

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

POST-EFFECTIVE AMENDMENT NO. 1 TO
FORM S-8
REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

ESCO TECHNOLOGIES INC.
(Exact Name of Registrant as Specified in Its Charter)

Missouri
(State or Other Jurisdiction of Incorporation
or Organization)

43-1554045
(I.R.S. Employer)
Identification No.

9900A Clayton Road
St. Louis, MO 63124-1186
(Address of Principal Executive Offices, Including Zip Code)

ESCO TECHNOLOGIES INC. 2001 STOCK INCENTIVE PLAN
ESCO TECHNOLOGIES INC. 2004 INCENTIVE COMPENSATION PLAN
(Full title of the Plan)

Alyson S. Barclay, Esq.
Vice President, Secretary and General Counsel
ESCO Technologies Inc.
9900A Clayton Road
St. Louis, MO 63124-1186
(314) 213-7200

(Name, Address and Telephone Number, Including Area Code, of Agent For Service)

EXPLANATORY NOTE

This Post-Effective Amendment to the ESCO Technologies Inc. (the "Company") Registration Statements on Form S-8 (Nos. 333-117953 and 333-85268) (the "Registration Statements"), which relate to the Company's equity-based employee benefit plans, is filed by the Company pursuant to Rule 416(b) under the Securities Act of 1933, as amended (the "Securities Act"), to reflect a one hundred percent increase in the number of shares of common stock, \$0.01 par value, of the Company (the "Common Stock") covered by such Registration Statements as a result of the Company's two-for-one stock split effected in the form of a one hundred percent stock dividend payable September 23, 2005, to shareholders of record on September 9, 2005.

Pursuant to Rule 416(a) under the Securities Act, the Registration Statements are also amended to cover any additional shares of Common Stock which may be issued under the applicable equity-based compensation plans to prevent dilution resulting from any subsequent stock splits, stock dividends or similar transactions.

The contents of the Registration Statements are hereby incorporated by reference pursuant to General Instruction E on Form S-8.

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

Not required to be filed with this Registration Statement.

Item 2. Registrant Information and Employee Plan Annual Information.

Not required to be filed with this Registration Statement.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

Not required to be filed with this Registration Statement pursuant to General Instruction E on Form S-8.

Item 4. Description of Securities.

Not required to be filed with this Registration Statement pursuant to General Instruction E on Form S-8.

Item 5. Interests of Named Experts and Counsel.

Not required to be filed with this Registration Statement pursuant to General Instruction E on Form S-8.

Item 6. Indemnification of Directors and Officers.

Not required to be filed with this Registration Statement pursuant to General Instruction E on Form S-8.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit No.	Description	Filed Herewith or Incorporated by Reference
4.1	Specimen Common Stock Certificate	Incorporated by reference to Form 10-Q for the fiscal quarter ended June 30, 2000, at Exhibit 4(a)
4.2	Specimen Rights Certificate	Incorporated by reference to Current Report on Form 8-K dated February 3, 2000, at Exhibit B to Exhibit 4.1
4.3	Rights Agreement dated as of September 24, 1990 (as amended and restated as of February 3, 2000) between the Registrant and Registrar and Transfer Company, as successor Rights Agent	Incorporated by reference to Current Report on Form 8-K dated February 3, 2000, at Exhibit 4.1
4.4	Credit Agreement dated as of October 6, 2004, among the Registrant, Wells Fargo Bank, N.A., as agent, and the lenders listed therein	Incorporated by reference to Form 10-K for the fiscal year ended September 30, 2004, at Exhibit 4.4
5	Opinion of Counsel	
23.1	Consent of Counsel (included in Exhibit 5)	
23.2	Consent of KPMG LLP	
24	Power of Attorney (included on the Signatures pages of the Registration Statements)	

Item 9.Undertakings

Not required to be filed with this Registration Statement pursuant to General Instruction E on Form S-8.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Ladue, state of Missouri, on this 20th day of September, 2005.

ESCO TECHNOLOGIES INC.

By: /s/ T.B. Martin

T.B. Martin
Assistant Secretary and
Associate General Counsel

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
/s/ * ----- V. L. Richey, Jr.	Chairman, Chief Executive Officer and Director (principal executive officer)	September 20, 2005
/s/ * ----- C. J. Kretschmer	President, Chief Operating Officer and Director	September 20, 2005
/s/ * ----- G. E. Muenster	Vice President and Chief Financial Officer (principal financial and accounting officer)	September 20, 2005
/s/ * ----- W. S. Antle III	Director	September 20, 2005
/s/ * ----- J. M. McConnell	Director	September 20, 2005
/s/ * ----- L. W. Solley	Director	September 20, 2005
/s/ * ----- J. M. Stolze	Director	September 20, 2005
/s/ * ----- D. C. Trauscht	Director	September 20, 2005
/s/ * ----- J. D. Woods	Director	September 20, 2005
*/s/T.B. Martin ----- T.B. Martin Assistant Secretary and Associate General Counsel By power of attorney		September 20, 2005

EXHIBIT INDEX

Exhibits are listed by number corresponding to the Exhibit Table of Item 601 in Regulation S-K.

5	Opinion of Counsel.
23.1	Consent of Counsel (included in Exhibit 5)
23.2	Consent of KPMG LLP.
24	Power of Attorney (included on the Signatures pages of the Registration Statements)

See Item 8 for a list of exhibits incorporated by reference.

September 20, 2005

ESCO Technologies Inc.
9900A Clayton Road
St. Louis, MO 63124-1186

Ladies and Gentlemen:

I am Assistant Secretary and Associate General Counsel of ESCO Technologies Inc., a Missouri corporation (the "Company"), and in such capacity I am familiar with the Post-Effective Amendment No. 1 to the Registration Statement on Form S-8 (the "Post-Effective Amendment") relating to the Company's 2001 Stock Incentive Plan and 2004 Incentive Compensation Plan (the "Plans") to which this letter is filed as an exhibit. The Post-Effective Amendment registers 2,105,365 shares of the Company's common stock, par value \$0.01 per share (the "Common Stock"), offered pursuant to stock options, stock appreciation rights, performance share awards, restricted stock awards and other stock-based awards, granted and which may be granted under the Plans, including the Preferred Stock Purchase Rights associated with such Common Stock (the Common Stock and its associated Preferred Stock Purchase Rights, the "Securities").

I have examined originals or copies, certified or otherwise identified to my satisfaction, of such documents, corporate records, certificates of public officials and other instruments as I deemed necessary for the purpose of the opinion expressed herein.

On the basis of the foregoing, I am of the opinion that the Securities, when sold or distributed in accordance with the provisions of the Plans, will be legally issued, fully paid and non-assessable.

I consent to the filing of this letter as an exhibit to the Post-Effective Amendment.

Very truly yours,

/s/ Thomas B. Martin_____
Thomas B. Martin

TBM/bjo

Enclosures

Consent of Independent Registered Public Accounting Firm

The Board of Directors
ESCO Technologies Inc.:

We consent to the use of our reports dated November 9, 2004 with respect to the consolidated balance sheets of ESCO Technologies Inc. as of September 30, 2004 and 2003, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the years in the three-year period ended September 30, 2004, and related financial statement schedule, incorporated herein by reference in this post-effective amendment No. 1 to registration statement on Form S-8 of ESCO Technologies Inc.

Our reports refer to a change in accounting for the consolidation of variable interest entities on July 1, 2003.

/s/ KPMG LLP
KPMG LLP

St. Louis, Missouri
September 21, 2005