

FORM 4

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

OMB APPROVAL

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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>PETERS CHARLES A</u>  (Last) (First) (Middle) <u>C/O EMERSON ELECTRIC CO.</u> <u>8000 W. FLORISSANT</u>  (Street) <u>ST. LOUIS</u> <u>MO</u> <u>63136</u>  (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>EMERSON ELECTRIC CO [ EMR ]</u>  3. Date of Earliest Transaction (Month/Day/Year) <u>02/09/2010</u>  4. If Amendment, Date of Original Filed (Month/Day/Year)	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>Sr. Exec. V.P.</u>  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
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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	02/09/2010		M <sup>(1)</sup>		30,000 <sup>(1)</sup>	A	\$21.2813	405,866	D	
Common Stock	02/09/2010		F <sup>(2)</sup>		4,406 <sup>(2)</sup>	D	\$45.33	401,460	D	
Common Stock								6,999.707	I	401(k) plan
Common Stock								8,108.858	I	401(k) excess plan

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 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)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Employee stock option (right to buy)	\$21.2813	02/09/2010		M <sup>(1)</sup>		30,000 <sup>(1)</sup>		10/06/2001 <sup>(3)</sup>	03/06/2010	Common Stock	30,000	(4)	0	D	

Explanation of Responses:

1. Exercise of 4,698 incentive stock options and 25,302 non-qualified stock options exempt under Rule 16b-3.  
2. Shares withheld for taxes exempt under Rule 16b-3 resulting from non-qualified stock option exercise.  
3. The options vested in three equal annual installments beginning on the date indicated.  
4. Price is not applicable to stock options received as incentive compensation.

Remarks:

/s/ Charles A. Peters

02/11/2010

\*\* 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.