified as 24 & 25, equipped with air atomization spray applicators, for coating plastic parts, with a combined maximum capacity of glue booths and bloster wrap machines of 288 automotive parts per hour, using dry filters for overspray control, exhausting through a stack identified as 20;

(c) Three (3) glue booths, identified as 27, 28 and 29, each with a maximum capacity of 125 plastic and fabric parts per hour, with dry filters of particulate matter (PM) overspray control, with booth 27 exhausting to stack 13, and glue booths 28 & 29 exhausting to stack 23.

(d) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_2, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 27 and 28, respectively;

(e) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_3, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 29;

(f) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_4, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 30.

The above-mentioned items (a) and (b) have been permitted by a Construction Permit (CP-133-8476-00018), issued on September 11, 1997. Item (c) has been permited as Enhanced New Source Review (ENSR) under Title V Operating Permit (T133-5083-00018), issued March 26, 1998.

Emission Limitations and Standards

D.1.1 General Provisions Relating to VOC Rules: General Reduction Requirements for New Facilities [326 IAC 8-1-6]

(a) The potential volatile organic compounds (VOC) emissions from the two (2) glue booths identified as 22 and 23, two (2) bloster wrap machines identified as 24 and 25, three (3) glue booths identified as 27, 28 and 29 are each less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (General Provisions Relating to VOC Rules: General Reduction Requirements for New Facilities) will not apply.

(b) Any change or modification which may increase potential VOC emissions to 25 tons or more per year, from any of the two (2) glue booths identified as 22 and 23, the two (2) bloster wrap machines identified as 24 and 25, the three (3) glue booths identified as 27, 28 and 29 in this construction permit and ENSR, shall obtain OAM approval, before such change may occur.

D.1.2 PSD Minor Status [326 IAC 2-2] [40 CFR 52.21]

(a) The potential to emit VOC from this modification is less than 40 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) will not apply.

(b) Any change or modification which may increase potential to emit 40 tons or more per year, from equipment covered in this construction permit, shall be reviewed pursuant to 326 IAC 2-2, before such change may occur.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The particulate matter (PM) from

(a) One (1) paint at press booth identified as PPB;
(b) two (2) glue booths identified as 22 and 23;
(c) two (2) bloster wrap machines identified as 24 and 25;
(d) three (3) glue booths identified as 27, 28, and 29;
(e) three (3) paint at press booths identified as PB_2, PB_3, and PB_4;

shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation 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:

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

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-1-3]

The Permittee is not required to test the facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the volatile organic compounds (VOC) limit specified in Condition D.1.1. shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements

D.1.5 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when the five (5) glue booths identified as 22, 23, 27, 28, and 29, two (2) bloster wrap machines identified as 24 and 25, four (4) paint at press booths (PPB, PB_2, PB_3 and PB_4) are in operation.

D.1.6 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, daily observations shall be made of the overspray from the surface coating booth stacks (21 & 22, 20A & 20, 13, 23, 27 & 28, 29, 30) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step.

(b) Weekly inspections shall be performed of the coating emissions from the stacks (21 & 22, 20A & 20, 13, 23, 27 & 28, 29, 30) 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.

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

Record Keeping and Reporting Requirements

D.1.7 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the Condition D.1.1.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) The cleanup solvent usage for each month;

(3) The total VOC usage for each month; and

(b) To document compliance with Condition D.1.6, the Permittee shall maintain a log of daily overspray observations, daily and weekly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) 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 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: **Lear Corporation - Shenandoah Division** PHONE NO. (317) 653 - 2511

LOCATION: (CITY AND COUNTY): 500 North Filmore Road, Greencastle, Indiana 46135

PERMIT NO. 133- 9756 AFS PLANT ID: 133- 00018 AFS POINT ID: _____ INSP: Marc Goldman
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:_____

REV 3/96 FAX NUMBER - 317 233-5967 *SEE REVERSE

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 SO2, 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:

_____

_____

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for New Construction and Operation and Enhanced New Source Review (ENSR)

