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OCT 17 1996

Industrial Source Control

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

October 15, 1996

Industrial Source Control Manager

Re: Industrial Pretreatment Technical Advisory Committee (TAC)
DEQ Pretreatment Policy

Dear Mr.

In August 1994 Department of Environmental Quality (DEQ) Director Fred Hansen established a Pretreatment Technical Advisory Committee (TAC). The roll of the advisory committee is to provide recommendations to DEQ pertaining to DEQ's pretreatment program implementation policies, guidelines and procedures for certain specific issues. Parties affected by DEQ pretreatment policy are Oregon municipalities that have been delegated authority to implement pretreatment programs (Control Authorities). Other interested parties include indirect dischargers.

The TAC met regularly for over a year to discuss industrial pretreatment issues and develop recommendations for submission to the Department. The TAC forwarded a compendium of final issue papers to DEQ and on June 26, 1996 the Department provided the Oregon Association of Clean Water Agency's Pretreatment Committee (ACWA) and the Associated Oregon Industries (AOI) an opportunity to review and comment on the TAC recommendations. We have completed the peer review process and have adopted as DEQ Pretreatment Implementation Policy the attached TAC policy issue recommendations which incorporate DEQ's May 23, 1996 comments as amended. These have been incorporated into the Department's Pretreatment Policies and Procedures Manual.

If you have any questions please call me at 229-6528.

Sincerely,

Chuck Hopkins
Pretreatment Program Coordinator
Water Quality Division

CH:cw
MWWC14\WC14391.doc
Enclosures: DEQ Pretreatment Policy
c: WQ Mgr., DEQ



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DEQ PRETREATMENT POLICY

PRETREATMENT TECHNICAL ADVISORY COMMITTEE RECOMMENDATIONS

October 15, 1996

INTRODUCTION

In August 1994 DEQ Director Fred Hansen established a Pretreatment Technical Advisory Committee (TAC). The roll of the advisory committee is to provide recommendations to DEQ for the development of DEQ's pretreatment program implementation policies, guidelines and procedures for certain specific issues. Parties affected by DEQ pretreatment policy are Oregon municipalities that have been delegated authority to implement pretreatment programs (Control Authorities). Other interested parties include indirect dischargers.

The TAC met regularly for over a year to discuss industrial pretreatment issues and develop recommendations for submission to the Department. The TAC forwarded a compendium of draft issue papers to DEQ and on October 4, 1995 the Department provided the Oregon Association of Clean Water Agency's Pretreatment Committee (ACWA) and the Associated Oregon Industries (AOI) an opportunity to review and comment on the proposed TAC recommendations. Revisions were made based on further work by the TAC. The TAC forwarded a compendium of final issue papers to DEQ and on June 26, 1996 the Department provided ACWA and AOI an opportunity to review and comment on the final recommendations.

We have completed the peer review process and have adopted as DEQ Pretreatment Implementation Policy the following policies which have been incorporated into the Department's Pretreatment Policies and Procedures Manual.

DEQ PRETREATMENT POLICY

Preamble

A Control Authority (delegated municipality) may submit to the Department for review and approval or disapproval a Management Plan pertaining to a specific Department Pretreatment Policy as an alternative to implementing the Department's policy. The Management Plan must be technically justifiable and at least as protective of the publicly owned treatment works (POTW), the environment and/or worker health and safety as the Department's policy in order to be approved.

1. Technically Based Local Limits

- **Treatment Process Inhibition Values**

In the development of local limits, site-specific influent values that exceed literature inhibition values may be used if the following conditions are satisfied:

(1) The treatment plant has not experienced interference due to a pollutant concentration higher than the literature inhibition value. If interference occurs at pollutant concentrations that are lower than literature inhibition values, the lower values must be used.

(2) Adequate treatment plant data must be available to demonstrate that the pollutant level used in the calculation does not cause interference. Use of values that are higher than literature inhibition values must include documentation such as supporting data and assumptions that provide technical justification for their use.

(3) In accordance with the Department's local limits development guidance, the more stringent of the local limits calculated for pass through, biosolids (sewage sludge), worker health or safety, or inhibition must be designated as the appropriate local limit.

- **EPA Literature Value for zinc (Zn)**

The correct activated sludge minimum reported inhibition threshold value for zinc is 0.3 mg/l.

- **Effects of Biosolids (Sewage Sludge) Regulations (40 CFR Part 503)**

Pollutant concentrations that exceed 40 CFR Part 503, Table 1 values (40 CFR 503.13 ceiling concentrations) may not be used for local limits development.

