



DIVISION OF
CORPORATION FINANCE

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

July 7, 2011

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 June 9, 2011
File No. 333-174803**

Dear Mr. Holloway:

We have reviewed your registration statement and have the following 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. If 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 a number of blank spaces throughout your registration statement for information that may not properly be excluded under Rule 430A of Regulation C. Provide all information required with respect to a bona fide offering price range, the number of common units and all other information left blank in your prospectus that you are not permitted to omit pursuant to Rule 430A as soon as practicable. Please allow us sufficient time to review your complete disclosure prior to any distribution of preliminary prospectuses.
2. Please update all information in the prospectus to the most recent practicable date.

3. Prior to the effectiveness of this registration statement, please have a representative of the Financial Industry Regulatory Authority confirm to us that they have completed their review, including their review regarding the underwriting compensation terms and arrangements pertaining to this offering.
4. Please provide us with any gatefold information such as pictures, graphics or artwork that will be used in the prospectus.
5. Please disclose the underwriters for this offering. We will not continue to process the filing if the next amendment does not include such information.
6. Please provide a description of the Amended and Restated Limited Liability Company Agreement of USA Compression GP, LLC, which is included as an exhibit.
7. Please provide a description, and include as an exhibit, the Amended and Restated Limited Liability Company Agreement of USA Compression Holdings, LLC.
8. In an appropriate place, please clarify whether USA Compression Holdings, LLC holds all of your limited partner interests; if not, please provide further disclosure regarding your current ownership structure.

Summary, page 1

9. Please disclose the basis for your assertions about your or your affiliates' competitive position within your industry. As examples only, and not an exhaustive list:
 - You state on pages 1, 76 and 97 that you are "one of the largest independent providers of compression services in the U.S."
 - You refer on pages 76 and 77 to your operation "in some of the fastest growing U.S. natural gas shale plays."
 - You refer to your "superior service run times" on page 78.

If the statement is based on a study, article or report, please disclose the source of the information in your filing and provide copies of these documents to us supplementally, appropriately marked to highlight the sections relied upon. If you funded or were otherwise affiliated with any such study or report, please disclose this. Note that if any of this information was prepared by a third party for inclusion in this registration statement, you should file the consent of such party as an exhibit. Otherwise, please confirm that these sources are widely available to the public. If you do not have appropriate independent support for a statement, please revise the language to make clear that this is your belief based on your experience in the industry, if true.

Natural Gas Compression Fundamentals, page 2

10. Please provide citations to the relevant U.S. Energy Information Agency reports so that investors may refer to them. Please also provide us supplementally with such reports, appropriately marked to highlight the sections relied upon.

Business Strategies, page 3

Pursue accretive acquisition opportunities, page 3

11. Please indicate, here and elsewhere as appropriate, whether you have engaged in any discussions or otherwise identified any potential acquisition targets. We note that you indicate on page 23 that you have not actively pursued acquisitions previously.

Competitive Strengths, page 4

12. If you choose to highlight your company's competitive strengths in the summary, please balance that disclosure with a discussion of the principal competitive challenges facing the company.

Our Management, page 9

13. Please briefly describe and quantify the general partner's and its affiliates' fees and expenses that are paid prior to the distributions. Make similar disclosures elsewhere in the filing as applicable. Refer to Securities Act Release No. 33-6900.

Risk Factors, page 20

Risks Inherent in an Investment in Us, page 30

USA Compression Holdings may sell units..., page 36

14. You refer to a section entitled "Certain Relationships and Related Party Transactions – Agreements with Affiliates – Registration Rights Agreement," however, we do not see the section. Please advise.

Our Cash Distribution Policy and Restrictions on Distributions, page 46

15. Please describe in greater detail the operating fees and expenses paid to the general partner and quantify these payments here and elsewhere in the filing as applicable. Refer to Securities Act Release No. 33-6900.

Our Minimum Quarterly Distribution, page 47

16. You state that the actual amounts of distributions were based on the amount of cash you generate from your business as well as the amount of cash reserves your general partner established in accordance with the partnership agreement. Please tell us and disclose how much of the cash reserves you plan to establish and how they were determined here and elsewhere in the filing.

Estimated Cash Available for Distribution for the Twelve Months Ending September 30, 2012, page 51

17. We note that the most recent historical and pro forma financial statements for the three months period ended March 31, 2011. In that regard, we are unclear why it is appropriate to present the forecasted estimated adjusted EBITDA as well as the estimated cash available for distribution for the twelve month periods ended September 30, 2012. We believe it is very difficult, if possible, to reasonably project financial information for any forecasted period more than twelve months from the most recent historical financial statements presented. As such, we believe you should consider revising the statement to cover the twelve months from the most recent historical financial statements presented such as presenting the statement for the period ended March 31, 2012 with respect to this filing as opposed to the same period ended September 30, 2012.
18. We are unclear why you did not provide for cash reserves reduction to estimated adjusted EBITDA on page 53 to arrive at estimated cash available for distribution. Please advise us or revise.
19. Explain to us why you did not subtract principal re-payments in connection with your long-term debt for the period to arrive at the estimated cash available for distribution or revise.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 76

Financial Results of Operations, page 83

Three months ended March 31, 2011 compared to the three months ended March 31, 2011, page 83

20. Refer to the table that summarizes the operating results for the periods presented. Please label the column headers as predecessor and successor and distinguish the two reporting periods with a heavy black line.

