



State of Ohio Environmental Protection Agency

Mailing Address:  
Lazarus Gov.  
Center

**RE: DRAFT PERMIT TO INSTALL MODIFICATION  
BUTLER COUNTY**

**CERTIFIED MAIL**

**Application No: 14-05890**

**Fac ID: 1409010497**

**DATE: 5/24/2007**

Quaker Chemical Corporation  
Fred Sansom  
14301 Birwood Avenue  
Detroit, MI 48238

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of **\$ 2875** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Permit Issuance and Data Management Section at (614) 644-3631.

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA HCDES OH-KY-IN REG COUNCIL OF GOVTS KY IN

**BUTLER COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT PERMIT TO INSTALL 14-05890 FOR AN AIR CONTAMINANT SOURCE  
FOR Quaker Chemical Corporation**

On 5/24/2007 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Quaker Chemical Corporation**, located at **3431 Yankee Road, Middletown, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 14-05890:

**Revise the hourly PE limitation on each emissions unit and clarify language in applicable compliance method.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Brad Miller, Hamilton County Department of Environmental Services, 250 William Howard Taft Pkwy, Cincinnati, OH 45219-2660 [(513)946-7777]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT MODIFICATION OF PERMIT TO INSTALL 14-05890**

Application Number: 14-05890  
Facility ID: 1409010497  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Quaker Chemical Corporation  
Person to Contact: Fred Sansom  
Address: 14301 Birwood Avenue  
Detroit, MI 48238

Location of proposed air contaminant source(s) [emissions unit(s)]:

**3431 Yankee Road  
Middletown, Ohio**

Description of proposed emissions unit(s):

**Revise the hourly PE limitation on each emissions unit and clarify language in applicable compliance method.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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Chris Korleski  
Director

**Quaker Chemical Corporation**

**Facility ID: 1409010497**

**PTI Application: 14-05890**

**Issued: To be entered upon final issuance**

**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 (i.e., postmarked) quarterly 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

**Quaker Chemical Corporation**

**Facility ID: 1409010497**

**PTI Application: 14-05890**

**Issued: To be entered upon final issuance**

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

**Quaker Chemical Corporation**

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**PTI Application: 14-05890**

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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 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**

**Quaker Chemical Corporation**

**Facility ID: 1409010497**

**PTI Application: 14-05890**

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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.

**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/PM10	5.75
VOC	1.64

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

- 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.

**Operations, Property, and/or Equipment - (P005) - Blender ABB 01**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
ORC 3704.03(T)(4)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.c.
OAC rule 3745-17-11	See term and condition A.2.d.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.e.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.f.  The fugitive particulate emission (PE) rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
OAC rule 3745-31-05(C) (avoid triggering prevention of significant deterioration and non attainment review and to avoid being subject to Title V permitting requirements)	Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter* (PM10) from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 5.75 tons per year (TPY) based on a rolling, 12-month summation.  See terms and conditions B.1 and B.2.  *for purposes of non-attainment review all particulate matter emissions 2.5 microns and less in diameter (PM2.5) are considered to be PM10.
OAC rule 3745-31-02(A)(2)	See terms and conditions A.2.b, B.1 and B.2.
OAC rule 3745-21-07(G)	Exempt due Supreme Court decision concerning blending of liquid organic materials.

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**2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.
- 2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE or PM10 is each less than ten tons per year, taking into account the voluntary restrictions accepted by the permittee and the use of a wet scrubber as an air pollution control installed on the source.
- 2.c** The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.d** The PE from the outlet of the scrubber controlling emissions unit P005 shall not exceed 14.5 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.e** The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.
- 2.f** The fugitive dust from this emissions unit shall be controlled by the use of reasonably available control measures adequate to minimize or eliminate visible particulate emissions.
- 2.g** The hourly PE limitation outlined in term A.2.d is based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with this limitation.

**B. Operational Restrictions**

- 1.** This emissions unit shall be operated with a Venturi wet scrubber having an overall control efficiency for particulate matter emissions of at least 81 percent .
- 2.** The total dry material usage in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 6,055,235 pounds per year based on a

rolling, 12-month summation of the dry material usages.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the total dry material usage for emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined as specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Pounds of Dry Material Usage</u>
1	504,603
1-2	1,009,206
1-3	1,513,809
1-4	2,018,412
1-5	2,523,015
1-6	3,027,617
1-7	3,532,220
1-8	4,036,823
1-9	4,541,426
1-10	5,046,029
1-11	5,550,632
1-12	6,055,235

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual dry material usage limitation shall be based upon a rolling, 12-month summation of the dry material usage rates.

### **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - b. The rolling, 12-month summation of the amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - c. The rolling 12-month summation of PE and PM10 emissions (the summation of the current month's emission total and the previous eleven calendar month's emission totals from emissions units P005,

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P006, P007, P008, P009, P010, P011 and P012 combined.).

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the scrubber pressure drop during operation of this emissions unit, including periods of startup and shutdown. 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 scrubber pressure drop on daily basis.

Whenever the monitored value for the scrubber pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required emissions testing is conducted.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible

Emissions Unit ID: **P005**

emissions are observed, the permittee shall also note the following in the operations log:

- a. the location and color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which summarize the following for this emissions unit:
  - a. the amount, in pounds, of dry materials employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined for the previous calendar year; and
  - b. the total particulate emissions in tons per year from emissions units P005, P006, P007, P008, P009, P010, P011 and P012, combined for the previous calendar year.

The reports shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

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- a. each period of time when the pressure drop across the scrubber was outside of the range specified by the manufacturer;
- b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter. If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the rolling, 12-month dry material usage, the rolling, 12-month emission limitation for PE and PM10 and the maximum allowable cumulative monthly dry material usage amounts. If no exceedances occurred, the permittee shall state so in the report.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. The uncontrolled potential to emit of VOC emissions for this emissions unit is based on the following information, as supplied by the facility in air PTI application number 14-05890 as submitted on October 31, 2006:

maximum liquid solvent capacity in emissions unit P005 is 6,573,950 gallons per year x emission factor of 6.42E-05 lb per gallon = 422.1 lbs/year or 0.21 ton per year.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method:

Emissions Unit ID: P005

**Emission Limitation:**

The PE/PM10 emissions from this emissions unit shall not exceed 5.75 tons per year based on a rolling, 12-month summation.

