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SPIRE CORP
Form 10-Q
November 19, 2007

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

FORM 10-Q

- Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the quarterly period ended September 30, 2007; or
- Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from _____ to _____

Commission file number: 0-12742

SPIRE CORPORATION

(Exact name of registrant as specified in its charter)

MASSACHUSETTS

(State or other jurisdiction
of incorporation or organization)

04-2457335

(I.R.S. Employer
Identification Number)

ONE PATRIOTS PARK, BEDFORD, MASSACHUSETTS

(Address of principal executive offices)

01730-2396

(Zip Code)

781-275-6000

(Registrant's telephone number including area code)

Indicate by "X" whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an electronic filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The number of shares of the registrant's common stock outstanding as of November 5, 2007 was 8,305,788.

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PART I FINANCIAL INFORMATION

ITEM 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

SPIRE CORPORATION AND SUBSIDIARIES UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS

SEPTEMBER 30
2007

ASSETS

Current assets

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| | | |
|--|--------------------------------------|---------------|
| ----- | | |
| Cash and cash equivalents | | \$ 4,804,000 |
| Restricted cash | | 512,000 |
| | | ----- |
| | | 5,316,000 |
| Short-term investments | | -- |
| Restricted short-term investments | | -- |
| Accounts receivable - trade, net | | 11,610,000 |
| Inventories, net | | 18,277,000 |
| Deposits on equipment for inventory | | 4,960,000 |
| Prepaid expenses and other current assets | | 552,000 |
| | | ----- |
| Total current assets | | 40,715,000 |
| Net property and equipment | | 5,949,000 |
| Intangible and other assets, net of accumulated amortization | | 861,000 |
| Available-for-sale investments at quoted market value | | 1,801,000 |
| Equity investment in joint venture | | 2,356,000 |
| Restricted cash - long-term | | -- |
| Deposit - related party | | 303,000 |
| | | ----- |
| Total assets | | \$ 51,985,000 |
| | | ===== |
| | | |
| | LIABILITIES AND STOCKHOLDERS' EQUITY | |
| Current liabilities | | |
| ----- | | |
| Current portion of capital lease obligation - related party | | \$ 779,000 |
| Current portion of equipment line of credit | | 1,167,000 |
| Accounts payable | | 2,577,000 |
| Accrued liabilities | | 10,087,000 |
| Current portion of advances on contracts in progress | | 22,096,000 |
| | | ----- |
| Total current liabilities | | 36,706,000 |
| | | ----- |
| Long-term portion of capital lease obligation - related party | | -- |
| Long-term portion of equipment line of credit | | 2,042,000 |
| Long-term portion of advances on contracts in progress | | 2,103,000 |
| Deferred compensation | | 1,801,000 |
| Deferred taxes | | 85,000 |
| | | ----- |
| Total long-term liabilities | | 6,031,000 |
| | | ----- |
| Total liabilities | | 42,737,000 |
| | | ----- |
| Stockholders' equity | | |
| ----- | | |
| Common stock, \$0.01 par value; 20,000,000 shares authorized; 8,286,412 shares issued and outstanding on September 30, 2007 and 8,236,663 shares issued and outstanding on December 31, 2006 | | 83,000 |
| Additional paid-in capital | | 19,650,000 |
| Accumulated deficit | | (10,612,000) |
| Accumulated other comprehensive income | | 127,000 |
| | | ----- |
| Total stockholders' equity | | 9,248,000 |
| | | ----- |
| Total liabilities and stockholders' equity | | \$ 51,985,000 |
| | | ===== |

See accompanying notes to unaudited condensed consolidated financial statements

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SPIRE CORPORATION AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

| | THREE MONTHS ENDED SEPTEMBER 30, | |
|---|-------------------------------------|----------------|
| | 2007 | 2006 |
| Net sales and revenues | | |
| ----- | | |
| Sales of goods | \$ 6,343,000 | \$ 3,030,000 |
| Contract research, service and license revenues | 3,502,000 | 2,764,000 |
| ----- | | |
| Total net sales and revenues | 9,845,000 | 5,794,000 |
| ----- | | |
| Costs of sales and revenues | | |
| ----- | | |
| Cost of goods sold | 6,062,000 | 2,985,000 |
| Cost of contract research, services and licenses | 2,363,000 | 2,120,000 |
| ----- | | |
| Total cost of sales and revenues | 8,425,000 | 5,105,000 |
| ----- | | |
| Gross margin | 1,420,000 | 689,000 |
| Operating expenses | | |
| ----- | | |
| Selling, general and administrative expenses | 3,388,000 | 2,496,000 |
| Internal research and development expenses | 96,000 | 194,000 |
| ----- | | |
| Total operating expenses | 3,484,000 | 2,690,000 |
| ----- | | |
| Gain on sale of trademark | 2,707,000 | -- |
| ----- | | |
| Income (loss) from operations | 643,000 | (2,001,000) |
| ----- | | |
| Other income (expense), net | (83,000) | 60,000 |
| ----- | | |
| Income (loss) before income taxes and ----- | | |
| extraordinary gain | 560,000 | (1,941,000) |
| ----- | | |
| Income tax benefit | 884,000 | -- |
| ----- | | |
| Income (loss) before extraordinary gain | \$ 1,444,000 | \$ (1,941,000) |
| ----- | | |
| Extraordinary gain on equity investment in joint joint venture, net of tax | 1,311,000 | -- |
| ----- | | |
| Net income (loss) | \$ 2,755,000 | \$ (1,941,000) |
| ----- | | |
| | ===== | ===== |

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| | | | |
|--|----|-----------|-----------|
| Basic income (loss) per share: | | | |
| From continuing operations after income taxes | \$ | 0.17 | \$ (0.24) |
| From extraordinary gain, net of tax | | 0.16 | -- |
| | | ----- | ----- |
| Basic income (loss) per share | \$ | 0.33 | \$ (0.24) |
| | | ===== | ===== |
| Diluted income (loss) per share: | | | |
| From continuing operations after income taxes | \$ | 0.17 | \$ (0.24) |
| From extraordinary gain, net of tax | | 0.16 | -- |
| | | ----- | ----- |
| Diluted income (loss) per share | \$ | 0.33 | \$ (0.24) |
| | | ===== | ===== |
| Weighted average number of common and common shares equivalent outstanding - basic | | 8,272,543 | 8,213,726 |
| | | ===== | ===== |
| Weighted average number of common and common equivalent shares outstanding - diluted | | 8,341,642 | 8,213,726 |
| | | ===== | ===== |

See accompanying notes to unaudited condensed consolidated financial statements

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SPIRE CORPORATION AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

| | NINE MONTHS ENDED | |
|---|-------------------|--------------|
| | ----- | |
| | 2007 | |
| | ----- | |
| Cash flows from operating activities: | | |
| ----- | | |
| Net loss | \$ | (856,000) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation and amortization | | 1,534,000 |
| Loss on impairment of capital equipment | | 78,000 |
| Loss on buy-out of capital lease | | -- |
| Gain on sale of trademark | | (2,707,000) |
| Deferred taxes benefit | | (884,000) |
| Extraordinary gain on equity investment in joint venture, net of tax | | (1,311,000) |
| Deferred compensation | | 67,000 |
| Stock-based compensation | | 389,000 |
| Increase (decrease) in inventory reserves | | (134,000) |
| Increase (decrease) in accounts receivable reserves | | (42,000) |
| Changes in assets and liabilities: | | |
| Restricted cash | | (122,000) |
| Interest receivable | | -- |
| Accounts receivable | | (7,558,000) |
| Inventories | | (14,061,000) |
| Prepaid expenses and other current assets | | (2,196,000) |
| Accounts payable, accrued liabilities and other liabilities | | 5,721,000 |
| Deposit - related party | | (67,000) |
| Advances on contracts in progress | | 15,980,000 |
| | | ----- |
| Net cash used in operating activities | | (6,169,000) |
| | | ----- |
| Cash flows from investing activities: | | |

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| | |
|--|--------------|
| Purchase of short-term investments | -- |
| Proceeds from maturity of short-term investments | 5,000,000 |
| Proceeds from sale of trademark to joint venture | 2,707,000 |
| Additions to property and equipment | (822,000) |
| Increase in intangible and other assets | (107,000) |
| | ----- |
| Net cash provided by (used in) investing activities | 6,778,000 |
| | ----- |
| Cash flows from financing activities: | |
| | ----- |
| Proceeds from issuance of common stock, net of offering costs | -- |
| Borrowings from equipment line of credit, net | 3,209,000 |
| Principal payment on capital lease obligations | -- |
| Principal payment on capital lease obligations - related parties | (734,000) |
| Proceeds from exercise of stock options | 184,000 |
| | ----- |
| Net cash provided by financing activities | 2,659,000 |
| | ----- |
| Net increase (decrease) in cash and cash equivalents | 3,268,000 |
| Cash and cash equivalents, beginning of period | 1,536,000 |
| | ----- |
| Cash and cash equivalents, end of period | \$ 4,804,000 |
| | ===== |
| Supplemental disclosures of cash flow information: | |
| | ----- |
| Cash paid during the period for: | |
| Interest | \$ (16,000) |
| | ===== |
| Interest - related party | \$ 64,000 |
| | ===== |
| Income taxes | \$ 7,000 |
| | ===== |
| Supplemental disclosure of non-cash investing activities: | |
| | ----- |
| Transfer of assets to joint venture | \$ 160,000 |
| | ===== |

See accompanying notes to unaudited condensed consolidated financial statements.

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SPIRE CORPORATION AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

SEPTEMBER 30, 2007

1. DESCRIPTION OF THE BUSINESS

Spire Corporation (the "Company") develops, manufactures and markets highly-engineered products and services in three principal business areas: (i) solar, (ii) optoelectronics and (iii) biomedical, generally bringing to bear expertise in materials technologies across all three business areas.

In the solar area, the Company develops, manufactures and markets specialized equipment for the production of terrestrial photovoltaic modules from solar cells. The Company's equipment has been installed in approximately 190 factories in 46 countries. The Company also provides, directly and indirectly through its joint venture with Gloria Solar Co., Ltd (discussed in

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Note 2 below), custom and building integrated photovoltaic ("BIPV") modules, stand-alone emergency power backup and photovoltaic systems integration services using technology developed by the Company.

