



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
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TO: Interested Parties / Applicant
DATE: March 27, 2006
RE: EGS Easy Heat / 141-22047-00083
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

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 from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-AM.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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Jennifer Moore – Operations Manager
EGS Easy Heat, Inc.
31977 U.S. 20 East
New Carlisle, Indiana 46552

March 27, 2006

Re: Exempt Construction and Operation Status,
141-22047-00083

Dear Ms. Moore:

The application from EGS Easy Heat, Inc., received on January 19, 2006, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following coated heating wire products manufacturing source located at 31977 U.S. 20 East, New Carlisle, Indiana 46552, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) electrically heated G-mat machine, identified as #0011, installed in 2000, capacity: 34,354 spot welds per hour.
- (b) One (1) electrically heated G-mat machine, identified as #0012, installed in 2000, capacity: 68,828 linear inches of running weld per hour.
- (c) Four (4) plastic injection molders, identified as #0017 Mat Molder, #0309 AHB Tail Molder, #0313 AHB T-stat Molder, and #0314 Tran Green Start Molder, capacities: 1.6, 4.2, 4.2 and 6.74 pounds of resin per hour, respectively.
- (d) Twenty-four (24) natural gas-fired heaters, rated at a total heat input of 2.54 million British thermal units per hour.
- (e) Two (2) Essex molders, identified as EM#0001 and EM#0002, installed in February 2006, capacity: 24.0 pounds of resin per hour total.
- (f) One (1) electrically heated G-mat machine, identified as #0013, to be installed in April 2006, capacity: 68,828 linear inches of running weld per hour.
- (g) One (1) wire molder, identified as WM#0001, to be installed March 2006, capacity: 350 pounds of resin per hour.
- (h) One (1) stand up molder, identified as SUM#0001, to be installed April 2006, capacity: 12 pounds of resin per hour.
- (i) One (1) autojector molder, identified as AM#0001, to be installed April 2006, capacity: 12 pounds of resin per hour.

- (j) One (1) propane-fired die heater, identified as DH#0001, for the wire molder, identified as WM#0001, rated at a heat input of 0.057 million British thermal units per hour.
- (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.

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:
Kathy Moore, Section Chief
Permits Branch
Office of Air Quality

FPC/MES

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

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

Technical Support Document (TSD) for an Exemption

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
Exemption No.:	E 141-22047-00083
Permit Reviewer:	Frank P. Castelli

The Office of Air Quality (OAQ) has reviewed an exemption application from EGS Easy Heat, Inc. relating to the removal of all welding, brazing, putty mixing and putty extrusion operations and the addition of another G-mat machine, three (3) molders and one (1) die heater to the existing coated heating wire products manufacturing source.

The existing registration, R 141-14173-00083, issued on December 21, 1994 will be superceded by the proposed Exemption. Based on the data submitted by EGS Easy Heat, Inc. and the provisions in 326 IAC 2-1.1-3, it has been determined that the following coated heating wire products manufacturing source located at 31977 U.S. 20 East, New Carlisle, Indiana 46552, Indiana, is classified as exempt from air pollution permit requirements:

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

- (a) One (1) electrically heated G-mat machine, identified as #0011, installed in 2000, capacity: 34,354 spot welds per hour.
- (b) One (1) electrically heated G-mat machine, identified as #0012, installed in 2000, capacity: 68,828 linear inches of running weld per hour.
- (c) Four (4) plastic injection molders, identified as #0017 Mat Molder, #0309 AHB Tail Molder, #0313 AHB T-stat Molder, and #0314 Tran Green Start Molder, capacities: 1.6, 4.2, 4.2 and 6.74 pounds of resin per hour, respectively.
- (d) Twenty-four (24) natural gas-fired heaters, rated at a total heat input of 2.54 million British thermal units per hour.
- (e) Two (2) Essex molders, identified as EM#0001 and EM#0002, installed in February 2006, capacity: 24.0 pounds of resin per hour total.

