

February 27, 2009

Via Fax and EDGAR

Mr. H. Roger Schwall
Assistant Director
Division of Corporation Finance
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549
Mail Stop 7010

Re: TGC Industries, Inc. (the "Company")
Form 10-K for the Fiscal Year Ended December 31, 2007
Filed March 14, 2008, File No. 001-32472
Response Letter dated February 6, 2009
File Number 001-32472

Dear Mr. Schwall:

We are in receipt of the Commission's comment letter dated February 17, 2009. To facilitate your review of our response to your letter, our response has been inserted directly below your comment in the enclosed "reproduction" of the original Commission letter. After we have been advised that the proposed response is sufficient, we will include such disclosure in the Company's future filings.

We appreciate your assistance with our compliance with the applicable disclosure requirements and with the enhancement of the disclosures in our filings. If you have any questions concerning our response, please contact the undersigned.

Sincerely,

TGC INDUSTRIES, INC.

/s/ James K. Brata
James K. Brata
Chief Financial Officer

Attachment

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

February 17, 2009

Via U.S. Mail

Kenneth Uselton
Secretary and Treasurer
TGC Industries, Inc.
101 East Park Boulevard, Suite 955
Plano, Texas 75074

**Re: TGC Industries, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2007
Filed March 14, 2008
Response Letter dated February 6, 2009
File Number 001-32472**

Dear Mr. Uselton:

We have reviewed your response letter and have the following comments. Please provide a written response to our comments. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Schedule 14 A Definitive Proxy Statement, filed April 25, 2008

Executive Compensation, page 14

1. We note your response to our prior comment 3. Your Executive Compensation discussion should provide an analysis of the material factors underlying your compensation policies and decisions. Please supplementally provide us with modified disclosure regarding the "financial and non-financial criteria" and the duties to "lead the Company, develop personnel, and continually improve the Company's service and operations" as they

specifically pertain to your Company and to the evaluation of your executive officers. Tell us how you evaluate the fulfillment of these criteria and duties and how your evaluation affects the allocation of the bonus pool amounts. Refer to the Instructions to Item 402(b) of Regulation S-K, and to the Commission's guidance available at <http://www.sec.gov/divisions/corpfin/guidance/execcompdisclosure.htm>, when formulating your response.

Company Response:

The Company has determined that performance objectives in connection with annual cash bonus opportunities are not material in the context of such awards. Profitability of the Company is the primary factor from year to year affecting the Compensation Committee's determination whether to award cash bonuses. The Compensation Committee's decisions regarding specific awards to different Company individuals are based on qualitative factors (such as effective leadership and communication) rather than quantitative performance goals (such as specific revenue or earnings targets). Accordingly, we propose to amend the Executive Compensation disclosure in the Company's proxy statement for its 2009 annual meeting of shareholders as follows (**changes underlined**):

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Overview of Compensation

Since October 16, 2007, the members of the Compensation Committee have been Messrs. McInnes, Gardner, Flynn, and Ms. Hurtt. Prior to the formation of the Committee, the Company's compensation policy and annual compensation applicable to the Company's executive officers was performed by the Board of Directors. The Compensation Committee has the responsibility for establishing and implementing the Company's overall executive compensation philosophy. Throughout this proxy statement, the individuals who served as the Company's Chief Executive Officer, Vice President and Chief Financial Officer during 2007, included in the Summary Compensation Table, are referred to as the "named executive officers."

Compensation Philosophy and Objectives

The primary objectives of our compensation policy are to build shareholder value and recognize the contributions each executive makes to the Company's success. In setting compensation levels, the Compensation Committee has established the following compensation philosophy and objectives for the Company's officers:

- **Align the interests of executives, including the Company's executive officers, with those of the shareholders.** The Compensation Committee believes it is appropriate to tie a portion of executive compensation to the value of the Common Stock in order to more closely align the interests of executive officers with the interests of shareholders. The Compensation Committee also believes that executives should have a meaningful ownership interest in the Company and has established and regularly reviews executive stock ownership.
- **Have a significant portion of pay that is performance-based.** The Company expects superior performance. The Company's executive compensation programs are designed to reward executives based on performance. The Compensation Committee believes that compensation paid to executives should closely align their performance with the performance of the Company on both a short-term and long-term basis.
- **Provide competitive compensation.** The Company's executive compensation programs are designed to attract, retain and motivate highly qualified executives critical to achieving the Company's strategic objectives and building shareholder value.

