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April 22, 2011

Via EDGAR and Federal Express

Division of Corporation Finance Securities and Exchange Commission 100 F. Street, N.E. Washington, D.C. 20549-7010 Mail Stop 4631

Attn.: Pamela A. Long, Assistant Director

RE: CryoPort, Inc.

Registration Statement on Form S-1

Filed: April 1, 2011 File No.: 333-173263

Dear Ms. Long:

On behalf of our client, CryoPort, Inc. (the "Company"), we are responding to the comments of the Staff of the Securities and Exchange Commission (the "Commission") as set forth in your letter dated April 18, 2011 to Larry G. Stambaugh, Chief Executive Officer of the Company, with respect to the Company's Registration Statement on Form S-1 (the "Registration Statement") which was filed with the Commission on April 1, 2011. We are enclosing Pre-Effective Amendment No. 1 to the Registration Statement on Form S-1 filed as of April 22, 2011 (the "Amended Registration Statement"). For your convenience, the Commission's comments have been repeated herein in bold, with the Company's response immediately following each of the Commission's comments. All page numbers refer to the Edgar version of the Amended Registration Statement.

General

1. Regarding the Registration Statement on Form S-1 (File No. 333-162350), which was initially filed on October 6, 2009 and became effective on February 25, 2010, we note that your prospectus appears to have been in use for more than nine months after the February 25, 2010 effective date of the registration statement. We further note that the audited financial statements contained therein, which are as of and for the fiscal year ended March 31, 2008, are older than 16 months and that you do not appear to have subsequently updated the audited financial statements in the prospectus pursuant to Section 10(a)(3) of the Securities Act of 1933, as amended, by filing a post-effective amendment to the registration statement. Please advise us as to whether any offers or sales were made pursuant to the prospectus during the period in which the financial statements were not current. Please refer to Section 10(a)(3) of the Securities Act and Question 113.01 of our Securities Act Forms Compliance and Disclosure Interpretations, which are available on our website.

The Company notes the Commission's comment and advises the Commission that the Registration Statement on Form S-1 (File No. 333-162350) which became effective on February 25, 2010, registered the public offering of units, each unit consisting of one share of common stock and one warrant to purchase one share of common stock at an exercise price of \$3.30 per share, and registered the issuance of the shares of common stock upon exercise of the warrants. To date, none of the warrants has been exercised and no offers or sales have been made during the period in which the financial statements were not current.

Calculation of Registration Fee

2. We note footnote (1) disclosure to the Calculation of Registration Fee table. Please revise the footnote disclosure to specify the exact dollar amount of the fee that had been paid previously and is being applied to the new registration statement. In this regard, please see footnote 21 in SEC Release No. 33-7168.

The Company notes the Commission's comment and has revised footnotes (4) and (5) to the Calculation of Registration Fee table to state the exact dollar amount of the fee previously paid and being applied to the current registration statement.

Prospectus Summary, page 1

3. Please disclose here that the auditors have issued a going concern opinion. We note "Our auditors have expressed doubt about our ability to continue as a going concern" risk factor on page five.

The Company notes the Commission's comment and has revised the Prospectus Summary at page 1 to disclose that the Company's auditor had issued a going concern qualification in connection with its audit report for the fiscal year ended March 31, 2010.

4. Please include in this section a brief summary of the material terms of 2010 and 2011 private placements, describing how the securities were acquired by the selling stockholders. To the extent applicable, please disclose any material differences between the terms of the two exempt offerings. With respect to the tradable warrants, please indicate that they were issued in connection with the company's IPO.

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The Company notes the Commission's comment and has revised the Prospectus Summary at page 2 to include brief summaries of the 2010 and 2011 private placements and to indicate that the tradable warrants were issued in connection with the Company's public offering in February 2010.

Risk Factors, page 5

The sale of substantial shares of our common stock may depress our stock price, page 7

5. Please address under a separate caption the dilutive effect that the exercise of the warrants may have on the existing stockholders. Please quantify such effect to the extent possible.

The Company notes the Commission's comment and has added a new risk factor to quantify the ownership dilution that would occur to the Company's existing stockholders who are not selling security holders under the Registration Statement if the selling security holders were to exercise all of the warrants held by them.

