TWO MINUTE TRAINING

TO: *CH2M HILL PLATEAU REMEDIATION COMPANY*

FROM: *PAUL W. MARTIN, RCRA Subject Matter Expert*
CHPRC Environmental Protection, Hanford, WA

SUBJECT: *PCB ANALYTICAL WASTE DISPOSAL REQUIREMENTS –*
WATER VS. ORGANIC LIQUIDS AND NON-AQUEOUS INORGANIC LIQUIDS

DATE: *NOVEMBER 3, 2016*

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TWO MINUTE TRAINING

SUBJECT: PCB Analytical Waste Disposal Requirements –
Water vs. Organic Liquids and Non-aqueous Inorganic Liquids

Q: So last week's "Two Minute Training" stated that liquid PCB analytical waste must be thermally treated or meet a decontamination standard of ≤0.5 ppb. Were you only addressing water for unrestricted use and not addressing organic liquids and non-aqueous inorganic liquids?

A: Yes. In my mind, at that time of day, before a three-day weekend, I was only addressing water for unrestricted use.

Per 40 CFR 761.64, "*Disposal of wastes generated as a result of research and development activities authorized under §40 CFR 761.30(j) and chemical analysis of PCBs*", liquid PCB analytical wastes must be disposed according to 40 CFR 761.61(a)(5)(iv). Then per that regulation, the liquid PCB analytical wastes must either be:

- Decontaminated to the levels specified at 40 CFR 761.79(b)(1), i.e., three options including water for unrestricted use at ≤0.5 ppb; or (b)(2), i.e., organic liquids and non-aqueous liquids at <2 ppm; or,

- Disposed per 40 CFR 761.61(b) which refers to 40 CFR 761.60(a) or (e), i.e., thermal treatment.

The key distinction is that if liquid PCB analytical waste is being decontaminated, the decontamination standard for unrestricted use of water is ≤0.5 ppb PCBs. The other two decontamination standards for water include <200 ppb PCBs for non-contact use in a closed system where there are no releases, and <3 ppb PCBs in water discharged to a treatment works or to navigable waters, or at a PCB discharge limit included in a Clean Water Act permit. Concerning the standard for organic liquids or non-aqueous inorganic liquids, the decontamination standard is <2 ppm PCBs. If the above decontamination standards for liquid PCB analytical wastes cannot be met, the only other allowed option is 40 CFR 761.61(a) [thermal treatment] or (e) [alternative thermal treatment].

SUMMARY:

- Liquid PCB analytical waste must be decontaminated or thermally treated.

- If the liquid PCB analytical waste is water, there are three decontaminating standard options with one option being <0.5 ppb PCBs for unrestricted use.

- If the liquid PCB analytical waste is organic liquid or non-aqueous inorganic liquid, the decontamination standard is <2 ppm PCBs.

Excerpts from 40 CFR 761.61, 40 CFR 761.64 and 40 CFR 761.79 are attached to the e-mail. If you have any questions, please contact me at Paul_W_Martin@rl.gov or at (509) 376-6620.

FROM: Paul W. Martin **DATE:** 11/3/16 **FILE:** 2MT\2016\110316.rtf

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: PCB Analytical Waste Disposal Requirements –
Water vs. Organic Liquids and Non-aqueous Inorganic Liquids

40 CFR §761.64 Disposal of wastes generated as a result of research and development activities authorized under §761.30(j) and chemical analysis of PCBs

This section provides disposal requirements for wastes generated during and as a result of research and development authorized under §761.30(j). This section also provides disposal requirements for wastes generated during the chemical analysis of samples containing PCBs under part 761, including §§761.30, 761.60, 761.61, 761.62, and 761.79. For determining the presence of PCBs in samples, chemical analysis includes: sample preparation, sample extraction, extract cleanup, extract concentration, addition of PCB standards, and instrumental analysis.

(a) Portions of samples of a size designated in a chemical extraction and analysis method for PCBs and extracted for purposes of determining the presence of PCBs or concentration of PCBs are unregulated for PCB disposal under this part.

(b) All other wastes generated during these activities are regulated for disposal based on their concentration at the time of disposal as follows:

(1) Liquid wastes, including rinse solvents, must be disposed of according to §761.61(a)(5)(iv).

40 CFR §761.61 PCB Remediation Waste

(a) *Self-implementing on-site cleanup and disposal of PCB remediation waste.*
(5) *Site cleanup.*
(iv) *Liquids.* Any person disposing of liquid PCB remediation waste shall either:

(A) Decontaminate the waste to the levels specified in §761.79(b)(1) or (b)(2).
(B) Dispose of the waste in accordance with paragraph (b) *[thermal treatment/ alternative treatment equivalent to thermal]* of this section or an approval issued under paragraph (c) *[risk-based disposal]* of this section.

40 CFR §761.79 Decontamination standards and procedures

(b) *Decontamination standards.* Chopping (including wire chopping), distilling, filtering, oil/water separation, spraying, soaking, wiping, stripping of insulation, scraping, scarification or the use of abrasives or solvents may be used to remove or separate PCBs, to the following standards, from liquids, concrete, or non-porous surfaces.

(1) The decontamination standard for water containing PCBs is:

(i) Less than 200 µg/L (i.e., <200 ppb PCBs) for non-contact use in a closed system where there are no releases;

(ii) For water discharged to a treatment works (as defined in §503.9(aa) of this chapter) or to navigable waters, <3 µg/L (approximately <3 ppb) or a PCB discharge limit included in a permit issued under section 307(b) or 402 of the Clean Water Act; or

(iii) Less than or equal to 0.5 µg/L (i.e., approximately ≤0.5 ppb PCBs) for unrestricted use.

(2) The decontamination standard for organic liquids and non-aqueous inorganic liquids containing PCBs is <2 milligrams per kilogram (i.e., <2 ppm PCBs).