

March 13, 2009

Brian R. Cascio
Accounting Branch Chief
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

RE: EMCORE Corporation
Form 10-K for the fiscal year ended September 30, 2008
Filed December 30, 2008
File No. 000-22175

Dear Mr. Cascio:

EMCORE Corporation (the "Company") respectively submits the following responses to the comment letter dated January 30, 2009 that we received from the Staff of the United States Securities and Exchange Commission (the "Staff") regarding the Company's Form 10-K for the fiscal year ended September 30, 2008 (the "Form 10-K"). The Company's responses below correspond to the captions and numbers of those comments (which are reproduced below in italics). Unless otherwise indicated, capitalized terms used below have the meanings assigned to them in the Form 10-K.

Item 1A. Risk Factors

If we fail to remediate deficiencies in our current system...page 24

1) Please tell us the nature of the "deficiencies in [y]our internal controls over financial reporting "that were identified by you in fiscal 2007 and 2008. Additionally, describe the impact these deficiencies have had on financial reporting and the control environment, and describe what plans, if any, are currently in place to remediate the deficiencies.

RESPONSE: No material weaknesses were identified by the Company to be reported in fiscal 2007 or 2008. However, management identified several deficiencies in fiscal 2007 and 2008 that either individually or when aggregated with other deficiencies identified represented significant deficiencies under standards established by the PCAOB. The nature of the deficiencies principally relate to insufficient documentation of processes, as summarized below:

Fiscal 2007:

The Company identified six significant deficiencies, two of which were related to entity-level controls and four of which were related to process-level controls.

- Entity-level controls – The Company identified numerous deficiencies in design and operating effectiveness in most process cycles, many of which were deficiencies from the prior year which remained unremediated, which resulted in an overall significant deficiency in the Company's control environment. Also, although the Company performed comprehensive reviews of its operational and financial performance, the Company had not developed a formal anti-fraud program or documented an integrated fraud control policy to help ensure that fraud was addressed in a comprehensive and integrated manner.
- Process-level controls – The Company did not have effectively designed controls related to revenue recognition, purchase requisitions, and granting of stock options including the related recording and disclosure of share-based compensation expense. In fiscal 2008, the Company strengthened controls relating to these three areas which remediated these significant deficiencies.

The Company also did not have effectively designed controls related to access and maintenance of its payroll, customer, and vendor master files. In fiscal 2008, the Company strengthened controls relating to payroll controls and remediated this deficiency.

Fiscal 2008:

The Company identified eight significant deficiencies, three of which were related to entity-level controls, one related to general computer controls, and four of which were related to process-level controls.

- Entity-level controls – In addition to the two significant deficiencies identified in fiscal 2007, the Company had not developed and documented its process regarding the submission and review of its risk and fraud risk assessments by the Audit Committee. However, the Company does review internal controls as well as its operational and financial performance with the Audit Committee on at least a quarterly basis.

- General computer controls – The Company failed to maintain appropriate segregation of duties within one of its financial accounting systems.
- Process-level controls – In addition to the fiscal 2007 significant deficiency related to controls over customer and vendor master files, the Company did not maintain effective controls over the financial close and reporting process primarily due to a lack of personnel within the Finance Department. The Company also did not maintain effective controls over the disposal of fixed assets and certain inventory accounts.

In both fiscal 2007 and 2008, management determined that the Company's internal control over financial reporting was effective as of the reporting date. Management was able to reach this conclusion, despite the significant deficiencies discussed above, as the Company believes that appropriate mitigating controls were in place and operating effectively. As a result and as noted above, no material weaknesses were identified by the Company to be reported in fiscal 2007 or 2008.

Remediation Plan:

The Company and the Audit Committee are in the process of developing a remediation plan for outstanding significant deficiencies identified in fiscal 2007 and 2008 in order to maintain effective controls for complete and accurate financial reporting. The Company acknowledges that liquidity, aging accounting systems, and manpower concerns being faced in fiscal 2009 are potential hindrances in terms of remediation of significant deficiencies.

Item 5. Market for Registrant's Common Equity... Sales of Unregistered Securities, page 32

2) We note the private placement transaction was completed on February 20, 2008. Please expand your disclosure to identify the following: the class of persons to whom the securities were sold; which exemption from registration was claimed; and the facts you relied upon when claiming this exemption. Please refer to Item 701 of Regulation S-K

RESPONSE: In response to your comment and in our future filings, the Company will expand the disclosure of its private placement transaction, pursuant to the requirements of Item 701 of Regulation S-K, to read similar as follows:

On February 20, 2008, the Company completed the sale of \$100.0 million of restricted common stock and warrants to investors deemed to be "accredited investors" as defined in Rule 501(a) under the Securities Act or "qualified institutional buyers" as defined in Rule 144A(a) under the Securities Act, through a private placement transaction exempt from the SEC's registration requirements pursuant to Section 4(2) of the Securities Act of 1933, and Rule 506 of Regulation D. In this transaction, investors purchased 8 million shares of our common stock, no par value, and warrants to purchase an additional 1.4 million shares of our common stock. The purchase price was \$12.50 per share, priced at the 20-day volume-weighted average price. The warrants grant the holder the right to purchase one share of our common stock at a price of \$15.06 per share, representing a 20.48% premium over the purchase price. The warrants are immediately exercisable and remain exercisable until February 20, 2013. Beginning two years after their issuance, the warrants may be called by the Company for a price of \$0.01 per underlying share if the closing price of its common stock has exceeded 150% of the exercise price for at least 20 trading days within a period of any 30 consecutive trading days and other certain conditions are met. In addition, in the event of certain fundamental transactions, principally the purchase of the Company's outstanding common stock for cash, the holders of the warrants may demand that the Company purchase the unexercised portions of their warrants for a price equal to the Black-Scholes Value of such unexercised portions as of the time of the fundamental transaction. In addition, the Company entered into a registration rights agreement with the investors to register for resale the shares of common stock issued in this transaction and the shares of common stock to be issued upon exercise of the warrants. As part of the sale documentation each investor provided representations and warranties in the securities purchase agreement, upon which the Company relied, with respect to such investor's status as an "accredited investor" or "qualified institutional buyer". No party acted as underwriter for this transaction. Total agent fees incurred were 5.75% of the gross proceeds, or \$5.8 million. The Company used the proceeds from this private placement transaction to acquire the telecom-related assets of Intel Corporation's Optical Platform Division in 2008.

Item 7. Management's Discussion and Analysis... Significant Customers, page 44

3) We note your tabular disclosure on page 44. Please provide the disclosure required by Item 101(c)(1)(vii) of Regulation S-K and advise us of the basis upon which you concluded that you are not required to file as exhibits to your Form 10-K the agreements with any customers upon whom you are substantially dependent. See Item 601(b)(10)(ii)(B) of Regulation S-K. Refer also to the risk factor on page 18, which highlights the risks associated with losing customers that you are substantially dependant upon.

RESPONSE: In response to your comment, we enhanced our disclosure of significant customers as required by Item 101(c)(1)(vii) of Regulation S-K in our quarterly report on Form 10-Q for the quarter ended December 31, 2008. The Company disclosed the names of its significant customers, by reportable segment, with significant customers being defined as customers that represent greater than 10% of total consolidated revenue.