**Applicable Compliance Method:**

Compliance with the annual limitation for PE/PM10 is determined by calculating as follows:

- a. calculate the fugitive PE/PM10 emissions by multiplying the annual tons of dry throughput by the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then by 10%. 10% is 100 % minus the capture efficiency of 90% which represents the uncaptured or fugitive emissions;
- b. calculate the PE/PM10 emission from the stack of the control device by multiplying 90% of the annual tons of dry throughput times the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then times 10%. 10% is 100% minus the control efficiency of 90%; and
- c. add the calculated fugitive emissions to the calculated stack emissions based on a rolling, 12-month summation.

**Emission Limitations:**

The PE from the outlet of the scrubber controlling emissions unit P005 shall not exceed 14.5 pounds per hour.

The particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method**

If required, compliance with the PE limitations shall be demonstrated through an emissions source test performed in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 - 5.

**Emission Limitations:**

The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The fugitive particulate emission rate at the control device outlet shall not exceed

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0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method:

Compliance with the visible particulate emission limitations shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

Emission Limitation:

The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

3. Compliance with the annual production limitation in term and condition B.2 shall be demonstrated through the record keeping required in term and condition C.1.
4. compliance method for OC tons per year value.....

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.
2. The terms and conditions of this permit supercede the terms and conditions of air permit to install number 14-05890 as issued December 21, 2006.

**Quaker Chemical Corporation**

**Facility ID: 1409010497**

**Emissions Unit ID: P005**

3. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

**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.

**Operations, Property, and/or Equipment - (P006) - Blender ABB 02**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
ORC 3704.03(T)(4)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.c.
OAC rule 3745-17-11	See term and condition A.2.d.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.e.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.f.  The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
OAC rule 3745-31-05(C) (avoid triggering prevention of significant deterioration and non attainment review and to avoid being subject to Title V permitting requirements)	Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter* (PM10) from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 5.75 TPY based on a rolling, 12-month summation.  See terms and conditions B.1 and B.2.  *for purposes of non-attainment review all particulate matter emissions 2.5 microns and less in diameter (PM2.5) are considered to be PM10.
OAC rule 3745-31-02(A)(2)	See terms and conditions A.2.b, B.1 and B.2.
OAC rule 3745-21-07(G)	Exempt due Supreme Court decision concerning blending of liquid organic materials.

**2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.
- 2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE or PM10 is each less than ten tons per year, taking into account the voluntary restrictions accepted by the permittee and the use of a wet scrubber as an air pollution control installed on the source.
- 2.c** The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.d** The PE from the outlet of the scrubber controlling emissions unit P006, shall not exceed 14.5 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.e** The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.
- 2.f** The fugitive dust from this emissions unit shall be controlled by the use of reasonably available control measures adequate to minimize or eliminate visible particulate emissions.
- 2.g** The hourly PE limitation outlined in term A.2.d is based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with this limitation.

**B. Operational Restrictions**

- 1.** This emissions unit shall be operated with a Venturi wet scrubber having an overall control efficiency for particulate matter emissions of at least 81 percent .
- 2.** The total dry material usage in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 6,055,235 pounds per year based on a rolling, 12-month summation of the dry material usages.

Quaker Chemical Corporation  
DTL Application Number: 14-05800

Facility ID: 1409010497

Emissions Unit ID: **P006**

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the total dry material usage for emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined as specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Pounds of Dry Material Usage</u>
1	504,603
1-2	1,009,206
1-3	1,513,809
1-4	2,018,412
1-5	2,523,015
1-6	3,027,617
1-7	3,532,220
1-8	4,036,823
1-9	4,541,426
1-10	5,046,029
1-11	5,550,632
1-12	6,055,235

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual dry material usage limitation shall be based upon a rolling, 12-month summation of the dry material usage rates.

### **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - b. The rolling, 12-month summation of the amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - c. The rolling 12-month summation of PE and PM10 emissions (the summation of the current month's emission total and the previous eleven calendar month's emission totals from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.).

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the scrubber pressure drop during operation of this emissions unit, including periods of startup and shutdown. 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 scrubber pressure drop on daily basis.

Whenever the monitored value for the scrubber pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required emissions testing is conducted.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;

Emissions Unit ID: **P006**

- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which summarize the following for this emissions unit:
  - a. the amount, in pounds, of dry materials employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined for the previous calendar year; and
  - b. the total particulate emissions in tons per year from emissions units P005, P006, P007, P008, P009, P010, P011 and P012, combined for the previous calendar year.

The reports shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the scrubber was outside of the range specified by the manufacturer;
  - b. an identification of each incident of deviation described in (a) where a prompt

investigation was not conducted;

- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter. If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the rolling, 12-month dry material usage, the rolling, 12-month emission limitation for PE and PM10 and the maximum allowable cumulative monthly dry material usage amounts. If no exceedances occurred, the permittee shall state so in the report.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## **E. Testing Requirements**

1. The uncontrolled potential to emit of VOC emissions for this emissions unit is based on the following information, as supplied by the facility in air PTI application number 14-05890 as submitted on October 31, 2006:

maximum liquid solvent capacity in emissions unit P006 is 6,573,950 gallons per year  
x emission factor of 6.42E-05 lb per gallon = 422.1 lbs/year or 0.21 ton per year.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method:

Emission Limitations:

The PE/PM10 emissions from this emissions unit shall not exceed 5.75 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Emissions Unit ID: **P006**

Compliance with the annual limitation for PE/PM10 is determined by calculating as follows:

- a. calculate the fugitive PE/PM10 emissions by multiplying the annual tons of dry throughput by the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then by 10%. 10% is 100 % minus the capture efficiency of 90% which represents the uncaptured or fugitive emissions;
- b. calculate the PE/PM10 emissions from the stack of the control device by multiplying 90% of the annual tons of dry throughput times the emission factor of

Emissions Unit ID: **P006**

20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then times 10%. 10% is 100% minus the control efficiency of 90%; and

- c. add the calculated fugitive emissions to the calculated stack emissions based on a rolling, 12-month summation.

**Emission Limitations:**

The PE from the outlet of the scrubber controlling emissions unit P006 shall not exceed 14.5 pounds per hour.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method**

If required, compliance with the PE limitations shall be demonstrated through an emissions source test performed in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 - 5.

