UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

APRIL 14, 1988

K. W. Meeks
CAPT, CEC, USN
Executive Officer
Department of the Navy
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive, P. O. Box 10068
Charleston, SC 29411-0068

Dear Captain Meeks:

This is in response to your letter of February 3, 1988, in which you raised several environmental issues concerning the Navy's design criteria for aircraft control and painting facilities. We are providing you with regulatory interpretations of the "resolved" and "unresolved" issues from your discussion with Matt Straus on December 3, 1987.

"Resolved" Issues

1. Stripped paint waste is considered a listed solvent-containing F waste when the stripping compound used contains, before use, ten percent or more (by volume) of one or more of the solvents identified in EPA hazardous numbers F001-F005. Use as a paint stripper is considered to be use as a solvent because the material is being used for its ability to mobilize or solubilize the paint. (See 50 FR 53315, December 31, 1985.) Thus, the stripped paint waste (except as indicated be1ow) must be handled as hazardous, unless it has been delisted pursuant to 40 CFR 260.20 and 260.22. If, however the only solvents used for stripping are those included in the F003 hazardous listing (which were listed only because of their low flash points), and the stripped paint waste is then mixed with a solid waste, then the strip paint waste would be a hazardous waste only if it exhibits one or more of the hazardous characteristics (i.e., the waste would not need to be formally delisted). See 40 CFR 261.3(a)(2)(iii) and 261.20-261.24. It should be noted that the presence of toxicants identified in the F001-F005 categories in the paint itself does not directly cause the paint to be listed as an F waste. This is an example of the solvent chemical being used as an ingredient in the formulation of a commercial chemical product (50 FR 53315). Thus, if F001-F005 constituents are present in the paint, but the paint is not stripped with a listed F001-F005 solvent, the resulting waste is not an F001-F005 waste. The waste could still be a characteristic hazardous waste (40 CFR 261.20-261.24), however, if

it exhibits the characteristics of corrosivity, ignitability, reactivity, or extraction procedure (EP) toxicity.

2. Your assessment that scale of operations involved in chemical conversion coating of aluminum is not a factor in determining the applicability of the hazardous waste F019 listing is correct.

3. Your assessment that, for the described painting process, the paint-scrubber water is not considered a hazardous waste unless it exhibits the characteristic of a hazardous waste and the water screen is not a listed solvent mixture is correct. See 40 CFR 261.20-261.24. The presence of toxicants, such as solvent constituents, in the paint does not directly cause the paint to be listed, as stated above.

4. The term "de minimis quantities" is used in reference to commercial chemical products. (See 40 CFR 261.3(a) (2) (iv) (D).) However, there are also exemptions from the mixture rule for wastewaters that are combined with solvents (see 40 CFR 261.3(a)(2)(iv)(A)-(B)) and wastewaters that are mingled with laboratory wastes (See 40 CFR 261.3(a)(2)(iv)(E)).

"Unresolved Issues"

1. With regard to the definition and location of headworks, we are still evaluating this issue and will advise you of our decision in the next several weeks. This decision will give you a generic definition of the location of the headworks of a wastewater treatment system that can be applied to the varied process flows which exist at your facilities.

2. The F006 classification applies to wastewater treatment sludges from electroplating operations (with the exceptions given in the 40 CFR 261.31 F006 listing). The listing was not intended to apply to wastestreams associated with routine cleaning (e.g., for aircraft or components). Such cleaning when it is a part of routine maintenance is not electroplating and thus is not within the scope of the F006 listing. Once an electroplating operation is undertaken, then those wastes (as defined in 40 CFR 261.31) are classified F006. As long as the treatment sludges associated strictly with electroplating are kept segregated from other cleaning wastes not associated with electroplating, the latter would not be considered F006 wastes.

a. Precleaning activities for electroplating purposes, as described in your letter, generate wastes that would fall into the F006 category. Again, a distinction must be made between a routine cleaning operation (e.g., washing with detergent and water) versus cleaning preparatory to electroplating operations. It is the purpose of the operation which matters, not the location.

b. Metal stripping is also considered part of the electroplating operation (see 51 FR 43350, December 2, 1986); sludges from the treatment of wastewaters from metal stripping operations are considered subject to the F006 listing. When paint stripping is conducted in

conjunction with electroplating operations, such wastes would be classified in the F002-F005 categories (spent solvents). These spent solvent wastes from paint stripping could also be considered to be F006 wastes if they are mixed with electroplating wastes, but if the rinsewaters from paint stripping are kept separate from metal stripping wastes, the paint stripping wastes are not considered part of the F006 category. When the Agency issued the interpretive rule describing the scope of the F006 listing (51 FR 43350), paint stripping was not considered a specific part of the electroplating process. The Notice identifies only those processes described in the Effluent Guidelines Division's pretreatment standards for electroplating (as opposed to metal finishing, August, 1979), which did not include paint stripping.

We also want to advise you regarding the applicability of the related F007-F009 listings. These apply, among other things, to metal stripping from plating operations when cyanide is used in the process, or when such solutions contain cyanides. If cyanides are not present, these solutions could be F002-F005 spent solvents if these solvents are used for stripping. It is the generator's responsibility to determine whether spent bath solutions, when they do not meet the listing descriptions, exhibit one of the hazardous characteristics. (See 40 CFR 261.20-261.24.)

3. You are correct that the 40 CFR 261.3(a)(2)(iv) regulations have not been modified reflect the addition of four solvents to the hazardous waste listings. An effort to modify these regulations is already underway. Meanwhile, the regulations as stated in 40 CFR 261.3(a)(2)(iv)(A)-(B) will remain in effect.

