

CF Industries Holdings, Inc.
Form SC 13G/A
October 26, 2015

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

(Amendment No. 1)

Under the Securities Exchange Act of 1934

CF Industries Holdings, Inc.

(Name of Issuer)

Common Stock, \$0.01 par value

(Title of Class of Securities)

125269100

(CUSIP Number)

October 16, 2015

(Date of Event Which Requires Filing of this Statement)

Check the following box to designate the rule pursuant to which the Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No.
125269100

**Names of
Reporting
Persons**

**I.R.S.
Identification
Nos. of above
persons
(entities only)**

1.

D. E. Shaw
Heliant
Manager,
L.L.C.

27-1289787

**2. Check the
Appropriate
Box if a
Member of a
Group (See
Instructions)**
(a) ..
(b) ..

3. SEC Use Only

**4. Citizenship or
Place of
Organization**

Delaware

Number of 5. Sole Voting Power

Shares

Beneficially -0-

Owned by

Each

Reporting

Person With

Shared Voting Power

6.11,733,370

Sole Dispositive Power

7.-0-

Shared Dispositive Power

8.11,733,370

Aggregate Amount Beneficially Owned by Each Reporting Person

9. 11,733,370

Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) "

10.

Percent of Class Represented by Amount in Row (9)

11.5.0%¹

Type of Reporting Person (See Instructions)

12.

OO

¹ Subsequent to the Initial Schedule 13G for CF Industries Holdings, Inc. filed on September 25, 2015, D. E. Shaw & Co., L.L.C., D. E. Shaw Heliant Manager, L.L.C., and D. E. Shaw Heliant Adviser, L.L.C. ceased to be the beneficial owners of more than 5 percent of the class of securities. On October 16, 2015, D. E. Shaw & Co., L.L.C. became the beneficial owner of more than 5% of the class of securities. On October 19, 2015, D. E. Shaw Heliant Manager, L.L.C. and D. E. Shaw Heliant Adviser, L.L.C. became the beneficial owners of more than 5% of the class of securities. The beneficial ownership information provided in this document is current as of October 19, 2015.

CUSIP No.
125269100

**Names of
Reporting
Persons**

**I.R.S.
Identification
Nos. of above
persons
(entities only)**

1.

D. E. Shaw
Heliant
Adviser,
L.L.C.

27-1289715

**2. Check the
Appropriate
Box if a
Member of a
Group (See
Instructions)**
(a) ..
(b) ..

3. SEC Use Only

**4. Citizenship or
Place of
Organization**

Delaware

Number of 5. Sole Voting Power

Shares

Beneficially -0-

Owned by

Each

Reporting

Person With

Shared Voting Power

6.11,733,370

Sole Dispositive Power

7.-0-

Shared Dispositive Power

8.11,733,370

Aggregate Amount Beneficially Owned by Each Reporting Person

9. 11,733,370

Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) "

10.

Percent of Class Represented by Amount in Row (9)

11.5.0%²

Type of Reporting Person (See Instructions)

12.

IA

² Subsequent to the Initial Schedule 13G for CF Industries Holdings, Inc. filed on September 25, 2015, D. E. Shaw & Co., L.L.C., D. E. Shaw Heliant Manager, L.L.C., and D. E. Shaw Heliant Adviser, L.L.C. ceased to be the beneficial owners of more than 5 percent of the class of securities. On October 16, 2015, D. E. Shaw & Co., L.L.C. became the beneficial owner of more than 5% of the class of securities. On October 19, 2015, D. E. Shaw Heliant Manager, L.L.C. and D. E. Shaw Heliant Adviser, L.L.C. became the beneficial owners of more than 5% of the class of securities. The beneficial ownership information provided in this document is current as of October 19, 2015.

CUSIP No.
125269100

**Names of
Reporting
Persons**

**I.R.S.
Identification
Nos. of above
persons**

1. (entities only)

D. E. Shaw &
Co., L.L.C.

13-3799946

**2. Check the
Appropriate
Box if a
Member of a
Group (See
Instructions)**

(a) ..
(b) ..

3. SEC Use Only

**Citizenship or
Place of
Organization**

4.
Delaware

Number of 5. Sole Voting Power

Shares

Beneficially -0-

Owned by

Each

Reporting

Person With

Shared Voting Power

6.11,754,836

Sole Dispositive Power

7.-0-

Shared Dispositive Power

8.11,754,836

Aggregate Amount Beneficially Owned by Each Reporting Person

9. 11,754,836

Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) "

10.

