1 As filed with the Securities and Exchange Commission on May 7, 1999 Registration No. 333-_____ SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM S-8 **REGISTRATION STATEMENT UNDER** THE SECURITIES ACT OF 1933 MKS INSTRUMENTS, INC. (Exact Name of Registrant as Specified in Its Charter) MASSACHUSETTS (State or Other Jurisdiction of Incorporation or Organization) 04-2277512 (I.R.S. Employer Identification No.) SIX SHATTUCK ROAD, ANDOVER, MASSACHUSETTS 01810 (Address of Principal Executive Offices) (Zip Code) AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN (Full Title of the Plan) MARK G. BORDEN, ESQ. HALE AND DORR LLP 60 STATE STREET BOSTON, MASSACHUSETTS 02109 (Name and Address of Agent for Service) (617) 526-6000 (Telephone Number, Including Area Code, of Agent For Service) _____ CALCULATION OF REGISTRATION FEE _____ PROPOSED TITLE OF MAXIMUM PROPOSED MAXIMUM AMOUNT OF AGGREGATE OFFERING AMOUNT REGISTRATION SECURITIES OFFERING TO BE TO BE PRICE PER PRICE FEE REGISTERED REGISTERED SHARE Common Stock, no par value 3,750,000 \$12.63(1) \$ 47,362,500(1) \$ 13,167 _____

(1) Estimated solely for the purpose of calculating the registration fee, and based upon the average of the high and low sale prices of the Common Stock on the Nasdaq National Market on May 5, 1999 in accordance with Rules 457(c) and 457(h) of the Securities Act of 1933, as amended.

PART I. INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information required by Part I is included in documents sent or given to participants in the Registrant's Amended and Restated 1995 Stock Incentive Plan pursuant to Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act").

PART II. INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The Registrant is subject to the informational and reporting requirements of Sections 13(a), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). The following documents, which are filed with the Commission, are incorporated in this Registration Statement by reference:

(1) The Registrant's latest prospectus filed pursuant to Rule 424(b) under the Securities Act that contains audited financial statements for the Registrant's latest fiscal year for which such statements have been filed.

(2) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the prospectus referred to in (1) above.

(3) The description of the common stock of the Registrant, no par value per share (the "Common Stock"), contained in the Registration Statement on Form 8-A filed by the Registrant with the Commission on March 2, 1999.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all shares of Common Stock offered hereby have been sold or which deregisters all shares of Common Stock then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of the filing of such documents.

Item 4. DESCRIPTION OF SECURITIES

Not applicable.

Item 5. INTERESTS OF NAMED EXPERTS AND COUNSEL

Not applicable.

Item 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 67 of Chapter 156B of the Massachusetts General Laws ("Section 67") provides that a corporation may indemnify its directors and officers to the extent specified in or authorized by (i) the articles of organization, (ii) a by-law adopted by the stockholders or (iii) a vote adopted by the holders of a majority of the shares of stock entitled to vote on the election of directors. In all instances, the extent to which a corporation provides indemnification to its directors and officers under Section 67 is optional. In its Restated Articles of Organization (the "Articles of Organization"), the Registrant has elected to commit to provide indemnification to its directors and officers in specified circumstances. Generally, Article 6 of the Registrant's Articles of Organization provides that the Registrant shall indemnify directors and officers of the Registrant against liabilities and expenses arising out of legal proceedings brought against them by reason of their status or service as directors or officers or by reason of their agreeing to serve, at the request of the Registrant, as a director or officer with another organization. Under this provision, a director or officer of the Registrant shall be indemnified by the Registrant for all costs and expenses (including attorneys' fees), judgments, liabilities and amounts paid in settlement of such proceedings, even if he is not successful on the merits, if he acted in good faith in the reasonable belief that his action was in the best interests of the Registrant. The Board of Directors may authorize advancing litigation expenses to a director or officer at his request upon receipt of an undertaking by any such director or officer to repay such expenses if it is ultimately determined that he is not entitled to indemnification for such expenses.

Article 6 of the Registrant's Articles of Organization eliminates the personal liability of the Registrant's directors to the Registrant or its stockholders for monetary damages for breach of a director's fiduciary duty, except to the extent Chapter 156B of the Massachusetts General Laws prohibits the elimination or limitation of such liability.

The Registrant has obtained directors and officers liability insurance for the benefit of its directors and certain officers.

