INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: February 2, 2009

RE: Tin, Inc. dba Temple-Inland / 163-26945-00026

FROM: Matthew Stuckey, Branch 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, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot12/03/07

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Minor Source Operating Permit (MSOP)
OFFICE OF AIR QUALITY

TIN Inc. dba Temple-Inland
2000 Lynch Road
Evansville, Indiana 47711

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source 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.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M163-26945-00026	
Issued by: Alfred C. Dumaual, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: February 2, 2009 Expiration Date: February 2, 2014

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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 and 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 stationary paperboard production and flexographic printing operation.

Source Address:	2000 Lynch Road, Evansville, Indiana 47711
Mailing Address:	2000 Lynch Road, Evansville, Indiana 47711
General Source Phone Number:	1-812-429-0389
SIC Code:	2653
County Location:	Vanderburgh
Source Location Status:	Nonattainment for PM2.5 standard Attainment for all other criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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) Greenwood flexographic printing press, 2-Color, identified as Emission Unit E-99, installed in 1971, with a maximum line speed of 200 feet per minute (ft/min), a maximum printing width of 187 inches (in), using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(b) One (1) Koppers Die Cutter, 2-Color flexo printing capabilities, identified as EO-41, installed in 1985, with a maximum line speed of 1,000 ft/min, a maximum width of 109 in., using an integral cyclone to collect trim paper identified as CY-01, and exhausting to stack S-05.

(c) One (1) Ward folder gluer, with 2-Color flexo printing capabilities, identified as EG-62, installed in 1980, with a maximum line speed of 600 ft/min, a maximum printing width of 181 in., using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(d) One (1) Koppers folder gluer, with 2-Color flexo printing capabilities, identified as EG-16, installed in 1985, with a maximum line speed of 1,000 ft/min, a maximum printing width of 81, using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(e) One (1) corn-based starch silo, identified as CS-01, installed in 1971, with a maximum annual capacity for starch throughput of 8,760 tons per year (ton/yr), with a Bin Vent filter, and exhausting to stack S-04.

(f) One (1) Crittendon Laminator, identified as M-47, installed in 1997, with a maximum line speed of 600 ft/min, a maximum fold width of 87 in., using no controls, and exhausting to general ventilation.

(g) One (1) Cleaver Brooks natural gas fired boiler, identified as A-56, installed before November 1, 1971, with a maximum heat input capacity of 20.9 million British thermal units per hour (MMBtu/hr), and exhausting to stack S-01.

(h) One (1) Cleaver Brooks natural gas fired boiler, identified as A-80, installed in 1981, with a maximum heat input capacity of 20.9 million British thermal units per hour (MMBtu/hr), and exhausting to stack S-02.

(i) One (1) Recycling corrugated material area, consisting of:

(1) One (1) integral corrugated material separation cyclone, identified as CY-01, installed in 1971, which conveys the scrap and corrugated material to a baler, with an air flow rate of 38,000 acfm, and an overall efficiency of 95%.

(2) One (1) Balemaster Baler, identified as BM-01, installed in 1971.

(j) Trivial activities as defined in 326 IAC 2-7-1(40) relating to: ventilation, routine fabrication such as drilling, surface grinding as related to maintenance and repair, housekeeping, office related activities, sampling activities such as waste, storage equipment containing raw materials, emergency and standby equipment such as process safety valve relief devices, activities related to production such as air compressors & pneumatically operated equipment, cleaners and solvents with vapor pressure less than 2 kPa, activities associated with treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(k) Activities associated with degreasing operations that do not exceed 145 gallons per twelve months, as follows:

(1) One (1) Heritage Crystal Clean small parts washer, identified as PW-01, installed in 2001, with a maximum usage of less than 0.01 gallons per day, exhausting inside the building.

(l) One (1) Koppers folder gluer, with 3-color flexo printing capabilities, identified as EG-65, installed in 2004, with a maximum line speed of 1,000 ft/min, a maximum printing width of 110 in., using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(m) One (1) MHI paperboard Corrugator, identified as C-65, installed in 1991, with a maximum line speed of 800 feet per minute, using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(n) One (1) ITON Stitcher, with stitching and glue edges of corrugated material capabilities, identified as ITON Stitcher, installed in 1971, with a maximum line speed of 100 ft/min, using no controls, and exhausting to general ventilation.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

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.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M163-26945-00026, 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, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual 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) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

(c) 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.10 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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.

If, due to circumstances beyond the Permittee’s control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) 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 is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M163-26945-00026 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and

(2) 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) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(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.15 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.16 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][IC 13-17-3-2][IC 13-30-3-1]

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, 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) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due within thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.19 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions 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 (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 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 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.6 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.7 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
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

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 2-1.1-1(1).

(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) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.8 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 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 IDEM, OAQ if the Permittee 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.9 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 [326 IAC 2-6.1-5(a)(2)]

C.10 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.11 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.12 Instrument Specifications [326 IAC 2-1.1-11]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.13 Response to Excursions or Exceedances

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.14 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 facility 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 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 response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.15 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.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit 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 physically present or electronically accessible 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 within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.

C.17 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(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, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do 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 or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(i) One (1) Recycling corrugated material area, consisting of:

(1) One (1) integral corrugated material separation cyclone, identified as CY-01, installed in 1971, which conveys the scrap and corrugated material to a baler, with an air flow rate of 38,000 acfm, and an overall efficiency of 95%.

(2) One (1) Balemaster Baler, identified as BM-01, installed in 1971.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 Particulate

Since the cyclone CY-01 is considered an integral part of the Recycling corrugated material area operations, the cyclone CY-01 shall be in operation and control emissions from Recycling corrugated material area operations at all times the Recycling corrugated material area operations are in process.

D.1.2 Preventive Maintenance Plan [326 IAC 2-6.1-5]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the cyclone CY-01.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(g) One (1) Cleaver Brooks natural gas fired boiler, identified as A-56, installed before November 1, 1971, with a maximum heat input capacity of 20.9 million British thermal units per hour (MMBtu/hr), and exhausting to stack S-01.

