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April 13, 2011

VIA EDGAR SUBMISSION AND FEDERAL EXPRESS

Securities and Exchange Commission Division of Corporation Finance 100 F. Street, N.E. Washington, D.C. 20549 Attention: Mr. Joseph McCann

Re: Thermon Group Holdings, Inc.

Amendment No. 2 to Registration Statement on Form S-1 (File No. 333-172007)

Filed on April 1, 2011

Ladies and Gentlemen:

On behalf of Thermon Group Holdings, Inc. ("Thermon"), we transmit herewith Amendment No. 3 ("Amendment No. 3") to the above-referenced Registration Statement on Form S-1 (as amended, the Registration Statement"), as amended by Amendment No. 1 on March 14, 2011 and Amendment No. 2 on April 1, 2011 ("Amendment No. 2") via the EDGAR system of the Securities and Exchange Commission (the "Commission"). In this letter, we respond to the comments of the staff (the "Staff") of the Division of Corporation Finance of the Commission contained in the Staff's letter dated April 8, 2011 (the "Letter") with respect to Amendment No. 2 and Thermon's supplemental correspondence dated April 8, 2011. For ease of reference, the numbered paragraphs below correspond to the numbered comments in the Letter, with the Staff's comments presented in bold font type. We also are forwarding a copy of this letter via overnight courier, together with five (5) courtesy copies of Amendment No. 3, marked to show the revisions made in response to the Staff's comments.

The responses below follow the sequentially numbered comments from the Letter. All page references in the responses set forth below refer to page numbers in Amendment No. 3. Defined terms used but not otherwise defined herein have the meanings ascribed to such terms in Amendment No. 3.

1. We refer to the third paragraph of your proposed "Recent Development" disclosure which addresses the reasons you are unable to provide an estimate of the net income (loss) figure for the fourth quarter of fiscal 2011. Please revise to disclose the expected Income (loss) before provision for income tax figure for the fourth quarter of fiscal 2011 or revise to explain why you are not able to disclose an estimated range for this GAAP figure. Please also tell us why you are presently unable to calculate the transaction costs incurred in connection with this offering, or determine a reasonably narrow range for these costs. Also,

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please expand your discussion of expected results to address results for the entire fiscal 2011 period.

Thermon has revised its disclosure to disclose the expected income (loss) before provision for income tax figure for the fourth quarter of fiscal 2011 and expanded its discussion of expected results to address results for the entire fiscal 2011 period in response to the Staff's comment. Please see page 6 of Amendment No. 3. Thermon supplementally advises the Staff in response to its comment that it has estimated the transaction costs to be incurred by it in connection with the offering contemplated by the Registration Statement. Please see page II-1 of Amendment No. 3.

General

2. We note your response to prior comment 1 and that you have not yet responded to comment 31 from our letter dated March 1, 2011. We will continue to evaluate your response to that comment after you have revised to provide the requested disclosure.

Thermon has revised its disclosure in response to prior comment 31 from the Staff's letter dated March 1, 2011. Please see pages 112 and 124 of Amendment No. 3.

Our existing stockholders . . . , page 28

3. As a result of your revisions in response to prior comment 6, this risk factor appears to discuss multiple independent risks. Please revise to discuss the risk mentioned in the second paragraph in a separate, appropriately captioned risk factor

Thermon has revised its disclosure to provide for two separately captioned risk factors in response to the Staff's comment. Please see page pages 30 and 31 of Amendment No. 3.

Manufacturing, page 86

4. Your revisions in response to prior comment 9 imply that your current production capabilities at the San Marcos facility are inadequate for your expected business needs during the next five years and that you anticipate increased sales of your products during that time period. If so, please tell us where in your document you discuss those known trends.

As discussed with the Staff, Thermon's response to the Staff's prior comment 9, from the Staff's letter dated March 25, 2011, was not intended to imply that its current production capabilities at its San Marcos facility are inadequate for its expected business needs during the next five years, but rather to provide investors with a helpful measure of the effects of the facility expansion. While Thermon expects the expansion of its San Marcos facility to significantly increase its production capacity, the amount of such expected increase is difficult to quantify in a useful way because such expected increase varies widely by product line and may involve the addition of product lines that are not currently produced by Thermon in that facility. Given the variance in

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capacity expansion and the ability to add lines, Thermon believes the inclusion of a range or average of expected expansion percentages would be difficult to calculate and would not be meaningful to investors.

Composition of the board ..., page 95

5. Given the changed composition of your board and committee, please revise to clarify why you believe you will need to rely on transition provisions regarding exchange listing standards applicable to committees, as implied by the first paragraph.

Thermon has revised its disclosure in response to the Staff's comment. Please see page 98 of Amendment No. 3.

Annual Bonuses, page 99

6. We note your new disclosure that bonuses have not yet been determined. Please refer to Compliance and Disclosure Interpretation, Regulation S-K. Question 217.11, and revise your disclosure accordingly. Ensure your revised disclosure clearly explains how bonuses will be determined and what you mean by "achievement against [your] fiscal 2011 budget." Please also revise the first table on page 110 to include the information required by Item 402(d)(2)(iii) of Regulation S-K with respect to the annual bonuses.

Thermon notes the Staff's comment. Early in fiscal 2011, Thermon established a bonus pool for its incentive compensation plan equal to 9% of Thermon's fiscal 2011 Adjusted EBITDA, with the bonus pool to be funded if Adjusted EBITDA exceeded fiscal 2011's budgeted Adjusted EBITDA of \$48 million. The fiscal 2011 bonus pool will be allocated among all employees based on the compensation committee's subjective assessment of Thermon's and individual performance in fiscal 2011. Other than with respect to Mr. Peterson, none of the named executive officers has been granted a target bonus opportunity for fiscal 2011. Instead, each named executive officer is eligible to receive a discretionary allocation of the bonus pool, with the actual allocation to each named executive officer to be determined by the compensation committee at the time bonuses are paid to all Thermon employees. Thermon respectfully submits that, because there are no target bonus awards granted to the named executive officers other than Mr. Peterson, Item 402(d)(2)(iii) of Regulation S-K does not apply to Thermon's named executive officers other than Mr. Peterson. Thermon acknowledges its requirement to report the bonuses to be paid to each of the named executive officers, when determined, under Item 5.02(f) of Form 8-K.