40 CFR Part 503 pollutant concentrations should be used in local limits development. Table 1 values (ceiling concentrations) are recommended for local limits determinations.

Alternatively, Table 3 or more stringent concentration and loading rate values may be used in local limits development to take advantage of reduced EPA monitoring and reporting requirements. Local limits development based on biosolids criteria should include documentation such as supporting data and assumptions that provide technical justification for their use.

- **Metals Speciation**

Local limits are generally developed using total recoverable metals because National Pollutant Discharge Elimination System (NPDES) permit limits still must be expressed as total recoverable metals concentrations.

However, POTWs may use dissolved metals, or other metals speciation schemes, for local limits development provided the methodology follows EPA's 1993 "Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria," and correspondence with total recoverable metals concentrations for each pollutant are established. All data collection and analyses and all assumptions must be well documented and technically substantiated.

- **Receiving Stream Hardness**

In the development of local limits based on water quality standards, receiving stream hardness may be adjusted (e.g., for use in EPA Region Ten's water quality spreadsheet), for metals subject to hardness adjustment, by using the following formulas:

$$\text{Acute (Hardness at edge of ZID)} = \frac{(Z \times \text{HRS}) + (1 \times \text{HPOTW})}{Z+1}$$

$$\text{Chronic (Hardness at edge of Mixing Zone)} = \frac{(Y \times \text{HRS}) + (1 \times \text{HPOTW})}{Y+1}$$

Where:

| | | |
|-------|---|---|
| HRS | = | Receiving stream hardness |
| HPOTW | = | POTW effluent hardness |
| Z | = | Dilution at the edge of ZID (i.e., if dilution at the edge of the zone of initial dilution (ZID) is 3:1, then Z = 3) |
| Y | = | Dilution at edge of mixing zone (i.e., if dilution at the edge of the mixing zone is 12:1, then Y = 12) |

- **"Interim" Local Limits**

Interim limits are usually technology based limits and are enforceable limits. Interim limits may be approved by DEQ on a case-by-case basis where technically based local limits development indicates that technology based limits may not be achievable. To qualify for interim limits: (1) the POTW must not be experiencing pass through or interference; (2) all supporting data and assumptions must be well

documented and technically justified; (3) the POTW must continue its efforts to develop technically based local limits and develop and/or implement whatever is necessary to comply with technically based local limits.

- **Flexibility in Use of guidance and Implementation**

In the development of local limits, POTWs may incorporate information and data based on local conditions that differs from literature data or standard acceptable procedures provided such use is technically justified. Relevant data and assumptions must be documented.

- **Industrial User Permit Specific Limits**

POTWs may develop and implement industrial user permit specific limits. Development of permit specific limits must be technically justified and include documentation of data and assumptions. Due process under law must be provided significant industrial users that are issued permit specific limits. Individual notice and opportunity to comment must be provided by the POTW to affected persons and groups who have requested such notice, prior to issuance of permit specific limits, pursuant to 40 CFR 403.5(c)(3).

2. **pH Violations and pH SNC Criteria**

A delegated Control Authority (publicly owned treatment works or POTW) may determine that it does not need local limits for pH; that only the lower limit of the specific prohibition at 40 CFR 403.5(b)(2) of 5.0 applies. This must be substantiated in the POTW's local limits development documentation and approved by the Department.

A POTW that wishes to develop a policy for the determination of pH violations using the results of industrial user (IU) continuous monitoring that is less stringent than the following approach must submit its policy to the Department for review and approval prior to implementation. In developing its pH policy, the POTW must consider the effect of both the duration and magnitude of the exceedance on the collection system and the treatment works.

Unless the POTW's criteria are more stringent or unless the Department has provided written approval of alternative criteria, the following will apply:

- **Policy Regarding pH Violations**

- (1) **Continuous pH Monitoring:**

For an industry or POTW that evaluates compliance with pH limits using a continuous monitoring and recording device, a violation day will have occurred where:

- a. The total time (cumulative or continuous) outside the local pH limits established by the POTW exceeds [time to be determined by the POTW based on technical justification] minutes during a calendar day.
- b. The exceedance results in a pH below 5.0 (or an alternative lower limit that the POTW is specifically designed to accommodate and has been approved by the POTW and/or the Department) at any time during a calendar day.
- c. The exceedance results in a pH which is outside the limits established by EPA in an applicable categorical pretreatment standard at any time during a calendar day.
- d. The exceedance causes interference, worker health or safety concerns and/or corrosive structural damage to the POTW.