Source Background and Description

Source Name:	Lear Corporation - Shenandoah Division
Source Location:	500 North Filmore Road, Greencastle, Indiana 46135
County:	Putnam
Construction Permit No.:	CP 133-9756-00018
SIC Code:	3089
Permit Reviewer:	Manoj P. Patel

The Office of Air Management (OAM) has reviewed an application from Lear Corporation-Shenandoah Division relating to the construction and operation of plastics products, consisting of the following equipment:

(a) One (1) paint at press booth, identified as PPB, either using a high-volume low-pressure spray (HVLP) or air atomization applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, and exhausting through stacks 21 and 22;

(b) Two (2) glue booths, identified as 22 and 23, equipped with air atomization spray applicators, with dry filters for overspray control, and exhausting to stack 20A and Two (2) bloster wrap machines identified as 24 & 25, equipped with air atomization spray applicators, for coating plastic parts, with a combined maximum capacity of glue booths and bloster wrap machines of 288 automotive parts per hour, using dry filters for overspray control, exhausting through a stack identified as 20;

(c) Three (3) glue booths, identified as 27, 28 and 29, each with a maximum capacity of 125 plastic and fabric parts per hour, with dry filters of particulate matter (PM) overspray control, with booth 27 exhausting to stack 13, and glue booths 28 & 29 exhausting to stack 23.

(d) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_2, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 27 and 28, respectively;

(e) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_3, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 29;

(f) One (1) paint at press booth with a built-in infrared electric oven, identified as PB_4, equipped with air atomization spray applicators, for coating plastic parts, with a maximum capacity of 130 automotive parts per hour, using dry filters for overspray control, exhausting through stacks identified as 30.

The above-mentioned items (a) and (b) have been permitted by a Construction Permit (CP-133-8476-00018), issued on September 11, 1997. Item (c) has been permitted as Enhanced New Source Review (ENSR) under Title V Operating Permit (T133-5083-00018), issued March 26, 1998. The OAM relies on "USEPA's interpretations" that all modifications of the project at the source within twelve (12) months must be aggregated in order to determine whether the modification, in and of itself, is significant. Therefore, OAM will combine the prior construction permit (CP-133-8476-00018) and ENSR part of Title V Permit (T133-5083-00018) into this Construction Permit (CP-133-9756-00018) and supersede the prior issued Construction Permit. The OAM will make necessary changes in the Title V permit (T-133-5083-00018), issued on March 26, 1998.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
21	Paint at press Booth (PPB)	36.0	1.0	2,000	68
22		36.0	0.83	400	150
20A	Glue Booths (22 & 23)	36.	1.50	8,800	68
20	Bloster wrap machines (24 &25)	36.0	1.50	8,800	68
13	Glue Booth - 27	30	1.50	2285	70
23	Glue Booth 28 & 29	30	1.50	2285	70
27	Paint at Press Booth (PB_2)	36.0	1.0	2,000	70
28		36.0	0.83	400	150
29	Paint at Press Booth (PB_3)	40	1.50	2,000	70
30	Paint at Press Booth (PB_4)	40	1.50	2,000	70

Enforcement Issue

There are no enforcement issues pending with the source.

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.

An application for the purposes of this review was received on May 11, 1998, with additional information received on June 30, July 14, and September 28, 1998.

Emissions Calculations

(a) See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations at paint at Press booth PPB.

(b) See Appendix B (Emissions Calculation Spreadsheets) for detailed calculations at 2 glue booths(#22, #23) and 2 bloster wrap machines (#24, #25).

(c) See Appendix C (Emissions Calculation Spreadsheets) for detailed calculations at three (3) glue Booths (27, 28, and 29).

(d) See Appendix D (Emissions Calculation Spreadsheet) for detailed calculation at Paint at Press Booth 2 (PB_2).

(e) See Appendix E (Emissions Calculation Spreadsheet) for detailed calculation at Paint at Press Booth 3 & 4 (PB_3 and PB_4).

(f) See Appendix F, G, and H (Emissions Calculation Spreadsheets) for detailed HAP calculations.

