



Thomas M. McDermott, Jr.
Mayor

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

CITY OF HAMMOND

RONALD L. NOVAK
Director

MINOR SOURCE OPERATING PERMIT RENEWAL

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

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AIR POLLUTION CONTROL DIVISION**

**H-A Industries, Division of A.M. Castle & Co.
4527 Columbia Avenue
Hammond, Indiana 46327**

(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.

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.

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

Operation Permit No.: MSOP 089-21780-00248	
Issued by: _____ Original signed by: _____ Ronald L. Novak, Director Hammond Department of Environmental Management	Issuance Date: <u>June 19, 2007</u> Expiration Date: <u>June 19, 2012</u>

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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) and the Hammond Department of Environmental Management (HDEM). 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 metal heat treating operation.

Source Address:	4527 Columbia Avenue, Hammond, Indiana 46327
Mailing Address:	3400 North Wolf Road, Franklin Park, Illinois 60131
General Source Phone Number:	(219)931-6304
SIC Code:	3398 Metal Heat Treating
County Location:	Lake
Source Location Status:	Attainment/Unclassifiable for PM10, SO ₂ , CO, NO ₂ and Lead, Nonattainment area for PM2.5 and 8-hour ozone,
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act; and Not 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

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

- (a) One (1) Austenitizing Furnace with eight (8) zones, identified as QT1, with a combined maximum design capacity of 18.53 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S1, S2, and S4, identified as QT1-01, QT1-02, and QT1-03.
- (b) One (1) Tempering Furnace with seven (7) zones, identified as QT1, with a combined maximum design capacity of 13.05 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S8, S9, and S10, identified as QT1-04, QT1-05, and QT1-06.
- (c) One (1) Annealing Furnace No. 1 with nine (9) zones, identified as ANN1, with a combined maximum design capacity of 16 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S3 and S5-S7, identified as ANN1-01, ANN1-02, ANN1-03, and ANN1-04.
- (d) One (1) Annealing Furnace No. 2 with nine (9) zones, identified as ANN2, with a combined maximum design capacity of 13.8 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at eight (8) stacks S11-S13, S15-S17, S19, and S20, identified as ANN2-01, ANN2-02, ANN2-03, ANN2-04, ANN2-05, ANN2-06, ANN2-07, and ANN2-08.
- (e) One Heat Treat Line Hardening Furnace with three (3) zones, identified as QT2, with a combined maximum design capacity of 11.3 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at one (1) stack S14, identified as QT2-01.
- (f) One Heat Treat Line Tempering Furnace with three (3) zones, identified as QT2, with a combined maximum design capacity of 9 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at one (1) stack S18, identified as QT2-02.

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, MSOP 089-21780-00248, 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 and HDEM, 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 and HDEM, 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 and HDEM, within a reasonable time, any information that IDEM, OAQ and HDEM 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 and HDEM 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 and HDEM 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

and

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue – Room 304
Hammond, Indiana 46320

- (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 and HDEM 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 maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ and HDEM upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and HDEM. IDEM, OAQ and HDEM 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 MSOP 089-21780-00248 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 ninety (90) 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 HDEM 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

and

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue – Room 304
Hammond, Indiana 46320

- (b) A timely renewal application is one that is:
- (1) Submitted at least ninety (90) 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 is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and HDEM 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 and HDEM 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 and HDEM 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

and

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue – Room 304
Hammond, Indiana 46320

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 and HDEM 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] [IC13-17-3-2] [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, and HDEM 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

and

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue – Room 304
Hammond, Indiana 46320

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 to HDEM within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone number: 219-853-6306 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 conditions 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 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 and HDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.2 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 twenty percent (20%) 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 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.4 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.5 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.6 Fugitive Dust Emissions [326 IAC 6.8-10-3]

The Permittee shall be in violation of 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), if the opacity of fugitive particulate emissions exceeds ten percent (10%).