New Emission Units and Pollution Control Equipment

The application includes information relating to the prior approval for the construction and operation of the following new equipment:

- (f) One (1) electrically heated G-mat machine, identified as #0013, to be installed in April 2006, capacity: 68,828 linear inches of running weld per hour.
- (g) One (1) wire molder, identified as WM#0001, to be installed March 2006, capacity: 350 pounds of resin per hour.

- (h) One (1) stand up molder, identified as SUM#0001, to be installed April 2006, capacity: 12 pounds of resin per hour.
- (i) One (1) autojector molder, identified as AM#0001, to be installed April 2006, capacity: 12 pounds of resin per hour.
- (j) One (1) propane-fired die heater, identified as DH#0001, for the wire molder, identified as WM#0001, rated at a heat input of 0.057 million British thermal units per hour.

The following facilities have been removed from the source and are not included in the Exemption:

- (k) 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.
- (l) One (1) Gas Tungsten Arc Welder (GTAW), capacity: 16.0 of coil stock processed per hour.
- (m) 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.
- (n) 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.
- (o) One (1) Mat Molder, #0019 ADKS Molder, capacity: 7.918 pounds of processed PVC compounds per hour, total.

Existing Approvals

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

- (a) Registration R 141-3766-00083, issued on December 21, 1994, was superseded by the Exempt Construction and Operation Status 141-12467-00083, issued on September 14, 2000.
- (b) Exempt Construction and Operation Status, 141-12467-00083, issued on September 14, 2000;
- (c) Registration R 141-14173-00083, issued on August 8, 2001;
- (d) First Notice Only Change 141-17264-00083, issued on May 29, 2003; and
- (e) Revised registration R 141-19189-00083, issued on December 6, 2004.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that Exemption status 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.

A complete application for the purposes of this review was received on January 19, 2006.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document in pages 1 - 4.

Potential to Emit of the Source Before Controls

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	1.11
PM ₁₀	1.17
SO ₂	0.007
VOC	2.15
CO	0.944
NO _x	1.17

HAPs	Potential to Emit (tons/yr)
Benzene	0.00002
Dichlorobenzene	0.00001
Formaldehyde	0.0008
Hexane	0.020
Toluene	0.00004
Lead Compounds	0.00001
Cadmium Compounds	0.00001
Chromium Compounds	0.00002
Manganese Compounds	0.000004
Nickel Compounds	0.00002

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

- (b) 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 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. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (c) **Fugitive Emissions**
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM _{2.5}	Attainment
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-Hour Ozone	Attainment
8-Hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

- (a) 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 of 326 IAC 2-3, Emission Offset. See the State Rule Applicability - Entire Source section of this document.
- (b) St. Joseph County has been classified as unclassifiable or attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions. See the State Rule Applicability - Entire Source section of this document.
- (c) St. Joseph County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. 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 of this document.

Source Status of the Entire Source

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

Pollutant	Emissions (tons/yr)
PM	1.11
PM ₁₀	1.17
SO ₂	0.007
VOC	2.15
CO	0.944
NO _x	1.17
Single HAP (Hexane)	0.020
Combination HAPs	0.021

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of two-hundred fifty (250) tons per year or greater and it is not in one of the twenty-eight (28) listed source categories.
- (b) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of one-hundred (100) tons per year or greater and it is not in one of the twenty-eight (28) listed source categories.
- (c) Emissions were based on the emission calculations presented in Appendix A of this document.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, with the summarized emissions from this permit 141-22047-00083, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

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

This status is based on this proposed exemption. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this permit.
- (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) included in this permit.

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

The unrestricted potential emissions of each attainment criteria pollutant are less than two hundred and fifty (250) tons per year. Therefore, this source, which is not one of the twenty-eight (28) listed source categories, is a minor source pursuant to 326 IAC 2-2, PSD.

326 IAC 2-3 (Emissions Offset)

The unrestricted potential emissions of each nonattainment criteria pollutant are less than one hundred (100) tons per year. Therefore, this source is a minor source pursuant to 326 IAC 2-2, PSD.

