ISSUE #1: Parametric monitoring ranges are not always present in the operation permit.

1. Problem: Historically, the Department has been inconsistent in where parametric monitoring ranges may reside, if parametric monitoring is required to monitor compliance. These ranges may have appeared in the operation permit, or they may have been placed in an off-permit document, such as a Malfunction and Abatement Plan.

2. Final Proposal: Parametric monitoring ranges will be placed in the operation permit.

Operation Permits – Existing

As operation permits are revised or renewed, the Department will ensure that all parametric monitoring ranges are contained in the body of the operation permit. Parametric monitoring ranges that were previously in an off-permit document will be moved back into the operation permit. If these parametric monitoring ranges were derived from a Title I permit, the permittee has the option of requesting a concurrent Title I revision or modification using one of the options below.

Construction Permits - New Emission Units

The Department will not put parametric monitoring ranges in Title I permits unless requested by the permittee. The Title I permit would require the permittee to submit parametric monitoring ranges derived from compliance testing, manufacturer's recommendations, operational experience, and/or other source, in order to complete the operation permit application for the new emission unit. Issuance of the revised operation permit would be delayed.

> Example: The permittee shall maintain the pressure drop across each baghouse within a range established in conjunction with the performance testing required under I.ZZZ.7.(a)(5) or an alternate range as approved by the Department using the applicable procedures under ch. NR 407, Wis. Adm. Code.

Construction Permits - Existing Emission Units

Existing emission units may already have parametric monitoring ranges established through a Title I permit. These existing emission units would require the use of the Title I revision procedures in conjunction with a significant operation permit revision procedure to modify.

Alternatively, at the request of the permittee, the Department would use Title I revision procedures in conjunction with an operation permit revision or renewal, to replace the existing parametric monitoring range language with alternate language pointing to the parametric monitoring range in the most recent operation permit. This would require the issuance of a revised Title I document in addition to an operation permit revision document.

> Example: The permittee shall maintain the pressure drop across each baghouse within the range contained in the most recent operation permit or an alternate range as approved by the Department using the applicable procedures under ch. NR 407, Wis. Adm. Code.

Construction Permits - Emissions Units Modified in the Future

Existing emission units may already have a parametric monitoring range. If these emission units receive a new Title I permit, and the permittee does not expect the parametric monitoring range to change, the Department would use alternate language pointing to the parametric monitoring range in the most recent operation permit. If the permittee does expect the parametric monitoring range will change, the Department will follow the procedures for a new emission unit above.

> Example: The permittee shall maintain the pressure drop across each baghouse within the range contained in the most recent operation permit or an alternate range as approved by the Department using the applicable procedures under ch. NR 407, Wis. Adm. Code.

3. Processing Issues:

- Unless the permittee requests a Title I revision to use alternate language, parametric monitoring ranges derived from an existing Title I permit would use Title I procedures to modify in conjunction with the applicable ch. NR 407, Wis. Adm. Code, significant revision procedures. The ch. NR 407, Wis. Adm. Code, minor revision procedures would not be available to make these changes.
- Emission units using the new or alternate language would use ch. NR 407, Wis. Adm. Code, revision procedures to modify parametric monitoring ranges. The ch. NR 407, Wis. Adm. Code, minor revision procedures would be available to make these changes, if requested.
- The Department would establish procedures to track Title I permits revised in conjunction with the applicable ch. NR 407, Wis. Adm. Code, revision procedures using WARP.

ISSUE #2: No justification may be present in the operation permit preliminary determination linking parametric monitoring ranges to compliance with applicable requirements.

1. Problem: Typically, parametric monitoring ranges are based on compliance testing, manufacturer's recommendations, and/or historic operating data. However, the operation permit preliminary determination may not explain the derivation of the parametric monitoring range or how this range may demonstrate compliance with the applicable requirements.

2. Final Proposal: The permittee will provide written justification of the parametric monitoring range.

Construction Permits – New or Modified Sources
For new sources in which the parametric monitoring range is not yet established or for modified sources for which the parametric monitoring range is expected to change, the permittee will provide written justification of the selected parametric monitoring range based on compliance testing, manufacturer's recommendations, operational experience, and/or other source in order to complete the operation permit application. Issuance of the revised operation permit would be delayed.

Construction Permits – Modified Sources
For modified source in which the parametric monitoring range is not expected to change, the permittee will provide written justification of the selected parametric monitoring range with the construction permit application.

Operations Permits – Existing Sources
For existing sources, the permittee would provide justification for the parametric monitoring ranges derived from compliance testing, manufacturer's recommendations, operational experience, and/or other source based on the following timelines:

- Application for revision of an operation permit (for the sources affected by the revision).
- Application for renewal of an operation permit.
- At the request of the Department.

3. Processing Issues:

- Review of each justification would be case-by-case.
- The Department should establish a guidance document for permit and compliance engineers to aid justification reviews.

ISSUE #3: The parametric monitoring frequency may not match the time period of the applicable requirement.

1. Problem: Often, when parametric monitoring is used to demonstrate ongoing compliance, the monitoring and recordkeeping requirements in s. NR 439.055(2), WAC, are specified.

> Example: The permittee shall measure and record the pressure drop across each baghouse once for every 8 hours of source operation or once per day of operation, whichever yields the greater number of measurements.

In the last few years, petitions on Title V permits have raised a sufficiency issue with regards to the frequency of parametric monitoring in relation to demonstrating compliance with an emission limitation, primarily for hourly or instantaneous particulate matter emission limits.