In the optoelectronics area, the Company provides custom compound semiconductor foundry and fabrication services on a merchant basis to customers involved in biomedical/biophotonics instruments, telecommunications and defense applications. Services include compound semiconductor wafer growth, other thin film processes and related device processing and fabrication services. The Company also provides materials testing services and performs services in support of sponsored research into practical applications of optoelectronic technologies.

In the biomedical area, the Company provides value-added surface treatments to manufacturers of orthopedic and other medical devices that enhance the durability, antimicrobial characteristics or other material characteristics of their products; develops and markets hemodialysis catheters and related devices for the treatment of chronic kidney disease; and performs sponsored research programs into practical applications of advanced biomedical and biophotonic technologies.

The Company has incurred significant operating losses. Loss from operations, before gain on sales of licenses and extinguishment of purchase commitment, were \$8.3 million and \$6.6 million for the years ended December 31, 2006 and 2005, respectively. Loss from operations before gains on sales of trademarks and formation of the joint venture for the nine months ended September 30, 2007 was \$5.7 million. These losses from operations have resulted in cash losses (income (loss) from operations excluding non-operating gains on sales of licenses and trademark (minus non-cash adjustments) of approximately \$5.4 million and \$4.2 million in each of the years ended December 31, 2006 and 2005, respectively and approximately \$3.8 million for the nine months ended September 30, 2007. The Company has funded these cash losses from cash receipts of \$7.7 million from proceeds of a common stock offering in 2006, \$6.7 million related to the sale of certain licenses to its medical products and solar technologies in 2005, \$3.2 million of net bank borrowings in 2007 and the receipt of \$4.0 million from the sale of the certain solar system assets in 2007. As of September 30, 2007, the Company had cash and cash equivalents of \$4.8 million. While the Company believes it has inherent assets and technology that it could sell or license in the near term, there is no guarantee that the Company would be able to sell or license those assets on a timely basis and at appropriate values that would allow the Company to continue to fund its operating losses. The Company has developed several plans to mitigate cash losses primarily from increased revenues and, if required, potential cost reduction efforts and outside financing. The Company believes it has sufficient resources to continue as a going concern.

2. RECENT TRANSACTIONS

Equity Investment in Joint Venture

On July 31, 2007, the Company entered into contractual relationship with Gloria Solar Co., Ltd. ("Gloria Solar") pursuant to which (i) the Company agreed to sell to Gloria Solar certain assets belonging to the Company's solar systems business for \$4,000,000 and (ii) the Company and Gloria Solar agreed to form a joint venture named Gloria Spire Solar, LLC, for the purpose of pursuing the solar photovoltaic systems market within the United States. The joint venture will design, market, sell and manage the installation of systems for the generation of electrical power by solar photovoltaic means in primarily commercial/industrial and utility segments of such market (the "JV Systems Business"). Gloria Solar will own 55% of the joint venture and the Company will own 45% of the joint venture. In connection with the formation of the joint

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venture, (i) the Company agreed to contribute to the joint venture its assets primarily relating to the JV Systems Business, including certain intellectual property and know-how, access to information technology assets and relationships, relationships with current and previous customers, contract backlog and project opportunities, certain registered trademarks,

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and employment relationships with staff members and (ii) Gloria Solar agreed to contribute \$5,000,000 in cash. This transaction closed on September 4, 2007. The Company's initial investment was recorded at \$2,356,000. The Company will use the equity method to account for its investment in the joint venture as it has significant influence over the investee however, lacks significant control. The Company will be reporting the ongoing financial results of the joint venture one quarter in arrears. As a result of applying the provisions of Accounting Principles Board ("APB") Opinion No. 18 "THE EQUITY METHOD OF ACCOUNTING FOR INVESTMENTS IN COMMON STOCK" to the differences between the fair value of the assets contributed and the cost basis on the Company's books, the Company recorded an extraordinary gain of \$1,311,000, net of tax provision of \$884,000. Additional recognition of the deferral will be recorded over time to offset the Company's ownership percentage of the amortization of the contributed intangibles assets as recorded on the joint venture's books. If the managing board of the joint venture determines that additional capital is required to support the operations of the Company, the joint venture shall make a call for additional funds. Within ten (10) days after the members have received written notice of the call, the members shall make additional capital contributions to the joint venture in proportion to each member's interest in the joint venture. If a member fails to fund its pro rata portion of any capital call, the non-defaulting member may purchase the defaulting member's shortfall; however, in no event may the Company's or Gloria Solar's interest in the joint venture be reduced to below 10%.

Sale of Solar System Production Line

The Company sold Gloria Solar a PV module line operated by the Company's solar system business along with the transfer of technology and rights to mark the modules with the Company's trademark to build, design and sell specialty BIPV and PV modules, in exchange for \$4,000,000 in cash. As of September 30, 2007 the Company still had outstanding obligations to refurbish the module line and provide some additional PV module design work. The Company believes the sale of the trademark and the other goods and services meets the criteria of Emerging Issues Task Force ("EITF") 00-21, "ACCOUNTING FOR REVENUE ARRANGEMENTS WITH MULTIPLE ELEMENTS," paragraph 9(a), as each element has utility on a stand-alone basis. Further, Question 1 to SAB Topic 13A-3f was considered as guidance for determining if the trademark fee under the Agreement should be recognized as a sale. As the trademark agreement has no term and is permanent in nature, the earnings process was complete; accordingly, the Company recognized a gain on the sale. The Company has determined the fair value of the trademark sale, the PV module line and services based on a third party appraisal. As a result, a \$2,707,000 gain was recognized on the sale of the trademark in the accompanying unaudited condensed consolidated statements of operations for the three and nine months ended September 30, 2007. The Company also recognized \$708,000 in service revenue reflecting the delivery of PV technology designs to build PV modules. The Company has sold and will continue to sell this technology to other customers as part of its equipment business. Gloria Solar has further contracted with the Company to sell it additional PV module equipment lines at market prices.

3. INTERIM FINANCIAL STATEMENTS

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The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission regarding interim financial reporting. Certain information and footnote disclosures normally included in consolidated financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted in accordance with such rules and regulations. These unaudited condensed consolidated financial statements should be read in conjunction with the annual audited consolidated financial statements and notes thereto for the year ended December 31, 2006, included in our Annual Report on Form 10-KSB filed with the Securities and Exchange Commission.

In the opinion of management, the accompanying unaudited, condensed consolidated financial statements contain all adjustments necessary to fairly present the Company's financial position as of September 30, 2007 and December 31, 2006 and the results of its operations and cash flows for the three and nine months ended September 30, 2007 and 2006. The results of operations for the three and nine months ended September 30, 2007 are not necessarily indicative of the results to be expected for the fiscal year ending December 31, 2007. The condensed consolidated balance sheet as of December 31, 2006 has been derived from audited financial statements as of that date.

The accounting policies followed by the Company are set forth in Footnote 2 to the Company's consolidated financial statements in its Annual Report on Form 10-KSB for the year ended December 31, 2006.

New Accounting Pronouncements

In June 2006, the Financial Accounting Standards Board ("FASB") issued Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement 109" ("FIN 48"). This statement clarifies the criteria

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that an individual tax position must satisfy for some or all of the benefits of that position to be recognized in a company's financial statements. FIN 48 prescribes a recognition threshold of more likely-than-not, and a measurement attribute for all tax positions taken or expected to be taken on a tax return, in order for those tax positions to be recognized in the financial statements. Effective January 1, 2007, the Company adopted the provisions of FIN 48. The Company has determined that no liability exists for interest and penalties related to uncertain tax positions as of January 1, 2007 and September 30, 2007. The Company accounts for interest and penalties related to uncertain tax positions as part of its provision for federal and state income taxes. The Company does not expect that the amounts of unrecognized tax benefits will change significantly within the next 12 months.

The Company is currently subject to audit by the Internal Revenue Service for the calendar years ended 2003, 2004, 2005 and 2006. The Company and its subsidiaries state income tax returns are subject to audit for the calendar years ended 2003, 2004, 2005 and 2006.

In February 2007, the FASB issued Statement of Financial Accounting Standard ("SFAS") No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities, including an amendment of FASB Statement No. 115". SFAS 159 permits entities to choose to measure many financial instruments and certain other items at fair value at specified election dates. This Statement applies to all entities, including not-for-profit organizations. SFAS 159 is effective as of the beginning of an entity's first fiscal year that begins after November 15,

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2007. As such, the Company is required to adopt these provisions at the beginning of the fiscal year ending December 31, 2008. The Company is currently evaluating the impact of SFAS 159 on its consolidated financial statements

In September 2006, the FASB issued Statement No. 157, FAIR VALUE MEASUREMENTS ("SFAS 157"). SFAS 157 defines fair value, establishes a framework for measuring fair value in GAAP, and expands disclosures about fair value measurements. SFAS 157 will be applied prospectively and will be effective for periods beginning after November 15, 2007. The Company is currently evaluating the effect, if any, of SFAS 157 on the Company's consolidated financial statements.

4. ACCOUNTS RECEIVABLE/ADVANCES ON CONTRACTS IN PROGRESS

Net accounts receivable, trade consists of the following:

| | September 30, 2007 | December 2006 |
|---|-----------------------|------------------|
| | ----- | ----- |
| Amounts billed | \$ 11,661,000 | \$ 3,876 |
| Retainage | 8,000 | 8 |
| Accrued revenue | 172,000 | 399 |
| | ----- | ----- |
| | 11,841,000 | 4,283 |
| Less: Allowance for sales returns and doubtful accounts | (231,000) | (273) |
| | ----- | ----- |
| Net accounts receivable, trade | \$ 11,610,000 | \$ 4,010 |
| | ===== | ===== |
| Advances on contracts in progress | \$ 24,199,000 | \$ 8,219 |
| | ===== | ===== |

Retainage represents revenues on certain United States government sponsored research and development contracts. These amounts, which usually represent 15% of the Company's research fee on each applicable contract, are not collectible until a final cost review has been performed by government auditors. Included in retainage are amounts expected to be collected after one year, which totaled approximately \$8,000 at September 30, 2007. All other accounts receivable are expected to be collected within one year.

