SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE TO

(Rule 14d-100)

Tender Offer Statement under Section 14(d)(1) or 13(e)(1) of the Securities Exchange Act of 1934

(Amendment No. 2)

ENZON PHARMACEUTICALS, INC.

(Name of Subject Company (Issuer))

ENZON PHARMACEUTICALS, INC.

(Names of Filing Persons (Issuer))

4½% Convertible Subordinated Notes due 2008

(Title of Class of Securities)

293904AB4 293904AA6

(CUSIP Numbers of Class of Securities)

Scott B. Waldman
Enzon Pharmaceuticals, Inc.
685 Route 202/206
Bridgewater, New Jersey 08807
(908) 541-8600

Copy to:

Todd R. Chandler, Esq. Weil, Gotshal & Manges LLP 767 Fifth Avenue New York, NY 10153 (212) 310-8000

(Name, Address and Telephone Numbers of Person Authorized to Receive Notices and Communications on Behalf of Filing Persons)

Calculation of Filing Fee

Transaction Valuation* Amount of Filing Fee

\$173,700,000 \$18,585.90

Calculated solely for purpose of determining the amount of the filing fee pursuant to and based upon a purchase of \$180,000,000 aggregate principal amount of Enzon's 4½% Convertible Subordinated Notes due 2008 at a purchase price of \$965 per \$1,000 principal amount. The amount of the filing fee, \$107.00 for each \$1,000,000 of value, was calculated in accordance with Rule 0-11 of the Securities Exchange Act of 1934, as amended.

Check the box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously \$18,585.90 Filing Party: Enzon Pharmaceuticals, Inc.

Paid:

Form or Registration Schedule TO Date Filed: June 6, 2006

No.:

Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

Check the appropriate boxes below to designate any transactions to which the statement relates:

third-party tender offer subject to Rule 14d-1. issuer tender offer subject to Rule 13e-4. going-private transaction subject to Rule 13e-3. amendment to Schedule 13D under Rule 13d-2.

Check the following box if the filing is a final amendment reporting the results of the tender offer:

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This Amendment No. 2 amends the Tender Offer Statement on Schedule TO (this "Schedule TO") filed by Enzon Pharmaceuticals, Inc., a Delaware corporation ("Enzon"), on June 6, 2006, as amended by Amendment No. 1 thereto filed on June 12, 2006, relating to an offer by Enzon to purchase for cash up to \$180,000,000 aggregate principal amount of its $4\frac{1}{2}$ % Convertible Subordinated Notes due 2008 (the "Notes") plus accrued and unpaid interest to the date of repurchase upon the terms and subject to the conditions set forth in the Offer to Purchase, dated June 6, 2006, as amended June 23, 2006 (the "Offer to Purchase"), a copy of which is filed herewith as Exhibit (a)(1)(A), and in the related Letter of Transmittal, a copy of which is filed herewith as Exhibit (a)(1)(B) (which, together with any amendments or supplements thereto, collectively constitute the "Offer"). The Notes were issued by Enzon pursuant to an Indenture, dated as of June 26, 2001, between Enzon and Wilmington Trust Company, as trustee.

This purpose of this Amendment No. 2 is to reflect certain amendments to the Offer to Purchase which has been filed as amended as Exhibit (a)(1)(A).

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EXHIBIT INDEX

Exhibit No.	<u>Document</u>
(a)(1)(A)+	Offer to Purchase, dated June 6, 2006, as amended, June 23, 2006
(a)(1)(B)*	Form of Letter of Transmittal Form of Letter to Brokers, Declare, Commercial Banks, Trust Commerciae and Other Naminaes
(a)(1)(C)* (a)(1)(D)*	Form of Letter to Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees Form of Letter to Clients for Use by Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees
(a)(1)(E)*	Press Release dated June 6, 2006
(b)	Not applicable
(d)(1)*	Indenture, dated as of June 26, 2001, between Enzon Pharmaceuticals, Inc. and Wilmington Trust Company, as trustee (filed as Exhibit 4.1 to the Enzon's Form S-3 (No. 333-67506) on August 14, 2001 and incorporated herein by reference)
(d)(2)*	Descriptions of Notes (filed as pages 17 through 26 of Enzon's Form S-3 (No. 333-67506) on August 14, 2001 and incorporated herein by reference)
(g)	Not applicable
(h)	Not applicable

⁺ Filed herewith

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^{*} Previously filed.

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SIGNATURE

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

ENZON PHARMACEUTICALS, INC.

By: <u>/s/ Craig A. Tooman</u>
Name: Craig A. Tooman
Title: Executive Vice President,
Finance and Chief Financial Officer

Dated: June 23, 2006

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