UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES AND EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): December 23, 2010

WESCO International, Inc.

(Exact name of registrant as specified in its charter)

Commission file number 001-14989

Delaware

(State or other jurisdiction of incorporation or organization)

25-1723345

(IRS Employer Identification No.)

225 West Station Square Drive Suite 700

Pittsburgh, Pennsylvania 15219 (Address of principal executive offices)

(412) 454-2200

(Registrant's telephone number, including area code)

N/A

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01. Other Events.

On December 23, 2010, WESCO International, Inc. (the "Company") announced that it completed its previously announced redemption (the "Redemption") of all of its outstanding 2.625% Convertible Senior Debentures due 2025 (the "Debentures"). In accordance with the Redemption, the Company redeemed \$2,509,000 aggregate principal amount of outstanding Debentures in exchange for an aggregate of approximately \$2.5 million in cash, including accrued and unpaid interest to, but excluding, December 23, 2010.

Prior to the Redemption, holders of \$89,815,000 aggregate principal amount of Debentures converted their Debentures pursuant to the terms of the Debentures (the "Conversion"). The consideration paid by the Company in the Conversion was based on the closing price of the Company's common stock over a 20-trading-day cash settlement averaging period. In settlement of the Conversion, the Company paid an aggregate of approximately \$89.8 million in cash, including cash in lieu of fractional shares, and issued 340,213 shares of its common stock in the aggregate. No Debentures remain outstanding following the Redemption and Conversion.

A copy of the Company's press release is attached hereto as Exhibit 99.1.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit 99.1 Press Release of WESCO International, Inc., dated as of December 23, 2010

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

WESCO INTERNATIONAL, INC.

By: /s/ Daniel A. Brailer

Daniel A. Brailer

Vice President, Treasurer and Investor Relations

Dated: December 23, 2010

EXHIBIT INDEX

Exhibit 99.1 Press Release of WESCO International, Inc., dated as of December 23, 2010



NEWS RELEASE

WESCO International, Inc. / Suite 700, 225 West Station Square Drive / Pittsburgh, PA 15219

WESCO International, Inc. Announces Completion of Redemption of 2.625% Convertible Senior Debentures due 2025

Contact: Daniel A. Brailer, Vice President, Treasurer and Investor Relations
WESCO International, Inc. (412) 454-2271, Fax: (412) 454-2477

PITTSBURGH, December 23, 2010 — WESCO International, Inc. (NYSE: WCC) today announced that it completed its previously announced redemption of all of its outstanding 2.625% Convertible Senior Debentures due 2025 (the "Debentures").

In connection with the redemption, holders of \$89,815,000 aggregate principal amount of Debentures converted their Debentures in accordance with the terms and conditions of the Debentures. In settlement of those conversions, WESCO paid an aggregate of approximately \$89.8 million in cash, including cash in lieu of fractional shares, and issued 340,213 shares of its common stock in the aggregate.

WESCO redeemed the remaining \$2,509,000 aggregate principal amount of outstanding Debentures in accordance with its notice of redemption dated November 19, 2010. WESCO paid to the registered holders of the Debentures that were redeemed an aggregate of approximately \$2.5 million, including accrued and unpaid interest to, but excluding, December 23, 2010. No Debentures remain outstanding following the conversions and the redemption described in this press release.

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WESCO International, Inc. (NYSE: WCC) is a publicly traded Fortune 500 holding company, headquartered in Pittsburgh, Pennsylvania, whose primary operating entity is WESCO Distribution, Inc. WESCO Distribution is a leading distributor of electrical construction products and electrical and industrial maintenance, repair and operating (MRO) supplies, and is the nation's largest provider of integrated supply services. WESCO's 2009 annual sales were approximately \$4.6 billion. The Company employs approximately 6,100 people, maintains relationships with over 17,000 suppliers, and serves over 100,000 customers worldwide. Major markets include commercial and industrial firms, contractors, government agencies, educational institutions, telecommunications businesses and utilities. WESCO operates seven fully automated distribution centers and approximately 380 full-service branches in North America and select international markets, providing a local presence for area customers and a global network to serve multi-location businesses and multi-national corporations.

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The matters discussed herein may contain forward-looking statements that are subject to certain risks and uncertainties that could cause actual results to differ materially from expectations. Certain of these risks are set forth in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2009, as well as the Company's other reports filed with the Securities and Exchange Commission.