

THE SCRAP METAL RECYCLING INDUSTRY –
MORE THAN THE SANFORD & SON IMAGE

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How does scrap metal recycling affect the world? When many people think of scrap metal recycling, an image of the old television series Sanford & Son automatically pops into their mind. There are a lot of small family owned scrap businesses in the U.S., but there are also several large publicly held scrap corporations. In general, people are not aware of the size and contributions made by the scrap metal recycling industry. The scrap metal recycling industry contributes significantly to the national economy and the reduction of the U. S. trade deficit. The industry also contributes significantly to conserving the world's natural resources.

According to the Institute of Scrap Recycling Industries (ISRI), in the United States last year alone, scrap recyclers handled more than 125 million tons of recyclables destined for domestic use and overseas markets. This tonnage included approximately:

- 68 million tons of scrap iron & steel
- 4.3 million tons of scrap aluminum
- 2 million tons of scrap copper
- 1.4 million tons of stainless steel scrap
- 1.3 million tons of scrap lead
- 214,000 tons of zinc

What effect does scrap metal recycling have on our environment? The U. S.

Environmental Protection Agency (EPA) identified seven major benefits when recycled metals are used instead of virgin material (iron ore and coal) in making new steel:

- 105% reduction in consumer wastes generated
- 97% reduction in mining wastes
- 90% savings in virgin material use
- 86% reduction in air pollution

- 76% reduction in water pollution
- 74% savings in energy
- 40% reduction in water use

What would our world look like without scrap metal recycling? Our yards and landfills would be overflowing. Millions of automobiles, appliances, and other obsolete items are recycled every year. According to ISRI, recycled metals save the United States more than \$2 billion per year in solid waste costs and has extended the lives of landfills in the U.S. by more than 140% (four years) during the last decade. Furthermore, the amount of metal recycled annually equals approximately one-third of the amount of all municipal solid waste (MSW) land-filled in the U.S. every year.

Scrap metal recycling has been around since ancient times. Today, scrap recycling has become a multi-billion dollar worldwide business. Where does scrap metal come from? It comes from individuals, machine shops, manufacturers, government entities, and other industries. Scrap metal is composed of items such as aluminum cans, used pipe, sheet metal buildings, automobiles, appliances, computer components, pots, pans, lawn furniture, bicycles, obsolete equipment, copper wire, old structural steel building frames, tin cans, etc.

These recycled metals are used to make new steel products such as automobiles, structural steel, aluminum siding, and toys. According to the June 1993 issue of School and College Magazine, over 5400 BTU's of energy are conserved for every pound of steel recycled. Every time a ton of steel is recycled, 2500 pounds of iron ore, 1000 pounds of coal and 40 pounds of limestone are preserved.

What is being done to further promote scrap metal recycling? The Institute of Scrap Metal Recycling Industries, Inc. (ISRI) is an industry trade association representing 1,300 companies that process, broker, and industrially consume scrap commodities. ISRI's primary objective is to promote greater awareness of the industry's role in conserving the future through recycling. ISRI's program, Design for Recycling® works with manufacturers to ensure that consumer products can be safely and economically recycled using existing recycling methods and technology. The program also works to reduce the environmental risks from consumer products, and when appropriate provides assistance to manufacturers who are required to alter the product designs or manufacturing processes to ensure that the products can be recycled safely and efficiently. ISRI also has teaching aids for children that illustrate different recycling processes.

The Steel Recycling Institute (SRI), a unit of the American Iron and Steel Institute (AISI), promotes, educates and sustains the recycling of all steel products. SRI's *Steel Cycles* program (Pre-K through 12), is aimed at providing educators and community leaders with educational tools to teach young people about sensible solid waste management.

Recycling is also being included as part of the U.S. Green Building Council (USGBC) Leadership in Energy & Environmental Design (LEED™) Green Building Rating System®. Based on well-founded scientific standards, LEED™ is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. The LEED™ *Materials & Resources Credit 4: Recycled Content* intends to increase demand for building products that incorporate recycled content materials, therefore reducing impacts resulting from extraction and processing of new virgin

materials. Recycling scrap metal during new construction is one opportunity that will help to meet Credit 4 and achieve a point toward being a LEED certified building.

You, as an individual, can also help to promote scrap recycling and in turn help to conserve our natural resources. First of all, remember the three R's: Reduce, Reuse and Recycle. Teach children about the benefits of recycling. Educational materials on recycling for children are available through the EPA, ISRI, and SRI.

You can check to see if your school, place of business, neighborhood or city has a local recycling program. If a program is not available, recycle metals yourself to a local scrap yard. The best way to sell your metals is to know the value of the metal, and whether it is ferrous (iron) or non-ferrous (mainly non-magnetic). The American Metals Market (AMM) is a daily publication that provides current quotes on a wide range of scrap metal. The prices paid for scrap metal vary according to the region.

So the next time someone mentions scrap metal recycling, please do not think of Sanford & Son, think of the contributions that our industry is making on a global level to conserve the world's natural resources and to improve the environment for future generations.

WEB LINKS:

Commercial Metals Company:	http://www.commercialmetals.com
U. S. EPA:	http://www.epa.gov
Institute of Scrap Recycling Industries:	http://www.isri.org/mission.htm
The American Iron and Steel Institute:	http://www.steel.org
Steel Recycling Industry:	http://www.recycle-steel.org/aboutus.html

U. S. Green Building Council:

<http://www.usgbc.org>