



DIVISION OF  
CORPORATION FINANCE

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

November 17, 2011

Via E-mail

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

**Re: PhotoMedex, Inc.  
Amendment No. 3 to Registration Statement on Form S-4  
Filed November 14, 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.

Interests of Radiancy's Directors, page 12

1. We note your response to prior comment 7 concerning compensation paid to Dr. Rafaeli. Please revise footnote 1 to disclose the value of this common stock award. In light of your disclosure on page 67, please also amend the Summary Compensation table on page 245 to include the value of the share grant and the tax gross-up. Please also revise your disclosure on page 246 to explain why Mr. Rafaeli received the share award and gross-up for FY 2010 performance given the separate \$688,880 bonus referenced in the table on page 245.

U.S. Income Tax Consequences of the Merger to Radiancy..., page 101

2. Please reconcile the second sentence under the heading with the first paragraphs of page 100 and Exhibit 8.1 which indicate that the discussion in the prospectus is counsel's opinion. Please also revise disclosure on pages 15, 100 and 101 to eliminate the assumption concerning whether the merger will qualify as a reorganization under the tax code.

Exhibit 8.2

3. We note your response to prior comment 15 and refer to the final sentence of the second paragraph of the opinion. Based on your response, the issue of whether PhotoMedex is controlled and managed, or will be controlled and managed, from outside Israeli is a legal conclusion and therefore should form part of counsel's opinion. Please revise.

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.

Dennis McGrath  
PhotoMedex, Inc.  
November 17, 2011  
Page 3

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 Scholer LLP