

Nocchiero Anthony J  
 Form 4  
 August 12, 2010

**FORM 4**

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

OMB APPROVAL

OMB 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 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

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

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
 Nocchiero Anthony J

2. Issuer Name and Ticker or Trading Symbol  
 CF Industries Holdings, Inc. [CF]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)  
 C/O CF INDUSTRIES HOLDINGS, INC., 4 PARKWAY NORTH, SUITE 400  
 DEERFIELD, IL 60015

3. Date of Earliest Transaction (Month/Day/Year)  
 08/10/2010

\_\_\_\_ Director \_\_\_\_\_ 10% Owner  
 Officer (give title below) \_\_\_\_\_ Other (specify below)  
 Senior V.P. & CFO

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

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

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	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 Ownership (Instr. 4)	
				(A) or (D)	Price			
				Code	V	Amount		
Common stock, par value \$0.01 per share	08/10/2010		A	2,800	A	\$ 0	25,822	D
Common stock, par value \$0.01 per share	08/10/2010		F	266	D	\$ 81.3	25,556	D

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.

SEC 1474  
(9-02)

**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 of Derivative Securities (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Amount or Number of Shares
Employee Stock Option (right to buy)	\$ 81.3	08/10/2010		A	8,300	<u>(1)</u> 08/10/2020	Common stock, par value \$0.01 per share	8,300

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Nocchiero Anthony J C/O CF INDUSTRIES HOLDINGS, INC. 4 PARKWAY NORTH, SUITE 400 DEERFIELD, IL 60015			Senior V.P. & CFO	

## Signatures

/s/ Douglas C. Barnard, by power of attorney  
Date: 08/12/2010

\*\*Signature of Reporting Person

Date

## 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).

(1) The options vest in three equal installments on August 10, 2011, 2012, and 2013.

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.