UPDATED: 3/28/2017, 12/11/2017 (cosmetic only)

**FABRIC FILTER – with and without CAM PERMIT LANGUAGE - OTHER PSEU**

**Use this language for all ethanol facilities**

*GREEN: Standard profile language – no suggested change*

*BLACK: Notes*

*RED: Additional language*

*PURPLE: Optional language*

*BLUE: CAM only*

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| NOTE | EMISSION AND OPERATIONAL LIMITSIf you enter these requirements anywhere other than the TREA, you should enter a TREA reference whenever referring to the control device itself. |  |
| **CITATIONS See** [**..\Flexibility\_AOS and Bypass Language\FLEXIBILITY Plus! for ethanol facilities.docx**](file:///%5C%5Cx1600%5Cpublic%5CNelson_Bonnie.BN%5CFlexibility_AOS%20and%20Bypass%20Language%5CFLEXIBILITY%20Plus%21%20for%20ethanol%20facilities.docx) **for most recent federal citations.***Minn. R. 7007.0800, subp.**-2 : Emission limitations and standards needed to ensure compliance with all applicable requirements**-4: Monitoring**-5: Recordkeeping**-14: Operation of Control Equip – may specify O&M requirements, or maintain O&M plan on site* |
| **STRU: Multiple Units with PM/PM10/PM2.5 Emissions venting to a FABRIC FILTER with flexibility**  |
| Avoid PSD/Pt 70Model (if relied upon for lb/hr)BACT/CAANot CAM | The Permittee must vent emissions from any emission unit that vents to STRU # to a fabric filter that meets the requirements of TREA # whenever any emission unit that vents to STRU # operates, and must operate and maintain a fabric filter that meets the requirements of TREA # at all times that any emissions vent to it. | Put in all permits*. Written to accommodate flexibility.**The first part of the language is purposely vague to include emissions from new units.* |  |
| **TREA: Multiple Units with PM/PM10/PM2.5 Emissions venting to a FABRIC FILTER with flexibility** |
| Avoid PSD/Pt 70Model (if relied upon for lb/hr)BACT/CAANot CAM | The Permittee must vent emissions from any emission unit that vents to STRU # to a fabric filter that meets the requirements of TREA # whenever any emission unit that vents to STRU # operates, and must operate and maintain a fabric filter that meets the requirements of TREA # at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. |  | 1 |
|  | OPERATING LIMITS |  |  |
| Avoid PSD/Pt 70Model (if relied upon for lb/hr)BACT/CAANot CAM | The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 99 percent control efficiency. [Title 1 Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |  | 2 |
| Avoid PSD/Pt 70Model (if relied upon for lb/hr)BACT/CAANot CAM | The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 microns >= 93 percent control efficiency. [Title 1 Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |  | 3 |
| Avoid PSD/Pt 70Model (if relied upon for lb/hr)BACT/CAA?Not CAM | The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 microns >= 93 percent control efficiency. [Title 1 Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |  | 4 |
| Model | The Permittee shall operate and maintain control equipment associated with EQUI 1 and EQUI 2 (Truck Receiving Pits 1 & 2) so that each achieves a capture efficiency for PM/PM < 10 micron/ PM < 2.5 microns >= 95.0 percent capture efficiency. [Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 1-2, Minn. R. 7009.0010-7009.0090, Minn. Stat. 116.07, subd. 4a, Minn. Stat. 116.07, subd. 9] | Write individually as LIMIT screens. |  |
| BAR | The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Total Particulate Matter: greater than or equal to 80 percent collection efficiency. [Minn. R. 7011.1005, subp. 3(E)] | If subject to control from Bullk Ag Rule, milling equipment subject to IPER | 5 |
| BAR | The Permittee shall maintain air pollution control equipment in proper operating condition and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)] |  |
| Avoid PSD/Pt 70Not CAM | If the Permittee replaces TREA [#]….Only fabric filter replacement at facility (NOT recommended for ethanol facility, very limited use):[..\Flexibility Language\Ethanol Helpfile FLEXIBILITY fabric filter only.docx](file:///%5C%5Cx1600%5Cpublic%5CNelson_Bonnie.BN%5CFlexibility%20Language%5CEthanol%20Helpfile%20FLEXIBILITY%20fabric%20filter%20only.docx)Expanded facility flexibility:[..\Flexibility Language\Ethanol Helpfile FLEXIBILITY.docx](file:///%5C%5Cx1600%5Cpublic%5CNelson_Bonnie.BN%5CFlexibility%20Language%5CEthanol%20Helpfile%20FLEXIBILITY.docx) | Choose appropriate resource. | 2 |
| [Minn. R. 7007.0800, subp. 14] | The Permittee shall operate and maintain the control equipment in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.  | This requirement is standard for controls that are required by a permit. |  |
