Filed by Alcoa Inc. Pursuant to Rule 425 under the Securities Act of 1933 and deemed filed pursuant to Rule 14a-12 of the Securities Exchange Act of 1934

Subject Company: RTI International Metals, Inc. Commission File No.: 001-14437

The following communications were posted on March 9, 2015 by Alcoa Inc. at the following Web site: https://twitter.com/.

Tweet 1: Alcoa to Acquire RTI International Metals, Boosting Value-Add, Multi-Material #Aerospace Portfolio – [link to http://www.alcoa.com/RTI/caution.asp] #AATransforms

Tweet 2: Media:For additional resources, downloads and b-roll, please go to [link to http://www.alcoa.com/RTI/caution.asp]. #AATransforms [link to http://www.alcoa.com/RTI/pdf/FLSandLegend_RTI.pdf]

Tweet 3: Reminder: Tweets may include forward-looking statements subject to Risks provided in \$AA press release - [link to http://www.alcoa.com/RTI/pdf/FLSandLegend_RTI.pdf]

Tweet 4: Coming up: \$AA will host webcast today at 8:30 AM ET to discuss \$RTI deal. Details: [link to http://www.alcoa.com/global/en/investment/info_page/home.asp] #AATransforms

Tweet 5: Presentation now available for 8:30 am ET webcast to discuss \$RTI deal. Download at [link to http://www.alcoa.com/global/en/investment/info_page/home.asp] #AATransforms

Tweet 6: CEO Klaus Kleinfeld on \$AA \$RTI deal: "We are combining two innovators in materials science and process technology." [link to http://www.alcoa.com/RTI/caution.asp]

Tweet 7: Happening now: Alcoa hosting webcast to discuss \$RTI deal. Webcast details: http://bit.ly/AlcoaRTIWebcast #AATransforms [link to http://www.alcoa.com/RTI/pdf/FLSandLegend_RTI.pdf]

Tweet 8: \$RTI acquisition grows portfolio of cutting-edge materials, complementing Alcoa's industry leadership in metallics. [link to http://www.alcoa.com/RTI/caution.asp]

Tweet 9: Coming up: Alcoa CEOKlaus Kleinfeld will be live on @CNBC to discuss milestone announcement w/ \$RTI . #AATransforms [link to http://www.alcoa.com/RTI/pdf/FLSandLegend_RTI.pdf]

Tweet 10: "\$AA acquisition of \$RTI grows Alcoa's advanced technologies for greater innovation power." Read more: [link to http://www.alcoa.com/RTI/caution.asp]

Tweet 11: ICYMI: View replay of today's webcast, discussing \$RTI deal at http://bit.ly/AlcoaRTI #AATransforms (impt info at [link to http://www.alcoa.com/RTI/pdf/FLSandLegend_RTI.pdf])

Tweet 12: "Alcoa is quickly becoming a titan in titanium." CEO Klaus Kleinfeld on @CNBC: http://cnb.cx/1E1fp41 (impt info: [link to http://www.alcoa.com/RTI/pdf/FLSandLegend_RTI.pdf])

Tweet 13: RT @ITATitanium: Alcoa to Acquire RTI International Metals More Details Located at: [link to http://www.alcoa.com/RTI/caution.asp] [link to http://www.alcoa.com/RTI/caution.asp]

Tweet 14: ICYMI: RT @Forbes: Alcoa will buy RTI International Metals, a worldwide titanium supplier: [link to http://www.forbes.com/fdc/welcome_mjx.shtml]

The following communication was posted on March 9, 2015 by Alcoa Inc. at the following Web sites: www.facebook.com and www.linkedin.com

Alcoa to Acquire RTI International Metals, Boosting Value-Add, Multi-Material Aerospace Portfolio – Read more [link] (statement [link to http://www.alcoa.com/RTI/pdf/FLSandLegend_RTI.pdf])

