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cc: david.menotti@shawpittman.com, Stephen H Korzeniowski <Stephen.H.Korzeniowski@USA.dupont.com>, Robert C Buck <Robert.C.Buck@USA.dupont.com>
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

Francais Deutsch Italiano Espanol Portugues Japanese Chinese Korean

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

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

APPENDIX A.2
RATIONALE FOR SELECTING COMPOSITES TO BE TESTED

A.2.1 Summary

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

A.2.2 Background

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

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

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

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

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

APPENDIX A.4
PREPARATION OF FLUOROTELOMER-BASED POLYMER COMPOSITES

4.1 Assembly of Components

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

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

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

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

4.2 Preparation

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

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

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

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

4.2.1 Mixing Followed by Dewatering

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

1. For each composite, the relevant TBPP components will be gathered.

2. A portion of each of these TBPP liquids will be analyzed to determine the amount of FTBP solids via measurement of Total Fluorine as described in Appendix D.3. The moisture content of a portion of each TBPP liquid will be determined as described in Appendix C.2.1.4.

3. The amount of each component TBPP liquid to go into a given composite will be established based on the Total Fluorine result from step 2 to assure that the FTBP solids of each component into a given composite will be present in equal proportions (on a Total Fluorine basis).

4. For each composite, the component TBPP liquids will be mixed according to the amounts from step 3 to form the composite as a liquid.

5. For each composite as a liquid, the liquid will be

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

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

4.2.2 Dewatering Followed by Mixing

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

1. For each composite, the relevant TBPP components will be gathered.

2. A portion of each of these TBPP liquids will be analyzed to determine the amount of FTBP solids via measurement of Total Fluorine as described in Appendix D.3. The moisture content of a portion of each TBPP liquid will be determined as described in Appendix C.2.1.4.

3. The amount of FTBP solids for each TBPP component to go into a given composite will be established based on the Total Fluorine result from step 2 to assure that the FTBP solids of each component into a given composite will be present in equal proportions (on a Total Fluorine basis). The result from step 2 for Total Fluorine also establishes the minimum amount of TBPP liquid for each component needed for subsequent preparation steps.

4. For each component in each composite, an amount of the TBPP liquid greater than or equal to the minimum amount of each TBPP liquid from step 3 will be spread into sufficiently large aluminum pan(s). The material in each pan will be dewatered via

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

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

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

4.3 Verification

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

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

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

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