|  | Building Capture Study Test Report: The Permittee shall maintain a copy of the building capture study test report dated September 26, 2011 on site. [Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M), Minn. R. 7007.0800, subps. 1-2, Minn. R. 7009.0010-7009.0090, Minn. Stat. 116.07, subd. 4a, Minn. Stat. 116.07, subd. 9] | EXAMPLE, see hood language in example permit language folder |  |
|  | Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan power draw of the hood, in amps, to verify the hood operation parameters meet or exceed the parameters measured during the Building Capture Study and determine if any corrective actions are needed. The amperage should be between 107 and 131 amps. The Permittee shall maintain a copy of the annual evaluations on site for five years. [Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M), Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 1-2, Minn. R. 7009.0010-7009.0090, Minn. Stat. 116.07, subd. 4a, Minn. Stat. 116.07, subd. 9] | EXAMPLE |  |
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| 40 CFR 64.3(a)(2) & Minn. R. 7017.0200; Minn. R. 7007.0800, subps. 4-5; Minn. R. 7007.0800, subp. 11; Avoid PSD/ Part 70 | Operating Scenario 1: Visible Emissions: The Permittee shall check the fabric filter stack (STRU XX) for any visible emissions once each <24-hour period> during daylight hours whenever emissions are venting to TREA XX. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each 24-hour period whenever emissions are venting to TREA XX using Operating Scenario 1 for pressure drop range. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. | **Visible Emissions monitoring option.** Low-temp baghouses, no condensibles.Subp. 11 is AOS rule | 7 |
| 40 CFR 64.3(a)(2) & Minn. R. 7017.0200; Minn. R. 7007.0800, subps. 4-5; Minn. R. 7007.0800, subp. 11; Avoid PSD/ Part 70 | Operating Scenario 2: Visible Emissions: The Permittee shall check the fabric filter stack (STRU XX) for any visible emissions once each 24-hour period during daylight hours when there are no emissions venting to TREA XX. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each 24-hour period when there are no emissions are venting to TREA XX using Operating Scenario 2 for pressure drop range. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. | **Visible Emissions monitoring option.** Low-temp baghouses, no condensibles. |  |
| 40 CFR 64.3(a)(2) & Minn. R. 7017.0200; Minn. R. 7007.0800, subps. 4-5; Minn. R. 7007.0800, subp. 11; Avoid PSD/ Part 70 | Operating Scenario 1: Pressure Drop >= 0.5 and <= 6.0 inches of water whenever emissions are venting to the fabric filter, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop reading is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop reading is once again within the required range.  | This requirement is standard for controls that are required by a permit (i.e., not CAM-specific). Most CAM plans require pressure drop as standard indicators. Add or delete indicators as needed.Sets indicator range for pressure drop when emissions are being vented to the control equipment. You need a lower-end number as well as an upper end - zero is not okay. That could mean that there is NO filter in place. Edit citation as needed. |  |
| 40 CFR 64.3(a)(2) & Minn. R. 7017.0200; Minn. R. 7007.0800, subps. 4-5; Minn. R. 7007.0800, subp. 11; Avoid PSD/ Part 70 | Operating Scenario 2: Pressure Drop: ≤ 0.0 inches of water when no emissions are venting to the fabric filter. | Sets indicator range for pressure drop when emissions are not vented to the control equipment, and the control equipment is not operational. Since the CAM rules require a pressure drop reading every 24-hour period, this provides an option for the Permittee to list “0” without it being an excursion. |  |
|  | RECORDKEEPING |  |  |
|  | *Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.* | ***NON-CAM*** *requirement from helpfile.* |  |
| 40 CFR 64.3(b)(4) and Minn. R. 7017.0200;Minn. R. 7007.0800, subp. 11Minn. R. 7007.0800, subps. 4&5, Avoid PSD/ Part 70 | Recordkeeping of Visible Emissions and Pressure Drop: At least once during every 24-hour period the Permittee shall record 1) the results of the visible emission inspection or the pressure drop across the fabric filter, 2) the time and date of the recording, 3) the applicable Operating Scenario (whether or not emissions are being vented to the fabric filter) and 4) whether or not there were visible emissions or if the pressure drop recording is within the indicator range for the Operating Scenario specified in this permit. The presence of visible emissions, or recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and are considered excursions as defined by 40 CFR 64.1  | **Recordkeeping for VE/pressure drop option**. *CAM requires monitoring every 24 hours, not just when in operation.**<Edit monitoring if limiting other parameters.>*  |  |
