

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

Mail Stop 7010

March 14, 2007

Ms. Laura Lunardo Dynasil Corporation of America 385 Cooper Road West Berlin, New Jersey 08091

> RE: Dynasil Corporation of America Form 10-KSB for the fiscal year ended September 30, 2006 Filed December 13, 2006 File #0-27503

Dear Ms. Lunardo:

We have reviewed your response letter dated February 19, 2007 and have the following additional comments. If you disagree, we will consider your explanation as to why our comment is inapplicable. 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.

Form 10-QSB for the Period Ended December 31, 2006 General

- 1. We note that your response to the requested "Tandy" language qualifies your acknowledgements by stating that you are not waiving any of your rights under Section 23(a)(1) of the Exchange Act. This language is not permissible, as the Tandy representations must be provided to us using the exact language we have requested, with nothing added or deleted. We therefore reissue our prior request. 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 their filing;
 - 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.

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If you have further questions about the Tandy language, please contact Jennifer Hardy, Legal Branch Chief, at (202) 551-3767.

Note 2 – Business Acquisition, page 7

- 2. Please revise future filings to provide pro forma information for the corresponding period in the preceding year as required by paragraph 58(b) of SFAS 141. In this regard, we assume that pro forma information related to the current fiscal year would not be applicable since the acquisition occurred at the beginning of your current fiscal year.
- 3. We note that in conjunction with your acquisition of EMF, EMF entered into a new \$1.05 million 20 year commercial mortgage, the proceeds of which were used for various things including paying \$520,000 to EMF's seller. We have the following comments:
 - Please help us to understand why you structured the acquisition so that EMF would enter into this new borrowing concurrently with your acquisition. In this regard, why was this structure more advantageous or appropriate than simply having you increase your own borrowings to provide the \$520,000 paid to EMF's former shareholders at closing?
 - Please tell us which party actually gave the \$520,000 to EMF's former shareholders you or EMF.
 - Please tell us how EMF recorded the \$520,000 payment to its former shareholders on its books. In this regard, we assume that if EMF paid this money directly to its former shareholders at closing, it would be recorded as a dividend, whereas if you paid this amount to the former shareholders, there might be an intercompany account on EMF's books to reflect that they gave the \$520,000 to you.
 - Please help us to understand whether EMF's \$1.05 million mortgage is included in your purchase price allocation. In this regard, we note that the only acquired liability shown in your allocation is labeled "current liabilities assumed," and it is unclear to us that a 20 year borrowing would be a current liability.

Item 3 Controls and Procedures, page 13

- 4. We have the following comments concerning your disclosure:
 - We note that your disclosure contains an incorrect reference to the Exchange Act Rules. In this regard, disclosure controls and procedures are defined in Exchange Act Rules 13a-15(e) and 15d-15(e), as indicated by Item 307 of Regulation S-B.

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- We note your reference to an "informal evaluation" of your disclosure controls and procedures, and we read that you "believe" that your disclosure controls and procedures were effective. Please note that this language is not consistent with the language required by Item 307 of Regulation S-B. Please confirm to us that your Chief Executive Officer and Chief Financial Officer evaluated your disclosure controls and procedures as required by Item 307 of Regulation S-B, and that they concluded that your disclosure controls and procedures were effective.
- We note that your evaluation took place during the period covered by your report. Please note that the evaluation should take place as of the end of a given reporting period, as indicated by Item 307 of Regulation S-B. Please confirm to us that your conclusions were as of December 31, 2006.
- Please confirm to us that you will revise future filings as indicated in the above comments.

Exhibits 31.1(a) and (b)

5. We have reviewed your response to our prior comment two. The certifications included in your Form 10-QSB for the period ended December 31, 2006 continue to contain references to a quarterly report in the second paragraph. As previously requested, please ensure that in future filings your certification language conforms exactly to the applicable rules.

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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 letter that keys your responses to our comments and provides any requested supplemental information. Detailed response letters greatly facilitate our review. Please file your response letter on EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

If you have any questions regarding these comments, please direct them to Tricia Armelin, Staff Accountant, at (202) 551-3747, Jennifer Thompson, Senior Accountant, at (202) 551-3737 or, in their absence, to the undersigned at (202) 551-3768.

Sincerely,

John Cash Accounting Branch Chief