Percent of Class Represented by Amount in Row (9)

11.5.0%³

Type of Reporting Person (See Instructions)

12.

OO

³ Subsequent to the Initial Schedule 13G for CF Industries Holdings, Inc. filed on September 25, 2015, D. E. Shaw & Co., L.L.C., D. E. Shaw Heliant Manager, L.L.C., and D. E. Shaw Heliant Adviser, L.L.C. ceased to be the beneficial owners of more than 5 percent of the class of securities. On October 16, 2015, D. E. Shaw & Co., L.L.C. became the beneficial owner of more than 5% of the class of securities. On October 19, 2015, D. E. Shaw Heliant Manager, L.L.C. and D. E. Shaw Heliant Adviser, L.L.C. became the beneficial owners of more than 5% of the class of securities. The beneficial ownership information provided in this document is current as of October 19, 2015.

CUSIP No.
125269100

**Names of
Reporting
Persons**

**I.R.S.
Identification
Nos. of above
persons**

1. (entities only)

D. E. Shaw &
Co., L.P.

13-3695715

**2. Check the
Appropriate
Box if a
Member of a
Group (See
Instructions)**

(a) ..
(b) ..

3. SEC Use Only

**Citizenship or
Place of
Organization**

4.
Delaware

Number of 5.Sole Voting Power

Shares

Beneficially -0-

Owned by

Each

Reporting

Person With

Shared Voting Power

6.12,159,439

Sole Dispositive Power

7.-0-

Shared Dispositive Power

8.12,159,439

Aggregate Amount Beneficially Owned by Each Reporting Person

9. 12,159,439

Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) "

10.

Percent of Class Represented by Amount in Row (9)

11.5.2%

Type of Reporting Person (See Instructions)

12.

IA, PN

CUSIP No.
125269100

**Names of
Reporting
Persons**

**I.R.S.
Identification**

**1. Nos. of above
persons
(entities only)**

David E. Shaw

**2. Check the
Appropriate
Box if a
Member of a
Group (See
Instructions)**
(a) ..
(b) ..

3. SEC Use Only

**4. Citizenship or
Place of
Organization**

United States

Number of 5. Sole Voting Power

Shares

Beneficially -0-

Owned by

Each

Reporting

Person With

Shared Voting Power

6.12,159,439

Sole Dispositive Power

7.-0-

Shared Dispositive Power

8.12,159,439

Aggregate Amount Beneficially Owned by Each Reporting Person

9. 12,159,439

Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) "

10.

Percent of Class Represented by Amount in Row (9)

11.5.2%

Type of Reporting Person (See Instructions)

12.

IN

Item 1.

(a) Name of Issuer

CF Industries Holdings, Inc.

(b) Address of Issuer's Principal Executive Offices

4 Parkway North, Suite 400
Deerfield, Illinois 60015

Item 2.

(a) Name of Person Filing

D. E. Shaw Heliant Manager, L.L.C.
D. E. Shaw Heliant Adviser, L.L.C.
D. E. Shaw & Co., L.L.C.
D. E. Shaw & Co., L.P.
David E. Shaw

(b) Address of Principal Business Office or, if none, Residence

The business address for each reporting person is:
1166 Avenue of the Americas, 9th Floor
New York, NY 10036

(c) Citizenship

D. E. Shaw Heliant Manager, L.L.C. is a limited liability company organized under the laws of the state of Delaware.
D. E. Shaw Heliant Adviser, L.L.C. is a limited liability company organized under the laws of the state of Delaware.
D. E. Shaw & Co., L.L.C. is a limited liability company organized under the laws of the state of Delaware.
D. E. Shaw & Co., L.P. is a limited partnership organized under the laws of the state of Delaware.
David E. Shaw is a citizen of the United States of America.

(d) Title of Class of Securities

Common Stock, \$0.01 par value

(e) CUSIP Number

125269100

Item 3. If this statement is filed pursuant to Rule 13d-1(b) or 13d-2(b) or (c), check whether the person filing is
a:

Not Applicable

Item 4. Ownership

As of October 19, 2015:

(a) Amount beneficially owned:

11,733,370 shares

D. E. Shaw
Heliant Manager,
L.L.C.:

This is composed of (i) 7,504,370 shares in the name of D. E. Shaw Kalon Portfolios, L.L.C., (ii) exposure to 1,375,000 shares through derivative instruments in the name of D. E. Shaw Kalon Portfolios, L.L.C., and (iii) 2,854,000 shares in the name of D. E. Shaw Special Opportunities Portfolios, L.L.C.