At September 30, 2008, the Company reviewed all significant contracts including those related to significant customers listed within our Form 10-K and determined that no contracts were required to be filed as exhibits. Our Fiber Optics reporting segment generally does not have long-term supply contracts with its customers. Typically, our fiber optics products are sold pursuant to purchase orders with short lead times. This was the case for the two significant Fiber Optics-related customers disclosed in the Form 10-K. In contrast, in our Photovoltaics reporting segment, we generally enter into long-term firm fixed-price contracts. In fiscal 2008, the Company did not have any customers within its Photovoltaics reporting segment that exceeded 10% of total consolidated revenue.

The Company acknowledges that as a result of reductions to its internal revenue forecasts, the Company will need to continue to review contracts with its customers to determine if there are any that exist that may need to be filed in future filings as exhibits to the extent that they are required to be disclosed as required by Item 601(b)(10)(ii)(B) of Regulation S-K.

4) We see that Other Expense (Income) includes the following items:

- o *Stock-based compensation expense from tolled options,*
- o *Gains from insurance proceeds,*
- o *Impairment of investment, and*
- o *Loss on disposal of property, plant, and equipment.*

Tell us why these items are not included in Operating Loss. Refer to paragraph 25 of SFAS 144, Question 2 of SAB Topic 5:P, and SAB Topic 14:F.

RESPONSE: In response to your comment, we reviewed the accounting guidance referenced above, as well as Statement of Financial Accounting Concept No. 6, paragraph 86, which states “Gains and losses may also be described or classified as “operating” or “nonoperating,” depending on their relation to an entity’s major ongoing or central operations” and have addressed the following items:

Stock-based compensation expense from tolled options

In response to your comment and in our future filings, the Company will expand the disclosure of its stock-based compensation expense from tolled options to read similar as follows:

Under the terms of stock option agreements issued under the Company’s Stock Option Plans, former employees who have vested and exercisable stock options have 90 days subsequent to the date of their termination to exercise their stock options. In November 2006, the Company announced that it was suspending its reliance on previously issued financial statements, which in turn caused the Company’s Form S-8 registration statements for shares of common stock issuable under the Company’s Stock Option Plans not to be available. Therefore, former employees were precluded from exercising their stock options during the remaining contractual term (the “Blackout Period”). To address this issue, the Company’s Board of Directors agreed in April 2007 to approve a stock option grant “modification” for these individuals by extending the normal 90-day exercise period after the termination date to a date after which the Company became compliant with its SEC filings and the registration of the stock option shares was once again effective. The Company communicated the terms of the tolling agreement with its former employees in November 2007. The Company’s Board of Directors approved an extension of the stock option expiration date equal to the number of calendar days during the Blackout Period before such stock option would have otherwise expired (the “Tolling Period”). Former employees were able to exercise their vested stock options beginning on the first day after the lifting of the Blackout Period for a period equal to the Tolling Period. Approximately 50 former employees were impacted by this modification. All tolled stock options were either exercised or expired by January 29, 2008.

To account for this modification, when the rights conveyed by a stock-based compensation award are no longer dependent on the holder being an employee, the award ceases to be accounted for under SFAS 123(R) and becomes subject to the recognition and measurement requirements of EITF 00-19, which results in liability classification and measurement of the award. On the date of modification, the stock options with the extended exercise terms were initially measured at fair value and compensation cost for the fair value was recognized as expense as if the awards were new grants. Subsequent changes in fair value were reported in earnings and disclosed in the financial statements as long as the stock options remained classified as liabilities.

During the three months ended December 31, 2007, the Company incurred a non-cash expense of \$4.4 million associated with the modification of stock options issued to former employees which was calculated using the Black-Scholes option valuation model. The modified stock options were 100% vested at the time of grant with an estimated life no greater than 90 days.

When the stock options classified as liabilities were ultimately settled in stock, any gains or losses on those stock options were included in additional paid-in capital. For stock options that ultimately expired unexercised, the liability was relieved with an offset to a gain included in current earnings, which totaled approximately \$0.1 million in January 2008.

Since these modified stock options were issued to non-employees of the Company, and therefore no services were required to receive this grant, and no contractual obligation existed at the Company to issue these modified stock options, the Company concluded it was more appropriate to classify this non-cash expense within “other income and expense” on our statement of operations.

Gains from insurance proceeds

During the three months ended March 31, 2007, the Company recognized a gain of \$0.4 million related to insurance proceeds. In future filings, the Company will include gains from insurance proceeds within operating income (loss). The Company does not plan to revise its prior filings to report the \$0.4 million as a component of operating loss since management considers this amount immaterial to the fiscal 2007 financial statements.

Impairment of investment

The Company has recently incurred the following impairment charges related to its non-operating investments:

- o In April 2008, the Company invested approximately \$1.5 million in Lightron Corporation, a Korean Company publicly traded on the Korean Stock Market. The Company initially accounted for this investment as an available for sale security. Due to the decline in the market value of this investment and the expectation of non-recovery of this investment beyond its current market value, the Company recorded a \$0.5 million “other than temporary” impairment loss on this investment as of September 30, 2008 and another \$0.4 million “other than temporary” impairment loss on this investment as of December 31, 2008.
- o In September 2008, the Company recorded impairment against its \$1.0 million investment in Velox Corporation due to the company’s current financial and operational condition.

In accordance with Regulation S-X, Rule 5-03, paragraph 9, these impairment charges have been separately stated within the income statement clearly indicating the nature of the transactions as non-operating. Consistent with the Company's policy for reporting similar transactions, the Company has classified impairment charges relating to non-operating investments as "other income and expense" on its statement of operations.

Loss on disposal of property, plant, and equipment

During fiscal 2006, 2007, and 2008, the Company recognized a loss on the disposal of property, plant, and equipment of approximately \$0.4 million, \$0.2 million, and \$1.1 million, respectively. In future filings, the Company will include loss or gains on disposal of property, plant, and equipment within operating income (loss). The Company does not plan to revise its prior filings to report the prior period amounts as a component of operating loss since management considers these amounts to be immaterial, individually and when aggregated, to the consolidated financial statements.

Note 1. Management's Actions and Plans, page 63

5) We note that your business will need significant additional cash to continue operations as a going concern. In future filings please enhance your disclosure to provide a substantive description of management's viable plans to raise additional capital to continue the business. In this regard, please address when you believe additional financing will be required and give an estimate of the amount. Please also expand your discussion of liquidity and capital resources within MD&A to specifically discuss your plans to generate sufficient liquidity, financing needs, and expected sources of this financing. Refer to Item 303 of Regulation S-K and FRC 607.02.

