

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

REX AMERICAN RESOURCES CORPORATION

(Formerly REX STORES CORPORATION)
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

31-1095548
(I.R.S. Employer Identification No.)

2875 Needmore Road
Dayton, Ohio 45414

(Address, including zip code, of principal executive offices)

1984 Incentive Stock Option Plan
(Full title of the plan)

Stuart A. Rose
Chairman and Chief Executive Officer
REX American Resources Corporation
2875 Needmore Road
Dayton, Ohio 45414
(937) 276-3931

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

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 Accelerated filer
Non-accelerated filer Smaller reporting company
(Do not check if a smaller reporting company)

EXPLANATORY NOTE

This Post Effective Amendment No. 1 to the Registration Statement on Form S-8 (Registration No. 33-3836) is filed for the purpose of terminating the Registration Statement and deregistering any shares of the registrant's common stock, \$.01 par value, remaining available for issuance upon the exercise of options outstanding under the 1984 Incentive Stock Option Plan. As of the date hereof, no shares of the registrant's common stock remain available for issuance under the Plan.

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 post-effective amendment to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Dayton, State of Ohio, on June 30, 2010.

REX AMERICAN RESOURCES CORPORATION

By /s/ Stuart A. Rose

Stuart A. Rose
Chairman of the Board and
Chief Executive Officer

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

| Signature | Capacity | Date |
|--|--|---------------|
| <u>/s/Stuart A. Rose</u> Stuart A. Rose | Chairman of the Board and Chief Executive Officer <i>(Principal Executive Officer)</i> | June 30, 2010 |
| <u>/s/Douglas L. Bruggeman</u> Douglas L. Bruggeman | Vice President - Finance, Chief Financial Officer and Treasurer <i>(Principal Financial and Accounting Officer)</i> | June 30, 2010 |
| <u>/s/Lawrence Tomchin</u> Lawrence Tomchin | Director | June 30, 2010 |
| <u>/s/Edward M. Kress</u> Edward M. Kress | Director | June 30, 2010 |
| <u>/s/Robert Davidoff</u> Robert Davidoff | Director | June 30, 2010 |
| <u>/s/Charles A. Elcan</u> Charles A. Elcan | Director | June 30, 2010 |
| <u>/s/David S. Harris</u> David S. Harris | Director | June 30, 2010 |
| <u>/s/Mervyn L. Alphonso</u> Mervyn L. Alphonso | Director | June 30, 2010 |