
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-QSB

- QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2003.

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 O-8092

OXIS INTERNATIONAL, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

94-1620407

(I.R.S. Employer
Identification No.)

6040 N. Cutter Circle, Suite 317, Portland, Oregon

(Address of principal executive offices)

97217

(Zip Code)

(503) 283-3911

(Registrant's telephone number, including area code)

At March 31, 2003, the issuer had outstanding the indicated number of shares of common stock: 10,105,614

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements.

**OXIS INTERNATIONAL, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In thousands of dollars)**

	March 31, 2003	December 2002
	<u>(unaudited)</u>	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 371	\$ 424
Accounts receivable, net of allowance of \$5	254	188
Inventories	314	301
Prepaid and other current assets	111	138
	<u>1,050</u>	<u>1,051</u>
Property, plant and equipment, net	59	62
Technology for developed products, net	197	224
Patents and patents pending, net	615	594
Other assets	—	54
	<u>—</u>	<u>—</u>
Total assets	\$ 1,921	\$ 1,985
	<u>—</u>	<u>—</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Notes payable to shareholder	\$ 160	\$ 160
Accounts payable	392	321
Accrued liabilities	175	166
Accrued payroll	107	107
Customer deposits	13	13
	<u>847</u>	<u>767</u>
Shareholders' equity:		
Convertible preferred stock – \$.01 par value; 15,000,000 shares authorized:		
Series B – 428,389 shares issued and outstanding (aggregate liquidation preference of \$1,000,000)	4	4
Series C – 96,230 shares issued and outstanding	1	1
Series F – 1,500,000 shares issued and outstanding	15	15
Common stock – \$.001 par value; 95,000,000 shares authorized; 10,105,614 shares issued and outstanding at March 31, 2003 (10,005,614 at December 31, 2002)	10	10
Warrants	2,009	2,009
Additional paid-in-capital	58,327	58,357
Accumulated deficit	(58,852)	(58,703)
Accumulated other comprehensive loss	(440)	(445)
	<u>1,074</u>	<u>1,218</u>
Shareholders' equity	1,074	1,218
	<u>—</u>	<u>—</u>
Total liabilities and shareholders' equity	\$ 1,921	\$ 1,985
	<u>—</u>	<u>—</u>

The accompanying notes are an integral part of these consolidated financial statements.

OXIS INTERNATIONAL, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands of dollars, except earnings per share data)

	March 31, 2003	March 31, 2002
Revenues	\$ 549	\$ 428
Cost of revenue	220	218
Gross profit (loss)	329	210
Operating expenses:		
Research and development	109	69
Selling, general and administrative	374	398
Total operating expenses	483	467
Operating loss	(154)	(257)
Other income and expenses:		
Other income	8	62
Interest income	—	2
Interest expense	(3)	(5)
Total other income and expenses	5	59
Loss before income taxes	(149)	(198)
Income taxes	—	—
Net loss	\$ (149)	\$ (198)
Net loss per common share – basic and diluted	\$ (.01)	\$ (.02)
Weighted average number of shares used in computation – basic and diluted	10,006,725	9,740,885

The accompanying notes are an integral part of these consolidated financial statements.

OXIS INTERNATIONAL, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands of dollars)

	Three Months Ended March 31,	
	2003	2002
	(unaudited)	(unaudited)
Cash flows from operating activities:		
Net loss	(149)	\$ (198)
Adjustments to reconcile net loss to cash used for operating activities:		
Depreciation and amortization	45	70
Gain on sale of investment	(8)	—
Other income related to settlement of accounts payable	—	(62)
Changes in assets and liabilities:		
Accounts receivable	(66)	(27)
Inventories	(13)	(3)
Other current assets	27	(220)
Accounts payable	71	(42)
Customer deposits	—	8
Accrued payroll, payroll taxes and other	9	18
	<u>(84)</u>	<u>(456)</u>
Net cash used for operating activities		
Cash flows from investing activities:		
Proceeds from sale of investment	62	—
Purchases of equipment	(8)	—
Additions to patents	(22)	(29)
	<u>32</u>	<u>(29)</u>
Net cash provided by (used for) investing activities		
Cash flows from financing activities:		
Proceeds from issuance of preferred stock with warrants attached	—	1,500
Repayment of long-term debt	—	(47)
	<u>—</u>	<u>1,453</u>
Net cash provided by (used for) financing activities		
Effect of exchange rate changes on cash	(1)	—
Net increase (decrease) in cash and cash equivalents	(53)	968
Cash and cash equivalents – beginning of period	424	221
	<u>424</u>	<u>221</u>
Cash and cash equivalents – end of period	<u>\$ 371</u>	<u>\$ 1,189</u>
Supplemental cash flow disclosures:		
Interest paid	\$ —	\$ —
Income taxes paid	\$ —	\$ —

The accompanying notes are an integral part of these consolidated financial statements.

OXIS INTERNATIONAL, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. BASIS OF PRESENTATION

The foregoing unaudited interim financial statements have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-QSB and Regulation S-B as promulgated by the Securities and Exchange Commission. Accordingly, these financial statements do not include all of the disclosures required by generally accepted accounting principles for complete financial statements. These unaudited interim financial statements should be read in conjunction with the audited financial statements for the period ended December 31, 2002. In the opinion of management, the unaudited interim financial statements furnished herein include all adjustments, all of which are of a normal recurring nature, necessary for a fair statement of the results for the interim period presented.

