

ADEQ

ARKANSAS
Department of Environmental Quality

August 22, 2007

James Yankee
Blytheville Wastewater Department
P.O. Box 1784
Blytheville, AR 72316-1784

Re: Blytheville's Pretreatment Program Modification Submittal
NPDES #s: AR0022560, AR0022586 and AR0022578

Dear Mr. Yankee:

Your Program submittal request required by NPDES permit # AR0022586 was received on 8/1/07. Upon subsequent review, the submittal is deemed non-substantial and will be incorporated by reference into your three (3) NPDES permits. August 1, 2007 will be deemed the newest modification date for the City of Blytheville's Pretreatment Program.

Upon cursory review of the submittal, the following items should be addressed to be more complete/accurate:

- 1) Ordinance Section (OS) 2.5 "Local Limits" is missing and should be included, if only in a narrative format;
- 2) Modify OS 3.3 to reflect EPA's new model ordinance specifications regarding frequency of slug evaluations unless you want this additional burden and wish to be more stringent than the federal regulations;
- 3) Check spelling in OS 3.4 C. "...waste haulers max(?) discharge loads...";
- 4) Check spelling in OS 4.2 B. "...permits as necessary to cam(?) out the...";
- 5) Check spelling in OS 4.3 "...into the POTW prior to the effective dale(?) of this...";
- 6) Even though you've referenced "All info required in OS 6.1(B)" in OS 4.5, this office feels the section should specifically include the flow information requested in EPA's new model ordinance (MO) language: "Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined wastestream formula set out in Section 2.2.B. (40 CFR 403.6(e))";
- 7) Modify OS 4.5 to include EPA's MO section 4.5 A.(7) "Measurement of Pollutants";
- 8) OS 4.6 should also include language similar to EPA's new MO (Section 4.7 B.): "If the designation of an Authorized Representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new written authorization satisfying the requirements of this Section must be submitted to the Pretreatment

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- Coordinator (PC) prior to or together with any reports to be signed by an Authorized Representative.”;
- 9) OS 5.2 B. should include, “Requirements to control Slug Discharge, if determined by the Pretreatment Coordinator to be necessary” similar to EPA’s MO section 5.2 A.(7);
 - 10) It’s in this office’s opinion, OS 5.3 should NOT include public noticing of IU discharge permits. This is not required by the State law nor 40 CFR 403 regulations and will put an additional administrative burden on the PC. The language could be changed to state, “The PC shall provide notice of the issuance of an individual wastewater discharge permit to the effected industrial user. The User, may petition the PC to reconsider the terms of an individual wastewater discharge permit within thirty (30) days of notice of its issuance...etc”;
 - 11) OS 5.5 should reflect language in EPA’s new MO section 5.5. The optional general permits’ language could be ignored but, your current Permit Transfer section appears to place more administrative burden upon the Pretreatment Coordinator when it is the permittee’s responsibility for notification. Your OS 5.5 should at least provide some instructions on how to transfer a permit to a new owner since you’ve referenced it as a reason for permit revocation in OS 5.6 L.;
 - 12) OS 5.8 C.(1): Correct citation to your local limits section (which is absent, see first recommendation) to 2.5., not 2.4.;
 - 13) OS 6.1 B.(5) should be expanded to reflect EPA’s MO section 6.1 B.(2) “Measurement of Pollutants”;
 - 14) Correct typo in the opening sentence of OS 6.2 and in (A) “...but are not limited to.(comma instead of a period)...”;
 - 15) OS 6.3: Correct typo in first sentence, “...categorical pretreatment standards.” (comma instead of a period);
 - 16) OS 6.4: Suggest adding a second sentence to the first stating something to the effect that **“IU permits will include the statement the PC may sample and analyze....etc”**;
 - 17) OS 6.6 B.: Correct typo in first sentence, “...the discharge and *time*(?) measures to...”;
 - 18) OS 6.8: Correct typo in the third sentence, “...if the PC performs sampling at the ??? (should be ‘User’) between the time...”;
 - 19) OS 6.9 could cause problems if you are not enforcing it. The city is more than likely currently receiving hazardous waste from the dentists, chiropractors, veterinarians, hospitals, long term health care units, film and X-ray developers, etc. What are your plans to restrict their haz waste contributions?;
 - 20) OS 6.10: Correct typo at the beginning of the second sentence, “II40 CFR 136 (should be ‘If 40 CFR 136’).” and replace the period with a comma in the last sentence;
 - 21) OS 6.11: Include EPA’s MO language prior to “A.”. “Samples collected to satisfy reporting requirements must be based on data obtained through appropriate sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the reporting period.”;
 - 22) OS 6.11 A.: Correct typo in first sentence, “...or grab sampling is *authority*(?) by....”;
 - 23) OS 7.1: Check typo in first and last sentences, “...~...” and “...of an~ additional...”;
 - 24) OS 7.1 D.: Check typo in last sentence, “...shall be born b(?) the user.”;
 - 25) OS 8: Check typo in last sentence, “...as defined b(?) 40 CFR 2.302...”;
 - 26) OS 9.H: Suggest including EPA’s MO language, “Any other violation(s), which may include a violation of Best Management Practices, which...”;
 - 27) OS 10.3: Remove the period in first sentence, “...standard or requirement.(?) to...”;
 - 28) OS 10.4: Check typo in first period, “...standard or requirement. The....”;
 - 29) OS 10.7 A.: Check typo in second sentence, “...the suspension order.(?) The....”;

