

SCHEDULE 14A INFORMATION

PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE SECURITIES
EXCHANGE ACT OF 1934 (AMENDMENT NO.)

FILED BY THE REGISTRANT

FILED BY A PARTY OTHER THAN THE REGISTRANT

Check the appropriate box:

- Preliminary Proxy Statement
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to sec.240.14a-11(c) or sec.240.14a-12
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

MKS Instruments, Inc.
(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement)

PAYMENT OF FILING FEE (CHECK THE APPROPRIATE BOX):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

- 1) Title of each class of securities to which transaction applies:
- 2) Aggregate number of securities to which transaction applies:
- 3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the filing fee is calculated and state how it was determined):
- 4) Proposed maximum aggregate value of transaction:
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- 1) Amount Previously Paid:
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 - 3) Filing Party:
 - 4) Date Filed:
-

(MKS LOGO)

MKS INSTRUMENTS, INC.

90 INDUSTRIAL WAY
WILMINGTON, MASSACHUSETTS 01887

April 1, 2004

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of MKS Instruments, Inc. (the "Company") to be held on Thursday, May 13, 2004, at 10:00 a.m. at the Company's headquarters, 90 Industrial Way, Wilmington, Massachusetts 01887.

The enclosed notice of Annual Meeting and proxy statement describe the business to be transacted at the Annual Meeting and provide additional information about the Company that you should know when voting your shares. The principal business at the Annual Meeting will be to elect Class II Directors, approve a new stock incentive plan and amendments to certain existing plans and to ratify the selection of independent auditors for fiscal 2004.

Whether or not you plan to attend the Annual Meeting, please complete, date, sign and return your Proxy Card promptly in the enclosed envelope, which requires no postage if mailed in the United States. If you attend the Annual Meeting, you may vote in person if you wish, even if you have previously returned your Proxy Card.

On behalf of the Board of Directors, I would like to express our appreciation for your continued interest in the affairs of the Company.

Sincerely,

/s/ John R. Bertucci

JOHN R. BERTUCCI
Chairman, Chief Executive Officer and
President

(MKS LOGO)

MKS INSTRUMENTS, INC.
90 INDUSTRIAL WAY
WILMINGTON, MASSACHUSETTS 01887

NOTICE OF 2004 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON MAY 13, 2004

To the Stockholders:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of MKS INSTRUMENTS, INC. (the "Company"), a Massachusetts corporation, will be held on Thursday, May 13, 2004 at 10:00 a.m. at the Company's headquarters, 90 Industrial Way, Wilmington, Massachusetts 01887. At the meeting, stockholders will consider and vote on the following matters:

1. To elect three Class II Directors, each for a three year term;
2. To approve the Company's 2004 Stock Incentive Plan;
3. To approve an amendment to the Company's Amended and Restated 1997 Director Stock Option Plan increasing the number of shares available thereunder from 300,000 shares to 750,000 shares;
4. To approve an amendment to the Company's Second Restated 1999 Employee Stock Purchase Plan increasing the number of shares available thereunder from 700,000 shares to 1,250,000 shares;
5. To approve an amendment to the Company's Restated International Employee Stock Purchase Plan increasing the number of shares available thereunder from 75,000 shares to 250,000 shares; and
6. To ratify the selection of PricewaterhouseCoopers LLP as the Company's independent auditors for the year ending December 31, 2004.

The Board of Directors has fixed the close of business on March 26, 2004 as the record date for the determination of stockholders entitled to notice of, and to vote at, the Annual Meeting and any adjournment or adjournments thereof. The stock transfer books of the Company will remain open for the purchase and sale of the Company's Common Stock.

A copy of the Company's Annual Report to Stockholders for the year ended December 31, 2003, which contains consolidated financial statements and other information of interest to stockholders, accompanies this Notice and the enclosed Proxy Statement.

If you would like to attend the Annual Meeting and your shares are held by a broker, bank or other nominee, you must bring to the Annual Meeting a letter from the nominee confirming your beneficial ownership of such shares. You must also bring a form of personal identification. In order to vote your shares at the Annual Meeting, you must obtain from the nominee a proxy issued in your name.

By Order of the Board of Directors

/s/ Richard S. Chute

RICHARD S. CHUTE
Clerk

Andover, Massachusetts
April 1, 2004

IMPORTANT

WHETHER OR NOT YOU EXPECT TO ATTEND IN PERSON, PLEASE PROMPTLY SIGN, DATE, AND RETURN THE ENCLOSED PROXY. PROMPTLY SIGNING, DATING, AND RETURNING THE PROXY WILL SAVE THE COMPANY THE EXPENSE AND EXTRA WORK OF ADDITIONAL SOLICITATION. AN ADDRESSED ENVELOPE FOR WHICH NO POSTAGE IS REQUIRED IF MAILED IN THE UNITED STATES IS ENCLOSED FOR THAT PURPOSE. SENDING IN YOUR PROXY WILL NOT PREVENT YOU FROM VOTING YOUR STOCK AT THE ANNUAL MEETING IF YOU DESIRE TO DO SO, AS YOUR PROXY IS REVOCABLE AT YOUR OPTION.

MKS INSTRUMENTS, INC.
90 INDUSTRIAL WAY
WILMINGTON, MASSACHUSETTS 01887

PROXY STATEMENT

This Proxy Statement is furnished in connection with the solicitation of proxies by the Board of Directors of MKS Instruments, Inc. (the "Company" or "MKS"), a Massachusetts corporation, for use at the Annual Meeting of Stockholders to be held on May 13, 2004, at 10:00 a.m. at the Company's headquarters, 90 Industrial Way, Wilmington, Massachusetts 01887, and at any adjournment or postponement thereof (the "Annual Meeting").

All proxies will be voted in accordance with the stockholders' instructions. If no choice is specified in the proxy, the shares will be voted in favor of the matters set forth in the accompanying Notice of 2004 Annual Meeting of Stockholders. Any proxy may be revoked by a stockholder at any time before its exercise by delivery of written revocation to the Clerk of the Company. Attendance at the Annual Meeting will not in itself be deemed to revoke a Proxy unless the stockholder gives affirmative notice at the Annual Meeting that the stockholder intends to revoke the proxy and vote in person.

VOTING SECURITIES AND VOTES REQUIRED

At the close of business on March 26, 2004, the record date for the determination of stockholders entitled to notice of and to vote at the Annual Meeting, there were issued and outstanding and entitled to vote 53,482,444 shares of common stock, no par value per share, of the Company (the "Common Stock"). Each share entitles the record holder to one vote on each matter submitted at the Annual Meeting.

Under the Company's Amended and Restated By-Laws (the "By-Laws"), the holders of a majority of the shares of Common Stock issued and outstanding and entitled to vote at the Annual Meeting shall constitute a quorum for the transaction of business at the Annual Meeting. Shares of Common Stock present in person or represented by proxy (including "broker non-votes" and shares which abstain or do not vote with respect to one or more of the matters presented for stockholder approval) will be counted for purposes of determining whether a quorum exists at the Annual Meeting.

The affirmative vote of the holders of a plurality of the shares of Common Stock voting on the matter is required for the election of Directors. The approval of the Company's 2004 Stock Incentive Plan and the amendments to the Company's Amended and Restated 1997 Director Stock Option Plan, Second Restated 1999 Employee Stock Purchase Plan and Restated International Employee Stock Purchase Plan and the ratification of PricewaterhouseCoopers LLP ("PwC") require the approval of the holders of a majority of the shares of Common Stock present or represented by proxy at the Annual Meeting and voting on the matter.

Shares held by stockholders who abstain from voting as to a particular matter, and "broker non-votes" which are shares held in "street name" by brokers or nominees, who indicate on their proxies that they do not have discretionary authority to vote such shares as to a particular matter, will not be counted as votes in favor of such matter, and also will not be counted as shares voting on such matter. Accordingly, abstentions and broker non-votes will have no effect on the voting on a matter that requires the affirmative vote of a certain percentage of the shares voting on the matter.

THE NOTICE OF ANNUAL MEETING, THIS PROXY STATEMENT AND THE COMPANY'S ANNUAL REPORT TO STOCKHOLDERS FOR THE YEAR ENDED DECEMBER 31, 2003 ARE BEING MAILED TO STOCKHOLDERS ON OR ABOUT APRIL 7, 2004. A COPY OF THE COMPANY'S ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2003 AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION (THE "COMMISSION"), EXCLUDING EXHIBITS, WILL BE FURNISHED WITHOUT CHARGE TO ANY STOCKHOLDER UPON WRITTEN REQUEST TO: INVESTOR RELATIONS DEPARTMENT, MKS INSTRUMENTS, INC., 90 INDUSTRIAL WAY, WILMINGTON, MA 01887. EXHIBITS WILL BE PROVIDED UPON WRITTEN REQUEST AND PAYMENT OF AN APPROPRIATE PROCESSING FEE.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL
OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of Common Stock by (i) each current director of the Company; (ii) the executive officers named in the Summary Compensation Table below; (iii) each stockholder known to the Company to be the beneficial owner of more than 5% of the outstanding shares of Common Stock; and (iv) all directors and executive officers of the Company as a group. Unless otherwise indicated in the footnotes to the table, (i) all information set forth in the table is as of January 31, 2004; and (ii) the address for each director and executive officer of the Company is: c/o MKS Instruments, Inc., 90 Industrial Way, Wilmington, Massachusetts 01887.

NUMBER OF SHARES	PERCENTAGE OF	NAME OF BENEFICIAL
OWNERS	BENEFICIALLY OWNED(1)	CLASS OUTSTANDING - -----

----- Named Executive Officers and Directors		
Bertucci.....	9,766,057(2)	18.25% Ronald C.
Weigner.....	372,743(3)	* Leo
Berlinghieri.....	289,410(4)	* William D.
Stewart.....	265,872(5)	* John A.
Smith.....	79,426(6)	* Robert R.
Anderson.....	77,572(7)	* James G.
Berges.....	0	- Richard S.
Chute.....	43,092(4)	* Hans-Jochen
Kahl.....	36,073(8)	* Owen W.
Robbins.....	43,092(4)	* Louis P.
Valente.....	36,310(4)	* Other 5% shareholders Emerson Electric Co.....
10,028,571(9)	18.76%	800 West Florissant Avenue St. Louis, MO 63136 T. Rowe Price Associates, Inc.....
2,968,913(10)	5.56%	100 East Pratt Street Baltimore, MD 21202 All directors and officers as a group (13 persons).....
11,332,781(11)	20.61%	

* Represents less than 1% of the outstanding Common Stock.

(1) The Company believes that each stockholder has sole voting and investment power with respect to the shares listed, except as otherwise noted. The number of shares beneficially owned by each stockholder is determined under rules of the Commission, and the information is not necessarily indicative of ownership for any other purpose. Under such rules, beneficial ownership includes any shares as to which the person has sole or shared voting power or investment power and also any shares which the individual has the right to acquire within 60 days of January 31, 2004 through the exercise of any stock option or other right. The inclusion herein of any shares of Common Stock deemed beneficially owned does not constitute an admission by such stockholder of beneficial ownership of those shares of Common Stock. Shares of Common Stock which an individual or entity has a right to acquire within the 60-day period following January 31, 2004 pursuant to the exercise of options or warrants are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or entity, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person or entity shown in the table.

(2) Consists of 4,312,386 shares held directly by Mr. Bertucci, 4,546,784 shares held directly by Mr. Bertucci's wife, 372,180 shares held by trusts for which Mr. Bertucci serves as a co-trustee,

500,000 shares held by a limited partnership and 34,707 shares subject to options exercisable within 60 days of January 31, 2004.

- (3) Consists of 629 shares held directly by Mr. Weigner and 372,114 shares subject to options exercisable within 60 days of January 31, 2004.
- (4) Consists solely of options exercisable within 60 days of January 31, 2004.
- (5) Consists of 2,300 shares held directly by Mr. Stewart and 263,572 shares subject to options exercisable within 60 days of January 31, 2004.
- (6) Consists of 2,058 shares held directly by Mr. Smith and 77,368 shares subject to options exercisable within 60 days of January 31, 2004.
- (7) Consists of 40,000 shares held directly by Mr. Anderson, 11,503 shares held in trust and other accounts and 26,069 shares subject to options exercisable within 60 days of January 31, 2004.
- (8) Consists of 19,378 shares held directly by Mr. Kahl and 16,695 shares subject to options exercisable within 60 days of January 31, 2004.
- (9) Includes 1,065,182 shares held directly by Emerson Electric Co. ("Emerson") and 8,963,389 shares held by a wholly-owned subsidiary of Emerson. Excludes an aggregate of 11,167,716 shares held by Mr. Bertucci, Mrs. Bertucci, Bertucci family trusts and a limited partnership (the "Bertucci Shares"), which shares are subject to a Voting Agreement with Emerson which requires the holders of the Bertucci Shares to vote the shares in accordance with such agreement in relation to certain board representation matters.
- (10) Based solely on information set forth in Schedule 13G filed by T. Rowe Price Associates, Inc. ("Price Associates") with the Commission on February 9, 2004. Price Associates has supplementally instructed MKS that the reported securities are owned by various individual and institutional investors which Price Associates serves as investment adviser with power to direct investments and/or sole power to vote the securities. Price Associates expressly disclaims beneficial ownership of such securities.
- (11) Includes 9,810,935 outstanding shares beneficially held by such persons and 1,521,846 shares subject to options exercisable within 60 days of January 31, 2004.

To the knowledge of the Company, there are no voting trusts or similar arrangements among any of the foregoing persons or entities with respect to the voting of shares of Common Stock of the Company, except as set forth above.

PROPOSAL ONE ELECTION OF DIRECTORS

The By-Laws of the Company provide for a Board of Directors which is divided into three classes. The term of the Class I Directors expires at the 2006 Annual Meeting. The term of the Class II Directors expires at the 2004 Annual Meeting, and the term of the Class III Directors expires at the 2005 Annual Meeting. James G. Berges, Richard S. Chute and Owen W. Robbins are currently proposed for election to serve as Class II Directors.

Shares represented by all proxies received by the Board of Directors and not so marked as to withhold authority to vote for an individual director will be voted (unless one or more nominees are unable or unwilling to serve) for the election of the nominees named below. The Board of Directors expects that each of the nominees named below will be available for election, but if any of them is not a candidate at the time the election occurs, it is intended that such proxies will be voted for the election of a substitute nominee to be designated by the Board of Directors.

BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT APPROVAL OF THE ELECTION OF JAMES G. BERGES, RICHARD S. CHUTE AND OWEN W. ROBBINS TO SERVE AS CLASS II

DIRECTORS IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

DIRECTORS

Set forth below are the names and ages of each member of the Board of Directors (including those who are nominees for election as Class II Directors) and the positions and offices held, principal occupation and business experience during the past five years, the names of other publicly held companies of which the individual serves as a director and the year of commencement of the term as director of MKS. Information with respect to the number of shares of Common Stock beneficially owned by each director, directly or indirectly, as of January 31, 2004, appears under the heading "Security Ownership of Certain Beneficial Owners and Management."

CLASS TO WHICH POSITION BELONGS	NAME	AGE
-----	-----	-----
-----	John R. Bertucci.....	
	63 Director; Chairman, Chief Executive III Officer and President Robert R. Anderson(1)(2).....	66
	III *James G. Berges.....	
	56 Director II *Richard S. Chute(2).....	65
	Director; Clerk II Hans-Jochen Kahl(3).....	64
	Director I *Owen W. Robbins(1).....	
	74 Director II Louis P. Valente(1)(2)(3).....	
	73 Director I	

(1) Member of Audit Committee

(2) Member of Nominating and Corporate Governance Committee

(3) Member of Compensation Committee

* Nominee for election at this meeting

Mr. Bertucci has served as a director of MKS since 1974 and has been Chairman of the Board of Directors and Chief Executive Officer since November 1995. Mr. Bertucci served as President of MKS from 1974 to May 1999 and again from November 2001 to the present. From 1970 to 1974, he was Vice President and General Manager. Mr. Bertucci has an M.S. in Industrial Administration and a B.S. in Metallurgical Engineering from Carnegie-Mellon University. Mr. Bertucci is a member of the Board of Trustees of Carnegie-Mellon University and a member of the Executive Board of The Massachusetts High Technology Council.

Mr. Anderson has served as a director of MKS since January 2001. Mr. Anderson is a private investor. From October 1998 to October 2000, Mr. Anderson served as Chairman of Yield Dynamics, Inc., a private semiconductor control software company and presently serves as a director. He also served as CEO of Yield Dynamics from October 1998 to April 2000. Mr. Anderson also served as CEO of Silicon Valley Research, Inc., a semiconductor design automation software company, from December 1996 to August 1998 and as Chairman from January 1994 to January 2001. Mr. Anderson currently serves as a director of Metron Technology N.V., a distributor of parts and equipment for the semiconductor industry, Trikon Technologies, Inc., a manufacturer of semiconductor process equipment, and Aehr Test Systems, Inc., a manufacturer of semiconductor test and burn-in equipment. He also serves as a director of three other private development stage companies, and as a trustee of Bentley College.

Mr. Berges has served as a director of MKS since February 2002. Mr. Berges is currently President and a director of Emerson Electric Co., and is also a director of PPG Industries, Inc.

Mr. Chute has served as a director of MKS since 1974. Mr. Chute was a member of the law firm of Hill & Barlow, a Professional Corporation, from 1971

to January 2003, and is currently in private practice.

Mr. Kahl has served as a director of MKS since January 2001. From June 1994 through September 1996, Mr. Kahl served as a consultant to Ebara, a Japanese manufacturer of industrial water pumps and vacuum process equipment for the semiconductor industry. Mr. Kahl was employed by Leybold AG, formerly Leybold-Heraeus GmbH, a leading international manufacturer of vacuum pumps and other vacuum process equipment for the semiconductor industry, from July 1983 to March 1992, where he served as a managing director and was primarily responsible for sales, marketing and strategic planning. From September 1995 to November 2000, he was a director of Applied Science and Technology, Inc. (ASTeX) which was acquired by MKS. Since November 1996, he has served as a director of Solid State Management, a privately held manufacturer of high precision measurement tools.

Mr. Robbins has served as a director of MKS since February 1996. Mr. Robbins was Executive Vice President of Teradyne, Inc., a manufacturer of electronic test systems and backplane connection systems used in the electronics and telecommunications industries, from March 1992 to May 1997, and its Chief Financial Officer from February 1980 to May 1997.

Mr. Valente has served as a director of MKS since February 1996. Mr. Valente is Chairman of Palomar Medical Technologies, Inc., a company which designs, manufactures and markets cosmetic lasers, since September 1997. He has been a director of Palomar Medical Technologies, Inc. since February 1997 and was its President and Chief Executive Officer from May 1997 to May 2002. Mr. Valente is also a director of Surgilight, Inc., Medical Information Technology, Inc. and a privately held medical company.

