UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549 POST EFFECTIVE AMENDMENT NO. 2 TO

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

DUNCAN ENERGY PARTNERS L.P. DEP OPERATING PARTNERSHIP, L.P.

(Exact name of registrant as specified in its charter)

Delaware Delaware

(State or other jurisdiction of incorporation or organization)

20-5639997 20-5639997 (I.R.S. Employer

(I.R.S. Employer Identification Number)

1100 Louisiana Street, 10th Floor Houston, Texas 77002 (713) 381-6500

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices) Stephanie C. Hildebrandt 1100 Louisiana, 10th Floor Houston, Texas 77002 (713) 381-6500

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to: David C. Buck Andrews Kurth LLP 600 Travis, Suite 4200 Houston, Texas 77002 (713) 220-4200

Approximate date of commencement of proposed sale to the public: Not applicable. Termination of Registration Statement and deregistration of related securities that were not sold pursuant to the Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o

Accelerated filer \square

Non-accelerated filer o (Do not check if a smaller reporting company.)

Smaller reporting company o

The registrant hereby amends this post-effective amendment on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission acting pursuant to said section 8(a), may determine.

DEREGISTRATION OF SECURITIES

On March 6, 2008, Duncan Energy Partners L.P., a Delaware limited partnership (the "Partnership"), and DEP Operating Partnership, L.P, a Delaware limited partnership (the "OLP") filed a shelf registration statement on Form S-3 (Registration Nos. 333-149583 and 333-149583-01) (the "Registration Statement") with the Securities and Exchange Commission (the "Commission"). The Registration Statement registered the offer and sale from time to time of \$1,000,000,000 of (1) Common Units of the Partnership, (2) Debt Securities of the Partnership, (3) Debt Securities of the OLP, and (4) Guarantees of Debt Securities (collectively, the "Registered Securities").

Pursuant to the Agreement and Plan of Merger, dated as of April 28, 2011, by and among Enterprise Products Partners L.P. ("Enterprise"), Enterprise Products Holdings LLC ("Enterprise GP"), which is the general partner of Enterprise, EPD MergerCo LLC ("MergerCo"), which is a wholly owned subsidiary of Enterprise, the Partnership and DEP Holdings, LLC, MergerCo merged with and into the Partnership, with the Partnership surviving the merger as a wholly owned subsidiary of Enterprise, on September 7, 2011 (the "Merger").

In connection with the Merger, and in accordance with an undertaking made by the Partnership and OLP in Part II, Item 17 of the Registration Statement, the Partnership and OLP hereby remove from registration by means of this Post-Effective Amendment No. 2 any of the Registered Securities which remain unsold under the Registration Statement as of the date hereof. The Partnership has previously offered and sold \$147,700,009 of Registered Securities under the Registration Statement, with the remaining \$852,299,991 of Registered Securities remaining unsold.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, each of the following registrants certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment No. 2 to the Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on September 14, 2011.

DUNCAN ENERGY PARTNERS L.P.

By: DEP Holdings, LLC, its general partner

By: /s/ Michael A. Creel

Michael A. Creel

President and Chief Executive Officer

DEP OPERATING PARTNERSHIP, L.P.

By: DEP OLPGP, LLC, its general partner

By: Duncan Energy Partners L.P., its sole member

By: DEP Holdings, LLC, its general partner

By: /s/ Michael A. Creel

Michael A. Creel

President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Post-Effective Amendment No. 2 to the Registration Statement on Form S-3 has been signed by the following persons in the capacities indicated on September 14, 2011.

Name	Title
/s/ Michael A. Creel	Director, President and Chief Executive Officer
Michael A. Creel	(Principal Executive Officer)
/s/ W. Randall Fowler	Director, Executive Vice President and Chief Financial Officer
W. Randall Fowler	(Principal Financial Officer)
/s/ Michael J. Knesek	Senior Vice President, Controller and Principal Accounting Officer
Michael J. Knesek	·