**Emission Limitations:**

The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method:**

Compliance with the visible particulate emission limitations shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emission Limitation:**

The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

**Applicable Compliance Method:**

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

3. Compliance with the annual production limitation in term and condition B.2 shall be demonstrated through the record keeping required in term and condition C.1.

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.
2. The terms and conditions of this permit supercede the terms and conditions of air permit to install number 14-05890 as issued December 21, 2006.
3. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

Emissions Unit ID: **P007****PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

- 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.

**Operations, Property, and/or Equipment - (P007) - Blender ABB 03**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
ORC 3704.03(T)(4)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.c.
OAC rule 3745-17-11	See term and condition A.2.d.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.e.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.f.  The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
OAC rule 3745-31-05(C) (avoid triggering prevention of significant deterioration and non attainment review and to avoid being subject to Title V permitting requirements)	Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter * (PM10) from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 5.75 TPY based on a rolling, 12-month summation.  See term and condition B.1 and B.2.  *for purposes of non-attainment review all particulate matter emissions 2.5 microns and less in diameter (PM2.5) are considered to be PM10.
OAC rule 3745-31-02(A)(2)	See terms and conditions A.2.b, B.1 and B.2.
OAC rule 3745-21-07(G)	Exempt due Supreme Court decision concerning blending of liquid organic materials.

**2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.
- 2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE or PM10 is each less than ten tons per year, taking into account the voluntary restrictions accepted by the permittee and the use of a wet scrubber as an air pollution control installed on the source.
- 2.c** The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.d** The PE from the outlet of the scrubber controlling emissions unit P007 shall not exceed 14.5 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.e** The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.
- 2.f** The fugitive dust from this emissions unit shall be controlled by the use of reasonably available control measures adequate to minimize or eliminate visible particulate emissions.
- 2.g** The hourly PE limitation outlined in term A.2.d is based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with this limitation.

**B. Operational Restrictions**

- 1.** This emissions unit shall be operated with a Venturi wet scrubber having an overall control efficiency for particulate matter emissions of at least 81 percent .
- 2.** The total dry material usage in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 6,055,235 pounds per year based on a rolling, 12-month summation of the dry material usages.

Quaker Chemical Corporation  
DTL Application Number: 14-05900

Facility ID: 1409010497

Emissions Unit ID: **P007**

Emissions Unit ID: **P007**

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the total dry material usage for emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined as specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Pounds of Dry Material Usage</u>
1	504,603
1-2	1,009,206
1-3	1,513,809
1-4	2,018,412
1-5	2,523,015
1-6	3,027,617
1-7	3,532,220
1-8	4,036,823
1-9	4,541,426
1-10	5,046,029
1-11	5,550,632
1-12	6,055,235

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual dry material usage limitation shall be based upon a rolling, 12-month summation of the dry material usage rates.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month:
  - a. The amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - b. The rolling, 12-month summation of the amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - c. The rolling 12-month summation of PE and PM10 emissions (the summation of the current month's emission total and the previous eleven calendar month's emission totals from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.).

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the scrubber pressure drop during operation of this emissions unit, including periods of startup and shutdown. 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 scrubber pressure drop on daily basis.

Whenever the monitored value for the scrubber pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required emissions testing is conducted.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;

Emissions Unit ID: **P007**

- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which summarize the following for this emissions unit:
  - a. the amount, in pounds, of dry materials employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined for the previous calendar year; and
  - b. the total particulate emissions in tons per year from emissions units P005, P006, P007, P008, P009, P010, P011 and P012, combined for the previous calendar year.

The reports shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the scrubber was outside of the range specified by the manufacturer;
  - b. an identification of each incident of deviation described in (a) where a prompt

investigation was not conducted;

- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter. If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the rolling, 12-month dry material usage, the rolling, 12-month emission limitation for PE and PM10 and the maximum allowable cumulative monthly dry material usage amounts. If no exceedances occurred, the permittee shall state so in the report.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## **E. Testing Requirements**

1. The uncontrolled potential to emit of VOC emissions for this emissions unit is based on the following information, as supplied by the facility in air PTI application number 14-05890 as submitted on October 31, 2006:

maximum liquid solvent capacity in emissions unit P007 is 6,573,950 gallons per year  
x emission factor of 6.42E-05 lb per gallon = 422.1 lbs/year or 0.21 ton per year.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method:

Emission Limitation:

The PE/PM10 emissions from this emissions unit shall not exceed 5.75 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual limitation for PE/PM10 is determined by calculating as follows:

- a. calculate the fugitive PE/PM10 emissions by multiplying the annual tons of dry throughput by the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then by 10%. 10% is 100 % minus the capture efficiency of 90% which represents the uncaptured or fugitive emissions;
- b. calculate the PE/PM10 emissions from the stack of the control device by multiplying 90% of the annual tons of dry throughput times the emission factor of

Emissions Unit ID: **P007**

20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then times 10%. 10% is 100% minus the control efficiency of 90%; and

- c. add the calculated fugitive emissions to the calculated stack emissions based on a rolling, 12-month summation.

**Emission Limitations:**

The PE from the outlet of the scrubber controlling emissions unit P007 shall not exceed 14.5 pounds per hour.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method**

If required, compliance with the PE limitations shall be demonstrated through an emissions source test performed in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 - 5.

**Emission Limitations:**

The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method:**

Compliance with the visible particulate emissions limitations shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emission Limitation:**

The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

**Applicable Compliance Method:**

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

3. Compliance with the annual production limitation in term and condition B.2 shall be demonstrated through the record keeping required in term and condition C.1.

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.
2. The terms and conditions of this permit supercede the terms and conditions of air permit to install number 14-05890 as issued December 21, 2006.
3. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

- 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.

**Operations, Property, and/or Equipment - (P008) - Blender ABB 04**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
ORC 3704.03(T)(4)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.c.
OAC rule 3745-17-11	See term and condition A.2.d.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.e.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.f.  The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
OAC rule 3745-31-05(C) (avoid triggering prevention of significant deterioration and non attainment review and to avoid being subject to Title V permitting requirements)	Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter* (PM10) from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 5.75 TPY based on a rolling, 12-month summation.  See terms and conditions B.1 and B.2.  *for purposes of non-attainment review all particulate matter emissions 2.5 microns and less in diameter (PM2.5) are considered to be PM10.
OAC rule 3745-31-02(A)(2)	See terms and conditions A.2.b, B.1 and B.2.
OAC rule 3745-21-07(G)	Exempt due Supreme Court decision concerning blending of liquid organic materials.

