

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

August 3, 2010

Mr. Michael F. Biehl Chief Financial Officer Chart Industries, Inc. One Infinity Corporate Center Drive, Suite 300 Garfield Heights, Ohio 44125

> Re: Form 10-K for Fiscal Year Ended December 31, 2009 Form 10-Q for Fiscal Quarter Ended June 30, 2010 Definitive 14A filed April 13, 2010 File No. 1-11442

Dear Mr. Biehl:

We have reviewed your response letter dated July 15, 2010 and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for Fiscal Year Ended December 31, 2009

Item 15. Exhibits and Financial Statement Schedules, page E-2

1. We note your response to comment 14 in our letter dated June 22, 2010 and reissue this comment. In this regard, we note that Item 601(b)(10) of Regulation S-K does not permit exclusion of these exhibits or schedules. If you believe there is competitively sensitive information in the exhibits or schedules, you may file an application for confidential treatment pursuant to Rule 24b-2 under the Exchange Act, which sets forth the exclusive means for obtaining confidential treatment of

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information contained in a document filed under the Exchange Act. Please also refer to Staff Legal Bulletins No. 1 and 1A, dated February 28, 1997 and July 11, 2001, respectively, which sets forth the Division of Corporation Finance's views regarding the proper preparation of a request for confidential treatment.

Definitive 14A filed April 13, 2010

Base Salary, page 20

2. We note your response to comment 19 in our letter dated June 22, 2010. Please note that to the extent that the committee's decisions regarding a named executive officer's individual performance were based upon a subjective evaluation, please ensure to discuss the specific contributions made by each executive and contextualize those achievements for purposes of demonstrating how they resulted in specific compensation decisions. Although quantitative targets for subjective or qualitative assessments may not be required, you should provide insight of how qualitative inputs are translated into objective pay determinations.

You may contact Sherry Haywood, Staff Attorney, at (202) 551-3345 or Craig Slivka, Special Counsel, at (202) 551-3729 if you have any questions regarding legal matters. Please contact Nudrat Salik, Staff Accountant, at (202) 551-3692 or me at (202) 551-3769 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Rufus Decker Accounting Branch Chief