NEBRASKA

DEPT. OF ENVIRONMENT AND ENERGY

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Toxic Organic Management Plans for Metal Finishers, Electroplating, and Electronic Components manufacturing.

One alternative to routine Total Toxic Organics (TTO) monitoring is the preparation of a Toxic Organic Management Plan (TOMP). This option is available to regulated industrial users in the Electroplating, Metal Finishing, and Electrical and Electronic Components (both Phase I and Phase II) categories. A TOMP may be used in in lieu of analytical testing for TTO and must be submitted to the department each permit term.

TTO is defined as the sum of the masses or concentrations of specific toxic organic compounds found in the Categorical Industrial User (CIU) discharges at >0.01 milligrams per liter (mg/L). The summation of the TTO compounds for metal finishers cannot exceed 2.13 mg/L and for electroplating 4.57 mg/L (<10K GPD) / 2.13 mg/L (>10K GPD). If a facility does not exceed the TTO compound limit daily max, in they qualify for exemption from further testing with the approval of the TOMP. If the facility does exceed the limits, analysis must continue as required. Additional guidance for calculating TTO can be found in Guidance Document: "**17-008 TTO Guidance**" on the department website.

Steps to develop a Toxic Organic Management Plan:

1. A process engineering analysis should be conducted to determine the source and type of toxic organic compounds found in a facility's wastewater discharge, including sources and compounds that could reasonably be expected to enter the wastewater in the event of spills, leaks, etc., based on the type of operations conducted at a particular plant. The process engineering analysis should include:

    a. An examination of published reports on the specific industry;

    b. A water flow diagram to identify all possible wastewater sources;

    c. A list of raw materials used in the industrial processes, including chemical additives, water treatment chemicals and cleaning agents, and the wastewater stream that each regulated toxic organic could potentially enter;

    d. Comparison of the toxics found in the effluent with the list of raw materials and selection of the most probable wastewater source;

e. Evaluation of the toxics found in the effluent, but not on the raw materials list and determination of those formed as reaction products or by-products;

f. Examination of sources such as equipment corrosion or raw materials' impurities that could result in release to wastewaters of toxic organic pollutants.

2. An evaluation should be made of the control options that could be implemented to eliminate the toxic compound(s) or the source or potential source of toxic organic compound introduction to the treatment system. This should be conducted for each toxic organic compound and may be addressed separately, which may result in one or more possible options for control of the compound. Evaluation of the available control options, including the advantages and disadvantages of each, may lead to a decision of whether a TOMP is a feasible alternative to TTO monitoring

3. The toxic organic management plan should include the following items at a minimum:

   a. A complete inventory of all toxic organic chemicals in use or identified through sampling and analysis of the wastewater from regulated process operations (organic constituents of trade-name products should be obtained from the appropriate suppliers as necessary);

   b. Descriptions of the methods of disposal other than dumping used for the inventoried compounds, such as reclamation, contract hauling, or incineration;

   c. The procedures for ensuring that the regulated toxic organic pollutants do not spill or routinely leak into process wastewaters, floor drains, non-contact cooling water, groundwater, surface waters (i.e., Spill Prevention, Control, and countermeasures [SPCC] Plan) or any other location which allows discharge of the compounds; and

   d. Determinations or best estimates of the identities and approximate quantities of toxic organic pollutants used as well as discharged from the regulated manufacturing processes. Compounds present in wastestream that are discharged to sanitary sewers may be a result of regulated processes or disposal, spills, leaks, rinse water carryover, air pollution control, and other sources.

4. The TOMP should be submitted to the department after the initial analysis has been completed for the permit term to choose this option. A TOMP may at a later time request that TTO monitoring requirements be discontinued upon approval and implementation of the TOMP. A prerequisite for use of this certification approach is a fully approved, implemented, and ongoing toxic organic management plan. In addition, a certification statement must be included at the time of submission of the TOMP. It must be signed by an officer of the company or manager responsible for overall plant operations.

A statement such as the following should be required. "Based on my inquiry of the person or persons directly responsible for managing compliance with the TTO limitations, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last report. I further certify that this facility is implementing the toxic organic pollutant management plan submitted to the Control Authority on (date to be specified). "

_____*(date) (Officer)*

Template for TOMP

TOXIC ORGANIC MANAGEMENT PLAN

1. General Information

Industrial User Name: _____

Industrial User Address: _____

Industrial User Discharge Permit Number: _____

Primary facility contact with 24 hour phone numbers: _____

Secondary facility contact with 24 hour phone numbers:_____

2. Facility Description

Nature of Business:

Operating Hours:

Number of Employees:

Provide detailed drawings of facility to include:

- Location of all raw materials
- Location of all chemicals
- Location of all waste
- Location of all floor drains
- Location of all other discharge points
- Location of all outside exits
- Location of all posted notices of emergency contacts
- Location of all stormwater drains

A. **Purpose and Scope**

The purpose of the plan is to identify sources of toxic organics (111 each) in the facility wastewater and describe controls necessary to insure that these chemicals are not intentionally or accidentally discharged in the facility wastewater system. Refer to Attachment A for the toxic organic list.

1. **Process Description** – describe processes conducted at the facility and areas where process wastewater discharges are primarily associated.
2. **Identification of Toxic Organic Chemicals entering plant waste waters** – describe which toxic organics appear in the wastewater. Provide sampling results for the last several years.
3. **Inventory of Toxic Organics used at the Facility** – provide a list of all chemicals used and the quantity stored on site.

4. **Methods of disposal** – describe the current disposal practices of these chemicals.
5. **Existing administrative or engineering controls to prevent leaks or accidental discharges of toxic organics**
   a) Chemical Approval
   b) Safety process review
   c) Sign posting at wet process drain areas
   d) Spill control
   e) Engineering controls
   f) Employee training
   g) Contractor awareness

6. **Process modifications** – describe any modifications made to comply with this plan.

Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation [or pretreatment standard] for total toxic organics (TTO) I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing of the last discharge monitoring report . I further certify that this facility is implementing the toxic organic management plan submitted to the permitting authority.

Name & Title of Representative:_____
Signature of Representative: _____
Date of Signature: _____