

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13G

OMB APPROVAL

OMB Number: 3235-0145

Expires: December 31, 2005

Estimated average burden
hours per response...11

UNDER THE SECURITIES EXCHANGE ACT OF 1934
(AMENDMENT NO.)*

MKS Instruments, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

55306N104

(CUSIP Number)

12/31/2004

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1(b)

Rule 13d-1(c)

Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 55306N104

1. Names of Reporting Persons

I.R.S. Identification Nos. of above persons (entities only).

The TCW Group, Inc., on behalf of the TCW Business Unit

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Citizenship or Place of Organization

Nevada corporation

Number of Shares Beneficially Owned by Each Reporting Person With

5. Sole Voting Power
-0-

6. Shared Voting Power
2,689,902

7. Sole Dispositive Power
-0-

8. Shared Dispositive Power
3,065,072

9. Aggregate Amount Beneficially Owned by Each Reporting Person
3,065,072

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) / /

11. Percent of Class Represented by Amount in Row (9)
5.7%(see response to Item 4)

12. Type of Reporting Person (See Instructions)
HC/CO

ITEM 1.

(a) Name of Issuer
MKS Instruments, Inc.

(b) Address of Issuer's Principal Executive Offices
90 Industrial Way
Wilmington, MA 01887

ITEM 2.

(a) Name of Person Filing
(b) Address of Principal Business Office or, if none, Residence
(c) Citizenship

The TCW Group, Inc., on behalf of the TCW Business Unit
865 South Figueroa Street
Los Angeles, CA 90017
(Nevada Corporation)

(d) Title of Class of Securities
Common Stock

(e) CUSIP Number
55306N104

ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO SECTIONS 240.13d-1(b) or 240.13d-2(b) or (c), CHECK WHETHER THE PERSON FILING IS A:

(a) / / Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).

(b) / / Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).

(c) / / Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).

- (d) / / Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) / / An investment adviser in accordance with Section 240.13d-1(b)(1)(ii)(E);
- (f) / / An employee benefit plan or endowment fund in accordance with Section 240.13d-1(b)(1)(ii)(F);
- (g) /X/ A parent holding company or control person in accordance with Section 240.13d-1(b)(1)(ii)(G);

(SEE Item 7)
The TCW Group, Inc., on behalf of the TCW Business Unit
- (h) / / A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) / / A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) / / Group, in accordance with Section 240.13d-1(b)(1)(ii)(J).
If this statement is filed pursuant to Rule 13d-1(c), check this box. / /

ITEM 4. OWNERSHIP **

The TCW Group, Inc., on behalf of the Business Unit ***

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned: 3,065,072

- (b) Percent of Class: 5.7%

- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or to direct the vote
none

 - (ii) Shared power to vote or to direct the vote
2,689,902

 - (iii) Sole power to dispose or to direct the disposition of
none

 - (iv) Shared power to dispose or to direct the disposition of
3,065,072

** The filing of this Schedule 13G shall not be construed as an admission that the reporting person or any of its affiliates is, for the purposes of Section 13(d) or 13(g) of the Securities Exchange Act of 1934, the beneficial owner of any securities covered by this Schedule 13G. In addition, the filing of this Schedule 13G shall not be construed as an admission that the reporting person or any of its affiliates is the beneficial owner of any securities covered by this Schedule 13G for any other purposes than Section 13(d) of the Securities Exchange Act of 1934.

*** See Exhibit A

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following / /.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON

Various persons other than as described in Item 4 have the right to

receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Common Stock of MKS Instruments, Inc.

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY OR CONTROL PERSON

SEE Exhibit A.

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP

SEE Exhibit A.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP

Not applicable.

ITEM 10. CERTIFICATION

Because this statement is filed pursuant to Rule 13d-1(b), the following certification is included:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated this 9th day of February, 2005.

The TCW Group, Inc., on behalf of the
TCW Business Unit

By: /s/ Linda D. Barker

Linda D. Barker
Authorized Signatory

EXHIBIT A

RELEVANT SUBSIDIARIES OF PARENT HOLDING COMPANY

PART A: TCW ENTITIES

PARENT HOLDING COMPANY:

The TCW Group, Inc.

RELEVANT SUBSIDIARIES THAT ARE PERSONS DESCRIBED IN RULE 13d-1(b):

- (i) Trust Company of the West, a California corporation and a bank as defined in Section 3(a)(6) of the Securities Exchange Act of 1934.
- (ii) TCW Asset Management Company, a California corporation and an Investment Adviser registered under Section 203 of the Investment Advisers Act of 1940.
- (iii) TCW Investment Management Company, a California corporation and an Investment Adviser registered under Section 203 of the Investment Advisers Act of 1940.

This Schedule 13G is being filed by the TCW Group, Inc., a Nevada corporation ("TCW"), on behalf of itself and its direct and indirect subsidiaries, which collectively constitute The TCW Group, Inc. business unit (the "TCW Business Unit" or the "Reporting Person"). The TCW Business Unit is primarily engaged in the provision of investment management services.

As of July 6, 2001, the ultimate parent company of TCW is Societe Generale, S.A., a corporation formed under the laws of France ("SG"). The principal business of SG is acting as a holding company for a global financial services group, which includes certain distinct specialized business units that are independently operated, including the TCW Business Unit.

SG, for purpose of the federal securities laws, may be deemed ultimately to control TCW and the TCW Business Unit. SG, its executive officers and directors, and its direct and indirect subsidiaries (including all business units except the TCW Business Unit), may beneficially own shares of the securities of the issuer to which this schedule relates (the "Shares") and such shares are not reported in this statement. In accordance with Securities and Exchange Commission ("SEC") Release No. 34-39538 (January 12, 1998), and due to the separate management and independent operation of its business units, SG disclaims beneficial ownership of Shares beneficially owned by the Reporting Person. The Reporting Person disclaims beneficial ownership of Shares beneficially owned by SG and any of SG's other business units.