From: Charley Rea [mailto:crea@calcima.org]
Sent: Friday, July 05, 2013 1:26 PM
To: Climate Change CalRecycle
Subject: Technical Paper - "Recycling, Re-use, and Remanufacturing"

These are comments from reviewing CalRecycles' technical paper, "Recycling, Re-use, and Remanufacturing."

The California Construction and Industrial Materials Association (CalCIMA) is a trade association for aggregate, ready mixed concrete, and industrial materials producers. CalCIMA members operation 750 plants in California. The comments pertain to materials and products from California manufacturing processes that might otherwise enter the waste stream.

II B. Processing – How is collected material processed to recover recyclable material?

The paper discusses Mixed C&D processing facilities, but there are also many facilities, such as aggregate, ready mixed concrete, and asphalt plants ("material production facilities" under the CDI regulations), that only collect and recycle hardened concrete and asphalt. In addition, asphalt plants can recycle reclaimed asphalt shingles (RAS). Most of the concrete and asphalt is recycled for road base. Some of the aggregate reclaimed from concrete can potentially go into making new concrete. The reclaimed asphalt pavement (RAP) and reclaimed asphalt shingles (RAS) increasingly go into making hot mix asphalt (HMA) pavement.

Ready mixed concrete plants also employ several options to re-use or recycle concrete material. These include making K-rail and other blocks out of un-used concrete, separating out the constituents to re-use the aggregate and water, or re-using returned fresh concrete to make new concrete. They all have the benefit of preventing disposal. The re-use of the returned fresh concrete has the added benefit of conserving energy and natural resources.

IV A – What regulations have an impact on recycling and remanufacturing recycled materials? What are some of the funding sources and incentives for recycling and remanufacturing recycled materials?

May want to include the following, too:

CalRecycles Construction & Demolition/Inert Debris regulations

Public Resources Code Sections 16000-16000 – Authorizes re-use of returned plastic concrete through reference to the Greenbook Standard Specifications for Public Works Construction

Public Resources Code Section 42704 – encourages Caltrans to have a specification for up to 40% RAP in HMA by 2014.

Caltrans specifications – their current specifications allow for 100% recycled aggregate in road base, recycled and reclaimed concrete aggregate in minor concrete, 25% RAP in HMA, and 5% reclaimed asphalt shingles (RAS).

California Green Building Code - includes voluntary provisions to encourage the use of recycled aggregates in making concrete.

LEED – although this is going through revision, it provides a number of incentives for buildings to have recycled materials and/or lower carbon footprint.

IV – Challenges

Continue to expand specifications to allow more use of reclaimed concrete aggregates and returned fresh concrete in new concrete.

Not all local governments allow use of reclaimed asphalt and conrete materials in road base, HMA, or concrete.

V – Potential solutions

Changes in specifications and codes to allow increased use of reclaimed concrete and asphalt materials in HMA and concrete.

Changes in specifications and codes to allow use of returned fresh concrete in appropriate applications.

Changes in local government codes and specifications to allow use of recycled aggregates, RAP, RAS, and returned plastic concrete in aggregate base, HMA, and concrete.

Charley Rea
Director, Communications & Policy
CalCIMA
916-554-1000, x103
www.calcima.org