All contracts with United States government agencies have been audited by the government through December 2005. The Company has not incurred significant losses or adjustments as a result of government audits.

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to pay amounts due. The Company actively pursues collection of past due receivables as the circumstances warrant. Customers are contacted to determine the status of payment and senior accounting and operations management are included in these efforts as is deemed necessary. A specific reserve will be established for past due accounts over 60 days and over a specified amount, when it is probable that a loss has been incurred and the Company can reasonably estimate the amount of the loss. The Company does not record an allowance for government receivables and invoices backed by letters of credit as realizeability is reasonably assured. Bad debts are written off against the allowance when identified. There is no dollar threshold for account balance write-offs. While rare, a write-off is only recorded when all efforts to collect the receivable have been exhausted and only in consultation with the appropriate business line manager.

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In addition, the Company maintains an allowance for potential future product returns and rebates related to current period revenues. The Company analyzes the rate of historical returns when evaluating the adequacy of the allowance for sales returns and allowances. Returns and rebates are charged against the allowance when incurred.

Advances on contracts in progress represent contracts for which billings have been presented to the customer but revenue has not been recognized.

5. INVENTORIES

Inventories consist of the following:

| | September 30, 2007 | December 31, 2006 | |
|-----------------|-----------------------|----------------------|--|
| | ----- | ----- | |
| Raw materials | \$ 4,326,000 | \$ 1,519,000 | |
| Work in process | 13,306,000 | 2,310,000 | |
| Finished goods | 645,000 | 388,000 | |
| | ----- | ----- | |
| | \$ 18,277,000 | \$ 4,217,000 | |
| | ===== | ===== | |

6. INCOME (LOSS) PER SHARE

The following table provides a reconciliation of the denominators of the Company's reported basic and diluted loss per share computations for the periods ended:

| | Three Months Ended September 30, | | |
|---|-------------------------------------|-----------|-------|
| | 2007 | 2006 | 2006 |
| | ----- | ----- | ----- |
| Weighted average number of common and common equivalent shares outstanding - basic | 8,272,543 | 8,213,726 | 8,26 |
| Add: Net additional common shares upon assumed exercise of common stock options | 69,099 | -- | |
| | ----- | ----- | ----- |
| Adjusted weighted average number of common and common0 equivalents shares outstanding - diluted | 8,341,642 | 8,213,726 | 8,26 |
| | ===== | ===== | ===== |

For both the three and nine months ended September 30, 2007, 6,250 shares, and for the three and nine months ended September 30, 2006, 42,000 and 22,500 shares, respectively, of common stock issuable relative to stock options had exercise prices per share that exceeded the average market price of the Company's common stock and were excluded from the calculation of diluted shares since the inclusion of such shares would be anti-dilutive.

In addition, for the nine months ended September 30, 2007, 505,453 shares, and for the three and nine months ended September 30, 2006, 325,252 and 344,752 shares, respectively, of common stock related to stock options were excluded from the calculation of dilutive shares since the inclusion of such shares would be anti-dilutive due to the Company's net loss position.

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7. OPERATING SEGMENTS AND RELATED INFORMATION

The following table presents certain operating division information in accordance with the provisions of SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information."

| | Solar | Biomedical | Optoelectronics |
|---|----------------|----------------|-----------------|
| ----- | | | |
| For the three months ended September 30, 2007 | | | |
| ----- | | | |
| Net sales and revenues | \$ 6,208,000 | \$ 2,594,000 | \$ |
| Income (loss) from operations | \$ 1,931,000 | \$ (362,000) | \$ |
| ----- | | | |
| For the three months ended September 30, 2006 | | | |
| ----- | | | |
| Net sales and revenues | \$ 2,459,000 | \$ 2,537,000 | \$ |
| Loss from operations | \$ (1,197,000) | \$ (175,000) | \$ |
| ----- | | | |
| For the nine months ended September 30, 2007 | | | |
| ----- | | | |
| Net sales and revenues | \$ 14,776,000 | \$ 7,948,000 | \$ |
| Income (loss) from operations | \$ 623,000 | \$ (1,088,000) | \$ |
| ----- | | | |
| For the nine months ended September 30, 2006 | | | |
| ----- | | | |
| Net sales and revenues | \$ 5,643,000 | \$ 7,422,000 | \$ |
| Loss from operations | \$ (2,674,000) | \$ (1,127,000) | \$ |
| ----- | | | |

The following table shows net sales and revenues by geographic area (based on customer location):

| | Three Months Ended September 30, | | | | Nine Months Ended September 30, | |
|---------------|----------------------------------|------|--------------|------|---------------------------------|---|
| | 2007 | % | 2006 | % | 2007 | % |
| Foreign | \$ 5,822,000 | 59% | \$ 1,774,000 | 31% | \$ 13,286,000 | |
| United States | 4,023,000 | 41% | 4,020,000 | 69% | 12,135,000 | |
| | ----- | | ----- | | ----- | |
| | \$ 9,845,000 | 100% | \$ 5,794,000 | 100% | \$ 25,421,000 | |
| | ===== | | ===== | | ===== | |

Revenues from contracts with United States government agencies for the three months ended September 30, 2007 and 2006 were approximately \$287,000 and \$528,000, or 3% and 9% of consolidated net sales and revenues, respectively.

Revenues from contracts with United States government agencies for the nine months ended September 30, 2007 and 2006 were approximately \$724,000 and \$1,616, or 3% and 11% of consolidated net sales and revenues, respectively.

Two customers accounted for approximately 37% of the Company's gross sales during the three months ended September 30, 2007 and one customer accounted for approximately 36% of the Company's gross sales for the three months ended September 30, 2006. One customer accounted for approximately 22% of the Company's gross sales during the nine months ended September 30, 2007 and one customer accounted for approximately 12% of the Company's gross sales for the nine months ended September 30, 2006. Two customers represented approximately 57% of trade accounts receivable at September 30, 2007 and one

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customer represented approximately 39% of trade accounts receivable at September 30, 2006.

8. INTANGIBLE AND OTHER ASSETS

Patents amounted to approximately \$104,000, net of accumulated amortization of approximately \$670,000, at September 30, 2007. Licenses amounted to approximately \$125,000, net of accumulated amortization of approximately \$200,000 at September 30, 2007. Patent cost is primarily composed of cost associated with securing and registering patents that the Company has been awarded or that have been submitted to, and the Company believes will be approved by, the government. License cost is composed of the cost to acquire rights to the underlying technology or know-how. These costs are capitalized and amortized over their useful lives or terms, ordinarily five years, using the straight-line method. There are no expected residual values related to these patents or licenses. For disclosure purposes, the table below includes future amortization expense for licenses and patents owned by the Company as well as approximately \$632,000 of estimated amortization expense on a five-year straight-line basis related to patents that remain pending as of the balance sheet date.

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Estimated amortization expense for the periods ending December 31, is as follows:

| Year | Amortization Expense |
|-------------------------|----------------------|
| ----- | ----- |
| 2007 remaining 3 months | \$58,000 |
| 2008 | 206,000 |
| 2009 | 165,000 |
| 2010 | 160,000 |
| 2011 | 155,000 |
| Beyond 2011 | 117,000 |
| | ----- |
| | \$861,000 |
| | ===== |

9. AVAILABLE-FOR-SALE INVESTMENTS

Available-for-sale securities consist of the following assets held as part of the Spire Corporation Non-Qualified Deferred Compensation Plan:

| | September 30, 2007 | December 31, 2006 |
|-----------------------------|--------------------|-------------------|
| | ----- | ----- |
| Equity investments | \$1,418,000 | \$1,160,000 |
| Government bonds | 275,000 | 262,000 |
| Cash and money market funds | 108,000 | 39,000 |
| | ----- | ----- |
| | \$1,801,000 | \$1,461,000 |
| | ===== | ===== |

These investments have been classified as long-term available-for-sale investments and are reported at fair value, with unrealized gains and losses included in accumulated other comprehensive loss, net of related tax effect. As of September 30, 2007, the net unrealized gain on these marketable securities was approximately \$212,000.

10. NOTES PAYABLE AND CREDIT ARRANGEMENTS

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The Company had a \$2,000,000 Loan Agreement with Citizens Bank of Massachusetts which expired on June 26, 2007. On May 25, 2007, the Company and its wholly-owned subsidiary, Bandwidth Semiconductor, LLC ("Bandwidth"), entered into a Loan and Security Agreement (the "Loan Agreement") with Silicon Valley Bank (the "Bank"). Under the Loan Agreement, for a one-year period, the Company and Bandwidth can borrow up to \$3,500,000 in the aggregate to finance certain equipment purchases (including reimbursement of certain previously-made purchases). Each advance made under the Loan Agreement will be due thirty-six (36) months from the date the advance is made. Advances made under the Loan Agreement will bear interest at the Bank's prime rate, as determined, plus 0.5% (8.25% at September 30, 2007) and payable in thirty-six (36) consecutive monthly payments following the funding date of that advance. At September 30, 2007, the Company's borrowings from the line to finance certain capital equipment purchased previously by Bandwidth amounted to \$3,209,000. At September 30, 2007, the Company was not in compliance with its profitability covenant for the third quarter. The Company has received a waiver from the Bank with respect to this covenant.