Item 7. EXEMPTION FROM REGISTRATION CLAIMED

Not applicable.

Item 8. EXHIBITS

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

Item 9. UNDERTAKINGS

1. The Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

2. The Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be in the initial bona fide offering thereof.

3. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Andover, Commonwealth of Massachusetts, on this 7th day of May, 1999.

MKS INSTRUMENTS, INC.

By: /s/ John R. Bertucci

John R. Bertucci Chairman of the Board, President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of MKS Instruments, Inc., hereby severally constitute John R. Bertucci, Ronald C. Weigner and Mark G. Borden, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the Registration Statement on Form S-8 filed herewith and any and all subsequent amendments to said Registration Statement, and generally to do all such things in our names and behalf in our capacities as officers and directors to enable MKS Instruments, Inc. to comply with all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by said attorneys, or any of them, to said Registration Statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated.

Signature	Title	Date
/s/ John R. Bertucci John R. Bertucci	Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)	May 7, 1999
/s/ Ronald C. Weigner Ronald C. Weigner	Vice President and Chief Financial Officer	May 7, 1999
/s/ Richard S. Chute	Director	May 7, 1999
Richard S. Chute		
/s/ Owen W. Robbins	Director	May 7, 1999
Owen W. Robbins		
/s/ Robert J. Therrien	Director	May 7, 1999
Robert J. Therrien		
/s/ Louis P. Valente	Director	May 7, 1999
Louis P. Valente		

Exhibit Number	Description
4(1)	Specimen Certificate for shares of Common Stock, no par value per share, of the Registrant
5	Opinion of Hale and Dorr LLP
23.1	Consent of Hale and Dorr LLP (included in Exhibit 5)
23.2	Consent of PricewaterhouseCoopers LLP
24	Power of Attorney (included on the signature page of this Registration Statement)

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1 Incorporated herein by reference to the Registrant's Registration Statement on Form S-1 (Commission File No. 333-71363).

EXHIBIT 5

HALE AND DORR LLP Counsellors at Law

60 State Street, Boston, Massachusetts 02109 617-526-6000 * FAX 617-526-5000

May 7, 1999

MKS Instruments, Inc. Six Shattuck Road Andover, MA 01810

Re: AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN

Ladies and Gentlemen:

We have assisted in the preparation of a Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission relating to 3,750,000 shares of common stock, no par value per share (the "Shares"), of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), issuable under the Company's Amended and Restated 1995 Stock Incentive Plan (the "Plan").

We have examined the Restated Articles of Organization of the Company and the Amended and Restated By-Laws of the Company, and originals, or copies certified to our satisfaction, of all pertinent records of the meetings of the directors and stockholders of the Company, the Registration Statement and such other documents relating to the Company as we have deemed material for the purposes of this opinion.

In examination of the foregoing documents, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, photostatic or facsimile copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken prior to the offer and sale of the shares in accordance with the Plan to register and qualify the Shares for sale under all applicable state securities or "blue sky" laws. 2 MKS Instruments, Inc. May 7, 1999 Page 2

We express no opinion herein as to the laws of any state or jurisdiction other than the laws of the Commonwealth of Massachusetts and the federal laws of the United States of America.

Based upon and subject to the foregoing, we are of the opinion that the Company has duly authorized for issuance the Shares covered by the Registration Statement to be issued under the Plan, as described in the Registration Statement, and such Shares, when issued in accordance with the terms of the Plan, will be legally issued, fully paid and nonassessable.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters.

We hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act of 1933, as amended (the "Securities Act") and to the use of our name therein under the caption "Interests of Named Experts and Counsel." In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours, /s/ Hale and Dorr LLP HALE AND DORR LLP

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of MKS Instruments, Inc. (the "Company"), related to the Company's Amended and Restated 1995 Stock Incentive Plan, of our report dated January 22, 1999, except for the information in the first and second paragraph of Note 13, as to which the date is January 28, 1999 and February 24, 1999, respectively, relating to the consolidated financial statements of MKS Instruments, Inc., which appears in the Company's Registration Statement on Form S-1 (File No. 333-71363). We also consent to the incorporation by reference of our report dated January 22, 1999, relating to the financial statement schedule of MKS Instruments, Inc., which appears in the Company's Registration Statement on Form S-1 (File No. 333-71363).

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Boston, Massachusetts May 6, 1999