

RUDOLPH TECHNOLOGIES INC
 Form 4/A
 February 27, 2006

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549

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

STATEMENT OF CHANGES IN 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

(Print or Type Responses)

1. Name and Address of Reporting Person *
 ODELL JEFFREY L

2. Issuer Name and Ticker or Trading Symbol
 RUDOLPH TECHNOLOGIES INC
 [RTEC]

5. Relationship of Reporting Person(s) to Issuer
 (Check all applicable)

(Last) (First) (Middle)
 C/O RUDOLPH TECHNOLOGIES, INC., ONE RUDOLPH ROAD, PO BOX 1000

3. Date of Earliest Transaction (Month/Day/Year)
 02/15/2006

Director 10% Owner
 Officer (give title below) Other (specify below)

(Street)
 FLANDERS, NJ 07836

4. If Amendment, Date Original Filed(Month/Day/Year)
 02/17/2006

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

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 Ownership (Instr. 4)			
				(A) or (D)	Price					
Common Stock	02/15/2006		A	V	547,321 (1)	A	\$ 17.92	547,321	D	
Common Stock	02/15/2006		A	V	143,074 (1)	A	\$ 17.92	143,074	I	by Partnership (2)

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

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number.

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)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Own Follo Repo Trans (Instr
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Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
ODELL JEFFREY L C/O RUDOLPH TECHNOLOGIES, INC. ONE RUDOLPH ROAD, PO BOX 1000 FLANDERS, NJ 07836	X			

Signatures

By: /s/ Robert A. Koch For: Jeffrey L. O'Dell
Date: 02/27/2006

__Signature of Reporting Person

Date

Explanation of Responses:

- * 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).
- Received these shares in connection with the transactions contemplated by, and pursuant to the proration and allocation calculations contained in, that certain Agreement and Plan of Merger, as amended, by and among Rudolph Technologies, Inc., NS Merger Sub, Inc. and August Technology Corporation.
- (1) contained in, that certain Agreement and Plan of Merger, as amended, by and among Rudolph Technologies, Inc., NS Merger Sub, Inc. and August Technology Corporation.
- (2) By O'Dell Family Limited Partnership.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.