

Chase Stephen G
Form 4
February 15, 2007

FORM 4

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

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

OMB APPROVAL

OMB
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(Print or Type Responses)

1. Name and Address of Reporting Person *
Chase Stephen G

(Last) (First) (Middle)

C/O CF INDUSTRIES HOLDINGS,
INC., ONE SALEM LAKE DRIVE

(Street)

LONG GROVE, IL 60047

(City) (State) (Zip)

2. Issuer Name **and** Ticker or Trading
Symbol

CF Industries Holdings, Inc. [CF]

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

02/13/2007

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

5. Relationship of Reporting Person(s) to
Issuer

(Check all applicable)

____ Director ____ 10% Owner
__X__ Officer (give title ____ Other (specify
below) below)

VP, Corp Planning/Business Dev

6. Individual or Joint/Group Filing(Check
Applicable Line)
__X__ 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 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 Indirect Beneficial Ownership (Instr. 4)
Common stock, par value \$0.01 per share	02/13/2007		M	24,633 A	\$ 16 33,526	D	
Common stock, par value \$0.01 per share	02/13/2007		S	24,633 D	\$ 33.93 8,893	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**

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(9-02)

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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 of Derivative Securities Acquired (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)
				Code	V (A) (D)	Date Exercisable Expiration Date	Title Amount or Number of Shares
Employee Stock Option (right to buy)	\$ 16	02/13/2007		M	24,633	<u>(1)</u> 08/10/2015	Common stock, par value \$0.01 per share 24,633

Reporting Owners

Reporting Owner Name / Address	Relationships
	Director 10% Owner Officer Other
Chase Stephen G C/O CF INDUSTRIES HOLDINGS, INC. ONE SALEM LAKE DRIVE LONG GROVE, IL 60047	VP, Corp Planning/Business Dev

Signatures

/s/ Douglas C. Barnard, by power of attorney 02/14/2007

__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, 2006, 2007, and 2008.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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