

State of North Carolina
Department of Environment
and Natural Resources
Division of Water Quality

James B. Hunt, Jr., Governor
Wayne McDevitt, Secretary
Kerr T. Stevens, Director



August 26, 1999

«Contact»
«Facility»
«Address»
«City», «State» «Zip»

SUBJECT: Revised Whole Effluent Toxicity Enforcement Policy
Effluent Toxicity Testing
NPDES Permit No. «Permit»
«County» County

«Contact»:

Based on recent discussions with EPA Region IV, the Division of Water Quality (DWQ) is further modifying its Whole Effluent Toxicity (WET) Enforcement Policy. The primary difference will be separation of DWQ's application of civil penalties from compliance determinations. Any WET test result that does not achieve compliance with the NPDES permit limit will be considered a violation of the permit and the permittee will be sent, at minimum, a Notice of Violation. **The Division's new Whole Effluent Toxicity Enforcement Policy will apply to whole effluent toxicity monitoring initiated on or after September 1, 1999.**

Draft NPDES permits sent to public notice after 7/1/99 will contain chronic toxicity test condition language which specifies follow-up multiple concentration toxicity testing upon any single quarterly test failure. The first test of the quarter (three-month monitoring period defined by the permit) may be conducted either as either a pass/fail test or as a multiple concentration (ChV) test. If the pass/fail test fails or if the chronic value is lower than the permit limit, then a NOV is issued and at least two multiple concentration tests (one per month) are required over the following two months. NOV's will be generated for each failure to meet the permit limit. As many analyses as can be completed during the quarter will be accepted.

Permittees with NPDES permits which contain "old" chronic toxicity pass/fail testing language will have the **OPTION** to respond to any single quarterly toxicity test failure with follow-up multiple concentration toxicity testing or single concentration toxicity testing. The enclosed toxicity test condition language will be incorporated in the NPDES permit upon permit renewal and/or permit modification. Initiation of multiple concentration toxicity testing after any single quarterly failure will influence the Division's enforcement response. Permittees will be issued a NOV for any test result that does not achieve compliance with the permit limit. A civil penalty will be assessed for each quarter of toxicity noncompliance based on the arithmetic average of ChVs submitted for the remaining two months of the quarter.

Mailing Address:
1621 Mail Service Center
Raleigh, NC 27699-1621

Telephone (919) 733-2136
Fax (919) 733-9959
State Courier #52-01-00

Location:
4401 Reedy Creek Road
Raleigh, NC 27699-1621

Important WET Enforcement Policy items are:

I. CHRONIC TOXICITY TESTING

- The first test of the quarter can be conducted as either a pass/fail test or a chronic value (ChV) test.
- If the pass/fail test fails or if the ChV is lower than the limit, then a NOV is issued and at least two ChV tests (one per month) will be conducted over the following two months. As many analyses as can be completed will be accepted.
- A NOV will be issued for any test result failing to meet the permit limit.
- Any civil penalty assessed will be based on performance over a quarter.
- NPDES Permits containing chronic toxicity pass/fail testing will be modified upon permit renewal to include the new permit language.

II. ACUTE TOXICITY TESTING

- A NOV will be issued for each acute limit violation.
- A civil penalty will be assessed for any two consecutive acute limit violations.

Note that no changes have occurred in DWQ's enforcement responses to acute limit noncompliances since the May 13th mailing.

Choosing to respond to a chronic "fail" result with a pass/fail test instead of conducting multiple concentration toxicity testing during the second and third months of the calendar quarter will result in enforcement for single concentration test results which do not meet chronic toxicity permit limitations.

As in the past, if you are unable to consistently comply with your toxicity permit limitation, you may notify your respective Regional Office to discuss the possibility of entering into a Special Order by Consent (SOC). The SOC provides conditional compliance for permit parameters that the facility can not consistently comply with and may be issued in situations where facility operation and maintenance are not in question. If a SOC is signed by the permittee/DWQ and contains toxicity as a noncompliant parameter, you will be required to: conduct a Toxicity Reduction Evaluation (TRE), submit quarterly TRE progress reports, and reduce/eliminate effluent toxicants to acceptable levels.

Additional explanation of key WET enforcement initiatives can be located on the Division's Aquatic Toxicology Unit web page at <http://esb.ehnr.state.nc.us/ATU.html>.

If you have any questions, please contact Cindy Moore (cindy.a.moore@ncmail.net) or John Giorgino (john.giorgino@ncmail.net) at (919) 733-2136.

Sincerely,

Cindy Moore, Supervisor
Aquatic Toxicology Unit

cc: Regional Office Supervisor, «Region»
Facility Files
Central Files
Enclosure

CHRONIC TOXICITY PERMIT LIMIT (QTRLY)

The effluent discharge shall at no time exhibit observable inhibition of reproduction or significant mortality to *Ceriodaphnia dubia* at an effluent concentration of ___%.

The permit holder shall perform at a minimum, *quarterly* monitoring using test procedures outlined in the "North Carolina *Ceriodaphnia* Chronic Effluent Bioassay Procedure," Revised February 1998, or subsequent versions or "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised-February 1998) or subsequent versions. The tests will be performed *during the months of* _____. Effluent sampling for this testing shall be performed at the NPDES permitted final effluent discharge below all treatment processes.

If the test procedure performed as the first test of any single quarter results in a failure or ChV below the permit limit, then multiple-concentration testing shall be performed at a minimum, in each of the two following months as described in "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised-February 1998) or subsequent versions.

The chronic value for multiple concentration tests will be determined using the geometric mean of the highest concentration having no detectable impairment of reproduction or survival and the lowest concentration that does have a detectable impairment of reproduction or survival. The definition of "detectable impairment," collection methods, exposure regimes, and further statistical methods are specified in the "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised-February 1998) or subsequent versions.

All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Monitoring Form (MR-1) for the months in which tests were performed, using the parameter code TGP3B for the pass/fail results and THP3B for the Chronic Value. Additionally, DWQ Form AT-3 (original) is to be sent to the following address:

Attention: North Carolina Division of Water Quality
Environmental Sciences Branch
1621 Mail Service Center
Raleigh, North Carolina 27699-1621

Completed Aquatic Toxicity Test Forms shall be filed with the Environmental Sciences Branch no later than 30 days after the end of the reporting period for which the report is made.

Test data shall be complete, accurate, include all supporting chemical/physical measurements and all concentration/response data, and be certified by laboratory supervisor and ORC or approved designate signature. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should there be no discharge of flow from the facility during a month in which toxicity monitoring is required, the permittee will complete the information located at the top of the aquatic toxicity (AT) test form indicating the facility name, permit number, pipe number, county, and the month/year of the report with the notation of "No Flow" in the comment area of the form. The report shall be submitted to the Environmental Sciences Branch at the address cited above.

Should the permittee fail to monitor during a month in which toxicity monitoring is required, monitoring will be required during the following month.

Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Water Quality indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

NOTE: Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival, minimum control organism reproduction, and appropriate environmental controls, shall constitute an invalid test and will require immediate follow-up testing to be completed no later than the last day of the month following the month of the initial monitoring.