RESPONSE: In response to your comment, we enhanced our footnote and MD&A disclosure of management's viable plans to raise additional capital in our quarterly report on Form 10-Q for the quarter ended December 31, 2008, as follows:

Management Actions and Plans

Recently, we have revised the assumptions underlying our operating plans and recognized that additional actions were necessary to position our operations to minimize cash usage. Accordingly, we undertook a number of initiatives aimed at conserving or generating cash on an incremental basis through the next twelve months. These initiatives included:

- A reduction in personnel of approximately 160 people, or 17% of the total workforce, which should result in annualized cost savings of approximately \$9.0 million;
- A significant reduction of our fiscal 2008 employee incentive bonus plan payout and the elimination of fiscal 2009 employee merit increases;
- A significant reduction of capital expenditures when compared to the prior year;
- The potential sale of certain assets;
- A greater emphasis on managing our working capital, specifically receivables, inventory, and accounts payables; and,
- Further restrictions on employee travel and other discretionary expenditures.

During the first quarter, the Company freed up \$2.6 million in cash that was previously tied up in auction rate securities and borrowed \$15.4 million under the Company's \$25 million secured line of credit with Bank of America (see Note 11 –Debt). Shortly after the close of the first quarter, the Company sold its remaining interest in Entech Solar, Inc. (formerly named WorldWater and Solar Technologies Corporation) for \$11.4 million in cash which was not reflected in the quarter-end cash balance.

As previously disclosed, the Company has received indications of interest from several investors regarding a minority equity investment directly into the Company's wholly-owned Photovoltaics subsidiary which would serve as an initial step towards a potential spin off of that business. The Company's management is aggressively pursuing these opportunities. Within the next couple of months, management expects to announce more definitive plans regarding the Company's efforts to raise additional capital as well as providing an estimate for the amount of financing being considered.

Conclusion

These initiatives are intended to conserve or generate cash in response to the deterioration in the global economy so that we can preserve adequate liquidity through the next twelve months. However, the full effect of many of these actions will not be realized until later in 2009, even if they are successfully implemented. We are committed to exploring all of the initiatives discussed above and there is no assurance that capital markets conditions will improve within that time frame. Our ability to continue as a going concern is substantially dependent on the successful execution of many of the actions referred to above.

Since cash generated from operations and cash on hand are not sufficient to satisfy the Company's liquidity, we will seek to obtain additional equity or debt financing within the next few months. Due to the unpredictable nature of the capital markets, additional funding may not be available when needed, or on terms acceptable to us. If adequate funds are not available or not available on acceptable terms, our ability to continue to fund expansion, develop and enhance products and services, or otherwise respond to competitive pressures may be severely limited. Such a limitation could have a material adverse effect on the Company's business, financial condition, results of operations, and cash flow.

Note 2. Valuation of Goodwill, Long-lived Assets, and Other Intangible Assets, page 66

Note 11. Goodwill and Intangible Assets, Net, page 81

6) Please tell us and revise future filings to disclose the business and operational facts and circumstances leading to the impairment of goodwill as of September 30, 2008. Your discussion should focus on the business reasons that estimates of future operating results and cash flows changed from those estimates developed at the time of the completion of the acquisition. Refer to the requirements of paragraph 47 of SFAS 142.

RESPONSE: In response to your comment and in our future filings, the Company will expand and clarify the footnotes and MD&A disclosures relating to its goodwill to read similar as follows:

Valuation of Goodwill. Goodwill represents the excess of the purchase price of an acquired business over the fair value of the identifiable assets acquired and liabilities assumed. As required by SFAS 142, *Goodwill and Other Intangible Assets*, the Company evaluates its goodwill for impairment on an annual basis, or whenever events or changes in circumstances indicate that the carrying value of a reporting unit may exceed its fair value. Management has elected December 31st as the annual assessment date. Circumstances that could trigger an interim impairment test include but are not limited to: a significant adverse change in the business climate or legal factors; an adverse action or assessment by a regulator; unanticipated competition; loss of key personnel; the likelihood that a reporting unit or significant portion of a reporting unit will be sold or otherwise disposed; results of testing for recoverability of a significant asset group within a reporting unit; and recognition of a goodwill impairment loss in the financial statements of a subsidiary that is a component of a reporting unit.

In performing goodwill impairment testing, the Company determines the fair value of each reporting unit using a weighted combination of a market-based approach and a discounted cash flow (“DCF”) approach. The market-based approach relies on values based on market multiples derived from comparable public companies. In applying the DCF approach, management forecasts cash flows over a five year period using assumptions of current economic conditions and future expectations of earnings. This analysis requires the exercise of significant judgment, including judgments about appropriate discount rates based on the assessment of risks inherent in the amount and timing of projected future cash flows. The derived discount rate may fluctuate from period to period as it is based on external market conditions.

All of these assumptions are critical to the estimate and can change from period to period. Updates to these assumptions in future periods, particularly changes in discount rates, could result in different results of goodwill impairment tests.

- As of December 31, 2007, the Company performed its annual test for impairment of goodwill and based on that analysis, it was determined that the carrying amount of the reporting units did not exceed their fair value, and therefore, no impairment was recognized.
- As disclosed in the Company’s Annual Report on Form 10-K, as a result of the unfavorable macroeconomic environment and a drastic reduction in our market capitalization since the completion of the Intel Acquisitions, the Company reduced its internal revenue forecasts and revised its operating plans to reflect a general decline in demand and average selling prices, especially for the Company’s recently acquired telecom-related fiber optics component products. The Company also performed an interim test at September 30, 2008 to determine whether there was impairment of its goodwill. The fair value of each of the Company’s reporting units was determined by using a weighted average of the Guideline Public Company, Guideline Merged and Acquired Company, and the DCF methods. Due to uncertainty from the ongoing financial liquidity crisis and the current economic recession, management believed the most appropriate approach would be an equally weighted approach, amongst the three methods, to arrive at an indicated value for each of the reporting units. The indicated fair value of each of the reporting units was then compared with the reporting unit’s carrying value to determine whether there was an indication of impairment of goodwill under SFAS 142. As a result, the Company determined that the goodwill related to one of its Fiber Optics reporting units may be impaired. Since the second step of the Company’s goodwill impairment test was not completed before the financial statements were issued and a goodwill impairment loss was probable and could be reasonably estimated, management recorded a non-cash goodwill impairment charge of \$22.0 million, as a best estimate, during the three months ended September 30, 2008.
- During the three months ended December 31, 2008, management noted further significant deterioration of the Company’s market capitalization, coupled with significant adverse changes in the business climate primarily related to product pricing and profit margins, and an increase in the discount rate. The Company performed its annual goodwill impairment test at December 31, 2008 and management weighted the market-based approach heavier against the DCF method due to observable available information. Based on this analysis, the Company determined that goodwill related to its Fiber Optics reporting units was fully impaired. The Company recorded a non-cash impairment charge of \$31.8 million and the Company’s balance sheet no longer reflects any goodwill associated with its Fiber Optics reporting units.
- The Company continues to report goodwill related to its Photovoltaics reporting unit. The Company’s annual impairment test at December 31, 2008, indicated that there was no impairment of goodwill for the Photovoltaics reporting unit. Based upon revised operational and cash flow forecasts, fair value exceeded carrying value of the stand alone Photovoltaics reporting unit by over 15%, therefore the Company believes the remaining carrying amount of goodwill is recoverable. However, if there is further erosion of the Company’s market capitalization or the Company is unable to achieve its projected cash flows, management may be required to perform additional impairment tests of its remaining goodwill. The outcome of these additional tests may result in the Company recording additional goodwill impairment charges.

