

JONES & KELLER, P.C.
1999 Broadway, Suite 3150
Denver, Colorado 80202

Telephone (303) 785-1623
Telecopier (303) 573-8133

December 27, 2010

VIA EDGAR
Mr. Ethan Horowitz, Branch Chief
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: Natural Gas Services Group, Inc.
Form 10-K for the fiscal year ended December 31, 2009
Form 10-Q for the fiscal quarter ended September 30, 2010
File No. 1-31398

Dear Mr. Horowitz:

Enclosed for filing via EDGAR on behalf of Natural Gas Services Group, Inc. (the "Company") is its response to the comments of the Staff contained in the Staff's letter dated December 14, 2010, commenting on the filings referenced above. Our responses are in bold following the restatement of your questions, which are in non-bold italics.

Form 10-Q Comment

1. *We note that revenue for your Sales segment decreased from \$41,380,000 for the fiscal year ended December 31, 2008 to \$21,657,000 for the fiscal year ended December 31, 2009 (i.e., approximately \$19,723,000 and 47.8%) and from \$16,813,000 for the nine months ended September 30, 2009 to \$6,936,000 for the nine months ended September 30, 2010 (i.e. approximately \$9,877,000 and 58.7%). We also note that you attributed these decreases to lower demand for your products due to an industry slowdown. With a view toward future disclosure, please provide us with a detailed analysis of the significant underlying factors identified by management which caused these decreases. In addition, please provide a discussion of management's expectations for the future operating performance of your Sales segment including the anticipated demand for your products.*

The downturn in our Sales segment is due to the overall slowdown in the economy and specific energy industry factors, especially with respect to prices for natural gas (Henry Hub Spot prices), which have been very volatile and declined from a high of \$13.31/MMBtu in July 2008 to a low of \$2.42/MMBtu in August 2009. The price of natural gas on September 30, 2010 was \$3.85/MMBtu. Because of the significant decline in natural gas prices, along with economic uncertainty and tightened credit, the energy industry encountered reduced capital spending, particularly for goods and services with respect to natural gas activities. In addition, capital project funding was shifted from gas projects to oil projects as the price of oil was not as volatile as gas, and oil prices have rebounded from its lows compared to natural gas prices. Since our compressors are primarily used in the production of natural gas, our compressor sales have been significantly impacted due to the factors described above. We also had a customer curtail its purchasing activity during the transition period following its acquisition by an industry major.

We anticipate that our sales revenue should resume its growth in 2011, although it is estimated that it will be at a slower rate than our rental business. Our strategy over time has been to accelerate our rental revenues so that they are a larger component of our top line, but we intend to maintain our ability to build and sell custom fabricated equipment. In support of this, we have begun cultivating new sales-oriented customers and entertaining requests for bids on larger reciprocating compressors instead of being solely focused on screw-type equipment.

In future Exchange Act filings, we will expand our discussion of compressor sales variances similar to the disclosure set forth above when warranted.

2. *We note your statement that your “controls and procedures can only provide reasonable, not absolute, assurance” that the objectives of your system of controls will be met. Please confirm that in future Exchange Act filings you will revise to state, if true, that your disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives and that your principal executive officer and principal financial officer concluded that your disclosure controls and procedures are effective at that reasonable assurance level. In the alternative, you may remove the reference to the level of assurance provided by your disclosure controls and procedures.*

We confirm your comment. We will revise the “Controls and Procedures” section of our future Exchange Act filings to state, if true, that our principal executive and financial officer concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in reports we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the Commission’s rules and forms, and (2) accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

The Company has authorized us to acknowledge the following:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert staff comments as defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please feel free to contact me if you have any comments or questions.

Very truly yours,

JONES & KELLER, P.C.

By: /s/ David A. Thayer
David A. Thayer