2. Regulatory and Legal History:
The petitions have referenced what is commonly known as the "gap filling" requirement under ch. NR 407.09(1)(c)b., WAC, as the basis for the Department's authority to require more frequent monitoring or alternative continuous monitoring:

> Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring, periodic monitoring or testing sufficient to yield reliable data from the relevant time period that are representative of the stationary source's compliance with the permit. [Note: This language in ch. NR 407 is a modified version of the language in 40 CFR 70.6(a)(3)(i)(B)]

The authority for this language is derived from 42 USC 7661c(b), which states that EPA "may by rule" set forth methods and procedures "for monitoring and analysis of pollutants regulated under this chapter, but continuous emissions monitoring need not be required if alternative methods are available that provide sufficiently reliable and timely information for determining compliance."

Federal courts have addressed the meaning of the language in 40 CFR 70.6(a)(3)(i)(B). In 1998, EPA issued a document entitled "Periodic Monitoring Guidance". The U.S. Court of Appeals for the District of Columbia Circuit, vacated this guidance on April 14, 2000, in Appalachian Power Company v. EPA (No. 98-1512). In that decision, the court decided that:

> State permitting authorities therefore may not, on the basis of EPA's guidance or 40 CFR s. 70.6(a)(3)(i)(B), require in permits that regulated source conduct more frequent monitoring of its emissions than that provided in the applicable State or federal standard, unless that standard requires no periodic testing, specifies no frequency, or requires only a one-time test.

In August 2008, the U.S. Court of Appeals for the District of Columbia Circuit in Sierra Club v. EPA (No. 04-1243), emphasized that section 504(c) of the Clean Air Act requires all Title V permits contain monitoring requirements to assure compliance with permit terms and conditions. This decision overturned EPA's interpretative rule, signed December 15, 2006, which had taken the position that permitting authorities were prohibited from adding monitoring requirements to Title V permits where the applicable requirements contained some periodic monitoring, even if that periodic monitoring was not sufficient to assure compliance with permit terms and conditions. The Court held that EPA's interpretative rule violated the statutory directive in Section 504(c) of the Act that each permit must include monitoring requirements to assure compliance with the permit terms and conditions. If an applicable requirement contains a periodic monitoring requirement that is inadequate to assure compliance with a term or condition of the title V permit, the Court concluded, Title V of the Act requires that "somebody must fix these inadequate monitoring requirements." However, the court did not answer

"the question of who wins when EPA and state and local permitting authorities conflict over whether a given requirement is sufficient 'to assure compliance'."

3. EPA Petition Responses:
Xcel Energy, Hayden Station – Petition VII-2009-01
Xcel Energy, Pawnee Station – Petition VIII-2010-XX
Xcel Energy, Cherokee Station – Petition VIII-2010-XX
Xcel Energy, Valmont Power Plant – Petition VIII-2010-XX

Petitioners stated:
1. Title V permit does not require actual monitoring of PM emissions
2. Stack testing is too infrequent, even if it could demonstrate compliance
3. Cannot rely on CAM to meet Title V monitoring requirements

EPA stated that the use of the "three prong approach" when viewed as a whole is adequate to assure compliance with the applicable limit. As defined in the listed petition responses, the three prong approach consists of:
1. Performance testing to demonstrate that the specified limit is being met.
2. Operation and maintenance of the baghouse to ensure that it continues to operate properly.
3. The CAM plan to provide a mechanism for assessing the performance of the baghouse on an ongoing basis.

4. Applicable Regulations:
The main scope of sources affected by this issue would be those with a SIP emission limit or a pre-November 16, 1990, standard from s. 111 or 112 of the Clean Air Act. The two significant regulations that affect recordkeeping and monitoring at these sources include:

<u>40 CFR Part 64 – Compliance Assurance Monitoring (CAM)</u>
For Title V sources, the CAM rule applies to any pollutant specific emission unit (PSEU) for which uncontrolled potential emissions exceed the applicable major source threshold, unless exempt. PSEU with emissions greater than major source thresholds after control, are required to have at least 4 data points equally spaced over each hour, although the permitting authority may approve a reduced data collection frequency with cause. PSEU emitting at less than major source thresholds after control are required to collect data at least once per 24-hour period of operation, although the permitting authority may require more frequent data collection. A common theme of CAM is the requirement for the permittee to provide justification of their monitoring approach.

<u>s. NR 439.055, Wis. Adm. Code</u>
For all emission units equipped with an applicable control device, s. NR 439.055, WAC, establishes minimum monitoring frequencies. However, s. NR 439.055(1), WAC, does allow the Department to use or establish monitoring for other operational variables than those listed in the chapter. Under s. NR 439.055(5), WAC, the Department may also require a greater number of operation variables be measured, more frequent monitoring, more accurate measurement or more frequent calibration, if the Department determines that these changes are necessary to ensure the source does not exceed an applicable emission limit, or to ensure the requirements of chs. 400 to 499 are met.

5. Final Proposal: Use "Three Prong Approach"

Title V Source – PSEU subject to CAM

- Compliance testing (minimum once every 5 years)
- Operation and maintenance requirements
- CAM

Title V Source – PSEU not subject to CAM

- Requirement to use control device; initial test if appropriate
- Operation and maintenance requirements
- CAM-like justification of monitoring frequency (CAM-lite)

Minor Sources

- Requirement to use control device; initial test if appropriate
- Operation and maintenance requirements
- Ch. NR 439.055 (minimum)

6. Discussion Points:

- CAM-lite justification would address:
  - The applicability of existing monitoring equipment and procedures.
  - The ability of the monitoring to account for process and control device operational variability.
  - The level of actual emissions relative to the compliance limitations.
- Should industry or trade groups develop presumptive CAMs?
- Should the Department provide approved presumptive CAMs similar to the printing TSD document?
- CAM attached to the permit vs. CAM incorporated into the permit.