Thank you for your inquiry. If you have any further questions, please call Ron Josephson on my staff at (202) 475-6679.

Sincerely,

Sylvia K. Lowrance, Director
Office of Solid Waste

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03 FEB 1988

Mrs. Marcia E. Williams, Director
Office of Solid Waste
United States Environmental Protection Agency (EPA)
Washington, D.C. 20460

Subj: ESTABLISH ENVIRONMENTAL CRITERIA FOR NAVAL AIRCRAFT CORROSION CONTROL/PAINTING FACILITIES

Dear Mrs. Williams:

The Department of Navy is currently formulating design criteria for new aircraft corrosion control/painting facilities. These facilities are million-dollar structures which support complex operations. These operations play an important role in providing for our national defense. Due to the impact that environmental regulations will have on these designs, EPA's clarification of specific regulations is requested.

As a prelude to this letter, a meeting was held on 3 December 1987 at EPA headquarters between Mr. Matt Strauss and other representatives of the EPA and tie Naval Facilities Engineering Command (NAVFACENGCOM) to examine environmental issues that will impact on the operation of these facilities.

Following is our understanding of the appropriate interpretation on the issues discussed:

Issues resolved:

1. Stripped paint waste is considered a F002 - F005 listed waste due to the presence of materials identified in the said "F" categories regardless of whether these materials act as a solvent in the process.

2. The scale of operation involved in chemical conversion coating of aluminum is not a factor in exclusion from regulation as a hazardous waste (F019).

3. Paint-scrubber water is not considered a hazardous waste unless it exhibits the characteristic of a hazardous waste.

4. "De Minimis" quantities do not include spent hazardous waste solvents. Only commercial chemical products or chemical intermediates can be termed "de minimis" amounts.

Issues unresolved:

1. Definition and location of headworks of the wastewater treatment plant (WWTP)

   To accurately demonstrate compliance with regulation 40 CFR 261.3(a)(2)(iv) -- solvent limits -- a mass balance must be assessed at the headworks of the WWTP. There was uncertainty of whether the headworks is located at the bar screens or other pretreatment devices which solely treat waste identified under 40 CFR 261.2(a)(2)(iv) and then discharge pretreated effluent into a NOTW or some other upstream or downstream location. The determination of where the headworks is located is instrumental in being able to comply with the regulations.

   Since our December meeting at EPA, we have identified appropriate information which should clarify the headworks location. Federal Register 46 FR 56582-01, Paragraph II.A, states "average weekly flow of the influent into the headworks of the final wastewater treatment step would not exceed ..." We have interpreted this to mean that for all practical purposes the average weekly flows are those measured and reported to EPA under the NPDES permit program. That is, chlorination or dechlorination treatment is normally the final treatment step and the wastewater flows are normally measured immediately thereafter.

2. Cleaning/Stripping associated with electroplating operations (F006)

   The problem here is determining which operations have the potential to generate F006 waste. There are a number of locations on a naval station in which "cleaning" and "stripping" operations are performed, however a system, such as an airplane, and/or components of the system may have these operations performed or them numerous times before the system is ready for use again. If one of these components is electroplated, will all of these waste streams associated with cleaning and stripping be F006?

   Through review of "Cleaning and Pickling for Electroplating" produced by American Electroplating Society, Inc. (AES), plans for a military electroplating

shop, and "Basis for Listing F006 and F0l9 Waste" dated 14 Nov. l980, we have drawn the following conclusions:

a. Parts that are to be electroplated must be "microscopically clean" so as to not contaminate or interfere with plating. AES refers to three phases of cleaning (precleaning, electrocleaning, and pickling) that are considered an integral part of the plating process. Electrocleaning tanks are normally part of each plating line to assure the parts are microscopically clean before being plated, and pickling tanks are also located in the plating facility. Wastes from these operations are deemed to be F006 wastes. Precleaning, which is removal of bulk and objectionable soils (typically oils and dirt), could be done at locations other than the plating shop. However, it is our opinion that only precleaning that is performed at the plating shop with the expressed purpose of preparing the cleaned part for plating would fall under the F006 category.

b. Stripping, in terms of electroplating, is performed to remove a metal from a base material. This is normally done when a part has been improperly plated and the metal-plating on the part has to be removed. The part is typically placed in a solution which will selectively dissolve the unwanted metal. The "Basis for Listing F006 and F019 Waste" reinforces the intention of the regulation to control "metal" stripping instead of "paint" stripping which is controlled under a different listing by the following statement: "After extended use of stripping and cleaning solutions, metals begin to accumulate so that further removal of metal coatings on articles becomes difficult" (p.151). This also suggests that only cleaning solutions that remove metals are of concern.

3. Revisions of regulation 261.31 (wastes from non-specific sources) have added waste listings. However, regulation 261.3 (a)(2)(iv) A and B (solvent concentration exclusions) have not been revised to include these solvents. Is this a technical oversight?

Addition of all nonspecific waste constituents to regulation 261.3(a)(2)(iv) A and B will allow some processes that are small in scale to operate more efficiently and cost-effectively without adverse effect on the environment.

Your concurrence with those issues resolved and assistance with issues unresolved would be greatly appreciated. An early response would be most appreciated as design of these facilities is underway in order to meet Military Construction Programming requirements. Point of contact at SOUTHNAVFACENGCOM is Mr. Joseph McCauley at telephone number (803) 743-0582.

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