- (2) **Non-continuous pH Monitoring:**

For an industry or POTW that evaluates compliance with pH limits using grab sampling techniques, a violation day will have occurred where the results of any single discrete sample, or series of grab samples as specified in a local limit, collected during a calendar day, or during a time period specified in a local limit for a series of grab samples, exceed applicable local, state or federal pretreatment standards.

NOTE: Under no circumstances may samples for pH be composited, nor may any results of pH analyses be averaged.

- **Policy Regarding SNC Calculation for pH**

Each POTW must consider the effects of both the frequency and magnitude of pH violations. These criteria must be incorporated into the POTW's enforcement response plan (ERP) and be consistent with its other pretreatment program documents. At a minimum, the POTW must have the enabling legal authority in the pretreatment provisions of its municipal code to take enforcement action for pH violations. Modifications to the ERP may be submitted to the Department as non-substantial program modification requests. Modifications to the pretreatment provisions of the

POTW's SUO must be submitted to the Department for review and approval as substantial modification requests.

Minimum pH chronic SNC criteria are established in the General Pretreatment Regulations at 40 CFR 403.8(f)(2)(vii). There are no minimum requirements for determining technical review criteria (TRC) for pH magnitude violations. However, the POTW may develop TRC for determining SNC for pH violations if it chooses to do so.

Based on these criteria the POTW must consider an industrial user in SNC if any of the following conditions are met:

(1) **Continuous pH Monitoring**

SNC for Chronic Violations:

Any six (6) month period, as evaluated on a quarterly basis, in which violations of any magnitude occurred on 66 percent or more of the days during the evaluation period (i.e., assuming 7 day per week operation, 120 or more daily violations during a six month period).

(2) **Non-continuous pH Monitoring**

SNC for Chronic Violations:

Any six (6) month period, as evaluated on a quarterly basis, in which violations of any magnitude occurred on 66 percent or more of the days on which pH was monitored.

(3) **Other SNC Violations:**

Any single pH excursion that results in pass-through or interference at the POTW, that causes the POTW to exercise its emergency powers to halt or terminate a discharge, or otherwise involves a perceived threat to human health or the environment.

3. **Pretreatment Compliance Inspection (PCI)/Audit: Verification of Information Obtained Through PCIs/Audits and Annual Reports**

During exit conferences with POTW staff following PCIs and Audits, DEQ staff will continue to clarify information DEQ believes may result in an enforcement action. If DEQ is not aware of a possible enforcement action at the time of the exit conference, but later determines that an enforcement action may be warranted, DEQ staff will notify the POTW at the earliest time possible to allow for clarification of information indicating need for an enforcement action.

4. Laboratory/Monitoring

(1) Oil and Grease

The proposed regulation to amend the guidelines establishing test procedures for the analysis of oil and grease and total petroleum hydrocarbons was published in the Federal Register on January 23, 1996 (61 FR 1730). The comment period for this proposed rule ended March 25, 1996. The comment period was later extended to July 23, 1996. This proposed regulation would amend the procedures under Section 304(h) of the Clean Water Act to replace existing gravimetric test procedures for the conventional pollutant "oil and grease" (40 CFR 401.16) with EPA method 1664 as part of EPA's effort to reduce dependency on the use of chlorofluorocarbons (CFCs).

Pending outcome of EPA's rule development, the following policy shall be in effect:

a. Although EPA supports the use of Method 1664 as an interim limited use alternate test procedure in place of EPA Method 413.1 and Standard Methods 5520B, use of Method 1664, for pretreatment purposes, prior to the effective date of the final rule, is not allowed under federal law unless prior approval by the EPA Administrator has been granted on an NPDES permit specific basis in accordance with 40 CFR 403.12(b)(5)(vi) and (g)(4). Please call one of the DEQ pretreatment coordinators if you have any questions regarding the scope of such an approval: Chuck Hopkins at 229-6528 or Raj Kapur at 229-5185.

b. Best professional judgment (BPJ) must be used in collecting representative samples for oil and grease. Appropriate field notes (i.e., oil sheen on the surface, small grease particles observed floating, sample dipped with jar opening never being completely submerged, etc.) must be documented in order to appropriately interpret final data.

