EC-G-1998-253

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"Whole Effluent Toxicity Basic Permitting Principles and Enforcement Strategy," dated January 25, 1989. Includes Compliance Monitoring and Enforcement Strategy, dated 1/19/89.

Attachment A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460
January 25, 1989

OFFICE OF WATER

MEMORANDUM

SUBJECT: Whole Effluent Toxicity Basic Permitting Principles and Enforcement Strategy

FROM: Rebecca Hanmer
Rebecca W. Hanmer, Acting Assistant Administrator
Office of Water

TO: Regional Administrators

Since the issuance of the "Policy for the Development of Water Quality-based Permit Limitations for Toxic Pollutants" in March of 1984, the Agency has been moving forward to provide technical documentation to support the integrated approach of using both chemical and biological methods to ensure the protection of water quality. The Technical Support Document for Water Quality-based Toxics Control (September, 1985) and the Permit Writer's Guide to Water Quality-based Permitting for Toxic Pollutants (July, 1987) have been instrumental in the initial implementation of the Policy. The Policy and supporting documents, however, did not result in consistent approaches to permitting and enforcement of toxicity controls nationally. When the 1984 Policy was issued, the Agency did not have a great deal of experience in the use of whole effluent toxicity limitations and testing to ensure protection of water quality. We now have more than four years of experience and are ready to effectively use this experience in order to improve national consistency in permitting and enforcement.

In order to increase consistency in water quality-based toxicity permitting, I am issuing the attached Bas Permitting Principles for Whole Effluent Toxicity (Attachment .) as a standard with which water quality-based permits should conform. A workgroup of Regional and State permitting, enforcement, and legal representatives developed these minimum acceptable requirements for toxicity permitting based upon national experience. These principles are consistent with the toxics control approach addressed in the proposed Section 304(1) regulation. Regi s should use these principles when reviewing draft State permits. If the final Section 304(1) regulations include changes in this area, we will update these principles as necessary. Expanded guidance on the use of these principles will be sent out shortly by James Elder, Director of the Office of

Water Enforcement and Permits. This expanded guidance will include sample permit language and permitting/enforcement scenarios.

Concurrent with this issuance of the Basic Permitting Principles, I am issuing the Compliance Monitoring and Enforcement Strategy for Toxics Control (Attachment 2). This Strategy was developed by a workgroup of Regional and State enforcement representatives and has undergone an extensive comment period. The Strategy presents the Agency's position on the integration of toxicity control into the existing National Pollutant Discharge Elimination System (NPDES) compliance and enforcement program. It delineates the responsibilities of the permitted community and the regulatory authority. The Strategy describes our current efforts in compliance tracking and quality assurance of self-monitoring data from the permittees. It defines criteria for review and reporting of toxicity violations and describes the types of enforcement options available for the resolution of permit violations.

In order to assist you in the management of whole effluent toxicity permitting, the items discussed above will join the 1984 Policy as Appendices to the revised Technical Support Document for Water Quality-based Toxics Control. To summarize, these materials are the Basic Permitting Principles, sample permit language, the concepts illustrated through the permitting and enforcement scenarios, and the Enforcement Strategy. I hope these additions will provide the needed framework to integrate the control of toxicity into the overall NPDES permitting program.

I encourage you and your staff to discuss these documents and the 1984 Policy with your States to further their efforts in the implementation of EPA's toxics control initiative.

If you have any questions on the attached materials, please contact James Elder, Director of the Office of Water Enforcement and Permits, at (FTS/202) 475-8488.

Attachments

cc: ASWIPCA
Water Management Division Directors

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## BASIC PERMITTING PRINCIPLES FOR WHOLE EFFLUENT TOXICITY

1. Permits must be protective of water quality.

   a. At a minimum, all major permits and minors of concern must be evaluated for potential or known toxicity (chronic or acute if more limiting).

   b. Final whole effluent toxicity limits must be included in permits where necessary to ensure that State Water Quality Standards are met. These limits must properly account for effluent variability, available dilution, and species sensitivity.

