



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
MEDINA COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 16-02336

DATE: 4/27/2004

Liquid Resources of Ohio LLC
Max Felty
25825 Science Park Dr Suite 100
Cleveland, OH 44122-7315

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

ARAQMD



**Permit To Install
Terms and Conditions**

**Issue Date: 4/27/2004
Effective Date: 4/27/2004**

FINAL PERMIT TO INSTALL 16-02336

Application Number: 16-02336
APS Premise Number: 1652050184
Permit Fee: **\$5550**
Name of Facility: Liquid Resources of Ohio LLC
Person to Contact: Max Felty
Address: 25825 Science Park Dr Suite 100
Cleveland, OH 44122-7315

Location of proposed air contaminant source(s) [emissions unit(s)]:
**909 W Smith Rd
Medina, Ohio**

Description of proposed emissions unit(s):
Ethanol Manufacturing Facility.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

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and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

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Facility ID: 1652050184

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only) **TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	1.56
SO ₂	0.12
VOC	24.22
NO _x	20.42
CO	17.14

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
B001 - Boiler no. 1 - 23.3 MMBtu/hr, fired by natural gas, uncontrolled	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(1)
		40 CFR Part 60 Subpart Dc
		OAC rule 3745-18-06
		OAC rule 3745-23-06(B)

Liquic
PTI A
Issued: 4/27/2004

Emissions Unit ID: **B001**

Applicable Emissions	See A.2.b
<u>Limitations/Control Measures</u>	See A.2.c
0.18 pound of particulate emissions (PE) per hour	
0.78 ton of PE per year	
0.01 pound of sulfur dioxide (SO ₂) per hour	
0.06 ton of SO ₂ per year	
0.13 pound of volatile organic compounds (VOC) per hour	
0.56 ton of VOC per year	
2.33 pounds of nitrogen oxides (NO _x) per hour	
10.21 tons of NO _x per year	
1.96 pounds of carbon monoxide (CO) per hour	
8.57 tons of CO per year	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	
Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, except as specified by rule.	
See A.2.b	

2. Additional Terms and Conditions

- 2.a** The above hourly mass emission limitations (regulated under OAC rule 3745-31-05) for particulate matter, nitrogen oxides, sulfur oxides, carbon monoxide, and VOC are based upon the potential to emit of this emissions unit. Therefore, no recordkeeping, reporting, nor emissions calculations are required with these limitations.
- 2.b** The emission limits established by this rule are less stringent than the limits established by OAC rule 3745-31-05(A)(3).
- 2.c** The permittee has satisfied the "latest available control techniques and operating practices" require pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 16-02336.

B. Operational Restrictions

1. This emissions unit shall only be fired with natural gas.
2. The permittee shall properly adjust, operate, and maintain the emissions unit covered under this permit in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall record and maintain records of the amounts of each fuel combusted during each day.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit initial notifications in accordance with the provisions of 40 CFR Part 60, Subpart Dc for this emissions unit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation

0.18 pound of particulate emissions (PE) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input rating provided by the applicant (23.3 million Btu of heat input per hour) by the PE emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-2 (7.6 pounds of PE per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

- b. Emission Limitation

0.78 ton of PE per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation

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Liquid Resources of Ohio LLC

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Issued

Facility ID: 1652050184

Emissions Unit ID: B001

0.01 pound of sulfur dioxide (SO₂) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input rating provided by the applicant (23.3 million Btu of heat input per hour) by the SO₂ emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-2 (0.6 pounds of SO₂ per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

d. Emission Limitation

0.06 ton of SO₂ per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

e. Emission Limitation

0.13 pound of volatile organic compounds (VOC) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input rating provided by the applicant (23.3 million Btu of heat input per hour) by the VOC emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-2 (5.5 pounds of VOC per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

f. Emission Limitation

0.56 ton of VOC per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

g. Emission Limitation

2.33 pounds of nitrogen oxides (NO_x) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input rating provided by the applicant (23.3 million Btu of heat input per hour) by the NO_x emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-1 (100 pounds of NO_x per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

h. Emission Limitation

10.21 tons of NO_x per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

i. Emission Limitation

1.96 pounds of carbon monoxide (CO) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input

rating provided by the applicant (23.3 million Btu of heat input per hour) by the CO emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-1 (84 pounds of CO per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

j. Emission Limitation

8.57 tons of CO per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

k. Emission Limitation

Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

If required, compliance with the emission limits for visible emissions as established in OAC rule 3745-17-07(A)(1) shall be demonstrated by methods outlined in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

