1. Name and Address of Reporting Person
   COLELLA GERARD G
   C/O MKS INSTRUMENTS, INC.
   2 TECH DRIVE, SUITE 201
   ANDOVER, MA 01810

2. Issuer Name and Ticker or Trading Symbol
   MKS INSTRUMENTS INC [ MKSI ]

3. Date of Earliest Transaction (Month/Day/Year)
   08/31/2023

4. If Amendment, Date of Original Filed (Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer
   Director
   10% Owner
   Officer (give title below)
   Other (specify below)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

<table>
<thead>
<tr>
<th>1. Title of Security (Instr. 3)</th>
<th>2. Transaction Date (Month/Day/Year)</th>
<th>2A. Deemed Execution Date, if any (Month/Day/Year)</th>
<th>3. Transaction Code (Instr. 8)</th>
<th>4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)</th>
<th>5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)</th>
<th>6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>7. Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>08/31/2023</td>
<td></td>
<td></td>
<td>S(1)</td>
<td>10,000 D</td>
<td>88,017 I</td>
<td>By The Gerald G. Colella Living Trust</td>
</tr>
<tr>
<td>Common Stock</td>
<td></td>
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</tr>
</tbody>
</table>

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

<table>
<thead>
<tr>
<th>1. Title of Derivative Security (Instr. 3)</th>
<th>2. Conversion or Exercise Price of Derivative Security</th>
<th>3. Transaction Date (Month/Day/Year)</th>
<th>3A. Deemed Execution Date, if any (Month/Day/Year)</th>
<th>4. Transaction Code (Instr. 8)</th>
<th>5. Number of Derivative Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)</th>
<th>6. Date Exercisable and Expiration Date (Month/Day/Year)</th>
<th>7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)</th>
<th>8. Price of Derivative Security (Instr. 5)</th>
<th>9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)</th>
<th>10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>11. Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Explanation of Responses:
1. This transaction was effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on May 8, 2023.
2. This transaction was executed in multiple trades at prices ranging from $100.00 to $100.11. The price reported above reflects the weighted average sale price. The reporting person hereby undertakes to provide, upon request, the full information regarding the number of shares and prices at which the transaction was effected.

/s/ M. Kathryn Rickards,
attorney-in-fact
09/01/2023

** Signature of Reporting Person

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).


Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.