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/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	--	31.10
Particulate Matter (PM10)	--	31.10
Sulfur Dioxide (SO_2)	0.0	0.0
Volatile Organic Compounds (VOC)	33.80	33.80
Carbon Monoxide (CO)	0.0	0.0
Nitrogen Oxides (NO_x)	0.0	0.0
Single Hazardous Air Pollutant (HAP)- Ethylene Glycol	9.95	9.95
Combination of HAPs	20.35	20.35

(a) Allowable particulate matter (PM) emissions are determined from the applicability of rule 326 IAC 6-3.

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

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

County Attainment Status

(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 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.

Source Status

Existing Source PSD, Part 70 Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	2.85
PM10	2.85
SO_2	0.0
VOC	302.80
CO	0.0
NO_x	0.0

(a) This existing source is a major stationary source because at least one attainment regulated pollutant is emitted at a rate of 250 tons per year.

(b) These emissions were based on Facility Quick Look Report, dated April 1, 1998.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO_x (ton/yr)
Proposed Modification	3.10	3.10		33.80		
Net Emissions	3.10	3.10		33.80		
PSD or Offset Significant Level	25	15	40	40	100	40

(a) This modification to an existing major stationary source is not major because the emissions 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.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

The Part 70 permit for this stationary source has been issued on March 26, 1998. The OAM will add the equipment covered under this permit into issued Part 70 permit (133-5083-00018).

Federal Rule Applicability

(a) There are no New Source Performance Standards (326 IAC 12) 40 CFR Part 60 applicable to this facility.

(b) There are no National Emission Standards for Hazardous Air Pollutants (326 IAC 14) 40 CFR Part 63 applicable to this facility.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 100 tons/yr of VOC. Pursuant to this rule, the owner/operator of this source must annually submit an emission statement of the facility. The annual statement must be received by July 1 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)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings, as determined in 326 IAC 5-1-4.

(b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

326 IAC 6-3 (Process Operations)

(a) The PM from the four (4) paint at press booths (PPB, PB_2, PB_3, and PB_4), five (5) glue booths (22, 23, 27, 28 and 29) and two (2) bloster wrap machines (24 & 25) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation 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:

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

(b) the dry filters for PM control shall be in operation at all times when the four (4) paint at press booths (PPB, PB_2, PB_3, and PB_4), five (5) glue booths (22, 23, 27, 28 and 29) and two (2) bloster wrap machines (24 & 25) are in operation and exhausting to the outside atmosphere.

(c) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, daily observations shall be made of the overspray from the surface coating booth stacks 21& 22, 20, 20A, 20, 27 & 28, 29, and 30 while one or more of the booths are in operation.

(d) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground.

326 IAC 8-1-6 (General Provisions relating to VOC Rules: General Reduction Requirements for New Facilities)

The volatile organic compounds (VOC) emissions from each of the facilities identified as two (2) paint at press booths (PPB and PB_2), five (5) glue booths (22, 23, 27, 28 and 29) and bloster wrap machines (24 & 25) are less than 25 tons per year. Therefore, 326 IAC 8-1-6 (General Provisions relating to VOC Rules: General Reduction Requirements for New Facilities) does not apply to any facility covered under this permit. However, the construction permit (CP-133-8476-00018) determined 326 IAC 8-1-6 to be applicable to the two (2) glue booths (22 & 23) and the bloster wrap machines (24 & 25) even though VOC emissions from each facility were less than 25 tons per year and the VOC emissions were limited to 24 tons per year from the two (2) glue booths (22 & 23) and bloster wrap machines (24 & 25). This permit will correct the 326 IAC 8-1-6 analyses for above-mentioned facilities.

326 IAC 2-2 (Prevention of Significant Deterioration)

The VOC emissions from the entire modification are less than 39 tons per year, therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, PSD requirements do not apply.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 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.

(a) This modification will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to the Clean Air Act.

(b) See Appendix F, G, H of TSD for detailed air toxic calculations.