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

and

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue – Room 304
Hammond, Indiana 46320

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

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

and

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue – Room 304
Hammond, Indiana 46320

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 and HDEM 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 and HDEM not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and HDEM if the Permittee submits to IDEM, OAQ and HDEM, 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;
 - (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 and HDEM 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 re-testing in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the re-testing deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

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

Record Keeping and Reporting Requirements

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 and HDEM, 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 Emission Statement [326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit an emission statement by July 1 following a calendar year when the source emits oxides of nitrogen into the ambient air equal to or greater than twenty – five (25) tons. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue - Room 304
Hammond, Indiana 46320

The emission statement does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and HDEM on or before the date it is due.

C.17 Annual Emission Inventory [Hammond Ordinance No. 7102]

- (a) The Permittee shall submit an annual emission inventory containing production information, fuel usage and estimated actual emissions of criteria pollutants for each permitted unit. The emission inventory must be received by April 15th of each year. The submittal should cover the twelve (12) consecutive month time period starting January 1 and ending December 31. This is a local requirement only. The emission inventory must be submitted to:

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue - Room 304
Hammond, Indiana 46320

This inventory does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (b) The emission inventory 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 HDEM on or before the date it is due.

C.18 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 or HDEM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or HDEM 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.

C.19 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

and

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue – Room 304
Hammond, Indiana 46320

- (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 and HDEM 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) 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: One (1) Austenitizing Furnace with eight (8) zones, identified as QT1, with a combined maximum design capacity of 18.53 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S1, S2, and S4, identified as QT1-01, QT1-02, and QT1-03.

(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

D.1.1 Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO)

Emissions from the combustion of natural gas are governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended) for the following pollutants: Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO).

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this emissions unit.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: One (1) Tempering Furnace with seven (7) zones, identified as QT1, with a combined maximum design capacity of 13.05 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S8, S9, and S10, identified as QT1-04, QT1-05, and QT1-06.

(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

D.2.1 Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO)

Emissions from the combustion of natural gas are governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended) for the following pollutants: Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO).

D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: One (1) Annealing Furnace No. 1 with nine (9) zones, identified as ANN1, with a combined maximum design capacity of 16 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S3 and S5-S7, identified as ANN1-01, ANN1-02, ANN1-03, and ANN1-04.

(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

D.3.1 Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO)

Emissions from the combustion of natural gas are governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended) for the following pollutants: Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO).

D.3.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: One (1) Annealing Furnace No. 2 with nine (9) zones, identified as ANN2, with a combined maximum design capacity of 13.8 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at eight (8) stacks S11-S13, S15-S17, S19, and S20, identified as ANN2-01, ANN2-02, ANN2-03, ANN2-04, ANN2-05, ANN2-06, ANN2-07, and ANN2-08.

(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

D.4.1 Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO)

Emissions from the combustion of natural gas are governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended) for the following pollutants: Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO).

D.4.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: One Heat Treat Line Hardening Furnace with three (3) zones, identified as QT2, with a combined maximum design capacity of 11.3 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at one (1) stack S14, identified as QT2-01.

(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

D.5.1 Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO)

Emissions from the combustion of natural gas are governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended) for the following pollutants: Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO).

D.5.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: One Heat Treat Line Tempering Furnace with three (3) zones, identified as QT2, with a combined maximum design capacity of 9 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at one (1) stack S18, identified as QT2-02.

(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

D.6.1 Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO)

Emissions from the combustion of natural gas are governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended) for the following pollutants: Particulate Matter (PM), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO_x), Volatile Organic Compound (VOC), and Carbon Monoxide (CO).

D.6.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

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

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
-AIR POLLUTION CONTROL DIVISION-**

**MINOR SOURCE OPERATING PERMIT
CERTIFICATION**

Source Name: **H-A Industries, Division of A.M. Castle & Co.**
Source Address: 4527 Columbia Avenue, Hammond, Indiana 46327
Mailing Address: 3400 North Wolf Road, Franklin Park, Illinois 60131
Permit No.: **M089-21780-00248**

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 Notification
- 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:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
and
HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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:	H-A Industries, Division of A.M. Castle & Co.
Address:	4527 Columbia Avenue
City:	Hammond, Indiana 46327
Phone #:	(219) 931-6304
MSOP #:	089-21780-00248

I hereby certify that **H-A Industries, Division of A.M. Castle & Co.** is still in operation.
 no longer in operation.