2. Permits must be written to avoid ambiguity and ensure enforceability.

   a. Whole effluent toxicity limits must appear in Part I of the permit with other effluent limitations.

   b. Permits contain generic re-opener clauses which are sufficient to provide permitting authorities the means to re-open, modify, or reissue the permit where necessary. Re-opener clauses covering effluent toxicity will not be included in the Special Conditions section of the permit where they imply that limit revision will occur based on permittee inability to meet the limit. Only schedules or other special requirements will be added to the permit.

   c. If the permit includes provisions to increase monitoring frequency subsequent to a violation, it must be clear that the additional tests only determine the continued compliance status with the limit; they are <u>not</u> to verify the original test results.

   d. Toxicity testing species and protocols will be accurately referenced/cited in the permit.

3. Where not in compliance with a whole effluent toxicity limit, permittees must be compelled to come into compliance with the limit as soon as possible.

   a. Compliance dates must be specified.

   b. Permits can contain requirements for corrective actions, such as Toxicity Reduction Evaluations (TREs), but corrective actions cannot be delayed pending EPA/State approval of a plan for the corrective actions, unless State regulations require prior approval. Automatic corrective actions subsequent to the effective date of a final whole-effluent toxicity limit will not be included in the permit.

## Explanation of the Basic Permitting Principles

The Basic Permitting Principles present the minimum acceptable requirements for whole-effluent toxicity permitting. They begin with a statement of the goal of whole-effluent toxicity limitations and requirements: the protection of water quality as established through State numeric and narrative Water Quality Standards. The first principle builds on the Technical Support Document procedures and the draft Section 304(l) rule requirements for determining potential to violate Water Quality Standards. It requires the same factors be considered in setting whole-effluent toxicity based permits limits as are used to determine potential Water Quality Standards violations. It defines the universe of permittees that should be evaluated for potential violation of Water Quality Standards, and therefore possible whole-effluent limits, as all majors and minors of concern.

The second permitting principle provides basic guidelines for avoiding ambiguities that may surface in permits. Whole-effluent toxicity limits should be listed in Part I of the permit and should be derived and expressed in the same manner as any other water quality-based limitations (i.e., Maximum Daily and Average Monthly limits as required by Section 122.45(d)).

In addition, special re-opener clauses are generally not necessary, and may mistakenly imply that permits may be re-opened to revise whole-effluent limits that are violated. This is not to imply that special re-opener clauses are never appropriate. They may be appropriate in permits issued to facilities that currently have no known potential to violate a Water Quality Standard; in these cases, the permitting authority may wish to stress its authority to re-open the permit to add a whole-effluent limit in the event monitoring detects toxicity.

Several permittees have mistakenly proposed to conduct additional monitoring subsequent to a violation to "verify" their results. It is not possible to verify results with a subsequent test whether a new sample or a split-sample which has been stored (and therefore contains fewer volatiles) is used. For this reason, any additional monitoring required in response to a violation must be clearly identified as establishing continuing compliance status, not verification of the original violation.

The second principle also deals with the specification of test species and protocol. Clearly setting out the requirements for toxicity testing and analysis is best done by accurately referencing EPA's most recent test methods and approved equivalent State methods. In this way, requirements which have been published can be required in full, and further advances in technology and science may be incorporated without lengthy permit revisions.

The third and final permitting principle reinforces the responsibility of the permittee to seek timely compliance with the requirements of its NPDES permit. Once corrective actions have been identified in a TRE, permittees cannot be allowed to delay corrective actions necessary to comply with water quality-based whole-effluent toxicity limitations pending Agency review and approval of voluminous reports or plans. Any delay on the part of the permittee or its contractors/agents is the responsibility of the permittee.

The final principle was written in recognition of the fact that a full-blown TRE may not be necessary to return a permittee to compliance in all cases, particularly subsequent to an initial TRE. As a permittee gains experience and knowledge of the operational influences on toxicity, TREs will become less important in the day to day control of toxicity and will only be required when necessary on a case-specific basis.