Conclusion

The construction of this plastic products operation will be subject to the conditions of the attached proposed **Construction Permit No. CP-133-9756-00018.**

Appendix A: Potential Emissions Calculations
VOC and Particulate
From Surface Coating Operations (Paint Booth-PB1)

Company Name: **Lear Corporation - Shenandoah Division**
Address City IN Zip: **500 North Filmore Road, Greencastle, Indiana 46135**
CP: **133-9756**
Plt ID: **133-00018**
Reviewer: **Manoj P. Patel**
Date: **July 19, 1998**

Material	Density (lb/gal)	Weight % Volatile (H20 & 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
Paint Booth																	
Black	8.78	66.66%	54.09%	12.57%	57.07%	28.25%	0.00529	130.0	1.000	2.57	1.10	0.76	18.22	3.33	4.41	3.91	50%
Light Grey (called medium)	9.47	61.30%	50.93%	10.37%	57.94%	28.86%	0.00828	130.0	1.000	2.33	0.98	1.06	25.38	4.63	8.64	3.40	50%
Light Silverfern (called medium)	9.59	59.43%	48.59%	10.84%	55.90%	30.27%	0.00828	130.0	1.000	2.36	1.04	1.12	26.87	4.90	**9.18**	3.43	50%
Light Camel (called medium)	9.46	60.52%	49.63%	10.89%	56.35%	29.92%	0.00828	130.0	1.000	2.36	1.03	1.11	26.62	4.86	8.81	3.44	50%
Dark Grey	8.95	65.32%	52.06%	13.26%	56.97%	28.44%	0.00828	130.0	1.000	2.76	1.19	**1.28**	**30.68**	**5.60**	7.32	4.17	50%
Dark Silverfern	9.08	64.10%	52.15%	11.95%	56.83%	28.73%	0.00828	130.0	1.000	2.51	1.09	1.17	28.05	5.12	7.69	3.78	50%
Dark Camel	8.95	64.41%	51.64%	12.77%	55.44%	29.37%	0.00828	130.0	1.000	2.56	1.14	1.23	29.54	5.39	7.51	3.89	50%
State Potential Emissions		**Add worst case coating to all solvents**										**1.28**	**30.7**	**5.60**	**9.18**		

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 B: Potential Emissions Calculations
VOC and Particulate
From Surface Coating Operations (Glue Machines, Bloster wrap Machines)
(22, 23, 24 and 25)

Company Name: Lear Corporation - Shenandoah Division
Address City IN Zip: 500 North Filmore Road, Greencastle, Indiana 46135
CP: 133-9756
Plt ID: 133-00018
Reviewer: Manoj P. Patel
Date: July 19, 1998

Material	Density (lb/gal)	Weight % Volatile (H20 & 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
Glue Machines:																	
Booth 22	7.05	66.35%	0.14%	66.21%	0.12%	23.00%	0.00222	72.0	1.000	4.67	4.67	0.75	17.88	3.26	0.83	20.29	50%
Booth 23	7.05	66.35%	0.14%	66.21%	0.12%	23.00%	0.00222	72.0	1.000	4.67	4.67	0.75	17.88	3.26	0.83	20.29	50%
Bloster warp machines:																	
Booth 24	7.05	66.35%	0.14%	66.21%	0.12%	23.00%	0.00222	72.0	1.000	4.67	4.67	0.75	17.88	3.26	0.83	20.29	50%
Booth25	7.05	66.35%	0.14%	66.21%	0.12%	23.00%	0.00222	72.0	1.000	4.67	4.67	0.75	17.88	3.26	0.83	20.29	50%
State Potential Emissions			**Add worst case coating to all solvents**									**2.98**	**71.53**	**13.05**	**3.32**		

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 C: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
(Glue Booths - 27, 28, and 29)

Company Name: Lear Corporation - Shenandoah Division
Address City IN Zip: 500 North Filmore Road, Greencastle, IN 46135
CP: 133-9756
Plt ID: 133-00018
Reviewer: Manoj P. Patel
Date: Sept. 15, 1998

