

| OMB APPROVAL | |
|--|-----------|
| OMB Number: | 3235-0287 |
| Estimated average burden hours per response: | 0.5 |

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| | | |
|--|---|--|
| 1. Name and Address of Reporting Person* <u>COOL JONATHAN</u> (Last) (First) (Middle) <u>C/O LUNA INNOVATIONS INCORPORATED</u> <u>1 RIVERSIDE CIRCLE, SUITE 400</u> (Street) <u>ROANOKE VA 24015</u> (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol <u>LUNA INNOVATIONS INC [LUNA]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Acting President and COO</u> |
| | 3. Date of Earliest Transaction (Month/Day/Year) <u>05/10/2010</u> | |
| | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person |

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

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|--------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 05/10/2010 ⁽¹⁾ | | A | | 25,531 ⁽²⁾ | A | \$0.00 | 27,136 | D | |

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

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

Explanation of Responses:

- This grant of restricted stock units was approved by the issuer's board of directors on May 8, 2010, with an effective grant date of May 10, 2010. Each restricted stock unit represents a contingent right to receive one share of common stock of the issuer.
- The number of restricted stock units is equal to the quotient of \$60,000 divided by \$2.35 per share, which was the closing price of the issuer's common stock on the Nasdaq Capital Market on the date of grant. The shares underlying these restricted stock units are eligible for vesting in six equal monthly installments beginning one month following the grant date, subject to the reporting person's continuous service with the issuer in the capacity of Active President and Chief Operating Officer as of such vesting dates.

Remarks:

Exhibit 24 - Power of Attorney

/s/ Talfourd H. Kemper, Jr. 05/12/2010

** 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 4 (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 Number.

LUNA INNOVATIONS INCORPORATED

Limited Power of Attorney-Securities Law Compliance

The undersigned hereby constitutes and appoints each of Kent Murphy, Talfourd H. Kemper, Jr., and Dale Messick, signing singly, his 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 Luna Innovations Incorporated (the "Company"), Form ID, Form 3, Form 4 and Form 5 (including any amendments thereto) in accordance with Section 16(a) of the Securities Exchange Act of 1934, as amended, 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 the execution of any such Form ID, Form 3, Form 4 and Form 5 and the timely filing of any such form with the United States Securities and Exchange Commission and any other authority; and

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform all and every act and thing whatsoever requisite, necessary and 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 his or her 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, as amended.

This Limited Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Form ID, Form 3, Form 4 and Form 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 this 26th day of January 2010.

By: /s/ Jonathan Cool