

Mail Stop 4561

August 11, 2009

David Rendina  
President and Chief Executive Officer  
Global Cooling Technologies Corp.  
112 North Curry Street  
Carson City, Nevada 89703

**Re: Global Cooling Technologies Corp.  
Amendment No. 1 to Registration Statement on Form S-1  
Filed August 5, 2009  
File No. 333-160366**

Dear Mr. Rendina:

We have reviewed your amended Form S-1 and have the following comments. Where indicated, we think you should revise your document in response to these comments.

General

1. We note that you did not provide the acknowledgments that we requested, which appear at the end of our letter dated July 28, 2009. No later than concurrently with any request for acceleration of the effective date, provide the representations as requested. Note that the representations should be made by the company.
2. Revise to include an updated consent from your independent registered public accounting firm. In this regard, considering an extended period of time (30 days or more) has passed since your previous filing, the reference in your auditor's prior consent to "any filings that are necessary now or in the near future," does not satisfy the consent requirements in this Form S-1/A. Please revise accordingly.

Risk Factors, page 5

Because our current President and Chief Executive Officer has other business interests...., page 8

3. Please provide additional information regarding the companies with which you are involved. In this regard, clarify that Refinery Science Corp. and Nanoforce, Inc. are private companies. Disclose that Refinery Science Corp. filed a registration statement with the SEC in 2008 which was eventually withdrawn in

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2009. Explain the number of hours that you devote to Refinery Science Corp. and Nanoforce, Inc. Tell us why you believe you do not anticipate any potential conflicts of interest or business opportunities with these other companies.

Directors, Executive Officers, Promoter and Control Persons, page 19

4. Please refer to comment 9 in our letter dated July 28, 2009. You state on page 8 that you currently serve as Chief Executive Officer, as well as President and Director of Refinery Science Corp. We note that your biographical information on page 19 still does not reflect that you are currently the Chief Executive Officer of Refinery Science Corp although it does indicate that you are its president as well as a director. Please revise.

Executive Compensation, page 20

5. We note that your revised summary compensation table does not include a total amount in the last column. Please include all required disclosure pursuant to Item 402(n)(2)(x) of Regulation S-K.

Item 17. Undertakings, page 27

6. It appears that you deleted subparagraph (1) of the undertaking in Item 512(i) of Regulation S-K relating to Rule 430A, but did not delete subparagraph (2) of Item 512(i). Please revise or explain.

\* \* \* \* \*

You may contact Kathleen Collins, Accounting Branch Chief, at (202) 551-3499 if you have any questions regarding comments on the financial statements and related matters. Please address questions regarding all other comments to Jan Woo, Staff Attorney, at (202) 551-3453. If you need further assistance, you may contact me at (202) 551-3735.

Sincerely,

Barbara C. Jacobs  
Assistant Director

cc: Via facsimile at (206) 260-0111  
Thomas E. Puzzo, Esq.  
Law Offices of Thomas E. Puzzo, PLLC