The preparation of financial statements in accordance with generally accepted accounting principles requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities known to exist as of the date the financial statements are published, and the reported amounts of revenues and expenses during the reporting period. Uncertainties with respect to such estimates and assumptions are inherent in the preparation of the Company's financial statements; accordingly, it is possible that the actual results could differ from these estimates and assumptions that could have a material effect on the reported amounts of the Company's financial position and results of operations.

Operating results for the three-month ended March 31, 2003 are not necessarily indicative of the results that may be expected for the year ending December 31, 2003.

2. GOING CONCERN UNCERTAINTY

These financial statements have been prepared on a going concern basis, which contemplated the realization of assets and the satisfaction of liabilities in the normal course of business. The Company has incurred recurring losses and at March 31, 2003 had an accumulated deficit of \$58,852,000. For the three months ended March 31, 2003, the Company sustained a net loss of \$149,000. These factors, among others, indicate that the Company may be unable to continue as a going concern for a reasonable period of time. These financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that may be necessary should the Company be unable to continue as a going concern. The Company's continuation as a going concern is contingent upon its ability to obtain additional financing, and to generate revenue and cash flow to meet its obligations on a timely basis.

3. STOCKHOLDERS' EQUITY

The Company has a stock incentive plan under which 4,250,000 shares of the Company's common stock are reserved for issuance (the "Plan"). The Plan permits the Company to grant stock options to acquire shares of the Company's common stock, award stock bonuses of the Company's common stock, and grant stock appreciation rights.

At March 31, 2003, options issued pursuant to the Plan to acquire 2,834,041 shares of common stock at exercise prices ranging from \$0.085 to \$17.50 remained outstanding. Options issued outside the Plan to acquire 220,176 shares of common stock at exercise prices of \$0.085 to \$8.438 and warrants to acquire 4,940,127 shares of common stock at an exercise price of \$1.00 also remained outstanding at March 31, 2003.

During the three months ended March 31, 2003, 100,000 shares of common stock were issued to former shareholders of Innovative Medical Systems Corp. under the terms of the Company's 1997 acquisition agreement with that entity.

4. OTHER INCOME

During the first quarter of 2003 the Company sold its stock holdings of Caprius Inc., resulting in other income of \$8,000. In association with the closing of the Company's instrument manufacturing facility in 2001, during the first quarter of 2002, the Company settled certain trade payables with creditors resulting in other income of \$62,000.

5. COMMITMENTS AND CONTINGENCIES

In September 2002, the Company negotiated an agreement with Finovelec Entreprise, a shareholder and holder of a delinquent note payable by the Company in the amount of \$160,000. Under the agreement, Finovelec agreed to accept a cash payment of \$120,000 in full settlement of note principal and accrued interest if paid by the Company within thirty days of the Company's receiving at least \$500,000 in cash from private investors. At March 31, 2003, the Company had not received the requisite cash investment to retire the note.

6. OPERATING SEGMENTS

The Company is organized into two reportable segments – health products and therapeutic development. The two segments have different strategic goals and have been managed separately since 1997. The health products segment manufactures and sells diagnostic products, medical instruments, pharmaceutical forms of SOD and other fine chemicals. The therapeutic development segment operates a drug discovery business focused on development of new drugs to treat diseases associated with tissue damage from free radicals and reactive oxygen species.

General corporate expenses were allocated equally to the health products and therapeutics development segments in 2003 and 2002.

The following table presents information about the Company's two operating segments:

	Health Products	Therapeutic Development	Total
Quarter ended March 31, 2003:			
Revenues from external customers	\$ 549,000	\$ —	\$ 549,000
Segment loss	(5,000)	(144,000)	(149,000)
As of March 31, 2003 – Segment assets	1,139,000	782,000	1,921,000
Quarter ended March 31, 2002:			
Revenues from external customers	\$ 428,000	\$ —	\$ 428,000
Segment loss	(37,000)	(161,000)	(198,000)
As of March 31, 2002 – Segment assets	1,884,000	1,015,000	2,899,000

7. SUBSEQUENT EVENTS

An issuance of 94,961 shares of common stock at approximately \$0.20 per share will take place in the second quarter of 2003 in settlement of an accounts payable debt of \$19,000.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Certain statements set forth below may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. The forward looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements to differ from those expressed or implied by the forward-looking statements. With respect to the Company, the following factors, among others, could cause actual results or outcomes to differ materially from current expectations: the possible inability to obtain additional financing; uncertainties relating to patents and proprietary information; the potential for patent-related litigation expenses and other costs resulting from claims asserted against the Company or its customers by third parties; achievement of product performance specifications; the ability of new products to compete successfully in either existing or new markets; the effect of product or market development activities; availability and future costs of materials and other operating expenses; competitive factors; the performance and needs of industries served by the Company and the financial capacity of customers in these industries to purchase the Company's products; as well as other factors discussed under the heading "RISK FACTORS" in Item 1 of the Company's annual report on Form 10-KSB for the fiscal year ended December 31, 2002, which is incorporated herein by reference. Given these uncertainties, readers are cautioned not to place undue reliance on the forward-looking statements. The Company disclaims any obligation subsequently to revise or update forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.

Critical Accounting Policies

No material changes have occurred in the disclosure with respect to our critical accounting policies set forth in our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2002.

FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

The Company's working capital decreased during the first quarter of 2003 by \$81,000, from \$284,000 at December 31, 2002 to \$203,000 at March 31, 2003. The decrease in working capital resulted primarily from the net loss of \$149,000 adjusted for depreciation and amortization, \$45,000, and an investment in equipment and patents, \$30,000.

