



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 4631

November 9, 2015

Via E-mail

Matt Hamilton
General Counsel
GlyEco, Inc.
4802 E. Ray Rd., Ste. 23-408
Phoenix, AZ 85044

**Re: GlyEco, Inc.
Registration Statement on Form S-1
Filed October 26, 2015
File No. 333-207608**

Dear Mr. Hamilton:

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. Please update your financial statements for the period ending September 30, 2015 in accordance with Rule 8-08 of Regulation S-X.
2. We note your discussion that shareholders will not recognize any gain or loss in connection with the receipt or exercise of the subscription rights. Please provide a tax opinion addressing the material tax consequences of this transaction. See Item 601(b)(8) of Regulation S-K and Section III.A.2 of Staff Legal Bulletin No. 19.

Calculation of Registration Fee Table, page 2

3. Please list the subscription rights in your registration fee table.

Preliminary Prospectus, page 3

4. Please revise to disclose the number of subscription rights you are offering in this registration statement. See Item 501(b)(2) of Regulation S-K.
5. Please disclose the record date and termination date here and throughout your amended registration statement.

Description of Securities, page 37

6. Please provide a description of the subscription rights in accordance with Item 202(c) of Regulation S-K.

Legal Representation, page 37

7. Please revise your disclosure to state that counsel has passed on the validity of each of the securities covered by your registration statement, not only the common stock.

Exhibit Index

8. Please file the form of subscription rights certificate as an exhibit.

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.

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.

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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 David Korvin, Staff Attorney at 202-551-3236 or me at 202-551-3397 with any questions.

Sincerely,

/s/ Jay Ingram

Jay Ingram
Legal Branch Chief
Office of Manufacturing and
Construction

cc: Via E-mail
David Danovitch, Esq.
Robinson Brog Leinwand Greene Genovese & Gluck, P.C