FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL

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

			or Sect	ion 30(h) of	the Investment Company Act of 1	940			
1. Name and Ad Williams I	ddress of Repor Michael Ar	•	2. Date of Event Requiring Statement (Month/Day/Year) 05/25/2006		3. Issuer Name and Ticker or Trading Symbol ON SEMICONDUCTOR CORP [ONNN]				
(Last) (First) (Middle) ON SEMICONDUCTOR (M/D A700) 5005 E. MCDOWELL ROAD (Street) PHOENIX AZ 85008					4. Relationship of Reporting Pers (Check all applicable) Director X Officer (give title below) SVP&GM Auto & Pwilling Pers (Person Person P	10% Owne Other (spe below)	cify 6. In	nth/Day/Year) dividual or Join licable Line) Form filed b	ate of Original Filed t/Group Filing (Check y One Reporting Person y More than One erson
(City)	(State)	(Zip)	<u> </u>						
			Table I - Nor	n-Derivat	ive Securities Beneficial	ly Owned			
1. Title of Security (Instr. 4)					2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownersh Form: Direct or Indirect ((Instr. 5)	ct (D) (Instr. 5)		
Common Stock ⁽¹⁾					4,875	D			
Common Stock					4,125.913	I	By S	pouse	
		•	e.g., puts, cal	ls, warra	e Securities Beneficially unts, options, convertible	securitie		1-	T
1. Title of Derivative Security (Instr. 4)			2. Date Exercisable and Expiration Date (Month/Day/Year)		Underlying Derivative Security (Instr. 4) Convor Ex		4. Conversion or Exercise Price of	5. Ownership Form: Direct (D)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
			Date Exercisable	Expiration Date	n Title	Amount or Number of Shares	Derivative Security	or Indirect (I) (Instr. 5)	
Stock Option (right to buy)			09/09/1999 ⁽²⁾	09/09/2009	Common Stock	18,667	1.5	D	
Stock Option (right to buy)			04/28/2002 ⁽³⁾	04/28/2010	Common Stock	50	16	D	
Stock Option (right to buy)			02/21/2002 ⁽⁴⁾	02/21/2011	Common Stock	2,000	6.13	D	
Stock Option (right to buy)			07/18/2002 ⁽⁵⁾	07/18/2011	Common Stock	2,000	3.86	D	
Stock Option (right to buy)			01/24/2003 ⁽⁶⁾	01/24/2012	Common Stock	9,000	3.22	D	
Stock Option (right to buy)			02/05/2004 ⁽⁷⁾	02/05/2013	Common Stock	15,000	1.25	D	
Stock Option (right to buy)			02/05/2005 ⁽⁸⁾	02/05/2014	Common Stock	20,000	7.02	D	
Stock Option (right to buy)			02/17/2006 ⁽⁹⁾	02/17/2015	Common Stock	18,000	4.8	D	
Stock Option (right to buy)			03/08/2006 ⁽¹⁰⁾	03/08/2015	Common Stock	20,000	4.52	D	
Stock Option (right to buy)			03/23/2007 ⁽¹¹⁾	03/23/2016	Common Stock	40,000	6.83	D	

Explanation of Responses:

- 1. Includes 3,500 shares acquired by Reporting Person under Issuer's Employee Stock Purchase Plan from October 1, 2003 through June 30, 2005.
- 2. Granted on September 9, 1999 under the Issuer's 1999 Founder's Stock Option Plan. Approximately 8.4% became exercisable on September 9, 1999, an additional 8.3% became exercisable on March 9, 2000, an additional 8.3% became exercisable until 100% became vested and exercisable.
- 3. Granted on April 28, 2000 under the Issuer's 2000 Stock Incentive Plan. The option became 100% exercisable on April 28, 2002.
- 4. Granted on February 21, 2001 under the Issuer's 2000 Stock Incentive Plan. The option became exercisable in four (4) equal installments on each of the first through fourth anniversaries of the Grant Date, subject to continued employment with the Issuer and other terms and conditions of the plan and the related stock option agreement.
- 5. Granted on July 18, 2001 under the Issuer's 2000 Stock Incentive Plan. The option became exercisable in four (4) equal installments on each of the first through fourth anniversaries of the Grant Date, subject to continued employment with the Issuer and other terms and conditions of the plan and the related stock option agreement.
- 6. Granted on January 24, 2002 under the Issuer's 2000 Stock Incentive Plan. The option became exercisable in four (4) equal installments on each of the first through fourth anniversaries of the Grant Date, subject to continued employment with the Issuer and other terms and conditions of the plan and the related stock option agreement.
- 7. Granted on February 5, 2003 under the Issuer's 2000 Stock Incentive Plan. The option is exercisable in four (4) equal installments on each of the first through fourth anniversaries of the Grant Date, subject to continued employment with the Issuer and other terms and conditions of the plan and the related stock option agreement.
- 8. Granted on February 5, 2004 under the Issuer's 2000 Stock Incentive Plan. The option is full vested and exercisable.
- 9. Granted on February 17, 2005 under the Issuer's 2000 Stock Incentive Plan. The option is exercisable in four (4) equal installments on each of the first through fourth anniversaries of the Grant Date, subject to continued employment with the Issuer and other terms and conditions of the plan and the related stock option agreement.
- 10. Granted on March 8, 2005 under the Issuer's 2000 Stock Incentive Plan. The option is exercisable in four (4) equal installments on each of the first through fourth anniversaries of the Grant Date, subject to continued employment with the Issuer and other terms and conditions of the plan and the related stock option agreement.
- 11. Granted on March 23, 2006 under the Issuer's 2000 Stock Incentive Plan. The option is exercisable in four (4) equal installments on each of the first through fourth anniversaries of the Grant Date, subject to continued employment with the Issuer and other terms and conditions of the plan and the related stock option agreement.

Remarks:

Judith A. Boyle, as Attorney- 05/31/2006 in-Fact

** 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 Number.

POWER OF ATTORNEY (Michael A. Williams)

I hereby appoint Keith D. Jackson, George H. Cave and Judith A. Boyle, and each of them, attorney-in-fact for me, each with full power of substitution, to prepare, execute and deliver on my behalf reports required to be filed by me pursuant to Section 16 of the Securities Exchange Act of 1934, as amended ("Section 16"), and Rule 144 and Rule 145 under the Securities Act of 1933 (singly or collectively ("Rule 144")), and any and all related documents and instruments. Among other things, each attorney-in-fact is authorized to file original reports (either electronically or otherwise), signed by me or on my behalf, on Forms 3, 4 and 5, Form 144 with the Securities and Exchange Commission, any and all related documents and instruments, and to provide any necessary copies of such signed forms, documents and instruments to The NASDAQ Stock Market and ON Semiconductor Corporation as required by the rules under Section 16 and Rule 144 as in effect from time to time.

This power of attorney is effective from the date hereof until April 15, 2007, unless earlier revoked or terminated.

/s/ Michael A. Williams Michael A. Williams

Dated: May 23, 2006

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