NEPHROS INC Form POS AM March 11, 2011

As filed with the Securities and Exchange Commission on March 11, 2011

Registration No. 333-169728

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

POST-EFFECTIVE AMENDMENT NO. 1

TO FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NEPHROS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or jurisdiction of incorporation or organization) 3841

13-3971809

(Primary Standard Industrial Classification Code Number)

(I.R.S. Employer Identification Number)

41 Grand Avenue River Edge, New Jersey 07661 (201) 343-5202

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

> Paul A. Mieyal Acting Chief Executive Officer Nephros, Inc. 41 Grand Avenue River Edge, New Jersey 07661 (201) 343-5202

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

Copies to:

Alexander M. Donaldson, Esq. Wyrick Robbins Yates & Ponton LLP 4101 Lake Boone Trail, Suite 300 Raleigh, North Carolina 27607 Telephone: (919) 781-4000

Facsimile: (919) 781-4865

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

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, 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. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) 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. o

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. o

DEREGISTRATION OF UNSOLD SECURITIES

This Post-Effective Amendment No. 1 to Form S-1 relates to the Registration Statement on Form S-1 (Registration No. 333-169728) initially filed by Nephros, Inc. on October 1, 2010. This Post-Effective Amendment No. 1 is filed in accordance with the undertaking made by Nephros in the Registration Statement to remove from registration by means of a post-effective amendment any of the securities that remain unsold at the termination of the rights offering.

Nephros, Inc. is filing this Post-Effective Amendment No. 1 to deregister 75,702,918 units underlying non-transferable subscription rights, 75,702,918 shares of common stock underlying those units, 69,989,834 warrants to purchase common stock underlying those units, and 69,989,834 shares of common stock issuable upon exercise of those warrants, all of which were unsold in the rights offering to Nephros' stockholders of record on January 31, 2011. The rights offering terminated on March 3, 2011.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of River Edge, State of New Jersey, on March 11, 2011.

NEPHROS, INC.

By: /s/ Paul A. Mieyal

Name: Paul A. Mieyal

Title: Acting Chief Executive Officer and

Director

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 dates indicated.

Name	Position	Date
	Acting Chief Executive	March 11, 2011
	Officer	
	(Principal Executive	
/s/ Paul A. Mieyal	Officer) and Director	
Paul A. Mieyal		
	Chief Financial Officer	March 11, 2011
	(Principal Financial and	
/s/ Gerald J. Kochanski	Accounting Officer)	
Gerald J. Kochanski		
/s/ Arthur H. Amron	Director	March 11, 2011
Arthur H. Amron		
/s/s/ Lawrence J. Centella	Director	March 11, 2011
Lawrence J. Centella		
/s/s/ James S. Scibetta	Director	March 11, 2011
James S. Scibetta		