DIRECTOR COMPENSATION

Directors of MKS are reimbursed for expenses incurred in connection with their attendance at Board of Directors and committee meetings. Directors who are not employees of MKS are paid an annual fee of \$20,000 and \$2,000 for each Board of Directors meeting they attend. In addition, the Chairman of the Audit Committee is paid \$2,500, and the other members of the Audit Committee are paid \$1,500, for each meeting of the Audit Committee that they attend. The Chairman of each of the Compensation and Nominating and Corporate Governance Committees are paid \$1,500, and the other members of such committees are paid \$750, for each meeting of such committees that they attend. Messrs. Chute, Robbins and Valente have each been granted options under MKS's 1996 Director Stock Option Plan (under which no further grants will be made), to purchase 8,592 shares of Common Stock at a weighted average exercise price of \$4.81 per share. Each has also been granted options to purchase 46,500 shares of Common Stock at a weighted average exercise price of \$23.90 per share under the Amended and Restated 1997 Director Stock Option Plan (the "1997 Director Plan"). Mr. Anderson and Mr. Kahl have each been granted options to purchase 29,250 shares of Common Stock at a weighted average exercise price of \$22.60 per share under the 1997 Director Plan. Mr. Berges has elected not to receive compensation for serving as a director of MKS.

AMENDED AND RESTATED 1997 DIRECTOR STOCK OPTION PLAN

The 1997 Director Plan authorizes the issuance of up to an aggregate of 300,000 shares of Common Stock. If the currently proposed amendment to the 1997 Director Plan is adopted by the stockholders at the Annual Meeting, the number of shares that will be authorized for issuance will be increased to 750,000. The 1997 Director Plan is administered by MKS's Board of Directors. Options are granted under the 1997 Director Plan only to directors of MKS who are not employees of MKS. Under the 1997 Director Plan, non-employee directors receive an option to purchase 20,000 shares of Common Stock upon their initial election to the Board of Directors. Each initial option vests over a three-year period in 12 equal quarterly installments following the date of grant. On the date of each annual meeting of stockholders, options are automatically granted to each eligible director who has been in office for at least six months prior to the date of the annual meeting of stockholders. Each annual option entitles the holder to purchase 12,000 shares of Common Stock. Each annual option will generally become exercisable on the day prior to the first annual meeting of stockholders following the date of grant, or if no such meeting is held within 13 months after the date of grant, on the 13 month anniversary of the date of grant. The exercise price of all options granted under the 1997 Director Plan is equal to the fair market value of the Common Stock on the date of grant. Options granted under the 1997 Director Plan terminate upon the earlier of (i) 10 years after the grant date and (ii) with respect to

options granted prior to April 16, 2003, three months after the optionee ceases to be a director of MKS, or, with respect to options granted on or after April 16, 2003, one year after the optionee ceases to be a director of MKS. In the event of a change in control of MKS, the vesting of all options then outstanding would be accelerated in full and any restrictions on exercising outstanding options would terminate.

The Company's 1996 Director Stock Option Plan, under which options have been granted to, and may still be exercised by, three non-employee directors of MKS, has been terminated. See "Director Compensation."

COMMITTEES OF THE BOARD OF DIRECTORS

The Board of Directors has established three standing committees -- Audit, Compensation, and Nominating and Corporate Governance -- each of which operates under a charter that has been approved by the Board. Each committee's current charter is posted in the Investor link on the Company's website, www.mksinstruments.com, under the heading Corporate Governance. In addition, a copy of the Audit Committee charter, as in effect on the date of this proxy statement, is attached as Appendix A.

The Board of Directors has determined that all of the members of the Board, other than Mr. Bertucci, are independent as defined under the new rules of the Nasdaq Stock Market that become applicable to the Company on the date of the Annual Meeting, including, in the case of all members of the Audit Committee, the additional independence requirements of Rule 10A-3 under the Exchange Act (the "Exchange Act"). In addition, all of the members of the Audit Committee are independent as defined by the rules of the Nasdaq Stock Market that apply to the Company until the date of the Annual Meeting.

COMPENSATION COMMITTEE

The Compensation Committee for the year 2003 consisted of Messrs. Berges, Kahl and Valente. Mr. Berges resigned from the Compensation Committee on February 4, 2004. The Compensation Committee's responsibilities include:

- determining the CEO's compensation;
- reviewing and approving, or making recommendations to the Board of Directors with respect to, the compensation of the Company's other executive officers;
- annually reviewing and approving the Company's management incentive plan;
- overseeing and administering the Company's equity incentive plans;
- reviewing and making recommendations to the Board of Directors with respect to director compensation.

The Compensation Committee held two meetings in 2003.

AUDIT COMMITTEE

The Audit Committee consists of Messrs. Anderson, Robbins and Valente. The Audit Committee's responsibilities include:

- appointing, approving the fees of, and assessing the independence of the Company's independent auditors;
- overseeing the work of the Company's independent auditors, including through the receipt and consideration of certain reports from independent auditors;
- reviewing and discussing with management and the independent auditors, the Company's annual and quarterly financial statements and related disclosures;

- monitoring the Company's internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing the Company's internal audit function;
- establishing policies regarding hiring employees from the independent auditors and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with the Company's internal auditing staff, independent auditors and management; and
- preparing the Audit Committee report required by Commission rules (which is included on page 12 of this proxy statement).

The Audit Committee held nine meetings in 2003.

NOMINATING AND CORPORATE GOVERNANCE COMMITTEE

The Nominating and Corporate Governance Committee consists of Messrs. Anderson, Chute and Valente. The Nominating and Corporate Governance Committee's responsibilities include:

- identifying individuals qualified to become members of the Board of Directors;
- recommending to the Board of Directors the persons to be nominated for election as directors and to each of the Board's committees; and
- developing and recommending corporate governance principles to the Board of Directors.

The Nominating and Corporate Governance Committee was established by the Board of Directors on March 4, 2004.

The Board of Directors held five meetings during 2003. Each director attended at least 75% of the aggregate of the total number of meetings of the Board of Directors and the total number of meetings of all committees of the Board on which he served. Pursuant to resolutions adopted by the Board of Directors, directors are encouraged to attend annual meetings of stockholders. Messrs. Bertucci, Chute, Robbins and Valente attended the 2003 annual meeting of stockholders.

AUDIT COMMITTEE FINANCIAL EXPERT

The Board of Directors has determined that each of the three members of the Audit Committee is an "audit committee financial expert" as defined in Item 401(h) of Regulation S-K.

DIRECTOR CANDIDATES

The independent directors of the Company nominated the director nominees for election as Class II directors. On March 4, 2004, the Board of Directors established the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee will be responsible for all future director nominations. The process to be followed by the Nominating and Corporate Governance Committee to identify and evaluate director candidates includes requests to Board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the Committee and the Board of Directors.

In considering whether to recommend any particular candidate for inclusion in the Board of Directors' slate of recommended director nominees, the Nominating and Corporate Governance Committee will apply the criteria attached to the Committee's charter. These criteria include the candidate's integrity, business acumen, knowledge of the Company's business and industry, age, experience, diligence, conflicts of interest and the ability to act in the interests of all stockholders. The Committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for each prospective nominee. The Company believes that the backgrounds and qualifications of its directors, considered as a group, should provide a

composite mix of experience, knowledge and abilities that will allow the Board of Directors to fulfill its responsibilities.

Stockholders may recommend individuals to the Nominating and Corporate Governance Committee for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than 5% of the Company's Common Stock for at least a year as of the date such recommendation is made, to the Nominating and Corporate Governance Committee, in care of Kathleen F. Burke, Esq., Corporate Counsel, MKS Instruments, Inc., 90 Industrial Way, Wilmington, MA 01887. Assuming that appropriate biographical and background material has been provided on a timely basis, the Committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Stockholders also have the right under the Company's By-Laws to directly nominate director candidates, without any action or recommendation on the part of the Committee or the Board of Directors, by following the procedures set forth under the heading "Deadline for Submission of Stockholder Proposals for the 2005 Annual Meeting" below.

COMMUNICATING WITH THE INDEPENDENT DIRECTORS

The Board of Directors will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate.

The Chairman of the Nominating and Corporate Governance Committee, with the assistance of the Company's Corporate Counsel, is primarily responsible for monitoring communications from stockholders and for providing copies or summaries to the other directors as he considers appropriate.

Communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the Chairman of the Nominating and Corporate Governance Committee considers to be important for the directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which the Company tends to receive repetitive or duplicative communications.

Stockholders who wish to send communications on any topic to the Board of Directors should address such communications to the Board of Directors in care of Kathleen F. Burke, Esq., Corporate Counsel, at MKS Instruments, Inc., 90 Industrial Way, Wilmington, MA 01887.

COMPENSATION COMMITTEE REPORT ON EXECUTIVE COMPENSATION

The Company's executive compensation program is administered by the Compensation Committee of the Board of Directors. In 2003, the Compensation Committee (for purposes of this report only, the "Committee") was comprised of three non-employee directors, Messrs. Berges, Kahl and Valente. Mr. Berges resigned from the Compensation Committee on February 4, 2004. The Committee is responsible for determining the salaries of, establishing bonus programs for, and granting stock options to, the Company's executive officers.

The Committee believes that the primary objectives of the Company's compensation policies are to attract, retain, motivate, and reward a management team that can effectively implement and execute the Company's strategic business plan and lead the Company in achieving its long-term growth and earnings goals. These compensation policies include an overall management compensation program that: (i) is competitive with management compensation programs at companies of similar size and in a similar industry; (ii) recognizes individual initiative, leadership and achievement; (iii) provides short-term bonus incentives for management to meet the Company's net income performance goals; and (iv) provides long-term incentive compensation in the form of stock options to encourage management to continue to focus on stockholder return.

The Committee's goal is to use compensation policies to closely align the interests of the Company's management with the interests of stockholders so that the Company's management have incentives to achieve short-term performance goals while building long-term value for the Company's stockholders. In establishing base salaries for executive officers, the Committee considers numerous factors such as the executive's responsibilities, the executive's importance to the Company, the executive's performance, historical salary levels of the executive, and the salaries of executives at certain other companies whose business is similar to that of the Company. The Committee will review its compensation policies from time to time in order to determine the reasonableness of the Company's compensation programs and to take into account factors which are unique to the Company.

The Company has entered into employment agreements with executive officers and certain other senior officers of the Company. The Committee believes that the salaries and benefits provided to these senior officers reflect appropriate base salaries and benefits as compared to senior officers of other companies of similar size. These agreements provide for termination for cause as well as termination without cause and for certain severance benefits and restrict the officers' ability to compete with the Company.

BONUS PLAN

To further provide incentives for management to continue to improve operating results, the Committee oversees the administration of the Management Incentive Plan ("Bonus Plan"). The amounts to be distributed pursuant to the Bonus Plan are determined by the financial results of the Company. The Committee believes that the Bonus Plan provides significant incentive to the executive officers of the Company to exceed the Company's financial goals.

LONG-TERM INCENTIVE COMPENSATION

Long-term incentive compensation, in the form of stock options, allows the executive officers to share in any appreciation in the value of the Company's Common Stock. The Committee believes that stock option participation aligns executive officers' interests with those of the stockholders. In addition, the Committee believes that awarding options to executive officers helps to balance the short-term focus of annual incentive compensation with a longer term view and may help to retain key executive officers. Moreover, because options granted to executive officers generally become exercisable over a four year period and terminate upon or shortly after the termination of the executive's employment with the Company, stock options serve as a means of retaining these executives.

When establishing stock option grant levels, the Committee considers general corporate performance, the Chief Executive Officer's recommendations, level of seniority and experience, the dilutive impact of the options, previous grants of stock options, vesting schedules of outstanding options and the current stock price.

It is the policy of the Company to make an initial stock option grant to all executive officers at the time they commence employment consistent with the number of options granted to executive officers in the industry at similar levels of seniority. In addition, the Committee may also make grants throughout the year. In making such grants, the Committee considers individual contributions to the Company's financial, operational and strategic objectives.

Senior management also participates in Company-wide employee benefit plans, including the Company's 401(k) Plan. Benefits under these plans are not dependent upon individual performance.

COMPENSATION OF CHIEF EXECUTIVE OFFICER

Mr. Bertucci's compensation was based upon a careful analysis of other comparable companies' Chief Executive Officers' compensation and Mr. Bertucci's efforts and success in improving the Company's operating results, establishing strategic goals and objectives for long-term growth of the Company, and advancing the Company in obtaining its strategic goals.

SECTION 162(M)

Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"), generally disallows a tax deduction to public companies for certain compensation in excess of \$1.0 million paid to such company's chief executive officer or any of the four other most highly compensated executive officers. Certain compensation, including qualified performance-based compensation, will not be subject to the deduction limit if certain requirements are met.

The Committee reviews the potential effect of Section 162(m) periodically and generally seeks to structure the long-term incentive compensation granted to its executive officers through option issuances under its stock option plans in a manner that is intended to avoid disallowance of deductions under Section 162(m). Nevertheless, there can be no assurances that compensation attributable to awards granted under our stock option plans will be treated as qualified performance-based compensation under Section 162(m). Because the Company's Bonus Plan is not operated in a manner designed to qualify as performance-based compensation under Section 162(m), it is possible that a portion of any bonus payable to Mr. Bertucci and certain other executives under the Bonus Plan will not be deductible for federal income tax purposes. The Committee reserves the right to use its judgment to authorize compensation payments which may be in excess of the Section 162(m) limit when the Committee believes such payments are appropriate, after taking into consideration changing business conditions or the officer's performance, and are in the best interests of the stockholders.

2003 Compensation Committee
Hans-Jochen Kahl, Chairman
James G. Berges
Louis P. Valente

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

In 2003, the Compensation Committee comprised Messrs. Berges, Kahl and Valente. Messrs. Berges, Kahl, and Valente were not, at any time, officers or employees of MKS or any subsidiary of MKS. None of them had any relationship with MKS requiring disclosure under Item 404 of Regulation S-K under the Exchange Act, with the exception of Mr. Berges, which is described below. No executive officer of MKS serves, or has served, as a member of the board of directors or compensation committee (or other committee serving an equivalent function) of any other entity which has one or more executive officers serving as a member of MKS's Board of Directors or Compensation Committee.

Mr. Berges, who resigned from the Compensation Committee on February 4, 2004, is President and a director of Emerson Electric Co. ("Emerson"). During 2003, MKS purchased materials and services from Emerson and its subsidiaries totaling approximately \$1,403,000. In addition, in accordance with the terms of a Shareholder's Agreement between MKS and Emerson, MKS paid the expenses of Emerson relating to the registration of shares in connection with a public offering of Common Stock that closed in January 2004. Such expenses were approximately \$176,000.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee of the Company's Board of Directors is currently composed of three members and acts under a written charter adopted and approved on February 4, 2004. The members of the Audit Committee are independent directors, as defined by its charter and the rules of the Nasdaq Stock Market, and possess the financial sophistication required by such charter and rules. The Audit Committee held nine meetings during the fiscal year ended December 31, 2003.

Management is responsible for the Company's internal controls and the financial reporting process. The Company's independent auditors, PwC, are responsible for performing an independent audit of the Company's financial statements in accordance with auditing standards generally accepted in the United States, and issue a report on those financial statements. The Audit Committee is responsible for monitoring and overseeing these processes. As appropriate, the Audit Committee reviews and evaluates, and discusses with the Company's management, internal accounting, financial and auditing personnel and the independent auditors, the following:

- the plan for, and the independent auditors' report on, audits of the Company's financial statements;
- the Company's financial disclosure documents, including all financial statements and reports filed with the Commission or sent to shareholders;
- management's selection, application and disclosure of critical accounting policies;
- major changes in the Company's significant accounting practices, principles, controls or methodologies;
- significant developments or changes in accounting rules applicable to the Company; and
- the adequacy of the Company's internal controls and accounting, financial and auditing personnel.

The Audit Committee reviewed the Company's audited financial statements for the fiscal year ended December 31, 2003, and discussed these financial statements with the Company's management. Management represented to the Audit Committee that the Company's financial statements had been prepared in accordance with accounting principles generally accepted in the United States. The Audit Committee also reviewed and discussed the audited financial statements and the matters required by Statement on Auditing Standards No. 61 "Communication with Audit Committees," as amended (SAS 61), with PwC, the Company's independent auditors. SAS 61 requires the Company's independent auditors to discuss with the Company's Audit Committee, among other things, the following:

- methods to account for significant unusual transactions;
- the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;
- the process used by management in formulating particularly sensitive accounting estimates and the basis for the auditors' conclusions regarding the reasonableness of those estimates; and
- disagreements with management over the application of accounting principles, the basis for management's accounting estimates and the disclosures in the financial statements.

The Company's independent auditors also provided the Audit Committee with the written disclosures and the letter required by Independence Standards Board Standard No. 1 "Independence Discussions with Audit Committees". Independence Standards Board Standard No. 1 requires auditors annually to disclose in writing all relationships that in the auditor's professional opinion may reasonably be thought to bear on independence, confirm their perceived independence and engage in a discussion of independence. In addition, the Audit Committee discussed with the independent auditors their independence from the Company. The Audit Committee also considered whether the independent auditors' provision of the other, non-audit related services to the Company, which are referred to below, is compatible with maintaining such auditors' independence.

Based on its discussions with management and the independent auditors, and its review of the representations and information provided by management and the independent auditors, the Audit Committee recommended to the Company's Board of Directors that the audited financial statements of the Company be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2003.

By the Audit Committee of the Board of Directors of MKS Instruments, Inc.

Robert R. Anderson, Chairman
Owen W. Robbins
Louis P. Valente

EXECUTIVE OFFICERS

The following is a brief summary of the background of each executive officer of MKS, other than Mr. Bertucci, whose background is described under the heading "Directors" above:

Leo Berlinghieri, Vice President and Chief Operating Officer, Age 50.

Mr. Berlinghieri has served as Vice President and Chief Operating Officer of MKS since July 2003. From November 1995 to July 2003, he served as Vice President, Global Sales and Service. From 1980 to November 1995, he served in various management positions of MKS, including Manufacturing Manager, Production and Inventory Control Manager, and Director of Customer Support Operations. Mr. Berlinghieri is Director at Large of the TQM-BASE Council, Inc., a non-profit quality management consortium comprised of Boston area semiconductor capital equipment manufacturers.

Gerald G. Colella, Vice President, Global Business and Service Operations, Age 47

Mr. Colella has served as Vice President, Global Business and Service Operations since October 1997. From March 1996 to October 1997, he served as Director of Materials Planning and Logistics and from February 1994 to March 1996, he served as Materials Planning and Logistics Manager. Mr. Colella joined MKS in April 1983 as Purchase Contract Administrator. He holds an M.B.A. from Southern New Hampshire University, Manchester, New Hampshire, as well as a Bachelors Degree in Secondary Education from the University of Lowell, Lowell, Massachusetts.

Robert L. Klimm, Vice President and General Manager, Power and Reactive Gas Products Group, Age 53

Mr. Klimm has served as Vice President and General Manager, Power and Reactive Gas Products Group since September 2002. Prior to this position, he served as Vice President and General Manager of the ASTeX Products Group from August 2001 to September 2002, and of the Materials Delivery and Analysis Products Group from December 1999 to August 2001. Before joining MKS, Mr. Klimm was Vice President and General Manager of the Factory Automation Division of PRI Automation from 1997 to September 1999. Mr. Klimm has an M.B.A. from the Sloan School at MIT, an M.A. in electrical engineering from Northeastern University and a B.S. in electrical engineering from Lehigh University.

