



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

October 20, 2010

via U.S. mail and facsimile

Joel P. Moskowitz, Chief Executive Officer
Ceradyne, Inc.
3169 Red Hill Avenue
Costa Mesa, CA 92626

**RE: Ceradyne, Inc.
Form 10-K for the Fiscal Year Ended December 30, 2009
Filed February 23, 2010
Proxy Statement
Filed April 30, 2010
File No. 000-13059**

Dear Mr. Moskowitz:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2009

Note Regarding Forward-Looking Statements, page 3

1. Please remove the statement that you "specifically decline any obligation to update any forward-looking statements or to publicly announce the results of any revisions to any statements to reflect new information or future events or developments." You may not decline an obligation to update information if required by the federal securities laws.

2. If material to an understanding of your business, please discuss the methods by which you distribute your principal products to your customers in future filings. Refer to Item 101(c)(1)(i) of Regulation S-K.

Operating Segments and Facilities, page 17

3. In footnote 1 on page 18, you state that all of the Costa Mesa, California leases expire in October 2010. In future filings, please discuss the company's opportunities and plans for renewing any material leases and continuing operations at those or different locations. Similarly, please discuss the company's plans upon expiration of the Wixom, Michigan lease discussed in footnote 3.
4. In future filings, please include the financial information about segments that is required by Item 101(b) of Regulation S-K, or include a cross – reference to the financial statements containing this information.

Raw Materials, page 21

5. On page 21, we note that your ESK Ceramics and Minco, Inc. subsidiaries supply some of your raw materials. We also note that several commercial sources supply other raw materials. We also note your disclosure on page 27 that ultra-high molecular weight polyethylene textile material is one of the two critical materials that you rely upon, and is available in the United States from only two suppliers, Honeywell International and Royal DSM. In future filings, please discuss the availability of your most significant raw materials and the extent to which they are readily available from multiple sources or only one or a few suppliers. Refer to Item 101(c)(1)(iii) of Regulation S-K.

Risk Factors, page 26

6. On page 33, we note your discussion of the risks associated with a failure to comply with environmental laws and regulations. To the extent material, in future filings please discuss in your business section the effects that compliance with these environmental laws and regulations may have upon your capital expenditures, earnings, and competitive position. Refer to Item 101(c)(1)(xii) of Regulation S-K.

Legal Proceedings, page 35

7. On page 35 of your Form 10-K, we note that you did not state whether you had received a response to the settlement offer Ceradyne made on October 21, 2009 or whether you expected the \$1.0 million reserve to be sufficient to settle the claim. We also note that you did not describe the claim or the settlement offer. In future

filings, please provide this information when you disclose claims in which the company is involved. Refer to Item 103 of Regulation S-K.

8. We note from your risk factor on page 31 that enforcing or defending your proprietary rights could be expensive. If material, please discuss here the two lawsuits you have filed in Germany to enforce your proprietary rights. Regarding these two lawsuits, please disclose the information required by Item 103 of Regulation S-K.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 38

Goodwill Impairment, page 47

9. The Boron operating segment generated significant losses before taxes during 2009 and 2008. These losses are particularly significant as a percentage of the segment's revenues (15% and 82% for 2009 and 2008). Please explain to us how these historical results impacted your calculation of the fair value of the reporting unit in performing your test of goodwill impairment. Consider what additional disclosures may be helpful to provide additional insight into how the Boron reporting unit's fair value substantially exceeds its carrying value despite the recurring losses. The operating segment continued to generate significant losses in the six months ended June 30, 2010, at 17% of segment revenues.

Liquidity and Capital Resources, page 52

10. Regarding your discussion of your senior subordinated notes on page 54, we note that the notes are convertible into 17.1032 shares of your common stock for each \$1,000 principal amount, subject to adjustment. In future filings, please briefly discuss the circumstances under which adjustment may occur and the manner in which adjustments may be made. We also note that the notes are convertible only under certain circumstances, including upon reaching specified common stock and trading price thresholds. Please disclose these threshold levels. As the conversion feature is an off-balance sheet arrangement, as indicated on page 55, you should discuss the triggering events or circumstances that could cause conversion to arise. Please see Item 303(a)(4)(C) of Regulation S-K.

