



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

December 6, 2004

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

TO: Interested Parties / Applicant

RE: EGS Easy Heat, Inc / 141-19189-00083

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

Notice of Decision: Approval - Registration

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 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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, Room 1049, 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
FN-REGIS.dot 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

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December 6, 2004

Ms. Jennifer Moore
EGS Easy Heat, Inc.
31977 US Highway 20 East
New Carlisle, IN 46552

Re: 141-19189-00083, Revised Registration to
Registered Construction and Operation Status,
141-14173-00083

Dear Ms. Moore:

The application from EGS Easy Heat, Inc. received on May 27, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following coated heating wire products manufacturing source, located at 31977 US 20 East, New Carlisle, Indiana, 46552, is classified as registered:

- (a) Two (2) electrically heated G-mat machines, identified as #0011 and #0012, capacity: 1,887 feet of PVC wire per hour.
- (b) Five (5) plastic injection molders, identified as #0017 Mat Molder, #0019 ADKS Molder, #0309 AHB Tail Molder, #0313 AHB T-stat Molder, and #0314 Tran Green Start Molder, capacity: 24.658 pounds of processed PVC compounds per hour, total.
- (c) Sixteen (16) natural gas-fired heaters, capacity: 0.052 million British thermal units per hour, each.
- (d) One (1) natural gas-fired heater, capacity: 0.20 million British thermal units per hour.
- (e) Four (4) natural gas-fired heaters, capacity: 0.30 million British thermal units per hour, each.
- (f) One (1) natural gas-fired heater, capacity: 0.165 million British thermal units per hour.
- (g) Welding and brazing operations, consisting of a Gas Tungsten Arc Welder (GTAW), and a soldering area, capacity: 16.0 pounds of coil stock processed per hour, total.
- (h) One (1) Gas Tungsten Arc Welder (GTAW), capacity: 16.0 of coil stock processed per hour.
- (i) One (1) putty mixing operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.

- (j) One (1) putty extruding operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.
- (k) One (1) natural gas fired space heater, capacity: 0.18 million British thermal units per hour.

The following conditions shall be applicable:

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:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period 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.
2. Any change or modification which may increase the potential to emit a combination of HAPs, VOC, NO_x, SO₂, PM or PM₁₀ to twenty five (25) tons per year, CO to one hundred (100) tons per year, or a single HAP to ten (10) tons per year from this source shall require approval from IDEM, OAQ prior to making the change.
3. Any change or modification that increases the actual emissions of PM to ten (10) tons per year or more shall make the facilities at this source subject to the requirements of 326 IAC 6-1-2 (Non-attainment Area Particulate Limitations) and shall require prior IDEM, OAQ approval.
4. Pursuant to 326 IAC 6-3-2 (Process Operations), the following limitations are applicable:
 - (a) The particulate matter from the one (1) putty mixing operation shall not exceed 0.877 pounds per hour, when operating at a process weight rate of 200 pounds per hour. Although it takes two (2) hours to completely process each batch of 200 pounds, the process weight rate is still 200 pounds per hour because 200 pounds of putty are undergoing the mixing process during the hour. The filters shall be in operation at all times the putty mixing is in operation, in order to comply with this limit.
 - (b) The particulate matter from the one (1) putty extruding operation shall not exceed 0.877 pounds per hour, when operating at a process weight rate of 200 pounds per hour. Although it takes two (2) hours to completely process each batch of 200 pounds, the process weight rate is still 200 pounds per hour because 200 pounds of putty are undergoing the extruding process during the hour. The filters shall be in operation at all times the putty extruding is in operation, in order to comply with this limit.
 - (c) Pursuant to Exempt Construction and Operation Status 141-12467-00083, issued on September 14, 2000, the particulate matter (PM) from the welding, brazing, injection molding, and PVC molding shall be limited by the following:

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

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

P = process weight rate in tons per hour

5. The filters for PM control shall be in operation at all times when the one (1) putty mixing operation and one (1) putty extruding operation are in operation.
6. Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the putty booths while one (1) or more of the booths are in operation.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3)). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

CJF:MES

cc: File - St. Joseph County
St. Joseph County Health Department
Air Compliance - Rick Reynolds
Northern Regional Office
Permit Tracking
Compliance Data Section
Office of Enforcement

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	EGS Easy Heat, Inc.
Address:	31977 US Highway 20 East
City:	New Carlisle, IN 46552
Authorized individual:	Jennifer Moore
Phone #:	(574)-654-3144
Registration #:	141-14173-00083

I hereby certify that **EGS Easy Heat, Inc.** is still in operation and is in compliance with the requirements of Registration **141-14173-00083**.