John A. Smith, Vice President of Technology and General Manager, Instruments and Control Systems Product Group, Age 53

Dr. Smith has served as Vice President of Technology and General Manager of the Instruments and Control Systems Product Group, which comprises Pressure Measurement and Control, Materials Delivery, Gas Composition and Analysis, and Control and Information Technology products since December 2002. Prior to this position, Dr. Smith served as Vice President and General Manager of Materials Delivery Products and Advanced Process Control, from February 2002 to December 2002. From July 1994 until February 2002, he was Managing Director of MKS Instruments, U.K. Ltd. Dr. Smith has a Ph.D. in electronic engineering from the University of Manchester, U.K.

William D. Stewart, Vice President and General Manager, Vacuum Products Group, Age 59.

Mr. Stewart has served as Vice President and General Manager, Vacuum Products Group since November 1997. From October 1986 to November 1997, he was President of HPS Products, which MKS acquired in 1986. Mr. Stewart co-founded HPS in 1976. Mr. Stewart has an M.B.A. from Northwestern University and a B.S. in Business Administration from the University of Colorado. Mr. Stewart also serves on the Board of Directors of the Janus Fund.

Ronald C. Weigner, Vice President and Chief Financial Officer, Age 58.

Mr. Weigner has served as Vice President and Chief Financial Officer of MKS since November 1995. From September 1993 until November 1995, he served as Vice President and Corporate Controller and from 1980 to 1993, he served as Corporate Controller. Mr. Weigner is a certified public accountant and has a B.S. in Business Administration from Boston University.

Executive officers of MKS are elected by the Board of Directors on an annual basis and serve until their successors are duly elected and qualified. There are no family relationships among any of the executive officers or directors of MKS.

STOCK OPTION GRANTS

OPTION GRANTS IN FISCAL YEAR 2003

INDIVIDUAL GRANTS

 POTENTIAL
 REALIZABLE VALUE
 AT NUMBER OF % OF
 TOTAL ASSUMED
 ANNUAL RATES OF
 SECURITIES
 OPTIONS STOCK
 PRICE
 APPRECIATION FOR
 UNDERLYING
 GRANTED TO
 EXERCISE OF
 OPTION TERM(3)
 OPTIONS EMPLOYEES
 IN BASE PRICE
 EXPIRATION -----

----- NAME
 GRANTED FISCAL
 YEAR(1) (\$/SH)
 DATE(2) 5% 10% -

John R.
 Bertucci.....
 965(4) 0.06%
 \$12.97 2/7/2013 \$
 7,871 \$ 19,947
 Ronald C.
 Weigner.....
 503(4) \$12.97
 2/7/2013 \$ 4,103
 \$ 10,397 392(4)
 \$17.60 7/1/2013 \$
 4,339 \$ 10,996
 24,000(5) 1.61%
 \$27.11 11/11/2013
 \$409,184
 \$1,036,953 Leo
 Berlinghieri.....
 482(4) \$12.97
 2/7/2013 \$ 3,932
 \$ 9,963 50,000(5)
 \$17.60 7/1/2013
 \$553,427
 \$1,402,493 375(4)
 \$17.60 7/1/2013 \$
 4,151 \$ 10,519
 35,000(5) 5.56%
 \$27.11 11/11/2013
 \$596,727
 \$1,512,223
 William D.
 Stewart....
 490(4) \$12.97
 2/7/2013 \$ 3,997
 \$ 10,129 381(4)
 \$17.60 7/1/2013 \$
 4,217 \$ 10,687
 24,000(5) 1.61%
 \$27.11 11/11/2013
 \$409,184
 \$1,036,953 John
 A. Smith.....
 470(4) \$12.97
 2/7/2013 \$ 3,834
 \$ 9,715 366(4)
 \$17.60 7/1/2013 \$

4,051 \$ 10,266
24,000(5) 1.61%
\$27.11 11/11/2013
\$409,184
\$1,036,953

- - - - -

- (1) In the fiscal year ended December 31, 2003, options to purchase a total of 1,543,552 shares of Common Stock were granted to employees of MKS, including officers.
- (2) The options are subject to earlier termination upon certain events related to termination of employment.
- (3) The dollar gains under these columns result from calculations discussing hypothetical growth rates as set by the Commission and are not intended to forecast future price appreciation of the Common Stock.
- (4) This Option will become exercisable as follows: 33 1/3% after the first year and each successive 12 month period thereafter.
- (5) This Option will become exercisable as follows: 25% of the shares become exercisable on the first anniversary of the date of issue. An additional 6.25% of the initial grant of options vests on each successive quarter.

accordance with the terms of a Shareholder's Agreement between MKS and Emerson, MKS paid the expenses of Emerson relating to the registration of shares in connection with a public offering of Common Stock that closed in January 2004. Such expenses were approximately \$176,000.

In December 2003, Mr. Bertucci, the Chairman, CEO and President and a director of the Company, paid the Company \$1,490,000, which represented a repayment of premiums, to assume a key-man life insurance policy that the Company had previously purchased on his behalf.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides information about the securities authorized for issuance under MKS' equity compensation plans as of December 31, 2003:

NUMBER OF SECURITIES REMAINING AVAILABLE FOR NUMBER OF SECURITIES TO WEIGHTED-AVERAGE FUTURE ISSUANCE UNDER BE ISSUED UPON EXERCISE EXERCISE PRICE OF EQUITY COMPENSATION PLANS OF OUTSTANDING OPTIONS, OUTSTANDING OPTIONS, (EXCLUDING SECURITIES PLAN CATEGORY WARRANTS AND RIGHTS(1) WARRANTS AND RIGHTS REFLECTED IN COLUMN (A)) - ----- ----- -----	(A)	(B)	(C)
- (A) (B) (C) Equity compensation plans approved by security holders.....	8,599,721	\$20.52	
2,129,840(2)(3) Equity compensation plans not approved by security holders.....	2,129,840		

Total.....	8,599,721	\$20.52	
	2,129,840		

- (1) Excludes an aggregate of 298,178 shares issuable upon the exercise of outstanding options assumed by the Company in connection with an acquisition. The weighted average exercise price of the excluded options is \$25.49.
- (2) Securities available for future issuance under the Second Restated 1995 Stock Option plan increase on January 1 of each year by 5% of the issued and outstanding shares as of December 31 of the prior year up to the amount authorized by the shareholders.
- (3) Includes 256,479 shares issuable under the Company's Second Restated Employee Stock Purchase Plan and 10,175 shares issuable under the Company's Restated International Employee Stock Purchase Plan as of December 31, 2003.

EMPLOYMENT AGREEMENTS

MKS has entered into employment agreements with each of Messrs. Weigner, Berlinghieri, Stewart and Smith. The terms of such employment agreement are included in the summary below.

Each agreement sets the base salary for each employee which is reviewed annually. In addition to a base salary, each employee is entitled, under MKS's Management Incentive Program, to a bonus equal to a percentage of his base salary if MKS attains specified financial goals during the year. Each employee is also entitled to standard benefits including:

- participation in a profit sharing and retirement savings plan
- vacation days
- life insurance
- medical/dental insurance

The remaining provisions of each agreement are also substantially the same.

The term of employment for each agreement is month to month with

termination:

- upon the death of the employee
- at the election of MKS if the employee fails or refuses to perform his duties
- at the election of MKS if the employee commits any acts not in MKS's best interest

Payment by MKS upon termination depends on how employment is terminated:

- if employment is terminated by death, MKS must pay the employee's estate the compensation owed to him at the end of the month of his death
- if employment is terminated at the election of MKS because the employee fails or refuses to perform his duties, MKS must pay the employee through the last day of actual employment

Each of the agreements contains non-competition provisions during the term of employment and for the period of one year after termination of employment. Under these provisions, Messrs. Weigner, Berlinghieri, Stewart and Smith may not:

- engage in any competitive business or activity
- for the 12 months subsequent to termination, work for, employ, become a partner with, or cause to be employed, any employee, officer or agent of MKS
- for the 12 months subsequent to termination, give, sell or lease any competitive services or goods to any customer of MKS
- have any financial interest in or be a director, officer, stockholder, partner, employee or consultant to any competitor of MKS.

CODE OF ETHICS

We have adopted a written code of business conduct and ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, which is posted in the Investors link on the Company's website, www.mksinstruments.com, under the heading Corporate Governance. We intend to disclose any amendments to, or waivers from, our code of business conduct and ethics on our website.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act ("Section 16(a)") requires executive officers, directors, and persons who beneficially own more than ten percent (10%) of the Company's stock to file initial reports of ownership on Form 3 and reports of changes in ownership on Form 4 with the Commission and any national securities exchange on which the Company's securities are registered. Executive officers, directors and greater than ten percent (10%) beneficial owners are required by the Commission's regulations to furnish the Company with copies of all Section 16(a) forms they file.

Based solely on a review of the copies of such forms furnished to the Company and written representations from the executive officers and directors pursuant to Item 405 of Regulation S-K, the Company believes that all filing requirements applicable to its officers, directors and greater than ten percent (10%) stockholders were complied with, except that a Form 4 filed by Mr. Bertucci on November 12, 2003 failed to report the sale of 4,000 shares of Common Stock on November 10, 2003, but such transaction was subsequently reported on an amended Form 4. The Company believes that all other of its executive officers, directors and greater than ten percent (10%) beneficial owners complied with all applicable Section 16(a) filing requirements.

COMPARATIVE STOCK PERFORMANCE

The following graph compares the cumulative total stockholder return (assuming reinvestment of dividends) from investing \$100 on March 30, 1999 (the Company's first trading day), and plotted at the last trading day of each of the fiscal years ended December 31, 1999, 2000, 2001, 2002 and 2003, in each of (i) the Company's Common Stock; (ii) a Peer Group Index of semiconductor equipment/material manufacturers (the "MG Group Index"), compiled by Media General Financial Services, Inc. ("Media General"); and

(iii) the Nasdaq Market Index of companies (the "Nasdaq Market Index"). The graph was compiled by Media General. The stock price performance on the graph below is not necessarily indicative of future price performance. The Company's Common Stock is listed on the Nasdaq National Market under the ticker symbol "MKSI".

PERFORMANCE GRAPH

COMPARISON OF CUMULATIVE TOTAL RETURN
OF ONE OR MORE COMPANIES, PEER GROUPS,
INDUSTRY INDEXES AND/OR BROAD MARKETS

[PERFORMANCE GRAPH]

ASSUMES \$100 INVESTED ON MARCH 30, 1999
ASSUMES DIVIDENDS REINVESTED
FISCAL YEAR ENDING DECEMBER 31, 2003

	3/30/99	12/31/99	12/31/00	12/31/01	12/31/02	12/31/03
MKS Instruments, Inc.....	100.00	256.89	110.22	192.21	116.84	206.22
MG Group Index.....	100.00	219.29	134.68	147.45	88.21	160.05
NASDAQ Market Index.....	100.00	163.32	102.65	81.83	57.08	85.82

PROPOSAL TWO

APPROVAL OF THE 2004 STOCK INCENTIVE PLAN

OVERVIEW

MKS' Board of Directors believes that the future success of MKS depends on its ability to attract, retain and motivate key employees. On March 4, 2004, the Board of Directors adopted, subject to stockholder approval, the 2004 Stock Incentive Plan (the "2004 Plan"). Up to 15,000,000 shares of Common Stock (subject to adjustment in the event of stock splits, and other similar events) may be issued pursuant to awards granted under the 2004 Plan.

The 2004 Plan is intended to replace the Company's Second Restated 1995 Stock Incentive Plan (the "1995 Plan") which expires by its terms in November 2005. As of January 31, 2004, options to purchase 8,686,126 shares of Common Stock were outstanding under the 1995 Plan and an additional 4,392,530 shares

were reserved for future option grants. Upon the expiration of the 1995 Plan all outstanding options under that plan will remain in effect, but no additional grants may be made under the 1995 Plan.

SUMMARY OF THE 2004 PLAN

The following summary of the 2004 Plan is qualified in its entirety by reference to the full text of the 2004 Plan, a copy of which is attached as Appendix C to the electronic copy of this Proxy Statement filed with the Commission and may be accessed from the Commission's home page (www.sec.gov). In addition, a copy of the 2004 Plan may be obtained by making a written request to MKS.

DESCRIPTION OF AWARDS

The 2004 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, performance shares and awards of restricted stock and unrestricted stock. An aggregate of 15,000,000 shares of Common Stock may be issued pursuant to the 2004 Plan (subject to adjustment for certain changes in the MKS' capitalization).

ADMINISTRATION

The 2004 Plan is administered by the Board of Directors and the Compensation Committee. The Board of Directors has the authority to grant awards under the 2004 Plan and to accelerate, waive or amend certain provisions of outstanding awards. The Board of Directors has authorized the Compensation Committee to administer certain aspects of the 2004 Plan. The Board of Directors has authorized the Chief Executive Officer of MKS to grant options of not more than 35,000 shares, subject to adjustment as set forth in the plan, to non-executive officer employees. The maximum number of shares with respect to which awards may be granted to any participant in any calendar year is 900,000 shares.

Subject to any applicable limitations contained in the 2004 Plan, the Board of Directors or any committee or individual to whom the Board of Directors delegates authority, as the case may be, selects the recipients of Awards and determines (i) the number of shares of Common Stock covered by options and the dates upon which such options become exercisable, (ii) the exercise price of options, (iii) the duration of options (which may not exceed 10 years) and (iv) the number of shares of Common Stock subject to any restricted stock or other stock-based Awards and the terms and conditions of such Awards, including conditions for repurchase, issue price and repurchase price.

The Board of Directors is required to make appropriate adjustments in connection with the 2004 Plan and any outstanding Awards to reflect stock splits, stock dividends, recapitalizations, spin-offs and other similar changes in capitalization. The 2004 Plan also contains provisions addressing the consequences of any Reorganization Event, which is defined as (i) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or (b) any exchange of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange transaction. Upon the occurrence of a Reorganization Event, all outstanding options are to be assumed, or substituted for, by the acquiring or succeeding corporation. However, if the acquiring or succeeding corporation does not agree to assume, or substitute for, outstanding options, then the Board of Directors must either accelerate the options to make them fully exercisable prior to consummation of the Reorganization Event or provide for a cash out of the value of any outstanding options. Upon the occurrence of a Reorganization Event, the repurchase and other rights of the Company under each outstanding restricted stock Award will inure to the benefit of the acquiring or succeeding corporation. The Board of Directors will specify the effect of a Reorganization Event on any other Award at the time the Award is granted.

If any Award expires or is terminated, surrendered, canceled or forfeited, the unused shares of Common Stock covered by such Award will again be available for grant under the 2004 Plan, subject, however, in the case of incentive stock options, to any limitations under the Code.

ELIGIBILITY TO RECEIVE AWARDS

Employees, officers, directors, consultants and advisors of the Company and its subsidiaries are eligible to be granted Awards under the 2004 Plan. Under present law, however, incentive stock options may only be granted to employees of the Company and its subsidiaries. The maximum number of shares with respect to which Awards may be granted to any participant under the 2004 Plan may not exceed 900,000 shares per calendar year.

PLAN BENEFITS

As of January 31, 2004, approximately 2,222 persons were eligible to receive Awards under the 2004 Plan, including the Company's executive officers, non-employee directors and consultants. The granting of Awards under the 2004 Plan is discretionary, and the Company cannot now determine the number or type of Awards to be granted in the future to any particular person or group.

AMENDMENT OR TERMINATION

No Award may be made under the 2004 Plan after March 3, 2014, but Awards previously granted may extend beyond that date. The Board of Directors may at any time amend, suspend or terminate the 2004 Plan, except that no Award designated as subject to Section 162(m) of the Code by the Board of Directors after the date of such amendment shall become exercisable, realizable or vested (to the extent such amendment was required to grant such Award) unless and until such amendment shall have been approved by the Company's stockholders.

If Stockholders do not approve the adoption of the 2004 Plan, the 2004 Plan will not go into effect, and the Company will not grant any Awards under the 2004 Plan. In such event, the Board of Directors will consider whether to adopt alternative arrangements based on its assessment of the needs of the Company.

INCENTIVE STOCK OPTIONS AND NONSTATUTORY OPTIONS

Optionees receive the right to purchase a specified number of shares of Common Stock at some time in the future at an option price and subject to such terms and conditions as are specified at the time of the grant. Incentive stock options and options that the Board of Directors or Compensation Committee intends to qualify as performance-based compensation under Section 162(m) of the Internal Revenue Code, may not be granted at an exercise price less than the fair market value of the Common Stock on the date of grant (or less than 110% of the fair market value in the case of incentive stock options granted to optionees holding 10% or more of the total combined voting stock of MKS or any of its subsidiaries). Non-qualified options may be granted with an exercise price that may be less than, equal to or greater than the fair market value of the Common Stock on the date of grant. The 2004 Plan permits the following forms of payment of the exercise price of options: (i) payment by cash, check or in connection with a "cashless exercise" through a broker, (ii) delivery to MKS of a promissory note, (iii) any other lawful means, or (iv) any combination of these forms of payment.

RESTRICTED AND UNRESTRICTED STOCK

Restricted stock awards entitle recipients to acquire shares of Common Stock, subject to the right of MKS to repurchase all or part of such shares at their issue price from the recipient in the event that the conditions specified in the applicable stock award are not satisfied prior to the end of the applicable restriction period established for such award, or portion of such award, in the case of restrictions which lapse ratably. Each recipient of an award under the 2004 Plan is referred to as a participant.

All of the employees, officers, directors, consultants and advisors of MKS and its subsidiaries who are expected to contribute to MKS' future growth and success are eligible to participate in the 2004 Plan.

STOCK APPRECIATION RIGHTS AND PERFORMANCE SHARES

A stock appreciation right is based on the value of Common Stock and entitles the holder to receive consideration to the extent that the fair market value on the date of exercise of the shares of Common Stock underlying the right exceeds the fair market value of the underlying shares on the date the right was granted. A performance share award entitles the recipient to acquire shares of Common Stock upon the attainment of specified performance goals.

FEDERAL INCOME TAX CONSEQUENCES

The following generally summarizes the United States federal income tax consequences that generally will arise with respect to awards granted under the 2004 Plan and with respect to the sale of Common Stock acquired under the 2004 Plan. This summary is based on the tax laws in effect as of the date of this proxy statement. Changes to these laws could alter the tax consequences described below.

Incentive Stock Options. A participant will not have income upon the grant of an incentive stock option. Also, except as described below, a participant will not have income upon exercise of an incentive stock option if the participant has been employed by MKS or a majority-owned corporate subsidiary of MKS at all times beginning with the option grant date and ending three months before the date the participant exercises the option. If the participant has not been so employed during that time, then the participant will be taxed as described below under "Nonstatutory Stock Options." The exercise of an incentive stock option may subject the participant to the alternative minimum tax.