Forward-Looking Statements

Certain statements in this report, including statements regarding the proposed acquisition of RTI by Alcoa, the expected timing, closing and benefits of the transaction, the expected synergies, the expected contribution of RTI to Alcoa's revenues and profitability, the expected acceleration of Alcoa's portfolio transformation, the expected size, scope and growth of the combined company's operations and the markets in which it will operate, including the aerospace market, the anticipated issuance of Alcoa common stock in exchange for RTI stock in the transaction, as well as Alcoa's plans, objectives, strategy, and intentions, may contain words such as "anticipates," "believes," "could," "estimates," "expects," "forecasts," "intends," "may," "outlook," "plans," "projects," "seeks," "sees," "should," "targets," "will," or other words of similar meaning that constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on Alcoa's current expectations, estimates, forecasts and projections about the proposed transaction and the operating environment, economies and markets in which Alcoa and RTI operate. In making these statements, Alcoa has made assumptions with respect to: the ability of Alcoa and RTI to achieve expected synergies and the timing of same; the ability of Alcoa and RTI to predict and adapt to changing customer requirements, demand, and preferences; future capital expenditures, including the amount and nature thereof; trends and developments in the aerospace, metals engineering (including aluminum and titanium), advanced manufacturing, and other sectors of the economy that are related to these sectors; business strategy and outlook; expansion and growth of business and operations; credit risks; future results being similar to historical results; expectations related to future general economic and market conditions; and other matters, many of which are beyond Alcoa's control. Alcoa's beliefs and assumptions are inherently subject to significant business, economic, competitive and other uncertainties and contingencies regarding future events and as such, are subject to change and may prove to be inaccurate. Actual results or events could differ materially from those contemplated in forward-looking statements as a result of numerous risks and uncertainties, including: (a) the risk that the businesses will not be integrated successfully or such integration may be more difficult, time-consuming or costly than expected, which could result in additional demands on Alcoa's resources, systems, procedures and controls,

disruption of its ongoing business and diversion of management's attention from other business concerns; (b) the effect of an increased number of Alcoa shares outstanding as a result of the proposed transaction; (c) the

possibility that certain assumptions with respect to RTI or the proposed transaction could prove to be inaccurate; (d) failure to receive the required votes of RTI's shareholders to approve the transaction; (e) failure to receive, delays in the receipt of, or unacceptable or burdensome conditions imposed in connection with, all required regulatory approvals of the proposed transaction, or the failure to satisfy the other closing conditions to the proposed transaction; (f) the potential failure to retain key employees of Alcoa or RTI as a result of the proposed transaction or during integration of the businesses; (g) potential sales of Alcoa common stock issued in the acquisition; (h) the potential loss of customers, suppliers, and other business relationships of Alcoa or RTI as a result of the transactior; (i) consequences of investigations by governmental agencies or regulatory authorities; (j) the failure to capitalize on anticipated growth in the commercial aerospace market; and (k) the other risk factors summarized in Alcoa's Form 10-K for the year ended December 31, 2014, and other reports filed with the Securities and Exchange Commission. Alcoa disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks discussed above and other risks in the market. Nothing on Alcoa's website is included or incorporated by reference herein.

Additional Information and Where to Find It

This document does not constitute an offer to sell or the solicitation of an offer to buy any securities or a solicitation of any vote or approval nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. The proposed business combination transaction between Alcoa and RTI will be submitted to the shareholders of RTI for their consideration. Alcoa will file with the Securities and Exchange Commission (the "SEC") a Registration Statement on Form S-4 that will include a proxy statement of RTI that also constitutes a prospectus of Alcoa. RTI will provide the proxy statement/prospectus to its shareholders. Alcoa and RTI also plan to file other documents with the SEC regarding the proposed transaction. This document is not a substitute for any prospectus, proxy statement or any other document which Alcoa or RTI may file with the SEC in connection with the proposed transaction. INVESTORS AND SECURITY HOLDERS OF RTI ARE URGED TO READ THE PROXY STATEMENT/PROSPECTUS AND ANY OTHER RELEVANT DOCUMENTS THAT WILL BE FILED WITH THE SEC CAREFULLY AND IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION. You may obtain copies of all documents filed with the SEC regarding this transaction, free of charge, at the SEC's website (www.sec.gov). You may also obtain these documents, free of charge, from both Alcoa's website (www.alcoa.com) and RTI's website (www.rtiintl.com).

Participants in the Solicitation

Alcoa, RTI, and certain of their respective directors, executive officers and other members of management and employees may be deemed to be participants in the solicitation of proxies from RTI shareholders in connection with the proposed transaction. Information regarding the persons who may, under the rules of the SEC, be deemed participants in the solicitation of RTI shareholders in connection with the proposed transaction will be set forth in the proxy statement/prospectus when it is filed with the SEC. You can find information about Alcoa's executive officers and directors in its definitive proxy statement filed with the SEC on March 18, 2014 and in its Annual Report on Form 10-K filed with the SEC on February 19, 2015. You can find information about RTI's executive officers and directors in its definitive proxy statement filed with the SEC on March 28, 2014 and in its Annual Report on Form 10-K filed with the SEC on February 26, 2015. Additional information about Alcoa's executive officers and directors and RTI's executive officers and directors can be found in the above-referenced Registration Statement on Form S-4 when it becomes available. You can obtain free copies of these documents from Alcoa and RTI as described in the preceding paragraph.