Name (typed):
Title:
Signature:
Date:

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a Revised Registration

Source Background and Description

Source Name:	EGS Easy Heat, Inc.
Source Location:	31977 US 20 East, New Carlisle, Indiana 46552
County:	St. Joseph
SIC Code:	3643
Operation Permit No.:	R 141-14173-00083
Operation Permit Issuance Date:	December 21, 1994
Minor Permit Revision No.:	141-19189-00083
Permit Reviewer:	Craig J. Friederich

The Office of Air Quality (OAQ) has reviewed an application from EGS Easy Heat, Inc. relating to the construction and operation of plastic injection molding machines at an existing coated heating wire products manufacturing source.

Permitted Emission Units and Pollution Control Equipment

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

- (a) Two (2) electrically heated G-mat machines, identified as #0011 and #0012, capacity: 1,887 feet of PVC wire per hour, total.
- (b) Sixteen (16) natural gas-fired space heaters, rated at: 0.052 million British thermal units per hour, each.
- (c) One (1) natural gas-fired space heater, rated at: 0.20 million British thermal units per hour.
- (d) Four (4) natural gas-fired space heaters, rated at: 0.30 million British thermal units per hour, each.
- (e) One (1) natural gas-fired space heater, rated at: 0.165 million British thermal units per hour.
- (f) Two (2) natural gas-fired space heaters, rated at: 0.10 million British thermal units per hour, each.
- (g) Welding and brazing operations, consisting of a Gas Tungsten Arc Welder (GTAW), and a soldering area, capacity: 16.0 pounds of coil stock processed per hour, total.
- (h) One (1) putty mixing operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.
- (i) One (1) putty extruding operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.

- (j) One (1) plastic injection molder, identified as #0017 Mat Molder, capacity: 1.60 pounds of processed PVC compounds per hour.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units:

- (k) One (1) plastic injection molder, identified as #0019 ADKS Molder, reconstructed on June 1, 2004, capacity: 7.92 pounds of processed PVC compounds per hour.
- (l) One (1) plastic injection molder, identified as #0309 AHB Tail Molder, constructed on June 1, 2004, capacity: 4.20 pounds of processed PVC compounds per hour.
- (m) One (1) plastic injection molder, identified as #0313 Mat Molder, constructed on June 1, 2004, capacity: 4.20 pounds of processed PVC compounds per hour.
- (n) One (1) plastic injection molder, identified as #0314 Mat Molder, constructed on June 1, 2004, capacity: 6.738 pounds of processed PVC compounds per hour.
- (o) One (1) natural gas-fired space heater, capacity: 0.18 million British thermal units per hour.

History

On May 27, 2004, EGS Easy Heat submitted an application to the OAQ requesting to replace six (6) of their original injection molders with three (3) new injection molders. A fourth injection molder was rebuilt and renamed as #0019 ADKS Molder. The original molder, identified as #0017 has been renamed as #0017 Mat Molder. This unit was not reconstructed. There was no change to this unit. Therefore, there are now five (5) injection molders in operation at the source.

Existing Approvals

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

- (a) Registration R 141-14173-00083, issued August 8, 2001;
- (b) First Notice Only Change 141-17264-00083, issued May 29, 2003;
- (c) Exempt Construction and Operation Status, 141-12467-00083, issued on September 14, 2000;
- (d) A registration R 141-3766-00083, issued on December 21, 1994, was superceded by the Exempt Construction and Operation Status 141-12467-00083, issued on September 14, 2000.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled "Unpermitted Emission Units and Pollution Control Equipment".

- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

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

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

An application for the purposes of this review was received on May 27, 2004, with additional information received on July 29, 2004.

Emission Calculations

- (a) The potential to emit VOC from the two (2) G-mat machines was calculated in Registration 141-3766-00083. There has been no modification to this bonding process. This calculation is shown as follows:

Weight of PVC jacketed wire before bonding = 4.50 lb/30 ft²

Weight of PVC coated mesh before bonding = 0.43 lb/264 ft

Weight of wire and mesh after bonding = 4.87 lb

Weight loss during process = 4.93 - 4.87 = 0.06 lbs

VOC = 0.06 lb/264 ft * 1,887 ft/hr * 8,760/2000 = 1.88 tons per year.