Emissions Unit ID: **P008**

## **2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.
- 2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE or PM10 is each less than ten tons per year, taking into account the voluntary restrictions accepted by the permittee and the use of a wet scrubber as an air pollution control installed on the source.
- 2.c** The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.d** The PE from the outlet of the scrubber controlling emissions unit P008 shall not exceed 5.73 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.e** The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.
- 2.f** The fugitive dust from this emissions unit shall be controlled by the use of reasonably available control measures adequate to minimize or eliminate visible particulate emissions.
- 2.g** The hourly PE limitation outlined in term A.2.d is based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with this limitation.

## **B. Operational Restrictions**

- 1.** This emissions unit shall be operated with a Venturi wet scrubber having an overall control efficiency for particulate matter emissions of at least 81 percent .
- 2.** The total dry material usage in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 6,055,235 pounds per year based on a rolling, 12-month summation of the dry material usages.

Emissions Unit ID: **P008**

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the total dry material usage for emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined as specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Pounds of Dry Material Usage</u>
1	504,603
1-2	1,009,206
1-3	1,513,809
1-4	2,018,412
1-5	2,523,015
1-6	3,027,617
1-7	3,532,220
1-8	4,036,823
1-9	4,541,426
1-10	5,046,029
1-11	5,550,632
1-12	6,055,235

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual dry material usage limitation shall be based upon a rolling, 12-month summation of the dry material usage rates.

### **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - b. The rolling, 12-month summation of the amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - c. The rolling 12-month summation of PE and PM10 emissions (the summation of the current month's emission total and the previous eleven calendar month's emission totals from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.).

Emissions Unit ID: **P008**

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the scrubber pressure drop during operation of this emissions unit, including periods of startup and shutdown. 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 scrubber pressure drop on daily basis.

Whenever the monitored value for the scrubber pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required emissions testing is conducted.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;

- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which summarize the following for this emissions unit:
  - a. the amount, in pounds, of dry materials employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined for the previous calendar year; and
  - b. the total particulate emissions in tons per year from emissions units P005, P006, P007, P008, P009, P010, P011 and P012, combined for the previous calendar year.

The reports shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the scrubber was outside of the range specified by the manufacturer;
  - b. an identification of each incident of deviation described in (a) where a prompt

Emissions Unit ID: **P008**

investigation was not conducted;

- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter. If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the rolling, 12-month dry material usage, the rolling, 12-month emission limitation for PE and PM10 and the maximum allowable cumulative monthly dry material usage amounts. If no exceedances occurred, the permittee shall state so in the report.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## **E. Testing Requirements**

1. The uncontrolled potential to emit of VOC emissions for this emissions unit is based on the following information, as supplied by the facility in air PTI application number 14-05890 as submitted on October 31, 2006:

maximum liquid solvent capacity in emissions unit P008 is 1,643,488 gallons per year  
x emission factor of 6.42E-05 lb per gallon = 105.5 lbs/year or 0.05 ton per year.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method:

Emission Limitations:

The PE/PM10 emissions from this emissions unit shall not exceed 5.75 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual limitation for PE/PM10 is determined by calculating as follows:

- a. calculate the fugitive PE/PM10 emissions by multiplying the annual tons of dry throughput by the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then by 10%. 10% is 100 % minus the capture efficiency of 90% which represents the uncaptured or fugitive emissions;
- b. calculate the PE/PM10 emissions from the stack of the control device by multiplying 90% of the annual tons of dry throughput times the emission factor of

Emissions Unit ID: **P008**

20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then times 10%. 10% is 100% minus the control efficiency of 90%; and

- c. add the calculated fugitive emissions to the calculated stack emissions based on a rolling, 12-month summation.

**Emission Limitations:**

The PE from the outlet of the scrubber controlling emissions unit P008 shall not exceed 5.73 pounds per hour.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method**

If required, compliance with the PE limitations shall be demonstrated through an emissions source test performed in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 - 5.

**Emission Limitations:**

The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method:**

Compliance with the visible particulate emissions limitations shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emission Limitation:**

The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

**Applicable Compliance Method:**

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

3. Compliance with the annual production limitation in term and condition B.2 shall be demonstrated through the record keeping required in term and condition C.1.

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.
2. The terms and conditions of this permit supercede the terms and conditions of air permit to install number 14-05890 as issued December 21, 2006.
3. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

- 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.

**Operations, Property, and/or Equipment - (P009) - Blender ABB 05**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
ORC 3704.03(T)(4)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.c.
OAC rule 3745-17-11	See term and condition A.2.d.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.e.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.f.  The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
OAC rule 3745-31-05(C) (avoid triggering prevention of significant deterioration and non attainment review and to avoid being subject to Title V permitting requirements)	Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter* (PM10) from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 5.75 TPY based on a rolling, 12-month summation.  See terms and conditions B.1 and B.2.  *for purposes of non-attainment review all particulate matter emissions 2.5 microns and less in diameter (PM2.5) are considered to be PM10.
OAC rule 3745-31-02(A)(2)	See terms and conditions A.2.b, B.1 and B.2.
OAC rule 3745-21-07(G)	Exempt due Supreme Court decision concerning blending of liquid organic materials.

Emissions Unit ID: **P009****2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.
- 2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE or PM10 is each less than ten tons per year, taking into account the voluntary restrictions accepted by the permittee and the use of a wet scrubber as an air pollution control installed on the source.
- 2.c** The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.d** The PE from the outlet of the scrubber controlling emissions unit P009 shall not exceed 19.05 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.e** The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.
- 2.f** The fugitive dust from this emissions unit shall be controlled by the use of reasonably available control measures adequate to minimize or eliminate visible particulate emissions.
- 2.g** The hourly PE limitation outlined in term A.2.d is based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with this limitation.

**B. Operational Restrictions**

1. This emissions unit shall be operated with a Venturi wet scrubber having an overall control efficiency for particulate matter emissions of at least 81 percent .
2. The total dry material usage in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 6,055,235 pounds per year based on a rolling, 12-month summation of the dry material usages.

