

8pgs

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Subject: materials and call-in number for Telomers incin testing ECA conf call onThursday Jan 22 at 8 am EST

Colleagues,

As Rich has noted (via Mary D.), our next fluoropolymers incineration testing ECA drafting committee call is scheduled for Thursday January 22 from 8 am to 9:30 am EST. The call-in details for people in the U.S. are as follows:

phone number: [REDACTED] or [REDACTED]  
code: [REDACTED]

As promised, attached are expanded Appendix A.2 (based on what I presented verbally during the December 10, 2003 drafting committee call) and refined Appendix A.4 to eliminate potential redundancy with current Appendix A.3 and to deal with needed revisions based on recent telomer drafting committee discussion:

(See attached file: App A.2 telomers incin test draft 1-21-04.pdf)

(See attached file: App A.4 telomers incin test draft 1-21-04.pdf)

Please note that the Appendix A.4 text dated 11-24-03 and included in the compiled set of appendices sent out by Mary D. for Rich on January 16, 2004 has been revised based on drafting committee discussions on November 25, 2003, December 10, 2003, January 6, 2004, and January 13, 2004 to form the basis for the revised Appendix A.4 above.

Also, please delete "3.1 Approach" near the beginning of Appendix A.3 (line 5 in my copy) as this header is no longer needed and potentially confusing to others.

I would be glad to compile the appendices into a single electronic PDF file if that would help. Receiving current EPA Appendix A.1 and A.3 text saved as a WORD document or in RTF format would make this go faster.

I look forward to our upcoming discussions.

Best Regards,

Robert Giraud

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App A.2 telomers incin test draft 1-21-04. App A.4 telomers incin test draft 1-21-04.

1 **APPENDIX A.2**

2 **RATIONALE FOR SELECTING COMPOSITES TO BE TESTED**

3  
4 A.2.1 Summary

5  
6 The two test substance composites described in Appendix A.1  
7 were selected because the polymeric constituents in  
8 telomer-based polymeric products (TBPPs) applied to paper  
9 and textiles are expected to be present in the feedstreams  
10 to municipal waste combustors and/or medical waste  
11 incinerators.

12  
13 A.2.2 Background

14  
15 The three major product applications for TBPPs are paper,  
16 textiles, and carpet. Based on publicly available  
17 information, paper and textiles treated with TBPPs are  
18 expected to be present in municipal and/or medical waste  
19 incinerated in the U.S., and carpet is not expected to be  
20 present in significant quantities in waste incinerated in  
21 the U.S.

22  
23 As noted in Table 3 of *Municipal Solid Waste in the United*  
24 *States: 2000 Facts and Figures* (EPA 2002), paper and  
25 textiles collectively make up over 30% of materials  
26 discarded into the municipal waste stream destined for  
27 landfill or combustion. In addition, some medical textiles  
28 are treated with TBPPs, and these medical textiles are  
29 expected to be present in the feedstreams to medical waste  
30 incinerators.

31  
32 The January 2002 Memorandum of Understanding for Carpet  
33 Stewardship between the Carpet Industry, the States, and  
34 EPA indicates very little carpet going to waste-to-energy  
35 municipal combustion facilities in 2002.  
36 ([www.carpetrecovery.org/about/mou.asp](http://www.carpetrecovery.org/about/mou.asp)) Data from the  
37 Carpet and Rug Institute (in the summary of negotiated  
38 outcomes for discarded carpet in the appendix to this  
39 Memorandum of Understanding) indicates that the percentage  
40 of carpet being fed to waste-to-energy municipal combustion  
41 facilities will reach 1% of total carpet discards by 2012.  
42 This projected 2012 amount corresponds to approximately  
43 0.1% of the total U.S. municipal waste combustion capacity  
44 noted in Appendix D.4.