11. STOCK OPTION PLAN AND STOCK-BASED COMPENSATION

On January 1, 2006, the Company adopted the fair value recognition provisions of Financial Accounting Standards Board ("FASB") Statement No. 123(R), Share-Based Payment ("Statement 123(R)") using the modified prospective method. Based on an analysis of the Company's historical data, the Company applied 11% forfeiture rates to stock options outstanding in determining its Statement 123(R) stock-based compensation expense which it believes is a reasonable forfeiture estimate for the period. The impact of Statement 123(R) on the Company's results of operations resulted in recognition of stock-based compensation expense of approximately \$181,000 and \$389,000 for the three and nine months ended September 30, 2007, respectively, and approximately \$61,000 and \$180,000 for the three and nine months ended September 30, 2006. The total non-cash, stock-based compensation expense included in the condensed consolidated statement of operations for the periods presented is included in the following expense categories:

| | Three Months Ended September 30, | Nine Mon |
|--|----------------------------------|------------------------|
| | ----- 2007 ----- | ----- 2006 ----- |
| | \$ 12,000 | \$ 4,000 |
| Cost of contract research, services and licenses | 14,000 | 9,000 |
| Cost of goods sold | 155,000 | 48,000 |
| Administrative and selling | ----- | ----- |
| Total stock-based compensation | \$ 181,000 ===== | \$ 61,000 ===== |

At September 30, 2007 the Company had outstanding options under two stock option plans: the 1996 Equity Incentive Plan (the "1996 Plan") and the 2007 Stock Equity Plan (the "2007 Plan"). Both plans were approved by stockholders and provided that the Board of Directors may grant options to purchase the Company's common stock to key employees and directors of the Company. Incentive and non-qualified options must be granted at least at the fair market value of the common stock or, in the case of certain optionees, at 110% of such fair market value at the time of grant. The options may be exercised, subject to certain vesting requirements, for periods up to ten years

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from the date of issue. The 1996 Plan expired with respect to the issuance of new grants as of December 10, 2006.

A summary of options outstanding under the 2007 Plan and 1996 Plan as of September 30, 2007 and changes during the nine-month period is as follows:

| | Number of Shares | Weighted- Average Exercise Price | |
|---|---------------------|--|-------|
| | ----- | ----- | ----- |
| Options Outstanding at December 31, 2006 | 416,002 | \$5.21 | |
| Granted | 151,200 | \$9.40 | |
| Exercised | (49,749) | \$3.71 | |
| Cancelled/expired | (12,000) | \$7.81 | |
| | ----- | ----- | |
| Options Outstanding at September 30, 2007 | 505,453 | \$6.55 | |
| | ===== | ===== | |
| Options Exercisable at September 30, 2007 | 204,653 | \$4.72 | |
| | ===== | ===== | |

The per-share weighted-average fair value of stock options granted during the three and nine months ended September 30, 2007 and 2006 was \$6.08 and \$6.29 in 2007, respectively, and \$4.48 and \$4.86 in 2006, respectively, on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

| Year | Expected Dividend Yield | Risk-Free Interest Rate | Expected Option Life | Expected Volatility Fac |
|-------|----------------------------|----------------------------|-------------------------|----------------------------|
| ----- | ----- | ----- | ----- | ----- |
| 2007 | -- | 4.50% | 4.5 years | 84.9% |

The risk free interest rate reflects treasury yields rates over a term that approximates the expected option life. The expected option life is calculated based on historical lives of all options issued under the plan. The expected volatility factor is determined by measuring the actual stock price volatility over a term equal to the expected useful life of the options granted.

12. COMPREHENSIVE LOSS

Comprehensive loss includes certain changes in equity that are excluded from net loss and consists of the following:

| | Three Months Ended September 30, | | Nine Mon |
|---|----------------------------------|----------------|--------------|
| | 2007 | 2006 | 2007 |
| | ----- | ----- | ----- |
| Net income (loss) | \$ 2,755,000 | \$ (1,941,000) | \$ (856,000) |
| Other comprehensive income (loss): | | | |
| Unrealized gain (loss) on available for sale marketable securities, net of tax | 20,000 | 30,000 | 67,000 |
| | ----- | ----- | ----- |
| Total comprehensive income (loss) | \$ 2,775,000 | \$ (1,911,000) | \$ (789,000) |
| | ===== | ===== | ===== |

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

THIS MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS SECTION AND OTHER PARTS OF THIS REPORT CONTAIN FORWARD-LOOKING STATEMENTS WITHIN THE MEANING OF SECTION 27A OF THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED (THE "EXCHANGE ACT"), WHICH STATEMENTS INVOLVE RISKS AND UNCERTAINTIES. THESE STATEMENTS RELATE TO OUR FUTURE PLANS, OBJECTIVES, EXPECTATIONS AND INTENTIONS. THESE STATEMENTS MAY BE IDENTIFIED BY THE USE OF WORDS SUCH AS "MAY", "COULD", "WOULD", "SHOULD", "WILL", "EXPECTS", "ANTICIPATES", "INTENDS", "PLANS", "BELIEVES", "ESTIMATES", AND SIMILAR EXPRESSIONS. THE COMPANY'S ACTUAL RESULTS AND THE TIMING OF CERTAIN EVENTS MAY DIFFER SIGNIFICANTLY FROM THE RESULTS AND TIMING DESCRIBED IN THE FORWARD-LOOKING STATEMENTS. FACTORS THAT COULD CAUSE OR CONTRIBUTE TO SUCH DIFFERENCES INCLUDE, BUT ARE NOT LIMITED TO, THOSE FACTORS DISCUSSED OR REFERRED TO IN THIS REPORT AND IN THE ANNUAL REPORT ON FORM 10-KSB FOR THE YEAR ENDED DECEMBER 31, 2006. THE FOLLOWING DISCUSSION AND ANALYSIS OF THE COMPANY'S FINANCIAL CONDITION AND RESULTS OF OPERATIONS SHOULD BE READ IN LIGHT OF THOSE FACTORS AND IN CONJUNCTION WITH, THE COMPANY'S ACCOMPANYING CONSOLIDATED FINANCIAL STATEMENTS, INCLUDING THE NOTES THERETO.

OVERVIEW

Spire Corporation (the "Company") develops, manufactures and markets highly-engineered products and services in three principal business areas: solar equipment, biomedical and optoelectronics, bringing to bear expertise in materials technologies across all three business areas as discussed below.

In the solar equipment area, the Company develops, manufactures and markets specialized equipment for the production of terrestrial photovoltaic modules from solar cells. The Company's equipment has been installed in approximately 190 factories in 46 countries. The Company also provides, directly and indirectly through its joint venture with Gloria Solar Co., Ltd., discussed below, custom and building integrated photovoltaic modules, stand-alone emergency power backup and photovoltaic systems integration services using technology developed by the Company.

In the optoelectronics area, the Company provides compound semiconductor foundry and fabrication services on a merchant basis to customers involved in biomedical/biophotonic instruments, telecommunications and defense applications. Services include compound semiconductor wafer growth, other thin film processes and related device processing and fabrication services. The Company also provides materials testing services and performs services in support of sponsored research into practical applications of optoelectronic technologies.

In the biomedical area, the Company provides value-added surface treatments to manufacturers of orthopedic and other medical devices that enhance the durability, antimicrobial characteristics or other material characteristics of their products; develops and markets hemodialysis catheters and related devices for the treatment of chronic kidney disease; and performs sponsored research programs into practical applications of advanced biomedical and biophotonic technologies.

Operating results will depend upon product mix, as well as the timing of shipments of higher priced products from the Company's solar equipment line and delivery of solar systems. Export sales, which amounted to 52% of net sales and revenues for the nine months ended September 30, 2007, continue to constitute a significant portion of the Company's net sales and revenues.

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RECENT TRANSACTIONS

Equity Investment in Joint Venture

On July 31, 2007, the Company entered into contractual relationship with Gloria Solar Co., Ltd. ("Gloria Solar") pursuant to which (i) the Company agreed to sell to Gloria Solar certain assets belonging to the Company's solar systems business for \$4,000,000 and (ii) the Company and Gloria Solar agreed to form a joint venture named Gloria Spire Solar, LLC, for the purpose of pursuing the solar photovoltaic systems market within the United States. The joint venture will design, market, sell and manage the installation of systems for the generation of electrical power by solar photovoltaic means in primarily commercial/industrial and utility segments of such market (the "JV Systems Business"). Gloria Solar will own 55% of the joint venture and the Company will own 45% of the joint venture. In connection with the formation of the joint venture, (i) the Company agreed to contribute to the joint venture its assets primarily relating to the JV Systems Business, including certain intellectual property and know-how, access to information technology assets and relationships, relationships with current and previous customers, contract backlog and project opportunities, certain registered trademarks, and employment relationships with staff members and (ii) Gloria Solar agreed to contribute \$5,000,000 in cash. This

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transaction closed on September 4, 2007. The Company's initial investment was recorded at \$2,356,000. The Company will use the equity method to account for its investment in the joint venture as it has significant influence over the investee however, lacks significant control. The Company will be reporting the ongoing financial results of the joint venture one quarter in arrears. As a result of applying the provisions of Accounting Principles Board ("APB") Opinion No. 18 "THE EQUITY METHOD OF ACCOUNTING FOR INVESTMENTS IN COMMON STOCK" to the differences between the fair value of the assets contributed and the cost basis on the Company's books, the Company recorded an extraordinary gain of \$1,311,000, net of tax provision of \$884,000. Additional recognition of the deferral will be recorded over time to offset the Company's ownership percentage of the amortization of the contributed intangibles assets as recorded on the joint venture's books. If the managing board of the joint venture determines that additional capital is required to support the operations of the Company, the joint venture shall make a call for additional funds. Within ten (10) days after the members have received written notice of the call, the members shall make additional capital contributions to the joint venture in proportion to each member's interest in the joint venture. If a member fails to fund its pro rata portion of any capital call, the non-defaulting member may purchase the defaulting member's shortfall; however, in no event may the Company's or Gloria Solar's interest in the joint venture be reduced to below 10%.

