

August 3, 2006

Mail Stop 4561

Mr. Craig S. Donohue  
Chief Executive Officer and Director  
Chicago Mercantile Exchange Holdings Inc.  
20 South Wacker Drive  
Chicago, Illinois 60606

**Re: Chicago Mercantile Exchange Holdings Inc.  
Form 10-K for Fiscal Year Ended December 31, 2005  
Filed March 6, 2006  
File Number: 000-33379**

Dear Mr. Donohue:

We have reviewed filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K, filed March 6, 2006

Exhibit 13.1

Liquidity and Cash Management, page 49

1. We note your disclosure that cash performance bonds and security deposits are included in your consolidated balance sheets and also that with the exception of the portion of securities deposited that are utilized in your securities lending program, clearing firm deposits other than those retained in the form of cash are not included in your consolidated balance sheets. Please tell us how you differentiate between including or excluding cash performance bonds, security deposits, and non-cash deposits (primarily short-term U.S. Treasury securities as disclosed in footnote 2 on page 61) in your balance sheet and provide the authoritative guidance to support your accounting.

Consolidated Statements of Income, page 57

2. We note that you do not present operating and non-operating income and expenses separately, nor do you present cost of revenues as addressed in Article 5-03(2) of Regulation S-X. Please tell us:
  - how your statement of income presentation complies with Article 5-03 of Regulation S-X; and
  - why you have netted securities lending interest expense against revenues instead of treating it as a cost of revenues.
3. Please tell us how you determined individually that investment income and each element of other revenues:
  - were the result of central or core operations and not peripheral as addressed in paragraphs 78-89 of FASB Concept Statement 6; and
  - were not non-operating income or expense to be classified separately and addressed in Article 5-03(7)-(9) of Regulation S-X.
4. Please tell us how you determined that each element of "other expense," as well as other expense line items, should not be classified as selling, general, and administrative expenses as addressed in Article 5-03(4) of Regulation S-X.

Mr. Craig S. Donohue  
Chicago Mercantile Exchange Holdings Inc.  
August 3, 2006  
Page 3

\* \* \* \* \*

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your response to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact John Spitz, Staff Accountant at (202) 551-3484, or me at (202) 551-3490, if you have questions regarding these comments.

Sincerely,

Don Walker  
Senior Assistant Chief Accountant