I hereby certify that **H-A Industries, Division of A.M. Castle & Co.** is
 in compliance with the requirements of MSOP **089-21780-00248**.
 not in compliance with the requirements of MSOP **089-21780-00248**.

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
and
HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
FAX NUMBER - 219 853-6343**

**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 ?_____, 100TONS/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 PERM 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
and
Hammond Department of Environmental Management
-Air Pollution Control Division-**

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

Source Background and Description

Source Name:	H-A Industries, Division of A.M. Castle & Co.
Source Location:	4527 Columbia Avenue, Hammond, Indiana 46327
County:	Lake
SIC Code:	3398 Metal Heat Treating
Permit Renewal No.:	M089-21780-00248
Permit Reviewer:	Debra Malone

The Hammond Department of Environmental Management (HDEM) has reviewed the operating permit renewal application from H-A Industries, Division of A.M. Castle & Co. relating to the operation of the following emission units and pollution control devices:

- (a) One (1) Austenitizing Furnace with eight (8) zones, identified as QT1, with a combined maximum design capacity of 18.53 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S1, S2, and S4, identified as QT1-01, QT1-02, and QT1-03.
- (b) One (1) Tempering Furnace with seven (7) zones, identified as QT1, with a combined maximum design capacity of 13.05 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S8, S9, and S10, identified as QT1-04, QT1-05, and QT1-06.
- (c) One (1) Annealing Furnace No. 1 with nine (9) zones, identified as ANN1, with a combined maximum design capacity of 16 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at three (3) stacks S3 and S5-S7, identified as ANN1-01, ANN1-02, ANN1-03, and ANN1-04.
- (d) One (1) Annealing Furnace No. 2 with nine (9) zones, identified as ANN2, with a combined maximum design capacity of 13.8 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at eight (8) stacks S11-S13, S15-S17, S19, and S20, identified as ANN2-01, ANN2-02, ANN2-03, ANN2-04, ANN2-05, ANN2-06, ANN2-07, and ANN2-08.
- (e) One Heat Treat Line Hardening Furnace with three (3) zones, identified as QT2, with a combined maximum design capacity of 11.3 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at one (1) stack S14, identified as QT2-01.
- (f) One Heat Treat Line Tempering Furnace with three (3) zones, identified as QT2, with a combined maximum design capacity of 9 MMBtu/hr heat input, natural gas-fired, using no control equipment and exhausting at one (1) stack S18, identified as QT2-02.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

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

History

On September 14, 2005, H-A Industries, Division of A.M. Castle & Co. submitted applications to the OAQ and HDEM requesting to renew its operating permit. H-A Industries, Division of A.M. Castle & Co. was issued a Minor Source Operating Permit on December 14, 2000.

Existing Approvals

Since the issuance of the MSOP (089-12141-00248) on December 14, 2000, the source has been operating under the following approvals as well:

(a) Notice-only (089-19878-00248), issued on September 22, 2004.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
QT1-01	Austenitizing 001	50	20	2970	350
QT1-02	Austenitizing 001	50	20	6600	400
QT1-03	Austenitizing 001	50	20	4356	350
QT1-04	Tempering 002	50	13	1600	300
QT1-05	Tempering 002	50	22	2288	300
QT1-06	Tempering 002	50	13	1984	300
ANN1-01	Annealing 003	50	27	4772	300
ANN1-02	Annealing 003	50	27	4772	300
ANN1-03	Annealing 003	50	22	3168	250
ANN1-04	Annealing 003	50	18	2112	250
ANN2-01	Annealing 004	49	13*	**	**
ANN2-02	Annealing 004	49	22*	4960	353
ANN2-03	Annealing 004	49	22*	1125	325
ANN2-04	Annealing 004	49	18*	1688	325
ANN2-05	Annealing 004	49	13*	1688	325
ANN2-06	Annealing 004	49	13*	1688	325
ANN2-07	Annealing 004	49	20*	5343	257
ANN2-08	Annealing 004	49	13*	**	**
QT2-01	Hardening 005	49	20*	Unknown	Unknown
QT2-02	Tempering 006	49	22*	Unknown	Unknown

*Estimated

**Radiant Heat Hoods at ANN2 Furnace entrance and exit.

Emission Calculations

See Appendix A of this document for detailed emission calculations (three (3) pages).