NSPS Requirements

This emissions unit is subject to Subpart Dc of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

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Liquic

PTI A

Issued: 4/27/2004

Emissions Unit ID: **B001**

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Liquic

PTI A

Issued: 4/27/2004

Emissions Unit ID: **B001**

and Akron Regional Air Quality Management District
146 South High Street, Suite 904
Akron, OH 44308

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B002 - Boiler no. 2 - 23.3 MMBtu/hr, fired by natural gas, uncontrolled	OAC rule 3745-31-05(A)(3) OAC rule 3745-17-07(A)(1) 40 CFR Part 60 Subpart Dc OAC rule 3745-18-06 OAC rule 3745-23-06(B)

Liquic
PTI A
Issued: 4/27/2004

Emissions Unit ID: **B002**

Applicable Emissions	See A.2.b
<u>Limitations/Control Measures</u>	See A.2.c
0.18 pound of particulate emissions (PE) per hour	
0.78 ton of PE per year	
0.01 pound of sulfur dioxide (SO ₂) per hour	
0.06 ton of SO ₂ per year	
0.13 pound of volatile organic compounds (VOC) per hour	
0.56 ton of VOC per year	
2.33 pounds of nitrogen oxides (NO _x) per hour	
10.21 tons of NO _x per year	
1.96 pounds of carbon monoxide (CO) per hour	
8.57 tons of CO per year	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	
Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, except as specified by rule.	
See A.2.b	

2. Additional Terms and Conditions

- 2.a** The above hourly mass emission limitations (regulated under OAC rule 3745-31-05) for particulate matter, nitrogen oxides, sulfur oxides, carbon monoxide, and VOC are based upon the potential to emit of this emissions unit. Therefore, no recordkeeping, reporting, nor emissions calculations are required with these limitations.
- 2.b** The emission limits established by this rule are less stringent than the limits established by OAC rule 3745-31-05(A)(3).
- 2.c** The permittee has satisfied the "latest available control techniques and operating practices" require pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 16-02336.

B. Operational Restrictions

1. This emissions unit shall only be fired with natural gas.
2. The permittee shall properly adjust, operate, and maintain the emissions unit covered under this permit in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall record and maintain records of the amounts of each fuel combusted during each day.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit initial notifications in accordance with the provisions of 40 CFR Part 60, Subpart Dc for this emissions unit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation

0.18 pound of particulate emissions (PE) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input rating provided by the applicant (23.3 million Btu of heat input per hour) by the PE emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-2 (7.6 pounds of PE per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

- b. Emission Limitation

0.78 ton of PE per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation

0.01 pound of sulfur dioxide (SO₂) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input rating provided by the applicant (23.3 million Btu of heat input per hour) by the SO₂ emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-2 (0.6 pounds of SO₂ per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

d. Emission Limitation

0.06 ton of SO₂ per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

e. Emission Limitation

0.13 pound of volatile organic compounds (VOC) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input rating provided by the applicant (23.3 million Btu of heat input per hour) by the VOC emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-2 (5.5 pounds of VOC per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

f. Emission Limitation

0.56 ton of VOC per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

g. Emission Limitation

2.33 pounds of nitrogen oxides (NO_x) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input rating provided by the applicant (23.3 million Btu of heat input per hour) by the NO_x emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-1 (100 pounds of NO_x per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

h. Emission Limitation

10.21 tons of NO_x per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

i. Emission Limitation

1.96 pounds of carbon monoxide (CO) per hour

Applicable Compliance Method

Compliance shall be demonstrated based upon the emissions unit's potential to emit:

The short term emission limitation was developed by multiplying the maximum heat input

Liquid Resources of Ohio LLC

PTI Application: 16-02226

Issued

Facility ID: 1652050184

Emissions Unit ID: B002

rating provided by the applicant (23.3 million Btu of heat input per hour) by the CO emission factor from the AP-42, Fifth Edition, published January 1995, Section 1.4, Supplement D, published July 1998, Table 1.4-1 (84 pounds of CO per million standard cubic feet), and dividing by 1000 million Btu per million standard cubic feet.

j. Emission Limitation

8.57 tons of CO per year

Applicable Compliance Method

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

k. Emission Limitation

Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

If required, compliance with the emission limits for visible emissions as established in OAC rule 3745-17-07(A)(1) shall be demonstrated by methods outlined in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

NSPS Requirements

This emissions unit is subject to Subpart Dc of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit

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Liquic

PTI A

Issued: 4/27/2004

Emissions Unit ID: **B002**

Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

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Liquid

PTI A

Issued: 4/27/2004

Emissions Unit ID: **B002**

and Akron Regional Air Quality Management District
146 South High Street, Suite 904
Akron, OH 44308

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
J001 - Railcar and Tanker Truck Loading Rack for bottom loading of ethanol in two bays, uncontrolled, with a loading capacity of 15,000 gallons of ethanol per hour	OAC rule 3745-31-05(A)(3)	38.84 pounds of volatile organic compounds (VOC) per hour, 3.88 tons of VOC per year see A.2.a

2. Additional Terms and Conditions

- 2.a The annual throughput of this emissions unit, and the facility processing rate, is physically constrained by the maximum capacity of the final distillation process, P003. The design production rate for the final distillation process is 6 million gallons per year, therefore the PTE and annual permit limits for this emissions unit are based upon this rate. No material other than product from P003 shall be fed to J001.

B. Operational Restrictions

1. A means shall be provided to prevent drainage of product from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
2. All product loading lines shall be equipped with fittings which are vapor tight.
3. The permittee shall not permit product to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.

C. Monitoring and/or Recordkeeping Requirements

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Emissions Unit ID: J001

1. The permittee shall record the annual throughput, in gallons per year.

D. Reporting Requirements

1. The permittee shall report any exceedances of the 6,000,000 gallon per year, annual throughput limitation.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.1 of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation:

38.84 pounds VOC per hour

Applicable Compliance Method:

The short term emission limitation was developed by multiplying the sum of the maximum hourly rate of railcar and tanker truck loading (both are 15,000 gallons of ethanol per hour) by the uncontrolled ethanol emission factor from the AP-42, Fifth Edition, published January 1995, Section 5.2 (1.29 pounds per thousand gallons), and dividing by 1000 gallons.

- b. Emission Limitation:

3.88 tons of VOC per year

Applicable Compliance Method:

The tons per year limitation was developed by multiplying the maximum annual rate of railcar and tanker truck loading (6,000,000 gallons of ethanol per year) by the uncontrolled ethanol emission factor from the AP-42, Fifth Edition, published January 1995, Section 5.2 (1.29 pounds per thousand gallons), and dividing by the product of 1000 gallons and 2000 pounds per ton.

F. Miscellaneous Requirements

None.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Degasser no. 1 - for ethanol and a mixture of sugar and water, uncontrolled	OAC rule 3745-31-05(A)(3) 40 CFR Part 60 Subpart NNN	0.0012 pound of volatile organic compounds (VOC) per hour, 0.0052 ton of VOC per year See A.2.a

2. Additional Terms and Conditions

- 2.a Except as provided by rule, the permittee shall reduce emissions of VOC (less methane and ethane) by 98 weight-percent, or to a VOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent.

B. Operational Restrictions

None.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall comply with the following recordkeeping requirements for this emissions unit:
- a. The permittee shall comply with the recordkeeping requirements contained in 40 CFR Part 60 Subpart NNN.

