

**Small Group on Disposal Phase Out  
Negotiated Outcomes Process  
June 12, 2001  
Baltimore, MD**

Members in Attendance: Facilitator: John Wiley, Solutia; Paul Ashman, ERCS; Henry Ferland, U.S. EPA; Kirk Hendricks, DuPont; Frank Hurd, CRI; Steve Long, MADEP; Rick Muller, CIWMB; Bill Sierks, MNOEA

Members not in Attendance: Werner Braun, CRI; Sherry Enzler, MNOEA; Larry Moots, PCa

### **Matrix and Assumptions**

The Group developed numeric goals listed in the matrix below based on the following assumptions.

#### Assumptions regarding Types of Carpet

- The Group decided to focus primarily on Nylon 6 and 66, and PET. Even though polypropylene has a high failure rate, the Group is considering including adding in its calculations.

#### Assumptions regarding Sales

- Match up annual sales figures and recycling/disposal figures for the same year.
- The sales figure used to help calculate the recycling rate should only consider sales for replacement – not new installations (80% of annual sales replace existing carpet, whereas 20% of annual sales are for new installations). Only replacements will generate significant volumes of waste carpet.
- Sales figures will be converted from Yards Shipped (industry standard) to tons – not pounds.

#### Assumptions regarding Recycling

- The industry should set rates in a similar fashion to market-based sales goals.
- The group reached consensus that the figures will include the difficult to recycle materials.
  - Face fiber and PVC have the strongest existing recycling markets.
  - 37% (by weight) of post-consumer carpet faces economic barriers to recycling, even though it is technically recyclable.
  - Innovations may for technologies make the recycling of difficult to manage materials more economical.
- 12 percent of the material delivered to end-user is too contaminated to recycle. Recycler/processor must make efforts to reduce contamination and take this figure into account when sourcing material and meeting orders for feedstock.
- Recycling Rates may be difficult to track and capture, as many links in the recycling and manufacturing chain may handle the carpet out of the sphere of influence of the carpet industry and government.

#### Assumptions regarding Cement Kilns:

- Do not use carpet that has a potentially higher value recycling option.
- Figures include post-industrial generation.
- In order to make carpet usable by the cement kiln industry, the major capital investment would be in size reduction equipment, not retrofits of burn technology or air emissions technology as some cement kilns could readily accept carpet for fuel.

#### Assumptions regarding WtE

- WtE operators find carpet an undesirable feedstock as it does not “fit” with the economics of incineration. For example, since carpet burns slowly, it generates fewer per-ton tip fee revenues than a faster-burning feedstock, even though carpet has a high BTU value.
- Current WtE practices: CA only allows post-industrial scrap; GA only accepts as part of a business arrangement with carpet industry.

#### Assumptions regarding Landfills

- Government solid waste regulators, in states in which they have the regulatory authority, can influence disposal and recycling practices. Regulatory measures, such as adjusting tip fees, can make disposal more expensive and recycling more economically competitive. Higher disposal prices would change the recycling practices of waste generators and haulers and allow the private sector markets to capture materials within the free enterprise system.
- Government solid waste regulators cannot regulate the commodity marketplace.

### **Drivers and Strategic Points of Intervention**

The Group began a discussion of what government roles and actions would stimulate markets and this list should not be considered comprehensive. The Group will continue this discussion at a subsequent meeting, including looking at private sector roles, and how government and the private sector can leverage each other’s involvement and participation.

#### Potential Government Roles

The Group discussed these potential governmental roles, recognizing that government has very limited resources, if any, and that tools range greatly from state to state.

- State Procurement Guidelines should be uniform across the United States.
- Technical Assistance (funding information seminars for appropriate audiences aimed at promoting the recycling of carpet. For example, the state could sponsor seminars or workshops for construction and demolition contractors that could lead to better source separation, sorting, a fewer contamination problems.)
- Financial Assistance (grants and loans) extremely rare and also limited.
- Regulatory: Waste Bans. Steve Long explained that Massachusetts is planning to ban “unprocessed” construction and demolition waste from disposal in Massachusetts by the year 2003. Steve invited representatives of the carpet industry to attend the meetings of the MA DEP’s Construction and Demolition Subcommittee. The Subcommittee is working on planning and infrastructure building for the upcoming ban. DEP will not

enforce the ban unless a market-based infrastructure is emerging. It is unclear whether the ban will cover all materials, or if materials will be phased in over time. It is also unclear whether carpet would be included in the bans. DEP already has bans on several recyclable materials through regulations that DEP enforces on waste haulers at solid waste facilities. Minnesota's position is that it would not support a waste disposal ban unless the industry was willing to request such a ban.

The Group agreed that government and private sector interventions should be targeted strategically. For example, Paul Ashman explained that a sort center should be established, and the sort center should target collection efforts at waste haulers and installers, not dealers. Paul said that installers, not dealers, have an existing working relationship with recycling and waste haulers.

Years Out	Recycling	Cement Kilns	WtE	Landfills	Incineration
Zero	5	0	<1	93	1
3	10	5	1	83	<1
6	20	15	1	64	0
8	25	25	1	49	0
10	35	30	1	34	0