

Mail Stop 0306

February 11, 2005

Via: US Mail and Facsimile to (732) 271- 0477

Mr. Thomas G. Werthan
Executive Vice President and Chief Financial Officer
Emcore Corporation
145 Belmont Drive
Somerset, NJ 08873

RE: Emcore Corporation
Form 10-K for the fiscal year ended September 30, 2004
File No. 000-22175

Dear Mr. Werthan:

We have reviewed your filing and have the following comments.
We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. Where indicated, we think you should revise your document in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the fiscal year ended September 30, 2004

Item 7. Management's Discussion and Analysis

Results of Operations - Page 49

Discontinued Operations

1. We see that you sold your TurboDisc business in 2003. In future filings, consider including the followings in your MD&A discussion related to the discontinued business:

a. Discuss the likely effects on reported results and liquidity of material contingent liabilities, such as product or environmental liabilities or litigation, that may remain with you notwithstanding disposal of the underlying business;
b. If you retain a financial interest in the discontinued component or in the buyer of that component that is material to you, include a discussion of known trends, events, and uncertainties, such as the financial condition and operating results of the issuer of the security that may be reasonably expected to affect the amounts ultimately realized on the investments.

Refer to SAB Topic 5-Z and FIN 45.

Severance Charges/Restructuring - Page 52

2. We see your MD&A disclosure of your severance/restructuring charges. In future filings provide the following additional disclosures for each separate restructuring activity:

- Describe the specific conditions or events leading management to realign or consolidate certain operations, including specific factors related to products, processes, customers and/or market conditions;
- Identify the number and describe the nature of the positions being eliminated;
- Disclose the intended effects of your restructuring on your financial position, future operating results and liquidity;
- Discuss details of each of the charges and how these amounts were determined;
- Quantify the anticipated and actual cost savings derived from your restructuring efforts during the periods presented.

Refer to SFAS 146, EITF 94-3 and SAB Topic 5-P.

Impairment Charges - Page 54

3. We note your disclosure of \$30.8 million non-cash impairment charges related to fixed assets in fiscal 2002. Supplementally tell us and in future filings include the following additional disclosures:

- Describe the facts and circumstances leading to the impairment. What specific events occurred that caused the impairment and when did those events occur?
- Disclose the method and significant assumptions used to determine the fair value.

4. In addition, supplementally and in future filings provide more details of the inventory impairments recorded during each of the periods. Please clarify whether the impaired inventory is subsequently sold, scrapped or otherwise disposed. The impact of any sales of this inventory on gross margins should also be addresses in future filings.

Liquidity and Capital Resources - Page 57

5. We note that your accounts receivable balance increased significantly for the fiscal year ended 2004 when compared with the fiscal year ended 2003. In future filings provide details of the reasons for the significant changes in balance sheet amounts.

6. In future filings, remove the subtotal and caption "adjusted loss from continuing operations" from the disclosures on page 58 or tell us how this non-GAAP measure complies with the requirements of Item 10 of Regulation S-K.

7. Please provide details of how the \$12.3 million gain on early extinguishment of debt was determined. In addition, tell us whether the conversion price of \$8.06 per share represents fair market value at the date of the note exchange.

Financial Statements

Note 2: Summary of Significant Accounting Principles and Policies

Valuation of Goodwill and Intangible Assets- Page 71

8. Supplementally and in future filings provide more details of the goodwill impairment test, including when the test is performed each

year and the reporting units identified and used in the test. In addition, provide more details of the results of the most recent test, which did not result in any impairment.

Revenue Recognition - Page - 72

9. We note on page 22 that you utilize distributors to market products in certain foreign locations. Please tell us whether you recognize revenue upon shipment of product to distributors or upon shipment of product to third party customers of distributors. If you recognize revenue on shipment of product to distributors, tell us why you believe this practice is appropriate. Clarify whether these arrangements have any rights of return, customer acceptance, price protection, sales incentives or other discounts that impact revenue recognition. In future filings, revise to expand your revenue recognition policy to specifically address transactions with distributors.

10. With respect to product sales, revise and expand future filings to describe the nature and extent of any post shipment obligations, customer acceptance or rights of return and how those obligations are considered in your revenue practices.

11. In future filings clarify the accounting for contract revenue. Are these amounts included in revenue or is this reflected as a reduction to expenses as a cost reimbursement activity? Clarify the basis for the accounting treatment.

Product Warranty Reserves - Page 73

12. Revise and expand future filings to include all the disclosure requirements of FIN 45. Refer to paragraphs 13 through 16 of FIN 45.

Note 3 - Stock Options and Warrants - Page 75

13. We note that you issued a total of 2,972,149 options in exchange for tendered options on May 1, 2003. Clarify the accounting for these options and those not tendered. Tell us how you considered paragraph 171 of EITF 00-23 in the voluntary stock options exchange. Revise future filings as necessary.

Note 6 - Impairment and Severance Charges - Page 78

14. For each restructuring program, supplementally provide us with a roll-forward reconciliation of the beginning and ending liability balances showing separately the changes during the period attributable to costs incurred and charges to expenses, costs paid or settled, and any adjustments to the liability. Refer to SFAS 146 for guidance. Revise future filings as necessary.

Note 7 - GELcore (HB-LED) Joint Venture- Page 79

15. Provide the summarized financial information required by Rule 4-08 (g) of Regulation S-X for the equity investment in GELcore in future filings or tell us why this information is not required.

Note 13 - Related Parties - Page 85

16. Revise future filings to state separately on the face of the balance sheet, amounts receivable from related parties since the total related party notes receivable exceeded 10 percent of total receivables. Refer to Rule 5-02-3(a) and (b) of Regulation S-X.

Note 14 - Segment Data and Related Information - Page 86

17. It appears that you have several different operating segments; based on the nature of the products that you sell and the types of customers that you have. Additionally, it appears that your chief operating decision maker has access to and reviews detailed financial information, such as total sales to customers in several different markets. Please revise future filings to comply with the disclosure requirements of SFAS 131 or tell us how you applied the guidance in paragraphs 10 through 24.

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

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging 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 in the filings reviewed by the staff do not foreclose the Commission from taking any action with respect to the filing; 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Patrick Enunwaonye, Staff Accountant, at (202) 824-5529 or me, at (202) 942-1791 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 942-1984 with any other concerns.

Sincerely,

Brian Cascio
Accounting Branch Chief

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Mr. Thomas G. Werthan
Emcore Corporation
February 11, 2005
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