- 30) OS 16: If this ordinance has not been codified into the city code, please update the adoption date.
- 31) Section III, the Enforcement Response Plan (ERP) of the city's Pretreatment Program: Include violations of best management practices (BMP) under the **Magnitude of the violation** section. And, in the enforcement response guide, include **Discharge Limit and BMP Violations** remedies the city would take. BMPs are now required narrative Pretreatment Standards and must be addressed in your ERP.
- 32) Take under advisement: You've stated in the ERP Section III (1) under **Sample Collection A.**: "In the event flow proportional sampling is infeasible, the PC may authorize the use of time proportional sampling or a minimum of four (4) grab samples where the user demonstrates that this will provide a representative sample of the effluent being discharged."

Batch discharges are obviously "infeasible" for 24-hr flow proportional sampling. Please see attached pages (60156 – 60) of EPA's Federal Register notice preamble which discusses the intent for allowing time-proportion or grab samples. Bottom line, if you have a continuous flow categorical industrial user, it is incumbent upon them to supply the city with historical data proving time-proportion or grab samples are representative of their process wastewater characteristics during normal production and wastewater discharge. **And**, the city must have this documentation located in the CIU's file (FACT SHEETS?) indicating concurrence that 24-hr flow proportional sampling is "infeasible".

Again, these modifications have been deemed non-substantial under 40 CFR 403.18 and will be incorporated into your three (3) NPDES permits by reference according to 40 CFR 122.63(g).

Please submit revisions and/or comments to the above within ten (10) days after adoption of your new Pretreatment Ordinance,

If you have any further questions, please feel free to contact this office.

Sincerely,



Allen Gilliam
ADEQ State Pretreatment Coordinator

Enclosures

cc: Dennis Benson / NPDES Enforcement Branch Manager
Central files

determination of its feasibility by Control Authorities, and not unilaterally by Industrial Users. Control Authorities' local limits will continue to ensure protection of the POTW operations and its receiving environment.

F. Use of Grab and Composite Samples (40 CFR 403.12(b), (d), (e), (g), and (h))

This section discusses: (1) The application of minimum required grab samples for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organics to the periodic compliance reports; (2) when a time-proportional sample may be used instead of a flow-proportional sample; (3) when multiple grab samples may be composited prior to analysis; (4) whether four grab samples are required whenever grab sampling is appropriate; and (5) the sampling of facilities that discharge less than 24-hours per day. Other issues raised by commenters are also discussed.

1. What are the existing rules?

What are "grab samples"?

A grab sample is " * * * a sample which is taken from a wastestream without regard to the flow of the wastestream and over a period of time not to exceed 15 minutes" (Industrial User Inspection and Sampling Manual for POTWs, EPA 831/B-94-001, April 1994, <http://www.epa.gov/npdes/pubs/owm0025.pdf>). Grab samples of volatile organic compounds (VOCs) must be collected almost instantaneously (*i.e.*, less than 30 seconds of elapsed time) and properly preserved (Comparison of Volatile Organic Analysis Compositing Procedures, EPA 821/R-95-035, September 1995). An analysis of an individual grab sample provides a measurement of pollutant concentrations in the wastewater at a particular point in time. Grab samples are usually collected manually, but can be obtained with a mechanical sampler.

