Mr. Dan Bench
U. S. EPA - Region VIII
999 18th Street - Suite 500
Denver, CO 80202-2466

MAR 22 2000

Dear Mr. Bench:

This letter is in response to your correspondence of March 8, 2000 concerning the recycling of non-metal Automobile Shredder Residue, commonly referred to as "ASR". Your correspondence asks clarification of under what circumstances and conditions, if any, a facility would be allowed to recycle ASR into usable products. The major point to keep in mind is that the incoming waste (unshredded automobiles or white goods) must be below two (2) parts per million (ppm) and remain below 2 ppm throughout the recycling process. Samples should be collected from the incoming feedstock prior to shredding and analyzed using soxhlet extraction as opposed to sonication. We will be sending a copy of this letter to Mr. Ronald Kobler of Recovery Plastics, International, LLC, as well. Our responses to your questions follows.

Question 1: Are there any assumptions a recycler can rely on regarding PCBs in automobiles?

Response 1: No. You cannot make any assumptions about PCBs in automobiles unless it is to assume that the material contains PCBs and is regulated. Automobiles may contain PCBs in their painted components, their plastic or rubber components and in any imported components.

Question 2: Is Subpart R the correct sampling protocol for ASR?

Response 2: No. Subpart R was designed for sampling automobiles and white goods that have already been shredded and are designated as waste for disposal, not recycling or reuse. In order to recycle or reuse ASR, you must go back to the original feedstock and determine that each and every component is < 2 ppm prior to shredding.

Question 3: When the shredding facility receives an order for an automobile-only waste stream, must the shredder be decontaminated if it had been processing white goods?

Response 3: The process described in your correspondence does not address the issue of PCB contamination. It cannot be assumed that the removal of white goods means the removal of PCBs. The ASR purchased by the recycling facility may still contain PCBs in the original feedstock at a regulated level (≥2 ppm). The recycling facility should request material whose original feedstock prior to shredding contains <2 ppm, see Response 1 for a similar discussion.

Question 4: How does a recycler calculate the PCB concentration of the incoming waste stream? Can a recycler use the PCB analytic results along with the percentages of metal and fluff to calculate the PCB concentration in the incoming waste stream?

CONCURRENCES								
SYMBOL	7404							
SURNAME	Casey, L							
DATE	3/21/00							

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Response 4: In order to correctly measure the PCB concentration in ASR, individual components of the original, unshredded waste stream must be sampled and analyzed prior to shredding. You cannot measure the PCB concentration in the waste stream after shredding unless the waste will be disposed neither can you back calculate the PCB concentration in the original material from the shredded material.

Question 5: During the recycling process the PCB concentration of the product may increase over that of the incoming ASR. Is this a problem?

Response 5: As stated in prior responses, the PCB concentration must be determined prior to shredding and must be <2ppm. If the concentration of the original feedstock is ≥2 ppm, you cannot reuse or recycle that material under any circumstances even if the recycling process would result in a finished product with <2 ppm. The only option for material ≥2 ppm is disposal. If your original feedstock meets the <2 ppm criteria, the PCB concentration of the final product and any intermediate products must remain below 2 ppm for the entire recycling process. You may not mix a waste stream of ≥2 ppm PCBs with a waste stream of less than 2 ppm PCBs in order to achieve a final concentration <2 ppm.

Question 6: If the incoming waste load is determined to contain ≥2 ppm PCB by analysis of the ASR and back calculation, can the metal be used for scrap even though the ASR cannot be recycled and must be disposed of?

Response 6: Since this material will now be going for disposal as opposed to reuse or recycling, the limit of < 2 ppm is no longer applicable. The disposal options for this material, both the ASR and the metal, are determined by the PCB concentration at the time of disposal being greater than or equal 50 ppm. So, if any liquid or non-liquid component of the feedstock contains greater than or equal to 50 ppm PCBs, the shredded metal can be separated out and decontaminated to an applicable standard in 40 CFR 761.79.

If you have any further questions on this matter please contact Laura Casey at (202) 260-1346.

Sincerely,

/S/

John W. Melone, Director
National Program Chemicals Division

cc: Mr. Ronald W. Kobler, Recovery Plastics International, LLC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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March 8, 2000

Ref: 8P-P3T

SUBJECT: Meeting with Recovery Plastics International, LCC regarding proposed recycling of shredder wastes

FROM: Dan W. Bench

TO: Laura Casey

On Thursday, March 2, 2000, Francis Tran and I met with Ronald W. Kobler and Shawn Christiansen of the Recovery Plastics International (RPI), of Salt Lake City, Utah, to discuss their plans to recycle shredder fluff. After a discussion of the regulations and the letters faxed to Region 8 and RPI, RPI proposed to modify their plans from recycling general shredder residue to recycling automobile shredder residue (ASR) only. ASR is the fluff and does not contain metal.

It appears to Region 8 that as long as the incoming waste stream and the recycled product both remain below 2 ppm PCBs the recycling process is not regulated, however, some questions arose during our discussion. They are listed by number below.

RPI presented the following analyses from six grab samples gathered from 30,000 lbs of ASR.

high	2.2 ppm PCB
low	0.6 ppm PCB
average	1.5 ppm PCB

[1] Are there any assumptions a recycler can rely on regarding PCBs in automobiles? **(No, unless you are assuming there is some degree of contamination in automobiles (plastics, paints))**

[2] Is Subpart R the correct sampling protocol for ASR? **(Yes, unless an alternative is prosed through a 761.62(c))**

Since there is no presumption in the regulations that ASR contains PCBs, it appears neither Subpart R nor any other sampling will required. Sampling will be optional for the recycler. The recycler who chooses not to sample may take the risk of having EPA

Can RPI can take the ASR high concentration of 2.2 ppm PCB and adjust it downward based on the metal content of the incoming waste stream, using for this instance 80% metal, by a factor of 1/5 to arrive at an ASR high concentration of 0.44 ppm PCB? The implication of this is if the ASR PCB concentration is less than10 ppm then it can be considered to represent an incoming waste stream concentration of less than 2 ppm PCB.

[5] During the recycling process, the PCB concentration of the product may increase over that of the ASR, while both concentrations remain below 2 ppm PCB. Would this be considered manufacturing? Is this a problem?

[6] PCB concentrations during the process [in the "black box"] and in the waste stream may increase over that in the ASR. Is this a problem?

[7] If the incoming waste load is determined to contain more than 2 ppm PCB by analysis of the ASR and back calculation, can the metal be used for scrap even though the ASR cannot be recycled and must be disposed of?

Please call me at 303 312-6027 if you have questions.