



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
JEFFERSON 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: 06-06575

DATE: 8/30/2001

Cryogenic Construction Inc
Mark Bordash
2950 County Road 74
Mingo Junction, OH 43938

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
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

SEDO



**Permit To Install
Terms and Conditions**

**Issue Date: 8/30/2001
Effective Date: 8/30/2001**

FINAL PERMIT TO INSTALL 06-06575

Application Number: 06-06575
APS Premise Number: 0641000250
Permit Fee: **\$2000**
Name of Facility: Cryogenic Construction Inc
Person to Contact: Mark Bordash
Address: 2950 County Road 74
Mingo Junction, OH 43938

Location of proposed air contaminant source(s) [emissions unit(s)]:
**2950 County Road 74
Mingo Junction, Ohio**

Description of proposed emissions unit(s):
Sandblasting Booth and Paint Room.

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 Related to Monitoring and Recordkeeping 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 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

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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 application must be made to the Director for the installation or modification of any other emissions unit(s).

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 thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

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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>
PM	4.88
VOC	2.72

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>
F001 - Sandblasting Booth	OAC rule 3745-31-05	Use of best available technology to minimize or eliminate emissions of fugitive dust;
	OAC rule 3745-17-07 (B)	Visible emissions of fugitive dust shall not exceed 20 per cent as a three-minute average, except as provided by rule;
	OAC rule 3745-17-08 (B)	0.030 grains/dscf, maximum emissions from baghouse exhaust; 4.79 tons PM/yr, maximum emissions

2. Additional Terms and Conditions

2.a None

B. Operational Restrictions

- 1. The permittee shall not operate this emissions unit unless the dust collection system is in operation.
- 2. This emission unit shall not be operated with the blast-room doors open.
- 3. The pressure drop across the baghouse shall be maintained at less than 6 inches of water during operation, per manufacturers recommendations.

4. All blasting operations shall be conducted inside the blast room, in accordance with B.1, B.2, and B.3, above.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall inspect the sand blaster pollution control equipment and building on a once-per-month basis during sand blaster operation. This inspection is intended to identify the following potential problems:
 - a. Baghouse fan motor or bearing failure;
 - b. Bag tears or other leaks;
 - c. Ductwork breaks, leaks, or blockage;
 - d. Unusual visible emissions from the baghouse unit or the sandblast/baghouse building.

2. The permittee shall collect the following data for each monthly inspection while the sand blaster is in operation:
 - a. The date and time of the inspection;
 - b. The name of the person conducting the inspection;
 - c. Baghouse pressure drop reading;
 - d. The notation of any problems and/or visible particulate emissions observed per section II.C.1 (if no problems or visible particulate emissions were observed, a note shall be made stating this);
 - e. The description of measures taken to correct any problems; and
 - f. The date that the problem was corrected.

D. Reporting Requirements

1. The permittee shall submit an annual report to include each day during which any problems or visible particulate emissions were recorded per sections II.C.2.c, II.C.2.d, II.C.2.e, and II.C.2.f. Reports shall include all information recorded, including observations and actions taken to correct the problem(s) and shall be submitted no later than January 31 following the reporting year. If no excursions were observed, a report shall be filed stating this.

E. Testing Requirements

1. Emission Limitation:

20% opacity as a three-minute average

Applicable Compliance Method:

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Cryog

PTI A

Issued: 8/30/2001

Emissions Unit ID: **F001**

Compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

2. Emission Limitation:

0.030 grains/dscf, maximum emissions from baghouse exhaust

Applicable Compliance Method:

Compliance shall be based on the following calculation:

From AP-42, 13.2.6; 07/97 (Abrasive Blasting), the permittee shall utilize the emission factor for unspecified metal parts blasting with a fabric filter. Assuming that blasting occurs at standard conditions, this factor (0.69 lb PM/1000 lb abrasive) shall be multiplied by the maximum blasting capacity of the equipment (1584 lb abrasive/hr):

$$(0.69 \text{ lb PM}/1000 \text{ lb abrasive}) (1584 \text{ lb abrasive/hr}) = 1.09 \text{ lb PM/hr}$$

$$(1.09 \text{ lb PM/hr}) (7000 \text{ gr/lb}) (1 \text{ hr}/60 \text{ min}) (1 \text{ min}/21,000 \text{ dscf}) = 0.0061 \text{ gr/dscf}$$

3. Emission Limitation:

4.79 tons PM/yr, maximum emissions

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42, 13.2.6 fabric filter-controlled emission factor for abrasive blasting unspecified metal parts by the annual sandblast media usage, as follows:

Emission factor = 0.69 lb PM/1000 lb abrasive

Maximum annual sandblast media usage = 13,875,840 lb

$$\text{Annual emissions} = (0.69 \text{ lb PM}/1000 \text{ lb abrasive}) (13,875,840 \text{ lb abrasive/yr}) (1 \text{ ton}/2000 \text{ lb})$$

$$\text{Annual emissions} = 4.79 \text{ tons PM/yr}$$

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>
R001 - Paint Room.	OAC rule 3745-31-05 OAC rule 3745-17-07 (B) OAC rule 3745-17-08 (B)(3) OAC rule 3745-21-09(U)(2)(e)(ii)	Use of best available technology to minimize or eliminate the emission of fugitive VOC and PM (see B.1 and B.2, below); 54.3 lb VOC/day, maximum emissions; 2.72 tons VOC/yr, maximum emissions; 20 per cent opacity as a three-minute average for particulate visible emissions, maximum; 0.030 grains/dscf, maximum emissions; 0.094 lb PM/hr; 0.094 tons PM/yr; VOC emission exemption, based on maximum daily coating usage not exceeding 10 gallons of coating in any one day

2. Additional Terms and Conditions

- 2.a Cryogenic Construction shall inspect on a regular basis and repair/replace filters or

filtration system components upon discovery of any damaged or defective part.

B. Operational Restrictions

1. Cryogenic Construction shall utilize the fabric filtration system at all times during painting operations.
2. Cryogenic Construction shall not conduct painting operations with paint booth doors open.
3. A maximum of 1000 gallons of coating shall be used on an annual basis.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for the coating line:
 - a. The name and identification number of each coating employed;
 - b. The volume, in gallons, of each coating employed;
 - c. The total volume, in gallons, of all of the coatings employed.
2. Cryogenic Construction shall, on a monthly basis, inspect the following components of the paint room air filtration system:
 - a. The paint room air recirculation fan for correct operation;
 - b. The air filters for correct installation;
 - c. The air filters for clogging and/or blockage;
 - d. Doors, windows, and siding for correct placement in order to prevent the escape of fugitive VOC and PM emissions.
3. Cryogenic Construction shall record the following information on a monthly basis based on the inspection conducted per C.2, above:
 - a. Date and name of the individual completing the inspection;
 - b. Description of problems (if any) noted per C.2, above;
 - c. Description of measures taken to correct any problems noted per C.3.b;
 - d. Date (if applicable) that filters were changed as a matter of routine maintenance.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line employs more than the

applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.

E. Testing Requirements

1. Emission Limitation:

54.3 lb VOC/day, maximum emissions

Emissions Unit ID: **R001**

Compliance Method:

This limit is based on a maximum daily coating usage of 10 gallons/day. Maximum emissions are 54.3 pounds VOC per day based on this maximum worst-case usage as follows:

$$(10 \text{ gallons/day})(5.43 \text{ lb VOC/gallon}) = 54.3 \text{ lb VOC/day}$$

2. Emission Limitation:

2.72 tons VOC/yr, maximum emissions

Compliance Method:

The permittee shall multiply the coating usage by the VOC content of each coating. This limit is based on the worst case coating and 1000 gallons/yr maximum usage, as follows:

$$(1000 \text{ gallons/yr})(5.43 \text{ lb VOC/gallon})(1 \text{ ton}/2000 \text{ lb}) = 2.72 \text{ tons VOC/yr}$$

3. Emission Limitation:

20 per cent opacity as a three-minute average for particulate visible emissions

Compliance Method:

Compliance shall be determined by using Test Method 9 as described under 40 CFR 60, Appendix A.

4. Emission Limitation:

0.030 grains/dscf, maximum emissions

Compliance Method:

Compliance shall be based on permittee maintenance of exhaust air recirculation system and paint room maintenance.

5. Emission Limitation:

0.094 lb PM/hr

Compliance Method:

Emissions shall be based on the following equation:

$$E = (D) (S) (U) (1-T) (1-C)$$

where

E = emission rate, lb PM/hr

D = coating density, lb/gal

S = coating solids content, decimal fraction by weight

U = usage rate, gal/hr (maximum usage rate per application = 0.5 gallons/hr)

T = transfer efficiency, 0.65

C = filter collection efficiency, 0.95

6. Emission Limitation:

0.094 tons PM/yr

Compliance Method:

Compliance shall be based on the maximum allowable coating usage of 1000 gallons/year. Annual emissions shall be calculated as follows:

$$E = (D) (S) (U) (1-T) (1-C) (1 \text{ ton}/2000 \text{ lb})$$

where

E = emission rate, tons PM/yr

D = coating density, lb/gal

S = coating solids content, decimal fraction by weight

U = usage rate, gal/yr (maximum usage rate per application = 1000 gallons/yr)

T = transfer efficiency, 0.65

C = filter collection efficiency, 0.95

F. Miscellaneous Requirements

None