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

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 3, 2016

HORIZON TECHNOLOGY FINANCE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 814-00802 (Commission File Number) **27-2114934** (I.R.S. Employer Identification No.)

312 Farmington Avenue Farmington, CT 06032

(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (860) 676-8654

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Section 8Other EventsItem 8.01Other Events

On May 3, 2016, Horizon Technology Finance Corporation (the "Company") announced that its Board of Directors has declared monthly dividends totaling \$0.345 per share, payable in such amounts and on such dates to stockholders of record, as set forth below.

Ex-Dividend Date	Record Date	Payment Date	Amount Per Share
June 16, 2016	June 20, 2016	July 15, 2016	\$0.115
July 18, 2016	July 20, 2016	August 15, 2016	\$0.115
August 17, 2016	August 19, 2016	September 15, 2016	\$0.115
		Total:	\$0.345

A copy of the press release announcing such dividend is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

Section 9	Financial Statements and Exhibits
Item 9.01	Financial Statements and Exhibits

(d) Exhibits.

99.1 Press release of the Company dated May 3, 2016.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: May 3, 2016

HORIZON TECHNOLOGY FINANCE CORPORATION

By: /s/ Robert D. Pomeroy, Jr.

Robert D. Pomeroy, Jr. Chief Executive Officer Exhibit Index

Exhibit No.Description99.1Press release of the Company dated May 3, 2016

Horizon Technology Finance Announces Monthly Distributions for July, August and September 2016 Totaling \$0.345 Per Share

FARMINGTON, Conn., May 3, 2016 – Horizon Technology Finance Corporation (NASDAQ: HRZN) ("Horizon"), a leading specialty finance company that provides capital in the form of secured loans to venture capital backed companies in the technology, life science, healthcare information and services, and cleantech industries, announced today that its board of directors declared monthly cash distributions of \$0.115 per share payable in each of July, August and September 2016. These monthly distributions, payable as set forth in the table below, total \$0.345 per share. Including the monthly distributions declared in the second quarter of 2016, Horizon has declared \$8.375 per share in cumulative distributions since its October 2010 initial public offering.

Monthly Distributions Declared in Second Quarter 2016

Declared	Ex-Dividend Date	Record Date	Payment Date	Amount Per Share
April 28, 2016	June 16, 2016	June 20, 2016	July 15, 2016	\$0.115
April 28, 2016	July 18, 2016	July 20, 2016	August 15, 2016	\$0.115
April 28, 2016	August 17, 2016	August 19, 2016	September 15, 2016	\$0.115
_			Total:	\$0.345

When declaring distributions, the Horizon board of directors reviews estimates of taxable income available for distribution, which may differ from consolidated net income under generally accepted accounting principles due to (i) changes in unrealized appreciation and depreciation, (ii) temporary and permanent differences in income and expense recognition, and (iii) the amount of spillover income carried over from a given year for distribution in the following year. The final determination of taxable income for each tax year, as well as the tax attributes for distributions in such tax year, will be made after the close of the tax year.

Horizon maintains a "Dividend Reinvestment Plan" ("DRIP") that provides for the reinvestment of distributions on behalf of its stockholders, unless a stockholder has elected to receive distributions in cash. As a result, if Horizon declares a distribution, its stockholders who have not "opted out" of the DRIP by the distribution record date will have their distribution automatically reinvested into additional shares of Horizon's common stock. Horizon has the option to satisfy the share requirements of the DRIP through the issuance of new shares of common stock or through open market purchases of common stock by the DRIP plan administrator. Newly-issued shares will be valued based upon the final closing price of Horizon's common stock on a specified valuation date for each distribution as determined by Horizon's board of directors. Shares purchased in the open market to satisfy the DRIP requirements will be valued based upon the average price of the applicable shares purchased by the DRIP plan administrator, before any associated brokerage or other costs, which are borne by Horizon.

About Horizon Technology Finance

Horizon Technology Finance Corporation is a leading specialty finance company that provides capital in the form of secured loans to venture capital backed companies in the technology, life science, healthcare information and services, and cleantech industries. The investment objective of Horizon is to generate current income from the debt investments it makes and capital appreciation from the warrants it receives when making such debt investments. Headquartered in Farmington, Connecticut, Horizon has regional offices in Walnut Creek, California and Reston, Virginia. Horizon's common stock trades on the NASDAQ Global Select Market under the ticker symbol "HRZN". To learn more, please visit www.horizontechfinance.com.

Forward-Looking Statements

Statements included herein may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Statements other than statements of historical facts included in this press release may constitute forward-looking statements and are not guarantees of future performance, condition or results and involve a number of risks and uncertainties. Actual results may differ materially from those in the forwardlooking statements as a result of a number of factors, including those described from time to time in our filings with the Securities and Exchange Commission. Horizon undertakes no duty to update any forward-looking statement made herein. All forward-looking statements speak only as of the date of this press release.

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