



Department of Energy

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MAY 27 1998

DOE-0829-98

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 E. Fifth Street
Dayton, OH 45402-2911

Dear Mr. Schneider:

DISPOSITION OF LIQUID BULKING PROJECT BATCH 7

This is in response to your questions related to Batch 7 that is currently planned for treatment at the TSCA Incinerator in Oak Ridge, Tennessee. Batch 7 is part of the Mixed Waste Liquid Bulking Project. More specifically, this letter explains why Batch 7 is not readily amenable to treatment at Fernald and, further, is an appropriate candidate for treatment in the TSCA Incinerator.

First, Batch 7 is not amenable for treatment in the site's Advanced Wastewater Treatment Facility (AWWT). Batch 7 contains significant levels of TBP and kerosene. This results in a much higher organic load than originally intended for the FEMP's activated carbon treatment system. This high organic load would lead either to the wasting of large volumes of activated carbon or the discharge of potentially damaging concentrations of organic contaminants. Once water has passed the carbon vessels, it is processed through the ion exchange system. One of the primary reasons the activated carbon is installed is to protect the ion exchange resin. In order to minimize the possibility of organic contaminants potentially damaging the ion resin, the operational maximum differential pressure would have to be set sufficiently low enough to ensure organic removal. Once the pressure differential on these carbon vessels reached this operational maximum, the carbon would need to be replaced even if the majority of carbon is unused.

Second, two waste streams which have been bulked into Batch 7 meet the definition of D001 Ignitable Liquids High TOC Nonwastewaters as established under the Land Disposal Restrictions (LDR) requirements in OAC 3745-59 (40 CFR 268). These two waste streams consist of 302 pounds of contaminated reagent and solvent/water mixtures generated by the on-site analytical laboratory and the water treatment plant laboratory. Under OAC 3745-59-42 (40 CFR 268.40), the LDR treatment technology specified for these waste streams is fuel substitution, incineration or organics recovery. The preamble to the Final LDR Third-Third Rule (55 FR 22544) states the following: "EPA also notes that if an Ignitable Liquids High TOC Nonwastewater is commingled with other waste streams, the entire mixture must be treated by one of the methods prescribed for Ignitable Liquids High

TOC Nonwastewater Subcategory." The addition of these two waste streams into Batch 7 requires that the entire batch must be treated using one of the technologies to meet the LDR treatment standard. The FEMP currently does not have the capability to treat the wastes in Batch 7 using one of these technologies in order to comply with LDR requirements.

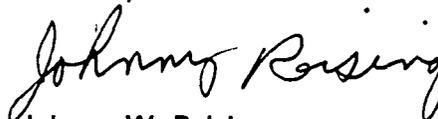
Third, Batch 7 is an F-listed mixed waste stream. If it were treated in the AWWT, the associated treatment (i.e. spent carbon, sludge) would obtain an F-listed designation. These, in turn, would require costly management of the residuals as mixed wastes. More significantly, if due to some operational problem the F-listed constituents were not completely removed, the result would be a potentially illegal discharge mixed waste to the environment. As DOE has indicated by letter which has been approved by your office, it is our intent to manage mixed aqueous waste streams in the AWWT, to the maximum extent possible, using the Wastewater Mixture Exemption discussed in 40 CFR Part 261. One batch of aqueous waste has been identified that DOE believes is appropriate for such management. A second has been tentatively identified. Further, DOE believes that continued evaluation will identify additional waste streams. DOE intends to continue such evaluation of inventoried waste streams to minimize the volume of such materials that would require offsite treatment. The volatile organic constituent concentrations in Batch 7 are at levels, however, not fully consistent with application of the Wastewater Mixture Exemption. Should you desire, the Material Evaluation Form (MEF) for Batch 7 can be made available for your review.

It should also be noted that, there are no current plans to mobilize at Fernald alternate treatment capability that would be appropriate for Batch 7. Further, there is no available treatment capacity for this waste stream at the other DOE facilities in the State of Ohio.

The factors discussed above and considered in combination, have led DOE-FEMP to conclude that the only readily implementable vehicle available for management of Batch 7 is treatment at the TSCA Incinerator.

Please contact me or John Sattler of my staff at (513) 648-3145 if you have any questions related to this issue or require additional information.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Danner

cc:

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