Grab samples are required in order to accurately analyze those pollutant parameters that may be affected by biological, chemical, or physical interactions and/or exhibit marked physical and compositional changes within a short time after collection. Grab samples should be used when: (1) Wastewater characteristics are relatively constant; (2) parameters to be analyzed are likely to be affected by the compositing process, such as the procedures used for oil and grease; (3) composite sampling is infeasible or the compositing process is liable to introduce artifacts of sampling; and (4) the parameters to be analyzed are likely to change with storage. In particular,

accurate determination of pH, temperature, total phenols, oil and grease, sulfide, volatile organic compounds, and cyanide requires properly collecting and carefully preserving grab samples.

What are composite samples?

A composite sample is formed by mixing discrete samples or "aliquots." For a "flow-proportional" composite sample, each individual aliquot is collected after the passage of a defined volume of Discharge (*e.g.*, every 2,000 gallons). For a "time-proportional" composite sample, the aliquots are collected after the passage of a defined period of time (*e.g.*, once every two hours), regardless of the volume or variability of the rate of flow during that period. Flow-proportional compositing is usually preferred when effluent flow volume varies appreciably over time. The number of discrete samples necessary for a composite sample to be representative of the Discharge depends upon the variability of the pollutant concentration and the flow.

Automatically collected composite samples are usually preferred to collecting grab samples and then manually compositing the grabs into a single sample. Possible handling errors made during the compositing process could yield a sample that is not truly representative of the Discharge. However, composite samples can be prepared from manually collected grab samples if each grab contains a fixed volume that is retrieved at intervals that correspond to the periods of wastewater Discharge or time of the facility's operation.

When may the requirement for flow-proportional composite samples be waived?

The regulations in effect prior to today's rule allowed Control Authorities to waive the requirement for flow-proportional compositing of samples for baseline monitoring reports and 90-day compliance reports in limited circumstances. These regulations allowed the Control Authority to accept sample data that are obtained from time-proportional composite sampling or a minimum of four grab samples if flow-proportional sampling is infeasible (*e.g.*, the facility cannot accurately measure flow) and the Industrial User demonstrated that these alternative sampling techniques will provide a representative sample of the effluent (40 CFR 403.12(b)(5)(iii)). The section on periodic compliance reports was silent on the subject of grab and flow-proportional sampling.

2. What changes did EPA propose?

EPA proposed to clarify the sampling requirements in 40 CFR 403.12 in the following ways:

Do the sampling requirements apply to periodic reports on continued compliance? EPA proposed to extend the requirements of 40 CFR 403.12(b)(5)(iii), which were explicitly applicable to the baseline monitoring reports and 90-day reports required by 40 CFR 403.12(b) and (d), to the periodic reports required in 40 CFR 403.12(e) and (h). These changes would be accomplished by consolidating the new requirements for all of the reports in 40 CFR 403.12(g). Redundant sections would be removed.

Is a minimum frequency required for grab samples? EPA proposed that for periodic monitoring reports, a minimum of four grab samples would not need to be taken in all instances to measure pH, cyanide, total phenols, oil and grease, sulfides, and volatile organic compounds. Instead, Control Authorities would have the flexibility to determine the appropriate number of grab samples required for periodic compliance reports. For new facilities, the Industrial User would still be required to take a minimum of four grab samples to measure pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds to meet baseline monitoring and 90-day compliance report requirements. For existing facilities, where historical sampling data are available, the Control Authority may authorize a lower minimum.

When and what type of grab samples can be manually composited? EPA proposed to explicitly state that compositing of certain types of grab samples prior to their analysis would be permitted.

When can time-proportional or grab samples be used in lieu of flow-proportional composite samples? EPA proposed that Control Authorities may authorize time-proportional or grab sampling in lieu of flow-proportional sampling as long as the samples are representative of the Discharge.

What are the sampling requirements for those facilities that do not discharge continuously? EPA proposed language intended to clarify that, although a "24-hour composite sample" must be taken within a 24-hour period, the sample should only be collected during that portion of the 24-hour period that the Industrial User is discharging from the regulated process and/or from the treatment unit.