Background to the Compliance Monitoring and Enforcement Strategy for Toxics Control

The Compliance Monitoring and Enforcement Strategy for Toxics Control sets forth the Agency's strategy for tracking compliance with and enforcing whole-effluent toxicity monitoring requirements, limitations, schedules and reporting requirements.

The Strategy delineates the respective responsibilities of permittees and permitting authorities to protect water quality through the control of whole-effluent toxicity. It establishes criteria for the review of compliance data and the quarterly reporting of violations to Headquarters and the public. The Strategy discusses the integration of whole-effluent toxicity control into our existing inspection and quality assurance efforts. It provides guidelines on the enforcement of whole-effluent toxicity requirements.

The Strategy also addresses the concern many permittees share as they face the prospect of new requirements in their permit - the fear of indiscriminate penalty assessment for violations that they are unable to control. The Strategy recognizes enforcement discretion as a means of dealing fairly with permittees that are doing everything feasible to protect water quality. As indicated in the Strategy, this discretion deals solely with the assessment of civil penalties, however, and is not an alternative to existing procedures for establishing relief from State Water Quality Standards. The Strategy focuses on the responsibility of the Agency and authorized States to require compliance with Water Quality Standards and thereby ensure protection of existing water resources.

# COMPLIANCE MONITORING AND ENFORCEMENT STRATEGY FOR TOXICS CONTROL

## I. Background

Issuance of NPDES permits now emphasizes the control of toxic pollutants, by integrating technology and water quality-based permit limitations, best management practices for toxic discharges, sludge requirements, and revisions to the pretreatment implementation requirements. These requirements affect all major permittees and those minor permittees whose discharges may contribute to impairment of the designated use for the receiving stream. The goal of permitting is to eliminate toxicity in receiving waters that results from industrial and municipal discharges.

Major industrial and municipal permits will routinely contain water quality-based limits for toxic pollutants and in many cases whole effluent toxicity derived from numerical and narrative water quality standards. The quality standards to establish NPDES permit limits are discussed in the "Policy for the Development of Water Quality-based Permit Limits for Toxic Pollutants," 49FR 9016, March 9, 1984. The Technical Support Document for Water Quality-based Toxics Control, EPA #440/44-85032, September, 1985 and the Permit Writer's Guide to Water Quality-based Permitting for Toxic Pollutants, Office of Water, May, 1987, provide guidance for interpreting numerical and narrative standards and developing permit limits.

The Water Quality Act (WQA) of 1987 (PL 100-4, February 4, 1987) further directs EPA and the States to identify waters that require controls for toxic pollutants and develop individual control strategies including permit limits to achieve control of toxics. The WQA established deadlines, for individual control strategies (February 4, 1989) and for compliance with the toxic control permit requirements (February 4, 1992). This Strategy will support the additional compliance monitoring, tracking, evaluation, and enforcement of the whole effluent toxicity controls that will be needed to meet the requirements of the WQA and EPA's policy for water quality-based permitting.

It is the goal of the Strategy to assure compliance with permit toxicity limits and conditions through compliance inspections, compliance reviews, and enforcement. Water quality-based limits may include both chemical specific and whole effluent toxicity limits. Previous enforcement guidance (e.g., Enforcement Management System for the National Pollutant Discharge Elimination System, September, 1986; National Guidance for Oversight of NPDES Programs, May, 1987; Guidance for Preparation of Quarterly and Semi-Annual Noncompliance Reports, March, 1986) has dealt with

chemical-specific water quality-based limits. This Strategy will focus on whole effluent toxicity limits. Such toxicity limits may appear in permits, administrative orders, or judicial orders.

## II. Strategy Principles

This strategy is based on four principles:

1) Permittees are responsible for attaining, monitoring, and maintaining permit compliance and for the quality of their data.

2) Regulators will evaluate self-monitoring data quality to ensure program integrity.

3) Regulators will assess compliance through inspections, audits; discharger data reviews, and other independent monitoring or review activities.

4) Regulators will enforce effluent limits and compliance schedules to eliminate toxicity.

