

McPherson Scott E
 Form 4
 May 25, 2006

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 *
 McPherson Scott E

2. Issuer Name and Ticker or Trading Symbol
 Core-Mark Holding Company, Inc.
 [CORE]

5. Relationship of Reporting Person(s) to Issuer
 (Check all applicable)

(Last) (First) (Middle)
 395 OYSTER POINT BLVD.,
 SUITE 415
 (Street)

3. Date of Earliest Transaction
 (Month/Day/Year)
 05/24/2006

____ Director
 ____ Officer (give title below)
 ____ 10% Owner
 ____ Other (specify below)
 VP - U.S. Divisions

SOUTH SAN FRANCISCO, CA 94080

(City) (State) (Zip)

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)
			Code	V	Amount	(A) or (D)	Price
Coremark Common Stock	05/24/2006		M		4,888	A	\$ 0
Coremark Common Stock	05/24/2006		S		1,400	D	\$ 39.59
Coremark Common Stock	05/24/2006		S		200	D	\$ 39.55
	05/24/2006		S		3,288	D	\$ 39.50

Coremark
Common
Stock

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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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)	Amount or Number of Shares
Restricted Stock Units	\$ 0					02/01/2006 02/08/2015	Coremark Common Stock	8,968
Restricted Stock Units	\$ 0	05/24/2006		M	4,888	08/23/2005 08/23/2014	Coremark Common Stock	4,888

Reporting Owners

Reporting Owner Name / Address

Relationships

Director 10% Owner Officer Other

McPherson Scott E
395 OYSTER POINT BLVD., SUITE 415
SOUTH SAN FRANCISCO, CA 94080

VP - U.S. Divisions

Signatures

James Wall,
POA 05/25/2006

**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) Represents grants under 2005 LTIP previously reported on Form 3 as a dollar value with the resulting shares to be determined under a pricing formula based on the average closing price of the company's common stock.

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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