

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

June 3, 2005

via U.S. mail

Stephen C. Taylor President and Principal Executive Officer Natural Gas Services Group, Inc. 2911 South County Road 1260 Midland, Texas 79706

> Re: Natural Gas Services Group, Inc. Registration Statement on Form S-3/A Filed May 23, 2005 File No. 333-122687

Form 10-KSB for the fiscal year ended December 31, 2004 Filed March 30, 2005

Form 10-QSB for the period ended March 31, 2005 Filed May 16, 2005

Response Letter dated May 23, 2005

Dear Mr. Taylor:

We have reviewed the above filings and response letter and have the following comments. We have limited our review to the areas commented on below. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or revision is unnecessary. Please be as detailed as necessary in your explanation.

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 comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form S-3/A

Incorporation of Documents by Reference, page 2

1. Please amend the disclosure in this section so that it includes a reference to the Form 10-KSB/A for the fiscal year ended December 31, 2004 that was filed on May 4, 2005.

Plan of Distribution, page 17

2. We reissue our prior comment 3. Please confirm whether Mr. Gurley acquired the securities in the ordinary course of business and at the time of the acquisition did not have any arrangements or understandings with any person to distribute the securities. If not, you must indicate that Mr. Gurley is an underwriter.

Form 10-KSB for the fiscal year ended December 31, 2004 Form 10-QSB for the period ended March 31, 2005

Controls and Procedures, page 31 (of Form 10-K)

- 3. Please amend your disclosures regarding disclosure controls and procedures to address the following issues. Refer to Regulation S-B, Rule 307, and Release 33-8238.
 - Clearly disclose the conclusions of your principal executive and principal financial officers, or persons performing similar functions. In this regard:
 - We note that your disclosure refers to the participation of your "chief executive officer" and your "principal accounting officer." It is necessary for your officers to provide conclusions rather than to only participate in the evaluation.
 - O Additionally, it appears to us that your chief financial officer, who signed a certification in compliance with Section 302 of the Sarbanes-Oxley Act, rather than your principal accounting officer, is the appropriate principal financial officer to provide a conclusion along with your principal executive officer.
 - Your disclosure reads, "... we have evaluated the effectiveness of our disclosures controls and procedures..." and "They have concluded that these disclosures provide reasonable assurance..." In this regard:
 - o It is necessary to disclose whether your principal executive and principal financial officers concluded that your disclosure controls and procedures were effective or were not effective. Please amend your filing to clearly indicate as such, rather than discussing whether your controls provide reasonable assurance. In so doing, please be careful to refer specifically to your officers rather than to "we" or to "they."
 - If you choose to elaborate regarding the definition of "disclosure controls and procedures," please be certain to include all of the components of the definition. Alternatively, you may wish to simply refer to the definition found at Rule 13a-15(e) or 15d-15(e) of the Securities Exchange Act of 1934, as amended.

Closing Comments

As appropriate, please amend the above filings 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 supplemental information. Detailed cover letters greatly facilitate our review. Please file your cover letter on EDGAR. 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 filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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 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 your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a 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.

Please direct all questions relating to the above to Mellissa Campbell Duru, at (202) 551-3757, or in her absence, to the undersigned at (202) 551-3745.

Natural Gas Services Group, Inc.. June 3, 2005 page 4

Sincerely,

H. Roger Schwall Assistant Director

via facsimile

David A. Thayer, Esq. Jackson Kelly PLLC (303) 390-0003

cc: H.R. Schwall

M. Duru S. Eisen