



DIVISION OF  
CORPORATION FINANCE  
Mail Stop 3030

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

August 7, 2009

Lawrence E. Davis  
c/o Hydrogenics USA, Inc.  
27201 Tourney Road, Suite 201  
Valencia, California, 91355

**Re: Hydrogenics Corporation**  
**Registration Statement on Form F-4**  
**Filed July 13, 2009**  
**File No. 333-160551**

Dear Mr. Davis:

We have limited our review of your filing to those issues we have addressed in our 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 information so we may better understand your disclosure. After reviewing this information, we may 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 comment or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Please note that you should resolve all outstanding comments in our letter to you dated July 29, 2009 regarding your Form 20-F for the fiscal year ended December 31, 2008 prior to requesting acceleration of your registration statement.

Questions Relating to the Offer to Purchase, page 4; Summary, page 8

2. Given the highly complex series of transactions and arrangements that Hydrogenics Corporation and the Algonquin Power Income Fund, and the related entities, have to go through in order to accomplish the intended result (the exchange of cash for certain tax

benefits that would be valuable to APIF but not Hydrogenics), please indicate in plain, simple terms why the companies have determined to enter in the series of transactions described in the circular and the benefits expected to be achieved at the earliest appropriate location.

Summary, page 8

3. We note from the press releases attached as exhibits to the Form 6-Ks filed on July 27 and July 29, 2009 your announcement regarding shareholder approval and the court order approving the plan of arrangement. Please update your disclosure to reflect these developments.
4. We note from APIF's press release of July 27, 2009 that APIF's convertible debentureholders were requested to approve an extraordinary resolution to amend APIF's trust indenture in respect of its debentures in order to facilitate the transactions and arrangements contemplated in your filing. According to the press release, as a quorum was not present, the meeting has been adjourned until Monday, August 17, 2009. Please update your disclosure regarding the current status of the CD Exchange Offers.

Selected Pro Forma Financial Information of the Offeror, page 16

5. We note that the pro forma information reflects only the impact of the unit exchange offer and not the impact of the CD exchange offers under Scenarios I and II as shown in Appendix C. It appears that the pro forma information presented with respect to the CD exchange offers in Appendix C is presented to comply with Article 11 of Regulation S-X. As such, please tell us how you evaluated Item 3(e) of Form F-4 in determining that you were not required to present the pro forma information with respect to the CD exchange offers in the selected pro forma financial information. Please also consider this comment with respect to the same presentation on page 41. Please refer to Item 3A of Form 20-F.
6. Please tell us how you determined the amounts reflected for 'Distributions per Trust Unit' on page 17 and what this amount represents. We did not find similar disclosure in Appendix C. Discuss why this information is only presented with the U.S. GAAP pro forma information and not the Canadian GAAP information.

Comparative per Share Data, page 18

7. We note that the comparative per share data is only presented under Canadian GAAP. Please tell us how you considered Instruction 2 to paragraphs (e) and (f) of Item 3 of Form F-4 in determining not to also provide information under U.S. GAAP. Refer to Instruction 2 to Item 3.A of Form 20-F.
8. We note that the company presents pro forma information in Appendix C. Please tell us how you considered Item 3(f) of Form F-4 in determining not to present pro forma per share

information. With respect to the pro forma per share information, if required, please also consider our comment above with respect to presenting pro forma information to reflect both Scenarios I and II for the CD exchange offers.

9. Please reconcile the net income per unit from continuing operations for APIF for the quarter ended March 31, 2009 with the interim financial statements of APIF on page B-5-3 of Appendix B.

The Offer, page 21

10. Please show us how you determined the amount of tax attributes of C\$192.0 million related to the transaction and tell us the nature of the tax attributes. Please relate your response to the pro forma financial statements presented in Appendix C.

Selected Historical and Pro Forma Financial Information, page 39

Pro Forma Consolidated Capitalization, page 44

11. Similar to our comment above, please discuss your consideration of only presenting pro forma capitalization information reflecting Scenario II of the CD exchange offer and not also Scenario I pro forma information consistent with your presentation of pro forma information in Appendix C.
12. If true, please disclose within note (2) that the pro forma information is consistent with Scenario II presented in your pro forma financial statements in Appendix C.
13. Please tell us if you intend to file a Form 20-F within four business days of completion of the acquisition under Exchange Act Rules 13a-19 and 15d-19 and Instruction A(d) to Form 20-F. In addition, since we note that the auditors' report refers to an audit performed in accordance with U.S. GAAS, please tell us whether you plan to provide audited financial statements in the Form 20-F that have been audited in accordance with the standards of the Public Company Accounting Oversight Board (U.S.) by an auditor who is independent in accordance with PCAOB/SEC independence rules for at least the latest fiscal year as long as the auditor is independent in accordance with home country standards for earlier periods. Confirm that the auditor's report in the Form 20-F will refer to the standards of the Public Company Accounting Oversight Board (U.S.). Refer to Rule 2-01(f)(5)(iii) of Regulation S-X.