7) With respect to goodwill, please tell us and in future filings disclose how you determined the fair value of your reporting units for goodwill impairment testing purposes. In that regard, please describe your methods, models, and significant assumptions and explain to us why you believe your impairment estimate is in accordance with GAAP. If you applied more than one model, please clarify how you applied, evaluated, and weighted the models.

RESPONSE: In response to your comment and in our future filings, the Company will expand and clarify the disclosures relating to its goodwill and impairment charges. Please see our response to comment #6 which includes our revised disclosure and our response to comment #8 which explains why the Company believes the goodwill impairment estimate was in accordance with GAAP.

We determined the fair value of each of the reporting units by using a weighted average of the Guideline Public Company, Guideline Merged and Acquired Company, and the Discounted Cash Flow methods. The indicated fair value of each of the reporting units was then compared with the reporting unit’s carrying value to determine whether there was an indication of impairment.

We believe these methods were applied in accordance with the AICPA Valuation Guide and GAAP as paragraph 25 of SFAS 142 states, “In estimating the fair value of a reporting unit, a valuation technique based on multiples of earnings or revenue or a similar performance measure may be used if that technique

is consistent with the objective of measuring fair value.” In addition, paragraph 45 of SFAS 142 makes reference to using a present value technique.

The following paragraphs provide an overview of the three valuation techniques that we used to determine the fair value of the reporting units.

o Guideline Public Company Method

We identified guideline companies for each of the reporting units. We compared the historical performance and financial results of each of the reporting units to its set of guideline companies to determine the proper multiple to apply to the reporting units’ financial data. The selected multiples were applied to each of the reporting unit’s forecasted next twelve months financial data to generate implied total enterprise value (“TEV”) for the reporting units. A control premium of 15% was then added to this value resulting in a net indicated equity value on a controlling marketable basis.

o Guideline Merged & Acquired Method

We identified transactions involving companies similar to each of the reporting units. We compared the historical performance of each of the reporting units to each acquired company to determine the proper multiple to apply to the reporting unit’s financial data. Also, we considered the decline in the market prices and multiples of companies within recent months. As a result of the recent decline in market conditions, we relied solely on transactions that closed during 2008. The selected multiples were applied to each of the reporting unit’s forecasted next twelve months financial data to generate implied TEVs for the reporting units.

o Discounted Cash Flow Method

To determine the indicated equity value of the reporting units under the discounted cash flow method, the projected stream of equity cash flows through September 30, 2013 was converted to present value by using an estimated discount rate. In addition, we calculated the terminal value of cash flows after September 30, 2013. The present value of the stream of equity cash flows through September 30, 2013 was added to the present value of the terminal value to determine an indicated equity value of each of the reporting units. The capitalization rate was determined based on the cost of equity of comparable companies and the risks inherent in the individual reporting units.

Due to uncertainty from the ongoing financial liquidity crisis and the current economic recession, management believed the most appropriate approach would be an equally weighted approach, amongst the three methods, to arrive at an indicated value for each of the reporting units at September 30, 2008. The indicated fair value of each of the reporting units was then compared with the reporting unit’s carrying value to determine whether there was an indication of impairment of goodwill under SFAS 142.

8) To help us better understand the goodwill impairment, please tell us:

- o *How you developed your estimate of impairment since you did not complete the step 2 analysis.*
- o *The status of your completion of step 2 and whether you will have material adjustments, including how they were derived.*
- o *The complexities which led to the inability to complete the analysis and why you were unable to complete step 2.*
- o *How your accounting is in compliance with paragraphs 22 and 47c of SFAS 142.*
- o *How you considered the need to disclose this information in your MD&A.*

RESPONSE:

In response to your comment and in our future filings, the Company will expand and clarify the disclosures relating to its goodwill and impairment charges. Please see our response to comment #6 which includes our revised disclosure.

At September 30, 2008, the Company performed step one tests for each of its three reporting units with goodwill. The indicated fair value of each of the reporting units was then compared with the reporting unit’s carrying value to determine whether there was an indication of impairment of goodwill under SFAS 142. As a result, the Company determined that the goodwill related to one of its two Fiber Optics reporting units may be impaired. At September 30, 2008, there was no indication of impairment of goodwill for the Company’s other Fiber Optics and Photovoltaics reporting units.

How we developed our estimate of impairment:

We determined our estimate of goodwill impairment for our Fiber Optics reporting unit using the following calculation:
(in millions)

| | | |
|----------------------------------------------|----|--------|
| Book value of goodwill of the reporting unit | \$ | 39.7 |
| Indicated fair value of the reporting unit | | 115.6 |
| Current assets less current liabilities | | (27.0) |
| Net property, plant, and equipment | | (41.3) |
| Intangible assets | | (29.2) |
| Amount available to allocate to goodwill | | 18.1 |
| Estimate of impairment loss | \$ | 21.6 |

The indicated fair value of the Fiber Optics reporting unit was determined to be \$115.6 million under SFAS 142 step one. We estimated that the fair value of working capital was equal to its book value of \$27.0 million. Since we did not have enough time to obtain an appraisal of our property, plant, and equipment or enough time to determine the fair value of our intangible assets, we assumed book value to be at least equal to the low end of possible fair value ranges. It was not expected that the fair value of the Company's assets or liabilities, most of which were classified as current or recently acquired through acquisitions, would significantly differ from the book value. In addition, the Company did not have any debt at September 30, 2008. Comparing the book value of goodwill to the amount available to allocate to goodwill resulted in an estimated implied impairment loss of \$21.6 million, which would not be less than the calculated amount.

Since the second step of the goodwill impairment test was not completed before the financial statements were issued and a goodwill impairment loss was probable and could be reasonably estimated, management recorded its best estimate of goodwill impairment which totaled \$22.0 million during the three months ended September 30, 2008.

The status of the completion of step 2 and whether we had material adjustments

The impairment test performed at September 30, 2008 was an interim impairment test.

During the three months ended December 31, 2008, management noted further significant deterioration of the Company's market capitalization, coupled with significant adverse changes in the business climate primarily related to product pricing and profit margins, and an increase in the discount rate. The Company performed its annual goodwill impairment test at December 31, 2008 and management weighted the market-based approach heavier against the DCF method due to observable available information. Based on this analysis, both of the Company's Fiber Optics reporting units failed step one and the Company determined that goodwill related to both of its Fiber Optics reporting units was fully impaired. The Company recorded a non-cash impairment charge of \$31.8 million and the Company's balance sheet no longer reflects any goodwill associated with its Fiber Optics reporting units.

The completion of the September 30, 2008 step two impairment analysis was not deemed necessary since the December 31, 2008 impairment analysis resulted in a complete impairment of goodwill in the Company's Fiber Optics reporting units.

The complexities which led to our inability to complete the analysis

The complexities which led to our inability to complete the analysis and thus unable to complete step two included but were not limited to:

- Valuing property, plant, and equipment in a timely basis;
- Identifying and valuing intangible assets in a timely basis; and,
- Identifying and valuing unrecorded assets and liabilities in a timely basis.

These issues were further complicated by the inherent difficulty of valuing assets in a rapidly declining economy.

