Recycled Scrap-Based Electric Arc Furnace Steel Production: Steel Manufacturers Association Releases Report Describing Lower Carbon Emissions

Walter Wright, Jr.
wwright@mwlaw.com
(501) 688.8839

08/09/2022

The Steel Manufacturers Association ("SMA") released what it described as an independent study ("Study") concluding that:

. . . Steel produced by electric arc furnace (EAF) steelmakers in the U.S. has a carbon intensity that is approximately 75% lower than traditional blast furnace steelmakers.

The Study is stated to have been conducted by CRU Group ("CRU") which is described as a global business intelligence firm specializing in metals manufacturing.

CRU was engaged by SMA to conduct the Study.

SMA's objective is stated to have been an independent assessment of EAF steelmaking emissions and comparison to domestic and global iron and steelmaking peers.

SMA represents the EAF steel industry which is stated to account for 70% of the domestic steel produced in the United States. EAF steel is produced through the use of electric currents to melt scrap and other recycled materials.

SMA members in Arkansas include:

- Arkansas Associates
- Big River Steel
- Nucor

The Study was conducted from November 2021 to June 2022 and is indicated to have encompassed a majority of the world's steelmaking companies and industry data sources.

The CRU Study provides:

- Analysis of Scope 1 & 2 emissions for US steelmakers and description of underlying drivers
- Analysis of upstream Scope 3 emissions generated through the production of raw materials and the associated transportation of inputs to the steel mill
- Comparisons of carbon emissions between US steelmakers and global peers, at various steps in the steelmaking production process

- An overview of ironmaking-related emissions and assessment of key emissions-related factors
- Emissions benchmarking for rerollers that procure third-party slab on a total Scope 1, 2 & 3 basis

A finding described as major by SMA is that average Scope 1 and Scope 2 greenhouse gas emissions intensity at the crude and hot-rolled steelmaking phases is 75% lower for EAF steelmakers compared with blast furnace steelmakers.

A copy of the SMA news release can be found here and the Executive Summary from CRU Study here.