waste regulations. If hazardous constituent levels in any representative sample collected from a verification tank exceed any of the delisting levels set in Condition (3), the ETF effluents in that verification tank must be re-treated until the ETF effluents meet these levels. Following re-treatment, DOE must repeat analyses in Condition (3) prior to disposal.

The purpose of this condition is to ensure that ETF effluents which contain hazardous levels of inorganic or organic constituents are managed and disposed of in accordance with Subtitle C of RCRA. Holding the ETF effluents until characterization is complete will protect against improper handling of hazardous materials. The representative samples from the specified verification tanks must be analyzed for the appropriate parameters, and must meet the appropriate delisting levels, in order for the wastes to be considered nonhazardous.

(3) *Delisting Levels:* All total constituent concentrations in the waste samples must be measured using the appropriate methods specified in "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods," U.S. EPA Publication SW–846 (or other EPAapproved methods). All total constituent concentrations must be equal to or less than the following levels (ppm):

## Inorganic Constituents:

A <sup>©</sup> .	10.0
Ammonium	10.0
Antimony	0.06
Arsenic	0.5
Barium	20.0
Beryllium	0.04
Cadmium	0.05
Chromium	1.0
Cyanide	2.0
Fluoride	40.0
Lead	0.15
Mercury	0.02
Nickel	1.0
Selenium	0.5
Silver	2.0
Vanadium	2.0
Zinc	100.0
Organic Constituents:	
Acetone	40.0
Benzene	0.05
Benzyl alcohol	100.0
1-Dulyi alconoi	40.0
Carbon tetrachloride	0.05
Chlorobenzene	1.0
Chloroform	0.1
Cresol	20.0
1,4-Dichlorobenzene	0.75
1,2-Dichloroethane	0.05
1,1-Dichloroethylene	0.07
Di-n-octyl phthalate	7.0
Hexachloroethane	0.06
Methyl ethyl ketone	200.0
Methyl isobutyl ketone	30.0
Naphthalene	10.0
Tetrachloroethylene	0.05
Toluene	10.0

Tributyl phosphate	0.2
1,1,1-Ťrichloroethane	2.0
1,1,2-Trichloroethane	0.05
Trichloroethylene	0.05
Vinyl Chloride	0.02

The Agency selected the set of constituents specified in Condition (3) after evaluating information provided in DOE's petition describing the inventory of chemicals used in production plants and supporting operations feeding wastes to the double-shell tank system, reviewing information about the composition of the wastes in the doubleshell tanks, and identifying available information about the health-based effects of these constituents. The constituents listed in Condition (3) include those constituents with available health-based levels that were: (1) detected in samples of the 242-A Evaporator effluent (i.e., the untreated waste), and (2) identified by DOE to be on the inventory of chemicals used at the Hanford site. The Agency is also proposing to require testing for other volatile chlorinated organic constituents of possible concern, i.e., those listed under the toxicity characteristic (§ 261.24). While these constituents were not found in the evaporator condensate samples, chlorinated compounds were one of the most difficult groups of chemicals to treat using the UV/OX process. Including these chlorinated constituents (many of which are common solvents) will help ensure that the treated effluent is nonhazardous.

As a further check on the operational efficiency of the treatment process, the Agency is also proposing to require testing for two key indicator parameters with no verified HBL, i.e., ammonia and tributyl phosphate. The Agency believes that ammonia is a good indicator of the efficiency of the RO stage of the treatment process, because ammonia was found at relatively high levels in most evaporator condensate samples (90th percentile upper confidence limit concentration was 511 ppm). Based on the maximum level of ammonia found in the waste feed (9350 ppm), and assuming the RO process is operating at a 99.9% removal efficiency, the Agency is proposing that the treated effluent be below a maximum of 10 ppm.

The Agency proposes to add tributyl phosphate as an additional indicator of the UV/OX treatment efficiency, because this chemical was found in nearly all evaporator condensate samples at significant levels (90th percentile upper confidence limit concentration was 4.1 ppm and the maximum concentration was 21 ppm). Tributyl phosphate was the only organic compound found above 1 ppm, except

for 1-butyl alcohol and acetone (both of which are already on the testing list). The Agency is proposing that the concentration of tributyl phosphate in the treated effluents be below 0.2 ppm. The level of 0.2 ppm is an order of magnitude above the detection limit for tributyl phosphate, and would allow a sufficient margin for any variability in the waste sampling and analysis. The Agency has often used an order of magnitude (i.e., a factor of 10) in chemical analyses to allow for variations in analyses and matrices (for example, see 55 FR 22541, June 1, 1990, and 55 FR 30414, July 25, 1990).

The proposed list of analytes in condition (3) does not include four constituents given in Table 1 (i.e., benzaldehyde, N-nitrosodimethylamine, phenol, and pyridine), because these constituents were only found in one sample, and may be analytical anomalies. None were contained on DOE's inventory of chemicals used at the Hanford site, and these constituents are members of chemical classes that are readily destroyed by the UV/OX process. Therefore, the Agency believes that there is no reason to require analysis for these chemicals. EPA also is not placing methylene chloride on the list of analytes in condition (3), because this chemical was only detected in blanks obtained during characterization of the PC. Therefore, the Agency believes that this consitutent is unlikely to be present in the PC. Methylene chloride is well known as a common laboratory contaminant, and if it were on the list, the occurrence of "falsepositives" (i.e., detections due to lab contamination) may lead to unnecessary retreatment of ETF effluents.

The Agency established the delisting levels by back-calculating the maximum allowable levels (MALs) from the HBLs (see docket for today's rule for complete list) for the constituents of concern using the modified EPACML dilution and attenuation factor (DAF) of 10, i.e., MAL=HBL×DAF. This factor corresponds to a maximum annual waste volume of 19 million gallons (e.g., approximately 95,000 cubic yards) for a surface impoundment scenario.

(4) Changes in Operating Conditions: After completing the initial verification testing in Condition (1)(A), if DOE significantly changes the operating conditions established in Condition (1), DOE must notify the Agency in writing. After written approval by EPA, DOE must re-institute the testing required in Condition (1)(A). DOE must report the operations and test data, required by Condition (1)(A), including quality control data, obtained during this period no later than 60 days after the changes