THIRD WAVE TECHNOLOGIES INC /WI Form SC TO-T/A July 17, 2008

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE TO

Amendment No. 2

TENDER OFFER STATEMENT UNDER SECTION 14(d)(1) OR 13(e)(1) OF THE SECURITIES EXCHANGE ACT OF 1934

THIRD WAVE TECHNOLOGIES, INC.

(Name of Subject Company (Issuer))

HOLOGIC, INC. THUNDER TECH CORP.

(Names of Filing Persons (Offerors))

Common Stock, par value \$0.001 per share (Titles of classes of securities)

006864 10 2 (CUSIP number of class of securities)

John W. Cumming

Chairman and Chief Executive Officer

Hologic, Inc.

35 Crosby Drive

Bedford, MA 01730-1401

Tel: 781-999-7300

(Name, address and telephone number of person authorized to receive notices and communication on behalf of the filing person)

Copies to:

Philip J. Flink, Esquire

Edwin C. Pease, Esquire

Brown Rudnick LLP

One Financial Center

Boston, MA 02111

Transaction Valuation* \$622,700,753

Amount of Filing Fee** \$24,472

- * Estimated for purposes of calculating the filing fee only. This amount assumes the purchase of up to 55,351,178 shares of common stock, par value \$0.001 per share, of Third Wave, at a purchase price of \$11.25 per share. Such number of shares consists of, as of June 4, 2008, (i) 44,328,663 shares of common stock issued and outstanding and (ii) 11,022,515 shares of common stock that may be issued pursuant to all outstanding options, restricted stock units and warrants to acquire Third Wave shares and the conversion of the outstanding convertible notes of Third Wave into Third Wave shares.
- ** The amount of the filing fee, calculated in accordance with Rule 0-11 of the Securities Exchange Act of 1934, as amended (the Exchange Act), is calculated by multiplying the Transaction Valuation by 0.00003930.
- " 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 Paid \$24,472 Filing Party: Hologic, Inc. and Thunder Tech Corp.

Form or Registration No. Schedule TO Date Filed: June 18, 2008

" 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:

- x 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: "

AMENDMENT NO. 2 TO SCHEDULE TO

This Amendment No. 2 (this Amendment) amends and supplements the Tender Offer Statement on Schedule TO, as amended through the date hereof (as amended, the Statement), originally filed with the Securities and Exchange Commission (the SEC) on June 18, 2008, by (i) Hologic, Inc., a Delaware corporation (Hologic), and (ii) Thunder Tech Corp., a Delaware corporation (the Purchaser) and a direct wholly-owned subsidiary of Hologic, relating to the offer by the Purchaser to purchase all of the issued and outstanding shares of common stock, par value \$0.001 per share (the Shares), of Third Wave Technologies, Inc., a Delaware corporation (Third Wave), at a purchase price of \$11.25 per Share, upon the terms and subject to the conditions set forth in the Offer to Purchase dated June 18, 2008 (the Offer to Purchase), and in the related Letter of Transmittal, copies of which were previously filed as Exhibits (a)(1)(A) and (a)(1)(B) to the Statement, respectively. Capitalized terms used and not otherwise defined in this Amendment shall have the meanings assigned to such terms in the Offer to Purchase or in the Statement.

Items 1-11.

Items 1, 4, 8 and 11 of the Schedule TO, which incorporate by reference the information contained in the Offer to Purchase, are hereby amended and supplemented by adding the following text thereto:

The Offer expired at 12:00 midnight, New York City time, on Wednesday, July 16, 2008. Upon expiration of the Offer, the Purchaser accepted for payment in accordance with the terms of the Offer all Shares that were validly tendered and not withdrawn prior to expiration of the Offer, and payment for such Shares will be made promptly, in accordance with the terms of the Offer. The Depositary for the Offer has advised Hologic and the Purchaser that, as of the expiration of the Offer, a total of approximately 45,225,950 Shares were validly tendered to the Purchaser and not withdrawn (including Shares tendered via the guaranteed delivery procedure), representing approximately 92.1% of the Shares outstanding.

On July 17, 2008, Hologic and Third Wave issued a joint press release announcing that the Purchaser had commenced a subsequent offering period for all remaining untendered Shares. The subsequent offering period will expire at 12:00 midnight, New York City time, on Wednesday, July 23, 2008, unless extended. Any such extension will be followed by a public announcement no later than 9:00 a.m., New York City time, on the next business day after the subsequent offering period was scheduled to expire.

The same \$11.25 per share price offered in the prior offering period will be paid during the subsequent offering period. The Purchaser will immediately accept for payment all Shares validly tendered during this subsequent offering period, and payment will be made promptly after acceptance, in accordance with the terms of the Offer. Procedures for tendering Shares during the subsequent offering period are the same as during the initial offering period with two exceptions: (1) Shares cannot be delivered by the guaranteed delivery procedure, and (2) pursuant to Rule 14d-7(a)(2) promulgated under the Securities Exchange Act of 1934, as amended, Shares tendered during the subsequent offering period may not be withdrawn. The full text of the press release issued by Hologic is set forth as Exhibit (a)(1)(O) hereto and is incorporated by reference herein.

