



DIVISION OF  
CORPORATION FINANCE

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

October 24, 2011

Via E-mail

Dennis McGrath  
Chief Executive Officer and President  
PhotoMedex, Inc.  
147 Keystone Drive  
Montgomeryville, PA 18936

**Re: PhotoMedex, Inc.  
Amendment No. 1 to Registration Statement on Form S-4  
Amended October 5, 2011  
File No. 333-176295**

**Form 10-K for the Fiscal Year ended December 31, 2010  
Filed March 31, 2011  
File No. 000-11635**

Dear Mr. McGrath:

We have reviewed your filings 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 by amending your filings and providing the requested information. 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 filings and the information you provide in response to these comments, we may have additional comments.

General

1. We note your response to our prior comment number 2. Please provide your analysis of how the solicitation of and entry into the Radiancy Voting Support and Lock Up Agreement complies with Section 5 of the Securities Act of 1933. Your response should address the identity and nature of each signatory and each person solicited in additional detail. For guidance, please refer to Compliance Disclosure Interpretations, Securities Act Sections, Question 239.13.

Prospectus Cover Page

2. It does not appear that you have limited the cover to one page. We therefore reissue the first sentence of prior comment 3.

Summary, page 9

3. Please revise the summary to highlight the material terms of the Repurchase Rights Agreement and Perseus' status as a related party.

Opinion of Photomedex's financial advisor, page 11

4. We note your response to our prior comment number 6; however, we continue to believe that you may not limit reliance by Radiancy shareholders. Please revise here and in the penultimate paragraph on page B 4 or advise.

Israeli Income Tax Consequences of the Merger, page 13

5. We note your statement that certain assumptions made are based upon Radiancy's representations in the merger agreement. Because the questions of (1) whether Radiancy is controlled or managed from Israel and (2) whether most of Radiancy's assets are located outside of Israel appear to be legal conclusions, please identify counsel and file a consent, rather than relying on Radiancy's representations.

Background of the Merger..., page 58

6. We note your response to our prior comment number 13. Please revise your disclosure further to discuss whether you explored any particular deal terms with the other 2 possible business combination candidates and to indicate when you stopped pursuing these 2 alternatives.
7. We reissue prior comment 14 because your revised disclosure on page 60 does not identify which payments would be made in the event of a change in control and which ones would not and the number of restricted shares that were awarded to individuals.

Public Comparables Analysis, page 70

8. We note your response to prior comment 24. Please revise to briefly disclose on pages 71 and 72 why the EBITDA measures were not meaningful.

Conclusion, page 76

9. We note your response to prior comment 25 and the information contained on pages 59-64 of Fairmount's July 4, 2011 presentation. Please substantially revise the conclusion

section to explain how the results of the stand-alone and combined company analyses jointly support the fairness determination. In this regard, please address the average per share price of PhotoMedex's stock over a recent period prior to the fairness opinion.

Golden Parachute Compensation, page 83

10. Please tell us whether the table includes the restricted stock and option grants disclosed in the sixth bullet point on page 81 as well as the warrants referenced on page 101. Please also revise your disclosure on pages 79-80 concerning the interests of Radiancy Directors and Executive Officers to include the table and other information required by Rule 14a-21(c) and Item 402(t) to Regulation S-K or advise.

United States Federal Income Tax Consequences of the Merger, page 92

11. The third paragraphs of Exhibit 8.1 and 8.2 suggest that the disclosure in the registration statement is the opinion of respective counsel. Accordingly, please revise the first paragraphs on pages 92 and 97 to clearly identify and plainly state what disclosure is the opinion of respective counsel. Counsel must opine on the tax consequences of the offering, not the manner in which they are described in the prospectus. See Section III.C.2 of Staff Legal Bulletin No. 19 (Oct. 14, 2011). Accordingly, please have counsel revise pages 92 and 97 as well as Exhibits 8.1 and 8.2.

Israeli Income Tax Consequences..., page 97

12. A description of the law does not satisfy the requirement to provide an opinion on the material tax consequences of the transaction. Accordingly, please have counsel revise the penultimate paragraph on page 99 to opine as to whether PhotoMedex will be subject to Israeli taxation upon the sale of PhotoMedex stock or upon the receipt of dividends. Please refer to See Section III.C.2 of Staff Legal Bulletin No. 19 (Oct. 14, 2011).

Information about the Companies, page 112

PhotoMedex, page 112

13. Throughout this section you include industry data that is unaccompanied by source attribution. For example, we note the industry statistics provided in the first full paragraph on page 114, the sixth paragraph on page 115, the fourth full paragraph on page 116 and the first full paragraph on page 117. Please revise to disclose whether this data represent managements' estimates or identify the source of the data.

Litigation, page 127

14. Your reference to “certain other” legal actions implies that you have provided disclosure concerning one or more material pending legal proceedings. Please revise accordingly.

Information about the Nominees, page 205

15. We note your revised disclosures in response to prior comment 37. Please revise to disclose Mr. Connelly’s principal occupations and employment during the past five years, including the name and principal business of the corporation or other organization. To the extent that Mr. Connelly was not employed during this period, please disclose. With respect to Mr. Sight, please clearly identify his present board memberships. From your existing disclosure, it is not clear that he presently serves on multiple boards.

Security Ownership, page 226

16. We note your revised disclosures in response to prior comment 38; however, you have not identified a natural person or persons in footnote 13. Accordingly, we reissue the comment.

Unaudited Pro Forma Condensed Consolidated Financial Statements, page 275

17. Please label the applicable Radiance historical balance sheet and statement of operations as “restated” and include a footnote reference to briefly explain the restatement or refer to where the restatement is explained.