Sale of Solar System Production Line

The Company sold Gloria Solar a PV module line operated by the Company's solar system business along with the transfer of technology and rights to mark the modules with the Company's trademark to build, design and sell specialty BIPV and PV modules, in exchange for \$4,000,000 in cash. As of September 30, 2007 the Company still had outstanding obligations to refurbish the module line and provide some additional PV module design work. The Company believes the sale of the trademark and the other goods and services meets the criteria of Emerging Issues Task Force ("EITF") 00-21, "ACCOUNTING FOR REVENUE ARRANGEMENTS WITH MULTIPLE ELEMENTS," paragraph 9(a), as each element has utility on a stand-alone

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basis. Further, Question 1 to SAB Topic 13A-3f was considered as guidance for determining if the trademark fee under the Agreement should be recognized as a sale. As the trademark agreement has no term and is permanent in nature, the earnings process was complete; accordingly, the Company recognized a gain on the sale. The Company has determined the fair value of the trademark sale, the PV module line and services based on a third party appraisal. As a result, a \$2,707,000 gain was recognized on the sale of the trademark in the accompanying unaudited condensed consolidated statements of operations for the three and nine months ended September 30, 2007. The Company also recognized \$708,000 in service revenue reflecting the delivery of PV technology designs to build PV modules. The Company has sold and will continue to sell this technology to other customers as part of its equipment business. Gloria Solar has further contracted with the Company to sell it additional PV module equipment lines at market prices.

Results of Operations

The following table sets forth certain items as a percentage of net sales and revenues for the periods presented:

| | Three Months Ended September 30, | | |
|--|-------------------------------------|-------|---|
| | 2007 | 2006 | |
| Net sales and revenues | 100% | 100% | 2 |
| Cost of sales and revenues | 86 | 88 | |
| Gross profit | 14 | 12 | |
| Selling, general and administrative expenses | 34 | 43 | |
| Internal research and development expenses | 1 | 4 | |
| Gain on sale of trademark | 27 | 0 | |
| Income (loss) from operations | 6 | (35) | |
| Other income, net | 0 | 1 | |
| Income (loss) before income tax benefit | 6 | (34) | |
| Income tax benefit | 9 | -- | |
| Net income (loss) | 15 | (34) | |
| Extraordinary gain | 13 | -- | |
| Net income (loss) after extraordinary gain | 28% | (34%) | |

OVERALL

The Company's total net sales and revenues for the nine months ended September 30, 2007 ("2007") were approximately \$25,421,000 as compared to approximately \$15,062,000 for the nine months ended September 30, 2006 ("2006"), an increase of approximately \$10,359,000 or 69%. The increase was primarily attributable to an approximate \$9,901,000 increase in solar equipment sales and an approximate \$699,000 increase in optoelectronics sales. Additionally, catheter product sales in the Company's biomedical business unit increased approximately \$852,000 in 2007 as compared with 2006, partially offset by a decrease of approximately \$788,000 in biomedical research and development

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revenues.

SOLAR BUSINESS UNIT

Sales in the Company's solar business unit increased 162% during the nine months ended September 30, 2007 to approximately \$14,776,000 as compared to approximately \$5,643,000 in 2006. The increase is the result of shipments of solar equipment reflecting the overall increase in activity in the solar power industry. The Company has focused its sales and marketing efforts on establishing the Company as one of the premier suppliers of equipment to the solar power industry for the manufacture of photovoltaic power modules.

OPTOELECTRONICS BUSINESS UNIT

Revenues in the Company's optoelectronics business unit increased 35% to approximately \$2,697,000 during the nine months ended September 30, 2007 as compared to approximately \$1,997,000 in the prior year. The increase reflects an overall increase in optoelectronics activities attributable to a shift in product mix to larger scale commercial orders compared with smaller sized research and development projects.

BIOMEDICAL BUSINESS UNIT

Revenues of the Company's biomedical business unit increased 7% during the nine months ended September 30, 2007 to approximately \$7,948,000 as compared to approximately \$7,422,000 for the same period in 2006. The increase reflects increased revenues from the Company's catheter products and orthopedics coatings services offset by reduced revenues from research and development contracts.

Three and Nine Months Ended September 30, 2007 Compared to Three and Nine Months Ended September 30, 2006

NET SALES AND REVENUES

The following table categorizes the Company's net sales and revenues for the periods presented:

| | Three Months Ended September 30, | | Increase |
|--|----------------------------------|--------------|--------------|
| | 2007 | 2006 | |
| Sales of goods | \$ 6,343,000 | \$ 3,030,000 | \$ 3,313,000 |
| Contract research, services and license revenues | 3,502,000 | 2,764,000 | 738,000 |
| Net sales and revenues | \$ 9,845,000 | \$ 5,794,000 | \$ 4,051,000 |

The 109% increase in sales of goods for the three months ended September 30, 2007 as compared to the three months ended September 30, 2006 was primarily due to an increase in solar equipment revenues and an increase in catheter products sales. Solar equipment sales increased 358% in 2007 as compared to 2006 primarily due to an overall increase in solar power industry activity. Sales of catheters increased 12% due primarily to the introduction of its heparin-coated catheter that was introduced in the fourth quarter of 2006. This was partially offset by an 84% reduction in Solar systems revenue from a year ago.

The 27% increase in contract research, services and license revenues for the three months ended September 30, 2007 as compared to the three months ended September 30, 2006 was primarily attributable a 31% increase in revenue from the Company's optoelectronics processing services ("Bandwidth"). There was increased

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demand for Bandwidth's services and commercial production runs of products from its development efforts. In addition, the Company recognized \$708,000 in additional service revenue associated with the sale of technology services delivered to Gloria Solar in fiscal third quarter 2007. This was offset by a decrease in contract revenues for Spire's biomedical research and development activities.

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Revenues from Spire's research and development activities decreased 32% in 2007 as compared to 2006 primarily due to a decrease in the number and value of contracts associated with funded research and development.

The following table categorizes the Company's net sales and revenues for the periods presented:

| | Nine Months Ended September 30, | | Increa |
|--|---------------------------------|---------------|-----------|
| | 2007 | 2006 | \$ |
| Sales of goods | \$ 16,782,000 | \$ 7,185,000 | \$ 9,597 |
| Contract research, services and license revenues | 8,639,000 | 7,877,000 | 762 |
| Net sales and revenues | \$ 25,421,000 | \$ 15,062,000 | \$ 10,359 |

The 134% increase in sales of goods for the nine months ended September 30, 2007 as compared to the nine months ended September 30, 2006 was primarily due to an increase in solar equipment revenues and an increase in catheter products sales. Solar equipment sales increased 268% in 2007 as compared to 2006 primarily due to an overall increase in solar power industry activity. Sales of catheters increased 40% due primarily to the introduction of its heparin-coated catheter that was introduced in the fourth quarter of 2006.

The 10% increase in contract research, services and license revenues for the nine months ended September 30, 2007 as compared to the nine months ended September 30, 2006 was primarily attributable to an increase in orthopedics and optoelectronics services. In addition, the Company recognized \$708,000 in addition service revenue associated with the sale of technology services delivered to Gloria Solar in fiscal third quarter. Revenue from Bandwidth increased 35% in 2007 compared to 2006 as a result of increased demand for Bandwidth's services and commercial production runs of products from its development efforts. These increases were partially offset by a decrease in government research and development activities. Revenues from Spire's research and development activities decreased 46% in 2007 as compared to 2006 primarily due to a decrease in the number and value of contracts associated with funded research and development.

COST OF SALES AND REVENUES

The following table categorizes the Company's cost of sales and revenues for the periods presented, stated in dollars and as a percentage of related sales and revenues:

| Three Months Ended September 30, | | | |
|----------------------------------|---|------|---|
| 2007 | % | 2006 | % |
| | | | |

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| | | | | |
|---|--------------|-----|--------------|-----|
| Cost of goods sold | \$ 6,062,000 | 96% | \$ 2,985,000 | 99% |
| Cost of contract research, services and licenses | 2,363,000 | 67% | 2,120,000 | 77% |
| | ----- | | ----- | |
| Net cost of sales and revenues | \$ 8,425,000 | 86% | \$ 5,105,000 | 88% |
| | ===== | | ===== | |

The \$3,077,000 (103%) increase in cost of goods sold was primarily due to increased costs within Spire's solar equipment product line corresponding to the 358% increase in solar equipment sales and a 12% increase in catheter product sales. The decrease in cost of goods sold as a percentage of revenue was the result of increased contribution margins in these product lines as increased production volume utilized more of the available capacity.

The \$243,000 (12%) increase in cost of contract research, service and license revenues in 2007 was primarily due to Bandwidth's costs increasing by 33% as the result of increase depreciation from two new MOCVD production reactors brought into service. In addition, the Company recorded a \$32,000 charge to cost of contract research, service and license revenues, associated with an expected loss on completing a contract with the National Renewable Energy Laboratory ("NREL"). The loss represented the unreimbursed portion of Spire's expected expense to complete the contract. This was offset by reductions in the Company's government research and development activities corresponding to the lower level of government research and development revenues and contracts.

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The following table categorizes the Company's cost of sales and revenues for the periods presented, stated in dollars and as a percentage of related sales and revenues:

| | Nine Months Ended September 30, | | | |
|---|---------------------------------|-------|---------------|-------|
| | 2007 | % | 2006 | % |
| | ----- | ----- | ----- | ----- |
| Cost of goods sold | \$ 14,801,000 | 95% | \$ 6,678,000 | 93% |
| Cost of contract research, services and licenses | 88,000 | | | |
| | 6,813,000 | 86% | 6,625,000 | 84% |
| | ----- | | ----- | |
| Net cost of sales and revenues | \$ 21,614,000 | 85% | \$ 13,303,000 | 88% |
| | ===== | | ===== | |

The \$8,123,000 (122%) increase in cost of goods sold was primarily due to increased costs within Spire's solar equipment product line corresponding to the 268% increase in solar equipment sales and a 40% increase in catheter products sales. The decrease in cost of goods sold as a percentage of revenue is the result of improved contribution margins in these product lines as increased production volume utilizes more of the available capacity.

The \$188,000 (3%) increase in cost of contract research, service and license revenues in 2007 is primarily due to decreased costs within the Company's government research and development activities corresponding to the lower level of government research and development revenues and contracts. Although optoelectronics revenues increased 35% from prior year level Bandwidth's costs increased by 9%. The Company recorded a \$105,000 charge, to cost of contract research, service and license revenues, associated with an expected loss on completing a contract with the NREL. The loss represented the unreimbursed portion of Spire's expected expense to complete the contract.

