

VEECO INSTRUMENTS INC

Reported by
MILLER WILLIAM JOHN

FORM 3

(Initial Statement of Beneficial Ownership)

Filed 08/02/10 for the Period Ending 07/22/10

| | |
|-------------|---|
| Address | TERMINAL DRIVE PLAINVIEW, NY 11803 |
| Telephone | 516 677-0200 |
| CIK | 0000103145 |
| Symbol | VECO |
| SIC Code | 3559 - Special Industry Machinery, Not Elsewhere Classified |
| Industry | Semiconductors |
| Sector | Technology |
| Fiscal Year | 12/31 |

FORM 3

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

OMB APPROVAL
OMB Number: 3235-0104
Expires: February 28, 2011
Estimated average burden
hours per response... 0.5

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a)
of the Public Utility Holding Company Act of 1935 or Section 30(h) of the
Investment Company Act of 1940

| | | |
|--|---|--|
| 1. Name and Address of Reporting Person * Miller William John | 2. Date of Event Requiring Statement (MM/DD/YYYY) 7/22/2010 | 3. Issuer Name and Ticker or Trading Symbol VEECO INSTRUMENTS INC [VECO] |
| (Last) (First) (Middle) VEECO INSTRUMENTS INC., TERMINAL DRIVE | 4. Relationship of Reporting Person(s) to Issuer (Check all applicable) ____ Director _____ 10% Owner ____ <input checked="" type="checkbox"/> Officer (give title below) _____ Other (specify below) EVP Compound Semi / | |
| (Street) PLAINVIEW, NY 11803 (City) (State) (Zip) | 5. If Amendment, Date Original Filed (MM/DD/YYYY) | 6. Individual or Joint/Group Filing (Check Applicable Line) _ <input checked="" type="checkbox"/> _ Form filed by One Reporting Person ____ Form filed by More than One Reporting Person |

Table I - Non-Derivative Securities Beneficially Owned

| 1. Title of Security (Instr. 4) | 2. Amount of Securities Beneficially Owned (Instr. 4) | 3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5) | 4. Nature of Indirect Beneficial Ownership (Instr. 5) |
|------------------------------------|---|--|---|
| Common Stock | 25139 (1) | D | |

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

| 1. Title of Derivate Security (Instr. 4) | 2. Date Exercisable and Expiration Date (MM/DD/YYYY) | | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) | | 4. Conversion or Exercise Price of Derivative Security | 5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 5) | 6. Nature of Indirect Beneficial Ownership (Instr. 5) |
|---|--|--------------------|--|----------------------------------|--|--|--|
| | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | |
| Stock option granted 12/1/03 | 4/12/2005 (3) | 11/30/2010 | Common stock | 2500 | \$29.50 | D | |
| Stock option granted 6/8/07 | (2) | 6/7/2014 | Common stock | 1000 | \$18.11 | D | |
| Stock option granted 11/9/07 | (2) | 11/8/2014 | Common stock | 3334 | \$16.37 | D | |
| Stock option granted 6/12/08 | (2) | 6/11/2015 | Common stock | 11667 | \$17.48 | D | |
| Stock option granted 5/18/09 | | 5/17/2016 | Common | 20000 | \$8.82 | D | |

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

| 1. Title of Derivate Security (Instr. 4) | 2. Date Exercisable and Expiration Date (MM/DD/YYYY) | | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) | | 4. Conversion or Exercise Price of Derivative Security | 5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 5) | 6. Nature of Indirect Beneficial Ownership (Instr. 5) |
|---|--|--------------------|--|----------------------------------|--|--|--|
| | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | |
| | (2) | | stock | | | | |
| Stock option granted 6/29/09 | (2) | 6/28/2016 | Common stock | 13334 | \$12.36 | D | |
| Stock option granted 6/11/10 | (2) | 6/10/2020 | Common stock | 41000 | \$34.13 | D | |

Explanation of Responses:

- (1) The Amount of Securities Beneficially Owned consists of the following: 2,971 shares owned without restriction; 3,334 shares of restricted stock granted 11/9/07, half of which vests on the 3rd and 4th anniversaries of the date of grant; 4,500 shares of restricted stock granted 6/12/08, which vest on 6/12/13; 7,334 shares of restricted stock granted 5/18/09, half of which vests on the 2nd and 3rd anniversaries of the date of grant; and 7,000 shares of a restricted stock granted 6/11/10, one-third of which vests on the 2nd, 3rd and 4th anniversaries of the date of grant.
- (2) The option becomes exercisable in 33 1/3% increments on the first, second and third anniversaries of the date grant.
- (3) This option was originally set to vest in 33 1/3% increments on the first, second and third anniversaries of the date of grant. On 4/12/05, the Compensation Committee of Veeco's Board of Directors approved the acceleration of vesting of unvested stock options granted prior to 9/1/04 having an exercise price greater than \$15.26, the closing price of Veeco's common stock on the last trading day before the Committee approved the acceleration. As a result, all of these options become exercisable on 4/12/05.

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|--------------------------|-------|
| | Director | 10% Owner | Officer | Other |
| Miller William John VEECO INSTRUMENTS INC. TERMINAL DRIVE PLAINVIEW, NY 11803 | | | EVP Compound Semi | |

Signatures**Gregory A. Robbins, Attorney-in-fact****8/2/2010**

** Signature of Reporting Person

Date

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 5(b)(v).** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).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 control number.

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints each of John P. Kiernan, Kirk W. Mackey and Gregory A. Robbins, signing singly, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer and/or director of Veeco Instruments Inc. (the "Company"), Forms 3, 4 and 5 in accordance with Section 16 (a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4 or 5 and timely file such form with the United States Securities and Exchange Commission and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, unless earlier revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of July 29, 2010.

Signed: /s/ William J. Miller
Printed Name: William J. Miller