Security Ownership of Certain Beneficial Owners, page 53

6. Based on your disclosure here, it appears that your beneficial owners hold 12.49% of your outstanding stock. Please reconcile this disclosure with the disclosure in "Certain of our existing stockholders own and have the right to acquire a substantial number of shares..." risk factor on page 13 where you disclose a beneficial ownership percentage of 15.1%.

The Company notes the Commission's comment and advises the Commission that the calculation of the 15.1% beneficial ownership in the risk factor was determined on a group basis for all directors, officers and the two stockholders, hence all shares that could be acquired by them within 60 days of March 15, 2011, upon conversion of debt and exercise of options and warrants were added to the number of existing outstanding shares for purposes of determining their aggregate beneficial ownership. For purposes of the table on page 53, the group calculation was only done for directors and officers (resulting in 2.69%), but not for the two stockholders, hence adding their respective percentages to the director and officer group total would not result in the same aggregate total.

The Company has revised the table to add a new summation for all directors, officers and 5% or greater beneficial owners which now ties out with the percentage noted in the risk factor. Note also that the percentages for BridgePointe and Enable are now calculated without regard to the 4.9% ownership limitation contained in their warrants, as is noted in footnote (3) to the table.

7. Based on your Selling Security Holder Table disclosure on page 57, it appears that AQR Diversified Arbitrage Fund and Emergent Financial Group, Inc. each hold more than 5% of the company's outstanding stock. Please tell us why they are not listed in the beneficial ownership table, or otherwise revise your disclosure accordingly.

The Company notes the Commission's comment and has revised the disclosure on the beneficial ownership table to include Emergent Financial Group, Inc. and CNH Partners, LLC, the beneficial owner of the shares of common stock held in the name of AQR Diversified Arbitrage Fund and related funds.

8. To the extent that the "Percentage of Shares Owned" column is intended to indicate the ownership percentage of the selling stockholders prior to the offering, please complete your disclosure accordingly.

The Company notes the Commission's comment and has revised the Selling Security Holder Table to include the percentage of shares owned by each of the selling security holders both before and after the offering.

9. Rule 429(a) of the Securities Act requires that the combined prospectus in the latest registration statement must include all of the information that currently would be required in a prospectus relating to all offering(s) that it covers. As such, please revise the footnote disclosures to identify for each selling stockholder the transaction and the number of shares each selling stockholder acquired in that transaction.

The Company notes the Commission's comment and has revised the footnote disclosures in the Selling Security Holder Table to indentify the private placement transaction(s) in which each selling security holder acquired his, her or its shares of common stock and warrants.

Part II, page II-1

Exhibits, page II-5

10. Please file as exhibits to the registration statement each form of warrant agreement issued in the 2010 and 2011 private placements.

The Company notes the Commission's comment and advises that the form of warrant agreement for each of the 2010 and 2011 private placements have been filed as Exhibits 4.14 and 4.15, respectively.

Exhibit 5.1 — Opinion of Counsel

11. Please have counsel clarify for us the purpose of the following statement in the final paragraph of its opinion: "We are furnishing this opinion to the Company solely in connection with the Registration Statement." We are concerned that this statement might be an impermissible attempt to limit the ability of investors to rely on the opinion.

The Company notes the Commission's comment and advises that the opinion of counsel has been revised to remove the statement in question and has been refiled.

Exhibit 10.31

12. Please include a footnote in the exhibit index to indicate that certain portions of this exhibit have been omitted based upon a request for confidential treatment. We note that on March 24, 2011 the Commission issued an order granting confidential treatment with respect to this exhibit.

The Company notes the Commission's comment and has added footnote "***" and has indicated that portions of Exhibit 10.31 have been omitted pursuant to a request for confidential treatment.

Undertakings, page II-10

13. Please remove the undertakings set forth in Item 512(a)(6) of Regulation S-K, as well as the undertakings related to reliance on Rule 430A, as inapplicable. Please revise your disclosure to include the Item 512(a)(5)(ii) undertakings.

The Company notes the Commission's comment and has revised its undertakings accordingly.

If you have any questions regarding the Amended Registration Statement or the above, please do not hesitate to give me a call at (714) 427-7402.

Very truly yours,

Snell & Wilmer

/s/ Mark R. Ziebell

Mark R. Ziebell

cc: Larry G. Stambaugh