(h) One (1) Cleaver Brooks natural gas fired boiler, identified as A-80, installed in 1981, with a maximum heat input capacity of 20.9 million British thermal units per hour (MMBtu/hr), and exhausting to stack S-02.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.2.1 Particulate Matter Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(e), boiler A-80 shall be limited to 0.6 pounds per MMBtu heat input, and boiler A-56 shall be limited to 0.8 pounds per MMBtu heat input.

D.2.2 Preventive Maintenance Plan [326 IAC 2-6.1-5]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the boiler A-56 and boiler A-80.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(k) Activities associated with degreasing operations that do not exceed 145 gallons per twelve months, as follows:

(1) One (1) Heritage Crystal Clean small parts washer, identified as PW-01, installed in 2001, with a maximum usage of less than 0.01 gallons per day, exhausting inside the building.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.3.1 Cold Cleaner Operations [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2, for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the cleaner with a cover;

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

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

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

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

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

D.3.2 Cold Cleaner Degreaser Operation and Control [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the one (1) Heritage Crystal Clean small parts washer in Vanderburgh County shall:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at

thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tanks (I-13), and one (1) portable immersion cold cleaner tank (I-14) shall:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

(c) The owner or operator of the one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tank (I-13), and one (1) portable immersion cold cleaner tank (I-14) shall also comply with 326 IAC 8-3-2. Compliance with 326 IAC 8-3-5 shall also ensure compliance with 326 IAC 8-3-2.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION

Source Name: TIN Inc. dba Temple-Inland
Source Address: 2000 Lynch Road, Evansville, Indiana 47711
Mailing Address: 2000 Lynch Road, Evansville, Indiana 47711
MSOP No.: M163-26945-00026

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

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:	TIN Inc. dba Temple-Inland
Address:	2000 Lynch Road
City:	Evansville, Indiana 47711
Phone #:	1-812-429-0389
MSOP #:	M163-26945-00026

I hereby certify that TIN Inc. dba Temple-Inland is :
- ☐ still in operation.
- ☐ no longer in operation.

I hereby certify that TIN Inc. dba Temple-Inland is :
- ☐ in compliance with the requirements of MSOP M163-26945-00026.
- ☐ not in compliance with the requirements of MSOP M163-26945-00026.

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:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER: (317) 233-6865

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:_____
*SEE PAGE 2

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

Addendum to the Technical Support Document (ATSD) for a Registration Transitioning to a Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	**TIN Inc. dba Temple-Inland**
Source Location:	**2000 Lynch Road, Evansville, Indiana, 47711**
County:	**Vanderburgh**
SIC Code:	**2653**
Operation Permit No.:	**M163-26945-00026**
Permit Reviewer:	**Sarah Conner, Ph. D.**

On January 2, 2009, the Office of Air Quality (OAQ) had a notice published in The Evansville Courier, Evansville, Indiana, stating that TIN Inc. dba Temple-Inland had applied for the transition of a Registration to a MSOP at an existing stationary paperboard production and flexographic printing operation since the potential to emit pollutant VOC are greater than 25 tons per year. The notice also stated that the OAQ proposed to issue a MSOP for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

On January 21, 2009, The Evansville Environmental Protection Agency (EEPA) submitted comments to IDEM, OAQ on the draft MSOP.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

EEPA has reviewed the draft MSOP and believes the Opacity limits described on page 7 of the TSD are correct. Please correct the Opacity limits found in Condition C.3 of the draft MSOP from 40% to 30%.

Response to Comment 1:

IDEM agrees with the recommended changes. The permit has been revised as follows:

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~~**30**%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

IDEM Contact

(a) Questions regarding this proposed MSOP can be directed to Sarah Conner, Ph. D. at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-6555 or toll free at 1-800-451-6027 extension 4-6555.

(b) A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration Transitioning to a Minor Source Operating Permit (MSOP)

Source Description and Location

Source Name:	**TIN Inc. dba Temple-Inland**
Source Location:	**2000 Lynch Road, Evansville, Indiana, 47711**
County:	**Vanderburgh**
SIC Code:	**2653**
Operation Permit No.:	**M163-26945-00026**
Permit Reviewer:	**Sarah Conner, Ph. D.**

On September 3, 2008, the Office of Air Quality (OAQ) received an application from TIN Inc. dba Temple-Inland related to the transition of a Registration to a MSOP at an existing stationary paperboard production and flexographic printing operation since the potential to emit pollutant VOC are greater than 25 tons per year.

Existing Approvals

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

(a) Registration No. 163-14321-00026, issued on November 15, 2002.

(b) Notice Only Change No. 163-19159-00026, issued on August 24, 2004.

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective January 30, 2006, for the Evansville area, including Vanderburgh County, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Attainment effective October 18, 2000, for the 1-hour ozone standard for the Evansville area, including Vanderburgh County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005.
Basic nonattainment designation effective federally April 5, 2005, for PM2.5.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Vanderburgh County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed

pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5
U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Vanderburgh County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM2.5 promulgated on May 8th, 2008, and effective on July 15th 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Vanderburgh County has been classified as attainment or unclassifiable in Indiana for all other critera pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

(a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

(b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Background and Description of Permitted Emission Units

The Office of Air Quality (OAQ) has reviewed an application, submitted by TIN Inc. dba Temple-Inland on September 3, 2008, relating to the transition from a Registration to a MSOP at an existing stationary paperboard production and flexographic printing operation because the potential to emit pollutant VOC are greater than 25 tons per year.

The source consists of the following permitted emission units:

(a) One (1) Greenwood flexographic printing press, 2-Color, identified as Emission Unit E-99, installed in 1971, with a maximum line speed of 200 feet per minute (ft/min), a maximum printing width of 187 inches (in), using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(b) One (1) Koppers Die Cutter, 2-Color flexo printing capabilities, identified as EO-41, installed in 1985, with a maximum line speed of 1,000 ft/min, a maximum width of 109 in., using an integral cyclone to collect trim paper identified as CY-01, and exhausting to stack S-05.

