POLICY ON THE CLASSIFICATION OF USED CARBON CANISTERS

Bureau of Waste Prevention
Policy BWP-94-007

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Pat Deese-Stanton, Assistant Commissioner

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Date

BACKGROUND

Carbon canisters are used for various applications where air stripping is necessary. Many are used at site remediations, particularly for removal of hazardous constituents from soil and groundwater. At approximately two-thirds of the sites, it is volatilized gasoline that is being filtered so as to prevent its release to the atmosphere. In industrial applications, carbon canisters are most often used to prevent the venting of chlorinated solvents to the air in accordance with DAQC requirements.

Whether the carbon canisters should be classified as a hazardous waste when sent off-site for regeneration has become an issue, primarily due to transporter fees which would be assessed unless the remediation is undertaken by DEP or EPA or if the canisters are sent as a Class A regulated recyclable material (and therefore exempt). Thus some generators have applied for Class A recycling permits under 310 CMR 30.212(5) for the management of gasoline contaminated canisters sent for regeneration as Class A regulated recyclable material. Also, some generators prefer not to use a shipping paper or log but to rather have the canisters sent under a manifest in order to create a paper trail.

A policy on this matter is needed in order to create consistency across the state in how the Department oversees the management of these carbon canisters. The development of such a policy, however, is complicated by the proposed change in the Class A recycling permit program which would eliminate the permits or else reduce them to just a registration. Until this issue is clarified an interim policy is needed for generators.

This policy seeks to create a level playing field for all companies doing site remediations in various parts of the state while at the same time, by requiring a Class A recycling permit, provides some Department oversight for sites that would otherwise be subject to no other hazardous waste compliance oversight. It should also be noted that the Class A permit procedure is a streamlined one that requires a minimum of effort by generators and only one hour of processing by the Department.

REGULATORY BASIS

The Environmental Protection Agency, in an April 2, 1986 memorandum from Marcia Williams, Director of the Office of Solid Waste, has determined that "spent carbon would normally be considered a spent material, unless it results from pollution control in which case it is considered a sludge." A sludge is defined in 40 CFR 260.10 as "any solid, semi-solid, or liquid waste generated from...a wastewater treatment plant, water supply treatment plant, or air pollution control facility..." The April 2, 1986 memo goes on to state that "spent carbon...is also hazardous if it contains a listed hazardous waste or exhibits a hazardous waste characteristic."

Although gasoline in a liquid state would be classified as a hazardous waste based on its flashpoint, once it has been absorbed onto the carbon, there is no valid test to determine flashpoint for a solid. It is highly unlikely that gasoline or any other unused petroleum product adsorbed on carbon would maintain a low enough flashpoint to classify it as an ignitable hazardous waste. It would exhibit neither corrosive nor reactive characteristics, thus the only potential hazardous characteristic of such canisters would be a Toxicity Characteristic failure for benzene (D018). 310 CMR 30.125B(1) states that "A waste is a hazardous waste if the extract from a representative sample of the waste contains any of the materials listed in Table 30.125B at a concentration equal to or greater than the respective value given in that table....". The maximum concentration of benzene for toxicity characteristic in Table 30.125B is 0.5 milligrams/liter.

Therefore a spent carbon canister contaminated with unused petroleum product that fails the toxicity characteristic test for benzene would be considered a characteristic sludge. 310 CMR 30.212(5) defines "A sludge having the characteristics of hazardous waste when reclaimed" as a Class A Regulated

Recyclable Material when it is reclaimed. 310 CMR 30.010 provides the following definition, "Reclaimed material means any material that is processed to recover a useable product or that is regenerated." The Department considers the regeneration of used carbon canisters to qualify under this definition. Therefore, this type of material requires a Class A (Level I) recycling permit when sent off-site for reclamation.

Carbon contaminated with a listed hazardous waste such as degreaser solvent, which is fairly common in site remediations, must always be handled as a hazardous waste regardless of whether it is recycled, regenerated or disposed. This is based on the mixture rule, 310 CMR 30.140(1) which states, "A waste becomes a hazardous waste when any of the following occurs...(c) in the case of a mixture of waste and one or more listed hazardous wastes, when a hazardous waste listed in 310 CMR 30.130 through 30.136 is first added to the waste." This material can not be classified as a Class A regulated recyclable material as it is defined as a listed sludge in 310 CMR 30.214. In order to determine whether a canister is contaminated with a listed waste, see 310 CMR 30.302(2) and the Department's "Interim Policy Regarding the Regulatory Status of Soils Contaminated with Waste Oil of Unknown Origin and/or Hazardous Constituents", HW 93-01.

POLICY

Carbon canisters which have been contaminated only with unused petroleum product during a site remediation and which are being sent off-site for regeneration may be classified as a non-hazardous waste if they are tested and found to pass the TCLP (30.155B). These canisters may be shipped by common carrier on a bill of lading or as a MA-99 non-hazardous waste if shipped on a hazardous waste manifest.

Alternatively, if they are determined not to contain any listed wastes, the canisters may be assumed to fail the TC rule and be classified as a characteristic sludge. In this case, or if the canisters are tested and fail for TC, they **may be** shipped as a regulated recyclable material if the generator obtains a Class A Recycling Permit pursuant to 310 CMR 30.212(5) and is sending the canisters for regeneration.

If the canisters are intended for disposal, it is the responsibility of the generator to determine if they are hazardous and manage them accordingly.

Carbon canisters contaminated with listed hazardous wastes are hazardous waste. They cannot be classified as non-hazardous or as regulated recyclable materials. These materials are considered to be listed sludges and therefore they must be managed as a hazardous waste. This applies to canisters used in site remediations as well as industrial applications.

This policy does not relieve generators of used carbon canisters from regulatory responsibility contained in any other applicable State or Federal law or regulation. It is incumbent upon the generators of used carbon canisters to handle their waste at all times in a manner that is protective to public health, safety and the environment, and including cleanup of any releases to the environment or workplace caused by the handling of used carbon canisters.

Please direct any questions regarding this policy to Dikran Kaligian, 617-556-1022.