

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

**Post-Effective Amendment No. 2**  
To  
**FORM S-8**  
**REGISTRATION STATEMENT**  
UNDER THE SECURITIES ACT OF 1933

**CHICAGO MERCANTILE EXCHANGE HOLDINGS INC.**

(Exact name of registrant as specified in its charter)

Delaware

36-4459170

(State or other jurisdiction of  
incorporation or organization)

(I.R.S. Employer  
Identification No.)

20 South Wacker Drive  
Chicago, Illinois 60606  
(312) 930-1000  
(Address of Principal Executive Offices)

Agreement between  
Chicago Mercantile Exchange Holdings Inc. and  
James J. McNulty  
(Full Title of Plan)

Kathleen M. Cronin, Esq.  
Managing Director, General Counsel and Corporate Secretary  
Chicago Mercantile Exchange Holdings Inc.  
20 South Wacker Drive  
Chicago, Illinois 60606  
(312) 930-1000  
(Name, Address and Telephone Number, including Area Code, of Agent for Service)

**CALCULATION OF REGISTRATION FEE**

Title of Shares To Be Registered	Amount To Be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Class A Common Stock, par value \$.01 per share (including rights to acquire Series A Junior Participating Preferred Stock pursuant to our rights plan)	100,000	\$110.46	\$11,046,000	\$1,400

- (1) Represents shares of our Class A common stock issuable upon exercise of a portion of the Class B portion of the option Mr. McNulty received under his employment agreement, together with an indeterminate number of shares of our Class A common stock that may become issuable under Mr. McNulty's employment agreement as a result of a stock split, stock dividend or similar adjustment of the outstanding shares of our Class A common stock. In accordance with Rule 416 under the Securities Act of 1933, as amended, such indeterminate number of additional shares as may be issuable as a result of such adjustments are also registered hereby.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee, pursuant to Rule 457(c) of the Securities Act of 1933, as amended, based on the average of the high and low prices of our Class A common stock on April 8, 2004, as reported on the New York Stock Exchange.

## Explanatory Note

This Post-Effective Amendment No. 2 (“Amendment No. 2”) to the Registration Statement on Form S-8 (Registration No. 333-104804) (the “Original Registration Statement”), as amended by Post-Effective Amendment No. 1 (“Amendment No. 1), of Chicago Mercantile Exchange Holdings Inc., a Delaware corporation (the “Company”), is being filed by the Company to register an additional 100,000 shares of the Company’s Class A common stock, par value \$.01 per share, issuable pursuant to the exercise of a portion of the Class B portion of the option granted to the Company’s former Chief Executive Officer under his employment agreement.

### Incorporation of Prior Registration Statement by Reference

The Company hereby incorporates by reference into this Amendment No. 2 the contents of the Original Registration Statement and Amendment No. 1.

### Part II

#### Information Required in the Registration Statement

#### Item 8. Exhibits

<u>Exhibit Number</u>	<u>Description</u>
5.1	Opinion of Kathleen M. Cronin, Managing Director, General Counsel and Corporate Secretary.
23.1	Consent of Ernst & Young LLP.
23.2	Consent of Kathleen M. Cronin (included in Exhibit 5.1).
24.1*	Power of Attorney.

\* The Power of Attorney for Craig S. Donohue is included on the signature page of this Amendment No. 2. All other Powers of Attorney were previously filed in the Original Registration Statement.

**Signatures**

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Post-Effective Amendment No. 2 to the Original Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Chicago, State of Illinois, on April 12, 2004.

**CHICAGO MERCANTILE EXCHANGE HOLDINGS INC.**

By: /s/ KATHLEEN M. CRONIN

Kathleen M. Cronin  
Managing Director, General Counsel and  
Corporate Secretary

**Power of Attorney**

KNOW ALL PERSONS BY THESE PRESENTS, that Craig S. Donohue whose signature appears below constitutes and appoints Phupinder S. Gill, David G. Gomach and Kathleen M. Cronin, and each of them, his true and lawful attorney-in-fact and agents with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to the Original Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Signature

Title

/s/ CRAIG S. DONOHUE

Chief Executive Officer and Director

Craig S. Donohue

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 2 to the Original Registration Statement has been signed by the following persons in the capacities indicated below on April 12, 2004.