3. What changes are being finalized by EPA in today's rule?

EPA is finalizing language intended to clarify the sampling requirements in 40 CFR 403.12. Specific changes to the regulations, as well as pertinent details related to their implementation, are discussed below.

Do the sampling requirements apply to periodic compliance reports? Today's rule finalizes the extension of sampling requirements, which previously were only explicitly applicable to the baseline monitoring reports and 90-day reports required by 40 CFR 403.12(b) and (d), to the periodic reports required in 40 CFR 403.12(e) and (h). These changes are accomplished by consolidating the new requirements for all of the reports in 40 CFR 403.12(g). Redundant sections are removed.

Is a minimum frequency required for grab samples? The final regulatory changes eliminate the requirement that a minimum of four grab samples be taken in all instances to measure pH, cyanide, total phenols, oil and grease, sulfides, and volatile organic compounds. Control Authorities will have the flexibility to determine the appropriate minimum number of grab samples Industrial Users are required to take. The Control Authorities will be responsible for documenting the site-specific circumstances in the Industrial User's file. New facilities and facilities that make changes or install new treatment are still required to take a minimum of four grab samples to measure pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds to meet baseline monitoring and 90-day compliance report requirements. For facilities where historical sampling data are available, the Control Authority may authorize a lower minimum number of grab samples.

There are some cases where a single grab sample can be reasonably expected to be representative of a Discharge. Appendix V to the EPA guidance (Industrial User Inspection and Sampling Manual for POTWs, EPA 831/B-94-001, April 1994, <http://www.epa.gov/npdes/pubs/owm0025.pdf>) lists cases where a single grab sample may appropriately be substituted for a single composite sample, including small batch Discharges. For example, a homogeneous batch Discharge is consistent with existing guidance on the appropriate use of a single grab sample.

When and what type of grab samples can be manually composited? Today's final rule clarifies that multiple grab samples for cyanide, total phenols,

sulfide, oil and grease, and volatile organic compounds collected during a 24-hour period may be composited prior to analysis. Control Authorities also will be allowed to authorize manually composited grab samples for other parameters that are unaffected by compositing procedures. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, EPA clarifies in the rule that multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides, the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease, the samples may be composited in the laboratory.

It is important that a composite sample provides an accurate representation of the pollutant in the wastewater. The composite sample should provide analytical results that are comparable to averaged results of the individual grab samples taken over a specific time interval. In all cases where a series of grab samples is manually composited, those parameters that have preservation requirements in 40 CFR Part 136 must be properly preserved and/or stored at the time of collection as required by the specific analytical method employed prior to compositing. In addition, EPA wishes to reaffirm that some pollutants are not amenable to the compositing process. For example, total residual chlorine, pH, and temperature samples cannot be "composited" under any circumstances because the results would be changed by the compositing process. Today's final rule does not allow Control Authorities to authorize composite samples for these parameters.

Although analytical procedures for compositing oil and grease samples have been developed, the general consensus among laboratory experts is that current techniques do not provide consistently reliable results. However, continuing advances in analytical technology may provide methodologies that will make accurate compositing of oil and grease samples technically less cumbersome and more cost effective in the future. Under today's rule, the Control Authority has the flexibility to allow Industrial Users to submit data from composited oil and grease samples as long as the samples were composited in the laboratory and the sampling and analytical procedures used are sanctioned by EPA in 40 CFR Part 136.

EPA guidance (*Industrial User Inspection and Sampling Manual for POTWs*, EPA 831/B-94-001, April 1994, <http://www.epa.gov/npdes/pubs/>

[owm0025.pdf](http://www.epa.gov/npdes/pubs/owm0025.pdf)) describes procedures for manually compositing individual grab samples that will provide accurate results. The reader should also consult the regulations in 40 CFR Part 136 to identify the accepted analytical protocols for specific classes of compounds or individual parameters. A separate guidance manual (*Comparison of Volatile Organic Analysis Compositing Procedures*, EPA 821/R-95-035, 1995, <http://www.epa.gov/clariton/clhtml/pubtitleOW.html>) discusses procedures for accurate compositing of volatile organic compounds.

When can time-proportional or grab samples be used in lieu of flow-proportional composite samples?

Today's final rule will allow Control Authorities to waive the requirement that Industrial Users collect flow-proportional samples. The regulation no longer requires Control Authorities to require the Industrial User to demonstrate that flow-proportional samples are "infeasible."

