CF Industries Holdings, Inc.

Form 3

August 22, 2005

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

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF **SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, response... 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 *

Gherty John E

(Last)

(First)

(Middle)

2. Date of Event Requiring 3. Issuer Name and Ticker or Trading Symbol

Statement

(Month/Day/Year)

08/18/2005

4. Relationship of Reporting

Person(s) to Issuer

CF Industries Holdings, Inc. [CF]

5. If Amendment, Date Original

Filed(Month/Day/Year)

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

(Street)

10% Owner _X_ Director Officer Other

(give title below) (specify below)

(Check all applicable)

6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting

Person

Form filed by More than One

Reporting Person

LONG GROVE, ILÂ 60047

(City) (State) (Zip)

1. Title of Security (Instr. 4)

Table I - Non-Derivative Securities Beneficially Owned 2. Amount of Securities

Beneficially Owned (Instr. 4)

3. Ownership Form:

4. Nature of Indirect Beneficial

Ownership (Instr. 5)

Direct (D) or Indirect (I) (Instr. 5)

Reminder: Report on a separate line for each class of securities beneficially

Date

Exercisable

owned directly or indirectly.

SEC 1473 (7-02)

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.

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

1. Title of Derivative Security (Instr. 4)

2. Date Exercisable and **Expiration Date** (Month/Day/Year)

3. Title and Amount of Securities Underlying **Derivative Security**

5. 4 Conversion Ownership or Exercise Form of

6. Nature of Indirect Beneficial Ownership (Instr. 5)

(Instr. 4)

Expiration Title Date

Amount or Number of

Derivative Price of Derivative Security: Security Direct (D)

Shares

or Indirect
(I)
(Instr. 5)

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Othe
Gherty John E				
C/O CF INDUSTRIES HOLDINGS, INC.	ÂX	Â	Â	Â
ONE SALEM LAKE DRIVE				
LONG GROVE, IL 60047				

Signatures

/s/ Douglas C. Barnard, by power of attorney

08/19/2005

**Signature of Reporting Person

Date

Explanation of Responses:

No securities are beneficially owned

- * If the form is filed by more than one reporting person, see Instruction 5(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).

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.

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