Joyce Edward J Form 3 June 14, 2010

FORM 3

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

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF **SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, response... 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 *

Joyce Edward J

(Last)

(First)

(Middle)

Statement

(Month/Day/Year)

06/14/2010

2. Date of Event Requiring 3. Issuer Name and Ticker or Trading Symbol

CBOE Holdings, Inc. [CBOE]

Person(s) to Issuer

4. Relationship of Reporting

(Check all applicable)

President and COO

5. If Amendment, Date Original

Filed(Month/Day/Year)

C/O CBOE HOLDINGS. INC., 400 SOUTH LASALLE

STREET

(Street)

Director _X__ Officer (give title below) (specify below)

10% Owner Other

6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting

Person

Form filed by More than One Reporting Person

CHICAGO, ILÂ 60605

(City) (State) (Zip)

1. Title of Security (Instr. 4)

Table I - Non-Derivative Securities Beneficially Owned 2. Amount of Securities

Beneficially Owned

(Instr. 4)

3. Ownership 4. Nature of Indirect Beneficial

Ownership Form: (Instr. 5)

Direct (D) or Indirect (I) (Instr. 5)

Reminder: Report on a separate line for each class of securities beneficially

Date

owned directly or indirectly.

SEC 1473 (7-02)

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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)

2. Date Exercisable and **Expiration Date** (Month/Day/Year)

3. Title and Amount of Securities Underlying **Derivative Security**

4. 5. Conversion Form of or Exercise

6. Nature of Indirect Ownership Beneficial Ownership (Instr. 5)

(Instr. 4)

Derivative Price of Derivative Security: Direct (D)

Expiration Title Amount or Security Exercisable Number of Date

Shares

or Indirect (I)

(Instr. 5)

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

Joyce Edward J

C/O CBOE HOLDINGS, INC. 400 SOUTH LASALLE STREET CHICAGO. ILÂ 60605

Â President and COO Â

Signatures

/s/ Patrick Sexton, attorney-in-fact 06/14/2010

**Signature of Reporting Person Date

Explanation of Responses:

No securities are beneficially owned

* If the form is filed by more than one reporting person, see Instruction 5(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).

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Remarks:

Exhibit List: Exhibit 24 - Power of Attorney

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.

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