- (b) Potential emissions from the five (5) injection molders are calculated using EPA's AIRS emission factors for Polyvinyl Chlorides, March 1990. The same factors were used to calculate the potential to emit in Registration 141-3766-00083. Please note that these molders use non-styrene containing PVC compounds.

The total PVC usage for the five (5) molders is 24.658 pounds per hour. The AIRS emission factors for each critical pollutant are:

PM = 35.0 lbs/ton

PM₁₀ = 23.0 lbs/ton

VOC = 17.0 lbs/ton

SO₂ = negligible

NO_x = 200 lbs/ton

The potential to emit PM = 24.658lbs/hr / 2,000lbs/ton * 35lbs/ton * 8,760 hrs / 2,000 = 1.89 tons per year.

The potential to emit PM₁₀ = 24.658lbs/hr / 2,000lbs/ton * 23lbs/ton * 8,760 hrs / 2,000 = 1.24 tons per year.

The potential to emit VOC = 24.658lbs/hr / 2,000lbs/ton * 17lbs/ton * 8,760 hrs / 2,000 = 0.918 tons per year.

The potential to emit $\text{NO}_x = 24.658\text{lbs/hr} / 2,000\text{lbs/ton} * 200\text{lbs/ton} * 8,760 \text{ hrs} / 2,000 = 10.8$ tons per year.

See pages 1 through 3 of 3 of Appendix A of this document for detailed combustion and putty mixing emissions calculations. Please note the emissions from the welding and brazing operation, consisting of one (1) Gas Tungsten Arc Welder (GTAW) unit, and a soldering area are negligible. This type of welder uses a non-consumable electrode, and the soldering torch uses a lead and cadmium free silver solder.

Potential to Emit of Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	1.77
PM ₁₀	1.16
SO ₂	negligible
VOC	0.585
CO	negligible
NO _x	10.1

HAPs	Potential to Emit (tons/yr)
Total	negligible

Justification for the Revision

The Registration is being revised through a Registration Minor Permit Revision request. This revision is being performed pursuant to 326 IAC 2-5.5-6(h).

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment

Pollutant	Status
NO ₂	Attainment
1-Hour Ozone	Attainment
8-Hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

Volatile organic compounds (VOC) and nitrogen oxides (NO_x) 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 NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for nonattainment new source review.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Before Revision Emissions (Entire Source) (tons/year)	After Revision Emissions (Entire Source) (tons/year)
PM	23.7	24.4
PM ₁₀	23.7	23.8
SO ₂	Negligible	0.007
VOC	2.48	2.87
CO	0.400	1.02
NO _x	7.67	12.0
Single HAP	0.02	Negligible
Combination HAPs	0.023	0.023

- (a) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) The emissions were based on the TSD for Registration 141-14173-00083, and calculations done for this revision.

Federal Rule Applicability

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

326 IAC 2-6 (Emission Reporting)

This source is not located in Lake or Porter County with the potential to emit greater than twenty-five (25) tons per year (tpy) of NO_x, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

326 IAC 5-1 (Opacity Limitations)

This source is in St. Joseph County, but is not located east of Pine Road. 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 the permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 6-1-1 (Nonattainment Area Particulate Limitations)

Although this source is located in St. Joseph County, which is listed in 326 IAC 6-1-7, the source is not specifically listed in 326 IAC 6-1-18, the potential to emit PM is less than one hundred (100) tons per year and the actual PM emissions are less than ten (10) tons per year due to operation of the control device. Therefore, the requirements of 326 IAC 6-1-2 are not applicable to the facilities at this source.