(c) One (1) Ward folder gluer, with 2-Color flexo printing capabilities, identified as EG-62, installed in 1980, with a maximum line speed of 600 ft/min, a maximum printing width of 181 in., using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(d) One (1) Koppers folder gluer, with 2-Color flexo printing capabilities, identified as EG-16, installed in 1985, with a maximum line speed of 1,000 ft/min, a maximum printing width of 81 in, using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(e) One (1) corn-based starch silo, identified as CS-01, installed in 1971, with a maximum annual capacity for starch throughput of 8,760 tons per year (ton/yr), with a Bin Vent filter, and exhausting to stack S-04.

(f) One (1) Crittendon Laminator, identified as M-47, installed in 1997, with a maximum line speed of 600 ft/min, a maximum fold width of 87 in., using no controls, and exhausting to general ventilation.

(g) One (1) Cleaver Brooks natural gas fired boiler, identified as A-56, installed before November 1, 1971, with a maximum heat input capacity of 20.9 million British thermal units per hour (MMBtu/hr), and exhausting to stack S-01.

(h) One (1) Cleaver Brooks natural gas fired boiler, identified as A-80, installed in 1981, with a maximum heat input capacity of 20.9 million British thermal units per hour (MMBtu/hr), and exhausting to stack S-02.

(i) One (1) Recycling corrugated material area, consisting of:

(1) One (1) integral corrugated material separation cyclone, identified as CY-01, installed in 1971, which conveys the scrap and corrugated material to a baler, with an air flow rate of 38,000 acfm, and an overall efficiency of 95%.

(j) Trivial activities as defined in 326 IAC 2-7-1(40) relating to: ventilation, routine fabrication such as drilling, surface grinding as related to maintenance and repair, housekeeping, office related activities, sampling activities such as waste, storage equipment containing raw materials, emergency and standby equipment such as process safety valve relief devices, activities related to production such as air compressors & pneumatically operated equipment, cleaners and solvents with vapor pressure less than 2 kPa, activities associated with treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(k) Activities associated with degreasing operations that do not exceed 145 gallons per twelve months, as follows:

(1) One (1) Heritage Crystal Clean small parts washer, identified as PW-01, installed in 2001, with a maximum usage of less than 0.01 gallons per day, exhausting inside the building.

Emission Units Removed from Source

The following list of emission units have been removed from the source:

(1) One (1) Flexographic printing unit with slotting, die cutting, and gluing capabilities, identified as EG-43 with a maximum capacity of 17,887, pounds of cardboard per hour.

(2) One (1) parts washers, a vat unit, with a maximum capacity of 50 gallons of degreasing solvent.

Unpermitted Emission Units

The source consists of the following unpermitted emission units:

(l) One (1) Koppers folder gluer, with 3-color flexo printing capabilities, identified as EG-65, installed in 2004, with a maximum line speed of 1,000 ft/min, a maximum printing width of 110 in., using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(m) One (1) MHI paperboard Corrugator, identified as C-65, installed in 1991, with a maximum line speed of 800 feet per minute, using an integral pneumatic cyclone to convey trim paper, identified as CY-01, installed in 1971, and exhausting to stack S-05.

(n) One (1) ITON Stitcher, with stitching and glue edges of corrugated material capabilities, identified as ITON Stitcher, installed in 1971, with a maximum line speed of 100 ft/min, using no controls, and exhausting to general ventilation.

(o) One (1) Recycling corrugated material area, consisting of:

(2) One (1) Balemaster Baler, identified as BM-01, installed in 1971.

"Integral Part of the Process" Determination

The applicant submitted the following information to justify why cyclone (CY-01) should be considered an integral part of the Recycling corrugated material area operations for particulate matter emissions on October 17, 2008.

(a) The primary purpose of the cyclone (CY-01) is to operate pneumatically, separate particulate matter trimmings from the air stream and convey the trimmings to the baler (BM-01).

(b) The baler system can not operate without the cyclone since the cyclone is the mechanism by which the material is routed to the baler.

(c) If the trimmings were not removed by the cyclone then the equipment identified as units E-99, EO-41, EG-62, EG-16, EG-65, C-65 and BM-01, would not be able to operate.

(d) The baled trimmings are sold to paper mills for recycling. Tin Inc. receives an average of $216,000 per month from selling the scrap material. Therefore, there is an overwhelming economic advantage to use the cyclone in conjunction with the recycling corrugated material operations.

After reviewing the information provided by TIN Inc. dba Temple-Inland on October 17, 2008 for justification that the cyclone (CY-01) should be considered an integral part of the Recycling corrugated material area operations for particulate matter emissions, IDEM, OAQ has agreed that the cyclone (CY-01) should be considered an integral part of the Recycling corrugated material area operations for particulate matter emissions. This determination is based on the fact that the primary purpose of the cyclone (CY-01) is to pneumatically convey trimmings to the baler (BM-01) which could not operate without the cyclone. Therefore, the permitting level will be determined using the potential to emit of particulate matter for equipment identified as units E-99, EO-41, EG-62, EG-16, EG-65, C-65 and BM-01, after the cyclone (CY-01). Operating conditions in the proposed permit will specify that the cyclone (CY-01) shall operate at all times the Recycling corrugated material area operations are in process.

Enforcement Issues

IDEM is aware that unpermitted emission units including the corrugator, identified as C-65, ITON Stitcher, and Balemaster Baler, identified as BM-01 have been operating at the source. However these units have the potential to emit all regulated pollutants at exempt levels specified in 326 IAC 2-1.1-3(e). The unpermitted emission unit EG-65, replaced the permitted unit EG-43, and is the same type of unit, which would not require prior approval as described in 326 IAC 2-6.1-6(d)(13).

Therefore, there are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – MSOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	14.37
PM10(1)	6.47
PM2.5	6.47
SO_2	0.11
NO_x	18.31
VOC	72.10
CO	15.38

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

HAPs	Potential To Emit (tons/year)
Formaldehyde	0.130
Hexane	0.330
1,1-Dichloro-1-Fluoroethane	0.003
Tetrachloroethylene	0.001
Methanol	0.361
Acetaldehyde	0.004
Vinyl Acetate	0.220
Propylene Oxide	0.003
1,4-Dioxane	0.003
All other single HAPs	negligible
TOTAL HAPs	**1.054**

(a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of pollutant VOC is less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.

(b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

(a) The requirements of the NSPS for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit, because both boilers A-56 and A-80 were constructed prior to June 9th, 1989.

