Piell Hilda Harris
Form 4
September 17, 2010

FORM 4

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

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
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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).

(Print or Type Responses)

1. Name and Address of Reporting Person *
Piell Hilda Harris

(Last) (First) (Middle)

20 S. WACKER DRIVE

(Street)

CHICAGO, IL 60606

(City) (State) (Zip)

2. Issuer Name **and** Ticker or Trading Symbol
CME GROUP INC. [CME]

3. Date of Earliest Transaction (Month/Day/Year)
09/15/2010

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 below) _____ Other (specify below)
MD & Chief HR Officer

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 (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)
			Code	V	Amount	(A) or (D)	Price			
Common Stock Class A	09/15/2010		A		744	A	$ 0	1,583	D	
Common Stock Class A	09/15/2010		F		44 (1)	D	$ 271.49	1,539	D	

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

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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 Amo Underlying Secu (Instr. 3 and 4)	
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Am or Nu of Sh
Non-Qualified Stock Option (right to buy)	$ 271.49	09/15/2010		A		1,668		09/15/2011(2)	09/15/2020	Common Stock Class A	1

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Piell Hilda Harris 20 S. WACKER DRIVE CHICAGO, IL 60606			MD & Chief HR Officer	

Signatures

By: Margaret C. Austin For: Hilda L. Piell	09/17/2010
**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) Ms. Piell surrendered shares to the Company in order to fulfill tax withholding obligations upon the vesting of restricted stock on September15, 2010.

(2) These options were granted on September 15, 2010. They vest over a four-year period, with 25% vesting one year after the grant date and 25% vesting on that same date in each of the following three years, subject to acceleration or termination in certain circumstances.

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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