Comparison of Rights, page 44

14. We note that your disclosure is qualified by reference to the articles of incorporation and by-laws both as currently in effect and as will be in effect at the completion of the Transaction. Please tell us where you have filed these documents or forms thereof.

Support Agreement, page 54

15. Please quantify the range of any additional or post closing amounts which may be payable by Hydrogenics. If you are unable to quantify these amounts please explain why you are unable to do so. Also please explain how you determined that this unquantified liability would not constitute a material risk to investors.

Certain U.S. Federal Income Tax Considerations, page 65

16. The legal disclosure provided should address all material income tax consequences of the transaction, not just "certain" consequences. Please revise.
17. We note your disclosure in the third paragraph that "APIF has represented that it is a corporation for U.S. federal tax purposes..., even though APIF is organized as an open-ended unincorporated investment trust under Canadian law." Please provide us with counsel's analysis as to why it is reasonable to rely upon this representation in making the disclosed tax opinions. If necessary, please disclose the material tax consequences if APIF were not treated as a corporation for purposes of the tax opinions expressed and the material tax consequences if APIF were not treated as a corporation.

Consolidated Financial Statements of Algonquin Power Income Fund, page B-2-1

18. Please consider the updating requirements of Item 8.A of Form 20-F for the financial statements and related sections of the filing for both APIF and Hydrogenics.

Note 1. Significant Accounting Policies, page B-2-8

(a) Basis of Consolidation, page B-2-8

19. We note that you own, directly or indirectly, power generation and infrastructure facilities through investments in securities of subsidiaries including limited partnerships and other trusts. Further, we note that you consolidate *all* of your subsidiaries. Please tell us the how you account for your subsidiaries under U.S GAAP and why.

Note 13. Trust Units, page B-2-34

20. Please tell us how you account for the redeemable trust units and exchangeable shares for purposes of U.S. GAAP. We noted no U.S. GAAP reconciling item for the shares and units.

Auditor's Report on the Reconciliation to Generally Accepted Accounting Principles in the United States, page B-3-2

21. Your auditors' report on the reconciliation to U.S. GAAP is not signed. Please file an amendment to the Form F-4 that includes a signed report consistent with Rule 2-02(a) of Regulation S-X and Rule 302 of Regulation S-T.

Unaudited Pro Forma Consolidated Financial Statements of Hydrogenics, page C-1-1

Note 1. Basis of Presentation, page C-1-8

22. Please reconcile the number of shares that will be issued for each \$1,000 of debenture principal of 311.52 common shares with the total number of common shares that may be issued of 11,764,705 for a maximum of \$40 million in convertible debentures.

Note 3. Pro Forma Adjustments and Assumptions Relating to the Unit Exchange Offer, page C-1-14

23. Please tell us and disclose the payment terms related to the \$10.8 million owed to New Hydrogenics. Clarify why you have reflected the \$10.8 million and \$3 million of transaction costs as long term liabilities. Please also clarify how you determined the interest rates used in adjustment (d) for the debt.
24. Please reconcile adjustment (a) with the adjustment shown on page A-6-79 which shows that Old Hydrogenics will transfer approximately C\$9.3 million to New Hydrogenics for the benefit of the tax attributes retained by Old Hydrogenics and that this amount is reflected as cash and not a long-term receivable.

Note 10. Pro Forma Net Earnings per Share, page C-1-23

25. If true, please disclose that this information is presented under U.S. GAAP.

Part II

Item 21. Exhibits and Financial Statement Schedules

26. We note the redactions from Exhibit 2.2 including from Sections 2.3, 2.4 and 3.2. Rule 406(a) of the Securities Act provides the exclusive means of requesting confidential treatment of information included in any document required to be filed. Please either file unredacted agreements as exhibits to your registration statement or file a confidential treatment request for the redacted portions of your exhibits. Please note that any confidential treatment requests submitted will have to be finalized before we can accelerate the effectiveness of your registration statement.

Exhibits 23.4 and 23.5

27. Please provide currently dated and signed consents prior to requesting effectiveness.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, 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.

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 connection with our review of your filing or in response to our comments on your filing.

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. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

Lawrence E. Davis  
c/o Hydrogenics USA, Inc.  
August 7, 2009  
Page 7

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Andri Boerman at (202) 551-3645 or Kaitlin Tillan, Assistant Chief Accountant at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Ruairi Regan at (202) 551-3269 or me at (202) 551-3635 if you have any other questions.

Sincerely,

Tim Buchmiller  
Senior Attorney

cc: Andrew J. Beck, Esq.  
Torys LLP  
(via facsimile)