(b) This source is not subject to the NSPS of Performance for the Graphic Arts Industry: Publication Rotogravure Printing 40 CFR 60, Subpart QQ (326 IAC 12) because this source does not have any publication rotogravure printing presses.

(c) The requirements of the NSPS of Performance for Flexible Vinyl and Urethane Coating and Printing Source, 40 CFR 60, Subpart FFF (326 IAC 12), are not included in the permit, because this source does not print or coat flexible vinyl or urethane products.

(d) There are no other NSPS (40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(e) The requirements of the NESHAP for National Emission Standards for Halogenated Solvent Cleaning, 40 CFR 63.460, Subpart T (326 IAC 20-6), are not included in the permit, since because the degreasing operations at this source do not use halogenated solvents.

(f) The requirements of the NESHAP for National Emission Standard for Hazardous Air Pollutants for the Printing and Publishing Industry, 40 CFR 63.820, Subpart KK (326 IAC 20-18), are not included in the permit, because this source is not a major source of hazardous air pollutants (HAPs).

(g) The requirements of the NESHAP for National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry , 40 CFR 63.440, Subpart S (326 IAC 20-33), are not included in the permit, because this source is not a major source of hazardous air pollutants (HAPs).

(h) The requirements of the NESHAP for National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating 40 CFR 63.3280, Subpart JJJJ (326 IAC 20-), are not included in the permit, because this source is not a major source of hazardous air pollutants (HAPs).

(i) The requirements of the NESHAP for National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles, 40 CFR 63.4280, Subpart OOOO (326 IAC 20-), are not included in the permit, because this source is not a major source of hazardous air pollutants (HAPs).

(j) There are no other NESHAP (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

(k) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the entire source:

326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))

MSOP applicability is discussed under the Permit Level Determination – MSOP section above.

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

This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated pollutants are less than 250 tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

326 IAC 2-1.1-5 (Nonattainment New Source Review)

This existing source is not a major stationary source, under 326 IAC 2-1.1-5 (Nonattainment New Source Review), because the potential to emit particulate matter with a diameter less than ten 2.5 micrometers (PM2.5), is less than 100 tons per year. Therefore, pursuant to 326 IAC 2-1.1-5, the Nonattainment New Source Review requirements do not apply.

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

The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 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:

(1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) 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.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

326 IAC 8-5-5 (Graphic Arts Operations)

The unlimited VOC potential emissions from the source are less than 100 tons per year and the source existed as of November 1, 1980, therefore the requirements of 326 IAC 8-5-5 do not apply.

Printing Operations

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

The operation of the printers, gluers, and laminator each have the potential to emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

(1) The potential emissions of volatile organic compounds from the Ward folder gluer, identified as EG-62 are greater than twenty-five (25) tons per year. However, the facility was in existence prior to January 1, 1980, therefore, the requirements of 326 IAC 8-1-6 do not apply.

(2) The potential emissions of volatile organic compounds from all other facilities at the source as less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

326 IAC 8-2-5 (Paper Coating Operations)

None of the individual emission units at this source can perform web coating or involves saturation processes. Therefore, the requirements of 326 IAC 8-2-5 do not apply.

326 IAC 8-5-5 (Graphic Arts Operations)

The following facilities at the source can perform flexographic printing; however none of the facilities are subject to 326 IAC 8-5-5:

(1) The printing press, identified as E-99, was installed in 1971, is located at an existing source, and the potential emissions of volatile organic compounds from the source are less than one-hundred (100) tons per year, therefore the requirements of 326 IAC 8-5-5 do not apply.

(2) The die cutter, identified as EO-41, was installed in 1985, is located at an existing source, and the potential emissions of volatile organic compounds from the source are less than one-hundred (100) tons per year, therefore the requirements of 326 IAC 8-5-5 do not apply.

(3) The gluer, identified as EG-62, was installed in 1980, is located at an existing source, and the potential emissions of volatile organic compounds from the source are less than one-hundred (100) tons per year, therefore the requirements of 326 IAC 8-5-5 do not apply.

(4) The gluer, identified as EG-16, was installed in 1985, is located at an existing source, and the potential emissions of volatile organic compounds from the source are less than one-hundred (100) tons per year, therefore the requirements of 326 IAC 8-5-5 do not apply.

(5) The gluer, identified as EG-65, was installed in 2004, is located at an existing source, and the potential emissions of volatile organic compounds from the source are less than one-hundred (100) tons per year, therefore the requirements of 326 IAC 8-5-5 do not apply.

Boilers

326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating)

(a) Pursuant to 326 IAC 6-2-3(e), boiler A-80 shall be limited to 0.6 pounds per MMBtu heat input because it has a heat input of less than 250 MMBtu per hour and it began operation after June 8, 1972.

(b) However, pursuant to 326 IAC 6-2-3(d), boiler A-56 shall be limited to 0.8 pounds per MMBtu heat input because it has a heat input of less than 250 MMBtu per hour and it began operation before June 8, 1972.

326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating)

All sources of indirect heating facilities at the source were constructed before September 21, 1983; therefore, the requirements of 326 IAC 6-2-4 do not apply.

Paperboard Production

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

The potential particulate emissions from the Corrugator, C-65, Starch Silo, CS-01, and the integral corrugated material separation Cyclone (CY-01) are each less than 0.551 pound per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14), they are each not subject to this rule.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

This source is located in Vanderburgh, and the potential to emit particulate matter is less than one hundred (100) tons per year and the actual particulate matter emissions are less than ten (10) tons per year. Therefore, the requirements of 326 IAC 6.5 do not apply.

326 IAC 6.5-8-7 (Inland Container)

The requirements of 326 IAC 6.5-8-7 do not apply because the source (formerly Inland Container Corporation, Inc.) has retrofitted the boiler mentioned in this rule to fire only natural gas; and this rule was repealed on January 23, 2008.

Cold Cleaners

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

The degreasing operations consist of a Heritage Crystal Clean small parts washer, identified as PW-01, constructed after January 1, 1980. Therefore, pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with an emissions unit for draining cleaned parts;

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

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

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

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

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

The degreasing operations consist of a Heritage Crystal Clean small parts washer, with a remote solvent reservoir, identified as PW-01, constructed after January 1, 1980. Therefore, Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of

mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) the solvent is agitated; or

(C) the solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination: Operating Requirements

The cyclone (CY-01) shall operate at all times the Recycling corrugated material area operations are in process.