Management of USA Compression Partners, LP, page 109

21. We note your disclosure that after the offering you will have a conflicts committee to review conflicts of interest between you, your limited partners and USA Compression Holdings. Please revise to clarify, if known, whether the committee will resolve conflicts of interest in the same manner they currently are resolved, as described under “Conflicts of Interest and Fiduciary Duties.”

Directors and Executive Officers, page 110

22. Please revise your disclosure to describe the business experience of Messrs. Moody, Ward, Wassenaar and Shea for the past five years, or clarify your current disclosure by adding dates or the duration of employment. Refer to Item 401(e) of Regulation S-K.

Compensation Discussion and Analysis, page 112

Annual Performance-Based Compensation for 2010, page 115

23. Please revise to clarify the EBITDAR target for 2010 utilized in determining the bonus compensation of Messrs. Smith and Moody, as well as the bonus compensation amounts earned by Messrs. Smith and Moody for 2010.

Employment and Severance Agreements, page 117

24. Please file the employment agreements with your named executive officers as exhibits to the registration statement. See Item 601(b)(10) of Regulation S-K.

Director Compensation, page 123

25. Please provide the disclosure required by Item 402(k) of Regulation S-K, or tell us why such disclosure is not required.

2011 Long-Term Incentive Plan, page 123

26. Please revise to clarify generally when your general partner intends to adopt the 2011 Long-Term Incentive Plan, if known.

Security Ownership of Certain Beneficial Owners and Management, page 126

27. Please revise footnote 2 of the table to identify the “certain of [y]our executive officers” and the “unrelated third party” who also own equity interests in USA Compression Holdings.

Certain Relationships and Related Party Transactions, page 127

28. Please disclose the information required by Item 404(b) of Regulation S-K.

Distributions and Payments to Our General Partner and Its Affiliates, page 128

29. We note the information contained in the table on page 127. Please include a summary tabular presentation, itemizing by category and specifying dollar amounts where possible, of all compensation, fees, profits, and other benefits (including reimbursement for out of pocket expenses) which the general partner and its affiliates may earn or receive in connection with the offering or operation of the partnership. Refer to Securities Act Release No. 33-6900 and Industry Guide 5.

Conflicts of Interest and Fiduciary Duties, page 129

Fiduciary Duties, page 134

Rights and remedies of unitholders, page 136

30. Please also explain the defenses available to the general partner. Refer to Securities Act Release No. 33-6900.

The Partnership Agreement, page 139

Indemnification, page 151

31. Please clarify whether there are any limitations or conditions regarding your indemnification obligations and describe the circumstances in which you will not indemnify the parties identified in this section.

Unaudited Pro Forma Financial Statements, page F-2

32. Please separate the pro forma adjustments related to the acquisition on December 23, 2010 from those related to offering by providing a subtotal column first to give effect to the acquisition in the presentation. Then you should provide the pro forma adjustments to give effect to the offering before arriving at the final column.

Note (2). Pro Forma Adjustments and Assumptions, page F-6

33. Explain to us and disclose how and where you classify incentive distribution rights (“IDR”) as a separate class of equity on the face of the unaudited pro forma balance sheets. It appears the IDR is a class of equity and we note that it can be sold or transferred separately from the general partnership interests.

34. We note your disclosure on page F-16 that there was stock compensation expense triggered as a result of the business combination that occurred on December 23, 2010. Nonrecurring costs directly attributable to the acquisition should be disclosed in a footnote to the pro forma's with clear disclosure that such costs were not included. We were not able to identify similar disclosure in the pro forma footnotes. Please explain the extent you considered this disclosure.

(2) Pro Forma and Adjustments

2(d), page F-6

35. We note your pro forma adjustments related to the fees and expenses in connection with the intended amendment to your credit facility upon the closing of the offering. In that regard, explain to us why the fees and expenses are factually supportable. Otherwise, please revise to remove the adjustment.

2(f) and 2(h), pages F-6 and F-7

36. Please explain your basis for including adjustments 2(f) and 2(h) related to the purchase of compression units and adjustment 2(i) for the termination of interest rate swaps as they are not factually supportable. Also, it appears they are not directly attributable to your Offering. Please advise us or revise. Similarly, revise to adjust the interest expenses resulting from adjustments 2(f), (h) and (i).

