

O'Connell Gerald T
 Form 4
 June 17, 2010

FORM 4

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

OMB APPROVAL

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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 *
 O'Connell Gerald T

2. Issuer Name and Ticker or Trading Symbol
 CBOE Holdings, Inc. [CBOE]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)
 C/O CBOE HOLDINGS, INC., 400
 SOUTH LASALLE STREET

3. Date of Earliest Transaction
 (Month/Day/Year)
 06/15/2010

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
 Executive VP and CIO

(Street)
 CHICAGO, IL 60605

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

(City) (State) (Zip)

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)
Unrestricted Common Stock	06/15/2010		A	(A) or (D)	77,650 (1) \$ 0 77,650	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)