Unaudited Pro Forma Condensed Consolidated Statements of Operations, page 277

18. It appears that your “dilutive” loss per share for the six months ended June 30, 2011 is an error since this amount is not dilutive. Please revise.

Notes to the Unaudited Pro Forma Condensed Consolidated Financial Statements, page 279

19. Further to your response to comment 44, please disclose the nature of any material contingency, an indication of when you expect the allocation to be finalized, any additional information you have arranged to obtain, and any other available information which will enable a reader to understand the magnitude of any potential adjustment due to the contingency.
20. Refer to footnote 3 on page 281. We note the pro forma adjustment for restricted stock expense and the settlement liability. You should not include pro forma adjustments in the statements of operations for material *non-recurring* charges or credits and the related tax effects which will be included in your statements of operations in the twelve months following the transaction. Instead you should clearly disclose the nature and amount of

these items and that such items were not included in the pro forma adjustments. Please revise as appropriate.

21. Further to your response to comment 45, please tell us whether the tax effects of the other pro forma adjustments were considered in the pro forma tax expense adjustment. If not, please revise this adjustment as appropriate and disclose in the footnote how your pro forma tax expense adjustment was computed.

PhotoMedex Consolidated Financial Statements

22. Please tell us the gross components of lasers placed into service, net within your net cash provided by operating activities. Discuss why the amounts are reflected net and how you considered the proper classification of the gross cash flows.

Report of Independent Registered Public Accounting Firm, pages F-29 and F-30

23. We note several typographical errors in the report on page F-29. For example, we note that (i) in the first sentence of the first paragraph the period covered by the audit is missing, (ii) in the last sentence of the second paragraph it appears that the word should be “provides” and not “provide”, and (iii) in the last paragraph the word “in” is missing from the phrase “then ended conformity with”. Please request your auditors to correct their opinion.
24. On page F-30, we note that your auditor references a December 31, 2009 opinion on the company’s internal control over financial reporting and management’s assessment of the company’s internal control over financial reporting. Since management’s assessment of internal control over financial reporting is not included in the Form S-4, please request your auditors to revise their opinion to omit references to both their assessment and management’s assessment of internal control over financial reporting.

Note 11. Convertible Debt, page F-52

25. Further to your response to prior comment 64, please tell us in more detail how you concluded that the convertible debt is not readily convertible to cash as the underlying common shares are an unusually large block of stock and thus the market would be unable to absorb the quantity without impacting the overall price of the stock.
26. Further to your response to comment 65, please explain why you believe the modification did not affect the terms of the embedded conversion option of the smaller note. Please further explain how you considered the guidance of ASC 470-50-40-10(a) and 470-50-40-12(g).

Radiancy, Inc. Consolidated Financial Statements

Note 2. Summary of Significant Accounting Policies, page F-72

27. You disclose that certain comparative figures were reclassified. Please disclose, consistent with ASC 205-10-50-1, an explanation of the changes made. Similarly revise your annual financial statement disclosure on page F-90.

Note 6. Subsequent Events After Balance Sheet Date, page F-76

28. Further to your response to prior comment 50 with respect to your obligation to pay the founders \$1 million, please tell us when you will record the liability and why.

Note 7. Other Current Liabilities, page F-93

29. Please tell us why you present the change in your sales return account on a net basis and not a gross basis within the rollforward.

Note 9. Stockholders' Equity

Convertible Preferred Stock, page F-95

30. Further to your response to prior comment 49, we note that the company previously classified its convertible preferred stock as a separate item outside stockholders' equity and that the company has now restated the financial statements to classify the convertible preferred stock within stockholders' equity. Please summarize the liquidation preference terms of the convertible preferred stock, including a discussion of the events that would cause a deemed liquidation. Please also address how the company evaluated ASC 480-10-S99, including S-99-3A3(f). Also refer to Examples 3 and 4 in ASC 480-10-S99-3A8 – 3A9, as applicable.

Stock Option Plans, page F-96

31. We note from your response to comment 52 that you intended to refer to the company's reliance on the work of the independent appraiser with respect to the valuation of your common stock underlying your valuations of stock options in 2009 and 2008. We also note from your response that you intend to include the consent of the independent appraiser pursuant to the consent requirement in Securities Act Section 7(a). Please provide this consent in your next amendment.

Note 12. Restatements, page F-105

32. Please tell us the facts and circumstances you considered to determine that your restatement for uncertain tax positions is a correction of an error and not a change in accounting estimate. Refer to ASC 250-10.
33. With respect to your adjustment for unrecognized tax benefits, please tell us the nature of the underlying errors in 2009 and 2010. In this regard, explain why the current accounting treatment is appropriate.
34. Please tell us why the allowance for doubtful accounts balance as of December 31, 2010 was erroneously overstated in the amount of \$1,183,000, including as a reduction of revenues. Please also explain why the accounts receivable balance as of December 31, 2010 was overstated in the amount of \$382,000.
35. Please explain whether the inventory was in transit to the company or to a customer and why this resulted in an error. Please also tell us why you credited cost of sales to correct for this transaction.
36. Please reconcile the adjustments included in your explanations with the actual amount of changes in each balance sheet and income statement account shown on page F-106.
37. In response to prior comment 56 you responded that you reclassified amounts previously presented as part of deferred revenues. Please explain to us in more detail how you account for and classify your sales that are subject to a right of return.

Exhibit 5.1

38. Please remove the text starting with “due execution and delivery” from assumption A, or revise to except the registrant from the assumption.
39. Please remove the final sentence from assumption C, or revise to except the registrant from the assumption.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Gary Newberry at (202) 551-3761 or Kaitlin Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Joseph McCann at (202) 551-6262 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz  
Assistant Director

cc (via e-mail): Stephen C. Koval, Esq. - Kaye Scoler LLP