



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3561

July 25, 2017

Dennis P. Kelleher
Senior Vice President and Chief Financial Officer
CF Industries Holdings Inc.
4 Parkway North, Suite 400
Deerfield, Illinois 60015

**Re: CF Industries Holdings Inc.
Form 10-K for the Year Ended December 31, 2016
Filed February 23, 2017
File No. 001-32597**

Dear Mr. Kelleher:

We have completed our review of your filing. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Sincerely,

/s/ Melissa Raminpour

Melissa Raminpour
Branch Chief
Office of Transportation and Leisure