2 (g), page F-7

37. Notwithstanding the above comment, please explain whether there is a material difference in the interest rate on the revolving credit versus the amended revolving credit facility and which rate was used to calculate pro forma interest expense. To the extent material please revise note 2(g) to make it transparent to readers the interest rates used in arriving at pro forma interest.

(3) Pro Forma Net Income Per Limited Partner Unit, page F-8

38. Based on your disclosure, it appears you would apply the two-class EPS method in your pro forma earnings per unit presentation, as described in paragraphs 72 and 73 of ASC 260-10-45. In that regard, explain to us why you did not allocate the distribution to the 2% general partner' equity interests in your earnings per unit calculation.
39. We note your use of the offering proceeds to repay your indebtedness under your revolving credit facility. In that regard, please adjust your weighted average unit denominator in computing pro forma earnings per unit to include only those common units whose proceeds are used for the repayment.

Historical Financial Statements, page F-10

General

40. We note that you presented predecessor and successor financial statements in the filing. However, we are unclear about your basis in presenting them as we note no disclosures in Note 1 or elsewhere in the filing, regarding USA Compression Holdings, LLC (“Holdings”) succeeding to substantially all of the business of USA Compression Partners, L.P. (the “Partnership”) and whether Holdings’ own operations prior to the succession was insignificant relative to the acquired operations. Please advise us and expand your disclosure. In addition, tell us and disclose how Holdings acquires the Partnership and what consideration Holdings had given to the unit holders of the Partnership in affecting the transaction. Refer to Rule 405 of Regulation C.
41. We believe the financial statements of limited partnerships should be presented so that the ownership classes of general partners and limited partners can readily determine their relative participation in both the net assets of the partnership and in the results of operations. To achieve this, the equity section of your balance sheet should distinguish between amounts ascribed to each ownership class. The equity attributed to the general partners should be stated separately from the equity of the limited partners, and changes in the number of equity units authorized and outstanding should be shown for each ownership class. The income statements should be presented in a manner which clearly shows the aggregate amount of net income (loss) allocated to the general partners and the aggregate amount allocated to the limited partners. The statement of income should also state the results of operations on a per unit basis. Reference made to Rule 5-02 of Regulation S-X and SAB Topic 4.F.

Notes to Consolidated Financial Statements – December 31, 2010, 2009, 2008, page F-15

(1)The Partnership, Nature of Business, and Recent Transactions, page F-16

42. Refer to the acquisition of the Partnership by Holdings. We note that you use December 31, 2010 as a date of convenience for the predecessor period rather than the December 23, 2010 consummation date as you believe the impact of recording the change in control as of December 23, 2010 would not have a material impact on the consolidated financial statements. However, we note that there were \$3,906,716 of stock based compensation expense and \$4,906,870 of acquisition related costs which were triggered by the transaction, in which the amounts had not been recognized in the predecessor period financial statements and the amounts appear to be material. Please explain to us your basis for not recognizing the expenses in the predecessor period. In addition, we cannot locate the expense amounts in the successor period financial statements. Please clarify for us and in your disclosures where you recorded them in the financial statements.

(2) Summary of Significant Accounting Policies, page F-17

(m) Intangible Assets, page F-20

43. We note you established an estimated useful life of 25 to 30 years related to your customer relationships and trade names. Given that your predecessor company was formed in 1998 and that customer contracts generally range from one month to five years, please clarify for us, in sufficient detail how you reached the conclusion that 25 to 30 years is a reasonable estimate considering the amortization period significantly exceeds the period of time in which the company has been in existence and the contract period with your customers.

Part II

Item 16. Exhibits, page II-2

44. Please file all required exhibits in a timely manner so that we may have sufficient time to review them before you request effectiveness of your registration statement. See Item 601 of Regulation S-K.
45. We note that several of the exhibits that you plan to file by amendment are “form of” agreements. Please confirm that the “form of” agreements that you plan to file will be consistent with Instruction 1 to Item 601 of Regulation S-K, and that any “form of” agreement that deviates from the final agreement in any other way will be re-filed accordingly.
46. Please include all exhibits and schedules to the credit agreement when filed.

Item 17. Undertakings, page II-4

47. Please note that due, in part, to the language of Securities Act Rule 430C(d), the undertakings included in Items 512(a)(5)(ii) and 512(a)(6) of Regulation S-K should be included in filings for initial public offerings. Please revise your filing to include those undertakings.

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.

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, Staff Accountant, at (202) 551-3272 or Andrew Mew, Accounting Branch Chief, at (202) 551-3377, if you have questions regarding comments on the financial statements and related matters. Please contact Ronald E. Alper, Staff Attorney, at (202) 551-3329, Lilyanna Peyser, Staff Attorney, at (202) 551- 3272, or me, at (202) 551-3720, with any other questions.

Sincerely,

/s/ Lilyanna L. Peyser for

James Allegretto
Senior Assistant Chief
Accountant

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