D. Reporting Requirements

1. The permittee shall comply with the following reporting requirements for this emissions unit:

- a. all reporting shall comply with the requirements contained in 40 CFR Part 60 Subpart NNN.
2. The permittee shall submit initial notifications in accordance with the provisions of 40 CFR Part 60, Subpart NNN for this emissions unit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.1 of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.0012 pound of volatile organic compounds (VOC) per hour

Applicable Compliance Method:

Compliance shall be determined based on information provided by the applicant. The short term maximum emission rate for ethanol emission is calculated by multiplying the maximum ethanol concentration in a vacuum system (20 ppm) by the product of the molecular weight of ethanol (46 pounds per pound-mole) and the maximum flow rate through the vacuum system (500 cubic feet per hour), and dividing by the product of 385 cubic feet per pound-mole times 1,000,000.

- b. Emission Limitation:

0.0052 ton of VOC per year

Applicable Compliance Method:

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

F. Miscellaneous Requirements

NSPS Requirements

This emissions unit is subject to Subpart NNN of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of

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PTI A

Issued: 4/27/2004

Emissions Unit ID: **P001**

40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

and Akron Regional Air Quality Management District
146 South High Street, Suite 904
Akron, OH 44308

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - Degasser no. 2 - for ethanol and a mixture of sugar and water, uncontrolled	OAC rule 3745-31-05(A)(3) 40 CFR Part 60 Subpart NNN	0.0012 pound of volatile organic compounds (VOC) per hour, 0.0052 ton of VOC per year See A.2.a

2. Additional Terms and Conditions

- 2.a Except as provided by rule, the permittee shall reduce emissions of VOC (less methane and ethane) by 98 weight-percent, or to a VOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent.

B. Operational Restrictions

None.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall comply with the following recordkeeping requirements for this emissions unit:
 - a. The permittee shall comply with the recordkeeping requirements contained in 40 CFR Part 60 Subpart NNN.

D. Reporting Requirements

1. The permittee shall comply with the following reporting requirements for this emissions unit:

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Facility ID: 1652050184

Emissions Unit ID: P002

- a. all reporting shall comply with the requirements contained in 40 CFR Part 60 Subpart NNN.
2. The permittee shall submit initial notifications in accordance with the provisions of 40 CFR Part 60, Subpart NNN for this emissions unit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.1 of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.0012 pound of volatile organic compounds (VOC) per hour

Applicable Compliance Method:

Compliance shall be determined based on information provided by the applicant. The short term maximum emission rate for ethanol emission is calculated by multiplying the maximum ethanol concentration in a vacuum system (20 ppm) by the product of the molecular weight of ethanol (46 pounds per pound-mole) and the maximum flow rate through the vacuum system (500 cubic feet per hour), and dividing by the product of 385 cubic feet per pound-mole times 1,000,000.

- b. Emission Limitation:

0.0052 ton of VOC per year

Applicable Compliance Method:

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

F. Miscellaneous Requirements

NSPS Requirements

This emissions unit is subject to Subpart NNN of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of

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Issued: 4/27/2004

Emissions Unit ID: **P002**

40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

and Akron Regional Air Quality Management District
146 South High Street, Suite 904
Akron, OH 44308

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P003 - Final Distillation Process - to convert 25 percent ethanol to 98 percent ethanol, uncontrolled, with a production capacity of 6,000,000 gallons per year	OAC rule 3745-31-05(A)(3) 40 CFR Part 60 Subpart NNN	0.0012 pound of volatile organic compounds (VOC) per hour, 0.0052 ton of VOC per year See A.2.a

2. Additional Terms and Conditions

- 2.a Except as provided by rule, the permittee shall reduce emissions of VOC (less methane and ethane) by 98 weight-percent, or to a VOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent.

B. Operational Restrictions

None.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall comply with the following recordkeeping requirements for this emissions unit:
- a. The permittee shall comply with the recordkeeping requirements contained in 40 CFR Part 60 Subpart NNN.

