

ADDITIONAL SPECIAL TERMS AND CONDITIONS

INTRODUCTION: The purpose of this permit is to allow the installation of a portable plasma melt furnace. This emissions unit, P001, is subject to the requirements of NESHAP 40 CFR Part 61, subpart M section 61.155.

A. APPLICABLE EMISSION LIMITATIONS AND/OR CONTROL REQUIREMENTS

1. The emissions unit, P001, shall discharge no visible fugitive emissions, to the outside air, from any part of the operation.
2. Visible emissions from the HEPA filter stack shall not exceed 0% opacity as a six minute average.
3. The permittee shall not operate the plasma melt furnace, emissions unit P001, if the control system for the unit is not operational.
4. All asbestos associated operations shall be enclosed under negative pressure of no less than 0.02 inches water as measured by a constant read out calibrated magnehelic gauge or nanometer and vented to a baghouse followed by a HEPA air filter. The baghouse and HEPA filter shall meet the design and operating criteria specified in 40 CFR Part 61, section 61.152. If negative pressure cannot be maintained, all operations shall cease until such time that negative pressure can be maintained.
5. There shall be no asbestos emissions above 0.01 fibers asbestos/cc of air drawn from the baghouse/HEPA filter exhaust associated with emissions unit P001. If the exhaust stack sample is positive for asbestos, another sample must be taken from the furnace stack. (See condition C.3 and C.4 below)

B. OPERATIONAL RESTRICTIONS

1. Emissions unit P001, and the associated control devices, shall be operated in accordance with the manufacturers specifications.
2. The pressure drop across the baghouse shall be maintained within the range of 0.015 to 0.035 inches of water while the emissions unit is in operation.
3. The pressure drop across the HEPA filter shall be maintained within the

range of 0.25 to 0.65 inches of water while the emissions unit is in operation.

4. The maximum process weight rate, i.e. charge rate of asbestos, for emissions unit P001 shall not exceed 910 lbs/hr. The permittee shall not charge more than this amount to the furnace. The asbestos charged shall have a moisture content of not less than 34%.
5. This permit only allows for the vitrification and subsequent disposal of 100% raw amosite asbestos. The use of this emissions unit for any other purpose requires prior notification to and approval from the Ohio EPA.

C. MONITORING AND/OR RECORD KEEPING REQUIREMENTS

1. During the initial ninety (90) days of operation, the permittee shall:
  - a. continuously monitor and record the operating parameters, identified in the start-up performance tests, that are intended to ensure the production of nonasbestos output material;
  - b. monitor input materials to ensure that they are consistent with the test feed used during start-up performance tests, (as outlined in B(5) above);
  - c. collect and analyze samples (one 200-gram (7-ounce) sample collected every 8 hours of operation) of output material for the presence of asbestos. Composite samples may be representative of fewer than 10 days of operation. Output material shall be analyzed using transmission electron microscopy (TEM) for the presence of asbestos. All output materials produced during this period shall be stored on site until analysis shows the material to be asbestos-free or shall be disposed of as an asbestos-containing waste material according to 40 CFR Part 61, subpart M, section 61.150.
2. After the initial 90 days of operation the permittee shall:
  - a. continuously monitor and record the operating parameters identified during start-up performance testing and any subsequent performance testing. Any output produced during a period of deviation from the range of operating conditions established in

B(1)- B(5) shall be:

- i. disposed of as an asbestos- containing waste material according to 40 CFR Part 61, subpart M, section 61.150, or
    - ii. recycled as waste feed during process operation within the established range of operating conditions, or
    - iii. stored temporarily on-site, in a leak-tight container, until analyzed for asbestos content. Any product material that is not asbestos-free shall be either disposed of as asbestos-containing waste material or recycled as waste feed to the process.
  - b. collect and analyze monthly composite samples (one 200-gram (7-ounce) sample collected every 8 hours of operation) of the output material. The output material sample shall be analyzed using transmission electron microscopy (TEM) for the presence of asbestos.
3. The permittee shall collect and analyze or have analyzed, bulk samples of the material collected in the baghouse/HEPA filter in the following manner:
- One 100-gram (3.5-ounce) bulk sample shall be collected every 24 hours of operation. This sample shall be analyzed using polarized light microscopy (PLM) for the presence of asbestos within 24 hours of the sample being taken. If the analysis is positive for asbestos the permittee shall immediately begin monitoring the HEPA exhaust in accordance with the procedure specified in condition C.4 below.
4. The permittee shall begin daily monitoring of the HEPA filter exhaust using the National Institute for Occupational Safety and Health (NIOSH) Method 7400 entitled "Fibers" whenever the sample analysis required by condition C.3 above is positive for asbestos. The permittee shall obtain the results of the Method 7400 analysis within 24 hours of the sample being taken. If the results are above 0.01 fibers asbestos/cc of air drawn, the permittee shall immediately cease all operations and notify the appropriate district office/local air agency (DO/LAA) of the situation and the permittee's plan to correct the problem.

If the results are <0.01 fibers asbestos/cc of air drawn, the permittee shall continue daily monitoring of the HEPA filter exhaust using the National Institute for Occupational Safety and Health (NIOSH) Method 7400 entitled "Fibers", until such time as the results of the sampling and analysis required in condition C.3 above are negative for asbestos.