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM10	Attainment
PM2.5	Nonattainment
SO ₂	Attainment
NOx	Unclassifiable/Attainment
8-hour Ozone	Moderate Nonattainment
CO	Unclassifiable/Attainment
Lead	Attainment

- (a) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Lake County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a lawsuit 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 violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as surrogate for PM2.5 emissions pursuant to the Nonattainment New Source Review requirements. See the State Rule Applicability – Entire Source section.
- (b) 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 the ozone standards. Lake County has been designated as moderate nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.
- (c) Lake County has been classified as attainment or unclassifiable in Indiana for particulates less than ten (10) microns in diameter (PM10), sulfur dioxides (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and Lead (Pb). Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (e) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD or Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	Potential to Emit (tons/yr)
PM	0.72
PM-10	2.90
SO ₂	0.23
VOC	2.10
CO	32.00
NO _x	46.30

HAPs	Potential to Emit (tons/yr)
Lead	0.0002
Total	0.0002

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM-10, SO₂, VOC, CO and NO_x are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of NO_x is equal to or greater than 25 tons per year. This existing source is subject to the provisions of 326 IAC 2-6.1 Minor Source Operating Permit Program.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2005 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	0.17
PM-10	0.69
SO ₂	0.05
VOC	0.50
CO	7.62
NO _x	12.32
Lead	0

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this MSOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Austenitizing Furnace	0.15	0.62	0.05	0.45	6.82	8.12	0
Tempering Furnace	0.13	0.54	0.04	0.39	5.94	7.07	0
Annealing Furnace Line 1	0.13	0.53	0.04	0.39	5.89	7.01	0
Annealing Furnace Line 2	0.13	0.53	0.04	0.39	5.89	15.21	0
Heat Treat Line Hardening Furnace	0.09	0.38	0.03	0.27	4.16	4.95	0
Heat Treat Line Tempering Furnace	0.07	0.30	0.02	0.22	3.31	3.94	0
Total Emissions	0.70	2.90	0.22	2.11	32.01	46.3	0

This table shows the allowable emissions for each pollutant for the entire source. PM, PM-10, SO₂, VOC, CO and NO_x allowable emissions limits were based on the Hammond Air Quality Control Ordinance No. 3522 (as amended).

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) This existing stationary source is not major for Emission Offset because the emissions of the nonattainment pollutants, VOC and NOx, are less than one hundred (<100) tons per year.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Federal Rule Applicability

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

State Rule Applicability – Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) on March 31, 1997. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-6 (Emission Reporting)

This source which is located in Lake County is subject to 326 IAC 2-6 (Emission Reporting) because it has the potential to emit greater than 25 tons per year (tpy) of NOx, and it may emit NOx into the ambient air at levels equal to or greater than 25 tpy. In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted by July 1 if the source emits NOx into the ambient air equal to or greater than 25 tons during the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

Per Hammond Ordinance No. 7102, for those years that the source is not required to submit an emission statement, the source will be required to submit an annual emission inventory containing production information/fuel usage for each permitted unit. The emission inventory must be received by April 15th of each year. The submittal should cover the twelve (12) consecutive month time period starting January 1 and ending December 31. This is a local requirement only.

The source is in compliance with the required emission reporting submittals.

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 Exemptions), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) 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.

No violations of the opacity standards have been observed at this source.