The Compensation Committee reviews the Company's compensation philosophy and objectives each year to determine if revisions are necessary in light of market conditions, the Company's strategic goals, or other relevant factors. The Company's Chief Executive Officer, who is also a member of the Board, does not serve as a member of the Committee and participates in setting executive compensation other than his own. The Compensation Committee reviews the individual performance of each executive officer and the financial performance of the Company. The Compensation Committee also takes into account salary levels, bonus plans, stock incentive plans, and other compensation packages made available to executive officers of companies of similar size and nature.

The Compensation Committee uses a variety of compensation elements to reach its compensation objectives, including current salary, bonus opportunity and long term equity-based incentives, all of which are discussed in detail below. Specifically, the Compensation Committee believes that executive compensation should include the following three components:

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- **Annual Base Salary.** The Company's objectives are to target annual base salary at the median level and to make it competitive, when taken in conjunction with the other compensatory elements, to attract and retain executives.
 - **Annual Cash Bonus Opportunity.** The Company uses annual cash bonuses to reward executives for the roles they play in the achievement of annual Company profitability. See "Executive Compensation — Annual Cash Bonus Opportunity."
 - **Long-Term Equity-Based Incentives.** The Company utilizes stock related plans including options and stock grants as long-term equity-based incentives to foster a long-term view of what is in the best interests of the Company and its shareholders by better aligning the interests of the executives with those of the shareholders.

Annual Base Salary

The Compensation Committee reviews and approves annual compensation for senior executive officers, consisting of base salary and bonus (discussed below), on an annual basis. The Compensation Committee may request additional information and analysis and ultimately determines in its discretion whether to approve any recommended changes in compensation.

The Company pays its executive officers a base salary to remain competitive in the market. The base salaries are less performance-based than the annual cash bonuses and long-term equity-based incentives. During 2007, the salaries of certain named executive officers were increased as follows: \$31,539 in Mr. Whitener's salary to \$206,539; \$39,793 in Mr. Winn's salary to \$153,314 and \$31,845 in Mr. Uselton's salary to \$110,451. These salary increases were largely reflective of the Compensation Committee's perception of individual performance, competitiveness of salary in the marketplace and inflation adjustments.

Annual Cash Bonus Opportunity

In order to provide incentives for future annual performance, the Company believes that a meaningful portion of certain executive officers' and other key employees' compensation should be in the form of a cash incentive bonus. Cash incentive bonus payments are discretionary and are based primarily on the executive officer's contribution to the Company's profitability over the applicable performance measurement periods. The Company believes that profitability is the most useful measure of management's effectiveness in creating value for the shareholders of the Company. The Company's policy is to set aside in a bonus pool a portion of its pre-tax profit as determined by the Company's Chief Executive Officer and approved by the Board. No specific formula is used in making such bonus determinations to the individuals eligible to participate in the bonus pool but senior management recommends to the Compensation Committee the allocation of the bonus pool based on each individual's contribution to the Company's profitability during the year.

Messrs. Winn and Uselton are the two named executive officers who are eligible for annual cash bonuses under the Company's bonus plan. In December of 2007, Messrs. Winn and Uselton received cash bonuses of \$30,000 and \$18,000, respectively. These bonuses were paid out of the bonus pool based on the Company's 2007 performance. In December 2006, Messrs. Winn and Uselton, were paid cash bonuses of \$30,000 and \$18,000, respectively. These bonuses were paid out of the bonus pool based on the Company's 2006 performance. The bonuses received by Mr. Whitener are covered by his employment agreement. See "Executive Compensation — Employment Agreement" for a description of the employment agreement between the Company and Mr. Whitener.

Long-Term Equity-Based Incentives

The Company believes that the best way to align the interests of the executive officers and its shareholders is for such officers to own a meaningful amount of its Common Stock. In order to reach this objective and to retain its executives, the Company grants equity-based awards to the executive officers under its 1999 Stock Option and 2006 Stock Awards Plans.

Compensation Committee Report

The Compensation Committee has reviewed and discussed the Compensation Disclosure and Analysis with management of the Company. Based on the review and discussions referred to in the preceding sentence, the Compensation Committee has recommended to the Board of Directors that the Compensation Disclosure and Analysis be included in the proxy statement.

The Compensation Committee:

Allen T. McInnes, Chairman
Herbert M. Gardner
Edward L. Flynn
Stephanie P. Hurtt

Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

Please contact Tracey L. McNeil at (202) 551-3392, John W. Madison at (202) 551-3296, or me at (202) 551-3745 with any questions.

Sincerely,

H. Roger Schwall
Assistant Director