D. Reporting Requirements

1. The permittee shall comply with the following reporting requirements for this emissions unit:

- a. all reporting shall comply with the requirements contained in 40 CFR Part 60 Subpart NNN.
2. The permittee shall submit initial notifications in accordance with the provisions of 40 CFR Part 60, Subpart NNN for this emissions unit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.1 of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.0012 pound of volatile organic compounds (VOC) per hour

Applicable Compliance Method:

Compliance shall be determined based on information provided by the applicant. The short term maximum emission rate for ethanol emission is calculated by multiplying the maximum ethanol concentration in a vacuum system (20 ppm) by the product of the molecular weight of ethanol (46 pounds per pound-mole) and the maximum flow rate through the vacuum system (500 cubic feet per hour), and dividing by the product of 385 cubic feet per pound-mole times 1,000,000.

- b. Emission Limitation:

0.0052 ton of VOC per year

Applicable Compliance Method:

The tons per year limitation was developed by multiplying the pounds per hour limitation by the maximum operating schedule of 8760 hours per year, and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

F. Miscellaneous Requirements

NSPS Requirements

This emissions unit is subject to Subpart NNN of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of

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Issued: 4/27/2004

Emissions Unit ID: **P003**

40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

and Akron Regional Air Quality Management District
146 South High Street, Suite 904
Akron, OH 44308

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PTI A
Issued: 4/27/2004

Emissions Unit ID: **P801**

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P801 - Non-Potable Ethanol Manufacturing Facility for Processing of Non-Hazardous Liquid Wastes into Fuel Grade Ethanol (>99.8 percent by volume) by Removal of Carbonation through Degassers, Final Distillation, and Loading into Railcars or Tanker Trucks	OAC rule 3745-31-05(A)(3)	19.2 tons of fugitive volatile organic compounds (VOC) per year
		See A.2.b
	OAC rule 3745-21-09(DD)	See A.2.a
	40 CFR Part 60 Subpart VV	See A.2.a

2. Additional Terms and Conditions

- 2.a The permittee shall include the appropriate process equipment and regulated components for this emission unit in the current site fugitive leak detection and repair (LDAR) program. The LDAR program shall comply with the appropriate provisions (includes operational restrictions, monitoring and recordkeeping, reporting, and testing) of OAC rule 3745-21-09(DD), leaks from process units that produce organic chemicals, and 40 CFR Part 60 Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry.)
- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(DD) and 40 CFR Part 60 Subpart VV.

B. Operational Restrictions

- 1.. The permittee shall comply with the LDAR program operational restrictions, see A.2.a.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall comply with the following recordkeeping requirements for this emissions unit:
 - a. The permittee shall comply with the recordkeeping requirements contained in OAC rule 3745-21-09(DD).
 - b. The permittee shall comply with the LDAR program monitoring and recordkeeping requirements, see A.2.a.

D. Reporting Requirements

1. The permittee shall comply with the following reporting requirements for this emissions unit:
 - a. all reporting shall comply with the requirements contained in OAC rule 3745-21-09(DD).
2. The permittee shall comply with the LDAR program reporting requirements, see A.2.a.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.1 of the terms and conditions of this permit shall be determined in accordance with the following method(s):
 - a. Emission Limitation:

19.2 tons of fugitive volatile organic compounds (VOC) per year

Applicable Compliance Method:

The VOC emissions from fugitive emissions (i.e., valves, flanges, open ended lines, and pumps) shall be determined using EPA-453/R-95-017, "Protocol for Equipment Leak Emission Estimates."
2. The permittee shall comply with the LDAR program testing requirements, see A.2.a.

F. Miscellaneous RequirementsNSPS Requirements

This emissions unit is subject to Subpart VV of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of

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Issued: 4/27/2004

Emissions Unit ID: **P801**

40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

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Issued: 4/27/2004

Emissions Unit ID: **P801**

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

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DAPC - Permit Management Unit
Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

and Akron Regional Air Quality Management District
146 South High Street, Suite 904
Akron, OH 44308