11,733,370 shares

D. E. Shaw
Heliant Adviser,
L.L.C.:

This is composed of (i) 7,504,370 shares in the name of D. E. Shaw Kalon Portfolios, L.L.C., (ii) exposure to 1,375,000 shares through derivative instruments in the name of D. E. Shaw Kalon Portfolios, L.L.C., and (iii) 2,854,000 shares in the name of D. E. Shaw Special Opportunities Portfolios, L.L.C.

11,754,836 shares

D. E. Shaw & Co., L.L.C.: This is composed of (i) 7,504,370 shares in the name of D. E. Shaw Kalon Portfolios, L.L.C., (ii) exposure to 1,375,000 shares through derivative instruments in the name of D. E. Shaw Kalon Portfolios, L.L.C., (iii) 2,854,000 shares in the name of D. E. Shaw Special Opportunities Portfolios, L.L.C., (iv) 16,300 shares that Diffusion Markets, L.L.C. has the right to acquire through the exercise of listed call options, (v) 5,059 shares in the name of Diffusion Markets, L.L.C., and (vi) 107 shares in the name of D. E. Shaw Asymptote Portfolios, L.L.C.

12,159,439 shares

D. E. Shaw & Co., L.P.: This is composed of (i) 7,504,370 shares in the name of D. E. Shaw Kalon Portfolios, L.L.C., (ii) exposure to 1,375,000 shares through derivative instruments in the name of D. E. Shaw Kalon Portfolios, L.L.C., (iii) 2,854,000 shares in the name of D. E. Shaw Special Opportunities Portfolios, L.L.C., (iv) 189,392 shares in the name of D. E. Shaw Valence Portfolios, L.L.C., (v) 215,100 shares that D. E. Shaw Valence Portfolios, L.L.C. has the right to acquire through the exercise of listed call options, (vi) 16,300 shares that Diffusion Markets, L.L.C. has the right to acquire through the exercise of listed call options, (vii) 5,059 shares in the name of Diffusion Markets, L.L.C., (viii) 107 shares in the name of D. E. Shaw Asymptote Portfolios, L.L.C., and (ix) 111 shares under the management of D. E. Shaw Investment Management, L.L.C.

12,159,439 shares

David E. Shaw: This is composed of (i) 7,504,370 shares in the name of D. E. Shaw Kalon Portfolios, L.L.C., (ii) exposure to 1,375,000 shares through derivative instruments in the name of D. E. Shaw Kalon Portfolios, L.L.C., (iii) 2,854,000 shares in the name of D. E. Shaw Special Opportunities Portfolios, L.L.C., (iv) 189,392 shares in the name of D. E. Shaw Valence Portfolios, L.L.C., (v) 215,100 shares that D. E. Shaw Valence Portfolios, L.L.C. has the right to acquire through the exercise of listed call options, (vi) 16,300 shares that Diffusion Markets, L.L.C. has the right to acquire through the exercise of listed call options, (vii) 5,059 shares in the name of Diffusion Markets, L.L.C., (viii) 107 shares in the name of D. E. Shaw Asymptote Portfolios, L.L.C., and (ix) 111 shares under the management of D. E. Shaw Investment Management, L.L.C.

(b) Percent of class:

D. E. Shaw Heliant Manager, L.L.C.:	5.0%
D. E. Shaw Heliant Adviser, L.L.C.:	5.0%
D. E. Shaw & Co., L.L.C.:	5.0%
D. E. Shaw & Co., L.P.:	5.2%
David E. Shaw:	5.2%

(c) Number of shares to which the person has:

(i) Sole power to vote or to direct the vote:
 D. E. Shaw Heliant Manager, L.L.C.: -0- shares

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D. E. Shaw Heliant Adviser, L.L.C.:	-0- shares
D. E. Shaw & Co., L.L.C.:	-0- shares
D. E. Shaw & Co., L.P.:	-0- shares
David E. Shaw:	-0- shares

(ii) Shared power to vote or to direct the vote:

D. E. Shaw Heliant Manager, L.L.C.:	11,733,370 shares
D. E. Shaw Heliant Adviser, L.L.C.:	11,733,370 shares
D. E. Shaw & Co., L.L.C.:	11,754,836 shares
D. E. Shaw & Co., L.P.:	12,159,439 shares
David E. Shaw:	12,159,439 shares

(iii) Sole power to dispose or to direct the disposition of:

D. E. Shaw Heliant Manager, L.L.C.:	-0- shares
D. E. Shaw Heliant Adviser, L.L.C.:	-0- shares
D. E. Shaw & Co., L.L.C.:	-0- shares
D. E. Shaw & Co., L.P.:	-0- shares
David E. Shaw:	-0- shares

(iv) Shared power to dispose or to direct the disposition of:

D. E. Shaw Heliant Manager, L.L.C.:	11,733,370 shares
D. E. Shaw Heliant Adviser, L.L.C.:	11,733,370 shares
D. E. Shaw & Co., L.L.C.:	11,754,836 shares
D. E. Shaw & Co., L.P.:	12,159,439 shares
David E. Shaw:	12,159,439 shares

David E. Shaw does not own any shares directly. By virtue of David E. Shaw's position as President and sole shareholder of D. E. Shaw & Co., Inc., which is the general partner of D. E. Shaw & Co., L.P., which in turn is the manager and investment adviser of D. E. Shaw Valence Portfolios, L.L.C. and the managing member of (i) D. E. Shaw Investment Management, L.L.C., (ii) D. E. Shaw Heliant Adviser, L.L.C., which in turn is the investment adviser of D. E. Shaw Kalon Portfolios, L.L.C. and D. E. Shaw Special Opportunities Portfolios, L.L.C., and (iii) D. E. Shaw Adviser, L.L.C., which in turn is the investment adviser of D. E. Shaw Asymptote Portfolios, L.L.C., which in turn is the managing member of Diffusion Markets Holdings, L.L.C., which in turn is the managing member of Diffusion Markets, L.L.C., and by virtue of David E. Shaw's position as President and sole shareholder of D. E. Shaw & Co. II, Inc., which is the managing member of D. E. Shaw & Co., L.L.C., which in turn is the managing member of (i) D. E. Shaw Heliant Manager, L.L.C., which in turn is the manager of D. E. Shaw Kalon Portfolios, L.L.C. and D. E. Shaw Special Opportunities Portfolios, L.L.C., and (ii) D. E. Shaw Manager, L.L.C., which in turn is the manager of D. E. Shaw Asymptote Portfolios, L.L.C., which in turn is the managing member of Diffusion Markets Holdings, L.L.C., which in turn is the managing member of Diffusion Markets, L.L.C., David E. Shaw may be deemed to have the shared power to vote or direct the vote of, and the shared power to dispose or direct the disposition of, the 12,159,439 shares as described above constituting 5.2% of the outstanding shares and, therefore, David E. Shaw may be deemed to be the beneficial owner of such shares. David E. Shaw disclaims beneficial ownership of such 12,159,439 shares.

Item 5. Ownership of Five Percent or Less of a Class

Not Applicable

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group

Not Applicable

Item 9. Notice of Dissolution of Group

Not Applicable

Item 10. Certification

By signing below, each of D. E. Shaw Heliant Manager, L.L.C., D. E. Shaw Heliant Adviser, L.L.C., D. E. Shaw & Co., L.L.C., D. E. Shaw & Co., L.P., and David E. Shaw certify that, to the best of such reporting person's knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having such purposes or effect.

SIGNATURE

After reasonable inquiry and to the best of their knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct. Powers of Attorney, dated December 16, 2014, granted by David E. Shaw in favor of Nathan Thomas, are attached hereto.

Dated: October 26, 2015

D. E. Shaw Heliant Manager, L.L.C.

By: /s/ Nathan Thomas
Nathan Thomas
Authorized Signatory

D. E. Shaw Heliant Adviser, L.L.C.

By: /s/ Nathan Thomas
Nathan Thomas
Chief Compliance Officer

D. E. Shaw & Co., L.L.C.

By: /s/ Nathan Thomas
Nathan Thomas
Authorized Signatory

D. E. Shaw & Co., L.P.

By: /s/ Nathan Thomas
Nathan Thomas
Chief Compliance Officer

David E. Shaw

By: /s/ Nathan Thomas
Nathan Thomas
Attorney-in-Fact for David E. Shaw