45  
46 Based on the very small relative contribution of carpet to  
47 the municipal waste stream destined for municipal waste

A.2-1

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- 1 combustion, measurable levels of polymeric constituents in
- 2 telomer-based products applied to carpet are not expected
- 3 to be present in the feedstreams to municipal waste
- 4 combustors in the U.S.

A.2-2

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1 **APPENDIX A.4**

2 **PREPARATION OF FLUOROTELOMER-BASED POLYMER COMPOSITES**

3  
4 4.1 Assembly of Components

5  
6 For each telomer-based polymeric product (TBPP) component  
7 for each test substance composite described in Appendix  
8 A.1, each company will collect a minimum of 100 mL of  
9 first, quality production of a representative grade of  
10 TBPP. Each company will send a minimum of 25 mL of each  
11 such TBPP component to a facility designated by the Telomer  
12 Research Program (TRP) and store the remainder of each such  
13 TBPP component under conditions at or below ambient  
14 temperature for a period of 5 years. Both parts will be  
15 contained in new, unused packaging customarily used for  
16 product sample packaging or in new, unused polyethylene,  
17 polypropylene, or glass container(s).

18  
19 Transmission of TBPP components for test substance  
20 composite preparation in this program will include formal  
21 Chain of Custody procedures. For each TBPP component for  
22 each test substance composite, each company will assign a  
23 unique non-CBI identifying name (e.g., unique generic name)  
24 and identify which composite the component is to go into.  
25 This name and the identity of the composite it is to go  
26 into will be used as the "sample description" on the Chain  
27 of Custody form used when conveying TBPP component(s) to  
28 the compositing laboratory. The Chain of Custody form used  
29 when conveying TBPP component(s) to the compositing  
30 laboratory will also distinguish among the TRP member  
31 companies to verify that each company contributes to each  
32 applicable composite.

33  
34 The TRP-designated facility assembling the components may  
35 be the compositing laboratory or may be a single common  
36 alternate facility. If such an alternate facility is used,  
37 then new Chain of Custody form(s) will be prepared, as  
38 needed to remove CBI while assuring component distinction,  
39 to accompany the TBPP component to the compositing  
40 laboratory.

41  
42 The deadline for each company to submit its TBPP components  
43 to the TRP-designated facility is shown in Table of the  
44 ECA.

45  
46 4.2 Preparation

1 The TBPPs described in Appendix A.1 are aqueous dispersions  
2 with nominally 20% solids, which contain the fluorotelomer  
3 based polymer (FTBP). Each test substance will be an FTBP  
4 solids composite following dewatering and will be prepared  
5 as described in Section 4.2.1 or as described in Section  
6 4.2.2 below.

7  
8 Composite preparation will be conducted under laboratory  
9 conditions designed to prevent cross-contamination and  
10 designed to assure solids temperatures less than 60 °C.

11  
12 The telomer product solids composites will be substantially  
13 free of inorganic constituents.

14  
15 Following preparation of each composite, each composite  
16 will be placed in a polyethylene, polypropylene, or glass  
17 container and will be accompanied by a new Chain of Custody  
18 (for the composite(s)) until each composite reaches the  
19 incineration testing facility.

#### 20 21 4.2.1 Mixing Followed by Dewatering

22  
23 The composite preparation sequence via mixing followed by  
24 dewatering is follows:

- 25  
26 1. For each composite, the relevant TBPP components  
27 will be gathered.  
28
- 29 2. A portion of each of these TBPP liquids will be  
30 analyzed to determine the amount of FTBP solids via  
31 measurement of Total Fluorine as described in  
32 Appendix D.3. The moisture content of a portion of  
33 each TBPP liquid will be determined as described in  
34 Appendix C.2.1.4.  
35
- 36 3. The amount of each component TBPP liquid to go into  
37 a given composite will be established based on the  
38 Total Fluorine result from step 2 to assure that the  
39 FTBP solids of each component into a given composite  
40 will be present in equal proportions (on a Total  
41 Fluorine basis).  
42
- 43 4. For each composite, the component TBPP liquids will  
44 be mixed according to the amounts from step 3 to  
45 form the composite as a liquid.  
46
- 47 5. For each composite as a liquid, the liquid will be

