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April 9, 2013

**VIA EDGAR**

United States Securities and Exchange Commission  
Division of Investment Management  
100 F Street, N.E.  
Washington, DC 20549  
Attn: Vincent Di Stefano

Re: Horizon Technology Finance Corporation  
Registration Statement on Form N-2  
File Numbers 333-178516 and 814-00802

Ladies and Gentlemen:

Horizon Technology Finance Corporation, a Delaware corporation (the "Corporation"), has today filed with the Securities and Exchange Commission (the "Commission") Post-Effective Amendment No. 5 ("Post-Effective Amendment No. 5") to its Registration Statement on Form N-2 (Registration No. 333-178516) (the "Registration Statement"). The Registration Statement relates to the shelf offering of up to an aggregate of \$250,000,000 of securities of the Corporation under Rule 415 of the Securities Act of 1933, as amended.

In accordance with Securities and Exchange Commission Release No. 33-6510 (February 15, 1984), we respectfully request on behalf of the Corporation that the Division of Investment Management (the "Division") consider the filing of Post-Effective Amendment No. 5 appropriate for selective review. The disclosure contained in Post-Effective Amendment No. 5 is substantially similar to the disclosure contained in Post-Effective Amendment No. 3 to the Registration Statement, which was filed with the Commission on April 19, 2012 and recently reviewed by the Division. Post-Effective Amendment No. 5 has been updated primarily to include the audited financial statements and related information for the Corporation's fiscal year ended December 31, 2012. In addition, Post-Effective Amendment No. 5 includes a number of non-material editorial changes, including updates to the "Risk Factors" section to reflect recent events affecting the global capital markets and the healthcare industry.

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If you have any questions, please feel free to contact the undersigned by telephone at 202.261.3313 (or by facsimile at 202.261.3333). Thank you for your cooperation and attention to this matter.

Sincerely,

/s/ Thomas J. Friedmann

Thomas J. Friedmann

Cc: John C. Bombara, Horizon Technology Finance Corporation

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