

Mr. Christopher Heaton
Safety/Environmental Manager
Adorn, Inc.
1808 West Hively Avenue
Elkhart, Indiana 46517

Re: **039-11334**
Minor Source Modification to:
Part 70 permit No.: **T039-7650-00324**

Dear Mr. Heaton:

Adorn, Inc. was issued Part 70 operating permit T039-7650-00324 on October 6, 1998, for a stationary wood counter top and cabinet manufacturing operation. An application to modify the source was received on September 13, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) One (1) dualtech automated back sealing machine, identified as D1, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D2, exhausting to stack A1, a flash off tunnel exhausting to stack A2, and a hot air drying tunnel exhausting to stack A3.
- (b) One (1) rototech automated staining machine, identified as D3, with a maximum capacity of 3,900 board feet per hour, consisting of twenty (20) airless/air assist spray guns, with PM emissions controlled by dry filters, exhausting to stacks A4 and A5, and an infrared drying tunnel exhausting to stack A6.
- (c) One (1) dualtech automated sealing machine, identified as D4, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D5, exhausting to stack A7, and a flash off tunnel and a hot air drying tunnel exhausting to stack A8.
- (d) One (1) dualtech automated finishing machine, identified as D6, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D7, exhausting to stack A9, a flash off tunnel exhausting to stacks A10 and A11, a hot air drying tunnel exhausting to stack A12, and one (1) non-heated cooling hood exhausting to stack A13.
- (e) One (1) manual touch up booth, identified as TU1, with a maximum capacity of 1 gallon of stain, 2 gallons of sealer, and 2 gallons of topcoat per day, consisting of one (1) airless/air assist gun, with dry filters for control of particulate matter, exhausting to one (1) stack TU1.
- (f) Four (4) process line denibbers and one (1) manual sanding suction table, collectively identified as D8, for surface coating machines D1, D3, D4, and D6, with PM emissions collected by cyclone C2, which routes to the existing cyclone/baghouse system C5.
- (g) Three (3) natural gas-fired hot water boilers, identified as AB1 through AB3, each rated at 1 MMBtu per hour, exhausting to stacks AB1 through AB3, respectively.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are specified in the Significant Permit Modification document 039-11565-00324 associated with this Minor Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5 and 326 IAC 2-7-12.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Melissa Groch or extension 3-8397, or dial (317) 233-8397.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

MMG

cc: File - Elkhart County
U.S. EPA, Region V
Elkhart County Health Department
Northern Regional Office
Air Compliance Section Inspector- Ray Schick
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

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

Technical Support Document (TSD) for a
Part 70 Minor Source Modification

Source Background and Description

Source Name:	Adorn, Inc.
Source Location:	1808 West Hively Ave., Elkhart, Indiana 46517
County:	Elkhart
SIC Code:	2499
Operation Permit No.:	T039-7650-00324
Operation Permit Issuance Date:	October 6, 1998
Minor Source Modification No.:	039-11334-00324
Permit Reviewer:	Melissa Groch

The Office of Air Management (OAM) has reviewed a modification application from Adorn, Inc. relating to the construction of the following emission units and pollution control devices:

- (a) One (1) dualtech automated back sealing machine, identified as D1, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D2, exhausting to stack A1, a flash off tunnel exhausting to stack A2, and a hot air drying tunnel exhausting to stack A3.
- (b) One (1) rototech automated staining machine, identified as D3, with a maximum capacity of 3,900 board feet per hour, consisting of twenty (20) airless/air assist spray guns, with PM emissions controlled by dry filters, exhausting to stacks A4 and A5, and an infrared drying tunnel exhausting to stack A6.
- (c) One (1) dualtech automated sealing machine, identified as D4, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D5, exhausting to stack A7, and a flash off tunnel and a hot air drying tunnel exhausting to stack A8.
- (d) One (1) dualtech automated finishing machine, identified as D6, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D7, exhausting to stack A9, a flash off tunnel exhausting to stacks A10 and A11, a hot air drying tunnel exhausting to stack A12, and one (1) non-heated cooling hood exhausting to stack A13.
- (e) One (1) manual touch up booth, identified as TU1, with a maximum capacity of 1 gallon of stain, 2 gallons of sealer, and 2 gallons of topcoat per day, consisting of one (1) airless/air assist gun, with dry filters for control of particulate matter, exhausting to one (1) stack TU1.
- (f) Four (4) process line denibbers and one (1) manual sanding suction table, collectively identified as D8, for surface coating machines D1, D3, D4, and D6, with PM emissions collected by cyclone C2, which routes to the existing cyclone/baghouse system C5.
- (g) Three (3) natural gas-fired hot water boilers, identified as AB1 through AB3, each rated at 1 MMBtu per hour, exhausting to stacks AB1 through AB3, respectively.