Emissions Unit ID: **P009**

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the total dry material usage for emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined as specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Pounds of Dry Material Usage</u>
1	504,603
1-2	1,009,206
1-3	1,513,809
1-4	2,018,412
1-5	2,523,015
1-6	3,027,617
1-7	3,532,220
1-8	4,036,823
1-9	4,541,426
1-10	5,046,029
1-11	5,550,632
1-12	6,055,235

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual dry material usage limitation shall be based upon a rolling, 12-month summation of the dry material usage rates.

### **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - b. The rolling, 12-month summation of the amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - c. The rolling 12-month summation of PE and PM10 emissions (the summation of the current month's emission total and the previous eleven calendar month's emission totals from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.).

Emissions Unit ID: **P009**

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the scrubber pressure drop during operation of this emissions unit, including periods of startup and shutdown. 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 scrubber pressure drop on daily basis.

Whenever the monitored value for the scrubber pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required emissions testing is conducted.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;

- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which summarize the following for this emissions unit:
  - a. the amount, in pounds, of dry materials employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined for the previous calendar year; and
  - b. the total particulate emissions in tons per year from emissions units P005, P006, P007, P008, P009, P010, P011 and P012, combined for the previous calendar year.

The reports shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the scrubber was outside of the range specified by the manufacturer;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

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- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter. If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the rolling, 12-month dry material usage, the rolling, 12-month emission limitation for PE and PM10 and the maximum allowable cumulative monthly dry material usage amounts. If no exceedances occurred, the permittee shall state so in the report.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## **E. Testing Requirements**

1. The uncontrolled potential to emit of VOC emissions for this emissions unit is based on the following information, as supplied by the facility in air PTI application number 14-05890 as submitted on October 31, 2006:

maximum liquid solvent capacity in emissions unit P009 is 9,860,925 gallons per year  
x emission factor of 6.42E-05 lb per gallon = 633.1 lbs/year or 0.32 ton per year.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method:

Emission Limitation:

The PE/PM10 emissions from this emissions unit shall not exceed 5.75 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual limitation for PE/PM10 is determined by calculating as follows:

- a. calculate the fugitive PE/PM10 emissions by multiplying the annual tons of dry throughput by the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then by 10%. 10% is 100 % minus the capture efficiency of 90% which represents the uncaptured or fugitive emissions;
- b. calculate the PE/PM10 emissions from the stack of the control device by multiplying 90% of the annual tons of dry throughput times the emission factor of

Emissions Unit ID: **P009**

20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then times 10%. 10% is 100% minus the control efficiency of 90%; and

- c. add the calculated fugitive emissions to the calculated stack emissions based on a rolling, 12-month summation.

**Emission Limitation:**

The PE from the outlet of the scrubber controlling emissions unit P009 shall not exceed 19.05 pounds per hour.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method**

If required, compliance with the PE limitations shall be demonstrated through an emissions source test performed in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 - 5.

**Emission Limitations:**

The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method:**

Compliance with the visible particulate emissions limitations shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emission Limitation:**

The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

**Applicable Compliance Method:**

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

Emissions Unit ID: **P009**

3. Compliance with the annual production limitation in term and condition B.2 shall be demonstrated through the record keeping required in term and condition C.1.

#### **F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.
2. The terms and conditions of this permit supercede the terms and conditions of air permit to install number 14-05890 as issued December 21, 2006.
3. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

- 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.

**Operations, Property, and/or Equipment - (P010) - Blender ABB 06**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
ORC 3704.03(T)(4)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.c.
OAC rule 3745-17-11	See term and condition A.2.d.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.e.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.f.  The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
OAC rule 3745-31-05(C) (avoid triggering prevention of significant deterioration and non attainment review and to avoid being subject to Title V permitting requirements)	Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter (PM10) from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 5.75 TPY based on a rolling, 12-month summation.  See terms and conditions B.1 and B.2.  *for purposes of non-attainment review all particulate matter emissions 2.5 microns and less in diameter (PM2.5) are considered to be PM10.
OAC rule 3745-31-02(A)(2)	See terms and conditions A.2.b, B.1 and B.2.
OAC rule 3745-21-07(G)	Exempt due Supreme Court decision concerning blending of liquid organic materials.

Emissions Unit ID: **P010**

## **2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.
- 2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE or PM10 is each less than ten tons per year, taking into account the voluntary restrictions accepted by the permittee and the use of a wet scrubber as an air pollution control installed on the source.
- 2.c** The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.d** The PE from the outlet of the scrubber controlling emissions unit P010 shall not exceed 14.5 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.e** The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.
- 2.f** The fugitive dust from this emissions unit shall be controlled by the use of reasonably available control measures adequate to minimize or eliminate visible particulate emissions.
- 2.g** The hourly PE limitation outlined in term A.2.d is based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with this limitation.

## **B. Operational Restrictions**

- 1.** This emissions unit shall be operated with a Venturi wet scrubber having an overall control efficiency for particulate matter emissions of at least 81 percent .
- 2.** The total dry material usage in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 6,055,235 pounds per year based on a rolling, 12-month summation of the dry material usages.

Emissions Unit ID: **P010**

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the total dry material usage for emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined as specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Pounds of Dry Material Usage</u>
1	504,603
1-2	1,009,206
1-3	1,513,809
1-4	2,018,412
1-5	2,523,015
1-6	3,027,617
1-7	3,532,220
1-8	4,036,823
1-9	4,541,426
1-10	5,046,029
1-11	5,550,632
1-12	6,055,235

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual dry material usage limitation shall be based upon a rolling, 12-month summation of the dry material usage rates.

### **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - b. The rolling, 12-month summation of the amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - c. The rolling 12-month summation of PE and PM10 emissions (the summation of the current month's emission total and the previous eleven calendar month's emission totals from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.).

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the scrubber pressure drop during operation of this emissions unit, including periods of startup and shutdown. 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 scrubber pressure drop on daily basis.

Whenever the monitored value for the scrubber pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required emissions testing is conducted.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;

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- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which summarize the following for this emissions unit:
  - a. the amount, in pounds, of dry materials employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined for the previous calendar year; and
  - b. the total particulate emissions in tons per year from emissions units P005, P006, P007, P008, P009, P010, P011 and P012, combined for the previous calendar year.