A participant will have income upon the sale of the stock acquired under an incentive stock option at a profit (if sales proceeds exceed the exercise price). The type of income will depend on when the participant sells the stock. If a participant sells the stock more than two years after the option was granted and more than one year after the option was exercised, then all of the profit will be long-term capital gain. If a participant sells the stock prior to satisfying these waiting periods, then the participant will have engaged in a disqualifying disposition and a portion of the profit will be ordinary income and a portion may be capital gain. This capital gain will be long-term if the participant has held the stock for more than one year and otherwise will be short-term. If a participant sells the stock at a loss (sales proceeds are less than the exercise price), then the loss will be a capital loss. This capital loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Nonstatutory Stock Options. A participant will not have income upon the grant of a nonstatutory stock option. A participant will have compensation income upon the exercise of a nonstatutory stock option equal to the value of the stock on the day the participant exercised the option less the exercise price. Upon sale of the stock, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the day the option was exercised. This capital gain or loss will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

Restricted Stock. A participant will not have income upon the grant of restricted stock unless an election under Section 83(b) of the Code is made within 30 days of the date of grant. If a timely 83(b) election is made, then a participant will have compensation income equal to the value of the stock less the purchase price. When the stock is sold, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the date of grant. If the participant does not make an 83(b) election, then when the stock vests the participant will have compensation income equal to the value of the stock on the vesting date less the purchase price. When the stock is sold, the participant will have capital gain or loss equal to the sales proceeds less the value of the stock on the vesting date. Any capital gain or loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Other Stock-Based Awards. The tax consequences associated with any other stock-based award granted under the 2004 Plan will vary depending on the specific terms of such award. Among the relevant factors are whether or not the award has a readily ascertainable fair market value, whether or not the award is subject to forfeiture provisions or restrictions on transfer, the nature of the property to be received by the participant under the award and the participant's holding period and tax basis for the award or underlying Common Stock.

Tax Consequences to MKS. The grant of an award under the 2004 Plan will have no tax consequences to MKS. MKS will be entitled to a business-expense deduction when a participant has compensation income. Any such deduction will be subject to the limitations of Section 162(m) of the Code.

BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT APPROVAL OF THE 2004 PLAN IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

PROPOSAL THREE

APPROVAL OF AMENDMENT TO THE AMENDED AND RESTATED 1997 DIRECTOR STOCK OPTION PLAN

OVERVIEW

The 1997 Director Plan currently authorizes grants of stock options to directors of the Company who are not employees of the Company ("Outside Directors") to purchase up to an aggregate of 300,000 shares of Common Stock. On March 4, 2004, the Board of Directors adopted, subject to stockholder approval, an amendment to the 1997 Director Plan, increasing the number of shares of Common Stock reserved for issuance under the 1997 Director Plan from 300,000 to 750,000.

The purpose of the 1997 Director Plan is to encourage ownership of MKS stock by Outside Directors, whose continued services are essential to the Company's future progress, and to provide them with an incentive to remain as directors of the Company. The Board of Directors believes that grants of stock options under the 1997 Director Plan has enhanced, and will continue to enhance, the ability of the Company to attract and retain qualified directors and has provided, and will continue to provide, further incentive to directors as a result of their equity interest in the Company.

SUMMARY OF THE 1997 DIRECTOR PLAN

The following summary of the 1997 Director Plan is qualified in its entirety by reference to the full text of the 1997 Director Plan, a copy of which is attached as Appendix D to the electronic copy of this Proxy Statement filed with the Commission and may be accessed from the Commission's home page (www.sec.gov). In addition, a copy of the 1997 Director Plan may be obtained by making a written request to MKS.

During 2003, each of Messrs. Anderson, Chute, Kahl, Robbins and Valente received an option to purchase 12,000 shares of Common Stock pursuant to the 1997 Director Plan, at an exercise price of \$17.06 per share, which was equal to the fair market value of the Common Stock on the date of grant.

DESCRIPTION OF PLAN

A total of up to 300,000 shares of Common Stock may currently be issued upon the exercise of options granted under the 1997 Director Plan. If the amendment to the 1997 Director Plan is approved by stockholders, a total of 750,000 shares of Common Stock may be issued under the 1997 Director Plan. Any shares subject to options granted pursuant to the 1997 Director Plan which terminate or expire unexercised will be available for future grants under the 1997 Director Plan.

ADMINISTRATION

The Board of Directors supervises and administers the 1997 Director Plan. The Board of Directors may suspend, discontinue or amend the 1997 Director Plan.

ELIGIBILITY

Only Outside Directors are eligible to receive options under the 1997 Director Plan. The Company currently has six Outside Directors (which number may change in the future). All options granted under the 1997 Director Plan are non-statutory stock options not entitled to special tax treatment under Section 422 of the Code.

GRANT OF OPTIONS

The 1997 Director Plan provides for the automatic grant of stock options to Outside Directors under the following circumstances: (i) an option for 20,000 shares of Common Stock is automatically granted to each Outside Director upon his or her initial election to the Board of Directors, and (ii) on the date of each annual meeting of stockholders, an option for 12,000 shares of Common Stock is automatically granted to each Outside Director who has been in office for at least six months prior to the date of such meeting.

EXERCISE OF OPTIONS

Each option granted upon an Outside Director's initial election to the Board of Directors vests over a three-year period in 12 equal quarterly installments following the date of grant. Each annual option becomes exercisable on the day prior to the first annual meeting of stockholders following the date of grant, or if no such meeting is held within 13 months after the date of grant, on the 13 month anniversary of the date of grant.

Options granted under the 1997 Director Plan terminate upon the earlier of (i) ten (10) years after the grant date, or (ii) with respect to options granted prior to April 16, 2003, three months after the option holder ceases to be a director of MKS and, with respect to options granted on or after April 16, 2003, one year after the optionee ceases to be a director of MKS.

PURCHASE PRICE

The exercise price of each option granted under the 1997 Director Plan is equal to the fair market value of the Common Stock on the date of grant.

CHANGE IN CAPITALIZATION

In the event the Company's Common Stock is increased, decreased or exchanged for a different number or kind of securities, or if shares or other securities are distributed in kind, a proportionate adjustment will be made in the number and kind of shares reserved for issuance under the plan, issuable pursuant to the automatic grant provisions in the plan, and subject to outstanding options thereunder.

MERGER OR CONSOLIDATION

In the event of an "Acquisition" (as defined in the 1997 Director Plan), all options outstanding immediately prior to the effective date of such Acquisition shall become automatically exercisable in full upon the effective date of such Acquisition.

TRANSFERABILITY

Except as the Board of Directors may otherwise determine, options shall not be sold, assigned, transferred, pledged or otherwise encumbered by the optionee, other than by will or the laws of descent and distribution.

FEDERAL INCOME TAX CONSEQUENCES

The following is a summary of the United States federal income tax consequences that generally will arise with respect to options granted under the 1997 Director Plan and with respect to the sale of Common Stock acquired under the 1997 Director Plan.

TAX CONSEQUENCES TO PARTICIPANTS

A participant will not have income upon the grant of an option under the 1997 Director Plan. A participant generally will have compensation income upon the exercise of the option in an amount equal to the value of the stock on the day the participant exercised the option over the exercise price.

Upon sale of the stock, the participant will have capital gain or loss equal to the difference between the sale proceeds and the value of the stock on the date the option was exercised. This capital gain or loss will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

TAX CONSEQUENCES TO MKS

The grant of an option under the 1997 Director Plan will have no tax consequences to MKS. MKS generally will be entitled to a business-expense deduction, however, with respect to any compensation income recognized by a participant under the 1997 Director Plan.

TABLE OF BENEFITS

The following table provides information about the benefits that will be received by each of the following individuals and groups under the 1997 Director Plan, if the amendment to the 1997 Director Plan is approved by stockholders:

NEW PLAN BENEFITS
1997 DIRECTOR PLAN, AS AMENDED

NAME AND POSITION	DOLLAR VALUE(\$)	NUMBER OF UNITS
John R. Bertucci.....	0	0
0 Ronald C. Weigner.....	0	0
Leo Berlinghieri.....	0	0
0 0 William D. Stewart.....	0	0
John A. Smith.....	0	0
0 Executive Group.....	0	0
Non-Executive Director Group.....	(1) 475,500(2)	
Non-Executive Officer Employee Group.....	0	0

- (1) The options are granted at an exercise price equal to the fair market value of Common Stock on the date of grant.
- (2) This number represents the total shares that will be available for future issuance under the plan if the stockholders approve the amendment to the plan at the Annual Meeting. The shares are issuable pursuant to automatic option grants to Outside Directors as set forth under "Grant of Options" above.

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSED AMENDMENT TO THE 1997 DIRECTOR PLAN IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFOR RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

PROPOSAL FOUR

APPROVAL OF AMENDMENT TO THE
SECOND RESTATED EMPLOYEE STOCK PURCHASE PLAN

OVERVIEW

MKS' Board of Directors adopted the Second Restated 1999 Employee Stock Purchase Plan (the "1999 ESPP"), to provide eligible employees of MKS and certain of its subsidiaries with opportunities to purchase shares of Common Stock. Under the 1999 ESPP, MKS is currently authorized to sell to its eligible employees,

through payroll deductions, up to an aggregate of 700,000 shares of Common Stock. As of February 29, 2004, there were 256,479 shares available for future grant under the 1999 ESPP. Accordingly, on March 4, 2004, MKS' Board of Directors adopted an amendment, subject to stockholder approval, to the 1999 ESPP that increased from 700,000 to 1,250,000 the number of shares of Common Stock available for sale under the 1999 ESPP, subject to adjustment for certain changes in MKS' capitalization.

SUMMARY OF THE 1999 ESPP

The following summary of the 1999 ESPP is qualified in its entirety by reference to the full text of the 1999 ESPP, a copy of which is attached as Appendix E to the electronic copy of this Proxy Statement filed with the Commission and may be accessed from the Commission's home page (www.sec.gov). In addition, a copy of the 1999 ESPP may be obtained by making a written request to MKS.

DESCRIPTION OF THE PLAN.

The 1999 ESPP permits employees of MKS and its designated subsidiaries to purchase shares of Common Stock through a series of offerings. Each offering may last up to one year. Offerings under the 1999 ESPP commence every six months, so at any given point in time, MKS may be conducting more than one offering. However, employees are only eligible to participate in one offering at a time. Each eligible employee may elect to have amounts withheld from compensation, which amounts will accrue in an account for such employee during the period of an offering. On the last day of the offering period, funds that have accrued in this account will be used to purchase Common Stock, subject to certain limitations, at a purchase price that is generally 85% of the closing price of the Common Stock on either the initial date of each offering period, or on the last day of the offering period, whichever is less.

ADMINISTRATION.

The 1999 ESPP is administered by the Board of Directors or by a committee appointed by the Board of Directors. The Board of Directors or its committee has the authority to adopt, amend and repeal such administrative rules, guidelines and practices relating to the 1999 ESPP as it shall deem advisable. The Board of Directors may also correct any defect, supply any omission or reconcile any inconsistency in the 1999 ESPP in the manner and to the extent it deems expedient to carry the 1999 ESPP into effect. The Board of Directors or its committee is the sole and final judge of such expediency and its decisions are final and binding. No member of the Board of Directors or person acting pursuant to authority delegated by the Board of Directors is liable for any action or determination relating to or under the 1999 ESPP made in good faith.

ELIGIBILITY.

Persons eligible to participate in an offering under the 1999 ESPP are generally those employees who (i) are customarily employed by MKS for more than twenty (20) hours a week and for more than five (5) months in a calendar year; (ii) have been employed by MKS for at least three (3) months prior to enrollment; (iii) are MKS' employees on the date that the option is offered; and (iv) do not own five percent (5%) or more of the total combined voting power or value of all classes of MKS' stock or that of its subsidiaries.

LIMITATION.

No employee may be granted an option under the 1999 ESPP which permits the employee's rights to purchase Common Stock under the 1999 ESPP and any other MKS stock purchase plan to accrue at a rate that exceeds \$25,000 of the fair market value (measured based on the fair market value of the stock on the offering period commencement date) of Common Stock for each calendar year in which the option to purchase such stock is outstanding at any time.

PAYROLL DEDUCTIONS.

Eligible employees may authorize a payroll deduction up to a maximum of 10% of their compensation. Payroll deductions are then credited to the employee's accounts and are withheld in whole percentages only. Interest will not be paid on any account. The employee may decrease or discontinue payroll deductions once during an offering period by filing a new payroll deduction authorization form. However, the employee may not increase payroll deductions during an offering period. If the employee elects to discontinue payroll deductions, but does not elect to withdraw funds, the funds in the account will be used to purchase Common Stock on the last day of the offering period.

GRANT OF OPTION.

On the beginning date of each offering period, MKS will grant each employee who is participating in the 1999 ESPP an option to purchase a certain maximum number of shares on the last day of the offering period. That amount is determined by multiplying \$2,083 by the number of full months in the offering period and dividing the result by the closing price of Common Stock on the beginning date of the offering period. The employee does not become a stockholder of the Common Stock granted by the option until the shares are purchased and issued.

PURCHASE PRICE.

The purchase price of the shares of Common Stock to be sold pursuant to any given offering is equal to the lesser of (i) 85% of the closing price of Common Stock on the first business day of the offering period; or (ii) 85% of the closing price of Common Stock on the last trading day of the purchase period. For so long as Common Stock is traded on the Nasdaq National Market, the closing price of Common Stock shall be the last reported sales price.

EXERCISE OF OPTION.

An employee's option to purchase shares is exercised automatically on the last trading date of the plan period. Upon exercise, the employee will purchase the maximum number of full or fractional shares of Common Stock allowable on this date based on the applicable purchase price and the accumulated payroll deductions in the employee's account, subject in all cases to the limits described above. Any money left over in the employee's account following the purchase will be returned.

CHANGES IN CAPITALIZATION.

In the event of a stock split, a subdivision of outstanding shares of Common Stock, or payment of a dividend in Common Stock, the number of shares and the share limitation, approved for the 1999 ESPP, shall be modified proportionately.

MERGER OR CONSOLIDATION.

In the event of a merger or consolidation of MKS with another corporation in which the holders of MKS' capital stock before the merger or consolidation continue to hold at least 80% of the voting power of the capital stock in the newly merged corporation, those who hold options under the 1999 ESPP will, per exercisable option, upon an exercise of such options under the terms described in the 1999 ESPP, be entitled to purchase what the stockholders of MKS' capital stock received per share during the merger or consolidation.

In the event of a merger or consolidation of MKS with another corporation in which the holders of MKS' capital stock before the merger or consolidation do not hold at least 80% of the voting power of the capital stock in the newly merged corporation, and the merger or consolidation does not constitute a sale of substantially all of the Company's assets, the options outstanding under the 1999 ESPP shall be cancelled on the date of such merger or consolidation. However, notice of this cancellation will be provided, and each option holder will have the right to exercise their options based on payroll deductions credited in the account

at a date determined by the Board of Directors or its committee, but not less than ten days prior to such transaction.

UNITED STATES FEDERAL INCOME TAX CONSEQUENCES

The following generally summarizes the United States federal income tax consequences that will arise with respect to participation in the 1999 ESPP and with respect to the sale of Common Stock acquired under the 1999 ESPP. This summary is based on the tax laws in effect as of the date of this proxy statement. Changes to these laws could alter the tax consequences described below.

Tax Consequences to Participants. A participant will not have income upon enrolling in the 1999 ESPP or upon purchasing stock at the end of an offering.

A participant may have both compensation income and a capital gain or loss upon the sale of stock that was acquired under the 1999 ESPP. The amount of each type of income and loss will depend on when the participant sells the stock. If the participant sells the stock more than two years after the commencement of the offering during which the stock was purchased and more than one year after the date that the participant purchased the stock, at a profit (the sales proceeds exceed the purchase price), then the participant will have compensation income equal to the lesser of:

- 15% of the value of the stock on the day the offering commenced; and
- the participant's profit.

Any excess profit will be long-term capital gain. If the participant sells the stock at a loss (if sales proceeds are less than the purchase price) after satisfying these waiting periods, then the loss will be a long-term capital loss.

If the participant sells the stock prior to satisfying these waiting periods, then he or she will have engaged in a disqualifying disposition. Upon a disqualifying disposition, the participant will have compensation income equal to the value of the stock on the day he or she purchased the stock less the purchase price. The participant also will have a capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the day he or she purchased the stock. This capital gain or loss will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

Tax Consequences to MKS. There will be no tax consequences to MKS except that it will be entitled to a business-expense deduction when a participant has compensation income upon a disqualifying disposition. Any such deduction will be subject to the limitations of Section 162(m) of the Code.

BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSED AMENDMENT TO THE AMENDED AND RESTATED 1999 ESPP IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

PROPOSAL FIVE

APPROVAL OF AMENDMENT TO THE RESTATED INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN

OVERVIEW

MKS' Board of Directors adopted the International Employee Stock Purchase Plan, as amended (the "International Employee Stock Purchase Plan"), to provide eligible employees of certain non-United States subsidiaries of MKS with opportunities to purchase shares of Common Stock. Under MKS' International Employee Stock Purchase Plan, MKS is currently authorized to sell to its eligible employees of designated subsidiaries, through payroll deductions, up to an aggregate of 75,000 shares of Common Stock. As of

February 29, 2004, there were 10,175 shares available for future grant under the International Employee Stock Purchase Plan. Accordingly, on March 4, 2004, MKS' Board of Directors adopted, subject to stockholder approval, an amendment to the International Employee Stock Purchase Plan that increased the number of shares of Common Stock available for issuance under the International Employee Stock Purchase Plan from 75,000 to 250,000, subject to adjustment for certain changes in MKS' capitalization.

SUMMARY OF THE INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN

The following summary of the International Employee Stock Purchase Plan is qualified in its entirety by reference to the full text of the International Employee Stock Purchase Plan, a copy of which is attached as Appendix F to the electronic copy of this Proxy Statement filed with the Commission and may be accessed from the Commission's home page (www.sec.gov). In addition, a copy of the International Employee Stock Purchase Plan may be obtained by making a written request to MKS.

DESCRIPTION OF THE PLAN

The International Employee Stock Purchase Plan permits employees of MKS and its designated subsidiaries to purchase shares of Common Stock through a series of offerings. Each offering may last up to one year. Offerings under the International Employee Stock Purchase Plan commence every six months, so at any given point in time, MKS may be conducting more than one offering. However, employees are only eligible to participate in one offering at a time. Each eligible employee may elect to have amounts withheld from compensation which amounts will accrue in an account for such employee during the period of an offering. On the last day of the offering period, funds that have accrued in this account will be used to purchase Common Stock, subject to certain limitations, at a purchase price that is generally 85% of the closing price of the Common Stock on either the initial date of each offering, or on the last day of the offering period, whichever is less.

ADMINISTRATION

The International Employee Stock Purchase Plan is administered by the Board of Directors or by a committee appointed by the Board of Directors.