State Rule Applicability – Individual Facilities

326 IAC 6.8-1-1 (Particulate Matter Limitations for Lake County – General Provisions)

This source is located in Lake County. It is not specifically listed in 326 IAC 6.8-2 through 326 IAC 6.8-11 of this rule and it does not have the potential to emit one hundred (100) tons or more; or actual emissions of ten (10) tons or more of particulate matter per year. Therefore, this rule does not apply.

Local Rule Applicability

Hammond Air Quality Control Ordinance No. 3522 (as amended)

Emissions from the combustion of natural gas are governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended) for the following pollutants: Particulate Matter (PM), Sulfur Dioxide (SO₂), Volatile Organic Compound (VOC), Carbon Monoxide (CO), and Nitrogen Oxide (NO_x).

Recommendation

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

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

An application for the purposes of this review was received on September 14, 2005.

Conclusion

The operation of this metal heat treat operation shall be subject to the conditions of the attached MSOP Renewal No. **M089-21780-00248**.

**Annealing Furnace Line 1
(Natural Gas Combustion)**

(003)

MDC (mmBtu/hr): 16
MDR (mmcft/hr): 0.0160

HEAT CONTENT (Btu/cft): 1,000
QTY BURNED (mmcft/yr): N/A

STACK ID (DIAM:HEIGHT): 27" : 50'
FLOWRATE (ACFM): 4,772
Ts(°F): 300

CNTRL DEV: NONE

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 1-02-006-03			POTENTIAL EMISSIONS						ALLOWABLE	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)
POLLUTANT	EF(lbs/mmcf)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)			
PM	1.9	0	0.0304	0.7296	0.1332	0.0304	0.1332	0.0304	0.1332	
PM10	7.6	0	0.1216	2.9184	0.5326	0.1216	0.5326	0.1216	0.5326	
SOx	0.6	0	0.0096	0.2304	0.0420	0.0096	0.0420	0.0096	0.0420	
NOx	100	0	1.6000	38.4000	7.0080	1.6000	7.0080	1.6000	7.0080	
VOC	5.5	0	0.0880	2.1120	0.3854	0.0880	0.3854	0.0880	0.3854	
CO	84	0	1.3440	32.2560	5.8867	1.3440	5.8867	1.3440	5.8867	
LEAD	0.0005	0	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	

*Hammond Air Quality Control Ordinance No. 3522 (as amended)

**Annealing Furnace Line 2
(Natural Gas Combustion)**

(004)

MDC (mmBtu/hr): 16
MDR (mmcft/hr): 0.0160

HEAT CONTENT (Btu/cft): 1,000
QTY BURNED (mmcft/yr): N/A

STACK ID (DIAM:HEIGHT): (1.17: 30)
FLOWRATE (ACFM): ?
Ts(°F): 200

CNTRL DEV: NONE

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 1-03-006-03 (AP-42, Table 1.4-1, 2, & 3)			POTENTIAL EMISSIONS						ALLOWABLE	
			BEFORE CONTROLS			AFTER CONTROLS			(lbs/hr)	(TPY)
POLLUTANT	EF(lbs/mmcf)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)			
PM	1.9	0	0.0304	0.7296	0.1332	0.0304	0.1332	0.0304	0.1332	
PM10	7.6	0	0.1216	2.9184	0.5326	0.1216	0.5326	0.1216	0.5326	
SOx	0.6	0	0.0096	0.2304	0.0420	0.0096	0.0420	0.0096	0.0420	
NOx***	217	0	3.4720	83.3280	15.2074	3.4720	15.2074	3.4720	15.2074	
VOC	5.5	0	0.0880	2.1120	0.3854	0.0880	0.3854	0.0880	0.3854	
CO	84	0	1.3440	32.2560	5.8867	1.3440	5.8867	1.3440	5.8867	
LEAD	0.0005	0	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	

*THIS POINT IS CLASSED "REGISTERED" ACCORDING TO THE POTENTIAL EMISSIONS.