The reports shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the scrubber was outside of the range specified by the manufacturer;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

Emissions Unit ID: **P010**

- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter. If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the rolling, 12-month dry material usage, the rolling, 12-month emission limitation for PE and PM10 and the maximum allowable cumulative monthly dry material usage amounts. If no exceedances occurred, the permittee shall state so in the report.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## **E. Testing Requirements**

1. The uncontrolled potential to emit of VOC emissions for this emissions unit is based on the following information, as supplied by the facility in air PTI application number 14-05890 as submitted on October 31, 2006:

maximum liquid solvent capacity in emissions unit P010 is 6,573,950 gallons per year  
x emission factor of 6.42E-05 lb per gallon = 422.1 lbs/year or 0.21 ton per year.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method:

Emission Limitations:

The PE/PM10 emissions from this emissions unit shall not exceed 5.75 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual limitation for PE/PM10 is determined by calculating as follows:

- a. calculate the fugitive PE/PM10 emissions by multiplying the annual tons of dry throughput by the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then by 10%. 10% is 100 % minus the capture efficiency of 90% which represents the uncaptured or fugitive emissions;
- b. calculate the PE/PM10 emissions from the stack of the control device by multiplying 90% of the annual tons of dry throughput times the emission factor of

Emissions Unit ID: **P010**

20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then times 10%. 10% is 100% minus the control efficiency of 90%; and

- c. add the calculated fugitive emissions to the calculated stack emissions based on a rolling, 12-month summation.

**Emission Limitations:**

The PE from the outlet of the scrubber controlling emissions unit P010 shall not exceed 14.5 pounds per hour.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method**

If required, compliance with the PE limitations shall be demonstrated through an emissions source test performed in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 - 5.

**Emission Limitations:**

The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method:**

Compliance with the visible particulate emissions limitations shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emission Limitation:**

The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

**Applicable Compliance Method:**

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

Emissions Unit ID: **P010**

3. Compliance with the annual production limitation in term and condition B.2 shall be demonstrated through the record keeping required in term and condition C.1.

#### **F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.
2. The terms and conditions of this permit supercede the terms and conditions of air permit to install number 14-05890 as issued December 21, 2006.
3. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

- 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.

**Operations, Property, and/or Equipment - (P011) - Blender ABB 07**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
ORC 3704.03(T)(4)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.c.
OAC rule 3745-17-11	See term and condition A.2.d.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.e.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.f.  The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
OAC rule 3745-31-05(C) (avoid triggering prevention of significant deterioration and non attainment review and to avoid being subject to Title V permitting requirements)	Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter (PM10) from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 5.75 TPY based on a rolling, 12-month summation.  See term and condition B.1 and B.2.  *for purposes of non-attainment review all particulate matter emissions 2.5 microns and less in diameter (PM2.5) are considered to be PM10.
OAC rule 3745-31-02(A)(2)	See terms and conditions A.2.b, B.1 and B.2.
OAC rule 3745-21-07(G)	Exempt due Supreme Court decision concerning blending of liquid organic materials.

## **2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.
- 2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE or PM10 is each less than ten tons per year, taking into account the voluntary restrictions accepted by the permittee and the use of a wet scrubber as an air pollution control installed on the source.
- 2.c** The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.d** The PE from the outlet of the scrubber controlling emissions unit P011 shall not exceed 14.5 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.e** The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.
- 2.f** The fugitive dust from this emissions unit shall be controlled by the use of reasonably available control measures adequate to minimize or eliminate visible particulate emissions.
- 2.g** The hourly PE limitation outlined in term A.2.d is based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with this limitation.

## **B. Operational Restrictions**

- 1. This emissions unit shall be operated with a Venturi wet scrubber having an overall control efficiency for particulate matter emissions of at least 81 percent .
- 2. The total dry material usage in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 6,055,235 pounds per year based on a

Emissions Unit ID: **P011**

rolling, 12-month summation of the dry material usages.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the total dry material usage for emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined as specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Pounds of Dry Material Usage</u>
1	504,603
1-2	1,009,206
1-3	1,513,809
1-4	2,018,412
1-5	2,523,015
1-6	3,027,617
1-7	3,532,220
1-8	4,036,823
1-9	4,541,426
1-10	5,046,029
1-11	5,550,632
1-12	6,055,235

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual dry material usage limitation shall be based upon a rolling, 12-month summation of the dry material usage rates.

### **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - b. The rolling, 12-month summation of the amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - c. The rolling 12-month summation of PE and PM10 emissions (the summation of the current month's emission total and the previous eleven calendar month's emission totals from emissions units P005, P006, P007, P008, P009, P010,

P011 and P012 combined.).

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the scrubber pressure drop during operation of this emissions unit, including periods of startup and shutdown. 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 scrubber pressure drop on daily basis.

Whenever the monitored value for the scrubber pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required emissions testing is conducted.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

Emissions Unit ID: **P011**

- a. the location and color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which summarize the following for this emissions unit:
  - a. the amount, in pounds, of dry materials employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined for the previous calendar year; and
  - b. the total particulate emissions in tons per year from emissions units P005, P006, P007, P008, P009, P010, P011 and P012, combined for the previous calendar year.

The reports shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the scrubber was outside of the range specified by the manufacturer;

- b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter. If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the rolling, 12-month dry material usage, the rolling, 12-month emission limitation for PE and PM10 and the maximum allowable cumulative monthly dry material usage amounts. If no exceedances occurred, the permittee shall state so in the report.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### **E. Testing Requirements**

1. The uncontrolled potential to emit of VOC emissions for this emissions unit is based on the following information, as supplied by the facility in air PTI application number 14-05890 as submitted on October 31, 2006:

maximum liquid solvent capacity in emissions unit P011 is 6,573,950 gallons per year  
x emission factor of 6.42E-05 lb per gallon = 422.1 lbs/year or 0.21 ton per year.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method:

Emission Limitation:

The PE/PM10 emissions from this emissions unit shall not exceed 5.75 tons per year based on a rolling, 12-month summation.