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OPERATING EXPENSES

The following table categorizes the Company's operating expenses for the periods presented, stated in dollars and as a percentage of total sales and revenues:

| | Three Months Ended September 30, | | | |
|-------------------------------------|----------------------------------|-----|--------------|-----|
| | 2007 | % | 2006 | % |
| Selling, general and administrative | \$ 3,388,000 | 34% | \$ 2,496,000 | 43% |
| Internal research and development | 96,000 | 1% | 194,000 | 3% |
| Operating expenses | \$ 3,484,000 | 35% | \$ 2,690,000 | 46% |

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

The increase in selling, general and administrative expense was due primarily to commissions related to sales of solar equipment. The Company uses a network of independent sales representatives in addition to its internal sales personnel. The independent sales representatives are compensated on a straight commission whereas internal sales personnel receive a base salary plus commission. In addition, the Company has increased its sales and marketing of its equipment business. Selling, general and administrative expense decreased to 34% of sales and revenues as compared to 43% in the prior year. The reduction was primarily due to the 65% increase in sales and revenues compared to the 36% increase in expenses.

INTERNAL RESEARCH AND DEVELOPMENT

The decrease in research and development costs was primarily a result of a reduction in internal research and development activities as a result of the Company's current cost sharing contract with NREL nearing completion.

The following table categorizes the Company's operating expenses for the periods presented, stated in dollars and as a percentage of total sales and revenues:

| | Nine Months Ended September 30, | | | |
|-------------------------------------|---------------------------------|-----|--------------|-----|
| | 2007 | % | 2006 | % |
| Selling, general and administrative | \$ 9,252,000 | 36% | \$ 7,306,000 | 49% |
| Internal research and development | 219,000 | 1% | 547,000 | 3% |
| Operating expenses | \$ 9,471,000 | 37% | \$ 7,853,000 | 52% |

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

The increase in selling, general and administrative expense was due primarily to commissions related to sales of solar equipment. The Company uses a network of independent sales representatives in addition to its internal sales

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personnel. The independent sales representatives are compensated on a straight commission whereas internal sales personnel receive a base salary plus commission. In addition, the Company has increased its sales and marketing of its equipment business. Selling, general and administrative expense decreased to 36% of sales and revenues as compared to 49% in the prior year. The reduction was primarily due to the 69% increase in sales and revenues compared to the 27% increase in expenses.

INTERNAL RESEARCH AND DEVELOPMENT

The decrease in research and development costs was primarily a result of a reduction in internal research and development activities as a result of the Company's current cost sharing contract with NREL nearing completion.

GAIN ON SALE OF TRADEMARK

The Company recorded a one-time gain of \$2,707,000 on the sale of a trademark to Gloria Solar as part of a \$4,000,000 PV module line and technology sale transaction. In addition, the Company recognized \$708,000 in additional service revenue associated with the sale of technology services delivered to Gloria Solar in the fiscal third quarter, deferring as revenue the remaining \$585,000 until completion of additional technology services and the delivery of the PV production equipment.

OTHER EXPENSE, NET

The Company earned approximately \$5,000 and \$98,000 of interest income for the three months ended September 30, 2007 and 2006, respectively. The Company incurred interest expense of approximately \$88,000 and \$36,000 for the three months ended September 30, 2007 and 2006, respectively. The decrease in interest income is due to lower cash balances held by the Company. Interest expense increased due to payments on the Company's outstanding Term Loan with Silicon Valley Bank partially offset by lower interest expense with respect to certain capital leases. The Company incurred a loss less than \$1,000 during the three month period ending September 30, 2007, due to the conversion of Japanese Yen into U.S. dollars as compared to a loss of \$2,000 for the same period in 2006.

The Company earned approximately \$58,000 and \$192,000 of interest income for the nine months ended September 30, 2007 and 2006, respectively. The Company incurred interest expense of approximately \$138,000 and \$124,000 for the nine months ended September 30, 2007 and 2006, respectively. The decrease in interest income is due to lower cash balances held by the Company. Interest expense decreased due to payments against the principal balance of certain capital leases. The Company lost approximately \$14,000 during the nine month period ending September 30, 2007, due to the conversion of Japanese Yen into U.S. dollars as compared to income of less than \$1,000 for the same period in 2006.

INCOME TAXES

The Company recorded a benefit for income taxes of \$884,000 for the three and nine months ended September 30, 2007, representing the reversal of the valuation allowance due to the expected utilization of net operating losses. The Company did not record an income tax benefit for the three and nine months ended September 30, 2006. A partial valuation allowance has been provided against the deferred tax assets due to uncertainty regarding the realization of the net operating loss in the future.

EXTRAORDINARY GAIN ON INVESTMENT IN JOINT VENTURE

The Company recorded an extraordinary gain on investment in joint venture of \$1,311,000, net of tax, based upon its 45% portion of tangible assets

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in the joint venture. The Company recorded its investment of \$2,356,000 under "Equity investment in joint venture" on the consolidated balance sheet.

NET INCOME

The Company reported net income for the three months ended September 30, 2007 of approximately \$2,755,000, compared to a net loss of approximately \$1,941,000 for the same period in 2006. The net increase in income of approximately

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\$4,696,000 is primarily due to gains from the sale of assets to Gloria Solar, and the extraordinary gain on its equity investment in its joint venture with Gloria Solar, LLC.

The Company reported a net loss for the nine months ended September 30, 2007 of approximately \$856,000, compared to a net loss of approximately \$6,026,000 for the same period in 2006. The net loss decreased approximately \$5,170,000 primarily due to gains from the sale of assets to Gloria Solar, and the extraordinary gain on its investment in its joint venture with Gloria Solar.

Liquidity and Capital Resources

| | September 30, 2007 | December 31, 2006 | Incre ----- \$ ----- |
|---------------------------|-----------------------|----------------------|-------------------------------|
| Cash and cash equivalents | \$ 4,804,000 | \$ 1,536,000 | \$ 3,268 |
| Working capital (deficit) | \$ 4,009,000 | \$ 3,938,000 | \$ 71 |

Cash and cash equivalents increased primarily due to cash from the Company's bank borrowings and customer advances. Cash was used to pay the outstanding balance on capital equipment acquired in 2006 for the expansion of the optoelectronics business unit, and to acquire inventory to fulfill future solar equipment orders. Generally the Company will receive advances from its solar equipment customers to fund its acquisition of inventory. The overall increase in working capital is due to purchases of inventory. The Company has historically funded its operating cash requirements using operating cash flow and proceeds from the sale and licensing of technology.

On May 25, 2007, the Company and its wholly-owned subsidiary, Bandwidth Semiconductor, LLC ("Bandwidth"), entered into a Loan and Security Agreement (the "Loan Agreement") with Silicon Valley Bank ("SVB"). Under the Loan Agreement, for a one-year period, the Company and Bandwidth can borrow up to \$3.5 million in the aggregate to finance certain equipment purchases (including reimbursement of certain previously-made purchases). Each advance made under the Loan Agreement will be due thirty-six (36) months from the date the advance is made. Advances made under the Loan Agreement will bear interest at one half of one percentage point (0.5%) above SVB's prime rate and payable in thirty-six (36) consecutive monthly payments following the funding date of that advance. On June 17, 2007 the Company did draw down the line for the full \$3.5 million to finance certain capital equipment purchased previously by Bandwidth. At September 30, 2007, the Company's borrowings under the line amounted to \$3,209,000.

Under the terms of the Loan Agreement, as long as any commitment remains outstanding under the facility, the Company and Bandwidth must comply with an

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adjusted quick ratio covenant and a minimum quarterly net income covenant. In addition, until all amounts under the Loan Agreement are repaid, covenants under the Loan Agreement impose restrictions on the Company's and Bandwidth's ability to, among other things, incur additional indebtedness, create or permit liens on the Company's or Bandwidth's assets, merge, consolidate or dispose of assets (other than in the ordinary course of business), make dividend and other restricted payments, make certain debt or equity investments, make certain acquisitions, engage in certain transactions with affiliates or change the business conducted by the Company, Bandwidth and their subsidiaries. Any failure by the Company or Bandwidth to comply with the covenants and obligations under the Loan Agreement could result in an event of default, in which case SVB may be entitled to declare all amounts owed to be due and payable immediately. The Company's and Bandwidth's obligations under the Loan Agreement are secured by substantially all of the Company's and Bandwidth's assets, with the exception of any intellectual property owned or licensed by the Company or Bandwidth. At September 30, 2007, the Company was not in compliance with its liquidity covenant for the third quarter. The Company has received a waiver from the SVB with respect to this covenant.

The Company had a \$2,000,000 Loan Agreement (the "Prior Loan Agreement") with Citizens Bank of Massachusetts which expired on June 27, 2007. The Prior Loan Agreement provided Standby Letter of Credit guarantees for certain foreign and domestic customers, which are 100% secured with cash. At September 30, 2007, the Company had approximately \$132,000 of restricted cash associated with outstanding Letters of Credit. Standby Letters of Credit under this Prior Loan Agreement bear interest at 1%. It has an additional \$380,000 of restricted cash associated with outstanding Letters of Credit of Credit and a certificate deposit securing potential Company's foreign exchange contracts opened with SVB.

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to pay amounts due. The Company actively pursues collection of past due receivables as the circumstances warrant. Customers are contacted to determine the status of payment and senior accounting and operations management are

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included in these efforts as is deemed necessary. A specific reserve will be established for past due accounts over 60 days and over a specified amount, when it is probable that a loss has been incurred and the Company can reasonably estimate the amount of the loss. The Company does not record an allowance for government receivables and invoices backed by letters of credit as realizeability is reasonably assured. Bad debts are written off against the allowance when identified. There is no dollar threshold for account balance write-offs. While rare, a write-off is only recorded when all efforts to collect the receivable have been exhausted and only in consultation with the appropriate business line manager.

There are no material commitments by the Company for capital expenditures. At September 30, 2007, the Company's accumulated deficit was approximately \$10,612,000, compared to accumulated deficit of approximately \$9,756,000 as of December 31, 2006.