Material	Density (Lb/Gal)	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	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 ton/yr	lb VOC /gal solids	Transfer Efficiency
Fastbond 2000NF	9.2	50.00%	46.6%	3.4%	51.3%	45.00%	0.00330	125.000	0.64	0.31	0.13	3.10	0.57	8.31	0.70	0%
Fastbond	9.5	85.00%	85.0%	0.0%	96.9%	3.10%	0.00060	125.000	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0%
Spray K1018	6.9	72.20%	0.0%	72.2%	0.0%	23.00%	0.00260	125.000	4.98	4.98	1.62	38.86	7.09	2.73	21.66	0%
State Potential Emissions			**Add worst case coating to all solvents**								**1.75**	**41.95**	**7.66**	**11.51**		

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)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
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)
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)
Total = Worst Coating + Sum of all solvents used

Appendix D: Emissions Calculations
VOC and Particulate
From Surface Coating Operations (Paint at Press Booth 2)

Company Name: Lear Corporation
Address City IN Zip: 500 North Filmore Road, Greencastle, Indiana 46135
CP: 133-9756
Plt ID: 133-00018
Reviewer: Manoj P. Patel
Date: May 21,1998

Material	Density (Lb/Gal)	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	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 ton/yr	lb VOC /gal solids	Transfer Efficiency**
Black Paint	8.8	66.66%	54.1%	12.6%	57.1%	28.25%	0.00237	130.000	2.57	1.10	0.34	8.16	1.49	1.98	3.91	50%
Lt. Grey	9.5	61.30%	50.9%	10.4%	57.9%	28.86%	0.00237	130.000	2.33	0.98	0.30	7.26	1.33	2.47	3.40	50%
Lt. silverfern	9.6	59.43%	48.6%	10.8%	55.9%	30.27%	0.00237	130.000	2.35	1.04	0.32	7.68	1.40	2.62	3.43	50%
Lt. Camel	9.5	60.52%	49.6%	10.9%	56.4%	29.92%	0.00237	130.000	2.36	1.03	0.32	7.61	1.39	2.52	3.44	50%
Dark Cirrus Grey	8.9	65.38%	53.1%	12.3%	57.0%	28.44%	0.00237	130.000	2.56	1.10	0.34	8.14	1.49	2.09	3.87	50%
Dark Silverfern	9.1	64.10%	52.2%	12.0%	56.8%	28.73%	0.00237	130.000	2.51	1.08	0.33	8.01	1.46	2.20	3.77	50%
Dark Camel	8.9	64.41%	51.6%	12.8%	55.4%	29.37%	0.00237	130.000	2.56	1.14	0.35	8.44	1.54	2.15	3.89	50%
State Potential Emissions			**Add worst case coating to all solvents**								**0.35**	**8.44**	**1.54**	**2.62**		

METHODOLOGY

Air Atomization Spray application is considered as worst case basis for particulate matter emissions.

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)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

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)

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)

Total = Worst Coating + Sum of all solvents used

Appendix E: Emissions Calculations
VOC and Particulate
From Surface Coating Operations (Paint at Press Unit 3 & 4)

Company Name: Lear Corporation - Shendoah Division
Address City IN Zip: 500 North Filmore Road, GreenCastle, Indiana 46135
CP: 133-9756
Plt ID: 133-00018
Reviewer: Manoj P. Patel
Date: 10-08-1998

Material	Density (Lb/Gal)	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	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 ton/yr	lb VOC /gal solids	Transfer Efficiency
Painte at Press Unit 3:																
36-391 (1)	8.9	70.76%	51.8%	19.0%	55.6%	29.23%	0.00390	120.000	3.81	1.69	0.79	19.04	3.47	2.68	5.80	50%
36-395(2)	9.2	70.30%	50.6%	19.7%	56.1%	29.70%	0.00390	120.000	4.13	1.81	0.85	20.37	3.72	2.81	6.11	50%
Painte at Press Unit 4:													**3.72**	**2.81**		
36-391 (1)	8.9	70.76%	51.8%	19.0%	55.6%	29.23%	0.00230	120.000	3.80	1.69	0.47	11.19	2.04	1.57	5.78	50%
36-395(2)	9.2	70.30%	50.6%	19.7%	56.1%	29.70%	0.00230	120.000	4.12	1.81	0.50	11.99	2.19	1.65	6.09	50%
													2.19	**1.65**		
												Total Emissions (t/	**5.91**	**4.46**		