Emissions Unit ID: **P011**

## Applicable Compliance Method:

Compliance with the annual limitation for PE/PM10 is determined by calculating as follows:

- a. calculate the fugitive PE/PM10 emissions by multiplying the annual tons of dry throughput by the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then by 10%. 10% is 100 % minus the capture efficiency of 90% which represents the uncaptured or fugitive emissions;
- b. calculate the PE/PM10 emissions from the stack of the control device by multiplying 90% of the annual tons of dry throughput times the emission factor of

Emissions Unit ID: **P011**

20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then times 10%. 10% is 100% minus the control efficiency of 90%; and

- c. add the calculated fugitive emissions to the calculated stack emissions based on a rolling, 12-month summation.

**Emission Limitations:**

The PE from the outlet of the scrubber controlling emissions unit P011 shall not exceed 14.5 pounds per hour.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method**

If required, compliance with the PE limitations shall be demonstrated through an emissions source test performed in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 - 5.

**Emission Limitations:**

The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method:**

Compliance with the visible particulate emissions limitations shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emission Limitation:**

The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

**Applicable Compliance Method:**

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

3. Compliance with the annual production limitation in term and condition B.2 shall be demonstrated through the record keeping required in term and condition C.1.

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.
2. The terms and conditions of this permit supercede the terms and conditions of air permit to install number 14-05890 as issued December 21, 2006.
3. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

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

**A. Applicable Emissions Limitations and/or Control Requirements**

- 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.

**Operations, Property, and/or Equipment - (P012) - Blender ABB 08**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
ORC 3704.03(T)(4)	See term and condition A.2.a.
OAC rule 3745-17-07(A)(1)	See term and condition A.2.c.
OAC rule 3745-17-11	See term and condition A.2.d.
OAC rule 3745-17-07(B)(1)	See term and condition A.2.e.
OAC rule 3745-17-08(B)(3)	See term and condition A.2.f.  The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.
OAC rule 3745-31-05(C) (avoid triggering prevention of significant deterioration and non attainment review and to avoid being subject to Title V permitting requirements)	Particulate emissions (PE) and particulate mater emissions 10 microns and less in diameter* (PM10) from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 5.75 TPY based on a rolling, 12-month summation.  See terms and conditions B.1 and B.2.  *for purposes of non-attainment review all particulate matter emissions 2.5 microns and less in diameter (PM2.5) are considered to be PM10.
OAC rule 3745-31-02(A)(2)	See terms and conditions A.2.b, B.1 and B.2.
OAC rule 3745-21-07(G)	Exempt due Supreme Court decision concerning blending of liquid organic materials.

## **2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.
- 2.b** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE or PM10 is each less than ten tons per year, taking into account the voluntary restrictions accepted by the permittee and the use of a wet scrubber as an air pollution control installed on the source.
- 2.c** The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
- 2.d** The PE from the outlet of the scrubber controlling emissions unit P012 shall not exceed 14.5 pounds per hour based on Table I in OAC rule 3745-17-11(B).
- 2.e** The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.
- 2.f** The fugitive dust from this emissions unit shall be controlled by the use of reasonably available control measures adequate to minimize or eliminate visible particulate emissions.
- 2.g** The hourly PE limitation outlined in term A.2.d is based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with this limitation.

## **B. Operational Restrictions**

- 1.** This emissions unit shall be operated with a Venturi wet scrubber having an overall control efficiency for particulate matter emissions of at least 81 percent .
- 2.** The total dry material usage in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined shall not exceed 6,055,235 pounds per year based on a rolling, 12-month summation of the dry material usages.

Quaker Chemical Corporation  
DTI Application Number: 14-05800

Facility ID: 1409010497

Emissions Unit ID: **P012**

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the total dry material usage for emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined as specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Pounds of Dry Material Usage</u>
1	504,603
1-2	1,009,206
1-3	1,513,809
1-4	2,018,412
1-5	2,523,015
1-6	3,027,617
1-7	3,532,220
1-8	4,036,823
1-9	4,541,426
1-10	5,046,029
1-11	5,550,632
1-12	6,055,235

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual dry material usage limitation shall be based upon a rolling, 12-month summation of the dry material usage rates.

### **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - b. The rolling, 12-month summation of the amount, in pounds, of all dry material employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.
  - c. The rolling 12-month summation of PE and PM10 emissions (the summation of the current month's emission total and the previous eleven calendar month's emission totals from emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined.).

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the scrubber pressure drop during operation of this emissions unit, including periods of startup and shutdown. 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 scrubber pressure drop on daily basis.

Whenever the monitored value for the scrubber pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required emissions testing is conducted.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;

Emissions Unit ID: **P012**

- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which summarize the following for this emissions unit:
  - a. the amount, in pounds, of dry materials employed in emissions units P005, P006, P007, P008, P009, P010, P011 and P012 combined for the previous calendar year; and
  - b. the total particulate emissions in tons per year from emissions units P005, P006, P007, P008, P009, P010, P011 and P012, combined for the previous calendar year.

The reports shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the scrubber was outside of the range specified by the manufacturer;
  - b. an identification of each incident of deviation described in (a) where a prompt

investigation was not conducted;

- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter. If no exceedances occurred, the permittee shall state so in the report.

3. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services that identify all exceedances of the rolling, 12-month dry material usage, the rolling, 12-month emission limitation for PE and PM10 and the maximum allowable cumulative monthly dry material usage amounts. If no exceedances occurred, the permittee shall state so in the report.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## **E. Testing Requirements**

1. The uncontrolled potential to emit of VOC emissions for this emissions unit is based on the following information, as supplied by the facility in air PTI application number 14-05890 as submitted on October 31, 2006:

maximum liquid solvent capacity in emissions unit P012 is 6,573,950 gallons per year  
x emission factor of 6.42E-05 lb per gallon = 422.1 lbs/year or 0.21 ton per year.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method:

Emission Limitation:

The PE/PM10 emissions from this emissions unit shall not exceed 5.75 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Emissions Unit ID: **P012**

Compliance with the annual limitation for PE/PM10 is determined by calculating as follows:

- a. calculate the fugitive PE/PM10 emissions by multiplying the annual tons of dry throughput by the emission factor of 20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then by 10%. 10% is 100 % minus the capture efficiency of 90% which represents the uncaptured or fugitive emissions;
- b. calculate the PE/PM10 emissions from the stack of the control device by multiplying 90% of the annual tons of dry throughput times the emission factor of

Emissions Unit ID: **P012**

20 pounds per ton (from AP42 Table 6.4-1, 1/95) and then times 10%. 10% is 100% minus the control efficiency of 90%; and

- c. add the calculated fugitive emissions to the calculated stack emissions based on a rolling, 12-month summation.

