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

FORM 12b-25

NOTIFICATION OF LATE FILING

SEC File Number: 000-23621 CUSIP Number: 55306N104

(Check one): ⊠ Form 10-K □ Form 20-F □ Form 11-K □ Form 10-Q □ Form 10-D □ Form N-SAR □ Form N-CSR

For Period Ended: December 31, 2022

□ Transition Report on Form 10-K

□ Transition Report on Form 20-F

□ Transition Report on Form 11-K

□ Transition Report on Form 10-Q

□ Transition Report on Form N-SAR

For the Transition Period Ended:

Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

MKS Instruments, Inc.

Full Name of Registrant

N/A

Former Name if Applicable

2 Tech Drive, Suite 201

Address of Principal Executive Office (Street and Number)

Andover, Massachusetts 01810

City, State and Zip Code

PART II - RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

(a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;

(b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-CEN or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and

(c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III - NARRATIVE

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State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

MKS Instruments, Inc. (the "Company") is unable to file timely, without unreasonable effort and expense, its Annual Report on Form 10-K for the year ended December 31, 2022 (the "Form 10-K") within the prescribed time period because the Company requires additional time to address the impacts of the items described below. As previously disclosed, on February 3, 2023, the Company identified it had become subject to a ransomware event which resulted in, among other things, the unavailability of certain information technology systems, including the Company's enterprise resource planning systems. As the Company is in the process of restoring its information technology systems, the Company requires additional time (i) to complete management's assessment of the effectiveness of internal control over financial reporting, in particular with respect to the ransomware event, and (ii) to complete certain processes and procedures to finalize the Form 10-K.

PART IV - OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification

Seth H. Bagshaw	(978)	645-5500
(Name)	(Area Code)	(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s). Yes ⊠ No □

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof? Yes ⊠ No □

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

On February 27, 2023, the Company issued a press release announcing financial results for the year ended December 31, 2022 and included a copy of such press release as an exhibit to the Company's Current Report on Form 8-K furnished by the Company with the Securities and Exchange Commission on February 27, 2023. Information about the Company's financial results for the year ended December 31, 2022 compared to the year ended December 31, 2021 was included in such press release.

Forward Looking Statements

This Form 12b-25 contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 relating to the Company's expectations regarding restoration of its information technology systems and its expectation regarding previously reported financial statements. Actual events or results may differ materially from those in the forward-looking statements set forth herein. Among the important factors that could cause actual events to differ materially from those in the forward-looking statements are the ongoing assessment of the cybersecurity incident; further delays in the time required to restore some or all of the Company's information systems; financial statement adjustments identified by the Company in the course of completing management's assessment of the effectiveness of internal control over financial reporting, in particular with respect to the ransomware event, and completing certain processes and procedures to finalize the Form 10-K; and the other factors described in the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed with the U.S. Securities and Exchange Commission on November 7, 2022. The Company is under no obligation to, and expressly disclaims any obligation to, update or alter these forward-looking statements, whether as a result of new information, future events or otherwise after the date of this filing except as may be required under applicable securities law.

MKS Instruments, Inc.

(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

By: /s/ Seth H. Bagshaw

Seth H. Bagshaw Executive Vice President, Chief Financial Officer and Treasurer

INSTRUCTION: The form may be signed by an executive officer of the registrant or by any other duly authorized representative. The name and title of the person signing the form shall be typed or printed beneath the signature. If the statement is signed on behalf of the registrant by an authorized representative (other than an executive officer), evidence of the representative's authority to sign on behalf of the registrant shall be filed with the form.

ATTENTION

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).