TWO MINUTE TRAINING

TO: *CH2M HILL PLATEAU REMEDIATION COMPANY*

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

SUBJECT: *REGULATORY STATUS OF CAUSTIC RINSE WATERS CONTAMINATED WITH TRACE SOLVENTS*

DATE: *SEPTEMBER 8, 2016*

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TWO MINUTE TRAINING

SUBJECT: Regulatory Status of Caustic Rinse Waters Contaminated with Trace Solvents

Q: A customer degreases metal parts with methylene chloride solvent in preparation for painting. Following degreasing, the spent solvents that drip off the metal parts are collected and managed as an F listed hazardous waste per the listing descriptions at WAC 173-303-9904 [*40 CFR 261.31*]. The degreased metal parts are then rinsed in caustic water to remove any trace solvent residues remaining on the parts surfaces. Since the caustic rinse water now contains trace solvent contamination, does the solvent F listing apply when the caustic rinse water is disposed?

A: Per an EPA memo dated August 7, 1987, [RO 11283], EPA stated:

"The Agency does not consider small amounts of solvent carried over on the metal parts from solvent degreasing to meet the listing description of a spent solvent. Therefore, if any solvent is carried over into the caustic rinse water, the mixture rule would not be applicable."

Another EPA memo, dated August 30, 1991, [RO 11638] further clarifies that:

". . . traces of solvents left on equipment after cleaning are not spent and therefore do not meet the listing description".

Since the traces of solvent that remain on the metal part following degreasing are not considered spent, an F listing cannot apply. Therefore, no F listed solvent is carried over to the caustic rinse waters. The caustic rinse waters would most likely meet the definition of a RCRA corrosive characteristic hazardous waste (D002), but in this scenario would not meet an F listing based upon the mere presence of trace solvent contamination.

SUMMARY:

- The excess solvents collected from degreasing the metal parts are spent and can meet an F listing description.
- The trace amounts of solvent that remain on the degreased metal part are not spent and therefore cannot meet an F listing description.
- Since the trace solvent contamination did not meet an F listing description, the customer's caustic rinse water with trace solvent contamination would also not meet an F listing description.

The EPA memos dated August 7, 1987, and August 30, 1991, 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:** 9/8/16 **FILE:** 2MT\2016\090816.rtf **PG:** 1

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Regulatory Status of Caustic Rinse Waters Contaminated with Trace Solvents

Faxback 11283 9444.1987(33)

AUG 7 1987

Mr. William S. Harer
CHEM-CLEAR
992 Old Eagle School Road
Suite 915
Wayne, PA 19087

Dear Mr. Harer:

This is response to your letter of May 12, 1987, in which you requested an interpretation regarding the regulatory status of a waste generated by one of your clients. Specifically, the waste in question is generated by caustic rinsing metal parts that have been cleaned with a solvent containing over 10%, by volume, trichloroethylene.

The Agency does not consider small amounts of solvent carried over on the metal parts from solvent degreasing to meet the listing description of a spent solvent. Therefore, if any solvent is carried over into the caustic rinse water, the mixture rule would not be applicable. Thus, the caustic rinse water would only be hazardous waste if it exhibits one of the hazardous wastes characteristics [ignitability, corrosivity, reactivity, or extraction procedure (EP) toxicity]. Since your caustic rinse water does not exhibit any of the hazardous waste characteristics, as was demonstrated by your client's analytical results, the caustic rinse water would not appear to be a hazardous waste under the Federal hazardous waste regulations. However, you should be aware that the State's hazardous waste
regulations may be more stringent than the federal hazardous waste rules. Therefore, you should contact a representative from the State to determine the waste's regulatory status under the State's hazardous waste program.

If you require additional information, please contact Ed Abrams at (202) 382-4787.

Sincerely,

Matthew A. Straus
Chief, Waste Characterization Branch

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Regulatory Status of Caustic Rinse Waters Contaminated with Trace Solvents

Faxback 11638

9444.1991(04)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AUG 30 1991

MEMORANDUM

SUBJECT: Residual Materials Contaminated with Trace Solvents

FROM: Sylvia K. Lowrance, Director, Office of Solid Waste

TO: Robert L. Duprey, Director, Hazardous Waste Management Division, EPA Region VIII

This memorandum is in response to your requests for guidance on trace solvent issues dated December 20, 1990 and February 11, 1991. In the particular case cited, a facility degreases metal parts in an F001-listed solvent, air dries the parts, and then blasts the parts. Some of the blasting grit has been found to contain solvent constituents. According to your first memo, a conflict between Region VIII and the Utah Department of Health has arisen on interpreting the scope of the listing regulations. The conflict appears to be centered on whether previous Headquarters memoranda are valid and applicable to this situation.

Upon review of the specific situation and your initial response, research into previous Headquarters correspondence, and discussions with your staff, we concur with the memorandum sent by Terry Anderson to James Wickemeyer on October 29, 1990 (i.e., the blasting grit generated by the facility in question does not meet the F001 spent solvent listing description). This letter is consistent with previous Headquarters interpretations as to the scope of the spent solvent listings or the mixture rule, which state traces of solvents left on equipment after cleaning are not spent and therefore do not meet the listing description. Such wastes may be hazardous because they exhibit one of the characteristics of hazardous waste described in 40 CFR 261 Subpart C (particularly the toxicity characteristic of §261.24).

If solvents are used for cleaning in excess of amounts needed for that purpose, however, the excess solvent residues could be spent, and therefore listed hazardous waste. No set quantity has been established for excess amounts of solvents which would cause the residual in question to be subject to regulation. The nature of facility operations will dictate whether the amount of solvent released, inadvertently or deliberately, would cause the waste in question to meet the listing description. The applicability of such an interpretation would depend on the nature of the operation, the quantities of solvents used and disposed in the operation, and the manner in which they are used/disposed.

Please note that some state agencies have the authority to interpret Federal regulations more strictly than EPA, if desired. In this particular case, such an interpretation may ease the regulatory flexibility of State agency personnel.

Thank you for your memorandum. If you have any additional questions on this topic please do not hesitate to call me or have your staff contact Ron Josephson at FTS 260-4770.

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Regulatory Status of Caustic Rinse Waters Contaminated with Trace Solvents

WAC 173-303-9904 Dangerous waste sources list.

DANGEROUS WASTE SOURCES LIST

(1)

Dangerous Waste No.	Sources
	Nonspecific Sources
Generic:	
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane and 1,1,2 trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
F003	The following spent nonhalogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above nonhalogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I)
F004	The following spent nonhalogenated solvents: Cresols and cresylic acid, nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
F005	The following spent nonhalogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I, T)