FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| washington, D.C. 20049                       | OMB APPROVAL |      |  |  |  |
|--|--------------|------|--|--|--|
| STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP | OMB Number:  | 3235 |  |  |  |

| OMB Number:              | 3235-0287 |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|
| Estimated average burden |           |  |  |  |  |  |  |
| hours per response:      | 0.5       |  |  |  |  |  |  |

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person*  KRAUSE JAMES R |   |  |  |                             |                              | 2. Issuer Name and Ticker or Trading Symbol CHICAGO MERCANTILE EXCHANGE HOLDINGS INC [ CME ] |  |   |            |  |       |                  |   |                |                       | 5. Relationship of Report<br>(Check all applicable)<br>Director |  |                     | on(s) to Issi<br>10% Ov<br>Other (s                                      | ner  |
|--|---|--|--|-----------------------------|------------------------------|--|--|---|------------|--|-------|------------------|---|----------------|-----------------------|---|--|---------------------|--|--|
| (Last) (First) (Middle) 20 S. WACKER DRIVE               |   |  |  |                             |                              | Date o   |  | t Trar  | nsac       | tion (Mor  | nth/D | ay/Year)         | <u> </u>  | below)         |                       |   | below)   |                     |  |  |
| (Street) CHICAC  |   | tate)                                      | 60606<br>(Zip)                                 | . Doriu                     | -                            |  |  | 6. Individual or Joint/Group Filing (Check Line)  X Form filed by One Reporting Person  Curities Acquired, Disposed of, or Beneficially Owned |            |  |       |                  |   | orting Persor  | ı                     |   |  |                     |  |  |
| 1. Title of S  | Security (Inst  |  | ne i - Noi                                     | 2. Trans<br>Date<br>(Month) | saction                      | ear)   | 2A. Deen<br>Executio<br>if any<br>(Month/D | ned<br>n Dat  | е,         | 3.<br>Transac<br>Code (Ir<br>8)                          | tion  |                  | ties Acqui  | red (A         | () or                 | 5. Amour<br>Securitie<br>Beneficia                              | ount of ities Form: Direct (D) or Indirect (I) (Instr. 4) action(s) 3 and 4) |                     |  | 7. Nature of Indirect Beneficial Ownership                         |
| Common   | Stock Class   | s A  |  | 06/1                        | 5/200                        | 17   |  |   |            | Code   | V     | Amount 155       | (A) (D)   | - -            | Price \$0             | Transact<br>(Instr. 3 a   | ion(s)   | (4)                 |  |  |
|  |   |  | Гable II -                                     | <br>Deriva                  | ative                        | Sec  |  |   |            |  |       |                  | or Ber  | efic           |                       |   |  |                     |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)      | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deeme<br>Execution<br>if any<br>(Month/Day | Date,                       | 4.<br>Transa<br>Code (<br>8) |  | of E                                       |   | Exp        | 6. Date Exercisal<br>Expiration Date<br>(Month/Day/Year) |       |                  | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative Secur<br>(Instr. 3 and 4) |                |                       | 8. Price of<br>Derivative<br>Security<br>(Instr. 5)             | ive derivative<br>y Securitie  | e<br>s<br>ally<br>g | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|  |   |  |  |                             | Code                         | v  |  |   | Dat<br>Exe | te<br>ercisable  |       | xpiration<br>ate | Title   | or<br>Nu<br>of | nount<br>mber<br>ares |   |  |                     |  |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to        | \$552.7   | 06/15/2007                                 |  |                             | A                            |  | 1,055                                      |   | 06/        | 15/2008 <sup>(1</sup>                                    | ) 0   | 6/15/2017        | Common<br>Stock<br>Class A  |                | 055                   | \$0   | 1,055  | ,                   | D  |  |

## **Explanation of Responses:**

1. These options were granted on June 15, 2007. They vest over a five-year period, with 20% vesting one year after the grant date and 20% vesting on that same date in each of the following four years, subject to acceleration or termination in certain circumstances.

> By: Margaret C. Austin For: James R. Krause

06/19/2007

\*\* Signature of Reporting Person

Date

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

- \* 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).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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 Number.