Cash and cash equivalents decreased from \$424,000 at December 31, 2002 to \$371,000 at March 31, 2003. This decrease of \$53,000 is a result of \$84,000 used for operations and \$30,000 invested in equipment and patents, somewhat offset by the receipt of \$62,000 from the sale of its stock investment.

The Company expects to incur operating losses for the foreseeable future. These losses and expenses may increase and fluctuate from quarter to quarter as the Company expands their activities. There can be no assurance that the Company will ever achieve profitable operations. The report of the Company's independent auditors on the Company's financial statements for the period ended December 31, 2002, includes an explanatory paragraph referring to the Company's ability to continue as a going concern. The Company anticipates that it will expend capital resources for the continuation of operations (marketing, product research and development, therapeutic and nutraceutical development). Capital resources may also be used for the acquisition of complementary businesses, products or technologies. The Company's future capital requirements will depend on many factors including: continued marketing and scientific progress in their research and development programs; the magnitude of these programs; the success of pre-clinical and potential clinical trials; the costs associated with the scale-up of manufacturing; the time and costs required for regulatory approvals; the time and costs involved in filing, prosecuting, enforcing and defending patent claims; technological competition and market developments; the establishment of and changes in collaborative relationships and the cost of commercialization activities and arrangements.

While the Company believes that the existing and new products and technologies show considerable promise, its ability to realize revenues therefrom is dependent upon the Company's success in marketing and sales, along with developing business alliances with related industry companies to assist in developing and marketing these products. To date, the Company has established marketing and sales relationships but has not established any therapeutic business alliances and there can be no assurance that the Company's effort to develop such therapeutic business alliances will be successful.

The Company has incurred losses in each of the last six years. As of March 31, 2003, the Company has an accumulated deficit of \$58,852,000. The Company expects to incur operating losses for the foreseeable future. The Company currently has sufficient capital for continuing operations of the health products segment but does not have sufficient capital resources to complete the Company's contemplated drug development programs and no assurances can be given that the Company will be able to raise such capital on terms favorable to the Company or at all. The unavailability of additional capital could cause the Company to cease or curtail its operations and/or delay or prevent the development and marketing of the Company's existing products and potential pharmaceutical/nutraceutical products.

**RESULTS OF OPERATIONS – THREE MONTHS ENDED MARCH 31, 2003
COMPARED WITH THREE MONTHS ENDED MARCH 31, 2002**

Revenues

The Company's revenues for the quarters ended March 31, 2003 and 2002 were as follows:

	2003	2002
Research assays and fine chemicals	\$ 546,000	\$ 421,000
Other	3,000	7,000
	<u>\$ 549,000</u>	<u>\$ 428,000</u>

Sales of research assays and fine chemicals increased by 30%, or \$125,000, from \$421,000 in the first quarter of 2002 to \$546,000 in the first quarter of 2003 due to an increase in sales volumes of L-Ergothioneine.

Costs and Expenses

Cost of sales was 51% of revenues for the first quarter of 2002 and 40% of revenues for the first quarter of 2003.

Gross profit for the first quarter of 2002 was \$210,000 and increased in the first quarter of 2003 to \$329,000. This change is due to the increased sales volumes during the first quarter of 2003.

Research and development expenses increased from \$69,000 in the first quarter of 2002 to \$109,000 in the first quarter of 2003. The increase in research and development expenses resulted primarily from the new development project of the Animal Health Profiling program.

Selling, general and administrative expenses decreased from \$398,000 in the first quarter of 2002 to \$374,000 in the first quarter of 2003. The decrease is primarily the result of reducing legal and accounting expenses.

Other Income

During the first quarter of 2003 the Company sold its stock holdings of Caprius Inc., resulting in other income of \$8,000. During the first quarter of 2002, in association with the closing of the Company's instrument manufacturing facility in 2001, the Company settled certain trade payables with creditors resulting in other income of \$62,000.

Net Loss

The Company continued to experience losses in the first quarter of 2003. The first quarter 2003 net loss of \$149,000 (\$0.01 per share-basic and diluted) was \$49,000 less than the \$198,000 (\$0.02 per share-basic and diluted) net loss for the first quarter of 2002. The decrease in the net loss is primarily due to increased revenues.

Item 3. Controls and Procedures.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we have evaluated the effectiveness of the design and operation of our disclosure controls and procedures within 90 days of the filing date of this quarterly report, and, based on their evaluation, our principal executive officer and principal financial officer have concluded that these controls and procedures are effective. There were no significant changes in our internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation.

Disclosure controls and procedures are our controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file or submit 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. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosures.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

None

Item 2. Changes in Securities

None

Item 3. Defaults Upon Senior Securities

None

Item 4. Submission of Matters to a Vote of Securities Holders

None

Item 5. Exhibits and Reports on Form 8-K.

(a) Exhibits – See Exhibit Index on page 14.

(b) Form 8-K Reports:

On April 15, 2003 the Company filed a Report on Form 8-K stating that on April 8, 2003, the Company released a public press statement announcing its financial results for year ended December 31, 2002.

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.

OXIS INTERNATIONAL, INC.

May 15, 2003

/s/ RAY R. ROGERS

By

Ray R. Rogers
Chairman, President and Chief Executive Officer

May 15, 2003

/s/ SHARON ELLIS

By

Sharon Ellis
Principal Financial Officer

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description of Document</u>
3	Bylaws of the Company as restated effective April 16, 2003
99.1	Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.2	Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Exhibit 3

**RESTATED BYLAWS
OF
OXIS INTERNATIONAL, INC.
(April 16, 2003)**

**ARTICLE 1
CORPORATE OFFICES**

1.1. Registered Office. The registered office of the corporation in the State of Delaware shall be fixed in the Certificate of Incorporation of the corporation.