## III. Primary Implementation Activities

In order to implement this Strategy fully, the following activities are being initiated:

### A. Immediate development

1. The NPDES Compliance Inspection Manual was revised in May 1988 to include procedures for performing chronic toxicity tests and evaluating toxicity reduction evaluations. An inspector training module was also developed in August 1988 to support inspections for whole effluent toxicity.

2. The Permit Compliance System (the national NPDES data base) was modified to allow inclusion of toxicity limitations and compliance schedules associated with toxicity reduction evaluations. The PCS Steering Committee will review standard data elements and determine if further modifications are necessary.

3. Compliance review factors (e.g., Technical Review Criteria and significant noncompliance definitions) are being proposed to evaluate violations and appropriate response.

4. A Quality Assurance Fact Sheet has been developed (Attached) to review the quality of toxicity test results submitted by permittees.

5. The Enforcement Response Guide in the Enforcement Management System will be revised to cover the use of administrative penalties and other responses to violations of toxicity controls in permits. At least four types of permit conditions are being examined: (1) whole-effluent toxicity monitoring (sampling and analysis), (2) whole effluent toxicity-based permit limits, (3) schedules to conduct a TRE and achieve compliance with water quality-based limits, and (4) reporting requirments.

B. Begin development in Spring 1989

With the assistance of the Office of Enforcement and Compliance Monitoring (OECM), special remedies and model forms will be developed to address violations of toxicity permit limits (i.e., model consent decrees, model complaints, revised penalty policy, model litigation reports, etc.)

IV. <u>Scope and Implementation of Strategy</u>

A. Compliance Tracking and Review

1. Compliance Tracking

The Permits Compliance System (PCS) will be used as the primary system for tracking limits and monitoring compliance with the conditions in NPDES permits. Many new codes for toxicity testing have already been entered into PCS. During FY 89, headquarters will provide additional guidance to Regions and States on PCS coding to update existing documentation. The Water Enforcement Data Base (WENDB) requirements as described in the PCS Policy Statement already require States and Regions to begin incorporating toxicity limits and monitoring information into PCS.

In addition to guidance on the use of PCS, Headquarters has prepared guidance in the form of Basic Permitting Principles for Regions and States that will provide greater uniformity nationally on approaches to toxicity permitting. One of the major problems in the tracking and enforcement of toxicity limits is that they differ greatly from State-to-State and Region-to-Region. The Permits Division and Enforcement Division in cooperation with the PCS Steering Committee will establish standard codes for permit limits and procedures for reporting toxicity results based on this guidance.

Whole effluent toxicity self-monitoring data should undergo an appropriate quality review. (See attached checklist for suggested toxicity review factors.) All violations of permit limits for toxics control should be reviewed by a professional qualified to assess the noncompliance. Regions and States should designate appropriate staff.

2. Compliance Review

Any violation of a whole effluent toxicity limit is of concern to the regulatory agency and should receive an immediate professional review. In terms of the Enforcement Management System (EMS), any whole effluent violation will have a violation review action criterion (VRAC) of 1.0. However, the appropriate initial enforcement response may be to require additional monitoring and then rapidly escalate the response to formal enforcement if the noncompliance persists. Where whole effluent toxicity is based on a pass-fail permit limitation, any failure should be immediately targeted for compliance inspection. In some instances, assessment of the compliance status will be required through issuance of Section 308 letters and 309(a) orders to require further toxicity testing.

Monitoring data which is submitted to fulfill a toxicity monitoring requirement in permits that do not contain an independently enforceable whole-effluent toxicity limitation should also receive immediate professional review.

The burden for testing and biomonitoring is on the permittee; however, in some instances, Regions and States may choose to respond to violations through sampling or performance audit inspections. When an inspection conducted in response to a violation identifies noncompliance, the Region or State should initiate a formal enforcement action with a compliance schedule, unless remedial action is already required in the permit.

B. Inspections

EPA/State compliance inspections of all major permittees on an annual basis will be maintained. For all facilities with water quality-based toxic limits, such inspections should include an appropriate toxic component (numerical and/or whole effluent review). Overall the NPDES inspection and data quality activities for toxics control should receive greater emphasis than in the present inspection strategy.

