

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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

| OMB APPROVAL                                 |           |
|--|-----------|
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|--|--|--|
| 1. Name and Address of Reporting Person*<br><u>KRAUSE JAMES R</u><br><br>(Last) (First) (Middle)<br><u>20 S. WACKER DRIVE</u><br><br>(Street)<br><u>CHICAGO IL 60606</u><br><br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>CHICAGO MERCANTILE EXCHANGE HOLDINGS INC [ CME ]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)<br>Director 10% Owner<br>Officer (give title below) Other (specify below)<br>X <b>MD &amp; CIO</b> |
|  | 3. Date of Earliest Transaction (Month/Day/Year)<br><u>08/15/2006</u>                                  |  |
|  | 4. If Amendment, Date of Original Filed (Month/Day/Year)   |  |
|  |  | 6. Individual or Joint/Group Filing (Check Applicable Line)<br>X Form filed by One Reporting Person<br>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            | 08/15/2006                           |  | M                              |   | 5,000   | A          | \$63.01  | 7,680   | D  |   |
| Common Stock Class A            | 08/15/2006                           |  | S                              |   | 5,000 <sup>(1)</sup>  | D          | \$466.52 | 2,680   | D  |   |

**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 Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|-------|--|-----------------|---|--|--|---|--|
|  |  |                                      |  | Code                           | V | (A)  | (D)   | Date Exercisable   | Expiration Date |   |  |  |   |  |
| Non-Qualified Stock Option (right to buy)  | \$63.01  | 08/15/2006                           |  | M                              |   |  | 5,000 | 06/06/2006 <sup>(2)</sup>                                | 06/06/2013      | Common Stock Class A  | \$0  | 3,900  | D   |  |

**Explanation of Responses:**

- This sale was completed pursuant to the terms of a pre-arranged trading plan established in accordance with rule 10b5-1.
- On June 6, 2006, this option vested with respect to 60% of the granted number of shares covered by the option. On the anniversary of that date in each of the two subsequent years, the option will vest with respect to an additional 20% of the shares covered by the option, subject to acceleration or termination in certain circumstances.

By: Margaret C Austin For Krause, James R 08/17/2006

\*\* 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.