1.2. Other Offices. The corporation may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the corporation may require.

**ARTICLE 2
STOCKHOLDERS' MEETINGS**

2.1. Place of Meetings.

2.1.1. Meetings of the stockholders of the corporation shall be held at such place, either within or without the State of Delaware, as the Board of Directors may designate from time to time.

2.1.2. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication in accordance with Section 211(a)(2) of the Delaware General Corporation Law. If authorized by the Board of Directors in its sole discretion, and subject to such guidelines and procedures as the Board of Directors may adopt, stockholders and proxyholders not physically present at a meeting of stockholders may, by means of remote communication: (i) participate in a meeting of stockholders; and (ii) be deemed present in person and vote at a meeting of stockholders whether such meeting is to be held at a designated place or solely by means of remote communication, provided that: (a) the corporation shall implement reasonable measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxyholder; (b) the corporation shall implement reasonable measures to provide such stockholders and proxyholders a reasonable opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings; and (c) if any stockholder or proxyholder votes or takes other action at the meeting by means of remotecommunication, a record of such vote or other action shall be maintained by the corporation.

2.2 Annual Meeting. The annual meeting of the stockholders of the corporation for the purpose of election of directors and for such other business as may properly come before the meeting shall be held on such date and at such time as may be designated from time to time by the Board of Directors.

2.3 Special Meetings. The Chairman of the Board, President or the Board of Directors may call a special meeting of the stockholders of the corporation at any time.

2.4 Organization. Meetings of stockholders shall be presided over by the Chairman of the Board of Directors, if any, or in his or her absence or inability to act, by the President, or in his or her absence or inability to act, by a chairman designated by the Board of Directors, or in the absence of such designation, by a chairman chosen at the meeting by the vote of a majority in interest of the stockholders present in person or represented by a proxy and entitled to vote at the meeting. The Secretary, or in his or her absence or inability to act, any person appointed by the chairman of the meeting, shall act as secretary of the meeting and keep a record of the proceedings thereof. The Board of Directors shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as in the judgment of such chairman are necessary, appropriate or convenient for the proper conduct of the meeting.

2.5. Notice of Meetings.

2.5.1. Except as otherwise provided by law or the corporation's Certificate of Incorporation, written notice (as the term "written" is defined in ARTICLE 10 hereof) of each meeting of stockholders, specifying the place, if any, date and hour of the meeting; the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting; and purpose or purposes of the meeting, shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote thereat, directed to the stockholder in accordance with the procedures set forth in ARTICLE 8 hereof. Notice shall be deemed to have been given to all stockholders of record who share an address if notice is given in accordance with the "householding" rules set forth in Rule 14a-3(e) under the Securities Exchange Act of 1934, as amended ("Exchange Act").

2.5.2. When a meeting is adjourned to another time or place, notice need not be given of the adjourned meeting if the time and place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, are announced at the meeting at which the adjournment is taken unless the adjournment is for more than thirty (30) days, or unless after the adjournment a new record date is fixed for the adjourned meeting, in which event a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.5.3. Notice of the time, place and purpose of any meeting of stockholders may be waived in writing, either before or after such meeting, and to the extent permitted by law, will be waived by any stockholder by his attendance thereat, in person or by proxy. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

2.5.4. Unless and until voted, every proxy shall be revocable at the pleasure of the person who executed it or of his legal representatives or assigns, except in those cases where an irrevocable proxy permitted by statute has been given.

2.6. Quorum and Voting. At all meetings of stockholders, except where otherwise provided by law, the Certificate of Incorporation, or these bylaws, the presence, in person or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. Any shares, the voting of which at said meeting have been enjoined, or which for any reason cannot be lawfully voted at such meeting, shall not be counted to determine a quorum at said meeting. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. At such adjourned meeting at which a quorum is present or represented, any business may be transacted which might have been transacted at the original meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

2.7. Voting.

2.7.1. Except as otherwise provided by law, the Certificate of Incorporation or these bylaws, all action taken by the holders of a majority of the voting power represented at any meeting at which a quorum is present shall be valid and binding upon the corporation.

2.7.2. Except as otherwise provided by law, the Certificate of Incorporation or these bylaws, only persons in whose names shares entitled to vote stand on the stock records of the corporation on the record date for determining the stockholders entitled to vote at said meeting shall be entitled to vote at such meeting. Shares standing in the names of two or more persons shall be voted or represented in accordance with the determination of the majority of such persons, or, if only one of such persons is present in person or represented by proxy, such person shall have the right to vote such shares and such shares shall be deemed to be represented for the purpose of determining a quorum.

2.7.3. Every person entitled to vote or execute consents shall have the right to do so either in person or by an agent or agents authorized by a written proxy executed by such person or his duly authorized agent, which proxy shall be filed with the

Secretary of the corporation at or before the meeting at which it is to be used. Said proxy so appointed need not be a stockholder. No proxy shall be voted on after three (3) years from its date unless the proxy provides for a longer period.

2.7.4. Except as otherwise provided by law, the Certificate of Incorporation or these bylaws, each stockholder shall be entitled to one (1) vote for each share of capital stock held by such stockholder. Any stockholder entitled to vote on any matter may vote part of the shares in favor of the proposal and refrain from voting the remaining shares or, except when the matter is the election of directors, may vote them against the proposal; but if the stockholder fails to specify the number of shares which the stockholder is voting affirmatively, it will be conclusively presumed that the stockholder's approving vote is with respect to all shares which the stockholder is entitled to vote.

