



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

DIVISION OF  
CORPORATION FINANCE

August 16, 2012

Via E-mail

Jennifer Barber  
Chief Financial Officer  
Hydrogenics Corporation  
220 Admiral Boulevard  
Mississauga, Ontario  
Canada L5T 2N6

**Re: Hydrogenics Corporation  
Registration Statement on Form F-3  
Filed August 1, 2012  
File No. 333-182974  
Form 20-F for Fiscal Year Ended December 31, 2011  
Filed March 28, 2012  
File No. 000-31815**

Dear Ms. Barber:

We have limited our review of your registration statement to those issues we have addressed in our 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 by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. We note your language on page 27 stating that you may issue some or all of the securities offered by the prospectus in exchange for property, including securities or assets of yours or of other companies which you may acquire in the future. Please note that pursuant to General Instruction I.B.5 of Form F-3, you may only register securities that are being offered "for cash," and this does not include securities available for exchange offers or other business combination transactions. Please revise your disclosure accordingly and confirm that the securities being registered will be offered only "for cash." See Question 116.09 of the Compliance and Disclosure Interpretations for Securities Act Forms.

Prospectus Cover Page

2. Please include the "Subject to Completion Legend" required by Item 501(b)(10) of Regulation S-K. See Item 1 of Form F-3.

Description of Debt Securities, page 17

3. We note your disclosure on page 18 suggesting that the debt securities may be converted into debt or equity securities of one or more third parties. Please note that even if an exemption is available for the offer and sale of these third-party securities, you must provide information, possibly including financial statement and non-financial statement disclosures, about the issuer of the underlying securities in your registration statement. See Question 203.03 of the Securities Act Compliance and Disclosure Interpretations and the Morgan Stanley & Co., Incorporated No-Action Letter (June 24, 1996). If you wish to include the third-party securities, please provide us with your analysis as to why registration under the Securities Act is not required, and include the required third-party information in the prospectus. If you do not wish to offer third-party securities underlying any debt securities, please remove such references from the prospectus.

Exhibit Index

4. We note your footnote disclosure to Exhibit 25.1. Please note that you must file the Form T-1 under electronic form type "305B2" and may not include it in a post-effective amendment or as an exhibit to an Exchange Act Report that is incorporated by reference into the registration statement. Please revise your footnote disclosure accordingly. See Question 220.01 of the Compliance and Disclosure Interpretations for the Trust Indenture Act of 1939.

Undertakings, page II-4

5. Please include the undertaking in Item 512(a)(5)(i) of Regulation S-K.

Form 20-F for the Year Ended December 31, 2011

6. We note that the Independent Auditor's Report included on page F-4 is not dated and does not indicate the city and state where issued. Please amend your Form 20-F to provide a complete audit report that meets the requirements set forth in Item 202(a) of Regulation S-X.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. 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.

Jennifer Barber  
Hydrogenics Corporation  
August 16, 2012  
Page 3

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Erin Jaskot, Staff Attorney, at 202-551-3442 or me at 202-551-3765 with any other questions.

Sincerely,

/s/ Pamela Long

Pamela Long  
Assistant Director

cc: Mile T. Kurta, Esq. (*Via E-mail*)  
Torys LLP