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)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
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)
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)
Total = Worst Coating + Sum of all solvents used

Appendix F: HAP Emission Calculations

Company Name: Lear Corporation - Shenandoah Division
Plant Location: 500 North Filmore Road, Greencastle, Indiana 46135
CP: 133-9756-00018
Permit Reviewer: Manoj P. Patel
Date: 10/09/1998

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Hexane	Weight % Toluene	Weight % Glcol Ethers	Hexane Emissions (ton/yr)	Toluene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)
Paint at Press Booth (PPB):									
Black	8.78	0.005290	130.00	0.00%	0.00%	12.90%	0.00	0.00	3.41
Light Grey (Called Medium)	9.47	0.008220	130.00	0.00%	0.00%	9.87%	0.00	0.00	4.37
Light Silverfern (Medium)	9.59	0.008280	130.00	0.00%	0.00%	10.33%	0.00	0.00	4.67
Light Carmel (Called Medium)	9.46	0.008280	130.00	0.00%	0.00%	10.37%	0.00	0.00	4.63
Dark Grey	8.95	0.008280	130.00	0.00%	0.00%	11.74%	0.00	0.00	4.95
Dark Silverfern	9.08	0.008280	130.00	0.00%	0.00%	11.46%	0.00	0.00	4.91
Dark Carmel	8.95	0.008280	130.00	0.00%	0.00%	12.28%	0.00	0.00	5.18
									5.18
Glue Booths & Blosterwrap Machines									
Booth 22 - K1018	7.05	0.002217	72.00	20.00%	15.00%	0.00%	0.99	0.74	0.00
Booth 23 - K1018	7.05	0.002217	72.00	20.00%	15.00%	0.00%	0.99	0.74	0.00
Booth 24 - K1018	7.05	0.002217	72.00	20.00%	15.00%	0.00%	0.99	0.74	0.00
Booth 25 - K1018	7.05	0.002217	72.00	20.00%	15.00%	0.00%	0.99	0.74	0.00
							3.94	**2.96**	

Total State Potential Emissions

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

Appendix G: HAP Emission Calculations

Company Name: Lear Corporation - Shenandoah Division
Plant Location: 500 North Filmore Road, Greencastle, Indiana 46135
CP: 133-9756-00018
Permit Reviewer: Manoj P. Patel
Date: 10/09/1998

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Hexane	Weight % Toluene	Weight % Glcol Ethers	Hexane Emissions (ton/yr)	Toluene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)
Glue Booths:									
Booth 27, 28, 29 (Combined) - K1018	6.9	0.002600	125.00	20.00%	15.00%	0.00%	1.96	1.47	0.00
							1.96	**1.47**	

Total State Potential Emissions

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

Appendix H: HAP Emission Calculations

Company Name: Lear Corporation - Shenandoah Division
Plant Location: 500 North Filmore Road, Greencastle, Indiana 46135
CP: 133-9756-00018
Permit Reviewer: Manoj P. Patel
Date: 10/09/1998

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Glycol Ethers	Glycol Ethers Emissions (ton/yr)
Paint at Press Booth 2 (PB2)					
Black Paint	8.8	0.002370	130.00	4.95%	0.59
Lt. Grey	9.5	0.002370	130.00	0.00%	0.00
Lt. Silverfern	9.6	0.002370	130.00	4.95%	0.64
Lt. Camel	9.5	0.002370	130.00	4.95%	0.63
Dark Cirrus Grey	8.9	0.002370	130.00	4.95%	0.59
Dark Silverfern	9.1	0.002370	130.00	4.95%	0.61
Dark Camel	8.9	0.002370	130.00	4.95%	0.59
					0.64
Paint at Press Booth 3 (PB3)					
36-391	8.9	0.003900	120.00	11.13%	**2.03**
Paint at Press Booth 4 (PB4)					
36-391	8.9	0.003900	120.00	11.37%	**2.07**
Total State Potential Emissions					**4.75**

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