April 2, 2013

Bryn Oakleaf State of Vermont Department of Environmental Conservation Waste Management & Prevention Division 1 National Life Dr, Davis 1 Montpelier, VT 05620-3704 Bryn.Oakleaf@state.vt.us

Dear Bryn,

Thank you for providing us with a few more days to offer comments on, *Comparison of System Costs and Materials Recovery Rates: Implementation of Universal Single Stream Recycling With and Without Beverage Container Deposits*, March 4, 2013, by DSM Environmental and Tellus Institute.

With respect to the comments in the report on page 15, "The project team made several attempts to reach out to the aluminum recycling industry to learn about potential differences in losses but as of the writing this draft report has not been able to reach anyone", to the best of our knowledge, Alcoa, Evermore Recycling and the Aluminum Association did not receive any communication from DSM during the months leading up to the final draft release of March 4th. With this in mind, we want to take the opportunity to clarify some information which has not been accurately reported in the draft.

- In terms of **aluminum can sales** identified in the report, (Tables 1 and 4), these values are significantly lower than the sales figures made available to us from the Aluminum Association (purchased sales data) for all aluminum beverage can sales. We recommend that the sales figures be further vetted and peer reviewed with other sources to ensure greater level of accuracy. When sales are under-represented in the study, all of the analysis will be inaccurate.
- Industry estimates show the **recycling rate for non-beverage aluminum** (like shallow food cans, foil, closures etc.) to be well below the recycling rate for beverage cans. Similarly, the generation rate for non-beverage aluminum, estimated in the report via the waste characterization study, is significantly higher than the national average, as reported by the US EPA. Even accounting for the potential for increased recycling of non-beverage aluminum through expanded curbside, the total aluminum collected in a non-deposit system in Vermont will be significantly less than in the current deposit system. This is important in the determination of potential recovery rates in Table 5. Based on total sales for non beverage aluminum and recycling rates observed in other systems, we do not believe the numbers in Table 5 are accurate or achievable.
- In terms of **contamination (non-aluminum)**, deposit system aluminum cans will have negligible contamination of approximately 0.5%.
- **Contamination in can bales from MRFs range from 0.5% to 20%+.** We do not purchase material higher than 2% non-moisture contamination. Contamination rates are very

specific to each processing company and the time and effort they put into sorting.

- The price paid for UBCs via curbside and deposits are also very different. Typically, for contamination < 2-3%, the price discount for MRF cans is proportionately related to the contaminant level, as this metal can be shipped mill direct. For higher contaminant levels, an embedded cost for cleaning is required, either mechanical cleaning or processing at a "secondary" melting facility, equal to ~ 10 c/lb, plus actual loss for non-alum contamination.
- Container Foil will be the predominant non-UBC aluminum recycled. It often has food contamination, which negatively impacts recovery and is typically about **66% of UBC price.**
- Pet food cans are usually embedded with UBC because an insufficient amount exists to collect and sell it independently. As such it gets UBC price. However, its value is lower because it often contains organic material (cat food) left over and we have to dilute the Magnesium to remake it into beverage cans. If it were sold entirely separately in truck load quantities, the price would be approximately **80-90% of UBC price**.
- We recommend removing the "Special Trip to redeem" cost in Table 9. This is not a fixed cost of the system, rather one that is a choice of all consumers if they choose to make a special trip. We also consider the 1.5-cents/unit cost to be extremely high and have concerns with the lack of data provided to back it up.
- **Consumers that choose not to redeem** their deposit are a sub-group of all consumers (i.e. wasting consumers). This should be properly labelled in Table 9, as it currently looks like all consumers are represented here, but in fact only those consumers that have voluntarily forfeited their deposits are paying.
- Table 15 should be reconsidered given the differences in recycling UBCs versus non-UBC aluminum discussed above. Recycling one ton of UBCs offers a greater avoided GHG factor than recycling consumer non-UBC aluminum such as foil and containers.

Alcoa remains open to further dialogue and comment as this process moves forward. We are dedicated to raising the Used Beverage Can recycling rate in North America to 75%. Given that more than 40 percent of the cans the United States aluminum industry recycles come from the ten states with deposit laws, we are concerned about any change that would negatively affect the recycling rate in the U.S. We appreciate your extending the deadline to give us the opportunity to comment and we invite you to reach out to us for additional information or clarification in the future.

Best regards,

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