| 40 CFR 64.3(b)(4) and Minn. R. 7017.0200;Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4&5, Avoid PSDAvoid Part 70 | Recordkeeping of Pressure Drop: At least once during every 24-hour period the Permittee shall record 1) the pressure drop across the fabric filter, 2) the time and date of the recording, 3) the applicable Operating Scenario (whether or not emissions are being vented to the fabric filter) and 4) whether or not the recorded pressure drop is within the indicator range for the Operating Scenario specified in this permit. Recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and are considered excursions as defined by 40 CFR 64.1  | **Recordkeeping for pressure drop only** *CAM requires monitoring every 24 hours, not just when in operation.**<Edit monitoring if limiting other parameters.>*  | 8 |
| [Minn. R. 7007.0800, subp. 4;40 CFR 64.7(b), Minn. R. 7017.0200 | Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. This includes, but is not limited to, maintaining necessary parts for routine repairs. |  |  |
| 40 CFR 64.3, Minn. R. 7017.0200; Minn. R. 7007.0800, subps. 4&5 | Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment external components. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. | Remove external if they conduct all inspections quarterly. |  |
| 40 CFR 64.3, Minn. R. 7017.0200; Minn. R. 7007.0800, subps. 4&5 | Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment components not covered by the quarterly inspections. This includes, but is not limited to, components that are not subject to wear or plugging including structural components, housings, and hoods. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. | Edit the citation as needed, but must include CAM part of citation.Only use if Permittee conducts EXTERNAL quarterly inspections only. Permittee may not shut down equipment for quarterly inspection, then they would need annual inspection language.  |  |
| 40 CFR Section 64.3; Minn. R. 7017.0200; Minn. R. 7007.0800, subps. 5 and 14 | Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer’s specifications and maintain a written record of any action resulting from the calibration or replacement.  |  |  |
| 40 CFR 64.7(d) and Minn. R. 7017.0200Minn. R. 7007.0800, subps. 5 and 14 | Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:1. visible emissions are observed; or2. the recorded pressure drop is outside the required operating range; or3. the fabric filter or any of its components are found during the inspections to need repair.Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken.  | The citation refers to “response to excursions” (see below). Implementing corrective actions would be a response to excursions. Are we using this in lieu of the language from the rule? |  |
| 40 CFR 64.7(c); Minn. R. 7017.0200 | Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. |  |  |
| 40 CFR 64.7(d); Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 14 | Response to excursions. Upon detecting an excursion, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. |  |  |
| 40 CFR Section 64.7(e); Minn. R. 7017.0200 | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. |  | 15 |
| 40 CFR 64.8; Minn. R. 7017.0200 | Quality Improvement Plan (QIP) requirements. If there is an accumulation of <9> or more excursions during the six-month reporting period, the Permittee must develop and implement a QIP in accordance with 40 CFR 64.8(b). The QIP must be available for inspection. | *This is an optional requirement. The Permittee is not required to define the number of excursions.* | 16 |
| 40 CFR 64.8(c); Minn. R. 7017.0200 | If a QIP is required, the Permittee shall develop and implement the QIP as expeditiously as practicable and shall notify the MPCA if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined. | *This is an optional requirement. The Permittee is not required to define the number of excursions.* | 17 |
| 40 CFR 64.8(d); Minn. R. 7017.0200 | Following implementation of a QIP, the Administrator or the MCPA may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:(1) Failed to address the cause of the control device performance problems; or(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions | *This is an optional requirement. The Permittee is not required to define the number of excursions.* | 18 |
| 40 CFR 64.8(e); Minn. R. 7017.0200 |  Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply. | *This is an optional requirement. The Permittee is not required to define the number of excursions.* | 19 |
| 40 CFR 64.9(a)(2) & Minn. R. 7017.0200 | As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. | CAM-specific requirement. Goes in ALL permits with CAM - do not edit. | 20 |
| 40 CFR Section 64.9(b); Minn. R. 7017.0200 | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. | CAM-specific requirement. Goes in ALL permits with CAM - do not edit. | 21 |