Form 10-Q for the Fiscal Quarter Ended June 30, 2010

Note 6 – Fair Value Measurements, page 10

11. Please explain the nature of the \$3,587,000 unrealized gain on auction rate securities included in net earnings and clarify why this amount has been recognized in earnings. Also, in future filings, please revise the fourth and fifth

paragraphs of this note to clarify the carrying value of auction rate securities sold during the periods and the gross proceeds received. It is not clear from the table on page 12 whether \$3,463,000 represents proceeds received during the period from the sale of securities with a book value of \$6,100,000. Also, please expand the discussion of Other Income (Expense) in MD&A on page 28 in future filings to discuss these gains and losses and the underlying reasons for them.

Definitive Proxy Statement on Schedule 14A

Compensation Committee, page 9

12. We note that the last sentence of the first paragraph under “Compensation Committee” on page 9 refers to your Audit Committee Charter. In future filings, please clarify whether your Compensation Committee Charter is available on your website.
13. We note on page 10 that your Chief Executive Officer and Chairman of the Board, Mr. Joel P. Moskowitz, makes recommendations taken into consideration by the Compensation Committee regarding executive officer compensation. In future filings, please clarify whether Mr. Moskowitz makes recommendations to the Compensation Committee regarding his own compensation and compensation of the company’s directors.

Compensation Discussion and Analysis, page 13

14. In the Compensation Discussion and Analysis section of your future filings, please disclose the role of executive officers in determining executive compensation. In doing so, please discuss your CEO’s involvement in recommending executive pay, including his own, to the Compensation Committee. If the CEO does not make recommendations concerning his own pay, please disclose how the Committee determines CEO compensation. Your analysis should also include a discussion of how the Committee uses executive officer recommendations in making its decisions regarding executive compensation. Please also discuss how the Committee’s determinations compare to executive officer recommendations. Supplementally, please show us what this disclosure would have looked like for 2009.

Cash Compensation, page 14

15. On page 14, we note that in the past, the Compensation Committee has targeted its recommendations for total compensation at the median amount of the survey group compiled by Hewitt Associates LLC. We further note that the Committee intended to provide total compensation in 2009 that would be competitive with the 2008 peer group but did not target total 2009 compensation to achieve the

median amount of the peer group. In future filings, please discuss how targeted and actual compensation compared to any comparative peer group that you used. Please show us supplementally what your disclosure would have looked like comparing 2009 compensation to the 2008 comparative peer group.

16. We note in the footnotes to the “2009 Cash Bonuses” table on page 15 that cash bonuses were capped at different percentages or dollar amounts for different executive officers. Please discuss how you arrived at these percentages or dollar amounts and how these caps align with your compensation objectives. Refer to Item 402(b) of Regulation S-K.
17. On page 15, we note that the Compensation Committee exercised its discretion in 2009 to award cash bonuses to the chief executive officer and chief financial officer even though required earnings per share threshold levels were not met due to various financial statement charges that were not anticipated at the time the company established the cash bonus plan for 2009. However, it is unclear how you determined the amount of the bonus that was paid. In addition, you have not discussed how you determined bonuses payable to executive officers other than your CEO and CFO. In future filings, please ensure that you disclose how you determined the amount of bonus award paid to each executive officer. If the committee exercised discretion in determining the awards, please discuss what factors it considered in exercising its discretion to arrive at the specific amount paid. We note disclosures on page 17 that bonuses were based on items such as pre-tax profits or operating income, but additional disclosure should be provided to help investors understand the basis for the amounts paid, including any threshold or targeted amounts of profits or operating income and the percentage of salary or other determinant of the dollar amount of the bonus paid for meeting these targets. Please show us supplementally what your disclosure would have looked like for 2009.

Equity – Based Compensation, page 15

18. In future filings, please disclose how the Committee determined the actual amount of the RSUs or other equity-based compensation awarded to the NEOs. Include specific disclosure of any performance targets that you used to determine these amounts. Please show us supplementally what your disclosure would have looked like for 2009.

