



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

Mail Stop 3720

May 6, 2009

Rene Schena  
Chairman and Chief Executive Officer  
Arrayit Corporation  
524 East Weddell Drive  
Sunnyvale, CA 94089

**Re: Arrayit Corporation**  
**Form 10-K for Fiscal Year Ended December 31, 2008**  
**Filed April 15, 2009**  
**File No. 1-16381**

Dear Ms. Schena:

We have limited our review of your filing to those issues we have addressed in our comments. Please amend your Form 10-K in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not 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-K for the Fiscal Year Ended December 31, 2008

Comment Letters Issued by the SEC, page 9

1. Please revise your disclosure to include discussion of outstanding SEC comments related to the company's Form 10-KSB for the fiscal year ended December 31, 2006.

Item 7. Management's Discussion and Analysis or Plan of Operation, page 13

2. The Commission's Interpretive Release No. 34-48960, "Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations," explains that companies must discuss and analyze known trends, events, demands, commitments and uncertainties that are reasonably likely to have a material effect on financial condition or operating performance.
  - Expand your Management's Discussion and Analysis to provide detailed analysis of the company's obligations with respect to its material debt instruments including, but not limited to, your convertible notes payable to SovCap. Your analysis should provide insight into management's expectations regarding how these obligations could affect your future performance.
  - According to your disclosure on page 27, you are in default of the payment terms with respect to several notes. Your revised disclosure should include information about the company's default with respect to your outstanding notes. Release No. 34-48960 explains that companies that are in breach of material covenants of debt obligations should disclose material information about that breach and analyze the impact on the company, if material. That analysis should include, as applicable and to the extent material: (i) the steps that the company intends to take to cure, obtain a waiver of or otherwise address the breach; (ii) the impact or reasonably likely impact of the breach on the company's financial condition or operating performance; and (iii) alternate sources of funding to pay off resulting obligations or replace funding.

Liquidity and Capital Resources, page 13

3. Please revise your disclosure to address in more detail your ability to meet both your short-term and long-term liquidity needs. Such disclosure should include an analysis of the effect that your debt obligations and default with respect to certain of those obligations may have on your ability to meet your cash requirements. Please note that we consider "long-term" to be the period in excess of the next twelve months. See Section III.C. of the Commission's Release No. 34-26831 and footnote 43 of Release No. 34-48960.
4. Disclose the material terms of your debt obligations. Identify all notes that are convertible into equity and the rate at which they are convertible. For any notes that are convertible based upon a discount to the then-prevailing market price, please provide the following additional disclosure:

- Disclose that the notes are convertible at a floating rate below the then-prevailing market price and, as a result, the lower the stock price at the time the holder converts, the more common shares the holder gets.
- Disclose whether there is a ceiling or floor on the conversion price. If there is no floor, disclose that there is no limit on how low the conversion price can be, which means that there is no limit on the number of shares that the company may be obligated to issue.
- Disclose that, to the extent that noteholders convert and then sell their common stock upon conversion of the notes, the common stock price may decrease due to the additional shares in the market. This could allow the noteholders to convert their notes into even greater amounts of common stock, the sales of which would further depress the stock price.
- Disclose that the conversion of the notes may result in substantial dilution to the interests of other holders of common stock, since the noteholders may ultimately convert and sell the full amount issuable on conversion. If there are ownership limitations on the percentage of then-outstanding shares of common stock that the noteholders can receive at one time, disclose that these restriction do not prevent the noteholders from selling some of their holdings and then receiving additional shares. In this way, the noteholders could sell more than these limits while never holding more than those limits.
- Disclose the number of shares that you would have to issue assuming full conversion of the notes without regard to any ownership restrictions and based upon a market price between the end of your fiscal year and the filing of your Form 10-K.

Arrayit Corporation, Consolidated Balance Sheets, page 17

5. Integrated Media had significant derivative liability and accrued interest balances at December 31, 2007. Please tell us how these balances are reflected in your December 31, 2007 consolidated balance sheet.
6. Please tell us, and disclose in the notes to your financial statements, the nature of your derivative liability balance and how it was calculated. Please include reference to any authoritative literature used as guidance.

Note 9 – Due to Related Parties, page 26

7. Your table does not appear to tie to your balance sheet. Please revise or advise.

8. Please revise your table to provide date of issuance, maturity date and balance due at maturity for all of your notes payable. Also identify all notes that are convertible into equity, and the rate at which they are convertible.
9. Additionally, please identify the balances in your table that are due to related parties and those that are related to discontinued operations.

Note 13 – Discontinued Operations, page 30

10. Please tell us and disclose the nature of “other noncurrent assets” allocated to discontinued operations, and explain how you determined their value at each balance sheet date. Tell us how you intend to dispose of them.
11. You have significant accounts payable and accrued expense balances allocated to discontinued operations. Please tell us and disclose the nature of these balances.

Item 9A. Controls and Procedures, page 33

12. Provide the disclosure required by Item 307 of Regulation S-K.
13. Specifically state whether or not management concluded that the company’s internal control over financial reporting is effective. Please note that management is not permitted to conclude that the company’s internal control over financial reporting is effective if there are one or more material weaknesses in the company’s internal control over financial reporting. See Regulation S-K Item 308T(a)(3).

Item 15. Exhibits, Financial Statement Schedules, page 39

14. Please file as exhibits all of the agreements evidencing your material debt obligations, including agreements with related parties.

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Please amend your Form 10-K and respond to these comments through correspondence over EDGAR 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 information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its

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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 connection with responding to our comment, 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 filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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 filings or in response to our comments on your filings.

You may contact Kenya Wright Gumbs, Staff Accountant, at (202) 551-3373 or Joseph M. Kempf, Senior Staff Accountant, at (202) 551-3352 if you have questions regarding comments on the financial statements and related matters. Please contact Jessica Plowgian, Attorney-Adviser, at (202) 551-3367, Kathleen Krebs, Special Counsel, at (202) 551-3810 or me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spigel  
Assistant Director

cc: Sonfield & Sonfield  
via facsimile: (713) 877-1547