1. Regional/State Capability

The EPA's "Policy for the Development of Water Quality-based Permit Limits for Toxic Pollutants" (March 9, 1984 Federal Register) states that EPA Regional Administrators will assure that each Region has the full capability to conduct water quality assessments using both biological and chemical methods and provide technical assistance to the States. Such capability should also be maintained for compliance biomonitoring inspections and toxics sampling inspections. This capability should include both inspection and laboratory capability.

2. Use of Nonsampling Inspections

Nonsampling inspections as either compliance evaluations (CEIs) or performance audits (PAIs) can be used to assess permittee self-monitoring data involving whole effluent toxicity limits, TREs, and for prioritization of sampling inspections.* As resources permit, PAIs should be used to verify biomonitoring capabilities of permittees and contractors that provide toxicity testing self-monitoring data.

3. Quality Assurance

All States are encouraged to develop the capability for acute and chronic toxicity tests with at least one fish and one invertebrate species for freshwater and saltwater if appropriate. NPDES States should develop the full capability to assess compliance with the permit conditions they establish.

EPA and NPDES States will assess permittee data quality and require that permittees develop quality assurance plans. Quality assurance plans must be available for examination. The plan should include methods and procedures for toxicity testing and chemical analysis; collection, culture, maintenance, and disease control procedures for test organisms; and quality assurance practices. The

* Due to resource considerations, it is expected that sampling inspections will be limited to Regional/State priorities in enforcement and permitting. Routine use of CEIs and PAIs should provide the required coverage.

permittee should also have available quality control charts, calibration records, raw test data, and culture records.

In conjunction with the QA plans, EPA will evaluate permittee laboratory performance on EPA and/or State approved methods. This evaluation is an essential part of the laboratory audit process. EPA will rely on inspections and other quality assurance measures to maintain data quality. However, States may prefer to implement a laboratory certification program consistent with their regulatory authorities. Predetermined limits of data acceptability will need to be established for each test condition (acute/chronic), species-by-species.

C. Toxicity Reduction Evaluations (TREs)

TREs are systematic investigations required of permittees which combine whole effluent and/or chemical specific testing for toxicity identification and characterization in a planned sequence to expeditiously locate the source(s) of toxicity and evaluate the effectiveness of pollution control actions and/or inplant modifications toward attaining compliance with a permit limit. The requirement for a TRE is usually based on a finding of whole effluent toxicity as defined in the permit. A plan with an implementation schedule is then developed to achieve compliance. Investigative approaches include causative agent identification and toxicity treatability.

1. Requiring TRE Plans

TRE's can be triggered: 1) whenever there is a violation of a toxicity limit that prompts enforcement action or 2) from a permit condition that calls for a toxicity elimination plan within a specified time whenever toxicity is found. The enforcement action such as a 309(a) administrative order or State equivalent, or judicial action then directs the permittee to take prescribed steps according to a compliance schedule to eliminate the toxicity. This schedule should be incorporated into the permit, an administrative order, or judicial order and compliance with the schedule should be tracked through PCS.

2. Compliance Determination Followup

Compliance status must be assessed following the accomplishment of a TRE plan using the most efficient and effective methods available. These methods include site visits, self-monitoring, and inspections.

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Careful attention to quality assurance will assist in minimizing the regulatory burden. The method of compliance assessment should be determined on a case-by-case basis.

D. Enforcing Toxic Control Permit Conditions

Enforcement of toxic controls in permits depends upon a clear requirement and the process to resolve the noncompliance. In addition to directly enforceable whole effluent limits (acute and chronic, including absolute pass-fail limits), permits have contained several other types of toxic control conditions: 1) "free from" provisions, 2) schedules to initiate corrective actions (such as TREs) when toxicity is present, and/or 3) schedules to achieve compliance where a limit is not currently attained. Additional requirements or schedules may be developed through 308 letters, but the specific milestones should be incorporated into the permit, administrative order or State equivalent mechanism, or judicial order to ensure they are enforceable.