On July 31, 2007, the Company entered into contractual relationship with Gloria Solar pursuant to which (i) the Company agreed to sell to Gloria Solar certain assets belonging to the Company's solar systems business for \$4,000,000 and (ii) the Company and Gloria Solar agreed to form a joint venture for the purpose of pursuing the solar photovoltaic systems market within the United States. This transaction closed on September 4, 2007. Gloria Solar own 55% of the joint venture and the Company owns 45% of the joint venture. The joint venture will design, market, sells and manage the installation of systems for

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the generation of electrical power by solar photovoltaic means in primarily commercial/industrial and utility segments of such market (the "JV Systems Business"). In connection with the formation of the joint venture, (i) the Company contributed to the joint venture its assets primarily relating to the JV Systems Business, including certain intellectual property and know-how, access to information technology assets and relationships, relationships with current and previous customers, contract backlog and project opportunities, certain registered trademarks, and employment relationships with staff members and (ii) Gloria Solar contributed \$5,000,000 in cash.

The Company believes it has sufficient resources to finance its current operations for the foreseeable future from operating cash flow and working capital.

Foreign Currency Fluctuation

The Company sells only in U.S. dollars, generally against an irrevocable confirmed letter of credit through a major United States bank. Therefore the Company is not directly affected by foreign exchange fluctuations on its current orders. However, fluctuations in foreign exchange rates do have an effect on the Company's customers' access to U.S. dollars and on the pricing competition on certain pieces of equipment that the Company sells in selected markets. The Company received Japanese yen in exchange for the sale of a license to its solar technology. In addition, purchases made and royalties received under the Company's Consortium Agreement with its Japanese partner will be in Japanese yen. The Company does not believe that foreign exchange fluctuations will materially affect its operations.

Related Party Transactions

The Company subleased 77,000 square-feet in a building leased by Mykrolis Corporation, who in turn leased the building from SPI-Trust, a Trust of which Roger Little, Chairman of the Board, Chief Executive Officer and President of the Company, is the sole trustee and principal beneficiary. The 1985 sublease, originally was for a period of ten years, was extended for a five-year period expiring on November 30, 2000 and was further extended for a five-year period expiring on November 30, 2005. The sublease agreement provided for minimum rental payments plus annual increases linked to the consumer price index. Effective December 1, 2005, the Company entered into a two-year Extension of Lease Agreement (the "Lease Extension") directly with SPI-Trust.

The Company assumed certain responsibilities of Mykrolis, the tenant under the former lease, as a result of the Lease Extension including payment of all building and real estate related expenses associated with the ongoing operations of the property. The Company will allocate a portion of these expenses to SPI-Trust based on pre-established formulas utilizing square footage and actual usage where applicable. These allocated expenses will be invoiced monthly and be paid utilizing a SPI-Trust escrow account of which the Company has sole withdrawal authority. SPI-Trust is required to maintain three (3) months of its anticipated operating costs within this escrow account. On December 1, 2006, the Company and SPI-Trust amended the Lease Extension. The amendment increases the leased area to 91,701 square feet. Rent expense under this lease, as extended and amended, for the three and nine month periods ended September 30, 2007 was approximately \$340,000 and \$1,020,000 respectively. In connection with this lease, the Company is invoiced and pays certain SPI-Trust related expenses, including building maintenance and insurance. The Company invoices SPI-Trust on a monthly basis and SPI-Trust reimburses the Company for all such costs. The Company believes that the terms of the Lease

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Extension, as amended, are commercially reasonable. The Company is currently negotiating with SPI-Trust for a new lease for the entire building of 144,000 sq ft. that would start December 1, 2007.

In conjunction with the acquisition of Bandwidth by the Company, SPI-Trust, a Trust of which Roger G. Little, Chairman of the Board, Chief Executive Officer and President of the Company, is sole trustee and principal beneficiary, purchased from Stratos Lightwave, Inc. (Bandwidth's former owner) the building that Bandwidth occupies in Hudson, New Hampshire for \$3.7 million. Subsequently, the Company entered into a lease for the building (90,000 square feet) with SPI-Trust whereby the Company will pay \$4.1 million to the SPI-Trust over an initial five-year term expiring in 2008 with a Company option to extend for five years. In addition to the rent payments the lease obligates the Company to keep on deposit with SPI-Trust the equivalent of three months rent (\$304,000 as of September 30, 2007.) The lease agreement does not provide for a transfer of ownership at any point. Interest costs were assumed at 7%. For the three and nine months ended September 30, 2007, interest expense was approximately \$25,000 and \$64,000 respectively. This lease has been classified as a related party capital lease and a summary of payments (including interest) follows:

| Year | Rate Per Square Foot | Annual Rent | Monthly Rent |
|-----------------------------|-------------------------|-------------------------------|--------------|
| June 1, 2003 - May 31, 2004 | \$6.00 | \$ 540,000 | \$45,000 |
| June 1, 2004 - May 31, 2005 | 7.50 | 675,000 | 56,250 |
| June 1, 2005 - May 31, 2006 | 8.50 | 765,000 | 63,750 |
| June 1, 2006 - May 31, 2007 | 10.50 | 945,000 | 78,750 |
| June 1, 2007 - May 31, 2008 | 13.50 | 1,215,000 | 101,250 |
| | | ----- \$4,140,000 ===== | |

At September 30, 2007, the remaining balance of capital lease obligation - related party in the amount of \$779,000 is reflected as a current liability in the Company's consolidated balance sheet.

Critical Accounting Policies

The preparation of financial statements in accordance with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Among the significant estimates affecting our consolidated financial statements are those relating to revenue recognition, reserves for doubtful accounts and sales returns and allowances, reserve for excess and obsolete inventory, impairment of long-lived assets, income taxes, and warranty reserves. We regularly evaluate our estimates and assumptions based upon historical experience and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. To the extent actual results differ from those estimates, our future results of operations may be affected. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements. Refer to Footnote 2 of our notes to consolidated financial statements in our Annual Report on Form 10-KSB for the year ended December 31, 2006 for a

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description of our accounting policies.

REVENUE RECOGNITION

The Company derives its revenues from three primary sources: (1) commercial products including, but not limited to, solar energy manufacturing equipment, solar energy systems and hemodialysis catheters; (2) biomedical and semiconductor processing services; and (3) United States government funded research and development contracts.

We generally recognize product revenue upon shipment of products provided there are no uncertainties regarding customer acceptance, persuasive evidence of an arrangement exists, the sales price is fixed or determinable, and collectibility is reasonably assured. These criteria are generally met at the time of shipment when the risk of loss and title passes to the customer or distributor, unless a consignment arrangement exists. Revenue from consignment arrangements is recognized based on product usage indicating sales are complete.

The Company utilizes a distributor network to market and sell its hemodialysis catheters domestically. The Company generally recognizes revenue when the catheters are shipped to its distributors. Gross sales reflect reductions attributable to customer returns and various customer incentive programs including pricing discounts and rebates. Product returns are

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permitted in certain sales contracts and an allowance is recorded for returns based on the Company's history of actual returns. Certain customer incentive programs require management to estimate the cost of those programs. The allowance for these programs is determined through an analysis of programs offered, historical trends, expectations regarding customer and consumer participation, sales and payment trends, and experience with payment patterns associated with similar programs that had been previously offered. An analysis of the sales return and rebate activity for the three months ended September 30, 2007, is as follows:

| | Rebates | Returns | Total |
|------------------------------|------------|-----------|------------|
| | ----- | ----- | ----- |
| Balance - June 30, 2007 | \$ 103,400 | \$ 12,600 | \$ 116,000 |
| Provision | 57,370 | 20,387 | 77,757 |
| Utilization | (70,370) | (20,587) | (90,957) |
| | ----- | ----- | ----- |
| Balance - September 30, 2007 | \$ 90,400 | \$ 12,400 | \$ 102,800 |
| | ===== | ===== | ===== |

- o Credits for rebates are recorded in the month of the actual sale.
- o Credits for returns are processed when the actual merchandise is received by the Company.
- o Substantially all rebates and returns are processed no later than three months after original shipment by the Company.

The reserve percentage has declined to 9%, of inventory held by distributors from approximately 15%, over the last two years. This reflects lower rebates and returns associated with the Company's new heparin coated catheters. The Company performs various sensitivity analyses to determine the appropriate reserve percentage to use. To date, actual quarterly reserve utilization has approximated the amount provided. The total inventory held by distributors covered by sales incentive programs was approximately \$1,300,000 at September 30, 2007.

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If sufficient history to make reasonable and reliable estimates of returns or rebates does not exist, revenue associated with such practices is deferred until the return period lapses or a reasonable estimate can be made. This deferred revenue will be recognized as revenue when the distributor reports to us that it has either shipped or disposed of the units (indicating that the possibility of return is remote).

The Company's OEM capital equipment solar energy business builds complex customized machines to order for specific customers. Substantially all of these orders are sold on a FOB Bedford, Massachusetts (or EX-Works Factory) basis. It is the Company's policy to recognize revenues for this equipment as the product is shipped to the customer, as customer acceptance is obtained prior to shipment and the equipment is expected to operate the same in the customer's environment as it does in the Company's environment. When an arrangement with the customer includes future obligations or customer acceptance, revenue is recognized when those obligations are met or customer acceptance has been achieved. The Company's solar energy systems business installs solar energy systems on customer-owned properties on a contractual basis. Generally, revenue is recognized once the systems have been installed and the title is passed to the customer. For arrangements with multiple elements, the Company allocates fair value to each element in the contract and revenue is recognized upon delivery of each element. If the Company is not able to establish fair value of undelivered elements, all revenue is deferred.

The Company recognizes revenues and estimated profits on long-term government contracts on the accrual basis where the circumstances are such that total profit can be estimated with reasonable accuracy and ultimate realization is reasonably assured. The Company accrues revenue and profit utilizing the percentage of completion method using a cost-to-cost methodology. A percentage of the contract revenues and estimated profits are determined utilizing the ratio of costs incurred to date to total estimated cost to complete on a contract by contract basis. Profit estimates are revised periodically based upon changes and facts, and any losses on contracts are recognized immediately. Some of the contracts include provisions to withhold a portion of the contract value as retainage until such time as the United States government performs an audit of the cost incurred under the contract. The Company's policy is to take into revenue the full value of the contract, including any retainage, as it performs against the contract since the Company has not experienced any substantial losses as a result of audits performed by the United States government.