The Board of Directors or its committee has the authority to adopt, amend and repeal such administrative rules, guidelines and practices relating to the International Employee Stock Purchase Plan as it shall deem advisable. The Board of Directors may also correct any defect, supply any omission or reconcile any inconsistency in the International Employee Stock Purchase Plan in the manner and to the extent it deems expedient to carry the International Employee Stock Purchase Plan into effect. The Board of Directors or its committee is the sole and final judge of such expediency and its decisions are final and binding. The Board of Directors or its committee may also establish additional conditions or provisions for the participation of the Company's eligible employees in the International Employee Stock Purchase Plan in order to comply with the tax, securities and other laws and regulation of the countries in which the Company's eligible employees reside, even if such conditions or provisions increase the benefits accruing to the Company's eligible employees under the International Employee Stock Purchase Plan. No member of the Board of Directors or person acting pursuant to authority delegated by the Board of Directors is liable for any action or determination relating to or under the International Employee Stock Purchase Plan made in good faith.

ELIGIBILITY

Persons eligible to participate in an offering under the International Employee Stock Purchase Plan, to the extent permitted by local law, are generally those employees who (i) are customarily employed by a designated non-U.S. subsidiary for more than twenty (20) hours a week and for more than five (5) months in a calendar year; (ii) have been employed by a designated non-U.S. subsidiary for at least three (3) months prior to enrollment; (iii) are MKS' employees of a designated non-U.S. subsidiary on the day the option is offered; and (iv) do not own five percent (5%) or more of the total combined voting power or value of all classes of MKS' stock.

LIMITATION

No employee may be granted an option under the International Employee Stock Purchase Plan which permits the employee's rights to purchase Common Stock under the International Employee Stock Purchase Plan and any other stock purchase plan of MKS' and its subsidiaries, to accrue at a rate that exceeds U.S. \$25,000 of the fair market value (measured based on the fair market value of the stock on the offering period commencement date) of Common Stock for each calendar year in which the option is outstanding at any time.

TAX WITHHOLDING

The employee's enrollment in the International Employee Stock Purchase Plan will authorize MKS to deduct from the employee's compensation the amount necessary for payment or reimbursement of any tax liability payable by the employee because of a grant of options to the employee under the International Employee Stock Purchase Plan, the exercise of options under the International Employee Stock Purchase Plan, or the sale of any stock acquired through the exercise of options.

PAYROLL DEDUCTIONS

Eligible employees may authorize a payroll deduction up to a maximum of 10% of their compensation. Payroll deductions are then credited to the employee's accounts and are withheld in whole percentages only. Interest will not be paid on any account. The employee may decrease or discontinue payroll deductions once during a plan period by filing a new payroll deduction authorization form. However, the employee may not increase payroll deductions during a plan period. All payroll deductions will be converted into U.S. currency at such time or times as is approved by the Board of Directors or its committee.

GRANT OF OPTION

On the beginning date of each plan period, MKS will grant the employee who is participating in the International Employee Stock Purchase Plan, an option to purchase a certain number of shares on the last day of the plan period. That amount is determined by multiplying U.S. \$2,083 by the number of full months in the offering period and dividing the results by the closing price of MKS' stock on the beginning date of the plan period. An employee does not become a stockholder of the Common Stock subject to an option until the shares are purchased and issued.

PURCHASE PRICE

The purchase price of the shares of Common Stock to be sold pursuant to any given plan period is equal to the lesser of (i) 85% of the fair market value of Common Stock on the first business day of the plan period or (ii) 85% of the fair market value of Common Stock on the last day of the offering period. For so long as the Common Stock is traded on the Nasdaq National Market, the closing price of Common Stock shall be the last reported sales price.

EXERCISE OF OPTION

An employee's option to purchase shares is exercised automatically on the last trading date of the plan period. Upon exercise, the employee will purchase the maximum number of full or fractional shares of Common Stock allowable on this date based on the applicable purchase price and the accumulated payroll deductions in the employee's account, subject in all cases to the limits described above.

CHANGE IN CAPITALIZATION

In the event of a subdivision of outstanding shares of Common Stock, or payment of a dividend in Common Stock, the number of shares and the share limitation, approved for the International Employee Stock Purchase Plan, shall be modified proportionately.

MERGER OR CONSOLIDATION

In the event of a merger or consolidation of MKS with another corporation in which the stockholders of MKS' capital stock before the merger or consolidation continue to hold at least 80% of the voting power of the capital stock in the newly merged corporation, those who hold options under the International Employee Stock Purchase Plan, will, per exercisable option, upon an exercise of such options under the terms described in the International Employee Stock Purchase Plan, be entitled to purchase what the holders of MKS' capital stock received per share during the merger or consolidation.

In the event of a merger or consolidation of MKS with another corporation in which the holders of MKS' capital stock before the merger or consolidation do not hold at least 80% of the voting power of the capital stock in the newly merged corporation, and the merger or consolidation does not constitute a sale of substantially all of the Company's assets, the options outstanding under the International Employee Stock Purchase Plan shall be cancelled on the date of such merger or consolidation, provided that notice of such cancellation will be given, and each option holder will have the right to exercise his or her options based on payroll deductions credited in the account at a date determined by the Board of Directors or its committee, but not less than ten days before the date of the transaction.

CERTAIN UNITED STATES FEDERAL TAX CONSEQUENCES FOR NON-U.S. PARTICIPANTS IN MKS'S INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN

The following is a general discussion of certain material U.S. federal tax consequences to a non-U.S. person who receives and exercises options to purchase shares of Common Stock under MKS's International Employee Stock Purchase Plan, and who disposes of Common Stock following such exercise. Each non-U.S. participant in the International Employee Stock Purchase Plan should consult a tax advisor regarding the U.S. federal, state, local, estate, gift and all non-U.S. tax consequences of participating in MKS's International Employee Stock Purchase Plan. This discussion does not consider, among other things, U.S. state and local or non-U.S. tax consequences. This summary is based on the tax laws in effect as of the date of this Proxy Statement. Changes to these laws could alter the tax consequences described below, possibly with retroactive effect.

As used in this discussion, the term "non-U.S. participant" means an individual participant in MKS's International Employee Stock Purchase Plan who is not, for U.S. federal income tax purposes, a citizen or resident of the United States. As used in this discussion, the term "non-U.S. holder" means an individual beneficial owner of Common Stock who is not, for U.S. federal income tax purposes, a citizen or resident of the United States.

An individual may be treated as a resident of the United States in any calendar year for U.S. federal income tax purposes, instead of as a nonresident, if, among other things, such individual is physically present in the United States on at least 31 days in that calendar year and for an aggregate of at least 183 days during the three-year period ending on December 31 of that calendar year, counting all of the days physically present in the United States in the current year, one-third of the days present in the immediately preceding year and one-sixth of the days present in the second preceding year. Residents are taxed for U.S. federal income tax purposes as if they were U.S. citizens.

RECEIPT AND EXERCISE OF OPTION TO PURCHASE COMMON STOCK

A non-U.S. participant generally will not be subject to any U.S. federal income tax or withholding tax upon the receipt of an option to purchase Common Stock under the International Employee Purchase Plan. A non-U.S. participant generally will not be subject to any U.S. federal income tax or withholding tax upon the exercise of an option to purchase Common Stock under the International Employee Stock Purchase Plan.

GAIN ON DISPOSITION OF COMMON STOCK

A non-U.S. holder generally will not be subject to any U.S. federal income tax or withholding tax on any gain recognized on a sale or other disposition of Common Stock, whether or not such disposition is deemed to

be a "disqualifying disposition", unless, among other things: (i) the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, in the event that an income tax treaty applies, is also attributable to a permanent establishment maintained by the non-U.S. holder in the United States; (ii) the non-U.S. holder is an individual who is present in the United States for 183 or more days in the taxable year of the disposition and certain other requirements are met; or (iii) the holder is subject to tax pursuant to U.S. federal income tax provisions applicable to certain U.S. expatriates.

U.S. ESTATE TAX CONSEQUENCES

Common Stock that is owned or is treated as owned by a non-U.S. holder at the time of death will be included in that individual's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

TAX CONSEQUENCES TO MKS

There will be no U.S. federal income tax consequences to MKS in connection with transactions relating to MKS's International Employee Stock Purchase Plan, except that MKS may be entitled to a deduction when a participant has compensation income upon a disqualifying disposition. Any such deduction will be subject to the limitations of Section 162(m) of the Code.

BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSED AMENDMENT TO THE INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

PROPOSAL SIX

RATIFICATION OF APPOINTMENT OF INDEPENDENT AUDITORS

On March 3, 2004, the Audit Committee appointed PwC as the Company's independent auditors for the fiscal year of the Company ending December 31, 2004. PwC was the Company's independent auditors for the fiscal year ended December 31, 2003.

Representatives of PwC are expected to be present at the Annual Meeting and will have the opportunity to make a statement if they so desire and will be available to respond to appropriate questions from stockholders. In the event that the ratification of the appointment of PwC as the independent auditors for the Company is not obtained at the Annual Meeting, the Board of Directors will reconsider its appointment.

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSAL TO RATIFY THE APPOINTMENT OF PRICEWATERHOUSECOOPERS LLP AS INDEPENDENT AUDITORS OF THE COMPANY FOR THE FISCAL YEAR ENDING DECEMBER 31, 2004 IS IN THE BEST INTERESTS OF MKS AND ITS STOCKHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

OTHER MATTERS

The Board of Directors does not know of any other matters which may come before the meeting. However, if any other matters are properly presented to the meeting, it is the intention of the persons named in the accompanying proxy to vote, or otherwise act, in accordance with their judgment on such matters.

All costs of solicitation of proxies will be borne by the Company. In addition to solicitations by mail, the Company's directors, officers and regular employees, without additional remuneration, may solicit proxies by telephone, telegraph and personal interviews and the Company reserves the right to retain outside agencies for the purpose of soliciting proxies. Brokers, custodians and fiduciaries will be requested to forward proxy

soliciting material to the owners of stock held in their names, and the Company will reimburse them for their reasonable out-of-pocket expenses incurred in connection with the distribution of proxy materials.

INDEPENDENT AUDITORS

For the years ended December 31, 2003 and 2002, the Company was billed by its independent auditors, PwC, for services in the following categories:

	2003	2002	-----	-----	Audit
Fees.....					\$
	815,000	\$ 654,000			Audit-Related
Fees.....				118,000	
				273,000	Tax
Fees.....					
	645,000	839,000			All Other
Fees.....				--	
	167,000				
Total.....					
	\$1,578,000	\$1,933,000		=====	=====

Audit Fees for the years ended December 31, 2003 and 2002, respectively, were for professional services provided for the audits of our consolidated financial statements and statutory and subsidiary audits, consents and assistance with review of documents filed with the Commission.

Audit-Related Fees for the years ended December 31, 2003 and 2002, respectively, were for due diligence related to mergers and acquisitions, advice related to accounting and reporting standards and services related to employee benefit plan audits.

Tax Fees for the years ended December 31, 2003 and 2002, respectively, were for services related to tax compliance, including the preparation of tax returns and claims for refund; and tax planning and tax advice, including assistance with acquisitions, foreign sales and foreign subsidiaries.

All Other Fees for the year ended December 31, 2002 were for other acquisition related services.

None of the audit-related, tax or other fees in 2003 or 2002 were provided under the de minimis exception to the audit committee pre-approval requirements.

PRE-APPROVAL POLICY AND PROCEDURES

The Audit Committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by the Company's independent auditors. This policy generally provides that the Company will not engage its independent auditors to provide audit or non-audit services unless the service is specifically approved in advance by the Audit Committee or the engagement is entered into pursuant to one of the pre-approval procedures described below.

From time to time, the Audit Committee may pre-approve specified types of services that are expected to be provided to the Company by its independent auditors during the next 12 months. Any such pre-approval is detailed as to the particular service or type of service to be provided and is also generally subject to a maximum dollar amount.

The Audit Committee has also delegated to the chairman of the Audit Committee the authority to approve any audit or non-audit services to be provided to the Company by its independent auditors. Any approval of services by the Chairman of the Audit Committee pursuant to this delegated authority is reported on at the next meeting of the Audit Committee.

The Audit Committee has considered and determined that the provision of the non-audit services noted in the foregoing table is compatible with maintaining PwC's independence.

DEADLINE FOR SUBMISSION OF STOCKHOLDER PROPOSALS
FOR THE 2005 ANNUAL MEETING

Proposals of stockholders intended to be presented at the 2005 Annual Meeting of Stockholders must be received by the Company at its principal office in Wilmington, Massachusetts not later than December 8, 2004, for inclusion in the proxy statement for that meeting.

In addition, MKS' By-Laws require that MKS be given advance notice of matters that stockholders wish to present for action at an Annual Meeting of stockholders (other than matters included in MKS' proxy statement in accordance with Rule 14a-8 of the Exchange Act). The required written notice must be delivered to the Clerk of MKS at the principal offices of MKS at least 60 days prior to the Annual Meeting, but no more than 90 days prior to such meeting. However, if less than 40 days notice of the Annual Meeting is provided to the stockholders, the written notice of the stockholder must be sent to the Clerk of MKS no later than 10 days after the notice of the Annual Meeting was received. The advance notice provisions of MKS's By-Laws contain the requirements of the written notice of stockholders and supersede the notice requirement contained in Rule 14a-4(c)(1) under the Exchange Act.

IMPORTANT NOTICE REGARDING DELIVERY OF SECURITY HOLDER DOCUMENTS

Some banks, brokers and other nominee record holders are already "householding" proxy statements and annual reports. This means that only one copy of our proxy statement or annual report may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you if you call or write us at the following address or phone number: MKS INSTRUMENTS, INC., 90 INDUSTRIAL WAY, WILMINGTON, MASSACHUSETTS 01887, (978) 284-4000, ATTN: INVESTOR RELATIONS. If you want to receive separate copies of the annual report and proxy statement in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address and phone number.

By Order of the Board of Directors

/s/ Richard S. Chute

Richard S. Chute
Clerk

April 1, 2004

THE BOARD OF DIRECTORS ENCOURAGES STOCKHOLDERS TO ATTEND THE MEETING. WHETHER OR NOT YOU PLAN TO ATTEND, YOU ARE URGED TO COMPLETE, DATE, SIGN AND RETURN THE ENCLOSED PROXY IN THE ACCOMPANYING ENVELOPE. A PROMPT RESPONSE WILL GREATLY FACILITATE ARRANGEMENTS FOR THE MEETING AND YOUR COOPERATION WILL BE APPRECIATED. STOCKHOLDERS WHO ATTEND THIS MEETING MAY VOTE THEIR STOCK PERSONALLY EVEN THOUGH THEY HAVE SENT IN THEIR PROXIES.

MKS INSTRUMENTS, INC.

AUDIT COMMITTEE CHARTER

A. PURPOSE

The purpose of the Audit Committee is to assist the Board of Directors' oversight of the Company's accounting and financial reporting processes and the audits of the Company's financial statements.

B. STRUCTURE AND MEMBERSHIP

1. Selection and Number. Members of the Audit Committee, appointed after the adoption of this charter, shall be appointed by the Board of Directors. The Audit Committee shall consist of at least three members of the Board of Directors.

2. Independence. Except as otherwise permitted by the applicable NASDAQ rules, each member of the Audit Committee shall be independent as defined by NASDAQ rules, meet the criteria for independence set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended, (the "Exchange Act") (subject to the exemptions provided in Rule 10A-3(c)).

3. Financial Literacy. Each member of the Audit Committee must be able to read and understand fundamental financial statements, including the Company's balance sheet, income statement, and cash flow statement, at the time of his or her appointment to the Audit Committee. In addition, at least one member must have past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual's financial sophistication, including being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities. Unless otherwise determined by the Board of Directors (in which case disclosure of such determination shall be made in the Company's annual report filed with the SEC), at least one member of the Audit Committee shall be an "audit committee financial expert" (as defined by applicable SEC rules).

4. Chair. Unless the Board of Directors elects a Chair of the Audit Committee, the Audit Committee shall elect a Chair by majority vote.

5. Compensation. No member of the Audit Committee may receive, directly or indirectly, any consulting, advisory or other compensatory fee from the Company or any of its subsidiaries, other than fees paid in his or her capacity as a member of the Board of Directors or a committee of the Board.

C. AUTHORITY AND RESPONSIBILITIES

GENERAL

The Audit Committee shall discharge its responsibilities, and shall assess the information provided by the Company's management and the independent auditor, in accordance with its business judgment. Management is responsible for the preparation, presentation, and integrity of the Company's financial statements and for the appropriateness of the accounting principles and reporting policies that are used by the Company. The independent auditors are responsible for auditing the Company's financial statements and for reviewing the Company's unaudited interim financial statements. The authority and responsibilities set forth in this Charter do not reflect or create any duty or obligation of the Audit Committee to plan or conduct any audit, to determine or certify that the Company's financial statements are complete, accurate, fairly presented, or in accordance with generally accepted accounting principles or applicable law, or to guarantee the independent auditor's report.

OVERSIGHT OF INDEPENDENT AUDITORS

1. Selection. The Audit Committee shall be solely and directly responsible for appointing, evaluating, retaining and, when necessary, terminating the engagement of the independent auditor. The Audit Committee may, in its discretion, seek stockholder ratification of the independent auditor it appoints.

2. Independence. The Audit Committee shall take, or recommend that the full Board of Directors take, appropriate action to oversee the independence of the independent auditor. In connection with this responsibility, the Audit Committee shall obtain and review a formal written statement from the independent auditor describing all relationships between the auditor and the Company, including the disclosures required by Independence Standards Board Standard No. 1. The Audit Committee shall actively engage in dialogue with the auditor concerning any disclosed relationships or services that might impact the objectivity and independence of the auditor.

Annually, the Audit Committee shall consider whether, in order to assure continuing auditor independence, there should be regular rotation of the independent audit firm.

3. Compensation. The Audit Committee shall have sole and direct responsibility for setting the compensation of the independent auditor. The Audit Committee is empowered, without further action by the Board of Directors, to cause the Company to pay the compensation of the independent auditor established by the Audit Committee.

4. Preapproval of Services. The Audit Committee shall preapprove all audit services to be provided to the Company, whether provided by the principal auditor or other firms, and all other services (review, attest and non-audit) to be provided to the Company by the independent auditor; provided, however, that de minimis non-audit services may instead be approved in accordance with applicable SEC rules.

5. Oversight. The independent auditor shall report directly to the Audit Committee, and the Audit Committee shall have sole and direct responsibility for overseeing the work of the independent auditor, including resolution of disagreements between Company management and the independent auditor regarding financial reporting. In connection with its oversight role, the Audit Committee shall, from time to time as appropriate, receive and consider the reports required to be made by the independent auditor regarding:

- critical accounting policies and practices;
- alternative treatments within generally accepted accounting principles for policies and practices related to material items that have been discussed with Company management, including ramifications of the use of such alternative disclosures and treatments, and the treatment preferred by the independent auditor; and
- other material written communications between the independent auditor and Company management.

