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Facility Name: **American Beryllium Corporation**

Application Number: **16-1817**

Date: **October 15, 1998**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(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 Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(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 Ohio Administrative Code (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

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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 applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

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.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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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.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION 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 and regulations.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **American Beryllium Corporation** located in **Summit** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P901	Sawing, turning, EDM, milling, boring, grinding, deburring, and related machining operations of beryllium components	Cyclone, fabric prefilter and HEPA filter. Capture hoods.	3745-31-05 40 CFR 61 Subpart C 3745-17-07 3745-17-11 3745-17-08	10 grams per day beryllium 20 percent opacity as a six-minute average.

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant

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Beryllium	<u>Tons/Year</u>
	3.65 Kg/yr

NESHAP REQUIREMENTS

The following source(s) are subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 61.

<u>Source Number</u>	<u>Source Description</u>	<u>NESHAP Regulation (Subpart)</u>
P901	Sawing, turning, milling equipment etc.	40 CFR 61 Subpart C

The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 61 are also federally enforceable.

Pursuant to the NESHAP, the source owner/operator is required to report the following milestones:

- date of commencement of construction (no later than 30 days after such date);
- anticipated date of initial start-up (not more than 60 days or less than 30 days prior to such date);
- actual date of initial start-up (within 15 days after such date); and
- date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

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Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and **Akron Air Pollution Control**
146 South High St., Room 904
Akron, OH 44308

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

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REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Akron Air Pollution Control, 146 South High Street, Room 904, Akron, OH 44308.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Akron Air Pollution Control, 146 South High Street, Room 904, Akron, OH 44308.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

NINETY DAY OPERATING PERIOD

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The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

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.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Operational Restrictions

1. The permittee shall operate and maintain hoods, fans and other equipment to adequately enclose, contain, capture, vent and control beryllium matter generated from the operation of this emissions unit.
2. The permittee shall operate and maintain a cyclone, fabric prefilter, and HEPA filter in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
3. The pressure drop across the baghouse shall be maintained within the range established either during the most recent emission test that demonstrated that the emissions unit was in compliance or by the manufacturer's written recommendation while the emissions unit is in operation.

B. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

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2. The permittee shall maintain daily records which contain the following information:
 - a. the mass of beryllium inputted into the machining process;
 - b. the mass of beryllium recovered before entering the control devices;
 - c. the mass of the finished beryllium product; and,
 - d. the calculated mass of beryllium emitted over the 24-hour period, in grams.

C. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit deviation (excursion) reports that identify all records during which the beryllium mass emission did not comply with the allowable limitation.
3. 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 Akron Air Pollution Control; and,
 - 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

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measures which have been or will be taken, shall be submitted to the Akron Air Pollution Control. 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).

D. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emission testing shall be conducted within 3 months after issuance of the permit;
 - b. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for beryllium;
 - c. the following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for beryllium, Method 103 of 40 CFR Part 61, Appendix B. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and,
 - d. the test shall be conducted while the emissions unit is operating at or near its maximum capacity.
2. Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Akron Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time and date of the test, and the person who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Akron Air

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Pollution Control's refusal to accept the results of the emission test.

3. Personnel from the Akron Air Pollution Control shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
4. A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Akron Air Pollution Control within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Akron Air Pollution Control.
5. Compliance with the emission limitations in Permit to Install No. 16-1817 of these Additional Special Terms and Conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation
20 percent opacity as a 6-minute average
Applicable Compliance Method
OAC rule 3745-17-03(B) (1)
 - b. Emission Limitation
10 grams of beryllium over a 24-hour period
Applicable Compliance Method
The permittee shall maintain daily records of the mass of beryllium inputted, recovered before the control device, and the finished product. The control efficiency of the control devices shall be determined in accordance with 40 CFR Part 61, Appendix B, Method 103. The permittee shall calculate the daily mass of beryllium emitted over a 24-hour period by subtracting the sum of the mass of the finished product and the recovered beryllium from the mass of the beryllium inputted and multiplying the result by one minus the control efficiency of the control equipment as

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determined from the results of the most recent
stack test.