



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-0404

July 7, 2006

Mr. Matthew J. Klaben, Esq.  
Vice President, General Counsel and Secretary  
Chart Industries, Inc.  
One Infinity Corporate Centre Drive  
Suite 300  
Garfield Heights, Ohio 44125-5370

**RE: Chart Industries, Inc.  
Amendment No. 3 to Form S-1  
File No. 333-133254  
Amended June 27, 2006**

Dear Mr. Klaben:

We have reviewed your filing and have the following comments. 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.

The Offering, page 5

1. We have reviewed your response to prior comment 2. Please disclose in a summarized manner similar to your supplemental response how you intend to account for the additional options to be received by the option holders as a result of the different ratio and your basis for that accounting. Please also supplementally demonstrate for us how you determined that the 10.1088-for-one adjustment on the options would result in each option having the same fair value as it did before the 4.6263-for-one stock split and the other dividends to shareholders.

Unaudited Pro Forma Statement of Operations, page 41

2. We have reviewed your response to prior comment 4. It does not appear that you have included a footnote that explains the offering adjustment to income tax expense. Please revise. In addition, please discuss in note (5) the impact of a 1/8% change in the variable interest rate on your pro forma earnings.
3. We have reviewed your response to prior comment 8. Please include a table in subnote (a) that shows precisely how you arrived at the 13.1 million shares you are using as the weighted average shares outstanding for basic EPS purposes. In

doing so, please also be sure to explain how you reflected the additional shares resulting from the exercised warrants and rollover options discussed in note (5).

Financial Statements

Consolidated Statements of Shareholders' Equity, page F-8

4. We have reviewed your response to prior comment 10. Retroactive effect to the stock split in the shares outstanding column would result in the number of shares shown in the cash investment line item as being 7,952, rather than 1,719. Please revise or advise.

Note J – Stock Option Plans, page F-34

5. We have reviewed your response to prior comment 11, including the table attached as Annex 1. Please tell us what intervening events occurred from November 23, 2005 through June 28, 2006 that caused the change in stock price. Your response should be detailed and present the events in the format of a timeline. In addition, please tell us when you first had discussions with your underwriters about filing an initial public offering, including what the estimated offering price range was at that time, and tell us what the results of those discussions were.
6. Regarding your stock option issuances on April 27, 2006 and May 26, 2006, you utilized a market value of \$121.10 in your fair value calculation. Given that the value of \$121.10 is based upon a valuation report dated March 31, 2006 and the issuances are approximately one to two months later, it is unclear as to why this value is appropriate. Due to the passage of time, the valuation is not as useful as one that would have been issued at the dates of the options issuances. Please advise.
7. It appears that a twenty percent minority interest discount was utilized in the income approach. Please provide us with objective and reliable evidence that there is a disproportionate return to minority shareholders. Without objective and reliable evidence, the utilization of a minority interest discount is not appropriate, as discussed in a speech given by Todd Hardiman, Associate Chief Accountant, at the 2004 Thirty-Second AICPA National Conference on Current SEC and PCAOB Developments on December 6, 2004.
8. Please provide us with more detailed information as to how a twenty percent lack of marketability discount was determined. Please discuss all examples that you considered in deriving your lack of marketability discount. Refer to the speech given by Todd Hardiman, Associate Chief Accountant, at the 2004 Thirty-Second AICPA National Conference on Current SEC and PCAOB Developments on December 6, 2004.

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9. One of the assumptions you used in the income approach was your determination that cash flows would increase by only three percent per year. Please tell us why you believe this assumption is accurate, and provide us with your long-term budgets which support the three percent increase per year.

Item 15 – Recent Sales of Unregistered Securities, page II-1

10. We have reviewed your response to prior comment 12. Please revise your disclosures here and throughout the filing to refer to the post split numbers of shares and options.

Closing Comments

You may contact Jeffrey Gordon at (202) 551-33866 or Rufus Decker at (202) 551-3769 if you have questions regarding comments on the financial statements and related matters. Please contact Craig Slivka at (202) 555-3729 or the undersigned Branch Chief who supervised review of your filings at (202) 551-3767, with any other questions.

Sincerely,

Jennifer Hardy  
Branch Chief

CC: Edward P. Tolley III, Esq.  
Simpson Thacher & Bartlett, LLP  
(212) 455-2502