Compensation of our Named Executive Officers, page 17

19. We note the various historical individual factors you cite as a basis for compensation. In future filings, please clarify whether these factors impacted your compensation decisions for the specific year for which you are providing

disclosure. Note that your discussion should focus on the reasons why you paid compensation for the most recently completed fiscal year.

Executive Compensation, page 20

20. We note that you have not included any disclosure in response to Item 402(s) of Regulation S-K. Please advise us of the basis for your conclusion that disclosure is not necessary and describe the process you undertook to reach that conclusion.

Summary Compensation Table, page 20

21. We note that Mr. Joel P. Moskowitz is Chairman of the Board, Chief Executive Officer, and President. If Mr. Moskowitz receives compensation for his service as a director, please reflect that compensation in the Summary Compensation Table and provide a footnote identifying and itemizing such compensation and amounts. Refer to Instruction 3 to Item 402(c) of Regulation S-K. In this regard, we note your disclosure on page 26 under "Director Compensation" that all compensation earned by Mr. Moskowitz is reported in the Summary Compensation Table and has been excluded from the Director Compensation Table.
22. For the "Stock Awards" column of your Summary Compensation Table, please include a footnote disclosing all assumptions made in the valuation by reference to a discussion of those assumptions in the financial statements, footnotes to the financial statements, or discussion in the Management's Discussion and Analysis. Refer to Instruction 1 to Item 402(c)(2)(v) and (vi) of Regulation S-K.
23. Please verify that all numbers in the "All Other Compensation" and "Total" columns of your Summary Compensation Table are accurate. When compared to the All Other Compensation Table on page 21, it appears that the 2009 "All Other Compensation" and thereby the 2009 "Total" amounts for Mr. Bruce Lockhart are inaccurate. It appears that 2009 "All Other Compensation" should be listed as \$8,250 and that 2009 "Total" should thereby be listed as \$417,370. Additionally, it appears that the 2007 "All Other Compensation" and thereby the 2007 "Total" amounts for Mr. Michael A. Kraft are inaccurate. It appears that 2007 "All Other Compensation" should be listed as \$47,387 and that 2007 "Total" should thereby be listed as \$323,929.

Fiscal 2009 All Other Compensation Table, page 21

24. In footnote 2 to the All Other Compensation Table, we note the allowance for housing expenses paid to Mr. Kraft in 2009 and 2007 for his relocation to Orange County, California in connection with his commencement of employment in 2005. Please disclose the terms of your arrangement with Mr. Kraft that entitle

him to continue to receive a housing expense allowance in connection with his 2005 relocation. Additionally, please disclose why allowances were paid in 2007 and 2009 but not in 2008. Please show us supplementally what your disclosure would have looked like for 2009.

Outstanding Equity Awards, page 23

25. In footnote 3 that begins, “The amounts shown in this column,” at the top of page 24, please include the closing price of Ceradyne common stock on the last trading date of the year in future filings.

Director Compensation, page 26

26. Please disclose how director compensation is set. In doing so, please disclose the role of executive officers in determining or recommending the amount or form of director compensation. Refer to Item 407(e)(3)(ii) of Regulation S-K.

Transactions with Related Persons, page 28

27. We note on page 28 that you do not have any formal policies or procedures regarding the review, approval, or ratification of related person transactions but that you do have processes and controls to deal with such transactions. Please disclose the processes and controls you use as well as how you evidence your processes and controls.

Fees Paid to Independent Registered Public Accounting Firm, page 36

28. In future filings, please describe the nature of the services comprising the fees disclosed under the “All other fees” category on page 36. Refer to Item 9(e)(4) of Schedule 14A.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules 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 responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;

Mr. Moskowitz
Ceradyne, Inc
October 20, 2010
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- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Tracey McKoy, Staff Accountant, at (202) 551-3772 or, the undersigned Accounting Branch Chief at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters. Please contact Jessica Dickerson at (202) 551-3749 with any legal related questions.

Sincerely,

Terence O'Brien
Accounting Branch Chief