



DIVISION OF
CORPORATION FINANCE

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

May 1, 2012

Via E-mail

J. Gregory Holloway
Vice President, General Counsel and Secretary
USA Compression Partners, LP
100 Congress Avenue, Suite 450
Austin, Texas 78701

**Re: USA Compression Partners, LP
Registration Statement on Form S-1
Filed April 4, 2012
File No. 333-180551**

Dear Mr. Holloway:

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. Since you appear to qualify as an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act (“the Act”), please disclose on your prospectus cover page that you are an emerging growth company, and revise your prospectus to provide the following additional disclosures:
 - Describe how and when a company may lose emerging growth company status;
 - A brief description of the various exemptions that are available to you, such as exemptions from Section 404(b) of the Sarbanes-Oxley Act of 2002 and Section 14A(a) and (b) of the Securities Exchange Act of 1934; and
 - Your election under Section 107(b) of the Act:

- If you have elected to opt out of the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b) of the Act, include a statement that the election is irrevocable; or
- If you have elected to use the extended transition period for complying with new or revised accounting standards under Section 102(b)(2)(B) of the Act, provide a risk factor explaining that this election allows you to delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. Please state in your risk factor that, as a result of this election, your financial statements may not be comparable to companies that comply with public company effective dates. Include a similar statement in your critical accounting policy disclosures in MD&A.

Please make similar revisions in your registration statement on Form S-1 (File No. 333-174803).

2. Please file the remaining exhibits with your next amendment, or as soon as possible, to allow us sufficient time to review such exhibits prior to requesting acceleration of the effectiveness of the registration statement.

Our Cash Distribution Policy and Restrictions on Distributions, page 32

3. We note the statement in the transmittal letter of your counsel dated April 3, 2012 that you intend for the DRIP to be available as soon as possible following effectiveness of your IPO registration statement so that interested unit holders can participate in the DRIP for your first quarterly distribution as a public company. Please explain why you determined to exclude pro forma cash available for distribution for the year ended December 31, 2011, estimated cash available for distribution for the year ending December 31, 2012 and the related assumptions and considerations.

Item 17. Undertakings, page II-3

4. Please revise to provide the undertakings required by Item 512(a)(3) and (a)(5)(b) of Regulation S-K.

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.

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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.

You may contact Scott Stringer at (202) 551-3272 or Andrew Mew at (202) 551-3377 if you have questions regarding comments on the financial statements and related matters. Please contact Catherine Brown at (202) 551-3513 or me at (202) 551-3720 with any other questions.

Sincerely,

/s/ Catherine T. Brown for

Mara L. Ransom
Assistant Director

cc: Sean T. Wheeler, Esq.
Latham & Watkins LLP