AUDITED FINANCIAL STATEMENTS

6. Review and Discussion. The Audit Committee shall review and discuss with the Company's management and independent auditor the Company's audited financial statements, including the matters about which Statement on Auditing Standards No. 61 (Codification of Statements on Auditing Standards, AU sec.380) requires discussion.

7. Recommendation to Board Regarding Financial Statements. The Audit Committee shall consider whether it will recommend to the Board of Directors that the Company's audited financial statements be included in the Company's Annual Report on Form 10-K.

8. Audit Committee Report. The Audit Committee shall prepare an annual committee report for inclusion where necessary in the proxy statement of the Company relating to its annual meeting of security holders.

REVIEW OF OTHER FINANCIAL DISCLOSURES

9. Independent Auditor Review of Interim Financial Statements. The Audit Committee shall direct the independent auditor to use its best efforts to perform all reviews of interim financial information prior to disclosure by the Company of such information and to discuss promptly with the Audit Committee and the Chief Financial Officer any matters identified in connection with the auditor's review of interim financial information which are required to be discussed by applicable auditing standards. The Audit Committee shall direct management to advise the Audit Committee in the event that the Company proposes to disclose interim financial information prior to completion of the independent auditor's review of interim financial information.

10. Earnings Release and Other Financial Information. The Audit Committee shall discuss generally the types of information to be disclosed in the Company's earnings press releases, as well as in financial information and earnings guidance provided to analysts, rating agencies and others. The Audit Committee need not discuss in advance each earnings release or each instance in which the Company may provide earnings guidance.

11. Quarterly Financial Statements. The Audit Committee shall discuss with the Company's management and independent auditor the Company's quarterly financial statements.

CONTROLS AND PROCEDURES

12. Oversight. The Audit Committee shall coordinate the Board of Directors' oversight of the Company's internal control over financial reporting, disclosure controls and procedures and code of conduct. The Audit Committee shall receive and review the reports of the CEO and CFO required by Rule 13a-14 of the Exchange Act.

The Audit Committee shall review the reports on internal accounting controls contemplated by Sections 103 and 404 of the Sarbanes-Oxley Act.

The Audit Committee, where appropriate, shall discuss with the Company's outside counsel, legal matters that may have a material impact on the financial statements or the Company's compliance policies.

The Audit Committee shall be notified of all communications and discussions with the SEC's accounting staff and the Audit Committee shall receive copies of all correspondence between the Company and the SEC's accounting staff.

13. Procedures for Complaints. The Audit Committee shall establish procedures for (i) the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters; and (ii) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.

14. Related-Party Transactions. The Audit Committee shall review all "related party transactions" (defined as transactions required to be disclosed pursuant to Item 404 of Regulation S-K) on an ongoing basis, and all such transactions must be approved by the Audit Committee.

15. Additional Powers. The Audit Committee shall have such other duties as may be delegated to it from time to time by the Board of Directors.

PROCEDURES AND ADMINISTRATION

16. Meetings. The Audit Committee shall meet as often as it deems necessary in order to perform its responsibilities. The Audit Committee may also act by unanimous written consent in lieu of a meeting. The Audit Committee may, as deemed necessary, meet separately with: (i) the independent auditor; (ii) Company management; and (iii) the Company's internal auditors. The Audit Committee shall keep such records of its meetings as it shall deem appropriate.

17. Subcommittees. The Audit Committee may form and delegate authority to one or more subcommittees (including a subcommittee consisting of a single member), as it deems appropriate from time to time

under the circumstances. Any decision of a subcommittee to preapprove audit, review, attest or non-audit services shall be presented to the full Audit Committee at its next scheduled meeting.

18. Reports to Board. The Audit Committee shall report regularly to the Board of Directors. The Audit Committee shall review with the full Board of Directors any issues that arise with respect to the quality or integrity of the Company's financial statements, the Company's compliance with legal or regulatory requirements, the performance and independence of the Company's independent auditors or the performance of the internal audit function.

19. Charter. At least annually, the Audit Committee shall review and reassess the adequacy of this Charter.

20. Independent Advisors. The Audit Committee is authorized, without further action by the Board of Directors, to engage such independent legal, accounting and other advisors as it deems necessary or appropriate to carry out its responsibilities. Such independent advisors may be the regular advisors to the Company. The Audit Committee is empowered, without further action by the Board of Directors, to cause the Company to pay the compensation of such advisors as established by the Audit Committee.

21. Investigations. The Audit Committee shall have the authority to conduct or authorize investigations into any matters within the scope of its responsibilities as it shall deem appropriate, including the authority to request any officer, employee or advisor of the Company to meet with the Audit Committee or any advisors engaged by the Audit Committee.

22. Funding. The Audit Committee is empowered, without further action by the Board of Directors, to cause the Company to pay the ordinary administrative expenses of the Audit Committee that are necessary or appropriate in carrying out its duties.

MKS INSTRUMENTS, INC.

NOMINATING AND CORPORATE GOVERNANCE COMMITTEE CHARTER

A. PURPOSE

The purpose of the Nominating and Corporate Governance Committee is to:

- recommend to the Board the persons to be nominated for election as directors at any meeting of stockholders; and
- develop and recommend to the Board a set of corporate governance principles applicable to the Company.

B. STRUCTURE AND MEMBERSHIP

1. Number. The Nominating and Corporate Governance Committee shall consist of such number of directors as the Board shall from time to time determine.

2. Independence. Except as otherwise permitted by the applicable rules of NASDAQ, each member of the Nominating and Corporate Governance Committee shall be an "independent director" as defined by such rules.

3. Chair. Unless the Board elects a Chair of the Nominating and Corporate Governance Committee, the Committee shall elect a Chair by majority vote.

4. Compensation. The compensation of Nominating and Corporate Governance Committee members shall be as determined by the Board.

5. Selection and Removal. Members of the Nominating and Corporate Governance Committee shall be appointed by the Board, upon the recommendation of the Committee. The Board may remove members of the Nominating and Corporate Governance Committee from such Committee, with or without cause.

C. AUTHORITY AND RESPONSIBILITIES

GENERAL

1. Discharge of Duties. The Nominating and Corporate Governance Committee shall discharge its responsibilities, and shall assess the information provided by the Company's management, in accordance with its business judgment.

2. Additional Powers. The Nominating and Corporate Governance Committee shall have such duties, in addition to those enumerated herein, as may be delegated from time to time by the Board of Directors.

BOARD AND COMMITTEE MEMBERSHIP

1. Selection of Director Nominees. Except where the Company is legally required by contract, bylaw or otherwise to provide third parties with the right to nominate directors, the Nominating and Corporate Governance Committee shall be responsible for recommending to the Board the nominees for election as directors at any meeting of stockholders and the persons to be elected by the Board to fill any vacancies on the Board. In making such recommendations, the Committee shall consider candidates proposed by stockholders. The Committee shall review and evaluate information available to it regarding candidates proposed by stockholders and shall apply the same criteria, and shall follow substantially the same process in considering them, as it does in considering other candidates.

2. Criteria for Selecting Directors. The Board's criteria for selecting directors are as set forth in Attachment A to this charter. The Nominating and Corporate Governance Committee shall use such criteria to guide its director selection process. The Committee shall be responsible for reviewing with the Board, on an

annual basis, the requisite skills and criteria for new Board members as well as the composition of the Board as a whole. The Committee may adopt, and periodically review and revise as it deems appropriate, procedures regarding director candidates proposed by stockholders.

3. Search Firms. The Nominating and Corporate Governance Committee shall have the authority to retain and terminate any search firm to be used to identify director nominees, including authority to approve the search firm's fees and other retention terms. The Committee is empowered, without further action by the Board, to cause the Company to pay the compensation of any search firm engaged by the Committee.

4. Selection of Committee Members. The Nominating and Corporate Governance Committee shall be responsible for recommending to the Board the directors to be appointed to each committee of the Board.

CORPORATE GOVERNANCE

1. Corporate Governance Guidelines. The Nominating and Corporate Governance Committee shall develop and recommend to the Board a set of Corporate Governance Guidelines applicable to the Company. The Committee shall, from time to time as it deems appropriate, review and reassess the adequacy of such Corporate Governance Guidelines and recommend any proposed changes to the Board for approval.

D. PROCEDURES AND ADMINISTRATION

1. Meetings. The Nominating and Corporate Governance Committee shall meet as often as it deems necessary in order to perform its responsibilities. The Committee shall keep such records of its meetings as it shall deem appropriate.

2. Subcommittees. The Nominating and Corporate Governance Committee may form and delegate authority to one or more subcommittees (including a subcommittee consisting of a single member), as it deems appropriate from time to time under the circumstances.

3. Reports to the Board. The Nominating and Corporate Governance Committee shall report regularly to the Board.

4. Charter. The Nominating and Corporate Governance Committee shall, from time to time as it deems appropriate, review and reassess the adequacy of this Charter and recommend any proposed changes to the Board for approval.

5. Independent Advisors. The Nominating and Corporate Governance Committee shall have the authority to engage such independent legal and other advisors as it deems necessary or appropriate to carry out its responsibilities. Such independent advisors may be the regular advisors to the Company. The Committee is empowered, without further action by the Board, to cause the Company to pay the compensation of such advisors as established by the Committee.

6. Investigations. The Nominating and Corporate Governance Committee shall have the authority to conduct or authorize investigations into any matters within the scope of its responsibilities as it shall deem appropriate, including the authority to request any officer, employee or advisor of the Company to meet with the Committee or any advisors engaged by the Committee.

7. Annual Self-Evaluation. At least annually, the Nominating and Corporate Governance Committee shall evaluate its own performance.

As adopted by the Board of Directors
on March 4, 2004

CRITERIA FOR NOMINATION AS A DIRECTOR

GENERAL CRITERIA

1. Nominees should have a reputation for integrity, honesty and adherence to high ethical standards.

2. Nominees should have demonstrated business acumen, experience and ability to exercise sound judgments in matters that relate to the current and long-term objectives of the Company and should be willing and able to contribute positively to the decision-making process of the Company.

3. Nominees should have a commitment to understand the Company and its industry and to regularly attend and participate in meetings of the Board and its committees.

4. Nominees should have the interest and ability to understand the sometimes conflicting interests of the various constituencies of the Company, which include stockholders, employees, customers, governmental units, creditors and the general public, and to act in the interests of all stockholders.

5. Nominees should not have, nor appear to have, a conflict of interest that would impair the nominee's ability to represent the interests of all the Company's stockholders and to fulfill the responsibilities of a director.

6. Nominees shall not be discriminated against on the basis of race, religion, national origin, sex, sexual orientation, disability or any other basis proscribed by law. The value of diversity on the Board should be considered.

7. Nominees should normally be under the age of 75 at the time of nomination.

APPLICATION OF CRITERIA TO EXISTING DIRECTORS

The renomination of existing directors should not be viewed as automatic, but should be based on continuing qualification under the criteria set forth above. In addition, the Nominating and Corporate Governance Committee shall consider the existing directors' performance on the Board and any committee.

CRITERIA FOR COMPOSITION OF THE BOARD

The backgrounds and qualifications of the directors considered as a group should provide a significant breadth of experience, knowledge and abilities that shall assist the Board in fulfilling its responsibilities.

MKS INSTRUMENTS, INC.

2004 STOCK INCENTIVE PLAN

1. Purpose

The purpose of this 2004 Stock Incentive Plan (the "Plan") of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to better align their interests with those of the Company's stockholders. Except where the context otherwise requires, the term "Company" shall include any of the Company's present or future subsidiary corporations as defined in Section 424(f) of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code") and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the "Board").

2. Eligibility

All of the Company's employees, officers, directors, consultants and advisors are eligible to receive options, restricted stock awards, stock appreciation rights and other stock-based awards (each, an "Award") under the Plan. Each person who receives an Award under the Plan is deemed a "Participant".

3. Administration and Delegation

(a) Administration by Board of Directors. The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award. No director or person acting pursuant to the authority delegated by the Board shall be liable for any action or determination relating to or under the Plan made in good faith.

(b) Appointment of Committees.

(1) To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "Committee"). During such time as the common stock, no par value per share, of the Company (the "Common Stock") is registered under the Securities Exchange Act of 1934 (the "Exchange Act"), the Board shall appoint one such Committee of not less than two members, each member of which shall be an "outside director" within the meaning of Section 162(m) of the Code and a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act.

(2) To the extent permitted by applicable law, the Board may delegate to one or more officers of the Company, who, if required by law, are also members of the Board, the power to make Awards and exercise such other powers under the Plan as the Board shall determine, provided that the Board shall fix the maximum number of shares subject to Awards to be made by any such person and such other terms as the Board may determine are appropriate.

(3) All references in the Plan to the "Board" shall mean the Board, a Committee of the Board or any person described in subsection (2) above, to the extent that the Board's powers or authority under the Plan have been delegated to such Committee or person.

4. Stock Available for Awards

(a) Number of Shares. Subject to adjustment under Section 9, the number of shares of Common Stock available for Awards under the Plan: (i) shall annually increase by 5% of the total shares of the Company's outstanding Common Stock on January 1 of each year; and (ii) in the event of an increase in the total shares of the Company's Common Stock after January 1 of any such year in connection with the acquisition of any corporation, partnership or other business entity by the Company (whether by merger, stock purchase or otherwise), shall increase by 5% of such increased amount. Such increases shall occur until such time as the aggregate number of shares of Common Stock which may be issued under the Plan is 15,000,000 shares, subject to adjustment under Section 9. If any Award expires or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right) or results in any Common Stock not being issued, the unused Common Stock covered by such Award shall again be available for the grant of Awards under the Plan, subject, however, in the case of Incentive Stock Options (as hereinafter defined), to any limitations under the Code. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(b) Per-Participant Limit. Subject to adjustment under Section 9, the maximum number of shares of Common Stock with respect to which Awards may be granted to any Participant under the Plan shall be 900,000 per calendar year. The per-Participant limit described in this Section 4(b) shall be construed and applied consistently with Section 162(m) of the Code.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an "Option") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable. An Option which is not intended to be an Incentive Stock Option (as hereinafter defined) shall be designated a "Nonstatutory Stock Option".

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "Incentive Stock Option") shall only be granted to employees of MKS Instruments, Inc., any of MKS Instruments, Inc.'s present or future subsidiary corporations as defined in Section 424(f) of the Code, and any other entities the

employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or for any action taken by the Board pursuant to Section 10(f), including without limitation the conversion of an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify such exercise price in the applicable option agreement.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement; provided, however, that no Option will be granted for a term in excess of 10 years.

(e) Exercise of Option. Options may be exercised by delivery to the Company of a written notice of exercise signed by the proper person or by any other form of notice (including electronic notice) approved by the Board together with payment in full as specified in Section 5(f) for the number of shares for which the Option is exercised.

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

- (1) in cash or by check, payable to the order of the Company;
- (2) except as the Board may otherwise provide in an option agreement, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;
- (3) to the extent permitted by applicable law and by the Board, by (i) delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) payment of such other lawful consideration as the Board may determine; or
- (4) by any combination of the above permitted forms of payment.

6. Stock Appreciation Rights.

(a) Nature of Stock Appreciation Rights. A Stock Appreciation Right, or SAR, is an Award entitling the holder on exercise to receive an amount in cash or Common Stock or a combination thereof (such form to be determined by the Board) determined in whole or in part by reference to appreciation, from and after the date of grant, in the fair market value of a share of Common Stock. SARs may be based solely on appreciation in the fair market value of Common Stock or on a comparison of such appreciation with some other measure of market growth such as (but not limited to) appreciation in a recognized market index. The date as of which such appreciation or other measure is determined shall be the exercise date unless another date is specified by the Board in the SAR Award.

(b) Grants. Stock Appreciation Rights may be granted in tandem with, or independently of, Options granted under the Plan.

(c) Exercise. Any exercise of a Stock Appreciation Right must be in writing, signed by the proper person and delivered or mailed to the Company, accompanied by any other documents required by the Board.

7. Restricted Stock.

(a) Grants. The Board may grant Awards entitling recipients to acquire shares of Common Stock, subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award (each, a "Restricted Stock Award").

(b) Terms and Conditions. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for repurchase (or forfeiture) and the issue price, if any.

(c) Stock Certificates. Any stock certificates issued in respect of a Restricted Stock Award shall be registered in the name of the Participant and, unless otherwise determined by the Board, deposited by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death (the "Designated Beneficiary"). In the absence of an effective designation by a Participant, "Designated Beneficiary" shall mean the Participant's estate.

(d) Deferred Delivery of Shares. The Board may, at the time any Restricted Stock Award is granted, provide that, at the time Common Stock would otherwise be delivered pursuant to the Award, the Participant shall instead receive an instrument evidencing the right to future delivery of Common Stock at such time or times, and on such conditions, as the Board shall specify. The Board may at any time accelerate the time at which delivery of all or any part of the Common Stock shall take place.

8. Other Stock-Based Awards.

Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants ("Other Stock Unit Awards"), including without limitation Awards entitling recipients to receive shares of Common Stock to be delivered in the future. Such Other Stock Unit Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock Unit Awards may be paid in shares of Common Stock or cash, as the Board shall determine. Subject to the provisions of the Plan, the Board shall determine the conditions of each Other Stock Unit Award, including any purchase

price applicable thereto. At the time any Award is granted, the Board may provide that, at the time Common Stock would otherwise be delivered pursuant to the Award, the Participant will instead receive an instrument evidencing the Participant's right to future delivery of the Common Stock.

9. Adjustments for Changes in Common Stock and Certain Other Events.

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under this Plan, (ii) the per-Participant limit set forth in Section 4(b), (iii) the number and class of securities and exercise price per share of each outstanding Option, (iv) the repurchase price per share subject to each outstanding Restricted Stock Award and (v) the share- and per-share-related provisions of each outstanding Stock Appreciation Right and Other Stock Unit Award, shall be appropriately adjusted by the Company (or substituted Awards may be made, if applicable) to the extent determined by the Board.

(b) Reorganization Events.

(1) Definition. A "Reorganization Event" shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property, (b) any exchange of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock Awards. In connection with a Reorganization Event, the Board shall take any one or more of the following actions as to all or any outstanding Awards on such terms as the Board determines: (i) provide that Awards shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written notice to a Participant, provide that the Participant's unexercised Options or other unexercised Awards shall become exercisable in full and will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become realizable or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the "Acquisition Price"), make or provide for a cash payment to a Participant equal to (A) the Acquisition Price times the number of shares of Common Stock subject to the Participant's Options or other Awards (to the extent the exercise price does not exceed the Acquisition Price) minus (B) the aggregate exercise price of all such outstanding Options or other Awards, in exchange for the termination of such Options or other Awards, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise price thereof) and (vi) any combination of the foregoing.