(2) Cyanide Protocols

Use of a sample matrix spike in cyanide (CN) analyses are mandatory in order to establish confidence in or unacceptability of the sample's analytical result. If the spike recoveries are out of acceptable range, the method of standard additions should be incorporated.

EPA lists several approved methods of analysis for cyanide at 40 CFR 136.3. Of these the Standard Methods procedure does a particularly good job of addressing interference and appropriate sample treatments which should be useful for those sources that have a chemical in their discharge which may cause interference.

5. NPDES Permit Schedule E Requirements

The current NPDES permit SCHEDULE E language is adequate, serves its intended purpose well and will be incorporated into NPDES permit renewals to insure statewide consistency.

Discussion

The Department believes that the TAC's recommendations regarding pretreatment provisions in SCHEDULE E of NPDES permits would not simplify program requirements.

The TAC's recommendations, if adopted, would mean responsibility for implementing pretreatment programs and the Department's enforcement of those programs would have to be based on program documents rather than conditions in the Control Authority's NPDES permit. Under the State's delegated NPDES permitting authority, the NPDES permit is the Department's control mechanism. The NPDES permit SCHEDULE E language contains minimum requirements that all pretreatment programs are expected to comply with. Further, the TAC's draft language would mean the Department would have to consider deviations from program procedures as violations. Thus, the proposed language would increase complexity of enforcement issues and would make enforcement of pretreatment violations more difficult or possibly not enforceable.

The TAC's proposed language indicates that a procedures manual must be developed within 90 days of issuance or re-issuance of an NPDES permit if the manual has not already been developed and submitted. However, SCHEDULE E is not included in NPDES permits until an approved pretreatment program is incorporated into the permit following Department approval of the program.

The TAC's proposed language does not contain the requirement for Department approval of program modifications prior to implementation. Instead, it proposes blanket approval of pretreatment program modifications at the time of NPDES permit renewal. This is inconsistent with current federal requirements pertaining to pretreatment program modifications (cf., 40 CFR 403.18). It may be appropriate to revisit this aspect of this issue at a later date if EPA streamlines the pretreatment program modification requirements.

6. POTW Pretreatment Program QNCR Criteria

Discussion

The last communication the Department received from EPA Headquarters regarding the National RNC/SNC Workgroup was an April 21, 1995 FAX Transmission from Kathleen C. Harrigan. Kathleen works for SAIC under contract to EPA. She acted as coordinator to provide national conference call minutes to participating Workgroup

members. Her April 21, 1995 FAX included an April 20, 1995 Memorandum from Attorney Joseph G. Theis of EPA's Water Enforcement Division who was Co-chair of the Workgroup. Mr. Theis' memo canceled a planned April 26, 1995 conference call. The Department recently requested an update of the status of the National RNC/SNC-Workgroup from Joseph Theis. The latest indication from Mr. Theis is that the Workgroup is still inactive and a time for reconvening has not been determined.

Following are the Department's responses to the Technical Advisory Committee's (TAC's) recommendations regarding this issue:

(1) The EPA has indicated that it considers its POTW RNC/SNC "guidance" as internal policy. Therefore, the Department is not in a position to provide local pretreatment program personnel the opportunity to review and comment on any new criteria prior to adoption by EPA. However, if the Workgroup is continued, and Department personnel are invited to be participants, we would solicit input from Oregon POTWs regarding POTW RNC/SNC, and we would provide any information available regarding this issue.

(2) Not every violation of an NPDES permit is required to appear on EPA's Quarterly Noncompliance Report (QNCR). Certain violations require reporting on the QNCR and constitute Reportable Noncompliance (RNC). Significant Noncompliance (SNC) is a subject of RNC. SNC is not a regulatory distinction; it is a program definition used for management purposes and serves to classify those violations EPA believes merit priority enforcement attention. The definitions of SNC are continually re-examined and are subject to change.

The Department agrees with TAC's concerns regarding this issue. However, in the absence of active participation in the National RNC/SNC Workgroup, which may now be defunct, the Department's pretreatment staff do not have a procedural mechanism for providing input to EPA's internal policy regarding this issue.

(3) The Oregon Association of Clean Water Agency's (ACWA's) Pretreatment Committee is a more appropriate body for providing EPA with POTW concerns regarding this issue. However, if the Department is invited to participate in the National RNC/SNC Workgroup we intend to play an active part and request input from Oregon POTWs.

(4) This Issue Paper was forwarded to EPA Headquarters' Water Quality Division as requested by TAC.