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

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

326 IAC 2-6 (Emission Reporting)

This source is 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 located in St. Joseph County, but it 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 6.5-1 (formerly 326 IAC 6-1-1) (Nonattainment Area Particulate Limitations)

Although this source is located in St. Joseph County, which is listed in 326 IAC 6.5-1-7 (formerly 326 IAC 6-1-7), the source is not specifically listed in 326 IAC 6.5-7 formerly (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. Therefore, the requirements of 326 IAC 6.5-1-2 (formerly 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)

Pursuant to 326 IAC 6-3-1(b)(14), the injection molders and the G-mat machines are exempt from the requirements of 326 IAC 6-3-2 because the potential to emit PM from this process is less than 0.551 pounds per hour.

Compliance Requirements

There are no compliance determination or compliance monitoring requirements included in this Exemption.

Conclusion

The operation of this coated heating wire products manufacturing shall be subject to the conditions of the **Exemption 141-22047-00083**.

Appendix A: Emissions Calculations

Company Name: EGS Easy Heat, Inc.
Address City IN Zip: 31977 US 20 East, New Carlisle, IN 46552
Permit Number: 141-22047
Pit ID: 141-00083
Reviewer: Frank P. Castelli
Application Date: January 19, 2006

Unit ID	Date Installed	Description	Capacity units/hr or yr		Emissions Factors (lbs PM/unit)		Emissions		
							lbs/hr	lbs/yr	tpy
#0011 G-Mat	Existing	Used to Hot-Air Weld PVC-coated wire to PVC strand to produce a heating element grid. Automatic layout machine is integral to the unit.	34354	spot welds/hr	-	-	-	-	-
#0012 G-Mat	Existing	Used to Hot-Air Weld PVC-coated wire to PVC strand to produce a heating element grid. Manual layout required. PVC-coated polyester mesh may be included to strengthen some products. Some smoke is produced when the mesh is included.	68828	linear inches of running weld/hr	1.7984E-06	lbs/ linear inch of running weld ⁽¹⁾	0.1238	1084	0.5422
#0013 Proposed G-Mat	Apr '06	Used to Hot-Air Weld PVC-coated wire to PVC strand to produce a heating element grid. Manual layout required. PVC-coated polyester mesh may be included to strengthen some products. Some smoke is produced when the mesh is included.	68828	linear inches of running weld/hr	1.7984E-06	lbs/ linear inch of running weld ⁽¹⁾	0.1238	1084	0.5422
#0017 Mat Molder	Existing	Injection molder	1.6	lbs resin/hr	-	-	-	-	-
#0309 AHB Tail Molder	Existing	Injection molder	4.2	lbs resin/hr	-	-	-	-	-
#0313 AHB T-Stat Molder	Existing	Injection molder	4.2	lbs resin/hr	-	-	-	-	-
#0314 Trane Green Start Molder	Existing	Injection molder	6.74	lbs resin/hr	-	-	-	-	-
WM#0001 Wire Molder	Mar '06	Extrusion for coating wire	350	lbs resin/hr	-	-	-	-	-
EM#0001 & #0002 Essex Molders	Feb '06	Injection molders	24	lbs resin/hr	-	-	-	-	-
SUM #0001 Stand Up Molder	Apr '06	Injection molder	12	lbs resin/hr	-	-	-	-	-
AM #0001 Autojector Molder	Apr '06	Injection molder	12	lbs resin/hr	-	-	-	-	-
TOTAL PTE PM OR PM10 (tpy)									1.0843

⁽¹⁾ At the request of IDEM, these factors were recalculated based on mass balance studies completed at EGS Easy Heat on January 9 and January 12, 2006.