Conclusion and Recommendation

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 September 3, 2008.

The operation of this source shall be subject to the conditions of the attached proposed MSOP No. 163-26945-00026. The staff recommends to the Commissioner that this MSOP be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Sarah Conner, Ph. D. at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) (234-6555) or toll free at 1-800-451-6027 extension (4-6555).

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Source Wide Summary

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: M 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

Uncontrolled Potential Emissions (tons/year)

	Particulate Matter (tons/yr)	PM10 (tons/yr)	PM2.5 (tons/yr)	Sulfur Dioxide (tons/yr)	Nitrogen Oxides (tons/yr)	VOC (tons/yr)	Carbon Monoxide (tons/yr)	TOTAL HAPS
Boilers, A-56 & A-80	0.348	1.391	1.391	0.110	18.308	1.007	15.379	0.346
Printing Press E-99	-	-	-	-	-	4.777	-	-
Die Cutter EO-41	-	-	-	-	-	13.922	-	-
Gluer EG-62	-	-	-	-	-	26.969	-	0.316
Gluer EG-16	-	-	-	-	-	10.635	-	0.208
Gluer EG-65	-	-	-	-	-	14.278	-	0.120
Laminator M-47	-	-	-	-	-	0.108	-	0.057
ITON Stitcher	-	-	-	-	-	0.008	-	0.004
Cyclone CY-01/Baler BM-01 [1,2,]	0.262	0.262	0.262	-	-	-	-	-
Corn based silo CS-01	13.753	4.818	4.818	-	-	-	-	-
Corrugator C-65 [1, 2]	0.003	0.003	0.003	-	-	-	-	-
PW-01	-	-	-	-	-	0.392	-	0.003
TERMINAL WIDE TOTALS	**14.366**	**6.474**	**6.474**	**0.110**	**18.308**	**72.096**	**15.379**	**1.054**

Note 1: It is assumed that PM=PM10=PM2.5 for C-65 and CY-01
Note 2: The potential to emit particulate matter was determined for the Cyclone CY-01 and for the Corrugator C-65 with the cyclone (CY-01) being intergral.

Single Individual HAP for Boilers is 0.330 tons/year Hexane
Single Individual HAP for PW-01 is 0.002 tons/year 1,1-Dichloro-1-Fluoroethane
Single Individual HAP for Glues is 0.361 tons/year Methanol

Appendix A: Emissions Calculations
VOC From Converting Operations

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: M 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

E-99

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN) @ 100% Coverage	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
E-99 Greenwood	200	187	235,889

INK VOCS					
Ink Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
Worst Case Ink (7EBW42519)	2.5	1.62%	100.00%	235,889	4.78

Glue VOCs					
Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
No Glues	N/A	N/A	N/A	N/A	0.00

Total VOC Emissions =	**4.78 Ton/yr**

METHODOLOGY

Throughput (MMin^2 per Year) = Maxium line speed (feet per minute) * Convert (feet to inches) * Maximum print width (inches) * 60 minutes per hour * 8760 hours per year
VOC (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput in MMin^2 per hr * 1 Ton per 2000 lb.
HAP (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage HAP (water minus organics) * Flash off * Throughput in MMin^2 per hour * 1 Ton per 2000 lb.

Note 1: Total emissions based on rated capacity at 8,760 hours/year. *Maximum hourly usage based on data from 2007 operations as provided by the sourc
Note 2: NO HEAT SET OFFSET PRINTING HAS BEEN USED. THIS IS FLEXOGRAPHIC PRINTING WITH FLASH OFF AT 100%
Note 3: Manufacturer % content of ethylene glycol is proprietary and could not be obtained or verified by the source
Note 4: No solvent cleaners utilized in the clean-up of this piece of equipment
Note 5: No glues or adhesives are utilized on this piece of equipment

Appendix A: Emissions Calculations
VOC From Converting Operations

Company Name: **TIN Inc dba Temple-Inland**
Address City IN Zip: **2000 Lynch Road, Evansville, IN 47711**
County: **Vanderburgh**
Permit Number: **M 163-26945-00026**
Reviewer: **Sarah Conner, Ph. D.**
Date: **10/21/08**

EO-41

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN) @ 100% Coverage	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
EO-41 Koppers	1000	109	687,485

INK VOCS					
Ink Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
Worst Case Ink (7EBW42519) [6]	2.5	1.62%	100.00%	687,485	13.92

Glue VOCs					
Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
No Glues	N/A	N/A	N/A	N/A	0.00

Total VOC Emissions =	**13.92 Ton/yr**

METHODOLOGY

Throughput (MMin^2 per Year) = Maxium line speed (feet per minute) * Convert (feet to inches) * Maximum print width (inches) * 60 minutes per hour * 8760 hours per year
VOC (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput in MMin^2 per hr * 1 Ton per 2000 lb.
HAP (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage HAP (water minus organics) * Flash off * Throughput in MMin^2 per hour * 1 Ton per 2000 lb.

Note 1: Total emissions based on rated capacity at 8,760 hours/year. *Maximum hourly usage based on data from 2007 operations as provided by the source.
Note 2: NO HEAT SET OFFSET PRINTING HAS BEEN USED. THIS IS FLEXOGRAPHIC PRINTING WITH FLASH OFF AT 100%.
Note 3: Manufacturer % content of ethylene glycol is proprietary and could not be obtained or verified by the source.
Note 4: No solvent cleaners utilized in the clean-up of this piece of equipment.
Note 5: No glues or adhesives are utilized on this piece of equipment.