In addition, Thermon has revised its disclosure to further describe its annual bonus program and to update the 2011 Summary Compensation Table to note the bonus earned by Mr. Peterson in fiscal 2011, although Mr. Peterson's final bonus has not been determined and may be greater than his target bonus opportunity. Please see pages 104, 113 and 114 of Amendment No. 3.

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Rodney Bingham and George Alexander, page 103

7. Please revise to clarify the reasons for the increased base salaries mentioned in the second paragraph.

Thermon has revised its disclosure in response to the Staff's comment. Please see page 107 of Amendment No. 3.

8. We note from your disclosure on page 102 that the options you granted have performance objectives. Please revise to clarify how you addressed the disclosures required by the last sentence of Instruction 3 to Item 402(c)(2)(v) and (vi) of Regulation S-K.

Thermon notes the Staff's comment. The stock options granted under the 2010 Equity Plan in fiscal 2011 are subject to performance-based, service-based and market-based vesting conditions. The stock options will vest on the seventh anniversary of the date of grant if the award recipient remains in continuous employment with Thermon and its outstanding equity securities attain a specified fair value as of such date equal to or greater than two times the value of the aggregate equity investment in Thermon. The vesting of the stock options may be accelerated upon the achievement of performance-based vesting conditions established by the board of directors. While the stock options granted in fiscal 2011 are subject to performance-based vesting conditions, the satisfaction of those performance-based vesting conditions does not impact the level of the award that will vest but rather determines when the award will vest. For purposes of the 2011 Summary Compensation Table, the grant date fair value represents the maximum known compensation related to the option award. Because the last sentence to Instruction 3 to Item 402(c)(2)(v) and (vi) of Regulation S-K requires footnote disclosure of the grant date fair value of the award assuming the highest level of performance conditions will be achieved if an amount less than maximum was included in the table, Thermon respectfully submits that no further disclosure is required since the amount disclosed in the 2011 Summary Compensation Table represents the maximum known compensation related to the option award. Thermon has, however, revised its disclosure in response to the Staff's comment to note that because the performance-based vesting conditions determine the timing of vesting and not the level of vesting, the grant date fair value of the award is not impacted by the level of satisfaction of the performance based-vesting conditions. Please see page 113 of Amendment No. 3.

9. We refer to your disclosure on page 101. Please revise to disclose the values attributable to the accelerated vesting of the P Units.

Thermon notes the Staff's comment and respectfully submits that because the P Units are equity awards that are subject to Financial Accounting Standards Board Accounting Standards Codification Topic 718, Compensation—Stock Compensation and were granted prior to fiscal 2011, they are not required to be reported in the 2011 Summary Compensation Table. Thermon has previously reported the value of the P Units in its 2010 Outstanding Equity Awards at Fiscal

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Year-End table and, because the awards vested in fiscal 2011, Thermon reports the vesting of the P Units in the 2011 Stock Vested Table. Thermon has, however, revised its disclosure in response to the Staff's comment to reference the accelerated vesting of the P Units in fiscal 2011. Please see page pages 113 and 114 of Amendment No. 3.

Principal and Selling Stockholders, page 114

10. We note your revisions in response to prior comment 12. The table in your April 8 correspondence indicates that no selling stockholder will sell shares pursuant to the exercise of the over-allotment option, contrary to note 3 to the table and your disclosure on the prospectus cover page. Please reconcile.

Thermon has revised its disclosure in response to the Staff's comment. Please see page 120 of Amendment No. 3.

11. We note that all outstanding options will vest and become exercisable immediately prior to this offering. Please tell us how your table account for those securities. As one example, the option grants to Messrs. Goodrich and Sorrentino mentioned on page 97 do not appear to be included.

Thermon notes the Staff's comment. The outstanding options that will vest and become exercisable immediately prior to this offering are reflected in the columns titled "Shares Beneficially Owned After the Offering (Assuming No Exercise of the Overallotment Option)" and "Shares Beneficially Owned After the Offering (Assuming Full Exercise of the Overallotment Option)," accompanied by footnotes detailing the number of such options for each individual. Please see pages 120 and 121 of Amendment No. 3. For example, the option grants to Messrs. Goodrich and Sorrentino mentioned on page 120 of Amendment No. 3 are included in their respective Shares Beneficially Owned After the Offering (Assuming No Exercise of the Over-allotment Option) and footnoted in footnote 12 to the table indicating that the increase in shares beneficially owned after the offering is due to the acceleration of stock options to purchase 16,358 shares of Thermon's common stock as a result of the offering. Thermon believes that reflecting the options in this manner is appropriate due to the fact that the shares underlying the options are not considered beneficially owned by any of the executives prior to the consummation of the offering as they remain subject to the material contingency that the offering is consummated.

Exhibits

12. Please file a complete version of Exhibit 10.25; we note that it currently omits Exhibit A.

Thermon has filed a complete version of Exhibit 10.25, which includes Exhibit A thereto, with Amendment No. 3.

If you have any questions regarding the foregoing or Amendment No. 3, please contact the undersigned at (312) 853-4348.

Very truly yours,

/s/ Robert L. Verigan

Robert L. Verigan

cc: Rodney Bingham, Thermon Group Holdings, Inc.