5. The permittee shall maintain records on site that contain the following information:
  - a. results of start-up performance testing and all subsequent performance testing, including operating parameters, feed characteristic, and analyses of output materials;
  - b. results of the composite analyses required during the initial 90 days of operation as outlined in C.1.c.
  - c. results of the monthly composite analyses required in C.2.b.
  - d. results of the daily bulk analyses required in C.3.
  - e. the days and the results, where NIOSH Method 7400 was used.
  - d. results of continuous monitoring and logs of process operating parameters required by C.1.a and C.2.a.
  - e. the information on waste shipments as required in 40 CFR Part 61, Subpart M, section 61.154(e).
  - f. the name and location of the purchaser or disposal site to which the output materials, where no analyses were performed to determine the presence of asbestos, were sold or deposited and the date of the sale or disposal.
6. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the enclosure, the baghouse and HEPA filter 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 drops on a hourly basis when the unit is in operation.

7. The permittee shall maintain daily records of the hours of operation and hourly records of the process weight rate (charge rate) for emissions unit P001.
8. The permittee shall maintain 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 limited to, all calibration and maintenance records and all original strip-chart recordings, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of all reports required by the permit. Such reports may be maintained in computerized form.

D. REPORTING REQUIREMENTS

1. Quarterly written reports of 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, the probable cause of such deviations, the duration of the deviations, and 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. In accordance with the above, the permittee shall submit the following reports to the appropriate Ohio EPA DO/LAA. 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.)
  - a. a report of each analysis of product composite samples performed during the initial 90 days of operation.
  - b. a quarterly report, including the following information concerning activities during each consecutive 3-month period:
    - i. results of analyses of monthly product composite samples.
    - ii. disposition of any product produced during a period of deviation, including whether it was recycled, disposed

of as asbestos-containing waste material, or stored temporarily on-site until analyzed for asbestos content.

- iii. the information on waste disposal activities as required in 40 CFR Part 61, subpart M, section 61.154(f).
2. Weekly reports of the results of the data acquired in section C.3 and C.4 above shall be submitted (faxed) to the appropriate Ohio EPA district office by Friday afternoon and shall cover the previous calendar week.

E. COMPLIANCE METHODS/TESTING REQUIREMENTS

1. The permittee shall conduct a start-up performance test of emissions unit P001 within 45 days of each relocation. The test results shall include the following:
  - a. a detailed description of the types and quantities of asbestos material, nonasbestos material, regulated asbestos-containing material (RACM), and asbestos-containing material processed. The test feed is to include all types of material that will be encountered in actual operation of the process;
  - b. the results of analyses that document the asbestos content of the material to be processed. This analysis shall be conducted using polarized light microscopy;
  - c. the results of analyses that document that the emission unit output is free of asbestos. This analysis shall be conducted using transmission electron microscopy (TEM). Samples for analysis are to be collected as 8-hour composite samples (one 200-gram (7-ounce) sample per hour). The sample shall be collected beginning with the initial introduction of RACM or asbestos-containing waste material and continuing until the end of the performance test;
  - d. a description of operating parameters, such as temperature and residence time, defining the full range over which the process is expected to operate to produce nonasbestos (asbestos-free) materials. The limits of each operating parameter necessary to produce nonasbestos materials shall be specified;

- e. the length of the test.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

- 2. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation: no visible fugitive emissions  
  
Applicable Compliance Method: visible emissions readings performed using Method 22 of 40 CFR Part 60, Appendix A.
  - b. Emission Limitation: 0% opacity as a six minute average from the HEPA filter stack  
  
Applicable Compliance Method: visible emissions readings performed using Method 9 of 40 CFR Part 60, Appendix A.
  - c. Emission Limitation: 0.01 lb PE/hr and 0.44 TPY PE.  
  
Applicable Compliance Method: Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of the most recent stack test information. If required by Ohio EPA, compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.
  - d. Emission Limitation: asbestos emissions for emissions unit P001 - 0.01 fibers asbestos/cc air drawn.  
  
Applicable Compliance Method: Compliance with the asbestos

emission limitation shall be determined by use of PCM and methods outlined in C.3 and C.4 of the terms and conditions.

- e. Emission Limitation: NO<sub>x</sub> emissions for emissions unit P001 - 8.10 TPY.

Applicable Compliance Method: Compliance with the NO<sub>x</sub> emission limitation shall be determined by calculating the hourly and annual NO<sub>x</sub> emission rates through use of the most recent stack test information. If required by Ohio EPA, compliance shall be determined in accordance with Method 7 of 40 CFR Part 60, Appendix A.

F. MISCELLANEOUS REQUIREMENTS

1. Non asbestos (asbestos-free) output material is not subject to any of the provisions of 40 CFR Part 61, subpart M. Output materials in which asbestos is detected, or output materials produced when the operating parameters deviated from those established during the start-up performance testing, unless shown by PCM analysis to be asbestos-free, shall be considered to be asbestos-containing waste and shall be handled and disposed of according to 40 CFR Part 61, subpart M, sections 61.150 and 61.154 or reprocessed while all of the established operating parameters are being met.
2. The permittee shall submit a "Notice of Intent to Relocate a Portable or Mobile Source" 30 days prior to any planned relocation of this emissions unit, in accordance with OAC rule 3745-31-03(A)(1)(p).