1 spread into sufficiently large aluminum pan(s). The  
2 material in the pan(s) will be dewatered via  
3 evaporation at ambient conditions (thereby assuring  
4 solids temperature less than 60 °C) in a laboratory  
5 hood (away from other potential sources of PFOA) for  
6 two days until the material is visibly free of  
7 excess water (i.e., visibly drip free). (A small  
8 amount of residual moisture is expected to be  
9 remaining in the dewatered material.)

- 10  
11 6. The dewatered FTBP solids will be treated with  
12 liquid nitrogen as necessary to allow for easy  
13 release from the aluminum pan(s). The material will  
14 be transferred to a mortar and pestle and ground  
15 using liquid nitrogen as necessary to produce  
16 visibly consistent solids size.

17  
18 4.2.2 Dewatering Followed by Mixing

19  
20 The composite preparation sequence via mixing followed by  
21 dewatering is follows:

- 22  
23 1. For each composite, the relevant TBPP components  
24 will be gathered.  
25  
26 2. A portion of each of these TBPP liquids will be  
27 analyzed to determine the amount of FTBP solids via  
28 measurement of Total Fluorine as described in  
29 Appendix D.3. The moisture content of a portion of  
30 each TBPP liquid will be determined as described in  
31 Appendix C.2.1.4.  
32  
33 3. The amount of FTBP solids for each TBPP component to  
34 go into a given composite will be established based  
35 on the Total Fluorine result from step 2 to assure  
36 that the FTBP solids of each component into a given  
37 composite will be present in equal proportions (on a  
38 Total Fluorine basis). The result from step 2 for  
39 Total Fluorine also establishes the minimum amount  
40 of TBPP liquid for each component needed for  
41 subsequent preparation steps.  
42  
43 4. For each component in each composite, an amount of  
44 the TBPP liquid greater than or equal to the minimum  
45 amount of each TBPP liquid from step 3 will be  
46 spread into sufficiently large aluminum pan(s). The  
47 material in each pan will be dewatered via

1 evaporation at ambient conditions (thereby assuring  
2 solids temperature less than 60 °C) in a laboratory  
3 hood (away from other potential sources of PFOA) for  
4 two days until the material is visibly free of  
5 excess water (i.e., visibly drip free). (A small  
6 amount of residual moisture is expected to be  
7 remaining in the dewatered material.)  
8

9 5. The dewatered FTBP solids will be treated with  
10 liquid nitrogen as necessary to allow for easy  
11 release from the aluminum pan(s). The material will  
12 be transferred to a mortar and pestle and ground  
13 using liquid nitrogen as necessary to produce  
14 visibly consistent solids size.  
15

16 6. The dewatered FTBP solids from step 5 for each  
17 relevant component in the amount of FTBP solids  
18 based on the Total Fluorine result from step 2 will  
19 be mixed together to form each composite.  
20

#### 21 4.3 Verification

22

23 To verify adherence to Section 4.2, the laboratory  
24 preparing a given composite will generate a report  
25 describing how the composite was prepared. This report  
26 will be included in the final report for Phase II  
27 incineration testing.  
28

29 The Total Fluorine content (as described in Appendix D.3)  
30 and the moisture content (as described in Appendix C.2.1.4)  
31 of each composite will be determined as noted in Appendix  
32 C.2.1. The Total Fluorine content of each composite on a  
33 dry basis will be computed and included in the report  
34 prepared by the compositing lab.  
35

36 The weighted average Total Fluorine content of the  
37 components of each composite will be computed on a dry  
38 basis based on the results from step 2 above and included  
39 in the report prepared by the compositing lab.  
40

41 If CBI is in the report of the compositing lab, both a CBI  
42 version and a sanitized version for the public record (from  
43 which CBI has been removed) will be prepared.