The Industrial User must demonstrate that the time-proportional or grab samples are representative of the Discharge before the Control Authority may allow the Industrial User to submit such samples. Where time-proportional composite sampling or grab sampling is authorized by the Control Authority, the samples must be representative of the Discharge and the decision to allow the alternative sampling must be documented in the individual Industrial User records for that facility. The use of statistical approaches to determine representativeness may be appropriate in certain circumstances. See for example, the March 2, 1989, Office of Water Regulations and Standards (OWRS) Memorandum to Region 9 describing the results of a statistical analysis of sampling data from a single industrial facility. Refer to http://www.epa.gov/region09/water/pretreatment/program_inpl.html. In addition to demonstrating that the samples are representative, the Control Authority must ensure that compliance samples are taken with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions as required by the section modified today at 40 CFR 403.8(f)(2)(vii).

What are the sampling requirements for those facilities that do not discharge continuously?

As will be discussed below in the response to comments section, the final rule does not include the sentence in the proposed rule that read, "For those

Industrial User Discharges subject to categorical Pretreatment Standards that do not operate on a 24-hour per day schedule, the samples must be collected at equally spaced intervals during the period that process wastewater is being discharged." EPA interprets a "day" to be a 24-hour period which does not have to occur within a calendar day. This interpretation is consistent with the definition of "daily discharge" in the NPDES regulations at 40 CFR 122.2. Daily discharge means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. During parts of the day when there is no discharge of process wastewater, standing water should not be disproportionately sampled and analyzed as it would not be representative of the Discharge from the facility. As always, the Control Authority must prescribe a sampling protocol that produces representative results. The selected protocol should take into consideration all of the operation conditions and the physical configuration of the Industrial User facility.

What significant changes were made to the proposed rule?

EPA did not make significant changes to the proposed rule. The changes made from the proposal to the final rule include minor wording changes, a clarification to compositing methods, the reinstatement of a sentence that was removed in the proposal, and the removal of a sentence from the proposal.

The changes (other than minor wording changes intended to provide clarification) are as follows:

The following sentence, which had been deleted in the proposal, is returned to the regulations: "The Control Authority shall require that frequency of monitoring necessary to assess and assure compliance by Industrial Users with applicable Pretreatment Standards and Requirements." (EPA notes that non-significant CIUs (NSCIUs) may satisfy this requirement through certification.) This sentence had been taken out in the proposed rule. However, because the sentence adds clarity, EPA has decided to retain it. The rationale is discussed in the response to comments section below.

The following sentences at 40 CFR 403.12(g)(3) were removed from the regulations: "For those Industrial User Discharges subject to categorical Pretreatment Standards that do not operate on a 24-hour per day schedule, the samples must be collected at equally spaced intervals during the period that process wastewater is being discharged.

Multiple grab samples for cyanide and volatile organic compounds that are collected during a 24-hour period may be composited in the laboratory prior to analysis using protocols specified in 40 CFR Part 136 and appropriate EPA guidance." The rationale is discussed in the response to comments section below.

For parameters that require grab sampling, EPA explicitly states which parameters may be composited in the field and the laboratory and which parameters may only be composited in the laboratory. This addition further clarifies the issue of compositing for samples that require collection by grab methods in order to preserve sample integrity.

4. Summary of Major Comments and EPA Response

Commenters were generally supportive of the sampling changes that EPA proposed. Some of the comments requested further clarification of issues. The following section summarizes EPA's response to these comments.

Will the final rule on compositing increase workload for sampling personnel? A commenter stated that manually compositing cyanide and volatile organics samples should be avoided for sample integrity and workload increase.

Regardless of whether multiple grab samples are individually analyzed or composited, samples must be properly preserved. Therefore, any workload change will likely occur at the laboratory, and increased workload for compositing the sample would be offset by decreased workload for analysis. EPA further clarifies in the final rule which parameters currently may be composited in the laboratory and which ones may be composited in the field. Under the current EPA-approved methods, oil and grease, and volatile organics may only be composited in the laboratory. Whether samples are composited in the lab or the field, sample integrity must be preserved, including preserving each grab sample in accordance with 40 CFR Part 136.