For purposes of clause (i) above, an Option shall be considered assumed if, following consummation of the Reorganization Event, the Option confers the right to purchase, for each share of Common Stock subject to the Option immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise of Options to consist solely of common stock of the acquiring or succeeding corporation (or an affiliate thereof) equivalent in fair market value to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

To the extent all or any portion of an Option becomes exercisable solely as a result of clause (ii) above, the Board may provide that upon exercise of such Option the Participant shall receive shares subject to a right of repurchase by the Company or its successor at the Option exercise price; such repurchase right (x) shall lapse at the same rate as the Option would have become exercisable under its terms and (y) shall not apply to any shares subject to the Option that were exercisable under its terms without regard to clause (ii) above.

(3) Consequences of a Reorganization Event on Restricted Stock Awards. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company under each outstanding Restricted Stock Award shall inure to the benefit of the Company's successor and shall apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to the Common Stock subject to such Restricted Stock Award. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock Award or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock Awards then outstanding shall automatically be deemed terminated or satisfied.

10. General Provisions Applicable to Awards

(a) Transferability of Awards. Except as the Board may otherwise determine or provide in an Award, Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an Incentive Stock Option, pursuant to a qualified domestic relations order, and, during the life of the Participant, shall be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, retirement, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. Each Participant shall pay to the Company, or make provision satisfactory to the Company for payment of, any taxes required by law to be withheld in connection with an Award to such Participant. The Company may, to the extent permitted by law, deduct any such tax obligations from any payment of any kind otherwise due to a Participant.

(f) Amendment of Award. The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option, provided that the Participant's consent to such action shall be required unless the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

11. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any

shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to such Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board, but no Award may be granted unless and until the Plan has been approved by the Company's stockholders. No Awards shall be granted under the Plan after the completion of 10 years from the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time; provided that, to the extent determined by the Board, no amendment requiring stockholder approval under any applicable legal, regulatory or listing requirement shall become effective until such stockholder approval is obtained. No Award shall be made that is conditioned upon stockholder approval of any amendment to the Plan.

(e) Provisions for Foreign Participants. The Board may modify Awards or Options granted to Participants who are foreign nationals or employed outside the United States or establish subplans or procedures under the Plan to recognize differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.

(f) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the Commonwealth of Massachusetts, without regard to any applicable conflicts of law.

As approved by the Board of
Directors on March 4, 2004

MKS INSTRUMENTS, INC.

AMENDED AND RESTATED 1997 DIRECTOR STOCK OPTION PLAN

(as of March 2004)

1. Purpose.

The purpose of this Amended and Restated 1997 Director Stock Option Plan (the "Plan") of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), is to encourage ownership in the Company by non-employee directors of the Company whose continued services are considered essential to the Company's future progress and to provide them with a further incentive to remain as directors of the Company.

2. Administration.

The Board of Directors shall supervise and administer the Plan. Grants of stock options under the Plan and the amount and nature of the awards to be granted shall be automatic in accordance with Section 5. However, all questions of interpretation of the Plan or of any options issued under it shall be determined by the Board of Directors and such determination shall be final and binding upon all persons having an interest in the Plan.

3. Participation in the Plan.

Directors of the Company who are not employees of the Company or any subsidiary of the Company shall be eligible to participate in the Plan.

4. Stock subject to the Plan.

(a) Definition of Common Stock. "Common Stock" means (i) prior to the closing of the Company's initial public offering of common stock pursuant to an effective registration statement under the Securities Act of 1933 ("IPO"), the Class B Common Stock, no par value per share, of the Company, and (ii) from and after the closing of the IPO, the Common Stock, no par value per share, of the Company.

(b) The maximum number of shares of the Company's Common Stock which may be issued under the Plan shall be 750,000 shares, subject to adjustment as provided in Section 7. All share amounts set forth in this Plan reflect all stock splits effected prior to April 16, 2003 (the "Restatement Date").

(c) If any outstanding option under the Plan for any reason expires or is terminated without having been exercised in full, the shares allocable to the unexercised portion of such option shall again become available for grant pursuant to the Plan.

(d) All options granted under the Plan shall be nonstatutory options not entitled to special tax treatment under Section 422 of the Internal Revenue Code of 1986, as amended to date and as it may be amended from time to time (the "Code").

5. Terms, Conditions and Form of Options.

Each option granted under the Plan shall be evidenced by a written agreement in such form as the Board of Directors shall from time to time approve, which agreements shall comply with and be subject to the following terms and conditions:

(a) Option Grant Dates. Options shall automatically be granted to all eligible outside directors as follows:

(i) each person who first becomes an eligible outside director after the Restatement Date shall be granted an option to purchase 20,000 shares of Common Stock on the date of his or her initial election to the Board of Directors; and

(ii) each eligible outside director then in office on the date of each annual meeting of stockholders of the Company shall be granted an additional option to purchase 12,000 shares of Common Stock on the date of each such annual meeting of stockholders, provided that he or she was elected to serve as a director of the Company at least six months prior to the date of such meeting.

(b) Option Exercise Price. The option exercise price per share for each option granted under the Plan shall equal (i) the last reported sales price per share of the Company's Common Stock on the Nasdaq National Market (or, if the Common Stock is traded on a national securities exchange on the date of grant, the reported closing sales price per share of the Common Stock on such exchange) on the date of grant (or if no such price is reported on such date such price as reported on the nearest preceding day), (ii) if the Common Stock is not traded on the Nasdaq National Market or a national securities exchange, the fair market value per share on the date of grant as determined by the Board of Directors or (iii) the average of the closing bid and asked prices in the over-the-counter market.

(c) Transferability of Options. Except as the Board of Directors of the Company may otherwise determine or provide in a written agreement entered into in connection with the grant of an option under the Plan, options shall not be sold, assigned, transferred, pledged or otherwise encumbered by the Optionee, either voluntarily or by operation of law except by will or the laws of descent and distribution, and during the life of the optionee and shall be exercisable only by him. Reference to an optionee, to the extent relevant in the context, shall include references to authorized transferees.

(d) Vesting Period. Except as the Board may otherwise determine or provide in a written agreement entered into in connection with the grant of an option under the Plan, each option granted pursuant to paragraph (a)(i) of this Section 5 shall become exercisable in twelve (12) equal quarterly installments following the date of grant. Each option granted pursuant to paragraph (a)(ii) of this Section 5 shall become fully exercisable on the day prior to the first annual meeting of stockholders of the Company following the date of grant (or if no such meeting is held within thirteen (13) months after the date of grant, on the thirteen-month anniversary of the date of grant).

(e) Termination. Upon termination of an optionee's service as a director of the Company, each option held by him may be exercised during the one-year period following such termination of service, as to the exercisable portion of such option as of the date of termination, provided that (i) no option may be exercised more than ten (10) years after the date of grant and (ii) in the event an optionee ceases to serve as a director due to his death or disability (within the meaning of Section 22(e)(3) of the Code or any successor provision), each option may be exercised, within the one-year period following the date the optionee ceases to serve as a director, by the optionee or by the person to whom the option is transferred by will, by the laws of descent and distribution, or by written notice, as to the portion of the option that is exercisable on the date of death or disability and as to the additional portion that would have become exercisable on the next anniversary date of the date of grant of such option.

(f) Exercise Procedure. Options may be exercised only by written notice to the Company at its principal office accompanied by (i) payment in cash of the full consideration for the shares as to which they are exercised or (ii) an irrevocable undertaking, in form and substance satisfactory to the Company, by a broker to deliver promptly to the Company sufficient funds to pay the exercise price or delivery of

irrevocable instructions, in form and substance satisfactory to the Company, to a broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price.

(g) Exercise by Representative Following Death of Director. An optionee, by written notice to the Company, may designate one or more persons (and from time to time change such designation), including his or her legal representative, who, by reason of the director's death, shall acquire the right to exercise all or a portion of the option. If the person or persons so designated wish to exercise any portion of the option, they must do so within the term of the option as provided herein. Any exercise by a representative shall be subject to the provisions of the Plan.

6. Limitation of Rights.

(a) No Right to Continue as a Director. Neither the Plan, nor the granting of an option nor any other action taken pursuant to the Plan, shall constitute or be evidence of any agreement or understanding, express or implied, that the Company will retain the optionee as a director for any period of time.

(b) No Stockholders' Rights for Options. An optionee shall have no rights as a stockholder with respect to the shares covered by his options until the date of the issuance to him of a stock certificate therefor, and no adjustment will be made for dividends or other rights (except as provided in Section 7) for which the record date is prior to the date such certificate is issued.

7. Changes in Common Stock.

(a) If, at any time after the Restatement Date, the outstanding shares of Common Stock are increased, decreased or exchanged for a different number or kind of shares or other securities, or if additional shares or new or different shares or other securities are distributed with respect to such shares of Common Stock or other securities, through merger, consolidation, sale of all or substantially all of the assets of the Company, reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other distribution with respect to such shares of Common Stock, or other securities, an appropriate and proportionate adjustment will be made in (i) the maximum number and kind of shares reserved for issuance under the Plan, (ii) the number and kind of shares or other securities issuable pursuant to Sections 5(a)(i) and 5(a)(ii) above, (iii) the number and kind of shares or other securities subject to then outstanding options under the Plan and (iv) the price for each share subject to any then outstanding options under the Plan, without changing the aggregate purchase price as to which such options remain exercisable. No fractional shares will be issued under the Plan on account of any such adjustments.

(b) In the event of (i) a consolidation, merger or other reorganization in which all of the outstanding shares of Common Stock are exchanged for securities, cash or other property of any other corporation or business entity or (ii) any sale of all or substantially all of the Company's assets (in either event, an "Acquisition"), all options outstanding under the Plan immediately prior to the effective date of such Acquisition shall become automatically exercisable in full upon the effective date of such Acquisition.

8. Amendment of the Plan.

The Board of Directors may suspend or discontinue the Plan or revise or amend it in any respect whatsoever; provided, however, that without approval of the stockholders of the Company no revision or amendment shall change the number of shares subject to the Plan (except as provided in Section 7).

9. Notice.

Any written notice to the Company required by any of the provisions of the Plan shall be addressed to the Chief Financial Officer of the Company and shall become effective when it is received.

10. Governing Law.

The Plan and all determinations made and actions taken pursuant hereto shall be governed by the laws of The Commonwealth of Massachusetts.

Adopted by the Board of Directors on December 31, 1997 and approved by the stockholders on January 9, 1998; Amendments and restatement approved by the Board of Directors on April 16, 2003; Amendment approved by the Board of Directors on March 4, 2004, subject to stockholder approval.

MKS INSTRUMENTS, INC.

SECOND RESTATED 1999 EMPLOYEE STOCK PURCHASE PLAN
(AS OF MARCH 2004)

The purpose of this Plan is to provide eligible employees of MKS Instruments, Inc. (the "Company") and certain of its subsidiaries with opportunities to purchase shares of the Company's Common Stock, no par value per share (the "Common Stock"), commencing on June 1, 1999; provided, that at such time the Company's Common Stock shall be listed for trading on the Nasdaq National Market or a national securities exchange. An aggregate of 1,250,000 shares of Common Stock have been approved for this purpose. This Plan is intended to qualify as an "employee stock purchase plan" as defined in Section 423 of the Internal Revenue Code of 1986, as amended (the "Code") and the regulations promulgated thereunder, and shall be interpreted consistent therewith.

1. Administration. The Plan will be administered by the Company's Board of Directors (the "Board") or by a Committee appointed by the Board (the "Committee"). The Board or the Committee has authority to make rules and regulations for the administration of the Plan and its interpretation and decisions with regard thereto shall be final and conclusive.

2. Eligibility. All employees of the Company, including Directors who are employees, and all employees of any subsidiary of the Company (as defined in Section 424(f) of the Code) designated by the Board or the Committee from time to time (a "Designated Subsidiary"), including employees of the Company or any Designated Subsidiary who are "highly compensated" within the meaning of Section 414(q) of the Code, are eligible to participate in any one or more of the Offerings (as defined in Section 9) to purchase Common Stock under the Plan provided that:

(a) they are customarily employed by the Company or a Designated Subsidiary for more than 20 hours a week and for more than five months in a calendar year; and

(b) they have been employed by the Company or a Designated Subsidiary for at least three (3) months prior to enrolling in the Plan; and

(c) they are employees of the Company or a Designated Subsidiary on the first day of the applicable Plan Period (as defined below).

No employee may be granted an option hereunder if such employee, immediately after the option is granted, owns 5% or more of the total combined voting power or value of the stock of the Company or any subsidiary. For purposes of the preceding sentence, the attribution rules of Section 424(d) of the Code shall apply in determining the stock ownership of an employee, and all stock which the employee has a contractual right to purchase shall be treated as stock owned by the employee.

3. Offerings. The Company will make one or more offerings ("Offerings") to employees to purchase stock under this Plan. Offerings will begin each June 1 and December 1, or the first business day thereafter (the "Offering Commencement Dates"). Each Offering Commencement Date will begin a six (6) month period (a "Plan Period") during which Payroll deductions will be made and held for the purchase of Common Stock at the end of the Plan Period. The Board or the Committee may, at its discretion, choose a different Plan Period of twelve (12) months or less for subsequent Offerings.

4. Participation. An employee eligible on the Offering Commencement Date of any Offering may participate in such Offering by completing and forwarding a payroll deduction authorization form to the employee's appropriate payroll office at least 30 days prior to the applicable Offering Commencement Date. The form will authorize a regular payroll deduction from the Compensation, as defined below, received by the employee during the Plan Period. Unless an employee files a new form or withdraws from the Plan, his deductions and purchases will continue at the same rate for future Offerings under the Plan as long as the Plan remains in effect. The term "Compensation" means the amount of money reportable on the employee's Federal Income Tax Withholding Statement, including overtime, shift premium, incentive or bonus awards and any other variable sales compensation and excluding allowances and reimbursements for expenses such as relocation allowances for travel expenses, income or gains on the exercise of Company stock options or stock appreciation rights, and similar items, whether or not shown on the employee's Federal Income Tax Withholding Statement, but including, in the case of salespersons, sales commissions to the extent determined by the Board or the Committee.

5. Deductions. The Company will maintain payroll deduction accounts for all participating employees. With respect to any Offering made under this Plan, an employee may authorize a payroll deduction in any whole percent amount up to a maximum of 10% (or such lower percentage as may be established by the Board or the Committee) of the Compensation he or she receives during the Plan Period or such shorter period during which deductions from payroll are made. The minimum payroll deduction is such percentage of compensation as may be established from time to time by the Board or the Committee.

No employee may be granted an Option (as defined in Section 9) which permits his rights to purchase Common Stock under this Plan and any other employee stock purchase plan (as defined in Section 423(b) of the Code) of the Company and its subsidiaries, to accrue at a rate which exceeds \$25,000 of the fair market value of such Common Stock (determined at the Offering Commencement Date of the Plan Period) for each calendar year in which the Option is outstanding at any time.

6. Deduction Changes. An employee may decrease, subject to section 5 hereof or discontinue his payroll deduction once during any Plan Period, by filing a new payroll deduction authorization form. However, an employee may not elect to increase his payroll deduction during

a Plan Period. If an employee elects to discontinue his payroll deductions during a Plan Period, but does not elect to withdraw his funds pursuant to Section 8 hereof, funds deducted prior to his election to discontinue will be applied to the purchase of Common Stock on the Exercise Date (as defined below).

7. Interest. Interest will not be paid on employee accounts.

8. Withdrawal of Funds. An employee may at any time prior to the close of business on the last business day in a Plan Period and for any reason permanently draw out the balance accumulated in the employee's account and thereby withdraw from participation in an Offering. Partial withdrawals are not permitted. The employee may not begin participation again during the remainder of the Plan Period. The employee may participate in any subsequent Offering in accordance with terms and conditions established by the Board or the Committee.

9. Purchase of Shares. On the Offering Commencement Date of each Plan Period, the Company will grant to each eligible employee who is then a participant in the Plan an option ("Option") to purchase on the last business day of such Plan Period (the "Exercise Date"), at the Option Price hereinafter provided for, the largest number of shares (fractional or whole) of Common Stock of the Company as does not exceed the number of shares determined by multiplying \$2,083 by the number of full months in the Offering Period and dividing the results by the closing price (as defined below) on the Offering Commencement Date of such Plan Period.

The purchase price for each share purchased will be 85% of the closing price of the Common Stock on (i) the first business day of such Plan Period or (ii) the Exercise Date, whichever closing price shall be less. Such closing price shall be (a) the closing price on any national securities exchange on which the Common Stock is listed, (b) the closing price of the Common Stock on the Nasdaq National Market or (c) the average of the closing bid and asked prices in the over-the-counter-market, whichever is applicable, as published in The Wall Street Journal. If no sales of Common Stock were made on such a day, the price of the Common Stock for purposes of clauses (a) and (b) above shall be the reported price for the next preceding day on which sales were made.

Each employee who continues to be a participant in the Plan on the Exercise Date shall be deemed to have exercised his Option at the Option Price on such date and shall be deemed to have purchased from the Company the number of full shares of Common Stock reserved for the purpose of the Plan that his accumulated payroll deductions on such date will pay for, but not in excess of the maximum number determined in the manner set forth above.

Any balance remaining in an employee's payroll deduction account at the end of a Plan Period will be automatically refunded to the employee, except that any balance which is less than the purchase price of one share of Common Stock will be carried forward into the employee's payroll deduction account for the following Offering, unless the employee elects not to participate in the following Offering under the Plan, in which case the balance in the employee's account shall be refunded.

10. Issuance of Certificates. Certificates representing shares of Common Stock purchased under the Plan may be issued only in the name of the employee, in the name of the employee and another person of legal age as joint tenants with rights of survivorship, or (in the Company's sole discretion) in the name of a brokerage firm, bank or other nominee holder designated by the employee. The Company may, in its sole discretion and in compliance with applicable laws, authorize the use of book entry registration of shares in lieu of issuing stock certificates.

11. Rights on Retirement, Death or Termination of Employment. In the event of a participating employee's termination of employment prior to the last business day of a Plan Period, no payroll deduction shall be taken from any pay due and owing to an employee and the balance in the employee's account shall be paid to the employee or, in the event of the employee's death, (a) to a beneficiary previously designated in a revocable notice signed by the employee (with any spousal consent required under state law) or (b) in the absence such a designated beneficiary, to the executor or administrator of the employee's estate or (c) if no such executor or administrator has been appointed to the knowledge of the Company, to such other person(s) as the Company may, in its discretion, designate. If, prior to the last business day of the Plan Period, the Designated Subsidiary by which an employee is employed shall cease to be a subsidiary of the Company, or if the employee is transferred to a subsidiary of the Company that is not a

Designated Subsidiary, the employee shall be deemed to have terminated employment for the purposes of this Plan.

12. Optionees not Stockholders. No employee shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Option until becoming the record holder or such shares. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend (and the exercise price of and the number of shares subject to such Option are adjusted as of the date of the distribution of the dividend rather than as of the record date for such dividend), then an optionee who is deemed to have exercised an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock.

13. Rights not Transferable. Rights under this Plan are not transferable by a participating employee other than by will or the laws of descent and distribution, and are exercisable during the employee's lifetime only by the employee.

14. Application of Funds. All funds received or held by the Company under this Plan may be combined with other corporate funds and may be used for any corporate purpose.