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

- (a) Pursuant to R 141-14713-00083, issued on August 8, 2001, the particulate from the one (1) putty mixing operation shall not exceed 0.877 pounds per hour, when operating at a process weight rate of 200 pounds per hour. Although it takes two (2) hours to completely process each batch of 200 pounds, the process weight rate is still 200 pounds per hour because 200 pounds of putty are undergoing the mixing process during the hour. Since the potential to emit PM from the total of the putty mixing and extruding operations, after control by the wall of filters, is 0.005 pounds per hour, the one (1) putty mixing operation will comply with this rule. The filters shall be in operation at all times the putty mixing is in operation, in order to comply with this limit.
- (b) Pursuant to R 141-14713-00083, issued on August 8, 2001, the particulate from the one (1) putty extruding operation shall not exceed 0.877 pounds per hour, when operating at a process weight rate of 200 pounds per hour. Although it takes two (2) hours to com

pletely process each batch of 200 pounds, the process weight rate is still 200 pounds per hour because 200 pounds of putty are undergoing the mixing process during the hour. Since the potential to emit PM from the total of the putty mixing and extruding operations, after control by the wall of filters, is 0.005 pounds per hour, the one (1) putty mixing operation will comply with this rule. The filters shall be in operation at all times the putty mixing is in operation, in order to comply with this limit.

- (c) Pursuant to Exempt Construction and Operation Status 141-12467-00083, issued on September 14, 2000, the particulate matter (PM) from the welding and injection molding, shall be limited by the following:

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

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

Proposed Changes

The Registration letter language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

The equipment classified as registered is revised as follows:

- (a) Two (2) electrically heated G-mat machines, identified as #0011 and #0012, capacity: 1,887 feet of PVC wire per hour.
- (b) ~~Eight (8)~~ **Five (5)** plastic injection molders, identified as #0017 **Mat Molder**, #0069, #0082, #0083, #0088, #0106, #0121, and #0122, **#0019 ADKS Molder, #0309 AHB Tail Molder, #0313 AHB T-stat Molder, and #0314 Tran Green Start Molder**, capacity: ~~43.62~~ **24.658** pounds of processed PVC compounds per hour, **total**.
- (c) ~~Twenty (20)~~ **Sixteen (16)** natural gas-fired heaters, capacity: 0.052 million British thermal units per hour, each.
- (d) One (1) natural gas-fired heater, capacity: 0.20 million British thermal units per hour.
- (e) Four (4) natural gas-fired heaters, capacity: 0.30 million British thermal units per hour, each.
- (f) One (1) natural gas-fired heater, capacity: 0.165 million British thermal units per hour.
- (g) Two (2) natural gas-fired heaters, capacity: 0.10 million British thermal units per hour, each.
- (h) ~~Welding and brazing operations,~~ **consisting of a Gas Tungsten Arc Welder (GTAW), and a soldering area, capacity: 16.0 of coil stock processed per hour, total.**
- (i) One (1) putty mixing operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.
- (j) One (1) putty extruding operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.

- (k) One (1) natural gas-fired space heater, capacity: 0.18 million British thermal units per hour.**

Conclusion

The operation of this proposed revision shall be subject to the conditions of the **Revised Registration 141-19189-00083**.

**Appendix A: Emission Calculations
Putty Mixing and Extruding**

Company Name: EGS Easy Heat, Inc.
Address City IN Zip: 31977 US 20 East, New Carlisle, Indiana 46552
Reg Rev: 141-19189
Plt ID: 141-00083
Reviewer: Craig J. Friderich
Application Date: May 27, 2004

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM Emission Rate before Controls (lb/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lb/hr)	PM Emission Rate after Controls (tons/yr)
Putty Mixing and Extruding	99.9%	0.0003	2000	5.14	22.5	0.0051	0.023

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (cub. ft./min.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

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

Company Name: EGS Easy Heat, Inc.
Address City IN Zip: 31977 US 20 East, New Carlisle, IN 46552
Permit Number: 141-19189
Pit ID: 141-00083
Reviewer: Craig J. Friederich
Application Date: May 27, 2004

Twenty Five Combustion Units

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

2.78

24

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100 **see below	5.50	84.0
Potential Emission in tons/yr	0.023	0.092	0.007	1.216	0.067	1.022

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

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

See page 3 for HAPs emissions calculations.

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

Company Name: EGS Easy Heat, Inc.
Address City IN Zip: 31977 US 20 East, New Carlisle, IN 46552
Permit Number: 141-19189
Pit ID: 141-00083
Reviewer: Craig J. Friederich
Date: May 27, 2004

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 0.00210	Dichlorobenzene 0.00120	Formaldehyde 0.07500	Hexane 1.80000	Toluene 0.00340
Potential Emission in tons/yr	0.000026	0.000015	0.000912	0.021894	0.000041

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.0004	Nickel 0.0021	Total
Potential Emission in tons/yr	0.00001	0.00001	0.00002	0.00000	0.00003	0.023

Methodology is the same as page 2.

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