Signature

Title

/s/ CRAIG S. DONOHUE

Chief Executive Officer and Director

Craig S. Donohue

\*

Chairman of the Board and Director

Terrence A. Duffy

*	Managing Director and Chief Financial Officer
David G. Gomach	
*	Managing Director and Chief Accounting Officer
Nancy W. Goble	
*	Director
Timothy R. Brennan	
*	Director
Martin J. Gepsman	
*	Director
Daniel R. Glickman	
*	Director
Scott Gordon	
*	Director
Bruce F. Johnson	
*	Director
Gary M. Katler	
*	Director
Patrick B. Lynch	
*	Director
Leo Melamed	
*	Director
William P. Miller II	
*	Director
John D. Newhouse	
*	Director
James E. Oliff	
*	Director
William G. Salatich	
*	Director
John F. Sandner	
*	Director
Terry L. Savage	

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Director

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Myron S. Scholes

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Director

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William R. Shepard

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Director

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Howard J. Siegel

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Director

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David J. Wescott

\* By:           /s/ KATHLEEN M. CRONIN          

Kathleen M. Cronin,  
as attorney-in-fact

**Index to Exhibits**

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20 South Wacker Drive  
Chicago, IL 60606-7499  
www.cme.com

312/930.1000 *tel*  
312/466.4410 *fax*

April 12, 2004

Chicago Mercantile Exchange Holdings Inc.  
20 South Wacker Drive  
Chicago, Illinois 60606

Re: Chicago Mercantile Exchange Holdings Inc.  
Post-Effective Amendment No. 2 to  
Registration Statement on Form S-8

Ladies and Gentlemen:

I am the Managing Director, General Counsel and Corporate Secretary of Chicago Mercantile Exchange Holdings Inc., a Delaware corporation (the "Company"). This opinion is delivered in connection with the registration of 100,000 shares (the "Shares") of the Company's Class A common stock, par value \$.01 per share (the "Common Stock"), which are issuable upon exercise of stock options granted under the Agreement, dated February 7, 2000, between the Company and James J. McNulty, as amended (the "Agreement").

This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act of 1933, as amended (the "Act").

In rendering the opinions set forth herein, I have examined originals or copies, certified or otherwise identified to my satisfaction, of (i) the Company's Registration Statement on Form S-8 (Registration No. 333-104804) as filed with the Securities and Exchange Commission (the "Commission") on April 29, 2003 under the Act; (ii) the Company's Post-Effective Amendment No. 1 to the Registration Statement, filed with the Commission on September 9, 2003, (iii) a draft of the Company's Post-Effective Amendment No. 2 to the Registration Statement, to be filed with the Commission on the date hereof (such Registration Statement, as so amended, being hereinafter referred to as the "Registration Statement"); (iv) a specimen certificate representing the Common Stock; (v) the Amended and Restated Certificate of Incorporation of the Company, as amended to date and currently in effect; (vi) the Amended and Restated By-Laws of the Company, as amended to date and currently in effect; and (vii) the Agreement. I also have examined originals or copies, certified or otherwise identified to my satisfaction, of such records of the Company and such agreements, certificates of public officials, certificates of officers or other representatives of the Company and others, and such other documents, certificates and records as I have deemed necessary or appropriate as a basis for the opinions set forth herein.

In my examination, I have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to me as originals, the conformity to original documents of all documents submitted to me as certified, conformed or photostatic copies and the authenticity of the originals of such latter documents. In making my examination of executed documents, I have assumed that the parties thereto, other than the Company, had the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents and the validity and binding effect thereof on such parties. As to any facts material to the opinions expressed herein that I did not independently establish or verify, I have relied upon statements and representations of officers and other representatives of the Company and others and of public officials.

I am admitted to the bar in the State of Illinois, and I do not express any opinion as to the laws of any jurisdiction other than the General Corporation Law of the State of Delaware, and I do not express any opinion as to the effect of any other laws on the opinions stated herein.

Based upon and subject to the foregoing, I am of the opinion that when (i) the Registration Statement becomes effective under the Act; and (ii) certificates representing the Shares to be issued under the Agreement in the form of the specimen certificate examined by me have been manually signed by an authorized officer of the transfer agent and registrar for the Common Stock and registered by such transfer agent and registrar, and have been delivered and paid for in accordance with the terms and conditions of the Agreement, the issuance and sale of such Shares will have been duly authorized, and such Shares will be validly issued, fully paid and nonassessable.

I hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement. In giving this consent, I do not thereby admit that I am included in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission.

Very truly yours,

/s/ KATHLEEN M. CRONIN

Kathleen M. Cronin

Managing Director, General Counsel and Corporate Secretary

**Consent of Independent Auditors**

We consent to the incorporation by reference in the Post Effective Amendment No. 2 to Registration Statement (Form S-8 No. 333-104804) of our report dated February 2, 2004, with respect to the consolidated financial statements and schedules of Chicago Mercantile Exchange Holdings Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2003, filed with the Securities and Exchange Commission.

ERNST & YOUNG LLP

Chicago, Illinois  
April 12, 2004