How our accounting is in compliance with paragraphs 22 and 47c of SFAS 142

Paragraph 22 of SFAS 142 states "If the second step of the goodwill impairment test is not complete before the financial statements are issued and a goodwill impairment loss is probable and can be reasonably estimated, the best estimate of that loss shall be recognized in those financial statements. Paragraph 47(c) requires disclosure of the fact that the measurement of the impairment loss is an estimate. Any adjustment to that estimated loss based on the completion of the measurement of the impairment loss shall be recognized in the subsequent reporting period".

Our accounting and financial reporting was in compliance with paragraph 22 of SFAS 142 for the following reasons:

- The second step of the goodwill impairment test was not complete by our filing of our Annual Report on Form 10-K on December 30, 2008.
- A goodwill impairment loss was probable and could reasonably be estimated. The Company recognizes that there could be a range of estimated impairments. Management recorded a non-cash goodwill impairment charge of \$22.0 million, as a best estimate, during the three months ended September 30, 2008.
- We disclosed that the goodwill impairment loss recognized was an estimate.
- An adjustment to the estimated loss based on the completion of the measurement of the impairment loss was recognized in the subsequent financial reporting period. The magnitude of the adjustment was due to further changes in estimates of future operating and cash flow results and discount rates that occurred in the subsequent period. The Company found no benefit to separate the adjustment from the estimated impairment charge reported in the prior period.

Paragraph 47(c) of SFAS 142 states "For each goodwill impairment loss recognized, the following information shall be disclosed in the notes to the financial statements that include the period in which the impairment loss is recognized: If a recognized impairment loss is an estimate that has not yet been finalized (refer to paragraph 22), that fact and the reasons therefore and, in subsequent periods, the nature and amount of any significant adjustments made to the initial estimate of the impairment loss."

Our accounting and financial reporting was in compliance with paragraph 47c of SFAS 142 for the following reasons:

- We disclosed that the goodwill impairment analysis was not finalized and that the loss recognized was an estimate.
- We disclosed that the goodwill impairment analysis was not finalized due to the complexities involved in determining the implied fair value of the goodwill.

How we considered the need to disclose this information in our MD&A

In our MD&A we disclosed that based on our goodwill impairment analysis, we determined that an impairment loss of \$22 million existed at September 30, 2008. In addition, we stated that an impairment test would also be performed at December 31, 2008 and further impairment was likely to result. We stated in our footnotes that we had not completed the step two analyses, and therefore, the impairment loss was management's best estimate. At the time, we did not feel a need to repeat this in our MD&A as this was adequately disclosed in our notes to the financial statements.

The Company acknowledges that trends (reasonably likely trends and their reasonably likely impacts) are required to be disclosed in MD&A. In future filings, the Company will enhance its disclosure of goodwill impairment in the MD&A section similar to our response to comment #6.

9) We note your disclosure on page 66 that you performed impairment testing on intangible assets as of September 30, 2008 and determined that there was no impairment. In light of your recurring losses, decreasing stock price, cash flow deficits and the economic downturn, please tell us how you determined that there was no impairment of amortizing intangible assets. In that regard, tell us how you determined the fair value of the intangible assets and explain why you believe your methods, models, and assumptions are appropriate in GAAP. If you applied more than one model, please clarify how you applied, evaluated, and weighted the models.

RESPONSE: Our impairment testing of intangible assets under SFAS 144 consists of determining whether the carrying amount of the long-lived asset (asset group) is recoverable. That is, whether the sum of the future undiscounted cash flows expected to result from the use and eventual disposition of the asset (asset group) exceeds its carrying amount.

The following paragraphs describe our methods and significant assumptions.

We prepared forecasted income statements through September 30, 2013 for each of the reporting units. Our reporting units are the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. These forecasted income statements were used to derive forecasts of future cash flows, which were consistent to the models used in SFAS 142 goodwill impairment testing. To arrive at future cash flows as defined in SFAS 144, the following adjustments were made to forecasted income:

- Non-cash depreciation and amortization expenses, as estimated by GAAP standards, on existing assets were added;
- Non-cash expenses related to stock option issuances were added; and,
- Estimated increases in the working capital were subtracted from adjusted net income, while declines in working capital were added to adjusted net income.

No adjustments were made for future capital expenditures in accordance with paragraph 19 of SFAS 144. Cash flows were forecasted through September 30, 2013 in accordance with the five year useful life of the primary asset (machinery and equipment). As the primary asset is not the asset of the group with the longest remaining life, estimates of future cash flows assumed the sale of the group at the end of the remaining useful life of the primary asset (SFAS 144 paragraph 18). Thus, the Capitalization of Earnings method was applied to the cash flow for the trailing twelve months at the end of the useful life of the primary asset to estimate the sale value of the group. The sum of the undiscounted future cash flows through September 30, 2013 and the undiscounted terminal value was then calculated to determine the total future cash flows from the asset group. The sum of future undiscounted cash flows exceeded the carrying value for each of the reporting units. Accordingly, no impairment of long-lived assets existed under SFAS 144 at September 30, 2008. As the long lived asset (asset group) met the recoverability test, no further testing was required or performed under SFAS 144.

In response to your comment and in our future filings, the Company will expand and clarify the disclosures relating to its intangible assets. Please see our response to comment #10 which includes our revised disclosure.

Although we have had recurring losses, a decreasing stock price, a cash flow deficit and the fact that we were operating in an economic downturn, impairment of our long lived assets under SFAS 144 at September 30, 2008 was not warranted. Management is aware of these challenges and recognizes its obligation to record any impairment on a timely basis. Management performs SFAS 144 testing prior to SFAS 142 testing. Due to the inherent differences in methodology between SFAS 142 and SFAS 144, it does not seem unusual to have impairment on a value basis model but not on a cost recovery model.

10) We reference your recurring losses each period. Please tell us and revise future filings to disclose in MD&A why you believe the remaining carrying amounts of goodwill and intangible assets are recoverable. Please provide reasonably specific disclosure about the accounting, cash flow, business and operational factors that form the basis for your conclusion.

RESPONSE: In response to your comment and in our future filings, please see our responses to your comments #6 through #9. The Company will expand and clarify disclosures relating to goodwill (see our response to comment #6 regarding goodwill disclosures) and intangible assets to read similar as follows:

Valuation of Long-lived Assets and Other Intangible Assets. Long-lived assets consist primarily of our property, plant, and equipment. Our intangible assets consist primarily of intellectual property that has been internally developed or purchased. Purchased intangible assets include existing and core technology, trademarks and trade names, and customer contracts. Intangible assets are amortized using the straight-line method over estimated useful lives ranging from one to fifteen years. Because all of intangible assets are subject to amortization, the Company reviews these intangible assets for impairment in accordance with the provisions of FASB Statement No. 144, *Accounting for the Impairment of Long-Lived Assets and Long-Lived Assets to be Disposed Of*. As part of internal control procedures, the Company reviews long-lived assets and other intangible assets for impairment on an annual basis or whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. Our

impairment testing of intangible assets consists of determining whether the carrying amount of the long-lived asset (asset group) is recoverable. That is, whether the sum of the future undiscounted cash flows expected to result from the use and eventual disposition of the asset (asset group) exceeds its carrying amount. In making this determination, the Company uses certain assumptions, including estimates of future cash flows expected to be generated by these assets, which are based on additional assumptions such as asset utilization, length of service that assets will be used in our operations, and estimated salvage values.