1. The Quarterly Noncompliance Report (QNCR)

Violations of permit conditions are tracked and reported as follows:

a. Effluent Violations

Each exceedance of a directly enforceable whole effluent toxicity limit is of concern to the regulatory agency and, therefore, qualifies as meeting the VRAC requiring professional review (see section IV.A.2.).

These violations must be reported on the QNCR if the violation is determined through professional review to have the potential to have caused a water quality impact.

All QNCR-reportable permit effluent violations are considered significant noncompliance (SNC).

b. Schedule Violations

Compliance schedules to meet new toxic controls should be expeditious. Milestones should be established to evaluate progress routinely and minimize delays. These milestones should be tracked and any slippage of 90 days or more must be reported on the QNCR.

The following milestones are considered SNC when 90 days or more overdue: submit plan/schedule to conduct TRE, initiate TRE, submit test results, submit implementation plan/schedule (if appropriate), start construction, and construction, and attain compliance with permit.

c. Reporting/Other Violations

Violation of other toxic control requirements (including reports) will be reported using criteria that are applied to comparable NPDES permit conditions. For example, failure to submit a report within 30 days after the due date or submittal of an inaccurate or inadequate report will be reportable noncompliance (on the QNCR).

Only failure to submit toxicity limit self-monitoring reports or final TRE progress reports indicating compliance will be SNC when 30 days or more overdue.

Resolution (bringing into compliance) of all three types of permit violations (effluent, schedule, and reporting/other) will be through timely and appropriate enforcement that is consistent with EPA Oversight Guidance. Administering agencies are expected to bring violators back into compliance or take formal enforcement action against facilities that appear on the QNCR and are in SNC; otherwise, after two or more quarters the facility must be listed on the Exceptions List.

2. Approaches to Enforcement of Effluent Limitations

In the case of noncompliance with whole effluent toxicity limitations, any formal enforcement action will be tailored to the specific violation and remedial actions required. In some instances, a Toxicity Reduction Evaluation (TRE) may be appropriate. However, where directly enforceable toxicity-based limits are used, the TRE is <u>not</u> an acceptable enforcement response to toxicity noncompliance if it requires only additional monitoring without a requirement to determine appropriate remedial actions and ultimately compliance with the limit.

If the Regions or States use administrative enforcement for violations of toxic requirements, such actions should require compliance by a date certain, according to a set schedule, and an

administrative penalty should be considered.[1] Failure to comply with an Administrative Order schedule within 90 days indicates a schedule delay that may affect the final compliance date and a judicial referral is the normal response. In instances where toxicity has been measured in areas with potential impacts on human health (e.g., public water supplies, fish/shellfish areas, etc.), regions and states should presume in favor of judicial action and seek immediate injunctive relief (such as temporary restraining order or preliminary injunction).

In a few highly unusual cases where the permittee has implemented an exhaustive TRE plan[2], applied appropriate influent and effluent controls[3], maintained continued compliance with all other effluent limits, compliance schedules, monitoring, and other permit requirements, but is still unable to attain or maintain compliance with the toxicity-based limits, special technical evaluation may be warranted and civil penalty relief granted. Solutions in these cases could be pursued jointly with expertise from EPA and/or the States as well as the permittee.

Some permittees may be required to perform a second TRE subsequent to implementation of remedial action. An example of the appropriate use of a subsequent TRE is for the correction of new violations of whole effluent limitations following a period of

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[1]Federal Administrative penalty orders must be linked to violations of underlying permit requirements and schedules.

[2]See Methods for Aquatic Toxicity Identification Evaluations, Phase I, Toxicity Characterization Procedures, EPA-600/3-88/035, Table 1. An exhaustive TRE plan covers three areas: causative agent identification/toxicity treatability; influent/effluent control; and attainment of continued compliance. A listing of EPA protocols for TREs can be found in Section V (pages 11 and 12).

