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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FEB 25 1986

Mr. Christian Volz Esq.
McKenna, Conner, and Cuneo
1575 Eye Street
Washington, D.C. 20460

Dear Mr. Volz

This in response to your letter dated January 9, 1986, in which you request an interpretation of the hazardous waste rules regarding the regulatory status of the Torpedo Propulsion Units that are shipped for recycling to the San Tan facility of the Garrett Pneumatic Systems Division (GPSD). As we understand the process, GPSD designs, manufactures, and supplies to the Honeywell Underseas Division the afterbody of the MK 50 Torpedo. Contained in the afterbody of the torpedo is a chemical energy propulsion system (referred to as the "boiler") that generates the thermal energy used to propel the torpedo. (Heat for the process is caused by a chemical reaction between two reactive compounds -- lithium and sulphur hexafluoride.)

After a torpedo has been run and tested, it is disassembled and the boiler (as well as other components) is shipped back to GPSD's San Tan facility for reuse. Before the boiler can be reused, however, it must be cleaned to remove any unreacted chemicals and the residues left by those chemicals that did react. This cleaning operation appears to be carried out in two steps:

- * The boiler is first flushed with a mixture of water and ethylene glycol this mixture reacts with any unreacted lithium metal to form lithium hydroxide in an aqueous solution. These rinsewaters may be corrosive when it leaves the boiler. The rinsewater is collected in a sump, from which it is then pumped into a 10,000 gallon holding tank. As the rinsewater is pumped out of the sump, sulfuric acid is added in line through an educator and mixed to neutralize the excess alkalinity in the rinsewater as well as convert the lithium hydroxide in the rinsewater to lithium sulfide; at this point, the rinsewater no longer is corrosive nor does it exhibit any other hazardous waste characteristics. The lithium sulfide settles out in the holding tank. After a sufficient amount has settled out, the material will be filtered and

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-2-

sent to a refinery of lithium ore for use in its process. You indicate that the lithium sulfide does not exhibit any of the hazardous waste characteristics.

- * any remaining lithium salts (i.e., products of the reaction when the torpedo is run) are then removed with a high-velocity water jet. The lithium salts are collected and placed in drums for eventual return to a refiner of lithium ore. You also indicated that the lithium salts also do not exhibit any of the hazardous waste characteristics.

Based on this recycling process, you believe that the used boilers (and the used torpedoes and afterbodies of which the boilers are apart) are not subject to the hazardous waste regulations, either at the Federal or State level.

As you are aware, on January 4, 1985, EPA promulgated its final rules dealing with the question of which materials are solid and hazardous wastes when they are recycled. Among other things, these rules state materials that are directly used/ reused are not solid wastes. See 40 CFR 261.2(e). Although the boilers are shipped to the San Tan facility to be reused, the boilers must be regenerated before they can be reused (i.e., they must be decontaminated before being reused). Since these boilers would be defined as scrap metal, these boilers would be defined as solid and hazardous wastes when reclaimed.^{1/} See 40 CFR 261.2 (c)(3). However, hazardous scrap metal that is recycled is currently exempt from regulation. See 40 CFR 261.6(a)(3)(iv). Therefore, the transportation and storage of the boilers prior to the processing is exempt from the hazardous waste regulations.^{2/}

With regard to the cleaning operation, these activities generate materials that also need to be evaluated with regard to their regulatory status. The lithium salts that are removed from the boiler with the high-velocity water jet would not be subject to Subtitle C control since these salts are not hazardous. The other rinsate (i.e., ethylene glycol/water mixture), however, is hazardous (or may be hazardous) when first generated and may be subject to the hazardous waste rules.

In particular, this rinsing solution is placed in a sump prior to neutralization. While we agree with you that the neutralization of this rinsewater is exempt from regulation and

- 1/ This assumes, of course, that the boilers exhibit one or more of the hazardous waste characteristics.
- 2/ This interpretation represents the regulatory status of these boilers under the Federal regulations and not necessarily under State law. However, since the San Tan facility is on Indian lands, the federal regulations would apply in this case.

the handling of this material after neutralization is also exempt from regulation (since the rinsewater is no longer hazardous), the regulatory status of the rinsewater in the sump is still at issue. More specifically, in November, 1980, EPA exempted from regulation those wastewaters that are stored/treated in tanks; however, this exemption only applies if the tanks are part of the wastewater treatment system that are subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (CWA). Therefore, if the sump (which I assume would be defined as a tank) is part of a wastewater treatment system that is subject to regulation under the CWA, the storage of the hazardous rinsewater would be exempt from regulation. If however, the sump is not part of a wastewater treatment system that is subject to regulation under the CWA, the sump holding the hazardous rinsewater would be subject to the appropriate standards (i.e., the sump would be subject to 40 CFR 262.34 or 40 CFR Parts 264 and 265). It should be noted that if the sump is not a tank, but rather a surface impoundment, the sump would be subject to regulation no matter whether this unit is part of a wastewater treatment facility that is subject to regulation under the CWA. See 40 CFR Parts 260.10 (definition of wastewater treatment unit and tank) and 264.1(g)(6) for specific regulatory language.

I hope this letter adequately responds to your request. Please feel free to contact Mr. Matthew A. Straus, of my staff, if you have any other questions; Mr. Straus can be reached at (202) 475-5551.

Sincerely yours,

Marcia Williams
Director
Office of Solid Waste