Appendix A: Emissions Calculations
VOC From Converting Operations

Company Name: **TIN Inc dba Temple-Inland**
Address City IN Zip: **2000 Lynch Road, Evansville, IN 47711**
County: **Vanderburgh**
Permit Number: **M 163-26945-00026**
Reviewer: **Sarah Conner, Ph. D.**
Date: **10/21/08**

EG-62

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN) @ 100% Coverage	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
EG-62 Ward	600	181	684,962

INK VOCS					
Ink Name Press Id	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
Inks Worst Case Ink (7EBW42519)	2.5	1.62%	100.00%	684,962	13.87

Glue VOCs					
Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
33-9201[6]	1.0	3.82%	100.00%	684,962	13.10

Total VOC Emissions =	**26.97 Ton/yr**

Glue HAPs					
Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % HAPs	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
33-9201[6]	1.0	0.09%	100.00%	684,962	0.32

METHODOLOGY

Throughput (MMin^2 per Year) = Maxium line speed (feet per minute) * Convert (feet to inches) * Maximum print width (inches) * 60 minutes per hour * 8760 hours per year

VOC (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput in MMin^2 per hr * 1 Ton per 2000 lb.
HAP (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage HAP (water minus organics) * Flash off * Throughput in MMin^2 per hour * 1 Ton per 2000 lb.

Note 1: Total emissions based on rated capacity at 8,760 hours/year. *Maximum hourly usage based on data from 2007 operations as provided by the source.
Note 2: NO HEAT SET OFFSET PRINTING HAS BEEN USED. THIS IS FLEXOGRAPHIC PRINTING WITH FLASH OFF AT 100%.
Note 3: Manufacturer % content of ethylene glycol is propriatory and could not be obtained or verified by the source.
Note 4: No solvent cleaners utilized in the clean-up of this piece of equipment.
Note 5: Worst case glue use in "Weight % Volatiles".
Note 6: This is the only glue used on this machine.

Appendix A: Emissions Calculations
VOC From Converting Operations

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: M 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

EG-16

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN) @ 100% Coverage	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
EG-16 Koppers	1000	81	510,883

INK VOCS					
Ink Name Press Id	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
Inks	2.5	1.62%	100.00%	510,883	10.35
Worst Case Ink (7EBW42519)					

Glue VOCs					
Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles[5]	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
33-636A[6]	1.0	0.11%	100.00%	510,883	0.29

Total VOC Emissions =	**10.64 Ton/yr**

Glue HAPs					
Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % HAPs	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
33-636A[6]	1.0	0.08%	100.00%	510,883	0.21

METHODOLOGY

Throughput (MMin^2 per Year) = Maxium line speed (feet per minute) * Convert (feet to inches) * Maximum print width (inches) * 60 minutes per hour * 8760 hours per year

VOC (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput in MMin^2 per hr * 1 Ton per 2000 lb.
HAP (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage HAP (water minus organics) * Flash off * Throughput in MMin^2 per hour * 1 Ton per 2000 lb.

Note 1: Total emissions based on rated capacity at 8,760 hours/year. *Maximum hourly usage based on data from 2007 operations as provided by the sourc
Note 2: NO HEAT SET OFFSET PRINTING HAS BEEN USED. THIS IS FLEXOGRAPHIC PRINTING WITH FLASH OFF AT 100%
Note 3: Manufacturer % content of ethylene glycol is proprietary and could not be obtained or verified by the source
Note 4: No solvent cleaners utilized in the clean-up of this piece of equipmen
Note 5: Worst case glue use in "Weight % Volatiles"
Note 6: This is the only glue used on this machine

Appendix A: Emissions Calculations
VOC From Converting Operations

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

EG-65

THROUGHPUT

Press I.D.	MAXIMUM LINE SPEED (FEET/MIN) @ 100% Coverage	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
EG-65 Koppers	1000	110	693,792

INK VOCS

Ink Name Press Id	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
Worst Case Ink (7EBW42519)	2.5	1.62%	100.00%	693,792	14.05

Glue VOCs

Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
32-724A [5]	1.0	0.066%	100.00%	693,792	0.23

Total VOC Emissions[1] =	**14.28 Ton/yr**

Glue HAPs

Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % HAPs	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
32-724A [5]	1.0	0.035%	100.00%	693,792	0.12

METHODOLOGY

Throughput (MMin^2 per Year) = Maxium line speed (feet per minute) * Convert (feet to inches) * Maximum print width (inches) * 60 minutes per hour * 8760 hours per year

VOC (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput in MMin^2 per hr * 1 Ton per 2000 lb.
HAP (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage HAP (water minus organics) * Flash off * Throughput in MMin^2 per hour * 1 Ton per 2000 lb.

Note 1: Total emissions based on rated capacity at 8,760 hours/year. *Maximum hourly usage based on data from 2007 operations as provided by the sourc
Note 2: NO HEAT SET OFFSET PRINTING HAS BEEN USED. THIS IS FLEXOGRAPHIC PRINTING WITH FLASH OFF AT 100%
Note 3: Manufacturer % content of ethylene glycol is propriatory and could not be obtained or verified by the source
Note 4: No solvent cleaners utilized in the clean-up of this piece of equipmen
Note 5: This is the only glue used on this machine

Appendix A: Emissions Calculations
VOC From Converting Operations

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: M 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

M-47

THROUGHPUT

Press I.D.	MAXIMUM LINE SPEED (FEET/MIN) @ 100% Coverage	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
M-47	600	87	329,236

INK VOCS

Ink Name Press Id	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
No Inks	N/A	N/A	N/A	N/A	0.00

Glue VOCs

Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
32-724A	1.0	0.07%	100.00%	329,236	0.11

Total VOC Emissions =	**0.11 Ton/yr**

Glue HAPs

Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % HAPs	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
32-724A	1.0	0.035%	100.00%	329,236	0.06

METHODOLOGY

Throughput (MMin^2 per Year) = Maxium line speed (feet per minute) * Convert (feet to inches) * Maximum print width (inches) * 60 minutes per hour * 8760 hours per year

VOC (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput in MMin^2 per hr * 1 Ton per 2000 lb.
HAP (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage HAP (water minus organics) * Flash off * Throughput in MMin^2 per hour * 1 Ton per 2000 lb.

Note 1: Total emissions based on rated capacity at 8,760 hours/year. *Maximum hourly usage based on data from 2007 operations as provided by the source.
Note 2: NO HEAT SET OFFSET PRINTING HAS BEEN USED. THIS IS FLEXOGRAPHIC PRINTING WITH FLASH OFF AT 100%.
Note 3: Manufacturer % content of ethylene glycol is propriatory and could not be obtained or verified by the source.
Note 4: No solvent cleaners utilized in the clean-up of this piece of equipment.
Note 5: Worst case glue use in "Weight % Volatiles".