[3]For industrial permittees, the facility must be well-operated to achieve all water quality-based, chemical specific, or BAT limits, exhibit proper O & M and effective BMPs, and control toxics through appropriate chemical substitution and treatment. For POTW permittees, the facility must be well-operated to achieve all water quality-based, chemical specific, or secondary limits as appropriate, adequately implement its approved pretreatment program, develop local limits to control toxicity, and implement additional treatment.

sustained compliance (6 months or greater in duration) indicating a different problem from that addressed in the initial TRE.

3. Enforcement of Compliance Schedule and Reporting Requirements

In a number of instances, the primary requirements in the permits to address toxicity will be schedules for adoption and implementation of biomonitoring plans, or submission of reports verifying TREs or other similar reporting requirements. Regions and States should consider any failure (1) to conduct self-monitoring according to EPA and State requirements, (2) to meet TRE schedules within 90 days, or (3) to submit reports within 30 days of the specified deadline as SNC. Such violations should receive equivalent enforcement follow-up as outlined above.

4. Use of Administrative Orders With Penalties

In addition to the formal enforcement actions to require remedial actions, Regions and States should presume that penalty AO's or State equivalents can be issued for underlying permit violations in which a formal enforcement action is appropriate. Headquarters will also provide Regions and States with guidance and examples as to how the current CWA penalty policy can be adjusted.

5. Enforcement Models and Special Remedies

OWEP and OECM will develop standard pleadings and language for remedial activities and compliance milestones to assist Regions and States in addressing violations of toxicity or water quality-based permit limits. Products will include model litigation reports, model complaints and consent decrees, and revised penalty policy or penalty algorithm and should be completed in early FY 1989.

V. Summary of Principal Activities and Products

A. Compliance Tracking and Review guidance

1. PCS Coding Guidance - May, 1987; revision 2nd Quarter 1989

2. Review Criteria for Self-monitoring Data (draft attached)

B. Inspections and Quality Assurance

1. Revised NPDES Compliance Inspection Manual - May 1988.

2. Quality Assurance Guidance - 3rd Quarter FY 1989.

3. Biomonitoring Inspection Training Module - August 1988.

4. Additions of a reference toxicant to DMRQA program - (to be determined)

C. Toxics Enforcement

1. Administrative and Civil Penalty Guidance - 4th Quarter FY 1989

2. Model Pleadings and Complaints - 2nd Quarter 1989

3. EMS Revision - 2nd Quarter FY 1989

D. Permitting Consistency

1. Basic Permitting Principles - 2nd Quarter FY 1989

E. Toxicity Reduction Evaluations

1. Generalized Methology for Conducting Industrial Toxicity Reduction Evaluations - 2nd Quarter FY 1989

2. Toxicity Reduction Evaluation Protocol for Municipal Wastewater Treatment Plants - 2nd Quarter FY 1989

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3. Methods for Aquatic Toxicity Indentification Evaluations

a. Phase I. Toxicity Characterization Procedures, EPA-600/3-88/034- September 1988

b. Phase II. Toxicity Identification Procedures, EPA-600/3-88/035- 2nd Quarter 1989

c. Phase III. Toxicity Confirmation Procedures- EPA-600/3-88/036 - 2nd Quarter FY 1989

Attachment

# QUALITY CONTROL FACT SHEET FOR SELF-BIOMONITORING ACUTE/CHRONIC TOXICITY TEST DATA

Permit No. _____

Facility Name _____

Facility Location _____

Laboratory/Investigator _____

**Permit Requirements:**

Sampling Location _____ Type of Sample _____

Limit _____ Test Duration _____

Type of Test _____ Test Organism Age _____

**Test Results:**

LC50/EC50/NOEL _____ 95% Confidence Interval _____

**Quality Control Summary:**

Date of Sample: _____ Dates of Test: _____

Control Mortality: _____% Control Mean Dry Weight _____

Temperature maintained within ±2=C of test temperature? Yes____ No___

Dissolved oxygen levels always greater than 40% saturation?

Yes_____ No____

Loading factor for all exposure chambers less than or equal to maximum allowed for the test type and temperature? Yes____ No_____

Do the test results indicate a direct relationship between effluent concentration and response of the test organism (i.e., more deaths occur at the highest effluent concentrations)? Yes____ No_____