15. Adjustment in Case of Changes Affecting Common Stock. In the event of a subdivision of outstanding shares of Common Stock, or the payment of a dividend in Common Stock, the number of shares approved for this Plan, and the share limitation set forth in Section 9, shall be increased proportionately, and such other adjustment shall be made as may be deemed equitable by the Board or the Committee. In the event of any other change affecting the Common Stock, such adjustment shall be made as may be deemed equitable by the Board or the Committee to give proper effect to such event.

16. Merger. If the Company shall at any time merge or consolidate with another corporation and the holders of the capital stock of the Company immediately prior to such merger or consolidation continue to hold at least 80% by voting power of the capital stock of the surviving corporation ("Continuity of Control"), the holder of each Option then outstanding will thereafter be entitled to receive at the next Exercise Date upon the exercise of such Option for each share as to which such Option shall be exercised the securities or property which a holder of one share of the Common Stock was entitled to upon and at the time of such merger or consolidation, and the Board or the Committee shall take such steps in connection with such merger or consolidation as the Board or the Committee shall deem necessary to assure that the provisions of Section 15 shall thereafter be applicable, as nearly as reasonably may be, in relation to the said securities or property as to which such holder of such Option might thereafter be entitled to receive thereunder.

In the event of a merger or consolidation of the Company with or into another corporation which does not involve Continuity of Control, or of a sale of all or substantially all of the assets of the Company while unexercised Options remain outstanding under the Plan, all outstanding Options shall be cancelled by the Board or the Committee as of the effective date of any such transaction, provided that notice of such cancellation shall be given to each holder of an Option, and each holder of an Option shall have the right to exercise such Option in full based on payroll deductions then credited to his account as of a date determined by the Board or the Committee, which date shall not be less than ten (10) days preceding the effective date of such transaction.

17. Amendment of the Plan. The Board may at any time, and from time to time, amend this Plan in any respect, except that (a) if the approval of any such amendment by the shareholders of the Company is required by Section 423 of the Code, such amendment shall not be effected without such approval, and (b) in no event may any amendment be made which would cause the Plan to fail to comply with Section 423 of the Code.

18. Sufficient Shares. In the event that the total number of shares of Common Stock specified in elections to be purchased under any Offering plus the number of shares purchased under previous Offerings under this Plan exceeds the maximum number of shares issuable under this Plan, the Board or the Committee will allot the shares then available on a pro rata basis.

19. Termination of the Plan. This Plan may be terminated at any time by the Board. Upon termination of this Plan all amounts in the accounts of participating employees shall be promptly refunded.

20. Governmental Regulations. The Company's obligation to sell and deliver Common Stock under this Plan is subject to listing on a national stock exchange or quotation on the Nasdaq National Market and the approval of all governmental authorities required in connection with the authorization, issuance or sale of such stock.

21. Governing Law. The Plan shall be governed by Massachusetts law except to the extent that such law is preempted by federal law.

22. Issuance of Shares. Shares may be issued upon exercise of an Option from authorized but unissued Common Stock, from shares held in the treasury of the Company, or from any other proper source.

23. Notification Upon Sales of Shares Each employee agrees, by entering the Plan, to promptly give the Company notice of any disposition of shares purchased under the Plan where such disposition occurs within two years after the date of grant of the Option pursuant to which such shares were purchased or one year after the date of exercise of the Option.

24. Withholding. Each employee shall, no later than the date of the event creating the tax liability, make provision satisfactory to the Board for payment of any taxes required by law to be withheld in connection with any transaction related to Options granted to or shares acquired by such employee pursuant to the Plan. The Company may, to the extent permitted by law, deduct any such taxes from any payment of any kind otherwise due to an employee.

25. Effective Date. The effective date of the plan is June 1, 1999.

Adopted by the Board of Directors on February 10, 1999 and approved by the stockholders on February 17, 1999; Amended and Restated by the Board of Directors on April 22, 1999; Amended and Restated by the Board of Directors on August 1, 2002; Amended by the Board of Directors on March 4, 2004, subject to stockholder approval

MKS INSTRUMENTS, INC.

RESTATED INTERNATIONAL EMPLOYEE STOCK PURCHASE PLAN

(AS OF MARCH 2004)

The purpose of this Plan is to provide eligible employees of certain non-U.S. subsidiaries of MKS Instruments, Inc. (the "Company") with opportunities to purchase shares of the Company's common stock (the "Common Stock"), commencing on March 1, 2000. An Aggregate of 250,000 shares of Common Stock have been approved for this purpose.

1. Administration. The Plan will be administered by the Company's Board of Directors (the "Board") or by a Committee appointed by the Board (the "Committee"). The Board or the Committee has authority to make rules and regulations for the administration of the Plan and its interpretation and decisions with regard thereto shall be final and conclusive.

2. Eligibility. All employees of any non-U.S. subsidiary of the Company designated by the Board or the Committee from time to time (a "Subsidiary"), excluding Officers and Directors of the Company who are employees of a Subsidiary, are eligible to participate in any one or more of the offerings of Options (as defined in Section 9) to purchase Common Stock under the Plan provided that:

a. they have been employed by the Subsidiary for at least three (3) months prior to enrolling in the Plan;

b. they are employees of the Subsidiary on the first day of the applicable Plan Period (as defined below);

c. to the extent local law permits such a requirement, they are customarily employed by a Subsidiary for more than twenty (20) hours a week and for more than five (5) months in a calendar year; and

d. they meet any other requirements imposed from time to time by the Board or the Committee on employees of one or more subsidiaries.

No employee may be granted an option hereunder if such employee, immediately after the option is granted, owns 5% or more of the total combined voting power or value of the stock of the Company or any subsidiary. For purposes of the preceding sentence, the attribution rules of Section 424(d) of the U.S. Internal Revenue Code of 1986, as amended (the "Code") shall apply in determining the stock ownership of an employee, and all stock which the employee has a contractual right to purchase shall be treated as stock owned by the employee.

3. Offerings. The Company will make one or more offerings ("Offerings") to employees to purchase stock under this Plan. The first Offering will begin on March 1, 2000 or the first business day thereafter (the "Offering Commencement Dates") and end on May 31, 2000. Thereafter, each June 1 and December 1 or the first business day thereafter will be an Offering Commencement Date. Each Offering Commencement Date after March 1, 2000 will

begin a six (6) month period (a "Plan Period") during which payroll deductions will be made and held for the purchase of Common Stock at the end of the Plan Period. The Board or the Committee may, at its discretion, choose a different Plan Period of twelve (12) months or less for subsequent Offerings.

4. Participation.

a. Enrollment. An employee eligible on the Offering Commencement Date of any Offering may participate in such Offering by enrolling, in such manner and at such time approved, from time to time, by the Board or the Committee, prior to the applicable Offering Commencement Date in said Offering. The enrollment will authorize a regular payroll deduction from the Compensation received by the employee during the Plan Period. Unless an employee changes his enrollment in a manner prescribed by the Committee from time to time or withdraws from the Plan, his deductions and purchases will continue at the same rate for future Offerings under the Plan as long as the Plan remains in effect. The term "Compensation" shall be defined by the Board or the Committee from time to time, but until modified shall mean regular base salary, including overtime, shift premium, incentive or bonus awards and sales commissions and excluding allowances and reimbursements for expenses such as relocation allowances for travel expenses, income or gains on the exercise of Company stock options or stock appreciation rights, and similar items whether or not taxable.

b. Tax Withholding Authorized. The enrollment of each employee shall constitute such participating employee's authorization of his or her employer to deduct from such employee's compensation in the relevant month or months (or subsequent months, if appropriate) any amount necessary for the payment or reimbursement of any tax liability payable by such employee with respect to the grant or exercise of the options hereunder, or the sale of any stock acquired through the exercise of such option.

5. Deductions. The Company will maintain payroll deduction accounts for all participating employees. With respect to any Offering made under this Plan, an employee may authorize a payroll deduction in any whole percent amount between one and ten percent (1-10%) of the Compensation he or she receives during the Plan Period or such shorter period during which deductions from payroll are made (or such other percentages as may be established by the Board or the Committee). Any change in Compensation during the Plan Period will result in an automatic corresponding change in the amount withheld. The payroll deductions shall be made in the applicable local currency and will be converted into United States currency at the prevailing rate of exchange in effect on such date as the Board or Committee shall determine. All amounts deducted may be transferred to an account of the Company or the Subsidiary outside the country in which such employee is employed.

No employee may be granted an Option (as defined in Section 9) which permits his rights to purchase Common Stock under this Plan and any other employee stock purchase plan (as defined by the Committee or Board) of the Company and its subsidiaries, to accrue at a rate which exceeds \$25,000 of the fair market value of such Common Stock (determined at the

Offering Commencement Date of the Plan Period) for each calendar year in which the Option is outstanding at any time.

6. Deduction Changes. An employee may decrease, subject to Section 5 hereof, or discontinue his payroll deduction once during any Plan Period, up to such date prior to the close of business on the last business day, and in such manner as is permitted by the Board or Committee. However, an employee may not elect to increase his payroll deduction during a Plan Period. If an employee elects to discontinue his payroll deductions during a Plan Period but does not elect to withdraw his funds pursuant to Section 8 hereof, amounts previously withheld will be applied to the purchase of Common Stock on the Exercise Date (as defined below).

7. Interest. Interest will not be paid on any employee accounts.

8. Withdrawal of Funds. An employee may at any time up to a deadline established by the Committee or the Board, prior to the close of business on the last business day in a Plan Period, and for any reason, permanently draw out the balance accumulated in the employee's account, which will be paid in the local currency or, in Euros, at the discretion of the Board or the Committee if such employee is employed in a country which maintains a fixed exchange rate between its local currency and the Euro ("Repayment in Euros"), and thereby withdraw from participation in an Offering. Partial withdrawals are not permitted. The employee may not begin participation again during the remainder of the Plan Period. The employee may participate in any subsequent Offering in accordance with terms and conditions established by the Board or the Committee.

9. Purchase of Shares. On the Offering Commencement Date of each Plan Period, the Company will grant to each eligible employee who is then a participant in the Plan an option ("Option") to purchase on the last business day of such Plan Period (the "Exercise Date"), at the Option Price hereinafter provided for, the largest number of shares (fractional or whole) of Common Stock of the Company as does not exceed the number of shares determined by multiplying \$2,083 by the number of full months in the Offering Period and dividing the results by the closing price (as defined below) on the Offering Commencement Date of such Plan Period.

The purchase price for each share purchased will be 85% of the Fair Market Value of the Common Stock on (i) the first business day of such Plan Period or (ii) the Exercise Date, whichever Fair Market Value shall be less. Such Fair Market Value shall be (a) the closing price on any national securities exchange on which the Common Stock is listed, (b) the closing price of the Common Stock on the Nasdaq National Market or (c) the average of the closing bid price and asked price in the over-the-counter-market, whichever is applicable, as published in The Wall Street Journal. If no sales of Common Stock were made on such a day, the price of the Common Stock for purposes of clauses (a) and (b) above shall be based on the reported price for the next preceding day on which sales were made.

Each employee who continues to be a participant in the Plan on the Exercise Date shall be deemed to have exercised his Option at the Option Price on such date and shall be deemed to have purchased from the Company the number of shares of Common Stock (including fractional shares) reserved for the purpose of the Plan that his accumulated payroll deductions on such date

will pay for, in United State currency as of that date, but not in excess of the maximum number determined in the manner set forth above. The Board or the Committee may, in its discretion, limit the purchase to only whole shares and not fractional shares.

Any balance remaining in an employee's payroll deduction account at the end of a Plan Period will be automatically refunded to the employee in the local currency or at the discretion of the Committee or the Board there may be Repayment in Euros, except that any balance which is less than the purchase price of one share of Common Stock will be carried forward into the employee's payroll deduction account for the following Offering, unless the employee elects not to participate in the following Offering under the Plan, in which case the balance shall be refunded.

10. Issuance of Certificates. Certificates representing shares of Common Stock purchased under the Plan may be issued only in the name of the employee, in the name of the employee and another person of legal age as joint tenants with rights of survivorship, or (in the Company's sole discretion) in the name of a brokerage firm, bank or other nominee holder designated by the employee. The Company may, in its sole discretion and in compliance with applicable laws, authorize the use of book entry registration of shares in lieu of issuing stock certificates.

11. Rights on Retirement Death or Termination of Employment. In the event of a participating employee's termination of employment prior to the last business day of a Plan Period, no payroll deduction shall be taken from any pay due and owing to an employee and the balance in the employee's account shall be paid to the employee or, in the event of the employee's death, and subject to the terms of applicable law, (a) to a beneficiary previously designated in a revocable notice signed by the employee (with any spousal consent required under local law) or (b) in the absence of such a designated beneficiary, to the personal representative of the employee's estate or (c) if no such personal representative has been appointed to the knowledge of the Company, to such other person(s) as the Company may, in its discretion, designate. If, prior to the last business day of the Plan Period, the designated Subsidiary by which an employee is employed shall cease to be a subsidiary of the Company, or if the employee is transferred to a subsidiary of the Company that is not a Subsidiary under the Plan, the employee shall be deemed to have terminated employment for the purposes of this Plan.

12. Optionees Not Stockholders. Neither the granting of an Option to an employee nor the deductions from his pay shall constitute such employee a stockholder of the shares of Common Stock covered by an Option under this Plan until such shares have been purchased by and issued to him or to an account for his benefit. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend (and the exercise price of and the number of shares subject to such Option are adjusted as of the date of the distribution of the dividend rather than as of the record date for such dividend), then an optionee who is deemed to have exercised an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock.

13. Rights Not Transferable. Rights under this Plan are not transferable by a participating employee other than by will or the laws of descent and distribution, and are exercisable during the employee's lifetime only by the employee.

14. Application of Funds. To the extent consistent with applicable law, all funds received or held by the Company or any Subsidiary under this Plan may be combined with other corporate funds and may be used for any corporate purpose and transferred outside the country in which they are deducted from payroll.

15. Adjustment in Case of Changes Affecting Common Stock. In the event of a subdivision of outstanding shares of Common Stock, or the payment of a dividend in Common Stock, the number of shares approved for this Plan, and the share limitation set forth in Section 9, shall be increased proportionately, and such other adjustment shall be made as may be deemed equitable by the Board or the Committee. In the event of any other change affecting the Common Stock, such adjustment shall be made as may be deemed equitable by the Board or the Committee to give proper effect to such event.

16. Merger. If the Company shall at any time merge or consolidate with another corporation and the holders of the capital stock of the Company immediately prior to such merger or consolidation continue to hold at least 80% by voting power of the capital stock of the surviving corporation ("Continuity of Control"), the holder of each Option then outstanding will thereafter be entitled to receive at the next Exercise Date upon the exercise of such Option for each share as to which such Option shall be exercised the securities or property which a holder of one share of the Common Stock was entitled to upon and at the time of such merger or consolidation, and the Board or the Committee shall take such steps in connection with such merger or consolidation as the Board or the Committee shall deem necessary to assure that the provisions of Section 15 shall thereafter be applicable, as nearly as reasonably may be, in relation to the said securities or property as to which such holder of such Option might thereafter be entitled to receive thereunder.

In the event of a merger or consolidation of the Company with or into another corporation which does not involve Continuity of Control, or of a sale of all or substantially all of the assets of the Company while unexercised Options remain outstanding under the Plan, all outstanding Options shall be cancelled by the Board or the Committee as of the effective date of any such transaction, provided that notice of such cancellation shall be given to each holder of an Option, and each holder of an Option shall have the right to exercise such Option in full based on payroll deductions then credited to his account as of a date determined by the Board or the Committee, which date shall not be less than ten (10) days preceding the effective date of such transaction.

17. Amendment of the Plan. The Board may at any time, and from time to time, amend this Plan in any respect.

18. Insufficient Shares. In the event that the total number of shares of Common Stock specified in elections to be purchased under any Offering plus the number of shares purchased under previous Offerings under this Plan exceeds the maximum number of shares issuable under this Plan, the Board or the Committee will allot the shares then available on a pro rata basis.

19. Termination of the Plan. This Plan may be terminated at any time by the Board. Upon termination of this Plan all amounts in the accounts of participating employees shall be promptly refunded in local currency or at the discretion of the Committee or the Board there may be Repayment in Euros.

20. Governmental Regulations. The Company's obligation to sell and deliver Common Stock under this Plan is subject to listing on a U.S. national stock exchange or quotation on the Nasdaq National Market and the approval of all applicable governmental authorities required in connection with the authorization, issuance or sale of such stock.

21. Governing Law. The Plan shall be governed by Massachusetts law except to the extent that such law is preempted by U.S. federal law or other applicable law.

22. Issuance of Shares. Shares may be issued upon exercise of an Option from authorized but unissued Common Stock, from shares held in the treasury of the Company, or from any other proper source.

23. Notification upon Sale of Shares. Each employee agrees, by entering the Plan, to promptly give the Company notice of any disposition of shares purchased under the Plan.

24. Withholding. Each employee shall, no later than the date of the event creating the tax liability, make provision satisfactory to the Board for payment of any taxes required by law to be withheld in connection with any transaction related to Options granted to or shares acquired by such employee pursuant to the Plan. The Company may, to the extent permitted by law, deduct any such taxes from any payment of any kind otherwise due to an employee.

25. Effective Date. The Plan shall take effect on March 1, 2000.

26. Additional Conditions. The Committee or the Board may establish additional conditions or provisions for the participation of eligible employees in the Plan in order to comply with the tax, securities and other laws and regulation of the countries in which such employees reside, even if such conditions or provisions increase the benefits accruing to such employees under the Plan.

Adopted by the Board of Directors on February 18, 2000; Amended and Restated by the Board of Directors on August 1, 2002; Amended by the Board of Directors on March 4, 2004, subject to stockholder approval.

MKS INSTRUMENTS, INC.
2004 ANNUAL MEETING OF STOCKHOLDERS
MAY 13, 2004

THE PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned stockholder of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), hereby acknowledges receipt of the Notice of Annual Meeting of Stockholders and Proxy Statement, each dated April 14, 2003, and hereby appoints Richard S. Chute and Ronald C. Weigner, and each of them acting singly, proxies and attorneys-in-fact, with full power to each of substitution, on behalf and in the name of the undersigned, to represent the undersigned at the 2004 Annual Meeting of Stockholders of the Company to be held on May 13, 2004, at 10:00 a.m. at the Company's corporate headquarters, 90 Industrial Way, Wilmington, Massachusetts 01887, and at any adjournment(s) thereof, and to vote all shares of Common Stock which the undersigned would be entitled to vote if then and there personally present, on the matters set forth on the reverse side, and, in their discretion, upon any other matters which may properly come before the meeting.

(CONTINUED AND TO BE SIGNED ON THE REVERSE SIDE)

ANNUAL MEETING OF STOCKHOLDERS OF
MKS INSTRUMENTS, INC.
MAY 13, 2004

PLEASE DATE, SIGN AND MAIL
YOUR PROXY CARD IN THE
ENVELOPE PROVIDED AS SOON
AS POSSIBLE.

Please detach and mail in the envelope provided.

