



Industrial Materials Recycling Resources for Region 8 State RCRA Programs

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This email newsletter is designed for U.S. EPA Region 8 stakeholders who have an interest in news and technical resources helpful for making beneficial use determinations and supporting and increasing industrial materials recycling under the Resource Conservation Challenge (RCC).

New! Region 8 Website for Industrial Materials Recycling, and State Assistance Page

EPA Region 8 has improved the content of its recycling web pages to include information about industrial materials recycling (IMR). The page provides information about regional specific projects, and provides links to state programs. The page can be accessed at:

<http://www.epa.gov/region8/recycling/im.html>.

At the very bottom of the IMR page is a link to the "**Region 8 State Solid Waste Program Assistance page.**" This webpage is designed specifically for Region 8 state environmental agencies to support program development, assist in the evaluation process for beneficial use determinations, and to provide streamlined information about beneficial use of industrial materials. The page contains a variety of tools and other resources that will offer information on regulations, suppliers, end-users, training opportunities, risks, performance standards and specifications, as well as news articles and case studies where industrial materials have been used in the Region. You may link directly to the state assistance page at:

<http://www.epa.gov/region8/recycling/imresources.html>.

The Region has had existing pages on scrap tires and construction and demolition (C&D) materials, and these substantive pages have been maintained and updated, and are available via links on the right-hand side of the IMR webpage.

If you have any updates or changes to your state program information for these pages, or have suggestions to improve the state assistance page, please contact Kendra Morrison at morrison.kendra@epa.gov or (303)312-6145.

Developing a Beneficial Use Program

EPA Region 8 is made up of a diverse set of landscapes, population bases, and economic sectors. Developing a formal state beneficial use program is a challenging endeavor on many fronts, especially when finding sufficient staff and monetary resources. The challenges that impact the feasibility for increasing industrial materials recycling in Region 8 are large land availability, low tipping fees, and market factors such as distance, local availability, and changing markets. The Region 8 states currently evaluate beneficial use on a case-by-case basis; however, some states are working to change that (see next section “State News and Legislation Changes”). Some considerations of importance when approving beneficial use include differentiating it from sham recycling, assessing risk, compliance monitoring, and long-term liability.

The following provides a sampling of useful information when designing a beneficial use program. You may also access these resources on the EPA Region 8 state assistance webpage.

Beneficial Use Regulations in Other U.S. States

EPA’s Industrial Materials Recycling webpage has links to other states’ beneficial use regulations and programs. Visit:

www.epa.gov/epawaste/conserve/rrr/imr/resource.htm#state.

The Oregon Department of Environmental Quality assembled information on beneficial use programs that were adopted by Washington, Wisconsin, Minnesota, New York, Connecticut, Maine, Massachusetts, and Pennsylvania.

www.deq.state.or.us/lq/pubs/docs/sw/BeneficialUseSWStateModels.pdf

Tools for Developing a State Beneficial Use Program

The “[State Toolkit for Developing Beneficial Reuse Programs for Foundry Sand](#)” document was developed by the EPA sector strategies program to address state program barriers and provide guidance for the development of beneficial use programs. This tool kit is designed to assist the states to develop or improve beneficial reuse programs, regardless of the material type.

BenReMod is a suite of beneficial reuse models developed specifically for comparing different materials that can be used in road construction. The models cover risk and lifecycle analyses. Download the model and also see it in action: <http://benremod.eng.utoledo.edu/BenReMod/>.

State Beneficial Use Determinations

The Northeast Waste Management Officials' Association (NEWMOA) Beneficial Use Determination (BUD) database provides a searchable database of all BUDs that have been issued by the Northeast States, as well as others. Contact Jennifer Griffith at jgriffith@newmoa.org to access the database.

EPA’s Industrial Materials Recycling Program
[\(www.epa.gov/industrialmaterials/\)](http://www.epa.gov/industrialmaterials/)

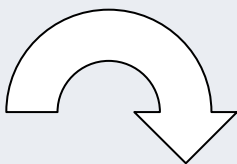
State Toolkit for Developing Beneficial Reuse Programs for Foundry Sand
[\(www.epa.gov/ispd/sectorinfo/\)](http://www.epa.gov/ispd/sectorinfo/)

- Click on “Sector Portal”
- Choose “Metal Casting” and scroll down to the report

NEWMOA Beneficial Use Determination Database
www.newmoa.org/solidwaste/bud.cfm



SB 224 "Reuse of Industrial Byproduct" (<http://www.le.utah.gov/~2009/bills/sbill/enr/SB0224.pdf>)



Beneficial Use List Serves

There are several list serve groups that facilitate discussion and information sharing on a variety of subjects, such as the recycling and reuse of industrial materials and their regulations. To join these groups, you will need to register for a yahoo! ID. Please use your official email address when requesting membership. For BenUseRegs, membership is limited to federal and state government staff.

- BenUseRegs- <http://groups.yahoo.com/group/BenUseRegs>
- Industrial Materials Recycling- <http://tech.groups.yahoo.com/group/industrialmaterialsrecycling>
- RCC Scrap Tires- http://groups.yahoo.com/group/RCC_Scrap_tire/

State News and Legislation Changes

Colorado News

Colorado is currently working on a complete overhaul of their solid waste regulations, including the development of a formal beneficial use program. Contact Charles Johnson or David Snapp at charles.johnson@state.co.us or david.snapp@state.co.us for more information.