Unit ID	Date Installed	Description	Capacity units/hr or yr		Emissions Factors (lbs VOC/unit)		Emissions		
							lbs/hr	lbs/yr	tpy
#0011 G-Mat	Existing	Used to Hot-Air Weld PVC-coated wire to PVC strand to produce a heating element grid. Automatic layout machine is integral to the unit.	34354	spot welds/hr	6.1856E-07	lbs/weld ⁽¹⁾	0.0213	186.2	0.0931
#0012 G-Mat	Existing	Used to Hot-Air Weld PVC-coated wire to PVC strand to produce a heating element grid. Manual layout required. PVC-coated polyester mesh may be included to strengthen some products.	68828	linear inches of running weld/hr	1.7984E-06	lbs/ linear inch of running weld ⁽¹⁾	0.1238	1084	0.5422
Added G-Mat	Apr '06	Used to Hot-Air Weld PVC-coated wire to PVC strand to produce a heating element grid. Manual layout required. PVC-coated polyester mesh may be included to strengthen some products.	68828	linear inches of running weld/hr	1.7984E-06	lbs/ linear inch of running weld ⁽¹⁾	0.1238	1084	0.5422
#0017 Mat Molder	Existing	Injection molder	1.6	lbs resin/hr	1	lbs/ton resin ⁽²⁾	0.0008	7.01	0.0035
#0309 AHB Tail Molder	Existing	Injection molder	4.2	lbs resin/hr	1	lbs/ton resin ⁽²⁾	0.0021	18.40	0.0092
#0313 AHB T-Stat Molder	Existing	Injection molder	4.2	lbs resin/hr	1	lbs/ton resin ⁽²⁾	0.0021	18.40	0.0092
#0314 Trane Green Start Molder	Existing	Injection molder	6.74	lbs resin/hr	1	lbs/ton resin ⁽²⁾	0.0034	29.51	0.0148
Wire Molder	Mar '06	Extrusion for coating wire	350	lbs resin/hr	1	lbs/ton resin ⁽²⁾	0.1750	1533.00	0.7665
2 Essex Molders	Feb '06	Injection molders	24	lbs resin/hr	1	lbs/ton resin ⁽²⁾	0.0120	105.12	0.0526
Stand Up Molder	Apr '06	Injection molder	12	lbs resin/hr	1	lbs/ton resin ⁽²⁾	0.0060	52.56	0.0263
Autojector Molder	Apr '06	Injection molder	12	lbs resin/hr	1	lbs/ton resin ⁽²⁾	0.0060	52.56	0.0263
TOTAL PTE VOC (tpy)									2.0857

⁽¹⁾ At the request of IDEM, these factors were recalculated based on mass balance studies completed at EGS Easy Heat on January 9 and January 12, 2006.

⁽²⁾ These factors are used in IDEM permits for several injection and extrusion molding operations, including CP 085-9961-00080 and MSOP 053-17312-00053. The cited source in

**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: 141-22047
Plt ID: 141-00083
Reviewer: Frank P. Castelli
Application Date: November 18, 2005

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	5.50	84.0
				**see below		
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: 141-22047
Pit ID: 141-00083
Reviewer: Frank P. Castelli
Date: November 18, 2005

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 1.

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

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

Company Name: EGS Easy Heat, Inc.
Address City IN Zip: 31977 US 20 East, New Carlisle, IN 46552
Permit Number: 141-22047
Pit ID: 141-00083
Reviewer: Frank P. Castelli
Application Date: January 19, 2006

24 Space Heaters

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

2.54

22

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		
Potential Emission in tons/yr	0.021	0.085	0.007	1.113	0.061	0.935

*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**

HAPs Emissions

Company Name: EGS Easy Heat, Inc.
Address City IN Zip: 31977 US 20 East, New Carlisle, IN 46552
Permit Number: 141-22047
Pit ID: 141-00083
Reviewer: Frank P. Castelli
Application Date: January 19, 2006

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	0.000023	0.000013	0.000834	0.020025	0.000038

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	0.00002	0.021

Methodology is the same as page 3.

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

**Appendix A: Emission Calculations
Propane**

Company Name: EGS Easy Heat, Inc.
Address City IN Zip: 31977 US 20 East, New Carlisle, IN 46552
Permit Number: 141-22047
Pit ID: 141-00083
Reviewer: Frank P. Castelli
Application Date: January 19, 2006

1 Die Heater
 Heat Input Capacity
 MMBtu/hr

Potential Throughput
 kgals/year

SO2 Emission factor = 0.10 x S
 S = Sulfur Content = 0.10 grains/100ft³

0.057

5.46

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2 (0.10S)	NOx	VOC **TOC value	CO
Potential Emission in tons/yr	0.0016	0.0016	0.00003	0.0518	0.0014	0.0087

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
 (Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

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