2.8. List of Stockholders Entitled to Vote. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of and the number of shares registered in the name of each stockholder. Nothing contained in Section 219 of the Delaware General Corporation Law shall require the corporation to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least ten (10) days prior to the meeting, either: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting; or (b) during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. If the meeting is to be held at a place, the list shall be produced and kept at the time and place of the meeting during the whole time thereof and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

2.9. Actions by Written Consent. Every written consent shall bear the date of signature of each stockholder who signs the consent and no written consent shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered in the manner required by this Section 2.9, written consents signed by the holders of sufficient outstanding shares to authorize or take such action are delivered to the corporation in accordance with this Section 2.9. In addition, prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders to take the action were delivered to the corporation as provided in Section 228 of the Delaware General Corporation Law.

2.10 Nominations and Stockholder Business.

2.10.1. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who is a stockholder of record at the time of giving of notice provided for in this Section 2.10 who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this Section 2.10.

2.10.2. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to Section 2.10, the stockholder must have given timely notice thereof in writing to the Secretary of the corporation and such business must be a proper subject for stockholder action under the Delaware General Corporation Law. To be timely, a stockholder's notice shall be delivered to and received by the Secretary at the principal executive offices of the corporation (if delivered by electronic mail or facsimile, the stockholder's notice shall be directed to the Secretary at the electronic mail address or facsimile number, as the case may be, specified in the company's most recent proxy statement) not later than the close of business on the later of the 60th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made. Such stockholder's notice shall set forth: (i) as to each person whom the stockholder proposes to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Exchange Act (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (ii) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (iii) as to the stockholder giving the notice and the beneficial owners if any on whose behalf the nomination or proposal is made: (a) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner; (b) the class and number of shares of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner, (c) any material interest of the stockholder in such business, and (d) any other information that is required to be provided by the stockholder pursuant to Regulation 14A under the Exchange Act, in his capacity as a proponent to a stockholder proposal, regardless of whether the corporation shall at such time be subject to the Exchange Act. In addition, with respect to a stockholder proposal, if the stockholder has provided the corporation a notice as described above, the stockholder also must have delivered a proxy statement and form of proxy to stockholders holding a sufficient number of shares to carry such proposal in order for such proposal to be properly presented at the meeting.

2.10.3. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the corporation's notice of meeting. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the corporation's notice of meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who is a stockholder of record at the time of giving of notice provided for in this Section 2.10, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 2.10.3. Nominations by stockholders of persons for election to the Board of Directors may be made at such a special meeting of stockholders if the stockholder's notice required by this Section 2.10.3 shall be delivered to the Secretary at the principal executive offices of the corporation (if delivered by electronic mail or facsimile, the stockholder's notice shall be directed to the Secretary at the electronic mail address or facsimile number, as the case may be, specified in the company's most recent proxy statement) not earlier than one hundred twenty (120) days prior to such special meeting and not later than the close of business on the later of the 60th day prior to such special meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting.

2.10.4. Only those persons who are nominated in accordance with the procedures set forth in this Section 2.10 shall be eligible for election as directors at any meeting of stockholders. Only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 2.10. The chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made in accordance with the procedures set forth in this Section 2.10 and, if any proposed nomination or business is not in compliance with this Section 2.10, to declare that such defective proposal shall be disregarded.

2.10.5. For purposes of this Section 2.10, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 9, 13, 14 or 15(d) of the Exchange Act.

2.10.6. Notwithstanding the foregoing provisions of Section 2.10, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in Section 2.10. Nothing in this Section 2.10 shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

2.11. Inspectors. The Board of Directors may, in advance of any meeting of stockholders, appoint one or more inspectors to act at such meeting or any adjournment thereof. If the inspectors shall not be so appointed or if any of them fail to appear or act, the chairman of the meeting may, and on the request of any stockholder entitled to vote thereat shall, appoint inspectors. The inspectors shall determine, in number of shares represented at the meeting, the existence of a quorum, the validity and effect of proxies, and shall receive votes, ballots or consents, hear and determine all challenges and questions arising in connection with the right to vote, count and tabulate all votes, ballots or consents, determine the result, and do such acts as are proper to conduct the election or vote with fairness to all stockholders. On request of the chairman of the meeting or any stockholder entitled to vote thereat, the inspectors shall make a report in writing of any challenge, request or matter determined by them and shall execute a certificate of any fact found by them. No director or candidate for the office of director shall act as inspector of an election of directors. Inspectors need not be stockholders. The inspectors of election shall perform their duties impartially, in good faith, to the best of their ability and as expeditiously as is practical. If there are three (3) inspectors of election, the decision, act or certificate of a majority is effective in all respects as the decision, act or certificate of all. Any report or certificate made by the inspectors of election is prima facie evidence of the facts stated therein.

ARTICLE 3
DIRECTORS

3.1. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by or under the direction of the Board of Directors, except as may be otherwise provided by law or by the Certificate of Incorporation.

3.2. Number and Term of Office. The authorized number of directors which shall constitute the whole of the Board of Directors shall be not less than three (3) nor more than nine (9), with the exact number to be determined by resolution adopted from time to time by the Board of Directors. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

3.3. Election and Term of Office of Directors. Except as provided in Section 3.5, directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy and entitled to vote on the election of directors at the annual meeting of stockholders in each year and shall hold office for a term of one (1) year, until the next annual meeting of stockholders and until their successors shall be duly elected and qualified.

