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OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

JUN 20 1991

MEMORANDUM

SUBJECT: Regulatory Determination Regarding the Use of  
Petroleum-Contaminated Soils as an Ingredient in  
Asphalt Batching

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

TO: Merrill S. Hohman, Director  
Waste Management Division  
Region I

This responds to your March 11, 1991, memorandum requesting a regulatory interpretation regarding the use of petroleum-contaminated soils as an ingredient in asphalt batching. This use of petroleum-contaminated soils has become an issue because the recently promulgated Toxicity Characteristic (TC) rule may result in such soils being hazardous wastes subject to regulation, while the majority of such asphalt batching operations have failed to apply for interim status. Thus, the two main issues are: (1) determining the regulatory status of the asphalt batching processes, and (2) the appropriate enforcement approach to address those regulated facilities that failed to apply for interim status, or were late in applying. For the latter issue, I refer you to the April 10, 1991, memorandum from Bruce Diamond.

In determining the regulatory status of the asphalt batching operation, there are four different points of consideration: 1) whether the petroleum-contaminated soils are hazardous solid wastes when used as an ingredient in a product used in a manner constituting disposal, 2) whether the batching process itself is legitimate recycling or treatment, 3) whether the asphalt product meets the waste-derived product exemption found at 40 CFR 266.20(b), and 4) whether the storage of petroleum-contaminated soils is subject to regulation.

1. Determining whether petroleum contaminated soils are solid wastes.

In determining whether the contaminated soils are hazardous wastes when used as ingredients in asphalt, the term "petroleum-contaminated" may be too generic to enable a definitive regulatory determination because this term could encompass too

broad a variation of contaminants. A more case-specific approach may be necessary because certain "petroleum-contaminated" soils may be subject to RCRA regulation while others may not.

In general, a hazardous secondary material (and soils contaminated with a hazardous secondary material) used to produce a product used in a manner constituting disposal is a solid waste, unless it is a commercial chemical product that is normally used in this manner, such as a petroleum product normally used as an ingredient in asphalt batching (see 40 CFR 261.2(c)(1)(ii) -- although the commercial product may not be listed in section 261.33, the same regulatory approach applies). The regulatory status of soils contaminated with crude oil would be determined by using the same approach. The crude oil, while not a secondary material, would be a solid waste because it is being discarded by use in a manner constituting disposal, unless crude oil is a normal ingredient in asphalt batching. We expect that most petroleum-contaminated soils are not contaminated with the petroleum product that normally is used in asphalt production. and would, therefore, be solid wastes. (For example, if gasoline is not normally used in asphalt production, then gasoline-contaminated soil is a solid waste when used in asphalt production.) However, there may be specific cases where the soil is contaminated with a petroleum product normally used to make asphalt, in which case the contaminated soil would not be a solid waste when used in asphalt batching.

Also, you should note that any media (including soil) or debris resulting from remediation of an underground storage tank cleanup under Part 280 is excluded from regulation as hazardous waste (for the D018-DO43 constituents) regardless of the intended disposition, so these soils could be used in asphalt production. (You should also note that we are presently reviewing a petition from New York State that requests that the Agency exclude all petroleum contaminated media and debris from regulation under the TC. A rulemaking may be initiated to address issues raised by this petition, but the remainder of this memo is based on the current rules.)

In summary, with the exceptions of soils contaminated with petroleum materials normally used in asphalt production and soils resulting from underground storage tank cleanups, soils contaminated with petroleum materials that are listed waste or exhibit one of the characteristics would be hazardous and solid waste. The remainder of this memo discusses the issues relevant for these soils.

## 2. Determining whether asphalt batching is legitimate recycling.

The act of mixing petroleum contaminated soils into the asphalt production process may be a form of treatment, subject to permitting under Part 270, or may instead be recycling,

exempt from permitting under section 261.6(c). The main question is whether the batching is "legitimate" recycling, as opposed to treatment in the guise of-recycling ("sham" recycling).

In determining whether the asphalt batching is legitimate recycling, the Agency compares the contaminated soil with the analogous raw materials normally used in asphalt batching. To the extent that the contaminated soils contain hazardous constituents not found in the analogous raw materials, or contain hazardous constituents in significantly higher concentrations than in the analogous raw materials, the batching process would be considered "sham" recycling, unless such hazardous constituents can be demonstrated to be useful in the production of the product or in the product itself. Another factor indicating whether the batching process is sham recycling is whether the contaminated soils are legitimately replacing a raw material or ingredient normally used in the process. For example, if the contaminated soils are being used in excess of the amount of raw materials that would otherwise be used, sham recycling would be indicated. Where sham recycling is indicated (i.e., where contaminants in the soils are actually being treated or disposed of by incorporation into a product), a treatment permit may be required.

### 3. Determining the status of the asphalt product.

Whether the batching process is considered legitimate recycling or not, the resulting waste-derived asphalt product is a solid waste because it is placed on the land. Assuming that the resulting product is a legitimate asphalt product, the applicable regulations are found at 40 CFR 266 Subpart C. Doubts regarding the legitimacy of the waste-derived product are resolved by a comparison of the constituents found in the waste-derived product to the constituents found in an analogous product that is not produced using contaminated soils as an ingredient.

If the asphalt product is produced using soils contaminated with a listed hazardous waste (e.g., K048-52), it would be subject to hazardous waste regulations as a waste-derived product. If the product meets the conditions of the exemption found at 40 CFR 266.20(b), which include meeting the applicable Land Disposal Restriction (LDR) treatment standard(s), the asphalt product is exempt from further regulation as a hazardous waste. If the product does not meet the terms of that exemption, then it remains subject to regulation as hazardous waste, which would amount to a do facto ban on the product's use. Also, if the asphalt product does not meet the conditions of the exemption until further processing, then the asphalt is subject to regulation as a hazardous waste until the conditions have been met.

If the asphalt product is produced using soil contaminated

with waste hazardous only because it exhibits a characteristic (e.g., the TC), then the above discussion applies for as long as the material continues to exhibit the characteristic. Further, there are currently no LDR treatment standards for TC waste.

You should note that over the next 1-2 years we will be developing regulations that will address various issues associated with waste-derived products. We expect those regulations to further clarify the distinction between legitimate and "sham" recycling.

#### 4. Determining the status of stored materials.

With the exception of the materials described above in number 1 (i.e., soils contaminated with petroleum normally used in asphalt production or from underground storage tank remediations), -- and the exception discussed below -- the storage of contaminated soil that either contains a listed waste or exhibits a characteristic is regulated under Parts 262, 264, 265, 268, and is potentially subject to permitting under Part 270.

In the case of asphalt product that meets the conditions of section 266.20(b), no storage requirements apply once the conditions are met.

I hope this has helped to resolve your issues. If you have any questions regarding the late notifier guidance document sent to you earlier by the office of Waste Programs Enforcement, your staff should contact Hugh Davis at FTS 475-9867. If you have any questions regarding the regulatory status of recycling processes, your staff should contact Mitch Kidwell at FTS 475-8551. For information regarding the New York petition, your staff should contact Denise Keehner at FTS 382-4740.

Attachment

cc: Waste Management Division Directors  
EPA Regions II-X