Appendix B

GUIDANCE FOR THE PREPARATION OF A SOLVENT MANAGEMENT PLAN

As previously discussed, one alternative to routine TTO monitoring is the preparation of a Solvent Management Plan (SMP).

An SMP must specify the toxic organic compounds used, the method of disposal used (instead of discharge into wastestreams), and procedures for assuring that toxic organics do not routinely spill or leak into wastewater discharged to the POTW. Guidelines for preparation of a SMP are presented below as four basic steps.

Step 1 - Process Engineering Analysis

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. Such an analysis should be based on the results of one or more analyses of the plant's wastewater for the toxic organic pollutants which are included in the definition of TTO for that industrial category and which can reasonably be expected to be present (see TTO monitoring guidance). 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.

Step 2 - Pollutant Control Evaluation

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 may include in-plant modifications, solvent or chemical substitution, partial or complete recycle, reuse, neutralization, and operational changes. The analysis should be conducted on a case-by-case basis and will often result in one or more feasible options to control each source or potential source of toxic pollutant discharge. Finally, evaluation of the

available control options, including the advantages and disadvantages of each, may lead to a decision of whether a SMP is a feasible alternative to TTO monitoring.

Step 3 - Preparation of Solvent Management Plan

A Solvent 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 wastestreams 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.