3.4. Meetings. The Board of Directors may hold meetings, both regular and special, either within or without the State of Delaware. Regular meetings of the Board of Directors may be held without notice at such time and at such place as may from time to time be determined by the Board of Directors. Special meetings of the Board of Directors may be called by the President or any two directors. Notice of special meetings stating the place, date and hour of the meeting shall be given to each director either by mail or by telephone, telegram, electronic mail or facsimile transmission not less than forty-eight (48) hours before the date of the meeting. The notice shall include a brief summary of the subject matter of the meeting. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present shall sign a written waiver of notice, or a consent to holding such meeting, or an approval of the minutes thereof. All such waivers, consents or approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

3.5. Quorum and Manner of Acting. A majority of the entire Board of Directors shall be present in person at any meeting of the Board of Directors in order to constitute a quorum for the transaction of business at such meeting, and, except as otherwise expressly required by statute or the Certificate of Incorporation, the act of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board of Directors. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of telephone conference or other communication equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting. In the absence of a quorum at any meeting of the Board of Directors, a majority of the directors present thereat, or if no director be present, the Secretary, may adjourn such meeting to another time and place, or such meeting, unless it be the first meeting of the Board of Directors, need not be held. At any adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the meeting as originally called.

3.6. Organization. At each meeting of the Board of Directors, the Chairman of the board, if any, shall act as chairman of the meeting and preside thereat. In the absence of the Chairman of the Board, the President, or, in the absence of the President, a director chosen by a majority of the directors present shall preside over the meeting. The Secretary (or, in his or her absence or inability to act any person appointed by the chairman) shall act as secretary of the meeting and keep the minutes thereof.

3.7. Resignations. Any director of the corporation may resign at any time by giving written notice of his or her resignation to the Board of Directors or the President or the Secretary. Any such resignation shall take effect at the time specified therein or, if the time when it shall become effective shall not be specified therein, immediately upon its receipt; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

3.8. Vacancies. Vacancies may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election and until their successors are duly elected and shall qualify, unless sooner displaced. If there are no directors in office, then an election of directors may be held in the manner provided by statute. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

3.9. Removal of Directors. Except as otherwise provided in the Certificate of Incorporation or in these bylaws relating to the rights of the stockholders, any director may be removed, either with or without cause, at any time, by the affirmative vote of a majority of the votes of the issued and outstanding stock entitled to vote for the election of directors of the corporation given at a special meeting of the stockholders called and held for the purpose in the manner hereinabove provided; and the vacancy in the Board of Directors caused by any such removal may be filled by such stockholders at such meeting, or, if the stockholders shall fail to fill such vacancy, by the Board of Directors.

3.10. Compensation. The Board of Directors shall have authority to fix the compensation, including fees and reimbursement of expenses, of directors for services to the corporation in any capacity, provided no such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor.

3.11 Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or of such committee, as the case may be, consent thereto in writing, and such writing or writings are filed with the minutes of proceedings of the Board of Directors or such Committee. Such filing shall be in paper form if the minutes are maintained in paper form or shall be in electronic form if the minutes are maintained in electronic form. Such action by written consent shall have the same force and effect as a unanimous vote of the Board of Directors.

3.12 Committees.

3.12.1. Executive Committee:

3.12.1.1 The Board of Directors may appoint an Executive Committee consisting of not less than three (3) members of the Board. The officer of the corporation who is the Chief Executive Officer of the corporation shall, if that person is also a member of the Board, be a member of such Executive Committee, and shall be chairman of the Executive Committee, unless in the implementing resolutions another person is designated as chair. Membership on the Executive Committee shall be at the pleasure of the Board of Directors and vacancies in the membership of the Executive Committee may be filled at any meeting of the Board of Directors.

3.12.1.2 During the intervals between the meetings of the Board of Directors, the Executive Committee shall possess and may exercise all the powers of the Board of Directors in the management and direction of the affairs of the corporation in all cases in which specific directions shall not have been given by the Board of Directors; provided, however, that, except as specifically permitted by the Delaware General Corporation Law, the Executive Committee shall not have the power or authority to: (a) approve, adopt or propose to stockholders actions that such Delaware General Corporation Law requires be approved by stockholders; or (b) adopt, amend or repeal these bylaws. All actions taken by the Executive Committee shall be reported to the Board of Directors at its meeting next succeeding such action, and shall be subject to revision and alteration by the Board of Directors; provided, however, that no rights of third parties shall be affected by such revision or alteration.

3.12.1.3 A majority of the Executive Committee members shall constitute a quorum, and in every case the affirmative vote of a majority of the whole number of members constituting the Executive Committee shall be necessary for the passage of any resolution. Regular minutes of the proceedings of the Executive Committee shall be maintained.

3.12.1.4 The Executive Committee may act by the unanimous written consent of all its members although not formally convened in meeting. The Executive Committee shall fix its own rules and procedures and shall meet as provided by such rules or by resolution of the Board, and it shall also meet at the call of the Chairman or of any member of the Committee.

3.12.2 Other Committees: The Board of Directors may appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committee, but in no event shall any such committee have the powers denied to the Executive Committee in these bylaws.

ARTICLE 4 OFFICERS

4.1 Designation; Election; Qualification

4.1.1 In addition to the offices of President and Secretary, which shall be required, the officers may include a Chief Executive Officer, Vice Presidents and other officers as the Board of Directors shall, from time to time appoint. The officers shall be appointed by, and hold office at the pleasure of, the Board of Directors. Any two offices may be held by the same person except the offices of President and Secretary.

4.1.2 A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in the bylaws for regular appointments to such office.

4.2 Compensation and Term of Office

4.2.1 The compensation and term of office of all the officers of the corporation shall be fixed by the Board of Directors.