Utah Legislation Changes

In the 2008 session of the Utah legislature, Anderson Geneva, Inc. (AGI) initiated legislation (SB227) that addressed the "Reuse of Industrial Byproduct." AGI has been working on the redevelopment of a 1,700 acre site of a former steel mill, Geneva Steel. The bill is intended to drive the use of Geneva Steel's waste materials (e.g. slags) in road projects since the Utah Department of Transportation (UDOT) will be developing about 6 miles of a 4-lane roadway through the site, as well as developing/rehabilitating roadways in the area of the site. In 2009, after productive dialogue with UDOT and Utah's Division of Solid & Hazardous Waste, the legislation was reintroduced as SB 224 "Reuse of Industrial Byproduct." This was modeled after a similar legislation in Wisconsin. The bill passed and gives the Utah DEQ specific authority to make rules for beneficial use, which UDEQ intends to do sometime in the future. Contact Ralph Bohn at rbohn@utah.gov for more information.

Tracking the Flow of Industrial Materials

EPA has initiated a project to better understand the flow of industrial materials and their existing markets within Region 8. The goal is to capture who is generating and/or recycling what, and where the materials are going to and being used. The project began with looking at Coal Combustion Products Partnerships (C2P2) within the Region along with American Coal Ash Association (ACAA) members. Other known recyclers as well as potential recruits for C2P2 have been added. A table has been constructed that describes the types of industrial material(s) they produce and/or how they are recycled/reused/processed. This spreadsheet will be built upon with time, and it will help identify where market development is needed, and help the Region identify potential new C2P2 partnerships. If you would like a copy, or would like to contribute to the spreadsheet by making recommendations, please contact Kendra Morrison at 303-312-6145 or morrison.kendra@epa.gov.

Peruse your state's Highway Specifications at (<http://fhwapap04.fhwa.dot.gov/nhswp/browseStandardSpecifications.jsp>)

State Highway Agency Contacts (<http://www.fhwa.dot.gov/pavement/pavecont.cfm#do>)



Region 8 States' Performance Standard Specifications and Guidelines

EPA Region 8 has assembled departments of transportation (DOTs) performance standard specifications for various industrial materials. These can be used as references for the types of industrial materials that are allowed to be reused and recycled in various construction applications in each state. The assembled tables provide a brief description of each standard specification, what recycled material(s) the specification applies to, and how and for what application(s) the recycled materials can be used in. This information can streamline searches for state DOT standard specifications that allow the use of industrial materials in transportation construction, saving one from reading through entire state manuals.

National standard specifications and guidelines are also provided in tables according to the standard setting organization. This information was researched from standard development organizations like ASTM International (formerly the American Society for Testing and Materials), the American Association of State Highway and Transportation Officials (AASHTO), the Federal Highway Administration (FHWA), and the American Concrete Institute (ACI).

State environmental agencies can refer beneficial use applicants to this information, as well as use it to understand the scope of allowable industrial materials recycling in transportation applications in their respective states. States that work with their DOTs on increasing the use of industrial materials in roadway applications can find this information helpful. These tables will be posted soon on the EPA Region 8's website at

<http://www.epa.gov/region8/recycling/imresources.html>.

Greenversations: The Official Blog of the U.S. Environmental Protection Agency

This blog (web log) features EPA employees and guests talking about the work they do, as well as other environmental topics. There are different categories to post blogs into. Although there is not an Industrial Materials Recycling section, there are "Wastes" and "Reduce, Reuse, Recycle" categories. These blog entries can provide useful information and websites that could contribute to certain fields of study, or just provide suggestions to make one's personal life a little greener. The blog provides a great resource where you can share your ideas, thoughts, comments, and concerns with others to solicit feedback. Post your blog at <http://blog.epa.gov/blog/>.

Montana DEQ Market Development Work
(<http://deq.mt.gov/Recycle/Glass/MarketDevelopment.asp>)

ACAA *Ash at Work*, 2009, Issue 1
(http://www.acaa-usa.org/associations/8003/files/Ash_at_Work_1-09.pdf)

Contact Us

U.S. EPA Region 8
1-800-227-8917

For More Information, Visit EPA's Home Page
(www.epa.gov/industrialmaterials/)

Did You Know?

The Missoula Federal Credit Union is a groundbreaking project using concrete made from 100% fly ash and recycled glass cullet to replace traditional Portland cement both structurally and astatically. The commercial building totals 6,711 square feet. This Platinum LEED project used over 1,000 tons of glass and over 1,000 tons of fly ash obtained locally and within the state. The building is the first in the world with concrete made from 100% recycled material. In addition, at least 75% (250 tons) of construction materials were diverted from the landfill by recovering and redirecting them back into the manufacturing process.

The Montana Department of Environmental Quality; the Missoula Federal Credit Union; the Western Transportation Institute at Montana State University; Headwaters Recycling; MacArthur, Means, and Wells Architects; Beaudette Consulting Engineers Inc; Chapman Concrete Construction Inc. and others worked in partnership on the project. This case study is featured in the American Coal Ash Association's (ACAA) *Ash at Work* bi-annual publication, Issue 1, 2009, pp. 13 – 19, and the Montana DEQ's Waste Reduction & Recycling webpage. For more information, contact Dusti Johnson at dujohnson@mt.gov.



Contact Us

If there is any industrial material, market, specific issue, or other topic you would like to have featured or learn of resources for, please contact Kendra Morrison at morrison.kendra@epa.gov or (303)312-6145.

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