

Mail Stop 6010

May 31, 2006

John R. Tuttle, President and Chief Executive Officer  
DayStar Technologies Inc  
13 Corporate Drive  
Halfmoon, New York 12065

Via U S Mail and FAX [(518)383-7900]

**Re: DayStar Technologies Inc**  
**Form 10-KSB for the fiscal year ended December 31, 2005**  
**Form 10-QSB for the fiscal quarter ended March 31, 2006**  
**File No. 0-50508**

Dear Mr. Tuttle:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures, and do not intend to expand our review to other portions of your documents. Where indicated, we ask you to provide us with information so we may better understand your disclosure. Please be as detailed as necessary in your explanations. After reviewing this information, we may 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-KSB for fiscal year ended December 31, 2005**

Financial Statements

Statements of Operations, page F-4

1. We see that you report no revenue from product sales and your filing includes a discussion of your plans to develop a commercially-viable product. Please tell us why you are not reporting as a development stage enterprise under FAS 7.
2. We see you have received grants from a New York government agency to help fund your development activities. We note the government agency has set criteria for each step in funding your development activities. Please tell us why you believe these funds from the government agency represent revenue, rather than a cost reimbursement activity, which would be reflected as a reduction of your R&D expenses.

Statements of Cash Flows, Page F-6

3. We note the discussion on page F-8 that you have received capital grants for the purpose of reducing your cash flows for purchases of property and equipment. We read that these grants must be repaid if certain criteria are met. Please tell us about your obligation to repay these funds and how this has been reflected in the financial statements.

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 response letter that keys your responses to our comments and provides the requested information. Confirm that you will comply with these comments in all future filings with the Commission. Detailed response letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments and the requested information.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing reviewed by the staff to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed decision. 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.

Mr. John R. Tuttle  
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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 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.

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 Jeanne Bennett at (202) 551-3606, or me at (202) 551-3676, if you have questions regarding our comments. In our absence you may contact, Martin F. James, Senior Assistant Chief Accountant at (202) 551-3671.

Sincerely,

Brian R. Cascio  
Accounting Branch Chief