UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

MAY 9 1995

Vincent F. Hock, Metallurgist
U.S. Army Corps of Engineers
Construction Engineering Research Laboratories
P.O. Box 9005
Champaign, IL 61826-9005

Dear Mr. Hock:

This letter is in response to our recent telephone call regarding the use the product Blastox® as an additive in shot blast for the purpose of stabilizing metal contaminants. As I stated during our conversation, Curt Gustafson and Red Clark of The TDJ Group, Inc. (manufacturer of Blastox®) also telephoned me concerning the use of Blastox®. Specifically, the issue raised was whether or not this product was considered a "masking agent" and interfered with the Toxicity Characteristic Leaching Procedure (TCLP) used by EPA to determine if a solid waste is also a hazardous waste. Both Mr. Gustafson and Mr. Clark stated that, in their opinions, Blastox® was a legitimate abrasive additive.

As I understand the situation, you, Mr. Gustafson and Mr. Clark would like EPA to make a determination as to whether the use of this product is legitimate with the intent of using EPA's interpretation on a national basis. Due to the scope of this determination, I feel that EPA Headquarters in Washington D.C. is the most appropriate source to address this issue. During my conversations with you, Mr. Gustafson and Mr. Clark, a number of legal and technical issues were identified that need to be addressed by EPA Headquarters.

First, Blastox® does not appear to greatly enhance the sandblasting process nor is this sandblasting process dependent upon the use of this product. Despite its abrasive properties, the reason for adding this material, as I understand it, is specifically to treat sandblast waste, that would be otherwise hazardous by not using this product. I would expect EPA Headquarters to definitively address the issue of whether or not the addition of Blastox® prior to the sandblasting process constitutes hazardous waste treatment. Although no waste is actually generated, the purpose and intent of adding this material is to treat metal-contaminated sandblast waste prior to generating the waste to specifically render the waste non-hazardous (as determined by the Toxicity Characteristic Leaching Procedure (TCLP).

During our converation, you stated that Blastox® chemically stabilized the sandblast waste and had properties similar to portland cement. You also stated that, like Portland cement, water must be added to start the reaction and cause the resultant

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sandblast and Blastox® mix to stabilize. My conversations with Red Clark and Curt Gustafson, of The TDJ Group, Inc. also determined that Blastox® is a heavily buffered material. As a buffered material that requires water to complete the fixation process, I cannot determine with any reasonable certainty whether Blastox®, in its dry form, actually stabilizes the sandblast waste or, because of the buffered compounds, masks the TCLP test.

Mr. Clark stated that, in his opinion, the stabilization/fixation process occurs from the use of Blastox® in the dry state. However, Mr. Clark, like myself, is aware that the TCLP test uses water as part of the testing procedure. As such, a determination as to whether or not stabilization actually occurs in a dry form may not be possible since the water used to conduct the TCLP test may actually cause the Blastox® and sandblast waste to stabilize during the testing process. If stabilization is determined not to occur in the dry state, the addition of water after the sandblasting process would clearly constitute hazardous waste treatment. A determination as to whether the stabilization process occurs in a dry state is critical to determine the regulatory status for the use of this product.

My review of the Demonstration Project conducted by the Army Corps of Engineers found that Blastox® was used in a "dry" form during the sand-blasting process. As you may know, there is no legal obligation to add water to the sandblast and Blastox® waste mixture after use if a sample of the mixture passes the TCLP test. Therefore, if stabilization does not occur in a dry form, the TCLP test results may not be indicative of the actual hazards posed from the dry disposal of this material. Again, there is no assurance that this waste would be wetted down prior to disposal. As you are probably aware, Subtitle D disposal fees are usually based upon weight and would be a further disincentive to adding water (~8.5 lbs/gal) to this material since it would increase both the weight and disposal costs.

Since this issue appears to concern matters beyond ordinary testing of the waste, I contacted EPA Headquarters in Washington, D.C. and was informed that the Waste Treatment Branch was the appropriate section within the Agency to respond to your request for an interpretation. As such, the Region will defer any final interpretations concerning the use and disposal of this material to the Waste Treatment Branch. I will forward a copy of your reports to Richard Kinch, the Chief of this Branch. To initiate a formal request for interpretation, a letter should be written and sent to EPA Headquarters. These letters are recorded and tracked. Mr. Kinch's telephone number is (703) 308-8434.

I appreciated the opportunity to discuss this issue with you. The final decision of Headquarters will be of national significance since other Department of Defense facilities have contacted me and are also considering the use of this product for lead abatement activities at federal facilities throughout the country.

incerely,

Kenneth B. Rota

Kenneth B. Rota, Environmental Protection Specialist
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