History

On September 13, 1999, Adorn, Inc., submitted an application to the OAM requesting to replace existing surface coating booths with automated machines at their existing plant. Adorn, Inc. was issued a Part 70 operating permit on October 6, 1998.

Source Definition

This stationary wood counter top and cabinet manufacturing company consists of two (2) plants:

- (a) Plant 1 is located at 1808 West Hively Avenue, Elkhart, Indiana 46517; and
- (b) Plant 2 is located at 57420 Nagy Drive, Elkhart, Indiana 46517.

Since the two (2) plants are considered adjacent, have the same SIC codes and are owned by one (1) company, they are considered one (1) source.

Enforcement Issue

There are no enforcement actions pending.

New Emission Unit Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
A1	water wall and scrubber D2	29	2	10593	80
A2	flash off tunnel for D1	29	1	1766	120
A3	hot air drying tunnel for D1	29	1	1206	120
A4	rototech staining, D3	29	4 by 6	5296	80
A5	rototech staining, D3	29	2	7062	80
A6	infrared drying tunnel for D3	29	1	1177	120
A7	water wall and scrubber D5	29	2 by 2	10593	80
A8	flash off and hot air drying tunnel for D4	29	1	1766	120
A9	water wall and scrubber D8	29	2 by 2	10593	80
A10	flash off tunnel for D7	29	1	3531	120
A11	flash off tunnel for D7	29	2 by 3	7062	120
A12	hot air drying tunnel for D7	29	1	1454	120
A13	cooling hood for D7	29	1	2236	80
AB1	hot water boiler AB1	29	1	1000	200
AB2	hot water boiler AB2	29	1	1000	200
AB3	hot water boiler AB3	29	1	1000	200
TU1	touch up booth TU1	29	2	4500	80

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification 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 13, 1999. Additional information was received on November 12, 1999, and on November 30, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations, page 1 of 1. Also, the source has requested to stay under their current Part 70 operating permit limits regarding VOC, therefore no further calculations are required for the surface coating operations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	less than 250
PM-10	less than 250
VOC	greater than 250
HAPs	greater than 25

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification in accordance with 326 IAC 2-7-10.5(e), because this modification is being performed pursuant to 326 IAC 2-7-10.5(d)(6). It is a modification that is subject to a national emission standard for hazardous air pollutants (NESHAP), and this requirement is the most stringent applicable requirement for this type of modification.

The source has requested that the new surface coating units for this modification be included under the surface coating emissions limit of 250 tons per year in order to remain a minor source under PSD rule applicability.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment or unclassifiable
SO ₂	attainment or unclassifiable
NO ₂	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone.

Source Status

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

Pollutant	Emissions (tons/year)
PM	101.0
PM-10	101.0

SO ₂	0.00
VOC	249.1
CO	0.3
NO _x	1.5
HAPs	47.4

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Part 70 operating permit issued October 6, 1998.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
All Surface Coating	3.3	3.3	0	249.0	0	0	47.4
Woodworking	97.5	97.5	0	0	0	0	0
Insignificant Activities	0.177	0.177	0.177	0.009	0.302	1.471	0
Total Emissions:	101.0	101.0	0.0	249.1	0.3	1.5	47.4

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), with a compliance date of December 7, 1998.

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart JJ.

Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:

- (a) Limit the Volatile Hazardous Air Pollutants (VHAP) emissions from finishing operations as follows:
 - (1) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of one (1.0) pound VHAP per pound solids as applied; or
 - (2) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of 1.0 pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a 3.0 percent maximum VHAP content by weight.

- Solvent and thinner mixtures used for other purposes have a ten percent (10.0%) maximum VHAP content by weight; or
- (3) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids; or
 - (4) Use a combination of (1), (2), and (3).
- (b) Limit VHAP emissions contact adhesives as follows:
- (1) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed one and eight-tenths (1.8) pound VHAP per pound solids.
 - (2) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed one (1.0) pound VHAP per pound solids as applied.
 - (3) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids.
- (c) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids as applied.
- (d) The source shall complete a work practice implementation plan within sixty (60) calendar days after the source's compliance date as specified in 40 CFR 63.803. The plan must detail how the source will incorporate environmentally desirable practices into operation.
- (e) A semi-annual summary report shall be prepared and submitted to IDEM, OAM, to document the ongoing compliance status of the wood furniture coating operations.