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IMPAIRMENT OF LONG-LIVED ASSETS

Long-lived assets, including fixed assets and intangible assets, are continually monitored and are evaluated at least annually for impairment. The determination of recoverability is based on an estimate of undiscounted cash flows expected to result from the use of an asset and its eventual disposition. The estimate of cash flows is based upon, among other things, certain assumptions about expected future operating performance. Our estimates of undiscounted cash flows may differ from actual cash flows due to, among other things, technological changes, economic conditions, changes to our business model or changes in our operating performance. If the sum of the undiscounted cash flows (excluding interest) is less than the carrying value, we recognize an impairment loss, measured as the amount by which the carrying value exceeds the fair value of the asset. In 2007, the Company recorded a \$78,000 charge, to cost of contract research, service and license revenues, for the impairment of production equipment which based on managements assessment had no future value to the Company. The products originally manufactured on the equipment were no longer economical to produce.

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STOCK-BASED COMPENSATION

On January 1, 2006, the Company adopted the fair value recognition provisions of Financial Accounting Standards Board ("FASB") Statement No. 123(R), Share-Based Payment ("Statement 123(R)") using the modified prospective method. In accordance with the modified prospective method, the Company has not restated its consolidated financial statements for prior periods. Under this transition method, stock-based compensation expense for the first quarter of 2006 includes stock-based compensation expense for all of the Company's stock-based compensation awards granted prior to, but not yet vested as of, January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of FASB Statement No. 123, Accounting for Stock-Based Compensation ("Statement 123"). Stock-based compensation expense for all stock-based compensation awards granted on or after January 1, 2006 will be based on the grant-date fair value estimated in accordance with the provisions of Statement 123(R). The impact of Statement 123(R) on the Company's results of operations resulted in recognition of stock option expense of approximately \$181,000 and \$389,000, respectively, for the three and nine months ended September 30, 2007.

Contractual Obligations, Commercial Commitments and Off-Balance Sheet Arrangements

The following table summarizes the Company's gross contractual obligations at September 30, 2007 and the maturity periods and the effect that such obligations are expected to have on its liquidity and cash flows in future periods:

| Contractual Obligations | Total | Payments Due by Period | | |
|----------------------------------|--------------|------------------------|----------------|-------------|
| | | Less than 1 Year | 2 - 3 Years | 4 - Year |
| Equipment line of credit (SVB) | \$ 3,612,000 | \$ 1,404,000 | \$ 2,208,000 | |
| Purchase obligations | \$ 6,984,000 | \$ 6,818,000 | \$ 176,000 | |
| Capital leases: | | | | |
| Related party capital lease | \$ 779,000 | \$ 779,000 | -- | |
| Operating leases: | | | | |
| Unrelated party operating leases | \$ 346,000 | \$ 117,000 | \$ 195,000 | \$ 3 |
| Related party operating lease | \$ 227,000 | \$ 227,000 | -- | |

Purchase obligations include all open purchase orders outstanding regardless of whether they are cancelable or not.

Capital lease obligations outlined above include both the principal and interest components of these contractual obligations.

At September 30, 2007, the Company maintained a Japanese yen account that held approximately JPY 89,753 (approximately \$1,000). Total currency translation loss for the quarter ended September 30, 2007 of approximately \$4,000 is reflected in other income (expense), net in the accompanying unaudited condensed consolidated statement of operations.

Outstanding letters of credit totaled approximately \$132,000 at September 30, 2007. The letters of credit principally secure performance obligations, and allow holders to draw funds up to the face amount of the letter

of credit if the

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Company does not perform as contractually required. These letters of credit expire through 2007 and are 100% secured by cash.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk to which we are subject consists of the risk of loss arising from adverse changes in market interest rates and foreign exchange rates. Exposure to market rate risk for changes in interest rates relates to our investment portfolio. We have not used derivative financial instruments in our investment portfolio. We seek to place our investments with high-quality issuers and we have policies limiting, among other things, the amount of credit exposure to any one issuer. We seek to limit default risk by purchasing only investment-grade securities. We do not believe we have any material market risk with respect to our financial instruments.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Company carried out an evaluation under the supervision and with the participation of the Company's management, including the Chief Executive Officer and President and the Chief Financial Officer, of the effectiveness of the Company's disclosure controls and procedures as of September 30, 2007. In designing and evaluating the Company's disclosure controls and procedures, the Company and its management recognize that there are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their desired control objectives. Additionally, in evaluating and implementing possible controls and procedures, the Company's management was required to apply its reasonable judgment. Based upon the required evaluation, the Chief Executive Officer and President and the Chief Financial Officer concluded that as of September 30, 2007, the Company's disclosure controls and procedures were effective to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

Changes in Internal Control Over Financial Reporting

There was no change in the Company's internal control over financial reporting that occurred during the third fiscal quarter of 2007 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. During the second quarter the Company's recently hired Chief Accounting Officer resigned to pursue other opportunities. The Company has not replaced this position and during the most recent quarter has used consultants to fill this role. In addition, the recent growth in Company has strained certain internal controls. The Company as part of its Sarbanes Oxley requirements has been testing its internal controls and is now addressing internal weaknesses with new procedures. While it has made progress in correcting certain deficiencies, it has not and does not expect to correct all material weaknesses by year-end.

PART II
OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

In a complaint filed July 11, 2007 in the U.S. District Court for the Eastern District of Pennsylvania, Medical Components, Inc. (the "Plaintiff") alleges that the Company and its wholly-owned subsidiary, Spire Biomedical, Inc., through the manufacture and sale of its multilumen catheter products infringes upon one of Plaintiff's patents. The Plaintiff seeks unspecified damages, including enhanced damages and attorneys fees and costs, and an injunction against certain manufacturing techniques. The Company believes it has meritorious defenses and intends to vigorously defend itself against the claim. The Company is currently in the process of evaluating this case, and has not concluded that a loss is probable or estimable.

ITEM 1A. RISK FACTORS

Other than as set forth below, there have been no material changes in the Risk Factors described in Part I, Item 1A ("Risk Factors") of our Annual Report on Form 10-KSB for the year ended December 31, 2006.

OUR JOINT VENTURE TRANSACTION WITH GLORIA SOLAR MAY NOT REALIZE ALL OF ITS INTENDED BENEFITS.

On September 4, 2007, we closed our previously announced a contractual relationship with Gloria Solar. Pursuant to this transaction, among other things, we formed a joint venture, owned 55% by Gloria Solar and 45% by us, for the purpose of pursuing the solar photovoltaic systems market within the United States. The joint venture will design, market, sell and manage the installation of systems for the generation of electrical power by solar photovoltaic means in primarily commercial/industrial and utility segments of such market (the "JV Systems Business"). In connection with the formation of the joint venture, (i) we contributed to the joint venture our assets primarily relating to the JV Systems Business, including certain intellectual property and know-how, access to information technology assets and relationships, relationships with current and previous customers, contract backlog and project opportunities, certain registered trademarks, and employment relationships with staff members and (ii) Gloria Solar contributed \$5,000,000 in cash. In connection with the establishment of the joint venture, we may experience:

- o difficulties in integrating our and Gloria Solar's respective corporate cultures and business objectives into the new joint venture;
- o diversion of our management's time and attention from other business concerns;
- o higher than anticipated costs of integration at the joint venture;
- o difficulties in retaining key employees who are necessary to manage the joint venture; or
- o difficulties in working with an entity based in Taiwan and thus remote or inconvenient to our Bedford, Massachusetts headquarters.

For any of these reasons or as a result of other factors, we may not realize the anticipated benefits of the joint venture, and cash flow or profits derived from our ownership interest in the joint venture may be less than the cash flow or profits that could have been derived had we retained the transferred assets and continued to operate the JV Systems Business ourselves.

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Either party has the right, at any time upon certain material breaches by the other party of obligations under the joint venture documents, to acquire all of the breaching party's interest in the joint venture at 90% fair market value. In addition, in the event of a "change in control" of a member, the other members may purchase such member's interest in the joint venture at fair market value. Furthermore, our further participation in the business of the joint venture is restricted; for a period of three (3) years, we may not mass manufacture, market or sell solar cell modules with less than 575 watt capacity, and may do so thereafter only outside the United States.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

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ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

- 2.1 Asset Purchase Agreement, dated as of July 31, 2007, by and between the Company and Gloria Solar Co., Ltd., incorporated by reference to Exhibit 2.1 to the Company's Form 8-K filed with the Securities and Exchange Commission (the "SEC") on September 10, 2007.*+
- 2.2 Contribution Agreement, dated as of July 31, 2007, by and among the Company, Gloria Solar Co., Ltd. and Gloria Solar (Delaware) Company, Ltd., incorporated by reference to Exhibit 2.2 to the Company's Form 8-K filed with the SEC on September 10, 2007.*+
- 10(x) Operating Agreement of Gloria Spire Solar, LLC, dated July 31, 2007, by and among the Company, Gloria Solar (Delaware) Company, Ltd. and Gloria Spire Solar, LLC, incorporated by reference to Exhibit 10(x) to the Company's Form 8-K filed with the SEC on September 10, 2007.*
- 31.1 Certification of the Chairman of the Board, Chief Executive Officer and President pursuant to ss.302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of the Chief Financial Officer and Treasurer pursuant to ss.302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of the Chairman of the Board, Chief Executive Officer and President pursuant to 18 U.S.C. ss.1350, as adopted pursuant to ss.906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of the Chief Financial Officer and Treasurer pursuant to 18 U.S.C. ss.1350, as adopted pursuant to ss.906

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of the Sarbanes-Oxley Act of 2002.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Spire Corporation

Dated: November 19, 2007

By: /s/ Roger G. Little

Roger G. Little
Chairman of the Board, Chief
Executive Officer and President

Dated: November 19, 2007

By: /s/ Christian Dufresne

Christian Dufresne, Ph. D.
Chief Financial Officer and Treasurer

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EXHIBIT INDEX

| Exhibit | Description |
|---------|---|
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