

The model WAP provided below has three parts:

- (1) The required elements/framework
- (2) *Example language attempting to show level of detail that should be included*
- (3) *Guidance or assistance regarding what is being asked for by the rule or demonstrated in the example.*

Waste Analysis Plan:

I. Description of Waste Treatment System

Example: The waste treatment system consists of three tanks and one filter press. Water from the rinse tanks in the de-mask area are pumped to tank 1 which equalizes flow. Rinse waters then flow into tank 2 where polymers and coagulants (polygon A and metabisulfite) are added and mixed. Rinse waters then flow to tank 3 which is baffled. Clean water exits tank 3 and flows to the sewer through a sewer sampling port. Sludge from the baffles settles at the bottom of the tank and is pumped to a filter press. The press automatically loads and any water removed from the sludge is pumped back to tank 1. Dry sludge is scraped off the plates and drummed for disposal.

The above description includes all tanks used in the system, any chemicals added, refers to the source of the waste, and describes the final disposal of all portions of the original waste (i.e. water to sewer, sludge for HW disposal).

II. Constituents to be analyzed for

Example: Rinse waters are used to remove corrosive etches (sulfuric acid) and chome-containing mask materials. Samples will be analyzed for pH and chromium (total and chromium VI)

Generally, items to be sampled for will be any items that are noted on the Tiered Permit Waste and Treatment Process page. Wastes to be analyzed may be noted as generally as CAM 17 metals or as specifically as Chromium VI, but be aware that if you state that CAM17 metals will be analyzed for, the entire CAM 17 scan must be conducted.

III. Sampling

This section will outline where, how and when samples will be taken.

a. Location(s)

Example: Samples will be taken at the rinse tank at location marked with an "x" on the attached flow diagram. Example 2: Samples will be taken directly from the batch treatment tank.

Sampling locations should be located as near the point of generation as possible, and definitely before any commingling or mixing of wastes (even if they are similar wastes such as electroless nickel rinse and watts nickel rinse)

b. Methodologies

Example: Samples will be taken by our contractor using a disposable, one-use cup to scoop liquids from the rinse tank and placed in clean 16 ounce glass bottles with Teflon lined lids. All samples will be preserved on ice at 4 °C. Example 2: Samples will be taken according to attached protocol provided by contractor.

If a contractor or consultant will be used to conduct the sampling make sure that their bid or scope of work or site safety plan includes this information. Information provided should at a minimum include equipment used to take the sample (what will be used to transfer the sample from your tank to the sample container) and the type of container to be used to hold the sample (see attached recommended waste-container combinations).

c. Frequency

Example: Samples will be taken at start up and every 5 years after that to ensure no changes in process. Additional samples will be taken any time process changes are introduced.

Example 2: Each batch will be treated until four consecutive batches are similar enough that they differ in value by less than 10% for all constituents.

It is up to you, the owner of the system to decide n the frequency. Inspectors will look to ensure that the frequency you set will ensure that the system is receiving a "known" waste. Changes in process should be addressed in the frequency. You should only indicate a

frequency that you are comfortable maintaining. There is no “hard and fast” rule for the frequency or consistency of sample results for batch treatment. Inspectors should be looking to ensure that your waste analysis plan has enough information in it to ensure that the waste treatment system is only treating waste as allowed by law (the correct types and concentrations of wastes).

IV. Analysis

This section will outline what will happen with the samples once taken: Who will analyze, how they will do the analysis, and what will be done with the results.

a. Contract Laboratory

Example: Samples will be transported to Tell-All Labs for analysis by our contractor using a bill of lading/sample chain of custody.

Samples taken and analyzed as part of the official waste analysis plan must be analyzed by a certified laboratory. These samples are not being used to make a waste determination; they are being taken to satisfy a regulatory requirement that ensures that onsite treatment is being done as allowed by law. Waste analysis for the purposes of waste determination may be done via sampling and analysis at a certified lab or by generator knowledge (which would include sampling and self-analysis)

b. Analytical Methods to be used

Example: pH will be analyzed using method EPA 150.1. Chromium will be analyzed using method EPA 6010B/200.7 for total chromium and EPA 7196/7197 for Chromium VI.

Please see attached figure/flowchart/table for suggested waste analytical methods. All analysis methods must be hazardous waste methods (EPA xxxx) from “Test Methods for Evaluating Solid Wastes, SW-846”. Test methods outlined in “Standard Methods for the Examination of Water and Wastewater” are not acceptable.

c. Results

Example: The following documents will be maintained and made available at request of inspectors: Chain of custody/bill of lading, sample analysis results, laboratory supplied quality assurance/quality check results.

General Notes:

- 1. A flow diagram showing sources and treatment activities is suggested to be attached. The flow diagram may be referenced in Sections I and IIIa. Sample locations may be marked on the flow diagram and referenced in the text/body of the plan*
- 2. Sampling and analytical information may be presented in table format and referenced in the text/body of the plan. A sample table is attached.*

Example table format:

Wastestream	Analytes	Sample location (see flow diagram)	Analytical Method	Frequency*	Comments
<i>Oil/water separator</i>	<i>Oil/grease</i>	<i>a</i>	<i>EPA 600/4-85/013</i>	<i>2 yrs</i>	<i>Fish bioassay, 1 gal plastic, keep cold</i>
<i>Etch rinse</i>	<i>pH</i>	<i>b</i>	<i>EPA 150.1</i>	<i>5 yrs</i>	<i>Test w/in 24 hours</i>
	<i>Chrome VI</i>	<i>b</i>	<i>EPA 7196/7197</i>	<i>5 yrs</i>	<i>Cold preserve, 250 ml HDPE bottle</i>
	<i>Total Chrome</i>	<i>b</i>	<i>EPA 6010</i>		<i>Store on ice, 250 ml HDPE bottle, nitric preservative</i>
<i>Between settle tank and filter press</i>	<i>Metals</i>	<i>c</i>	<i>EPA 6010</i>	<i>10 yrs</i>	<i>Store on ice, 250 ml HDPE bottle, nitric preservative</i>
	<i>pH</i>	<i>c</i>	<i>EPA 150.1</i>	<i>10 yrs</i>	<i>Test w/in 24 hours</i>
<i>Copper strike rinse</i>	<i>Copper</i>	<i>d</i>	<i>EPA 6010</i>	<i>5 yrs</i>	<i>Store on ice, 250 ml HDPE bottle, nitric preservative</i>
	<i>cyanide</i>	<i>d</i>	<i>EPA 9010/9014</i>	<i>5 yrs</i>	

* Will be re-analyzed if changes to process are made.