State Rule Applicability - Surface Coating Operations

326 IAC 2-2 (Prevention of Significant Deterioration)

Pursuant to Part 70 operating permit 039-7650-00324, issued on October 6, 1998, the existing surface coating facilities shall not exceed 41,500 pounds of VOC, including coatings, adhesives, dilution solvents, and cleaning solvents, per month. This usage limit is required to limit the potential to emit of VOC to less than 250 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

The automated finishing line coating operations and the touch-up spray booth shall be included in this usage limit in order to make 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the surface coating operations 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:

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

The water walls and scrubbers, and dry filters for PM control shall be in operation at all times the surface coating operations are in operation, in order to comply with this limit.

326 IAC 8-1-6 (Best Available Control Technology)

This rule applies to new facilities with potential VOC emissions of 25 tons per year that are not regulated by any other 326 IAC 8 rule. Since all the VOC emitting facilities at Adorn are either regulated by 326 IAC 8-2-12 or would be if actuals exceed 15 pounds per day, 326 IAC 8-1-6 does not apply.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets in the dualtech automated back sealing machine, rototech automated staining machine, the dualtech sealing machine, and the touch-up spray booth shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating
- Brush or Wipe Application
- Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The automated finishing process and the touch-up spray booth shall use airless/air assist spray guns to comply with this rule.

State Rule Applicability - Woodworking Operations associated with the Automated Finishing Operation

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from the woodworking equipment exhausting to stack C5 shall not exceed 22.3 pounds per hour when operating at a maximum process weight rate of 25,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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

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

The woodworking operation emissions after the exhaust points have emissions lower than the limitation. Therefore, the woodworking operations associated with the finishing line can comply with 326 IAC 6-3-2.

State Rule Applicability - Boilers

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

Pursuant to 326 IAC 6-2-4 (PM Limitations for Sources of Indirect Heating), PM emissions from the boilers and radiant heaters shall not exceed an amount specified by the following equation:

$$P_t = \frac{1.09}{Q^{0.26}} \quad \text{where } P_t = \text{emission rate limit (lbs/MMBtu)} \\ Q = \text{total source heat input capacity (MMBtu/hr)}$$

Using the above stated equation when Q equals 4 MMBtu per hour, the calculated limits would be greater than 0.6 pounds per MMBtu heat input. Subsection (a) of 326 IAC 6-2-4 specifically states that the limit shall not exceed 0.6 pounds per MMBtu heat input for Q less than 10 MMBtu per hour. Therefore, these units will all be limited to 0.6 pounds per MMBtu heat input.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

1. The scrubbers have applicable compliance monitoring conditions as specified below:

The Permittee shall record the total static pressure drop across the scrubbers used in conjunction with the automated surface coating operations, at least once per shift when the associated machines are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the scrubbers shall be maintained within the range of 1 and 3 inches of water, or a range established for each during the latest stack tests. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

These monitoring conditions are necessary because the scrubbers for the automated coating machines must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

2. The touch-up spray booth, and the automated coaters have applicable compliance monitoring conditions as specified below:

Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters, and to verify the correct operation of the water walls and the correct flow of water to the water walls. To monitor the performance of the dry filters and water walls, weekly observations shall be made of the overspray from the surface coating stacks while the surface coating process is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

These monitoring conditions are necessary because the filters for the spray booth and the automated rototech coater, and the water walls for the dualtech coaters must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

3. All of the surface coating operations have applicable compliance monitoring conditions as specified below:

Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C -

Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

These monitoring conditions are necessary because the PM controls for the entire surface coating operations must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

4. The woodworking operations associated with the automated finishing operation are being routed into existing collectors (C5) at the source which are already listed in the Part 70 operation permit 039-7650-000324.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 039-11334-00324.

Appendix A: Emissions Calculations

Company Name: Adorn, Inc.
Address City IN Zip: 1808 West Hively Avenue, Elkhart, Indiana 46517
Minor Source Modification: 039-11334
Pit ID: 00324
Reviewer: Melissa Groch

Hot Water Boilers, AB1 , AB2, and AB3

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

1.0

26.3

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.0	0.1	0.0	1.3	0.1	1.1
each= multiplied by 3=	0.1	0.3	0.0	3.9	0.2	3.3

*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