- At December 31, 2007, the Company tested for impairment of long-lived assets and other intangible assets and based on that analysis, it was determined that no impairment existed.
- As disclosed in the Company's Annual Report on Form 10-K, as a result of reductions to our internal revenue forecasts, changes to our internal operating forecasts and a drastic reduction in our market capitalization since the completion of the Intel Acquisitions, the Company tested for impairment of long-lived assets and other intangible assets. The sum of future undiscounted cash flows exceeded the carrying value for each of the reporting units' long-lived and other intangible assets. Accordingly, no impairment existed under SFAS 144 at September 30, 2008. As the long lived asset (asset group) met the recoverability test, no further testing was required or preformed under SFAS 144.
- During the three months ended December 31, 2008, the Company recorded a non-cash impairment charge totaling \$1.9 million related to certain intangible assets acquired from the February 2008 acquisition of telecom-related assets of Intel Corporation's Optical Platform Division. Subsequent to the acquisition, the Company abandoned certain lines of technology development.
- At December 31, 2008, due to further changes in estimates of future operating and cash flow results that occurred during the quarter, the Company tested for impairment of its long-lived assets and other intangible assets and based on that analysis, no impairment existed. Based upon revised operational and cash flow forecasts, total future undiscounted cash flows exceeded carrying value by over 50%, therefore the Company believes the carrying amount of its intangible assets is recoverable. However, if there is further erosion of the Company's market capitalization or the Company is unable to achieve its projected cash flows, management may be required to perform additional impairment tests of its remaining intangible assets. The outcome of these additional tests may result in the Company recording additional impairment charges.

Note 4. Equity – Former Employee Stock Options Tolled, page 72

11) Please tell us and disclose in future filings how you valued the modified stock options. Please disclose the methods, models, and assumptions under SFAS 123(R).

RESPONSE: In response to your comment and in future filings, the Company will expand the disclosure of stock-based compensation expense from tolled options. Please see our response in comment #4 which includes our revised disclosure.

Note 5. Acquisitions, page 75

12) Please tell us whether you have filed the agreements for your significant acquisitions in February 2008 and in April 2008.

RESPONSE: In response to your comment, please note that the Company has filed these agreements. The first asset purchase agreement, dated December 17, 2007, between the Company and Intel Corporation, was filed as exhibit 2.1 to the Company's quarterly report on Form 10-Q filed with the SEC on February 11, 2008. The second asset purchase agreement, dated April 9, 2008, between the Company and Intel Corporation, was filed as exhibit 2.1 to the Company's quarterly report on Form 10-Q filed with the SEC on May 12, 2008.

13) Please tell us and in future filings disclose how you determined the fair value of the assets acquired. Specifically address each identifiable intangible asset recognized. In addition, disclose the nature of the developed and core technology acquired.

RESPONSE: In response to your comment and in our future filings, the Company will expand disclosures relating to assets acquired to read similar as follows:

Acquired Assets

The acquired inventory included raw materials and finished goods. The raw materials were valued based on replacement cost, and considered reserve adjustments associated with components not expected to be used. The finished goods were valued utilizing the comparative sales and income methods. Based on these methods, the expected selling prices of the finished goods to customers in the ordinary course of business were used as a starting point. Adjustments were then applied for other factors, including:

- The time that would be required to dispose of the inventory;
- The expenses that would be expected to be incurred in the disposition and sale of the inventory; and
- A profit commensurate with the amount of investment in the assets and the degree of risk.

The Company determined the fair value of the acquired fixed assets utilizing the cost approach, which is based on measuring the benefits related to an asset by the cost to reconstruct or replace it with another of like utility. The fixed asset valuation considered:

- Estimation of the current replacement cost of the assets by indexing historical capitalized costs based on asset type and acquisition date; and
- Physical depreciation and certain obsolescence adjustments.

The acquired intangible assets included core and developed technologies and customer relationships. The core and developed technologies considered the underlying technologies associated with the various products associated with the acquired businesses, including optical transceivers and optical cable connects. Developed technology related to product-specific aspects for product versions released or technologically feasible at the

acquisition date. Core technology considered non-product specific technology and designs which are incorporated in a variety of products. The core and developed technologies and customer relationships were valued utilizing an “excess earnings” income approach, which estimates value based on the net present value of expected future after-tax cash earnings, after charges for required contributory assets.

14) Please tell us and in future filings disclose how the 3.7 million restricted shares were valued.

RESPONSE: In response to your comment and in our future filings, the Company will expand our disclosure to read similar as follows:

On April 20, 2008, the Company acquired the enterprise, storage, and connects cable-related assets of Intel Corporation’s Optical Platform Division. The assets acquired include inventory, fixed assets, and intellectual property. As consideration for the purchase of assets, the Company issued 3.7 million restricted shares of the Company’s common stock valued at \$26.1 million. These shares were valued based on the closing price of the Company’s common stock on Friday, April 18, 2008 of \$7.05 per share. Any discount due to restrictions was deemed to be immaterial to the consolidated financial statements.

15) Please tell us about and in future filings disclose any significant changes in the purchase allocation from what was reported in the Form 8-K/A dated February 22, 2008, including the reasons for those changes. In that regard, we see that the amounts allocated to goodwill and intangible assets are significantly different from the amount reported in the pro forma balance sheet included in the Form 8-K/A.

RESPONSE: As disclosed in the Form 8-K/A, “The allocation to identifiable intangibles is based on an estimation of approximately 10% of the purchase price. The preliminary valuations of the tangible and identifiable intangible assets are subject to final valuations and further review by management, which may result in material adjustments. The Company is also currently in the process of engaging a third party valuation specialist to perform an independent valuation. Adjustments to these estimates will be included in the final allocation of the purchase price of OPD.”

In response to your comment and in our future filings, the Company will expand our disclosure to read similar as follows:

On May 7, 2008, the Company filed a Current Report on Form 8-K/A which included a preliminary purchase price allocation based on management’s best estimate using observable available information. A significant variance between the preliminary purchase price and the final purchase price allocation relates to the valuation of acquired intangible assets offset primarily by a corresponding variance in goodwill. Initially, the Company estimated that the fair value of the intangible assets would approximate 10% of the total purchase price. Subsequent to the filing of the Form 8-K/A, the Company completed its review of the purchase price allocation which resulted in approximately \$14 million of additional intangible asset value.

Note 7. Restructuring Charges, page 79

16) Please tell us how the restructuring charges included in the summary table at the top of page 79 agree with the amounts presented in the roll-forward appearing directly below that summary.

RESPONSE: The ‘Amount Incurred in Period’ and the “Accrual as of September 30, 2008’ in the summary table agree with the amounts listed in the roll-forward appearing directly below that summary.

In response to your comment and in our future filings, we have revised our disclosure regarding restructuring charges in our quarterly report on Form 10-Q for the quarter ended December 31, 2008, as follows:

Restructuring Charges

In accordance with SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities*, SG&A expenses recognized as restructuring charges include costs associated with the integration of business acquisitions and overall cost-reduction efforts.

