Barnard Douglas C Form 4 August 14, 2012

FORM 4

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB APPROVAL

Number: 3235-0287

Expires: January 31, 2005

Estimated average burden hours per response... 0.5

Check this box if no longer subject to Section 16. Form 4 or Form 5

obligations

may continue.

See Instruction

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

1(b).

(Print or Type Responses)

| 1. Name and Address of Reporting Person * Barnard Douglas C | | | 2. Issuer Name and Ticker or Trading Symbol | 5. Relationship of Reporting Person(s) to Issuer | | |
|--|---------|----------|---|--|--|--|
| (Last) | (First) | (Middle) | CF Industries Holdings, Inc. [CF] 3. Date of Earliest Transaction | (Check all applicable) | | |
| C/O CF INDUSTRIES HOLDINGS, INC., 4 PARKWAY NORTH, SUITE 400 | | | (Month/Day/Year) 08/10/2012 | Director 10% Owner X Officer (give title Other (specify below) | | |

(Street) 4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
X Form filed by One Reporting Person
__Form filed by More than One Reporting

DEERFIELD, IL 60015

| (City) | (State) | (Zip) Tak | ole I - Non- | -Derivativ | e Sec | urities Acquir | ed, Disposed of, | or Beneficiall | y Owned |
|--|---|---|--|-------------------------|---------------------------------|----------------|--|--|---|
| 1.Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transactic Code (Instr. 8) | omr Dispo (Instr. 3, | osed of , 4 and (A) or | ` ′ | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
| Common stock, par value \$0.01 per share | 08/10/2012 | | S | 8,637 | D | \$ 208.3302 | 10,642 | D | |
| Common stock, par value \$0.01 per share | 08/10/2012 | | F | 791 | D | \$ 209.75 | 9,851 | D | |
| | 08/10/2012 | | A | 1,340 | A | \$ 0 | 11,191 | D | |

Common stock, par value \$0.01 per share

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

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Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number proof Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exerc Expiration D (Month/Day/ | ate | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | | () |
|---|---|--------------------------------------|---|---|--|--|--------------------|---|--|----|
| | | | | Code V | (A) (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | |
| Employee Stock Option (right to buy) | \$ 209.75 | 08/10/2012 | | A | 4,880 | (2) | 08/10/2022 | Common stock, par value \$0.01 per share | 4,880 | |

Reporting Owners

Reporting Owner Name / Address

Director 10% Owner Officer Other

Barnard Douglas C C/O CF INDUSTRIES HOLDINGS, INC. 4 PARKWAY NORTH, SUITE 400 DEERFIELD, IL 60015

Sr. VP, Gen. Coun. & Secretary

Signatures

/s/ Douglas C.

Barnard 08/14/2012

**Signature of Date
Reporting Person

Reporting Owners 2

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$208.2376 to \$208.405, inclusive. The reporting person undertakes to provide to CF Industries Holdings, Inc., any security holder of CF
- (1) Industries Holdings, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within this range.
- (2) The options vest in three equal installments on August 10, 2013, 2014, and 2015.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.