

MEMORANDUM

Original January 2006

**Revised March 2007**

TO: Interested Wastewater Treatment Facilities and Laboratories

FROM: Dennis Merrill, DEP

RE: Revised Toxicity Reporting Forms

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I am writing to let you know about newly revised reporting forms for the Surface Water Toxics Control Program. The revisions are being made following changes to program rules, Chapters 530 and 584. You should have already received a package of materials concerning these changes; if you have not, please contact me at 287-7788.

The forms for reporting Whole Effluent Toxicity (WET), chemical testing and Mercury have been revised and consolidated into a single Microsoft *Excel*<sup>®</sup> workbook, "ToxSheet Mar07.xls", with various tabs. We are asking that you begin using the new versions with the next series of testing you conduct. In most cases, we expect that laboratories doing the testing will be the original generators of the forms, and treatment facilities will receive, add to and review them. Electronic copies of the new forms are available on-line at [www.maine.gov/dep/blwq/docstand/wd/toxics/index.htm](http://www.maine.gov/dep/blwq/docstand/wd/toxics/index.htm). If you would like paper copies or a disk with the e-files, we will gladly provide them; just contact your facility's inspector or me.

The forms are in many ways similar to the previous versions and are quite self-explanatory. There are separate forms for Mercury, chemical testing and marine and fresh WET; each is discussed below. One change common to all is a signature block for the facility representative. It is important that facilities review and understand toxicity reports before sending them to DEP, just as with any other effluent monitoring report. Laboratories conducting the tests or DEP can be contacted with any questions that may arise in a facility's review of a report. Reporting may be grouped as follows.

- The results of full priority pollutant testing *must* be submitted to the Department electronically using e-mail your facility inspector, CD or floppy disk using the ToxSheet spreadsheet and accompanied by a paper copy signed in the upper right corner.
- Official reports of Whole Effluent Toxicity (WET) results must be reported on the separate forms for that purpose. WET results may also be entered on the ToxSheet spreadsheet for informational evaluation.
- When only "analytical chemistry" or WET chemistry is being conducted, reports are made using the same ToxSheet spreadsheet as for priority pollutants. A signed paper copy must be sent to the Department. Electronic submittal is not expected for these reports.
- The form used for reporting Mercury test results is now included as a tab in the workbook. While there are some small changes, notably including a place for effluent limits to be entered, the form is very similar to previous editions.

The results of all toxicity testing must be submitted to the Department not later than the due date of the next discharge monitoring report required by the discharger's license, except that the discharger may review the toxicity reports for up to 10 business days after their availability before submitting them to the Department.

**Chemical Testing Spreadsheet.** The ToxSheet spreadsheet is the vehicle for submitting priority pollutant and other chemical test results. Many facilities have previously submitted priority pollutant results on a spreadsheet called "stutox.xls" as a replacement for the two column format described in Chapter 530.5 Toxicity Program Summary ("Testing for Toxic Pollutants", 10/12/94). Similar to the "stutox.xls" spreadsheet, this new spreadsheet allows the reviewer, whether a facility operator or a Department inspector, to assess the information submitted in ways that the older two column format did not; most importantly the spreadsheet allows comparison of dilution-based ambient water quality criteria (AWQC) to effluent concentrations and flows for any given facility. Also, ToxSheet performs additional calculations to account for background allocation and water quality reserves currently defined in the new toxics rules. Be sure to select the proper receiving water – F (for fresh) or M (for marine) - for your situation.

The Department requires reporting of actual daily and monthly average flows associated with the sampling event. This is because exceedence determinations are now based on mass, not concentration (reasonable potential to exceed water quality criteria continues to be based on concentration). ToxSheet calculates effluent limits in pounds for acute, chronic, and human health water quality criteria for each priority pollutant using dilution factors for individual treatment plant discharges. (Water quality criteria themselves are not based on dilution factors for individual facilities, although the effluent limits are.) The separate criteria are then compared to reported flows and effluent concentrations and automatically evaluated for potential exceedences. One column compares reporting limits to the reported concentrations and makes a judgment as to whether the reported value is higher than the appropriate reporting limit. This information is useful in determining whether the laboratory is analyzing to the proper detection level. ToxSheet will not calculate whether a given facility's effluent has a reasonable potential to exceed water quality limits as the reasonable potential calculation is more complex and takes into account all sample results over a specified period of time. ToxSheet provides data entry for WET test results as well as WET chemistry and analytical chemistry. The electronic files include a more complete description of ToxSheet and instructions for using it.

**Whole Effluent Toxicity Report Forms.** As in the past, there are separate forms for marine and fresh water testing. In each case, the test organisms have been modified to reflect changes in the rule dropping fathead minnows (fresh) and silversides (marine) from the suite of required testing. The chemistry report has been consolidated with the "analytical chemistry" described above. Another change is that receiving water chemistry is now optional for most parameters. However, samples of the receiving should be collected, preserved and held until the completion of the WET test. In that way, the receiving water can be tested if the WET results suggest it may have had an adverse effect on the test. Facilities should bear in mind that testing for pH and total residual chlorine must be done on site, as these parameters cannot be held for later analysis.

As always, if you have questions about the toxicity testing program or the reporting forms you can check DEP's web site or contact your facility's assigned inspector or me.