The Company has undertaken several cost cutting initiatives intended to conserve cash including recent reductions in force, the elimination of fiscal 2009 merit increases, a significant reduction in capital expenditures and a greater emphasis on improving its working capital management. These initiatives are intended to conserve or generate cash in response to the uncertainties associated with the recent deterioration in the global economy.

Restructuring charges consisted of the following:

(in thousands)

| | Three Months Ended December 31, | |
|-------------------------------------|----------------------------------------|---------------|
| | 2008 | 2007 |
| Employee severance-related expense | \$ 617 | \$ 362 |
| Other restructuring-related expense | - | 93 |
| Total restructuring charges | <u>\$ 617</u> | <u>\$ 455</u> |

The following table sets forth changes in the severance and restructuring-related accrual accounts for the three months ended December 31, 2008:

(in thousands)

| Severance-related Accrual | Restructuring-related Accrual | Total |
|--------------------------------------|------------------------------------------|--------------|
|--------------------------------------|------------------------------------------|--------------|

| | | | | | | |
|------------------------------------|----|------------|----|------------|----|------------|
| Balance as of September 30, 2008 | \$ | 152 | \$ | 330 | \$ | 482 |
| Additional accruals | | 617 | | - | | 617 |
| Cash payments or otherwise settled | | (536) | | (96) | | (632) |
| Balance as of December 31, 2008 | \$ | <u>233</u> | \$ | <u>234</u> | \$ | <u>467</u> |

The severance-related and restructuring –related accruals are recorded as accrued expenses within current liabilities since they are expected to be settled with the next twelve months. We may incur additional restructuring charges in the future for employee severance, facility-related or other exit activities.

Note 13. Debt – Convertible Subordinated Notes, page 82

17) Please tell us and clarify in future filings how you computed the loss on conversion of the subordinated notes.

RESPONSE: In response to your comment, we reviewed SFAS 84, *Induced Conversions of Convertible Debt—an amendment of APB Opinion No. 26*, and in our future filings, we will expand our disclosure regarding the loss on conversion of subordinated notes to read similar as follows:

In January 2008, the Company entered into agreements with holders of approximately 97.5%, or approximately \$83.3 million of its outstanding 5.50% convertible subordinated notes due 2011 (the "Notes") pursuant to which the holders converted their Notes into the Company's common stock. In addition, the Company called for redemption of all of its remaining outstanding Notes. Upon conversion of the Notes, the Company issued shares of its common stock, based on a conversion price of \$7.01 per share, in accordance with the terms of the Notes. To incentivize certain holders to convert their Notes, the Company made cash payments to such holders equal to 4% of the principal amount of the Notes converted (the "Incentive Payment"), plus accrued interest. By February 20, 2008, all Notes were redeemed and converted into the Company common stock. As a result of these transactions, 12.2 million shares of the Company common stock were issued. The Company recognized a loss totaling \$4.7 million on the conversion of Notes to equity of which \$3.5 million was related to the Incentive Payment and \$1.2 million related to the accelerated write-off of capitalized finance charges associated with the convertible notes.

Note 18. Related Party Transactions, page 89

18) Please tell us how you evaluated the requirements of EITF 02-14, including that the investment in WWAT does not qualify as "in-substance" common stock and that the equity method of accounting is not appropriate. In that regard, tell us how you evaluated the liquidation preference of the investment in arriving at your conclusion.

RESPONSE: On November 29, 2006, the Company invested \$13.5 million, and incurred \$0.4 million in transaction costs, in a company formerly named WorldWater & Solar Technologies Corporation ("WWAT"), now named Entech Solar, Inc. At September 30, 2007, the Company held an approximately 21% equity ownership in WWAT. In connection with the investment, the Company received two seats on WWAT's Board of Directors. EITF 02-14, *Whether an Investor Should Apply the Equity Method of Accounting to Investments Other Than Common Stock*, provides guidance on whether an investor should apply the equity method of accounting to investments other than common stock. In accordance with EITF 02-14, although the investment in WWAT provided the Company the ability to exercise significant influence over the operating and financial policies of WWAT, the investment did not qualify as in-substance common stock. In-substance common stock is an investment in an entity that has risk and reward characteristics that are substantially similar to the entity's common stock. The risk and reward characteristics of the Company's investment was not substantially similar to WWAT's common stock. WWAT had adequate subordinated equity from a fair value perspective, based upon the amount of outstanding shares and the closing price of WWAT common stock on the date of investment, in which case the liquidation preference is considered substantive and the preferred stock investment is not in-substance common stock. Therefore, the Company accounted for the investment in WWAT under the cost method of accounting and has evaluated it for other-than-temporary impairment each reporting period.

In June 2008, the Company agreed to sell two million shares of Series D Preferred Stock of WWAT, together with 200,000 warrants to a significant shareholder of both the Company and WWAT at a price equal to \$6.54 per share. The sale took place through two closings, one for one million shares and 100,000 warrants, which closed in June 2008, and one for an equal number of shares and warrants which closed in July 2008. Total proceeds from the sale were approximately \$13.1 million. In the three months ended June 30, 2008, the Company recognized a gain of \$3.7 million on the first sale of stock that occurred in June 2008. In the fourth quarter of fiscal 2008, the Company recognized an additional gain of \$3.7 million related to the second closing in July 2008. As of September 30, 2008, the Company had approximately \$8.2 million invested in WWAT which approximates a 16% ownership.

In January 2009, the Company announced that it completed the closing of a two step transaction involving the sale of its remaining interests in WWAT. The Company sold its remaining shares of WWAT and warrants to a significant shareholder of both the Company and WWAT, for approximately \$11.6 million, which included additional consideration as a result of the termination of certain operating agreements with WWAT. In the quarter ended March 31, 2009, the Company will recognize a gain of \$3.4 million as a result of this transaction.

Item 10. Directors and Executive Officers of the Registrant
Section 16(a) Beneficial Ownership Reporting Compliance, page 7

19) We note your disclosure that "administrative errors" caused three instances of noncompliance with the beneficial ownership reporting requirements of Section 16(a) of the Exchange Act. We note further your disclosure that delinquent Forms 3 and 4 were filed on January 20, 2009 and January 8, 2009, respectively. However, we note that only one Form 4 was recently filed on the date of January 5, 2009. Please advise or revise.

RESPONSE: In response to your comment, we note that the referenced Section 16 reports were filed on January 8, 2009 and January 20, 2009, as indicated.

Item 11. Executive Compensation
Compensation of Directors, page 7

20) *It is not clear why you are reporting the amounts set forth in column (c) as “All Other Compensation” pursuant to Item 402(k)(2)(vii) of Regulation S-K. Given that it appears as though this form of compensation is payable pursuant to the 2007 Stock Award Plan, please advise us as to why you are not reporting these amounts under Item 402(k)(2)(iii) of Regulation S-K.*

RESPONSE: In future filings, we will report the amounts that were set forth under the “All Other Compensation” column of the Directors Compensation Table under the “Stock Awards” column pursuant to the disclosure requirements of Item 402(k)(2)(iii) of Regulation S-K.