Appendix A: Emissions Calculations
VOC From Converting Operations

Company Name: **TIN Inc dba Temple-Inland**
Address City IN Zip: **2000 Lynch Road, Evansville, IN 47711**
County: **Vanderburgh**
Permit Number: **M 163-26945-00026**
Reviewer: **Sarah Conner, Ph. D.**
Date: **10/21/08**

ITON Stitcher

THROUGHPUT

Press I.D.	MAXIMUM LINE SPEED (FEET/MIN) @ 100% Coverage	MAXIMUM WIDTH (INCHES) [6]	MMin^2/YEAR
ITON Stitcher	100	80	50,458

INK VOCS

Ink Name Press Id	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
NO Inks	N/A	N/A	N/A	N/A	0.00

Glue VOCs

Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
32-724A	0.5	0.066%	100.00%	50,458	0.01

Total VOC Emissions =	**0.01 Ton/yr**

Glue HAPs

Glue Name	Maxium Coverage (lbs/MMin^2)	Weight % HAPs	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
32-724A	0.5	0.035%	100.00%	50,458	0.004

METHODOLOGY

Throughput (MMin^2 per Year) = Maxium line speed (feet per minute) * Convert (feet to inches) * Maximum print width (inches) * 60 minutes per hour * 8760 hours per year

VOC (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput in MMin^2 per hr * 1 Ton per 2000 lb.
HAP (ton/yr)= Maximum Coverage pounds per MMin^2 * Weight percentage HAP (water minus organics) * Flash off * Throughput in MMin^2 per hour * 1 Ton per 2000 lb.

Note 1: Total emissions based on rated capacity at 8,760 hours/year. *Maximum hourly usage based on data from 2007 operations as provided by the source.
Note 2: NO HEAT SET OFFSET PRINTING HAS BEEN USED. THIS IS FLEXOGRAPHIC PRINTING WITH FLASH OFF AT 100%.
Note 3: Manufacturer % content of ethylene glycol is propriatory and could not be obtained or verified by the source.
Note 4: No solvent cleaners utilized in the clean-up of this piece of equipment.
Note 5: Worst case glue use in "Weight % Volatiles".
Note 6: Maximum capacity is restricted based up the width of the glue applicator, which is 2 inches wide.

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

Company Name: **TIN Inc dba Temple-Inland**
Address City IN Zip: **2000 Lynch Road, Evansville, IN 47711**
County: **Vanderburgh**
Permit Number: **M 163-26945-00026**
Reviewer: **Sarah Conner, Ph. D.**
Date: **10/21/08**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
Boilers: A-56 and A-80 (Each 20.9 MMBtu/hr)	
41.8	366.2

	Pollutant						
	PM [1]	PM10 [1]	PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 see below [2]	5.5	84
Potential Emission in tons/yr	0.35	1.39	1.39	0.11	18.31	1.01	15.38

Note 1: PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
Note 2: 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
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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

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

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: M 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.845E-04	2.197E-04	1.373E-02	3.296E-01	6.225E-04

	HAPS-Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	Total
Potential Emission in tons/yr	9.154E-05	2.014E-04	2.563E-04	6.957E-05	3.845E-04	3.455E-01

Methodology is the same as previous page.

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

Appendix A: Emissions Calculations
Potential PM Emissions from Cyclone Operations

Company Name: **TIN Inc dba Temple-Inland**
Address City IN Zip: **2000 Lynch Road, Evansville, IN 47711**
County: **Vanderburgh**
Permit Number: **M 163-26945-00026**
Reviewer: **Sarah Conner, Ph. D.**
Date: **10/21/08**

CY-01 / BM-01[6]

THROUGHPUT	Potential2 lbs / yr	Tons / yr	Emission factor lbs / ton loaded	Uncontrolled Emissions (lbs/Yr)	Uncontrolled Emissions (tons/yr)	Controlled Emission (tons/yr)
Cyclone Capacity	59,997,240	29,999	0.35	10,500	5.25	**0.26**

Total Controlled PM Emissions =	**0.262**	**Ton/yr**
Total Controlled PM Emissions =	**0.060**	**lb/hr**

METHODOLOGY
Potential to Emit (PTE) ton/yr = PTE (lbs/hr) x 8,760 hours/yr x 0.35 lbs/ton / 1 ton / 2,000 lbs

Note 1: PM Emission Factors: There are no emission factors for paper under AP-42, Chapter 10.
A similar emission factor for manual cutting was utilized from FIRE Version 6.25 for log sawing (SCC#3-07-008-02).

Note 2: Potential lbs/yr is calculated at 6,849 lbs / hr * 8,760 hrs / yr

Note 3: Cyclone is a pnuematic conveying device transferring trim material from a corrugator to a baler where the material is collected, baled, then sold on the open market.

Note 4: Cyclone has been determined integral to the process of recycling corrugated material with an estimated overall efficiency of 95% for all Particulate Matter.

Note 5: IDEM, OAQ has evaluated the information submitted and agrees that the cyclone (CY-01) should be considered an integral part of the Recycling corrugated material area operations for particulate matter emissions. This determination is based on the fact that the primary purpose of the cyclone (CY-01) is to pneumatically convey trimmings to the baler (BM-01) which could not operate without the cyclone. Therefore, the permitting level will be determined using the potential to emit of particulate matter for equipment identified as units E-99, EO-41, EG-62, EG-16, EG-65, C-65 and BM-01, after the cyclone (CY-01). Operating conditions in the proposed permit will specify that the cyclone (CY-01) shall operate at all times the Recycling corrugated material area operations are in process.

Note 6: The cyclone CY-01 conveys the scrap corrugated material to the baler BM-01, therefore any emissions from the baler are accounted in the cyclone calculations.

