

SIMMONS HAROLD C
 Form 4
 May 24, 2010

FORM 4

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

OMB APPROVAL

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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 *
SIMMONS HAROLD C

 (Last) (First) (Middle)
 5430 LBJ FREEWAY, SUITE 1700

 (Street)
 DALLAS, TX 75240

 (City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
TITANIUM METALS CORP [TIE]

3. Date of Earliest Transaction
 (Month/Day/Year)
 05/20/2010

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

5. Relationship of Reporting Person(s) to Issuer

 (Check all applicable)

Director 10% Owner
 Officer (give title below) Other (specify below)
 Chairman of the Board

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 Indirect Beneficial Ownership (Instr. 4)
Common Stock, \$.01 par value	05/20/2010		A ⁽¹⁾	1,000 A	7,422,787	D	
Common Stock, \$.01 par value					46,888,436	I	by VHC ⁽²⁾
Common Stock, \$.01 par value					882,568	I	by NL ⁽³⁾
Common Stock, \$.01 par value					826,959	I	by Valhi ⁽⁴⁾

par value				
Common Stock, \$.01 par value	566,529	I		by NL EMS <u>(5)</u>
Common Stock, \$.01 par value	150,000	I		by Contran <u>(6)</u>
Common Stock, \$.01 par value	21,575,875	I		by Spouse <u>(7)</u>
Common Stock, \$.01 par value	15,432	I		by Trust <u>(8)</u>

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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(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 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)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Owned Beneficially (Instr. 5)
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
SIMMONS HAROLD C 5430 LBJ FREEWAY, SUITE 1700 DALLAS, TX 75240	X	X	Chairman of the Board	
		X		

Simmons Annette C
5430 LBJ FREEWAY, SUITE 1700
DALLAS, TX 75240

Signatures

A. Andrew R. Louis, Attorney-in-fact, for Annette C. Simmons	05/24/2010
__Signature of Reporting Person	Date

A. Andrew R. Louis, Attorney-in-fact, for Harold C. Simmons	05/24/2010
__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) Shares issued for no cash consideration to directors under the Titanium Metals Corporation 2008 Long-Term Incentive Plan.
- (2) Directly held by Valhi Holding Company. See the Additional Information filed as Exhibit 99 to this statement for a description of the relationship to the persons joining in this filing.
- (3) Directly held by NL Industries, Inc. See the Additional Information filed as Exhibit 99 to this statement for a description of the relationship to the persons joining in this filing.
- (4) Directly held by Valhi, Inc. See the Additional Information filed as Exhibit 99 to this statement for a description of the relationship to the persons joining in this filing.
- (5) Directly held by NL Environmental Management Services, Inc. See the Additional Information filed as Exhibit 99 to this statement for a description of the relationship to the persons joining in this filing.
- (6) Directly held by Contran Corporation. See the Additional Information filed as Exhibit 99 to this statement for a description of the relationship to the persons joining in this filing.
- (7) Directly held by the reporting person's spouse. The reporting person disclaims beneficial ownership of these shares .
- (8) Directly held by The Annette Simmons Grandchildren's Trust. See the Additional Information filed as Exhibit 99 to this statement for a description of the relationship to the persons joining in this filing.

Remarks:

Exhibit Index:

Exhibit 99 Additional Information

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.