Dear Mr. Cherill:

This is in response to your letter of May 15, 1986, regarding the regulatory status of the reject substrates containing vanadium pentoxide (as described in your May 15th letter) under the existing Federal hazardous waste regulations. First, I would like to apologize for taking so long in responding to your request; I hope this delay has not caused you any problems. With regard to your specific request, the vanadium pentoxide substrate is not a listed hazardous waste; therefore, this material (when abandoned) would only be subject to the hazardous waste regulations if it exhibits one or more of the hazardous waste characteristics (i.e., ignitability, corrosivity, reactivity, or extraction procedure (EP) toxicity). In response to your specific questions:

1. Would our reject substrates (prior to crushing) be a hazardous waste, P010, because the vanadium pentoxide component would be considered a "sole active ingredient"?

   No. The reject substrates are not considered the listed hazardous waste P010. P010, listed in 40 CFR 261.33(e), covers unused vanadium pentoxide (either pure grade, technical grade, or in formulations where it is the sole active ingredient) which is discarded. Since the reject substrates are not considered the commercial chemical product vanadium pentoxide, this material is not considered hazardous waste P010.

2. Would crushing the reject substrates (as we normally do) make them a "process waste" which, since such process waste is not a listed waste under 261.31 or 261.32 and would not exhibit any of the characteristics of a hazardous waste given at 261.20, 261.21, 261.22, 261.23 and 261.24, is not a hazardous waste; or, would such crushing merely be considered a "treatment" of a hazardous waste subject to a RCRA Part B Permit
Crushing of the reject substrates would not be considered a process waste since this activity is not part of the manufacturing operation (i.e., operation to manufacture the vanadium pentoxide substrate). Rather, the crushing operation is a treatment process to reduce the waste volume of the off-spec substrates. However, since the reject substrates are not hazardous wastes (i.e., are not specifically listed nor exhibit any of the hazardous waste characteristics (as you indicate), the crushing operation is not subject to the hazardous waste rules.

3. Would the ultimate end user of this new product, e.g., a power plant, have to dispose of the spent product as a hazardous waste solely because it contained vanadium pentoxide? (Obviously, if the product as a result of its use captured arsenic or lead, for example, from the exhaust stream and it then exhibits the characteristic of EP Toxicity it would have to be disposed of as a characteristic hazardous waste.)

No. As already indicated, the vanadium pentoxide substrate is not a listed hazardous waste. Therefore, this material is not subject to the hazardous waste rules, unless this material exhibits one or more of the hazardous waste characteristics.

Please feel free to give me a call if you have any further questions; my telephone number is (202) 475-8551.

Sincerely,

Matthew A. Straus
Chief
Waste Characterization Branch