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

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: August 19, 2008

RE: ChemGen Corporation / 167-26880-00148

FROM: Matthew Stuckey, Branch 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, Suite N 501E, 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.dot12/3/07

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August 19, 2008

Mr. Bernie Treidl
ChemGen Corporation
1445 South 1st Street
Terre Haute, IN 47802

Re: Exempt Construction and Operation Status,
167-26880-00148

Dear Mr. Bernie Treidl:

ChemGen Corporation was issued Exemption No. 167-26713-00148 on August 4, 2008 for a stationary aerobic fermentation production process, located at 1445 South 1st Street, Terre Haute, Indiana. On August 15, 2008, the Office of Air Quality (OAQ) received a letter from the source requesting the Exemption be updated to correct the uncontrolled potential to emit calculations for NOx due to an error in the emission factor used. The uncontrolled/unlimited potential to emit for NOx is revised from 4.50 tons/year to 9.90 tons/year. The entire source will continue to be within the threshold levels specified in 326 IAC 2-1.1-3 and, therefore, remains classified as exempt from air pollution permit requirements.

This exemption is the first air approval issued to this source. A copy of the Exemption is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

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. If you have any questions on this matter, please contact Christine L. Filutze, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-233-8397 or at 1-800-451-6027 (ext 38397).

Original signed by,

Alfred C. Dumaual, Ph. D., Section Chief
Permits Branch
Office of Air Quality

ACD/clf

cc: File - Vigo County
Vigo County Health Department
Air Compliance Section
Vigo County Air Pollution Control
Compliance Data Section
Permits Administrative and Development
Billing, Licensing and Training Section

Appendix A: Emissions Calculations
Emissions Summary

Company Name: ChemGen Corp.
Address City IN Zip: 1445 South 1st Street, Terre Haute, IN 47802
Permit Number: 167-26880-00148
Reviewer: Christine L. Filutze
Date: August 18, 2008

Process	PM	PM10	PM2.5	SO2	VOC	CO	NOx	Worst Case Single HAP	Worst Case Total HAPs
Emergency Generator (EG-1)	0.13	0.13	0.13	0.61	0.13	1.03	4.49	0.19 (Hexane)	0.20
Boilers (B-901A & B-901B)	0.82	0.82	0.82	0.06	0.60	9.09	5.41		
Totals	**0.95**	**0.95**	**0.95**	**0.67**	**0.73**	**10.12**	**9.90**		

Appendix A: Emissions Calculations
Internal Combustion Engine - Diesel Fuel
Turbine (> 600 HP)
EG-1 Emergency Generator*

Company Name: **ChemGen Corp.**
Address City IN Zip: **1445 South 1st Street, Terre Haute, IN 47802**
Permit Number: **167-26880-00148**
Reviewer: **Christine L. Filutze**
Date: **August 18, 2008**

Heat Output Capacity Horsepower (hp)	Potential Hourly Throughput hp-hr	Weight % Sulfur S	Potential Annual Throughput hp-hr/yr
749.0	749	0.4	374500

	Pollutant						
	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0007	0.0007	0.0007	0.0032 (8.09E-03 * S)	0.0240	0.0007	0.0055
Potential Emissions in tons/yr	0.13	0.13	0.13	0.61	4.49	0.13	1.03

Methodology

1) Potential Annual Throughput (hp-hr/yr) = hp * 500 hrs/yr (in accordance with IDEM policy)
2) Emission Factors are from AP42 (Supplement B 10/96), Table 3.4-1
3) Emission (tons/yr) = [Potential Throughput x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)
4) *EG-1=Emergency (Backup) 749 HP Caterpillar Generator; Model 3412: S/N 5NA06148; 500 KW; 3-phase

Appendix A: Emissions Calculations
Natural Gas Combustion Only - Boilers B-901A & B-901B
MM BTU/HR <100

ChemGen Corp.
Address City IN Zip: 1445 South 1st Street, Terre Haute, IN 47802
Permit Number: 167-26880-00148
Reviewer: Christine L. Filutze
Date: August 18, 2008

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
25.2	216.4

Boiler	MMBtu/hr
B-901A	12.6
B-901B	12.6
Total	25.2

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	7.6	0.6	50.0	5.5	84.0
Potential Emission in tons/yr	0.82	0.82	0.82	6.5E-02	5.41	0.60	9.09

*Emission factors for PM, PM10, and PM2.5 are filterable and condensable combined.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only - Boilers B-901A & B-901B
MM BTU/HR <100
HAPs Emissions

ChemGen Corp.
Address City IN Zip: **1445 South 1st Street, Terre Haute, IN 47802**
Permit Number: **167-26880-00148**
Reviewer: **Christine L. Filutze**
Date: **August 18, 2008**

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.3E-04	1.3E-04	8.1E-03	0.19	3.7E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.4E-05	1.2E-04	1.5E-04	4.1E-05	2.3E-04

Methodology is the same as previous page.

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