Compensation Discussion and Analysis, page 9

21) *We note your disclosure that one factor you consider in executive compensation decisions is “the compensation paid by companies within [your] peer group.” We also note your disclosure on page 10 that your goal for base salaries is “a level that approximates the median salaries of individuals in comparable positions and markets.” Since you appear to benchmark compensation, please discuss how each element of compensation relates to the data you analyzed from the peer companies and include an analysis of where actual payments actually fell within the targeted parameters. If any of your named executive officers are compensated at levels that are materially different from the targeted levels of compensation, please also provide discussion and analysis as to why. Refer to Item 402(b)(2)(xiv) of Regulation S-K.*

RESPONSE: In response to your comment, in future filings we will expand our disclosure to discuss how the base salaries of our named executive officers relate to the data we analyzed from peer companies and where payments fell within the targeted parameters. In addition, if any of our named executive officers are compensated at levels that are materially different from the targeted levels of base salary we will include a discussion and analysis as to why.

22) *Notwithstanding the identification of the “peer group” companies on page 9, it appears that you rely to some extent upon “market surveys and other data” when implementing your compensation programs. Please identify the surveys you used and their components, including component companies, the elements of compensation that are benchmarked and how you determine such benchmarks.*

RESPONSE: In response to your comment, in future filings we will identify the surveys we use and their components, including component companies, the elements of compensation that are benchmarked, and how we determine such benchmarks.

Base Salary, page 10

23) *We note your disclosure that annual salaries are set “based upon job responsibilities, level of experience, [and] individual performance . . .” Please describe specifically how the compensation committee considered these factors when determining specific payouts. If compensation decisions instead were based on the subjective discretion of the committee, please describe the various factors that the committee took into consideration in determining whether to make an upward or downward adjustment to compensation.*

RESPONSE: In response to your comment, in future filings we will expand our disclosure to describe in the manner you requested the Compensation Committee’s consideration of factors in determining compensation levels.

24) *We note your disclosure that with respect to executive compensation, your executive chairman “reviews the performance of the Chief Executive Officer and the other executive officers and recommends salary increases for these individuals to the Compensation Committee,” which “reviews, adjust . . . and approves the salary increases . . .” Please expand your disclosure to provide a detailed explanation of the executive chairman’s role in determining executive compensation. See Item 402(b)(2)(xv) of Regulation S-K.*

RESPONSE: In response to your comment, in future filings we will expand our disclosure to provide a more detailed explanation of our Executive Chairman’s role in determining executive compensation.

Annual Cash Incentives, page 10

25) *You provide little discussion and analysis of the effect of individual performance on incentive compensation, despite suggesting it is a significant factor. Please provide additional disclosure and analysis of how individual performance contributed to actual compensation for the named executive officers. For example, disclose the elements of individual performance, both quantitative and qualitative, specific contributions the compensation committee considered in its evaluation, and if applicable, how they were weighted and factored into specific compensation decisions. Refer to Item 402(b)(2)(vii) of Regulation S-K. Please also expand your disclosure to provide discussion and analysis of those factors the committee considered in establishing personal objectives for Messrs. Richards and Hou.*

RESPONSE: In response to your comment, in future filings we will enhance our disclosure of how individual performance contributed to actual compensation for our named executive officers, including discussion and analysis of those factors the Compensation Committee considered in establishing personal objectives for Messrs. Richards and Hou.

Long-Term Stock-Based Incentives, page 11

26) *We note that you do not state how you determined the amounts of stock options to be granted to your named executive officers. In future filings, please describe the elements of corporate and individual performance that are taken into account in granting these options and why the compensation committee determined that the specific equity allocation was appropriate in light of the factors considered. Your revised disclosure also should clarify the reasons for the differences in the relative size of the grants among officers.*

RESPONSE: In response to your comment, in future filings we will expand our disclosure by describing the elements of corporate and individual performance that are taken into account in granting stock options to our named executive officers and why the Compensation Committee determined that the specific equity allocation was appropriate in light of the factors considered. We will also enhance our disclosure to clarify the reasons for differences in the relative size of stock option grants among our named executive officers.

***Item 13. Certain Relationships and Related Transactions
Transactions with Related Persons, page 25***

27) Please expand your disclosure to describe your policies for the review and approval of related party transactions, and include a discussion of the standards to be applied pursuant to such policies. See Item 404(b)(1) of Regulation S-K.

RESPONSE: We believe our disclosure sufficiently describes our policy for the review and approval of related person transactions as required under Item 404(b)(1) of Regulation S-K. As explained on page 25 of our Form 10-K under the heading “Transactions With Related Persons”, the types of transactions that are covered by our policy are “any financial or other transaction, arrangement or relationship (including any indebtedness or guarantee of indebtedness) or any series of similar transactions, arrangements or relationships in which the Company (or a subsidiary) would be a participant and the amount involved would exceed \$120,000, and in which any related person would have a direct or indirect material interest.” We explain that the Compensation Committee is responsible for administering the policy, that the policy is a written policy and the standards applied by the Compensation Committee when reviewing a transaction under the policy (*e.g.*, when considering the appropriate action to be taken regarding a related person transaction, the Compensation Committee will “consider the best interests of the Company, whether the transaction is comparable to what would be obtainable in an arms-length transaction, is fair to the Company and serves a compelling business reason, and any other factors as it deems relevant.”)

***Item 15. Exhibits and Financial Statement Schedules
Exhibits, page 98***

28) Please file as an exhibit the “non-binding Memorandum of Understanding” referenced on page 9. Please refer to Item 601(b)(10) of Regulation S-K. Also, please tell us what you mean when you state that you have agreed to “cooperate with respect to bidding on CPV and other photovoltaic projects in North America, Europe and Middle East.”

RESPONSE: In response to your comment, we respectfully submit that the non-binding memorandum of understanding to which reference is made is not a material agreement that would be required to be filed as an exhibit pursuant to Item 601(b)(10).

Item 601(b)(10) of Regulation S-K generally requires a registrant to file every contract not made in the ordinary course of business which is material to the registrant. In addition, registrants are required to file ordinary course contracts upon which the registrant’s business is substantially dependent. The memorandum of understanding was a non-binding document that was similar in nature to other non-binding memoranda the Company considers from time to time in the ordinary course of business. Moreover, we do not believe that we are substantially dependent in any way on the non-binding memorandum.

In response to the second question posed in your comment, terrestrial CPV project customers often request proposals from prospective suppliers through a competitive request for proposal (“RFP”) process. As we disclosed in our Annual Report on Form 10-K, the non-binding memorandum of understanding outlines certain terms of understanding that include jointly responding to such requests, but it does not represent any definitive agreement to do so.

* * * *

In connection with responding to your comments and with this submission, we hereby acknowledge that the Company is responsible for the adequacy and accuracy of the disclosure in the filings; staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and the Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

We believe the responses above fully address the comments contained in your letter. Please call me at (626) 293-3715 if you have any questions regarding the above responses.

Very truly yours,

/s/ John M. Markovich

John M. Markovich
Chief Financial Officer
EMCORE Corporation