4.2.2 Any officer may be removed either with or without cause by action of the Board of Directors.

4.2.3 Any officer may resign at any time by giving written notice to the Board of Directors, the President or the Secretary of the corporation. Any such resignation shall take effect upon receipt of such notice or at any later time specified therein. Unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective, provided that the Board of Directors may reject any postdated resignation by notice in writing to the resigning officer.

4.2.4 This Section 4.2 shall not affect the rights of the corporation or any officer under any express contract of employment.

4.3 Chairman of the Board of Directors. The Chairman of the Board of Directors, if one is appointed by the Board of Directors, shall be a member of the Board of Directors and shall preside at all meetings of the Board of Directors and at all meetings of the stockholders. The Chairman of the Board of Directors shall perform such other duties as may be assigned from time to time by the Board of Directors.

4.4 President and Chief Executive Officer.

4.4.1 President. Unless the implementing resolutions of the Board of Directors of the corporation provide otherwise, the President shall also be the Chief Executive Officer of the corporation and shall have the general powers of supervision and direction over the management of the corporation. In the absence of the office of Chairman of the Board, or in the absence of the Chairman of the Board from time to time, the President, if present, shall preside at each meeting of the stockholders and the Board of Directors. He or she shall perform all duties incident to the offices of President and Chief Executive Officer and such other duties as may from time to time be assigned to him or her by the Board of Directors or the Executive Committee. If the Board of Directors appoints a President who is not also the Chief Executive Officer, then the implementing resolutions of the Board of Directors effecting such appointment shall also specify the duties of the President.

4.4.2 Chief Executive Officer. The Board of Directors may designate the separate office of Chief Executive Officer, with such duties as shall be set forth in the implementing resolutions of the Board of Directors. Such duties and office may be combined with any one or more offices as are designated from time to time by the Board of Directors.

4.5 Vice Presidents. The Vice Presidents, if any, shall perform such duties as the Board of Directors shall prescribe or as shall be prescribed by the President with the ratification of the Board of Directors. In the absence or disability of the President, his duties and powers shall be performed and exercised by the then most senior Vice President as designated by the Board of Directors, unless the Board of Directors has another contingency plan in place, which shall govern.

4.6 Secretary.

4.6.1 The Secretary shall keep or cause to be kept at the principal office or such other place as the Board of Directors may order, a book of minutes of all meetings of directors and stockholders showing the time and place of the meeting, whether it was regular or special, if special, how authorized, the notice given, the names of those present at Board of Directors' meetings, the number of shares present or represented at stockholders' meetings and the proceedings thereof.

4.6.2 The Secretary shall keep or cause to be kept at the principal office or at the office of the corporation's transfer agent, a share register, or a duplicate share register, showing the names of the stockholders and their addresses, the number and classes of shares held by each, the number and date of certificate issued for such shares, and the number and date of cancellation of certificates surrendered for cancellation.

4.6.3 The Secretary shall give or cause to be given such notice of the meetings of the stockholders and of the Board of Directors as is required by the bylaws. He or she shall keep the seal of the corporation and affix it to all documents requiring a seal, and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or these bylaws.

4.7 Other Officers. Such other officers as the Board of Directors may designate shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors. The Board of Directors may delegate to any other officer of the corporation the power to choose such other officers and to prescribe their respective duties and powers.

ARTICLE 5
VOTING OF SECURITIES OWNED BY THE CORPORATION

All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors or, in the absence of such authorization, by the Chairman of the Board (if there be such an officer appointed), or by the President or by any Vice President.

ARTICLE 6
SHARES OF STOCK AND RECORD DATE

6.1 Form and Execution of Certificates. Certificates for the shares of stock of the corporation shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock in the corporation shall be entitled to have a certificate signed by, or in the name of the corporation by, the Chairman of the Board (if there be such an officer appointed), or by the President or any Vice President and by the Secretary or any Assistant Secretary, certifying the number of shares owned by him or her in the corporation. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he or she were such officer, transfer agent, or registrar at the date of issue. If the corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate which the corporation shall issue to represent such class or series of stock, provided that, except as otherwise provided in Section 202 of the Delaware General Corporation Law, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate which the corporation shall issue to represent such class or series of stock, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

6.2 Lost Certificates. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or his legal representative, to indemnify the corporation in such manner as it shall require and/or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

6.3 Transfers. Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and upon the surrender of a certificate or certificates for a like number of shares, properly endorsed.

6.4 Fixing Record Dates.

6.4.1 In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the date on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

6.4.2 In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

6.5 Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE 7
NOTICES

7.1 Whenever, under any provisions of these bylaws, notice is required to be given to any stockholder, the same shall be given in writing, either: (i) timely and duly deposited in the United States mail, postage prepaid, and addressed to the stockholder's last known post office address as shown by the stock record of the corporation or its transfer agent; or (ii) by a form of electronic transmission consented to by the stockholder to whom the notice is given, except to the extent prohibited by Section 232(e) of the Delaware General Corporation Law. Any consent to receive notice by electronic transmission shall be revocable by the stockholder by written notice to the corporation. Any such consent shall be deemed revoked if: (i) the corporation is unable to deliver by electronic transmission two consecutive notices given by the corporation in accordance with such consent; and (ii) such inability becomes known to the Secretary of the corporation or to the transfer agent, or other person responsible for the giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

7.2 Any notice required to be given to any director may be given by the method hereinabove stated. Any such notice, other than one which is delivered personally, shall be sent to such post office address, facsimile number or electronic mail address as such director shall have filed in writing with the Secretary of the corporation, or, in the absence of such filing, to the last known post office address of such director. It shall not be necessary that the same method of giving notice be employed in respect of all directors, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

7.3 If no post office address of a stockholder or director be known, such notice may be sent to the principal executive office of the corporation. An affidavit executed by a duly authorized and competent employee of the corporation or the transfer agent or other agent of the corporation appointed with respect to the class of stock affected, specifying the name and post office address or the names and post office addresses of the stockholder or stockholders, director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same (or, for any stockholder or director to whom notice has been directed by electronic transmission, the form of electronic transmission and the facsimile number, electronic mail address or other location to which such notice was directed and the time at which such notice was directed to each such director or stockholder), shall be prima facie evidence of the statements therein contained.

