UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Vahid Sendijarevic, Ph.D.
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Dear Dr. Sendijarevic:

This letter is in response to your written inquiry of August 23, 1999 and your phone call of September 21, 1999 regarding the utilization of auto shredder residue (ASR) contaminated with polychlorinated biphenyls (PCBs). In your letter you have described several scenarios in which you process ASR into various types of products. You have requested information regarding whether the research and development of these products is permitted under the regulations. Additionally, you have requested information regarding the concentration of PCBs that is allowed in the input materials as well as the final products. My staff has reviewed your inquiries and our response follows.

The Toxic Substances Control Act (TSCA) prohibits the manufacture, processing, distribution in commerce, and use (or re-use) of PCBs, regardless of the PCB concentration, unless specifically authorized by EPA. There is no provision in TSCA which encourages the recycling of PCBs (i.e., pursuing ways to make waste containing PCBs into new products). Additionally, there are no provisions in TSCA or the PCB regulations that allow research and development with PCBs to develop a new product.

In order to authorize the use of PCB containing materials in shredder residue EPA would have to propose the use through rulemaking and make a finding that the use would pose no unreasonable risk of injury to health and the environment. In addition, if you want to process shredder residue and distribute the resulting products in commerce you would need to obtain an exemption under section (6)(e)(3)(B) of TSCA. In order to qualify for an exemption you must demonstrate that the activities pose no unreasonable risk of injury to health and the environment and that no viable substitute for the PCB containing starting material exists. Compliance with this requirement may be difficult since your efforts involve the use of PCB waste materials and other materials are available to make the products you described. You would also need to obtain an exemption to conduct research and development with PCBs to develop a new product. You would need to meet the standards of section (6)(e)(3)(B) to be granted an exemption for this

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activity as well. In the past, EPA received a request similar to the activities discussed above, but has yet to grant an exemption to process PCB-containing shredder residue into consumer products for distribution in commerce.

Aside from obtaining an exemption, the only mechanism available to continue this work is to ensure that the incoming waste stream (i.e., the material that enters the shredder) does not contain PCBs. The process of shredding automobiles and white goods tends to dilute the total PCB concentration since you are simultaneously shredding non-PCB products with PCB containing waste. The regulations at 40 CFR 761.1(b)(5) prohibit the dilution of PCBs. Therefore, if a facility tests the shredder residue or the recycled product and obtains results that are <50 ppm PCBs this does not mean that the original source of the shredder material was <50 ppm PCBs. Furthermore, a concentration of <50 ppm PCBs does not indicate that the shredder residue is "unregulated" for use.

As a result of the provisions discussed above, the incoming waste stream (i.e., the material that enters the shredder) must not contain PCBs. It can be difficult to reproducibly detect and measure PCBs at low concentrations. EPA has long recognized 2 ppm as a level at which PCBs can reliably and inexpensively be quantified in most materials and media. Therefore, if the incoming waste stream contains less than 2 ppm PCBs, EPA recognizes that waste stream as not containing PCBs at a detectable level. This type of waste stream can be processed and the resulting products may be distributed in commerce without approval from EPA. Please note that the less than 2 ppm concentration refers to the concentration of PCBs in the incoming waste stream (i.e., the concentration of PCBs in the material before it enters the shredder), not the concentration of PCBs in the shredder residue or the recycled product.

If you have any further questions on this matter, please contact Sara McGurk at (202) 260-1107.

Sincerely,

John W. Melone, Director
National Program Chemicals Division

cc: Kim Tisa, EPA Region 1
Dave Greenlaw, EPA Region 2
Charlene Creamer, EPA Region 3
Stuart Perry, EPA Region 4
Tony Martig, EPA Region 5
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