Item 12. Exhibits.

Item 12 of the Statement is hereby amended and supplemented to include the following:

(a)(1)(O) Press Release issued by Hologic and Third Wave on July 17, 2008.

SIGNATURES

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.

THUNDER TECH CORP.

By: /s/ Glenn P. Muir Name: Glenn P. Muir

Title: Treasurer and Secretary

HOLOGIC, INC.

By: /s/ Glenn P. Muir Name: Glenn P. Muir

Title: Executive Vice President, Finance and Administration,

Chief Financial Officer, Treasurer and Assistant Secretary

Date: July 17, 2008

INDEX TO EXHIBITS

Exhibit No. (a)(1)(A)	Description Offer to Purchase, dated as of June 18, 2008.*
(a)(1)(B)	Letter of Transmittal.*
(a)(1)(C)	Notice of Guaranteed Delivery.*
(a)(1)(D)	Letter to Brokers, Dealers, Banks, Trust Companies and other Nominees.*
(a)(1)(E)	Letter to Clients for use by Brokers, Dealers, Banks, Trust Companies and other Nominees.*
(a)(1)(F)	Guidelines for Certificate of Taxpayer Identification Number on Substitute Form W-9.*
(a)(1)(G)	Press Release issued by Hologic on June 9, 2008 (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by Hologic with the SEC on June 9, 2008).*
(a)(1)(H)	Transcript of a conference call held by Hologic on June 9, 2008 (incorporated by reference to the Schedule TO-C filed by Hologic with the SEC on June 10, 2008).*
(a)(1)(I)	Presentation made available to investors and stockholders on June 10, 2008 (incorporated by reference to the Schedule TO-C filed by Hologic with the SEC on June 11, 2008).*
(a)(1)(J)	Transcript of a presentation made available for replay by Hologic on June 10, 2008 (incorporated by reference to the Schedule TO-C filed by Hologic with the SEC on June 12, 2008).*
(a)(1)(K)	Presentation made available to investors and stockholders on June 11, 2008 (incorporated by reference to the Schedule TO-C filed by Hologic with the SEC on June 11, 2008).*
(a)(1)(L)	Transcript of a presentation made available for replay by Hologic on June 11, 2008 (incorporated by reference to the Schedule TO-C filed by Hologic with the SEC on June 12, 2008).*
(a)(1)(M)	Summary Advertisement published on June 17, 2008.*
(a)(1)(N)	Press Release issued by Hologic on June 25, 2008.*
(a)(1)(O)	Press Release issued by Hologic and Third Wave on July 17, 2008.
(d)(1)	Agreement and Plan of Merger, dated as of June 8, 2008, among Hologic, the Purchaser and Third Wave (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed by Hologic with the SEC on June 9, 2008).*
(d)(2)	Commitment Letter, dated as of June 8, 2008, by and between Hologic and Goldman Sachs Credit Partners L.P. (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by Hologic with the SEC on June 9, 2008).*
(d)(3)	Credit and Guaranty Agreement, dated as of October 22, 2007, among Hologic, certain subsidiaries of Hologic, as Guarantors, the Lenders party thereto from time to time, Goldman Sachs Credit Partners L.P. and Banc of America Securities, LLC, as Joint Lead Arrangers, Bank of America, N.A., as Syndication Agent, Goldman Sachs Credit Partners L.P., as Administrative Agent and Collateral Agent, and Citicorp North American, Inc.,

JPMorgan Chase Bank, N.A., RBS Citizens, National Association and Fifth Third Bank, an Ohio Banking Corporation as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by Hologic with the SEC on October 22, 2007).*

- (d)(4) Waiver and First Amendment to Credit and Guaranty Agreement and Pledge and Security Agreement, dated as of April 14, 2008, by and among Hologic and its domestic subsidiaries, excluding the subsidiaries which are Massachusetts securities corporations and Goldman Sachs Credit Partners L.P. (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed by Hologic with the SEC on May 5, 2008).*
- (d)(5) Form of Stockholder Agreement (Non-Tender).*
- (d)(6) Confidentiality Agreement, dated as of March 28, 2008, by and between Third Wave and Hologic.*
- (d)(7) Amended and Restated Credit and Guaranty Agreement, dated as of July 17, 2008, among Hologic, certain subsidiaries of Hologic, as Guarantors, the Lenders party thereto from time to time, Goldman Sachs Credit Partners L.P. as Sole Lead Arranger and Sole Lead Bookrunner, Goldman Sachs Credit Partners L.P., JPMorgan Chase Bank, N.A. and RBS Citizens, National Association, as Co-Syndication Agent, Goldman Sachs Credit Partners L.P. as Administrative Agent and Collateral Agent and Royal Bank of Canada, a Documentation Agent (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by Hologic with the SEC on July 17, 2008).*
- * Previously filed