May Industrial Users determine the appropriate sampling flexibility without Control Authority approval? Industrial Users commented that EPA should give more flexibility to Industrial Users to determine what sampling schemes are appropriate for their facility. EPA disagrees. Control Authorities are responsible for ensuring that compliance samples are taken with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions as required by 40 CFR 403.8(f)(2)(vii) and for ensuring

compliance by IUs with Pretreatment Standards and Requirements. To the extent that sampling is representative of the Discharge, the Control Authorities will be able to determine the appropriate sampling flexibility. The Control Authorities retain the responsibility for documenting site-specific circumstances and allowing alternate sampling by including the alternate sampling in the Industrial User control mechanisms.

May Control Authorities determine the appropriate number of grab samples for baseline monitoring and 90-day compliance reports? EPA requested comment on whether Control Authorities should be allowed the flexibility to determine the appropriate number of grab samples required to meet baseline monitoring and 90-day compliance report requirements for facilities without historical sampling data. Commenters supported the proposal to eliminate the requirement that a minimum of four grab samples be taken to measure pH, cyanide, total phenols, oil and grease, sulfides, and volatile organic compounds. Commenters stated that Control Authorities should be given flexibility to determine the appropriate number of grab samples required to meet reporting requirements, but did not provide concrete reasons as to how this would ensure that the sampling was representative of the Discharge.

EPA stresses that the flexibility should only be provided to the extent that the sampling is representative. The Control Authority will be responsible for documenting site-specific circumstances and allowing alternate sampling in the Industrial User control mechanisms. Baseline Monitoring Reports (BMRs) will likely provide the first samples for a parameter, and 90-day compliance reports will provide samples after any treatment has been added. Therefore, it is likely that at a minimum this data will be needed in order to document that alternative sampling is representative. Because it is unlikely that a Control Authority could properly document that sampling is representative without data from BMRs and 90-day compliance reports, EPA retains the requirement for a minimum of four grab samples for BMRs and 90-day compliance reports in order to document potential future sampling decisions for new facilities. For existing facilities where there is historic data representative of the current Discharge, Control Authorities may authorize a lower minimum number of grab samples for pH, cyanide, total phenols, oil and grease, sulfides, and volatile organic compounds. Of course, where there has

been a change to existing facilities, for example, the addition of treatment, historic data that does not represent the current Discharge would not be able to be used to justify a lower minimum of grab samples.

As stated previously, Control Authorities must ensure that compliance samples are taken with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions as required by 40 CFR 403.8(f)(2)(vii). To further strengthen this point, the following sentence, which the proposed rule would have deleted, is retained in 40 CFR 403.12(g)(3): "The Control Authority shall require that frequency of monitoring necessary to assess and assure compliance by Industrial Users with applicable Pretreatment Standards and Requirements." Sampling and analysis techniques must yield analytical data that is representative of the Discharge. The Control Authority will still need to document how alternate sampling techniques are representative of the Discharge, and may require that more than four grab samples be taken and separately analyzed to ensure that sampling is representative. Where the Control Authority cannot verify that previous techniques were representative, such data will not support the use of this alternative practice. EPA notes that "non-significant CIUs" (discussed in Section III.K of the final rule) may be authorized to substitute annual certification for sampling and analysis. See 40 CFR 403.12(q).

Will EPA define "representative" sampling in the rule? Commenters noted that the rules repetitively use the concept of "representative" samples, but do not precisely define what the samples are supposed to represent. In the proposed rule preamble (64 FR 39582, July 22, 1999), EPA indicated that it would not offer a comprehensive definition of what constitutes a "representative sample" or specific guidance. EPA is not defining "representative sample" in the final rule. Guidance on the subject may be found in Industrial User Inspection and Sampling Manual for POTWs (EPA, 1994, <http://www.epa.gov/npdes/pubs/iwm0025.pdf>).

Sampling methods to yield a representative sample may vary depending on the site-specific situations of an individual discharger and the parameter that must be analyzed. Issues for the Control Authority to consider and document in prescribing sampling protocols include: (1) The appropriate sampling period (e.g., 24 hours or during the period of discharge); (2) use

of flow proportional versus time-proportional methods; (3) use of grab samples versus composite samples; (4) use of grab samples for pH monitoring; (5) use of grab samples for degradable and volatile parameters; (6) allowing manual compositing of samples when the methodology is approved by EPA; and (7) applying the criteria to instantaneous, daily maximum, and monthly average limits.