*Hammond Air Quality Control Ordinance No. 3522 (as amended)

*** NOx emission factor based upon data provided by manufacturer

Heat Treat Line Hardening Furnace (005)
 (Natural Gas Combustion)
 CNTRL DEV: NONE

MDC (mmBtu/hr): 11.3
 MDR (mmcft/hr): 0.0113

HEAT CONTENT (Btu/cft): 1,000
 QTY BURNED (mmcft/yr): N/A

STACK ID (DIAM:HEIGHT): (1.17: 30)
 FLOWRATE (ACFM): ?
 Ts(°F): 200

PERMITTED OPERATING HRS: 8760 hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE	
			BEFORE CONTROLS			AFTER CONTROLS				
POLLUTANT	EF(lbs/mmcf)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	
PM	1.9	0	0.0215	0.5153	0.0940	0.0215	0.0940	0.0215	0.0940	
PM10	7.6	0	0.0859	2.0611	0.3762	0.0859	0.3762	0.0859	0.3762	
SOx	0.6	0	0.0068	0.1627	0.0297	0.0068	0.0297	0.0068	0.0297	
NOx	100	0	1.1300	27.1200	4.9494	1.1300	4.9494	1.1300	4.9494	
VOC	5.5	0	0.0622	1.4916	0.2722	0.0622	0.2722	0.0622	0.2722	
CO	84	0	0.9492	22.7808	4.1575	0.9492	4.1575	0.9492	4.1575	
LEAD	0.0005	0	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	

*Hammond Air Quality Control Ordinance No. 3522 (as amended)

Heat Treat Line Tempering Furnace (006)
 (Natural Gas Combustion)
 CNTRL DEV: NONE

MDC (mmBtu/hr): 9
 MDR (mmcft/hr): 0.0090

HEAT CONTENT (Btu/cft): 1,000
 QTY BURNED (mmcft/yr): N/A

STACK ID (DIAM:HEIGHT): (1.17: 30)
 FLOWRATE (ACFM): ?
 Ts(°F): 200

PERMITTED OPERATING HRS: 8760 hr/yr

			POTENTIAL EMISSIONS						ALLOWABLE	
			BEFORE CONTROLS			AFTER CONTROLS				
POLLUTANT	EF(lbs/mmcf)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	
PM	1.9	0	0.0171	0.4104	0.0749	0.0171	0.0749	0.0171	0.0749	
PM10	7.6	0	0.0684	1.6416	0.2996	0.0684	0.2996	0.0684	0.2996	
SOx	0.6	0	0.0054	0.1296	0.0237	0.0054	0.0237	0.0054	0.0237	
NOx	100	0	0.9000	21.6000	3.9420	0.9000	3.9420	0.9000	3.9420	
VOC	5.5	0	0.0495	1.1880	0.2168	0.0495	0.2168	0.0495	0.2168	
CO	84	0	0.7560	18.1440	3.3113	0.7560	3.3113	0.7560	3.3113	
LEAD	0.0005	0	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	

*Hammond Air Quality Control Ordinance No. 3522 (as amended)

Source Totals H-A Industries

			POTENTIAL EMISSIONS						ALLOWABLE	
			BEFORE CONTROLS			AFTER CONTROLS				
POLLUTANT	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	
PM	0.1653	3.9663	0.7238	0.1653	0.7238	0.1653	0.7238	0.1653	0.7238	
PM10	0.6610	15.8652	2.8954	0.6610	2.8954	0.6610	2.8954	0.6610	2.8954	
SOx	0.0522	1.2525	0.2286	0.0522	0.2286	0.0522	0.2286	0.0522	0.2286	
NOx	10.5700	253.6800	46.2966	10.5700	46.2966	10.5700	46.2966	10.5700	46.2966	
VOC	0.4784	11.4814	2.0953	0.4784	2.0953	0.4784	2.0953	0.4784	2.0953	
CO	7.3063	175.3517	32.0017	7.3063	32.0017	7.3063	32.0017	7.3063	32.0017	
LEAD	0.0000	0.0010	0.0002	0.0000	0.0002	0.0000	0.0002	0.0000	0.0002	

* This source is class "Minor" according to potential NOx emissions.

*Hammond Air Quality Control Ordinance No. 3522 (as amended)