9441.1987(65)

MIXTURE OF F003 AND A SOLID WASTE DELISTING REQUIREMENTS

AUG 17 1987

Mr. E.H. Phillippe
Manager, Environmental and Regulatory Affairs
Virginia Chemicals, Inc.
801 Water Street
Portsmouth, VA 23704

Dear Mr. Phillippe:

The Permits and State Programs Division (PSPD) has completed a review of your petitions requesting exclusions under 40 CFR §260.20 and §260.22 of the still bottoms from the recovery of methanol (EPA Hazardous Waste No. F003) generated at Virginia Chemicals' Leads, South Carolina (#0668) and Bucks, Alabama (#0669) facilities.

We understand that these still bottoms are ultimately sold as a co-product to users in the pulp and paper industry. According to your letter of May 8, 1987, it is clear that the delisting criteria are not applicable to your co-product at the time of sale as a result of mixture with a solid waste.

Based on 40 CFR §261.3(a)(2)(iii), a mixture of a solid waste (e.g., off-specification sodium hydrosulfite) with a hazardous waste listed solely because it exhibits a characteristic specified in 40 CFR Part 261, Subpart C (e.g., your petitioned F003 Wastes) is not a hazardous waste if it no longer exhibits any hazardous waste characteristic identified in Subpart C. The delisting criteria of 40 CFR §260.22(c)(2) do not apply to mixtures of wastes where 40 CFR §261.3(a)(2)(iii) applies. In such a case, it is the responsibility of the generator to demonstrate to themselves and to responsible state (or other) authorities that the resultant mixture does not exhibit the hazardous waste characteristics.

Although the co-product as sold is subject to 40 CFR §261.3(a)(2)(iii), the still bottoms generated from the recovery of methanol are still considered hazardous at the source of generation. These still bottoms, therefore, are subject to all applicable hazardous waste management regulations,

unless delisted.

We understand that you still wish to pursue a delisting of the still bottoms. Additional information, however, is necessary before we can complete our review of your petitions. We have evaluated the analytical data of your petitions using the vertical and horizontal spread (VHS) model (see 50 FR 48886-48967, November 27, 1985). We use this model to predict constituent concentrations in the ground water at a hypothetical compliance point located 500 feet downgradient from the site. The VHS model uses the maximum annual waste generation rate and the maximum leachate concentrations as inputs to determine the amount of dilution that may occur in an underlying aquifer. The results of the model (i.e., the calculated compliance point concentrations) are compared with the Agency's level of regulatory concern for each constituent.

The maximum allowable EP levels that could be exhibited by the wastes without failing the VHS model evaluation would be 0.315 ppm for arsenic, chromium, lead, and silver, 0.063 ppm for cadmium and selenium, and 0.0126 ppm for mercury. Any extract levels above these concentrations would generate levels (at the compliance point) greater than the National Interim Primary Drinking Water Standards of 0.05 ppm for arsenic, chromium, lead, and silver, of 0.01 ppm for cadmium and selenium, and of 0.002 ppm for mercury. These constituents were not reported as detected in any of the still bottom samples, however, the analytical detection limits exceeded the maximum allowable levels and were higher than detection limits typically achieved for similar waste matrices. Therefore, before we can complete our evaluation new test results (using detection limits which do not exceed the maximum allowable concentrations) must be provided on a minimum of four representative samples from each facility.

The new samples should be grab samples collected on a weekly basis. Based on the analyses conducted as a result of the spot check sampling visit at your Leeds, South Carolina, facility on March 9, 1987, the sample from the distillation column contained less than 0.5% filterable solids. The spot check analysis for the EP metals and nickel, therefore, did not include EP toxicity testing and instead included direct or total constituent analysis, as directed by 40 CFR Part 261, Appendix II. We recommend, therefore, that you collect two samples on each sampling occasion for analysis of the EP metals and nickel levels, one of which is not

preserved for the EP toxicity testing, and one for which is preserved for the total constituent analysis. If your analysis of the unpreserved samples also indicate that the samples contain less than 0.5% filterable solids, then total constituent analyses should be conducted on the preserved samples. When results are submitted for these analyses, please indicate whether or not each sample contained less than 0.5% filterable solids (i.e., whether or not the samples were subjected to extraction or direct analysis). If the samples contained less than 0.5% filterable solids, then the total constituent data generated by the analysis will be evaluated using the VHS model.

known to cause substantial interferences when analyzed by ICP or AA furnace spectroscopy. Based on previous analyses, your waste may contain high concentrations of sodium salts and, therefore, analysis should involve an approach to alleviate this problem. A possible alternative approach would include handling the samples as "seawaters" and preparing the samples by EPA-approved seawater techniques to eliminate the high sodium interferences (Method 9.2 in EPA "Methods for Chemical Analysis of Water and Wastes", 1983). A full description of analytical methods used should accompany your submittal.

In addition, our review of your latest submittals of October 22 and 24, 1986 and of April 7, 1987 indicates that the following additional information is also necessary:

1) For each facility, results of total constituent and EP leachate analysis for cyanide on a minimum of four representative samples from each facility. Samples collected for EP toxicity analysis should not be preserved. Distilled water instead of acetic acid should be used during the analysis. The detection limit should not exceed the maximum allowable level of 1.26 ppm for cyanide. Method 9012 found in Chapter 7 of "Test Methods for Evaluating Solid Waste", November 1986, EPA Publication SW-846, Third Edition, should be followed for the determination of total cyanide. The appropriate approach for alleviating interferences caused by sulfides should be followed because your waste contains these compounds.

2) The names and professional qualifications of those personnel conducting any sampling at each facility and any analyses conducted in support of your petition

(a brief resume will suffice).

3) For each facility, a statement of certification signed by an authorized representative and worded as indicated in 40 CFR 260.22(i)(12).

4) For each facility, at least one QA/QC test run for the EP toxic metals, nickel, and cyanide using the method of standard additions.

5) For each facility, a description of upset conditions and the frequency of these occurrences.

6) For each facility, a description of column overhead storage practices.

is still necessary:

1) For each facility, an explicit statement explaining why all samples collected and analyzed are thought to be representative of any process or waste variability. In the evaluation of a petition, we need to determine whether data reflects the temporal and spatial variation of waste constituents and fully characterize the petitioned waste.

2) For each facility, a description of how the still bottoms samples were collected for analysis performed in 1980. (This information is also required for any new samples collected in response to this letter.)

In order for us to complete the evaluation of your petitions, you must fully respond to this additional information request within six months to the date of receipt of today's correspondence. If we do not receive a response within six months, a proposed denial decision on the basis of lack of information will be published in the Federal Register. Additionally, the effective date of the revocation for the temporary exclusions granted on December 31, 1980 for the still bottoms generated at your facilities was May 17, 1987. As of that date, waste management activities associated with the unmixed still bottom waste must be in compliance with the applicable RCRA hazardous waste management system requirements.

If you have any questions, please contact either myself

at (202) 382-4788 or Jennifer Bramlett of our contractor, Science Applications International Corp (SAIC), at (703) 734-2501.

Sincerely,

Original Document signed

Myles Morse, Chief
Variances Section
Office of Solid Waste

cc: Jennifer Bramlett, SAIC
Tricia Herbert U.S. EPA, Region IV
Allan Antley, U.S. EPA, Region IV
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