Is EPA providing further clarifying language for collection of samples during process wastewater Discharges in the final rule? A commenter asked EPA to clarify whether a sample taken during a 24-hour period must be taken during a calendar day, or whether a sample may be taken over the course of two days. For example, if a facility discharges 24 hours per day, must the sample be taken from midnight to midnight, or may it be taken for other twenty-four hour periods (e.g., noon to noon)?

EPA interprets a "day" to be a 24-hour period and does not require that it occur within a calendar day. This is consistent with the definition for "daily discharge" in the NPDES regulations at 40 CFR 122.2. Daily discharge means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. This is existing policy and was not proposed to be modified in the rule, and therefore has not been added to the final rule. EPA recognizes that Control Authorities may define a more specific sampling period.

Another commenter asked for EPA to clarify whether a sample may be taken over the course of two calendar days in other circumstances. For example, if a facility discharges from 7 a.m. to 7 p.m., must a sample be taken from 7 a.m. to 7 p.m., or may a sample be taken from noon on one day to noon on the next day so long as only regulated wastewater is sampled? In the example provided, the sampling for compliance would need to be representative of the categorical process Discharge, and would need to account for other factors such as ensuring that stagnant water is not sampled if the facility is not discharging, and that process wastewater is not being discharged during the 7 p.m. to 7 a.m. period (for

instance in an overtime situation). Where a sampler is placed from noon to noon, and wastewater samples (with volume proportionate to Discharge) are only collected during the discharge period (e.g., there is not a process wastewater Discharge, and no samples are collected from 7 p.m. to 7 a.m.), and the samples are properly preserved, then it is likely that the sample would be appropriate for use to determine compliance during a 24-hour period. Since this example addresses a site-specific situation, EPA is not inclined to revise the rule to address one particular set of circumstances. While other industries may have similar situations, the Control Authorities will need to consider all of the site-specific circumstances in detailing the sampling requirements for the facility in the individual Industrial User's control mechanism.

A commenter expressed concern with the proposed language pertaining to required sampling periods. The section originally clearly pertained only to sampling required for reporting under subsections 40 CFR 403.12(b), (d) and (e), of all categorical streams. As revised in the proposal, the requirements also apply to reports required under subsection (h) as well as to all other non-categorical waste streams. The commenter stated that the discussion in the preamble to the proposed rule seemed to indicate these very specific requirements only apply to categorically regulated wastestreams. However, the commenter indicated that this intent was not adequately stated in the regulation itself.

The commenter went on to state, "Local limits are developed based on total daily average influent loadings and total daily flows from all sources tributary to the receiving treatment plant. Many IUs, particularly larger ones, will have wastewater flows, from sources such as cooling systems, boilers, etc. that continue throughout the 24-hour day, as well as flows from maintenance and clean-up activities that often occur during non-process periods. In some cases, continuing composite sampling during these 'off-process' periods may, in fact, reduce the daily average concentration of a pollutant. In other cases, pollutant Discharges during maintenance or clean-up activities, may contribute higher levels of pollutants than during normal processing periods. In either case, to determine compliance with local limits, it seems sampling should be conducted throughout the period of discharge, regardless of whether or not 'process' operations are occurring the entire time."

In response, EPA removed the sentence from the proposed rule that read, "For those Industrial User Discharges subject to categorical Pretreatment Standards that do not operate on a 24-hour per day schedule, the samples must be collected at equally spaced intervals during the period that process wastewater is being discharged." It would be too complicated to try to address all local limits variations in this section of the regulation, and as indicated by the commenter, the proposed language did not clarify the issue.

G. Significant Noncompliance Criteria (40 CFR 403.8(f)(2)(viii))

1. What were the rules in effect prior to today's rule?

How is "Significant Noncompliance" (SNC) currently defined?