**Emission Limitations:**

The PE from the outlet of the scrubber controlling emissions unit P012 shall not exceed 14.5 pounds per hour.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method**

If required, compliance with the PE limitations shall be demonstrated through an emissions source test performed in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 - 5.

**Emission Limitations:**

The visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The fugitive particulate emission rate at the control device outlet shall not exceed 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gas or no visible particulate emissions from the exhaust stack, whichever is less stringent.

**Applicable Compliance Method:**

Compliance with the visible particulate emissions limitations shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emission Limitation:**

The visible particulate emissions from any fugitive dust source shall not exceed 20 percent opacity, as a three-minute average.

**Applicable Compliance Method:**

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

3. Compliance with the annual production limitation in term and condition B.2 shall be demonstrated through the record keeping required in term and condition C.1.

**F. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.
2. The terms and conditions of this permit supercede the terms and conditions of air permit to install number 14-05890 as issued December 21, 2006.
3. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

**NEW SOURCE REVIEW FORM B**

PTI Number: 14-05890

Facility ID: 1409010497

FACILITY NAME Quaker Chemical Corporation

FACILITY DESCRIPTION Eight new blenders controlled by a wet CITY/TWP Middletown

Emissions Unit ID: **P012**SIC CODE 2992 SCC CODE 30188801 EMISSIONS UNIT ID P005

EMISSIONS UNIT DESCRIPTION Blender ABB 01

DATE INSTALLED not installed

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment		4.31	14.5 lbs/hr	5.75
PM <sub>10</sub>	attainment		4.31	14.5 lbs/hr	5.75
Sulfur Dioxide					
Organic Compounds	nonattainment		0.21		0.21
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

**NA**IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NOIDENTIFY THE AIR CONTAMINANTS: na

**NEW SOURCE REVIEW FORM B**

PTI Number: 14-05890 Facility ID: 1409010497

FACILITY NAME Quaker Chemical Corporation

FACILITY DESCRIPTION Fight new blenders controlled by a wet CITY/TWP Middletown

Emissions Unit ID: **P012**

SIC CODE 2992 SCC CODE 30188801 EMISSIONS UNIT ID P006

EMISSIONS UNIT DESCRIPTION Blender ABB 02

DATE INSTALLED not installed

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment		4.31	14.5 lbs/hr	5.75
PM <sub>10</sub>	attainment		4.31	14.5 lbs/hr	5.75
Sulfur Dioxide					
Organic Compounds	nonattainment		0.21		0.21
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NO

IDENTIFY THE AIR CONTAMINANTS: na

**NEW SOURCE REVIEW FORM B**

PTI Number: 14-05890 Facility ID: 1409010497

FACILITY NAME Quaker Chemical Corporation

FACILITY DESCRIPTION Fight new blenders controlled by a wet CITY/TWP Middletown

Emissions Unit ID: **P012**

SIC CODE 2992 SCC CODE 30188801 EMISSIONS UNIT ID P007

EMISSIONS UNIT DESCRIPTION Blender ABB 03

DATE INSTALLED not installed

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment		4.31	14.5 lbs/hr	5.75
PM <sub>10</sub>	attainment		4.31	14.5 lbs/hr	5.75
Sulfur Dioxide					
Organic Compounds	nonattainment		0.21		0.21
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NO

IDENTIFY THE AIR CONTAMINANTS: na

**NEW SOURCE REVIEW FORM B**

PTI Number: 14-05890 Facility ID: 1409010497

FACILITY NAME Quaker Chemical Corporation

FACILITY DESCRIPTION Fight new blenders controlled by a wet CITY/TWP Middletown

Emissions Unit ID: **P012**

SIC CODE 2992 SCC CODE 30188801 EMISSIONS UNIT ID P008

EMISSIONS UNIT DESCRIPTION Blender ABB 04

DATE INSTALLED not installed

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment		4.31	5.7lbs/hr	5.75
PM <sub>10</sub>	attainment		4.31	5.7lbs/hr	5.75
Sulfur Dioxide					
Organic Compounds	nonattainment		0.05		0.05
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NO

IDENTIFY THE AIR CONTAMINANTS: na

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Emissions Unit ID: **P012**

FACILITY DESCRIPTION Eight new blenders controlled by a wet scrubber CITY/TWP Middletown

SIC CODE 2992 SCC CODE 30188801 EMISSIONS UNIT ID P009

EMISSIONS UNIT DESCRIPTION Blender ABB 05

DATE INSTALLED not installed

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment		4.31	19.1lbs/hr	5.75
PM <sub>10</sub>	attainment		4.31	19.1lbs/hr	5.75
Sulfur Dioxide					
Organic Compounds	nonattainment		0.32		0.32
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? na  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NO

IDENTIFY THE AIR CONTAMINANTS: na



**NEW SOURCE REVIEW FORM B**

PTI Number: 14-05890 Facility ID: 1409010497

FACILITY NAME Quaker Chemical Corporation

FACILITY DESCRIPTION Fight new blenders controlled by a wet CITY/TWP Middletown

Emissions Unit ID: **P012**

SIC CODE 2992 SCC CODE 30188801 EMISSIONS UNIT ID P011

EMISSIONS UNIT DESCRIPTION Blender ABB 07

DATE INSTALLED not installed

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment		4.31	14.5 lbs/hr	5.75
PM <sub>10</sub>	attainment		4.31	14.5 lbs/hr	5.75
Sulfur Dioxide					
Organic Compounds	nonattainment		0.21		0.21
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NO

IDENTIFY THE AIR CONTAMINANTS: na

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Emissions Unit ID: P012

FACILITY DESCRIPTION Eight new blenders controlled by a wet scrubber CITY/TWP Middletown

SIC CODE 2992 SCC CODE 30188801 EMISSIONS UNIT ID P012

EMISSIONS UNIT DESCRIPTION Blender ABB 08

DATE INSTALLED not installed

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment		4.31	14.5 lbs/hr	5.75
PM <sub>10</sub>	attainment		4.31	14.5 lbs/hr	5.75
Sulfur Dioxide					
Organic Compounds	nonattainment		0.21		0.21
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES x NO

IDENTIFY THE AIR CONTAMINANTS: na