PETRA
PET Resin Association

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History and Evolution of the PETRA Recyclability & Innovation Model

- Approximately 15 years ago, APR issued its "Design for Recyclability Guidelines" to maximize the recycling potential of PET and HDPE bottles by encouraging packaging designs that were "compatible with the broadest range of recycling operations and technologies," and would "enhance the economic viability of plastic bottle recycling."

- As part of these Guidelines, APR issued Critical Guidance documents for both PET and HDPE bottles that set forth testing protocols to ensure proposed innovations didn't create bottles that would "present technical challenges for recycling." The PET Critical Guidance documents – periodically updated -- named specific CSD and Water resins as control resins, and called for testing innovations at concentrations of 25% and 50%.

- In recent years, the APR's focus on defining recyclability in terms of meeting the capabilities of the least sophisticated recycling operations has been increasingly at odds with advances in resin science and resulting innovations. This disparity is most notable with the APR protocol's assessment of recyclability on the basis of 25% and 50% concentration levels. This is far above the typical market presence of new innovations and special-use variants, creating artificially restrictive and outmoded barriers to introducing beneficial PET improvements.

- In 2009, APR and PETRA representatives began to discuss updating the APR Critical Guidance Document. As the discussions progressed, it became apparent that APR was unwilling to change its protocol to allow for the introduction of resin variations anticipated for relatively low market presence, even if offset by additional recyclability safeguards. The discussions slowly ground to a standstill.

- In 2010, PETRA considered adopting the newly developed recyclability protocol of the European PET Bottle Platform (EPBP) as an alternative. The European protocol

employed several testing levels to reflect the lower market presence of most innovations, and included a means of monitoring the PET stream for potential recyclability changes. However, the EPBP protocol was so tightly aligned to the unique recycling and business practices of Europe that adopting the protocol for North America was highly problematic.

- With neither the APR nor the EPBP recyclability documents meeting the specific needs of PET stakeholders in North America, PETRA began to design a voluntary recyclability model that combined key features of the two protocols to create a forward-looking recyclability document that focused on real-market resin performance and evaluation needs of the North American PET value chain.

- The PETRA Recyclability & Innovation Model is the result of that effort. The four-part model includes:

  -- a testing protocol that parallels the stringent resin performance requirements of the APR protocol;

  -- a dispersion assessment that allows for resin innovations with a low market presence and includes a dispersion safety factor;

  -- a means of providing current industry-representative control resins to testers, and

  -- a PETRA commitment to fund annual third-party test monitoring of the combined virgin PET stream once the Model is in use.

- PETRA is fully committed to supporting this Recyclability & Innovation Model, and encourages its use in assessing recyclability.

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PETRA is the industry association representing all known North American producers of PET resin. PETRA is dedicated to promoting the benefits and value of PET resin, providing accurate technical and scientific information about PET, and serving as the industry's authoritative voice on issues impacting the manufacture and use of PET.