The previous 40 CFR 403.8(f)(2)(vii) defined "Significant noncompliance" (SNC), as it applies to Industrial Users to include violations that meet one or more of eight criteria. The criteria are: (1) Chronic violations of Discharge limits (where 66 percent or more of all measurements taken for the same pollutant parameter during a six-month period exceed the daily maximum limit or the average limit); (2) Technical Review Criteria (TRC) violations (where 33 percent or more of all measurements taken for the same pollutant parameter during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC equals 1.4 for BOD, TSS, fats, oil and grease and 1.2 for all other pollutants except pH)); (3) any other violation of a Pretreatment effluent limit that the Control Authority determines has caused, alone or in combination with other Discharges, Interference or Pass Through; (4) any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority to halt or prevent such a discharge; (5) failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for certain activities; (6) failure to provide required reports within 30 days after the due date; (7) failure to accurately report noncompliance; and (8) any other violation or group of violations which the Control Authority determines will adversely affect the operation or implementation of the local Pretreatment Program.

What are the background and purpose of the SNC criteria?

On July 24, 1990, EPA modified 40 CFR 403.8(f)(2)(vii) to include the existing definition of SNC (55 FR 30082). The purpose of this modification was to provide some certainty and consistency among POTWs for publishing their lists of Industrial Users in significant noncompliance. EPA modeled the modification after the criteria under the NPDES program used to determine SNC violations for direct dischargers. By making the modifications, EPA also established more parity in tracking violations by direct and indirect dischargers.

What happens when an Industrial User facility is in SNC?

POTWs are required to publish annually a list of Industrial Users in SNC at any time during the previous twelve months. In the previous rules, the POTW was required to publish this list in the largest daily newspaper published in the municipality in which the POTW is located.

The Agency has emphasized that Industrial Users are liable for any violation of applicable Pretreatment Standards and Requirements, and has strongly encouraged Control Authorities to take some type of enforcement response for each such instance of noncompliance. Supporting this approach, EPA notes that the very underlying premise of the Enforcement Response Plan (40 CFR 403.8(f)(5)) is that there be some type of POTW response for each instance of noncompliance. Appropriate types of enforcement responses are addressed in the POTW's Enforcement Response Plan, although EPA guidance recommends that violations rising to the level of SNC be met with some type of formal enforcement action like an enforceable order (Guidance For Developing Control Authority Enforcement Response Plans, EPA 832-B-89-102, September 1989, (see <http://www.epa.gov/npdes/pubs/own0015.pdf>).

2. What changes did EPA propose?

EPA proposed the following modifications to the SNC provision in 1999:

a. Publication

EPA proposed to amend the previous 40 CFR 403.8(f)(2)(vii) to allow publication of the SNC list in any paper of general circulation within the jurisdiction served by the POTW that provides meaningful public notice rather than in the largest daily

newspaper published in the municipality as is currently required.

b. Applicability

EPA proposed to amend the SNC criteria to apply only to Significant Industrial Users (SIUs). Under the existing regulations, SNC can apply to any Industrial User.

c. Daily Maximum or Average Limit Violations

EPA proposed to amend the previous 40 CFR 403.8(f)(2)(vii)(A), (B), and (C) to include a broader set of violations than just daily maximum and average limits.

d. Other Issues

EPA also took comment on several other issues, but did not propose specific changes. These issues include Technical Review Criteria (TRC), late reports, and rolling quarters.

3. What changes is EPA finalizing in today's rule?

EPA is finalizing four changes to amend 40 CFR 403.8(f)(2)(vii).

a. Publication

EPA is amending 40 CFR 403.8(f)(2)(vii) (now 40 CFR 403.8(f)(2)(viii)) to allow publication of the SNC list in any paper of general circulation that provides meaningful public notice within the jurisdiction served by the POTW. EPA's intent in modifying this requirement is to be consistent with the July 17, 1997 amendments to Part 403 regarding modifying POTW Pretreatment Programs (62 FR 38406). Under the amended 40 CFR 403.11(b)(1)(i)(B), publication can be in any paper of general circulation within the jurisdiction served by the POTW that provides public notice. It is EPA's view that this new performance standard for publishing SNC violations properly balances the need to give the POTW the flexibility to choose an appropriate newspaper within its community, with the need to ensure effective public notice and deterrence of "bad actors."

b. Applicability

EPA is amending the SNC criteria so that SNC will apply only to SIUs and to those Industrial Users that have caused Pass Through or Interference, have a Discharge that resulted in the POTW's exercise of its emergency authority to halt or prevent such a Discharge, have caused imminent endangerment to human health, welfare, or the environment, or have otherwise adversely affected the POTW's ability to operate its Pretreatment program. This approach is consistent with the NPDES