Appendix A: Emissions Calculations

Particulate Matter PTE From Corrugator and Starch Silo

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: M 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

Unit	Process	Units processed		Unit Weight lbs / sf (174 lbs/mmsf)	Maximum Throughput		PM Emission Factor [1, 2] (lb/ton)	Uncontrolled PM Emissions [3] (ton/yr)	PM10 Emission Factor (lb/ton)	Uncontrolled PM10 Emissions (ton/yr)	PM2.5 Emission Factor (lb/ton)	Uncontrolled PM2.5 Emissions (ton/yr)
					lb/hr	ton/yr						
C-65	Corrugator	392,000	sq.ft/hr	0.0002	68.208	298.751	0.35	0.05		0.05		0.05
								Controlled ***PM Emissions (tons/yr)				
								0.0026		0.0026		0.0026
						Total PM Emissions from C-65=		0.0006	lb/hr			
CS-01	Starch Silo	17,520,000	lbs/yr	1.0000	2,000.000	8,760.000	3.14	**13.75**	1.1	4.818	1.1	4.818
						Total PM Emissions from CS-01=		3.14	lb/hr			

Note 1: C-65 Emissions based upon msf, not on weight. Emission factor is industry specific and as provided by source. No emission factor was given for PM10 or for PM2.5
Note 2: CS-01 is based upon potential at the silo in lbs/yr. Emission factor is based upon AP-42, Table 11.12-2 Particulate Emissions for Concrete Batching, cement supplement unloading to elevated storage silo (pneu
Note 3: It is assumed that PM=PM10=PM2.5 for C-65.

Methodology

1) <u>Uncontrolled Particulate Matter (PM) Emissions</u>:

a) Uncontrolled PM Emissions (ton/yr) = Maximum Throughput (ton/yr) * PM Emission Factor (lb/ton) / 2000 (lb/ton
b) Cyclone has been determined integral to the process of recycling corrugated material with a low estimated overall efficiency of 95% for all Particulate Matter

Appendix A: Emissions Calculations
VOC and HAPs from Glue

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: M 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

National Adhesives Product	PTE - Pounds of Each Glue
32724A	1,048,257
33636A	510,883
339201	684,962

				List Individual HAPs PTE - by Name with Weight %			
National Adhesives Product	Total HAP Content Weight % [2]	Methanol (CAS#67-56-1)	Formaldehyde (CAS#50-00-0)	Acetaldehyde (CAS#75-07-0)	Vinyl Acetate (CAS#108-05-4)	Propylene Oxide (CAS#75-56-9)	1,4-Dioxane (CAS#123-91-1)
32724A	0.0346%	0.0257%	0.0042%	0.0005%	0.0032%	0.0005%	0.0005%
33636A	0.0813%	0.042%	0.0120%	0.0002%	0.0271%		
339201	0.0923%	0.0347%	0.0184%	0.0002%	0.0390%		

				List Individual HAPs PTE -					
National Adhesives Product	Total HAP Content Weight % [2]	PTE - Pounds of Each Glue	Total HAP Weight (tons)	Methanol (CAS#67-56-1) (tons)	Formaldehyde (CAS#50-00-0) (tons)	Acetaldehyde (CAS#75-07-0) (tons)	Vinyl Acetate (CAS#108-05-4) (tons)	Propylene Oxide (CAS#75-56-9) (tons)	1,4-Dioxane (CAS#123-91-1) (tons)
32724A	0.035%	1,048,257	0.1834	0.1347	0.0220	0.0026	0.0168	0.0026	0.0026
33636A	0.0813%	510,883	0.2077	0.1073	0.0307	0.0005	0.0692		
339201	0.0923%	684,962	0.3161	0.1188	0.0630	0.0007	0.1336		
Totals [3]			0.707	0.361	0.116	0.004	0.220	0.003	0.003

Note 1: VOC Content Weight % is from supplier data.
Note 2: HAP Content Weight % is from supplier data.
Note 3: No individual HAP above 10 tpy, sum total of all HAPs below 25 tpy

Appendix A: Emissions Calculations
Particulate Matter PTE From Corrugator and Starch Silo

Company Name: TIN Inc dba Temple-Inland
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47711
County: Vanderburgh
Permit Number: M 163-26945-00026
Reviewer: Sarah Conner, Ph. D.
Date: 10/21/08

PW-01

							Petroleum Naptha	
Parts Washer from Heritage-Crystal Clean	**527647**		**5.7**	**Size (gallons)**	**Max Potential Quantity Loss/ yr**		**Percent**	**lbs**
- Crystal Clean 100+	545103			30	120	6.54 lbs / gal	100%	784.80000
	580326		8.34				0%	0.00000
	107-6702							

							Tetrachloroethylene		1,1-Dichloro-1-Fluoroethane		Diethylene Glycol Monobutyl Ether	
Zep Manufacturing	**02FUJIGUM**			**Size (ounces)**	**Quantity / yr**		**Percent**	**lbs**	**Percent**	**lbs**	**Percent**	**lbs**
- Zep Solv	02FUDN5MD	**Aerosal**		12	24	13.43 lbs / gal	95%	2.13750	0%	0.00000	0%	0.00000
- Zep Elec II	526587	**Aerosal**		12	48	13.43 lbs / gal	0%	0.00000	95%	4.27500	5%	0.22500
								2.13750		4.27500		0.22500

Total VOC lbs/hr	**Run days in 2007**
784.800	365

PTE VOC (Tons)	
0.392	**Total VOC**

Total HAP	**Run days in 2007**
6.638	365

PTE HAP (Tons)	
0.003	**Total Combined HAP**

Single - highest HAP	
4.275	365

0.002	**Single HAP (1,1-Dichloro-1-Fluoroethane)**

Methodology

Potential to Emit (PTE) VOC lbs/yr = Maximum usage per year in size x quantity (gal/yr) x density (lb/gallon) / 128 oz/gallon x % VOC content
Potential to Emit (PTE) VOC ton/yr = PTE VOC (lbs/yr) / run days/yr x 1 day/24 hours x 8,760 hours/yr x 1 ton / 2,000 lbs

Potential to Emit (PTE) HAP lbs/yr = Maximum usage per year in size x quantity (gal/yr) x density (lb/gallon) / 128 oz/gallon x % HAP content
Potential to Emit (PTE) HAP ton/yr = PTE HAP lbs/yr x 8,760 hours/yr x 1 ton / 2,000 lbs / run days/yr