7.4 All notices given by mail, as above provided, shall be deemed to have been given as at the time of mailing. All notices given to stockholders by a form of electronic transmission, as above provided, shall be deemed to have been given: (i) if by facsimile, when directed to a number at which the stockholder has consented to receive notice; (ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice; (iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of: (a) such posting; and (b) the giving of such separate notice; and (iv) if by any other form of electronic transmission, when directed to the stockholder. All notices given to directors by a form of electronic transmission, as above provided, shall be deemed to have been given when directed to the electronic mail address, facsimile number, or other location filed in writing by the director with the Secretary of the corporation.

7.5 The period or limitation of time within which any stockholder may exercise any option or right, or enjoy any privilege or benefit, or be required to act, or within which any director may exercise any power or right, or enjoy any privilege, pursuant to any notice sent him in the manner above provided, shall not be affected or extended in any manner by the failure of such a stockholder or such director to receive such notice.

7.6 Whenever any notice is required to be given under the provisions of the statutes or of the Certificate of Incorporation, or of these bylaws, a waiver thereof in writing given by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

7.7 Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the Delaware General Corporation Law, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

7.8 Whenever notice is to be given to the corporation by a stockholder under any provision of law or of the Certificate of Incorporation or bylaws of the corporation, such notice shall be delivered to the Secretary at the principal executive office of the corporation. If delivered by electronic mail or facsimile, the stockholder's notice shall be directed to the Secretary at the electronic mail address or facsimile number, as the case may be, specified in the company's most recent proxy statement.

ARTICLE 8 AMENDMENTS

Unless otherwise provided in the Certificate of Incorporation, these bylaws may be repealed, altered or amended or new bylaws adopted, or at any meeting of the stockholders, either annual or special, by the affirmative vote of a majority of the stock entitled to vote at such meeting; provided, however, that the notice of such meeting shall have been given as provided in these bylaws, which notice shall mention that an amendment or repeal of these bylaws, or the adoption of new bylaws, is one of the purposes of such meeting. The Board of Directors shall also have the authority to repeal, alter or amend these bylaws or adopt new bylaws (including, without limitation, the amendment of any bylaws setting forth the number of directors who shall constitute the whole Board of Directors) by unanimous written consent or at any annual, regular, or special meeting by the affirmative vote of a majority of the whole number of directors, subject to the power of the stockholders to change or repeal such bylaws.

ARTICLE 9
ELECTRONIC TRANSMISSION

When used in these bylaws, the terms “written” and “in writing” shall include any “electronic transmission,” as defined in Section 232(c) of the Delaware General Corporation Law, including without limitation any telegram, cablegram, facsimile transmission and communication by electronic mail.

ARTICLE 10
GENERAL MATTERS

10.1 Checks; Drafts; Evidence of Indebtedness. From time to time, the Board of Directors may determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the corporation, and only the persons so authorized shall sign or endorse those instruments.

10.2 Corporate Contracts and Instruments; How Executed. The Board of Directors, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee, other than the then duly appointed Chief Executive Officer or Chief Financial Officer, shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

10.3 Fiscal Year. Until changed by the Board of Directors, the fiscal year of this corporation shall begin on the first day of January of each year and end on the last day of December of each year.

10.4 Construction; Definitions. Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the Delaware General Corporation Law shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term “person” includes both a corporation and a natural person.

10.5 Provisions Additional to Provisions of Law. All restrictions, limitation, requirements and other provisions of these bylaws shall be construed, insofar as possible, as supplemental and additional to all provisions of law applicable to the subject matter thereof and shall be fully complied with in addition to the said provisions of law unless such compliance shall be illegal.

10.6 Provisions Contrary to Provisions of Law. Any article, section, subsection, subdivision, sentence, clause or phrase of these bylaws which upon being construed in the manner provided in Section 10.5 hereof, shall be contrary to or inconsistent with any applicable provisions of law, shall not apply so long as said provisions of law shall remain in effect, but such result shall not affect the validity or applicability of any other portions of these bylaws, it being hereby declared that these bylaws would have been adopted and each article, section, subsection, subdivision, sentence, clause or phrase thereof, irrespective of the fact that any one or more articles, sections, subsection, subdivisions, sentences, clauses or phrases is or are illegal.

Exhibit 99.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of OXIS International, Inc. (the "Company") on Form 10-QSB for the period ending March 31, 2003 as filed with the Securities and Exchange Commission on the date therein specified (the "Report"), I, Ray R. Rogers, Chief Executive Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ RAY R. ROGERS

Ray R. Rogers
Chief Executive Officer
May 15, 2003

Exhibit 99.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of OXIS International, Inc. (the "Company") on Form 10-QSB for the period ending March 31, 2003 as filed with the Securities and Exchange Commission on the date therein specified (the "Report"), I, Sharon Ellis, Chief Financial and Operations Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ SHARON ELLIS

Sharon Ellis
Chief Financial and Operations Officer
May 15, 2003